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In this issue:
International youth unemployment





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Labor Month In Review



NEW BENCHMARKS. The Bureau of Labor Statistics has revised its establishment survey estimates of employment to reflect the most recent complete employment counts (or benchmarks) for March 1980. These revisions affect the employment series from March 1979 to the current month. Estimates of hours, earnings, and labor turnover, which are weighted by the employment estimates, also may be revised as a result of the new benchmarks.

Estimates vs. benchmarks. The March 1980 benchmark for total nonagricultural employment was 90.3 million—63,000 below the corresponding sample-based estimate, a difference of 0.1 percent. Of the eight major industry divisions, only construction was revised by more than 1 percent.

A primary reason for differences between estimates and benchmarks is the limitation of any sample in representing a universe. A certain amount of error is to be expected from sample-derived estimates. Annual benchmark revisions remove the effect of sampling errors from the all-employee estimates.

A second reason arises from errors in adjusting for the entry of new firms. In the establishment survey, monthly employment estimates are projected from the estimates of the previous month, based on changes indicated by the firms responding to the survey. It is difficult to include reports from newly formed businesses in a timely manner. This type of omission may be a source of error in the estimates for industries characterized by the formation of numerous new firms. However, bias adjustment factors are used to correct for this underrepresentation of business births and for other biases in the estimates.

A third cause arises from improvements in the quality of the benchmark data. For example, this recent

revision marked the first time that data derived from unemployment insurance records were used to derive estimates for State and local government employment. Use of this new source of data resulted in a large revision in the employment estimates for State and local government.

A fourth reason for differences between estimates and benchmarks is the procedure used to keep the industrial classification of establishments up to date. An establishment is classified by industry according to its major activity. If its output changes so that what was once a secondary product or activity becomes a primary one, the establishment is reclassified. These changes are introduced into the employment estimates at the time of the benchmark adjustment.

Other revisions. As usual, all seasonally adjusted series were revised after incorporating the changes in the unadjusted levels caused by the benchmark revision and the addition of the most recent year of data. An improved seasonal adjustment methodology—the X-11 ARIMA (Auto-Regressive Integrated Moving Average) program—has been used for the first time in seasonally adjusting the establishment-based series.

In past years, the updating of the

seasonal adjustment factors has had very little impact on the employment series. However, the latest addition of 12 months of experience caused a notable smoothing of the over-the-month changes in 1980 and 1981. The ARIMA methodology contributed to this change, but not to a significant extent.

The reference base period for the indexes of aggregate weekly hours, aggregate weekly payrolls, and the Hourly Earnings Index was converted from 1967=100 to 1977=100. Statistical indexes are rebased every 10 years to insure that the makeup of the index approximates the current structure of the economy and to facilitate comprehension of rates of change by using more recent base periods. All of the above-mentioned indexes have been recalculated to the date of their origin.

A full discussion of the current benchmark revision is contained in "BLS Establishment Estimates Revised to March 1980 Benchmarks," by Carol M. Utter and John B. Farrell in the July 1981 *Employment and Earnings*. Revised data for major industry groupings will appear in the August 1981 *Monthly Labor Review*. Revised historical data down to specific industry levels will appear in an August 1981 supplement to *Employment and Earnings*. □

Blue Pencil Awards

The *Monthly Labor Review's* special issue on immigration (October 1980) won first place among one-color technical magazines in the 1981 Blue Pencil Publications Contest of the National Association of Government Communicators. The Association's judges commented that the magazine was "cost effective" and "meets the needs of audience."

Another Bureau of Labor Statistics publication, the *Occupational Outlook Quarterly*, Fall 1980, won second place among two- and three-color general magazines.

More than 650 publications of 60 Federal, State, and local government organizations were entered in the contest.

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Youth unemployment: an international perspective

The employment situation for young people worsened in industrialized nations in the wake of the 1974-75 recession; Japanese and German youth continue to have the most favorable job prospects

CONSTANCE SORRENTINO

The slow recovery from the 1974-75 recession has been accompanied by unusually high levels of unemployment among young people in industrial nations. Countries with previously low youth unemployment rates have encountered serious problems since the mid-1970's.¹ By 1979, persons under 25 years of age in 6 of 9 countries studied experienced unemployment rates of around 12 percent or more, while corresponding jobless rates for adults ranged from 2 to 6 percent. Even in the three countries maintaining relatively low youth unemployment (West Germany, Sweden, and Japan), recent teenage jobless rates were 2 to 5 times the adult levels.

Several factors help to explain the past and current international disparities in youth unemployment. Characteristics often associated with low youth unemployment include decreases in the youth labor force, low levels of labor force activity by students, widespread use of apprenticeship training, and relatively less emphasis on open career options and job mobility. For the high youth unemployment countries, particularly the United States and Canada, parallel factors can also be singled out: rapid growth in the youth labor force, a sizable

student labor force, and an emphasis on general education and extended schooling rather than on the structuring of the early work years by such devices as apprenticeship.

This article examines the comparative labor market experience of youth in the United States and eight other developed countries—five Western European countries, Canada, Japan, and Australia—over the last two decades. The analysis focuses upon unemployment levels and rates. However, it should be recognized that there are many other forms of underutilization; unemployment figures reveal a significant part, but not the entire labor market situation for youth.

The data have been adjusted, insofar as possible, to U.S. concepts of unemployment. However, some important qualifications must be expressed regarding these data and their international comparability.

Data comparability

Differences in definition of labor force and unemployment weaken the validity of comparisons among countries unless steps are taken to ensure statistical comparability. For many years, the Bureau of Labor Statistics has published unemployment data adjusted to U.S. concepts for selected countries. The same methods used to adjust the overall unemployment rates have

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been applied to the foreign data for youth and adult age groups.²

The adjusted data described in this article, although not perfectly comparable, provide a reasonable basis for international analyses, and yield a better picture of youth unemployment than the unadjusted data frequently cited. All adjusted figures are based on labor force surveys. Thus, there is a common base in statistical method. Lower age limits have been adjusted to the age at which compulsory schooling ends so that the data for all countries relate to persons who are free to enter the labor market on a full-time basis; these ages vary from 14 to 16 in the countries studied. Adjustments have been made wherever possible to include or exclude certain categories of persons for greater conformity with U.S. definitions. For example, military personnel have been excluded so that all data relate to the civilian labor force.

Differences in the statistical treatment of students were found to have only a small impact on strict data comparability. However, differences in reference periods should be kept in mind when making intercountry comparisons, particularly with regard to France and Germany, and to the data on the registered unemployed for Great Britain. Data for these three countries do not relate to the full year. It is likely that the spring survey data for France and Germany are understated relative to annual average data for the other countries.

It is difficult to properly interpret the British registered unemployed data for July, which have been shown in this article along with annual British survey data because they are more current than the survey data and also permit more detailed age breakdowns for youth. Registration data show the number of persons registered with an employment or careers office who had no job and were available for work on the day of the count. Registration is required in order to collect unemployment insurance benefits.

British registration data generally understate unemployment because they do not include unregistered jobseekers, a large number of whom are young people. On the other hand, the July figures are not representative of annual averages for Great Britain because July is a peak month for youth unemployment. Since 1975, registration data by age for months other than July have been published, and they reveal youth unemployment rates several percentage points lower than the July figures.

Although not internationally comparable, the British registration data do give some idea of the relative levels of teenage and young adult unemployment in Great Britain. Also, during recent years of high unemployment, young persons have had a higher propensity to register as unemployed, so that the post-1975 British registration data probably do not understate youth un-

employment to any great extent.

The data for Italy present a special problem, as the necessary statistics were not available to adjust them to U.S. concepts. But because Italy has had a severe and unique youth unemployment problem, the country was included in this analysis. These unadjusted data should be viewed with caution, but they are roughly suggestive of the dimensions of Italian youth unemployment. Youth unemployment rates for Italy would probably be a few percentage points lower if it were possible to adjust them fully to a U.S. basis, but they would still be extremely high by international standards.

International trends

In most industrial countries, jobless rates for young people historically have been higher than those for their elders. However, the degree of difficulty for youth has varied widely, both among countries and over time within countries. Relatively high levels of unemployment have occurred in the United States and Canada throughout the post-World War II period. For most of the other countries, the problems of youth in the labor market arose much later. In Germany and Japan, the recent increase in youth joblessness marks a significant departure from the past. Deterioration of the job situation for young persons began in the mid- or late-1960's in Great Britain, France, and Sweden, and even earlier in Italy. Thus, although cyclical factors are largely responsible for the very high levels of youth unemployment from 1974 onward, the roots of the problem go beyond the last economic downturn.

Table 1 presents unemployment data by age group for selected years between 1960 and 1979. Except for Italy, the data have been adjusted so that they approximate U.S. concepts. As mentioned above, British data are shown on an adjusted as well as on an unadjusted (registered unemployed) basis.

During the early 1960's, youth unemployment rates as well as overall jobless rates were quite low in Australia, Japan, France, Germany, Great Britain, and Sweden. For example, teenage unemployment rates ranged from 0.3 percent in Germany to 4 percent in France. Young adults' rates varied less widely, from 0.4 percent in Germany to 2.7 percent in Great Britain. The statistics for the United States, Canada, and Italy were in marked contrast: The North American countries had teenage unemployment rates in the 13- to 15-percent range, and Italy's rate was over 9 percent. Thus, Italy's moderate overall unemployment rate masked a severe youth unemployment problem. Jobless rates for young adults were also relatively high in these three countries.

In the late 1960's, youth unemployment rates began to climb in France, Germany, and Great Britain, and to a much lesser degree, in Sweden and Australia. By 1970, French and German teenagers had much higher

jobless rates than during the early 1960's, although the German rate was only 1.4 percent. Young adult rates in France had also climbed but they remained very low in Germany. Data adjusted separately for teenagers and young adults were not available for Great Britain in the 1970's; however, registrations data indicate a sizable increase in unemployment for both groups. In all three countries, overall unemployment in 1970 was somewhat

higher than during the early 1960's. In contrast, the United States and Canada actually had lower national jobless rates in 1970 than in 1960, but slightly higher teenage unemployment rates. Youth unemployment in North America remained much higher than in Western Europe, Australia, and Japan over the decade, and Italian youth joblessness approached that of the United States and Canada. Japan was the only country which

Table 1. Unemployment rates for nine industrial countries by age, selected years, 1960-79

Country and date	Unemployment rates ¹					Country and date	Unemployment rates ¹				
	All working ages	Under age 25			Age 25 and over		All working ages	Under age 25			Age 25 and over
		Total	Teenagers ²	Age 20-24				Total	Teenagers ²	Age 20-24	
United States:						Germany:⁵					
1960	5.5	11.2	14.7	8.7	4.4	April 1963	.3	.3	.3	.4	.3
1970	4.9	11.0	15.2	8.2	3.3	April 1970	.5	1.0	1.4	.6	.4
1974	5.6	11.8	16.0	9.0	3.6	April 1974	1.2	1.8	1.9	1.7	1.1
1975	8.5	16.1	19.9	13.6	6.0	May 1975	2.9	4.5	4.7	4.4	2.5
1976	7.7	14.7	19.0	12.0	5.5	May 1976	3.1	4.9	5.1	4.7	2.6
1977	7.0	13.6	17.7	10.9	4.9	April 1977	3.2	5.0	5.0	5.0	2.7
1978	6.0	12.2	16.3	9.5	4.0	April 1978	3.0	4.5	4.6	4.4	2.6
1979	5.8	11.7	16.1	9.0	3.9	April 1979	2.7	3.9	4.1	3.7	2.5
Canada:						Great Britain:					
1960	7.0	11.1	13.5	9.3	5.8	Adjusted data:					
1970	5.7	10.0	13.9	7.5	4.2	April 1961	1.9	2.4	2.1	2.7	1.7
1974	5.3	9.3	11.6	7.6	3.9	1971	3.9	6.1	(⁶)	(⁶)	3.3
1975	6.9	12.0	14.9	9.9	5.0	1974	3.1	5.7	(⁶)	(⁶)	2.5
1976	7.1	12.7	15.7	10.5	5.1	1975	4.6	9.3	(⁶)	(⁶)	3.6
1977	8.1	14.4	17.5	12.2	5.8	1976	6.0	12.7	(⁶)	(⁶)	4.5
1978	8.4	14.5	17.9	12.2	6.1	1977	6.4	13.5	(⁶)	(⁶)	4.8
1979	7.5	13.0	16.1	10.8	5.4	1978	6.3	13.7	(⁶)	(⁶)	4.6
Australia:³						Registered unemployed:⁷					
1964	1.4	2.7	3.7	1.6	.9	July 1971	3.0	4.5	5.3	4.0	2.6
1967	1.9	3.0	3.6	2.5	1.5	July 1974	2.3	3.8	4.5	3.3	2.0
1970	1.7	2.7	3.8	1.8	1.3	July 1975	4.1	9.2	12.0	7.3	2.9
1974	2.7	4.9	6.6	3.6	1.9	January 1976 ⁸	4.9	9.6	11.6	8.2	3.9
1975	4.9	9.7	13.9	6.4	3.2	July 1976	5.5	13.0	20.1	8.0	3.8
1976	4.8	10.0	14.4	6.6	2.9	January 1977	5.4	10.6	12.9	9.0	4.2
1977	5.6	12.0	17.4	7.5	3.3	July 1977	6.0	14.7	23.2	8.9	4.0
1978	6.3	12.6	17.3	8.8	3.9	January 1978	5.8	11.4	13.9	9.6	4.4
1979	6.2	13.0	18.1	8.8	3.7	July 1978	5.8	13.9	22.1	8.2	4.0
Japan:						October 1978					
1960	1.7	2.1	2.2	2.0	1.5	5.3	10.6	13.8	8.4	4.0	
1970	1.2	2.0	2.0	2.0	.9	January 1979	5.3	10.1	11.9	8.9	4.2
1974	1.4	2.5	2.6	2.3	1.2	April 1979	4.9	8.6	9.4	8.1	4.0
1975	1.9	3.1	3.7	2.9	1.6	July 1979	5.3	12.3	19.1	7.6	3.7
1976	2.0	3.2	4.1	3.0	1.8	Italy:⁹					
1977	2.0	3.7	4.8	3.5	1.8	1964	2.8	7.3	9.1	5.4	1.5
1978	2.3	3.8	4.7	3.6	2.0	1970	3.2	10.2	12.3	8.8	1.5
1979	2.1	3.6	4.9	3.3	1.9	1974	2.9	11.2	14.3	9.1	1.2
France:⁴						1975					
March 1963	1.4	2.8	4.0	1.8	1.1	3.4	12.9	16.8	10.4	1.5	
March 1970	2.5	4.8	7.0	3.7	2.0	1976	3.7	14.6	19.2	11.7	1.6
March 1974	2.8	6.2	9.8	4.8	2.1	1977 ¹⁰	4.6	17.7	22.9	14.3	1.9
April 1975	3.8	8.4	12.7	6.9	2.8	1978 ¹⁰	5.0	19.4	25.2	15.8	2.0
March 1976	4.5	10.8	17.0	8.6	3.3	Sweden:					
March 1977	4.9	11.9	18.7	9.6	3.5	1962	1.5	2.7	3.3	2.0	1.2
October 1977	5.1	13.1	21.8	9.1	3.3	1970	1.5	2.9	4.3	2.2	1.3
March 1978	4.9	11.8	19.0	9.6	3.6	1974	2.0	4.5	6.8	3.2	1.5
October 1978	6.1	15.3	25.8	10.8	4.0	1975	1.6	3.8	5.6	2.8	1.2
March 1979	5.7	14.2	22.7	11.4	4.1	1976	1.6	3.8	5.5	2.8	1.2
						1977	1.8	4.4	6.7	3.2	1.3
						1978	2.2	5.6	8.2	4.3	1.6
						1979	2.1	5.1	7.5	3.8	1.5

¹ Unless otherwise indicated, data have been adjusted to U.S. concepts.
² Includes 16- to 19-year-olds in United States, France, Great Britain (1974 onward), and Sweden; 15- to 19-year-olds in Canada, Australia, Japan, Germany, and Great Britain (prior to 1974); and 14- to 19-year-olds in Italy.
³ There is a discontinuity between the 1964 figures and those for later years, and between the 1977 figures and those for later years.
⁴ French unemployment rates for March or April are usually slightly below the annual average; October figures are generally slightly above the annual average. Unemployment rates for 1963 are understated in relation to later data.
⁵ German unemployment rates for April or May are usually slightly lower than the annual average.
⁶ Data not available.
⁷ Statistics on the registered unemployed are shown for Great Britain because survey data

adjusted to U.S. concepts for 1979 onward are not available. Unemployment rates based on the registered unemployed were calculated using the civilian labor force as the denominator (official British figures use the wage and salary labor force as the denominator).
⁸ From 1976 onward, data exclude adult students (that is, those age 18 and over) registered as unemployed during school vacations.
⁹ Data for Italy could not be adjusted to U.S. concepts by age; unadjusted figures are shown. The adjusted overall rates for 1976 and prior years were very close to the unadjusted rates (for example, the rate of 3.7 percent in 1976 became 3.6 percent on a U.S. basis). However, the rates for 1977 onward diverge to a greater extent (in 1978, the unadjusted rate was 5 percent, the adjusted rate, 3.7 percent).
¹⁰ Based on data from revised Italian survey; not entirely comparable with previous survey data.

did not record a rise in teenage unemployment between 1960 and 1970.

Unemployment rates for young adults did not necessarily follow the teenage pattern. In the United States and Canada, jobless rates for 20- to 24-year-olds declined between 1960 to 1970. In the other countries in which teenage unemployment grew, the rates for young adults also rose, but only France and Italy had sharper increases for young adults than for teenagers.

The 1974-75 recession brought marked increases in unemployment to all countries studied except Sweden, where a high level of employment was maintained through considerable expansion of labor market training and public works programs. By 1975, U.S. teenage unemployment peaked at nearly 20 percent, the highest rate among the nations studied. Italian and Canadian teenage rates were next highest, in the 15-17 percent range. Australian, French, and British teenagers had rates of unemployment above 10 percent for the first time during the postwar period. German teenagers reached a jobless high of 4.7 percent in 1975, two and one-half times the level of the previous year. Japanese teenage unemployment also rose, but at 3.7 percent was still the lowest among the industrial countries. Unemployment rates for young adults also surged upward during the recession, but the United States, Canada, and Italy were the only countries in which they approached or exceeded 10 percent.

During 1976-79, youth unemployment rates declined somewhat in the United States, leveled off in Germany and Great Britain, and continued rising in the other countries. By 1977 or 1978, youth unemployment rates and teenage rates were higher in Canada, Australia, France, Great Britain, and Italy than in the United States. Rates for young adults were also higher, except in Australia. These recent developments marked a dramatic change from the years before 1976, during which the U.S. youth unemployment rate was generally the highest among the countries compared.

Youth share of unemployment. There are wide international variations in the share of total unemployment borne by youth. Table 2 shows the percent distribution of unemployment and labor force by age in each of the countries studied for selected years since 1960. Throughout the period, Italy has had the highest proportion of unemployment in the youth age groups, yet one of the lowest proportions of young people in the labor force. In 1978, for example, two-thirds of the Italian unemployed, but only about one-sixth of the labor force were under 25. Australia was the only other country where more than half of the unemployed were under 25. In most years since 1964, Australia's youth share of

the labor force was less than half the proportion of youth among the unemployed.

Youth shares of unemployment were also relatively high in North America in the late 1970's—close to half of all unemployment, while young people constituted only about a quarter of the labor force. In France, Great Britain, and Sweden, two-fifths of the unemployed but less than one-fifth of the labor force were youth.

Japan had, by far, the smallest youth component among the unemployed at the end of the 1970's. Persons under 25 made up only slightly more than one-fifth of Japanese unemployment and about one-eighth of the work force. The proportion of German youth among the unemployed was also relatively low—28 percent in 1979, when German youth made up 20 percent of the labor force. Germany and Japan were the countries in which the youth share of unemployment most closely approximated its share of the labor force. In almost all the other countries, youth unemployment shares were at least double their labor force representation.

Except in Japan, youth have borne a growing share of unemployment since 1960. Canada, the United States, and Great Britain had the sharpest increases. In North America, the biggest jump came between 1960 and 1970. In Great Britain, the largest increase occurred after 1970. The proportion of North American youth in the labor force has also risen significantly since 1960, although not as rapidly as youth unemployment. In Great Britain, however, the rise in the youth component of unemployment occurred despite a decline in the youth labor force share.

The youth share of unemployment dropped in Australia from 52 percent in 1964 to 44 percent in 1970. However, it rose sharply during the recession, peaking at 57 percent in 1977. Throughout 1964-79, the youth share of the labor force held steady around 27 percent. France, Germany, and Italy had growing youth components of unemployment between the early 1960's and 1970. The French and Italian youth proportions have continued to rise slowly, but the German proportion, after a sharp increase in 1975, has since leveled off. Germany has had a virtually stable youth component in the labor force (around 20 percent) throughout the period. France and Italy have had slowly declining proportions of young people in the labor force.

The trends for teenagers and young adults diverged in several countries over the last two decades. In Australia, France, and Italy, the teenage proportion of unemployment declined, while that for young adults rose. Sweden has had a relatively steady unemployment share for teenagers, but an increase for young adults. In Japan, the teenage share dropped sharply, while the

young adult proportion rose rapidly between 1960 and 1970, and then fell below the 1960 level by 1979.

Youth-adult ratios. Youth unemployment rates are, of course, affected by the overall job situation in each country. Therefore, comparative ratios of youth to adult unemployment rates are presented in table 3. Such ratios may also be affected by the general level of unemployment, but they more accurately reflect the relative problems of youth unemployment. For all years studied, Italy had the widest youth-adult differential. The United States also ranked relatively high until recent years. The narrowest gaps between youth and adult unemployment were found in Germany, Japan, and, until 1975, Great Britain.

In most of Western Europe and in Australia, the

youth-to-adult unemployment rate differential has been widening recently. Between 1970 and 1979, the ratio grew from 2.4 to 3.5 in France, and from 2.2 to 3.4 in Sweden. For France and Sweden, the teenage-to-adult ratio widened from about 3.5 to 5. Italy had the highest youth-adult ratio throughout this period; by 1978, it was 9.7, or more than three times the U.S. level. And teenage unemployment rates in Italy were more than 12 times the rates for adults in 1978, up from 8 in 1970.

Great Britain had very low differentials between youths and adults prior to 1975. In 1975, the ratio rose to 2.6 on a survey basis (U.S. concepts) and to over 3 on a registration basis. By 1978, the ratio on the survey basis had risen to 3. Canadian, German, and Japanese youth-adult ratios remained relatively low and stable in the 1970's, but were higher than during the 1960's. Ca-

Table 2. Percent distribution of unemployment and labor force in nine industrial countries by age, selected years, 1960-79

Country and date	Unemployment				Labor force			
	Under age 25			Age 25 and over	Under age 25			Age 25 and over
	Total	Teenagers ¹	Age 20-24		Total	Teenagers ¹	Age 20-24	
United States:								
1960	34	18	15	66	17	7	10	83
1970	48	27	21	52	22	9	13	78
1974	51	28	23	49	24	10	14	76
1975	46	22	23	54	24	10	15	76
1976	46	23	23	54	24	9	15	76
1977	47	24	23	53	24	9	15	76
1978	49	26	24	51	24	10	15	76
1979	49	26	23	51	24	9	15	76
Canada:								
1960	35	18	16	65	22	9	12	78
1970	45	25	20	55	25	10	15	75
1974	47	25	22	53	27	12	15	73
1975	47	25	22	53	27	12	16	73
1976	48	25	23	52	27	11	16	73
1977	48	24	24	52	27	11	16	73
1978	46	24	23	53	27	11	16	73
1979	47	24	23	53	27	11	16	73
Australia:²								
1964	52	38	14	49	27	14	13	73
1967	43	25	18	57	27	13	14	73
1970	44	27	17	57	27	12	15	73
1974	47	28	20	53	26	11	15	74
1975	52	33	19	48	26	12	15	74
1976	55	35	20	45	26	11	15	74
1977	57	37	20	43	27	12	15	73
1978	54	33	21	46	27	12	15	73
1979	56	35	21	44	27	12	15	73
Japan:								
1960	29	13	16	69	23	10	13	77
1970	37	10	27	63	22	6	16	78
1974	30	7	22	70	17	4	13	83
1975	25	6	19	73	15	3	12	85
1976	22	6	17	75	14	3	11	86
1977	25	6	18	76	13	3	11	87
1978	22	6	16	78	13	3	10	87
1979	21	6	15	79	13	3	10	87
France:								
March 1963	34	22	13	66	18	8	10	82
March 1970	37	17	20	63	20	6	13	80
March 1974	39	17	22	61	18	5	13	82
April 1975	39	16	23	61	17	5	13	83
March 1976	41	16	24	59	17	4	13	83
March 1977	41	16	25	59	17	4	13	83
March 1978	39	15	24	61	16	4	12	84
March 1979	40	15	24	60	16	4	12	84

See footnotes at end of table.

Table 2. Continued—Percent distribution of unemployment and labor force in nine industrial countries by age, selected years, 1960–79

Country and date	Unemployment				Labor force			
	Under age 25			Age 25 and over	Under age 25			Age 25 and over
	Total	Teenagers ¹	Age 20–24		Total	Teenagers ¹	Age 20–24	
Germany:								
April 1963	22	7	15	78	21	9	12	79
April 1970	34	22	12	67	19	8	10	81
April 1974	26	12	14	74	18	8	11	82
May 1975	30	15	16	70	20	9	11	80
May 1976	31	15	16	69	20	9	11	80
April 1977	31	13	17	69	19	9	11	81
April 1978	30	13	16	70	20	9	11	80
April 1979	28	13	15	72	20	9	11	80
Great Britain:								
Adjusted data:								
April 1961	28	13	15	72	21	11	10	79
1971	32	(3)	(3)	68	21	(3)	(3)	79
1974	32	(3)	(3)	68	17	(3)	(3)	83
1975	35	(3)	(3)	65	17	(3)	(3)	83
1976	38	(3)	(3)	62	18	(3)	(3)	82
1977	38	(3)	(3)	62	18	(3)	(3)	82
1978	41	(3)	(3)	59	19	(3)	(3)	81
Registered unemployed: ⁴								
July 1971	31	15	16	69	21	8	12	79
July 1974	30	14	16	70	18	7	11	81
July 1975	42	22	19	58	19	8	11	81
July 1976 ⁵	44	28	16	56	19	8	11	81
July 1977	46	29	16	54	19	8	11	81
July 1978	45	29	16	55	19	8	11	81
July 1979	44	28	16	56	19	8	11	81
Italy:⁶								
1964	56	36	21	44	21	11	10	79
1970	61	30	31	39	19	8	11	81
1974	65	33	32	35	17	7	10	83
1975	64	32	31	36	17	6	10	83
1976	64	32	32	36	16	6	10	84
1977 ⁷	66	34	32	34	17	7	10	83
1978 ⁷	66	33	33	34	17	7	10	83
Sweden:								
1962	33	20	13	68	18	9	9	82
1970	34	17	17	66	18	6	12	82
1974	38	20	18	62	17	6	11	83
1975	39	21	18	61	17	6	11	83
1976	39	21	18	61	17	6	11	83
1977	40	21	19	60	16	6	11	84
1978	40	20	20	60	16	6	11	84
1979	40	20	19	60	16	6	11	84

¹ Includes 16- to 19-year-olds in United States, France, Great Britain (1974 onward), and Sweden; 15- to 19-year-olds in Canada, Australia, Japan, Germany, and Great Britain (prior to 1974); and 14- to 19-year-olds in Italy.

² There is a discontinuity between the 1964 figures and those for later years, and between the 1977 figures and those for later years.

³ Data not available.

⁴ Statistics on the registered unemployed are shown for Great Britain because survey data

adjusted to U.S. concepts for 1979 onward are not available.

⁵ From 1976 onward, data exclude adult students (that is, those age 18 and over) registered as unemployed during school vacations.

⁶ Data could not be adjusted to U.S. concepts by age; unadjusted data are shown.

⁷ Based on data from revised Italian survey; not entirely comparable with previous survey data.

nadian youth had jobless rates twice those of adults in 1960; during the 1970's, youth rates were around two and one-half times those for adults. German data for April 1963 indicate no difference between youth and adult unemployment rates; this was true throughout the 1960's in Germany, except during the 1967–68 recession. By 1970, however, German youth rates were more than twice as high as adult jobless rates. The German youth-adult ratio subsequently fell back under 2 during 1974–79. Although the overall youth-adult differential has held fairly steady in Japan over the past two decades, the teenage-to-adult ratio has been edging upward.

Australian young people had a jobless rate three times that of adults in 1964 and twice that of adults in

1970. During 1974–77, the differential widened. The teenage-to-adult ratio was around 4 in 1964, but rose to about 5 in 1976–77. This differential narrowed somewhat in 1978, but edged upward again in 1979.

In the United States, in contrast to Western Europe, Canada, and Australia, the gap between youth and adult unemployment narrowed between 1970 and 1977. Americans under 25 had unemployment rates 3.3 times those for adults in 1970 and 1974. During 1975–77, the differential narrowed, but the ratio rose to about 3 in 1978–79, still lower than in the early 1970's. The same general pattern was also true for ratios of teenage-to-adult unemployment. In the United States, the youth-adult differential tends to fluctuate in a countercyclical manner—in recessions, adult unemployment rates rise

more sharply than youth rates, but adult rates also fall more rapidly in economic recoveries. Teenagers may decide to prolong their schooling when job prospects are poor, but when opportunities increase, a sizable group of 16- and 17-year-olds leave school in response.³

Other forms of underutilization. As with other groups, the unemployment rate does not capture the full range of labor market difficulties experienced by young people. Unemployment statistics measure numbers of persons not working but actively seeking work. A more comprehensive analysis would include comparative data, presently sketchy or lacking in most countries, on involuntary part-time work, discouraged workers, skill mismatches, and other forms of underutilization. Indications are that young people have sustained a heavy impact in many of these areas. For example, French, Swedish, and American labor force surveys show large numbers of discouraged workers who are teenagers or young adults. These are persons who indicate that they would be seeking work if they believed they could find a job. German estimates of the "silent reserve" or pool of discouraged workers also include a significant number of young people. Reportedly, many German girls age 15 to 17 who cannot find work simply decide to stay at home and help in the household.⁴

Furthermore, there is evidence that a considerable number of would-be school leavers in several countries have postponed their entry into the labor market in recent years.⁵ Their extra schooling was a thinly disguised form of unemployment, as they would have preferred to be in the labor market. Finally, unemployment rates do not measure the recession-induced outflow of foreign workers from such countries as France and Germany; a large proportion of these migrants are in the younger age groups.

Some explanatory factors

A number of factors underlie international differences in youth unemployment rates. Differences in supply and demand trends in the youth labor market are important. Other aspects to consider are the student labor force, use of apprenticeship systems and counseling and placement services, institutionalized youth wage differentials, and unemployment among minority groups.

The supply side. The United States and Canada have experienced rapid increases in the youth labor force—both teenagers and young adults—since the early 1960's. The European countries and Japan, in contrast, have had declining teenage work forces and decreases or only small increases for persons 20 to 24 years of age.

Table 4 presents growth rates of the teenage and young adult labor force for the period 1960 to 1979. The number of teenagers in the U.S. and Canadian

work forces grew at an annual rate of 3.6 to 4 percent. Australian teenagers were the only others with a rising trend over this period. A very sharp decline occurred for teenagers in Japan, Italy, and France, with lesser rates of decrease in Great Britain and Sweden, and virtually no change in Germany. The young adult work force increased more rapidly or declined more slowly than the teenage labor force in all countries studied except Germany. In three countries with shrinking teenage labor forces (France, Great Britain, and Sweden), the young adult labor force showed an upward trend. Great Britain, Germany, Italy, and Japan had overall declines in the labor force under age 25 during 1960–79.

There were some dramatic changes in labor force trends in the 1970's. The growth rates of the youth labor force in North American countries moderated in the latter part of the decade. For instance, the U.S. teenage labor force grew at an annual rate of 4 percent during the 1960–75 period, but growth tapered off thereafter, and in 1979, the teenage labor force decreased. Great Britain and Italy have experienced a reversal, with the youth labor force rising during 1975–79 after many years of decline. Growth of the Australian teenage labor force accelerated during the same period.

Table 3. Ratios of youth to adult unemployment rates in nine countries, selected years, 1960–79

Country	1960	1970	1974	1975	1976	1977	1978	1979
Ratio of youth to adult unemployment ¹								
United States	2.5	3.3	3.3	2.7	2.7	2.8	3.1	3.0
Canada	1.9	2.4	2.4	2.4	2.5	2.5	2.4	2.4
Australia	² 3.0	2.1	2.6	3.0	3.4	3.6	3.2	3.5
Japan	1.4	2.2	2.1	1.9	1.8	2.1	1.9	1.9
France ³	⁴ 2.5	2.4	3.0	3.0	3.3	3.4	3.3	3.5
Germany ⁵	⁶ 1.0	2.5	1.6	1.8	1.9	1.9	1.7	1.6
Great Britain:								
Adjusted to U.S. concepts	⁷ 1.4	⁸ 1.8	2.3	2.6	2.8	2.8	3.0	(⁹)
Registrations ¹⁰	(⁹)	⁸ 1.7	1.9	3.2	3.4	3.7	3.5	3.3
Italy ¹⁰	² 4.9	6.8	9.3	8.6	9.1	9.3	9.7	(⁹)
Sweden	¹¹ 2.3	2.2	3.0	3.2	3.2	3.4	3.5	3.4
Ratio of teenage to adult unemployment ¹²								
United States	3.3	4.6	4.4	3.3	3.5	3.6	4.1	4.1
Canada	2.3	3.3	3.0	3.0	3.1	3.0	2.9	3.0
Australia	² 4.1	2.9	3.5	4.3	5.0	5.3	4.4	4.9
Japan	1.5	2.2	2.2	2.3	2.3	2.7	2.4	2.6
France ³	⁴ 3.6	3.5	4.7	4.5	5.2	5.3	5.3	5.5
Germany ⁵	⁶ 1.0	3.5	1.7	1.9	2.0	1.9	1.8	1.6
Great Britain:								
Adjusted to U.S. concepts	⁷ 1.2	(⁹)	(⁹)	(⁹)	(⁹)	(⁹)	(⁹)	(⁹)
Registrations ¹⁰	(⁹)	⁸ 2.0	2.3	4.1	5.3	5.8	5.5	5.2
Italy ¹⁰	² 6.1	8.2	11.9	11.2	12.0	12.1	12.6	(⁹)
Sweden	¹¹ 2.8	3.3	4.5	4.7	4.6	5.2	5.1	5.0

¹ Ratio of unemployment rate for persons under 25 to rate for persons 25 and over.

² Data relate to 1964.

³ Data relate to March or April of each year.

⁴ March 1963 data.

⁵ Data relate to April or May of each year.

⁶ April 1963 data.

⁷ April 1961 data.

⁸ Data relate to 1971.

⁹ Data not available.

¹⁰ Not adjusted to U.S. concepts. British data relate to July.

¹¹ Data relate to 1962.

¹² Ratio of teenage unemployment rate to rate for persons 25 and over.

A declining trend for teenagers in the 1960's was halted in Germany and Sweden in the first half of the 1970's, but resumed in the latter half. In Japan, the teenage decrease became even more pronounced between 1970 and 1976.

Germany and Italy have had recent turnarounds in labor force trends for young adults. For both countries, the earlier declining trend has been supplanted by a rising trend since about 1975. In Japan, the young adult labor force grew during the 1960's, but declined during the 1970's.

Trends in birth rates, population, and participation rates underlie international differences in youth labor forces.⁶ Rapid growth of the youth population combined with sharply rising participation rates to bring about large increases in the teenage and young adult labor forces in North America. Australia's rapid youth population growth, in contrast, was not fully translated into labor force growth because teenage participation rates fell. In France, the decline in activity rates for teenagers was so large that it completely overrode the rapid youth population growth of the 1960's. The drop in participation rates for teens in the other countries, coupled with slower population growth for this age group, resulted in a pronounced decrease in the teenage labor force from 1960 to at least the mid-1970's. Declines in activity rates for young adults were not nearly as great as they were for teens; therefore, the young adult labor forces did not fall as fast, or even increased (France, Great Britain, Sweden), while teenage work forces shrank.

There are also large differences among nations in the relative size of the youth labor force. The following tabulation shows the percentage of the labor force accounted for by youth in 1979 for each of the countries studied:

	All youth	Teenagers	Young adults
United States	24	9	15
Canada	27	11	16
Australia	27	12	15
Japan	13	3	10
France	16	4	12
Germany	20	9	11
Great Britain	19	8	11
Italy (1978)	17	7	10
Sweden	16	6	11

Canada and Australia had the highest proportions of young people in their work forces, with the United States ranking next. Japan, France, and Sweden had substantially lower proportions. The international differences were particularly wide for teenagers, who have much higher unemployment rates than young adults.

The United States and Canada, then, were under unusual pressure from relatively large and fast-growing

Table 4. Percent change in the youth labor force in nine countries by age group, selected periods, 1960-79

Country	Under age 25			Teenagers			Age 20 to 24		
	1960-79	1960-75	1975-79	1960-79	1960-75	1975-79	1960-79	1960-75	1975-79
United States	4.1	4.5	2.7	3.6	4.1	2.0	4.4	4.8	3.2
Canada	4.2	4.6	2.9	4.0	4.5	2.2	4.4	4.7	3.3
Australia	¹ 2.4	2.6	2.1	¹ 1.4	1.0	2.5	¹ 3.5	4.1	1.7
Japan	2.1	1.7	3.7	-5.8	-6.5	-3.0	-3	6	-3.8
France	² 3	.8	² 1.1	² 3.4	-3.2	-3.8	² 2.2	3.0	-1
Germany	² 4	.8	.9	² 0	.1	.3	² 7	-1.5	2.1
Great Britain	³ 1	.6	1.4	³ 1.4	2.2	1.3	³ 9	8	1.4
Italy ⁴	⁵ 1.8	2.5	⁵ 1.9	⁵ 3.4	-4.4	⁵ 2.0	⁵ 5	-1.0	⁵ 1.9
Sweden	⁶ 1	.1	.3	⁶ -1.9	-2.2	-5	⁶ 1.5	1.8	.8

¹Initial year 1964.

²Initial year 1963.

³Initial year 1961.

⁴Not adjusted to U.S. concepts and not adjusted for break in series related to new labor force survey instituted in 1977.

⁵Data end in 1978.

⁶Initial year 1962.

teenage and young adult labor forces, which contributed to higher rates of both overall and youth unemployment. Although labor force growth rates in North America have not been as rapid since 1975 as previously, they are still high in comparison with the other industrial countries. For the most part, other countries did not have to deal with increasing numbers of young entrants to the labor market until recently, if at all.

Demand factors. During the 1960's, tight labor markets and strong economic growth in most of Europe, and in Australia and Japan fostered high demand for young workers. Labor shortages gave many young people opportunities to choose among jobs and to enter the occupational hierarchy at higher levels than would have been possible in less favorable times. In Japan, Great Britain, and Germany, employers recruited young people straight from school and provided training for many of them. New entrants were eagerly sought and employers were willing to take youngsters without occupational skills or previous work experience. However, favorable employment conditions for youth abroad changed during the 1970's as structural problems were intensified by deep recession.

Even during the 1960's, the recruitment of youth as discussed above was less common in France and Italy, and even less visible in the United States where employers exhibited little active interest in hiring teenagers.⁷ Indeed, recent studies show that two-thirds to four-fifths of U.S. employers are reluctant to hire people under age 21 for regular, full-time jobs.⁸

Long-run structural changes in the labor market have adversely affected the demand for young workers in most of the countries studied. For example, the shift out of agriculture and the decline of self-employment or small family businesses have greatly reduced family em-

ployment opportunities for youth. The decline in agricultural employment has been going on for decades. Currently, the United States and Great Britain have the smallest proportions of the labor force engaged in agriculture; Japan and Italy have the largest.⁹

The change in skill requirements in industrial economies has further affected the demand for young workers. Specifically, a decline in the relative importance of unskilled jobs, in which many youth find their first employment, has taken place in the course of industrialization. There are many low-skilled jobs in the rapidly growing service sector that may replace lost openings in the industrial sector, but service industries are also affected to some extent by changes which reduce demand for the unskilled. A 1974 British study found that it was becoming more difficult to place unqualified, untrained young people who normally entered jobs below craft level.¹⁰ Job opportunities for such young persons were shrinking, a trend largely masked in Great Britain in times of high growth, but all too apparent during the more recent high unemployment years.

Growing rigidities in the labor market have also adversely affected employment prospects for young people. During the 1970's, there was considerable strengthening in job security provisions for adult workers in Western Europe and Japan. An OECD study of job security arrangements in France, Germany, and Great Britain indicates that management prerogatives in dismissing labor have been substantially curtailed.¹¹ This trend began during the late 1960's, but accelerated considerably during the 1974-75 recession. A 1976 study by the German Federal Labor Institute corroborated the OECD study, attributing higher youth unemployment in Germany partly to regulations protecting the jobs of senior employees.¹²

Swedish and Italian labor market experts have also spoken of the adverse effects of protective legislation on new entrants.¹³ The problem is viewed as particularly acute in Italy where employers reportedly avoid hiring new workers to the maximum extent possible, because it is virtually impossible to discharge an employee.

The student labor force. The working student is very much an American phenomenon. No other country has so large a proportion of persons both in school and in the labor force during the school year. The frequent entries and exits of students characteristic of the U.S. labor market do not occur to any significant extent in Western Europe and Japan. Canada also has substantial student labor force activity. There is growing student participation in the work force in Australia, but it is still small compared with the United States and Canada.

Information on the school enrollment and labor force

status of the population age 16 to 34 in the United States is collected annually in the October supplement to the Census Bureau's monthly labor force survey. Data for October, which is close to the beginning of a new school year, may not be fully representative of all the school months. Students are not explicitly identified in the U.S. survey during the rest of the year, although young people 16 to 21 years old reporting school as their major activity are tabulated by labor force status each month. For students in the labor force, these monthly data substantially underreport school enrollment because many part-time students may report work as their major activity.

The monthly data on young persons age 16 to 21 indicate much higher unemployment rates for those whose major activity is school. In 1979, such persons had an unemployment rate of 18.1 percent. For others in the same age group, the jobless rate was 12.7 percent. The higher rate for students may reflect their limited availability with respect to hours of work and time limitations on their job-hunting efforts because of the constraints of classroom schedules.

The October surveys indicate a paradoxical impact of student labor force activity on U.S. youth unemployment rates: Student unemployment tends to increase overall youth jobless rates but to decrease the separate rates for teenagers and young adults. The following tabulation of unemployment rates for October 1979 illustrates this point:

Age	All youth	In school	Not in school
16 to 24 years . . .	11.4	13.0	10.8
16 to 19 years . . .	15.9	15.2	16.7
20 to 24 years . . .	8.8	8.6	8.8

Neither the October surveys nor the monthly "major activity" data record the effect of student unemployment during summer vacations. An unemployment rate for students encompassing the summer vacation period would probably be higher than the rate during the school term. During the summer, the job market becomes flooded with youthful applicants.

When their vacation period unemployment and in-school unemployment are combined, students in the U.S. labor force do pull the annual youth unemployment rate upward somewhat. In other countries, where relatively fewer young people are in school and the seasonal influx of students into the labor force during the vacations is smaller, youth unemployment rates are not subject to as much upward pressure from the student work force. In addition, school vacation workseeking is not even recorded in a few of the other countries because of the timing of their surveys (France, Germany). The high degree of student labor force activity in the United States also exaggerates the proportion of youth in the unemployment total relative to countries with lit-

the student participation in the labor force. If data for teenagers who were both in school and in the labor force in October 1979 were excluded, the U.S. teenage labor force participation rate would fall from 56 to 26 percent—almost the same as in France and Italy.

Italy has had special labor market problems associated with new university graduates. The number of students in Italian universities rose by over 50 percent between 1969 and 1972 alone, while the university-age population grew by only 3 percent. The rise in the entry rate was facilitated by the university reform of 1969 which opened all university departments to any successful secondary school graduate. The claim has been made in Italy that during recent years one important function of the university has been to provide a form of "parking" for the young in search of employment.¹⁴ Thus, unemployment after secondary school is delayed, only to be faced later on. Many youthful unemployed Italians are graduates from the terribly overcrowded universities which have failed to cope with the large influx of students since 1969.

Apprenticeship and formal training programs. European educational institutions channel masses of young people into training for narrow vocational specialties, while American youth are still continuing general education. The European system's emphasis on early apprenticeship and vocational training tends to put young people into stable work-training relationships that discourage mobility. The frequent job changes and spells of unemployment characteristic of young persons in the United States are not found to as great an extent abroad.¹⁵

In most European countries, apprenticeship and vocational education are widespread. Vocational education programs predominate in France and Sweden; apprenticeship is the principal type of industrial training for youth in Great Britain and Germany and is widely used elsewhere. In Japan, training within firms usually marks the beginning of lifelong employment.

Apprenticeship programs provide both a smooth transition from school to work and employment security for young workers. The key to the German performance in keeping youth unemployment comparatively low has been that country's strong apprenticeship system. For a large proportion of German young people, this training constitutes the upper secondary level of school. On the other hand, Italy, with its high rate of youth unemployment, does not have a well developed system of vocational training institutions.

Table 5 shows an international comparison of the extent of apprenticeship in 1974 and 1977. Germany led by far in the ratio of apprentices to civilian employment, over 5 percent. Italy ranked second, with about 3 percent of civilian employment in apprenticeships, but this high ratio should be discounted both because train-

Table 5. Apprentices as a percent of total civilian employment in eight countries, 1974 and 1977

Country	1974	1977
United States	.34	.29
Canada	.76	.99
Australia	2.29	2.05
France	.73	.93
Germany	5.18	5.70
Great Britain	1.87	(¹)
Italy	3.60	3.42
Sweden ²	.02	.03

¹ Data not available.

² Proportion covers only those designated to receive government subsidies under the 1959 law on apprentices. The unknown number of unsubsidized apprentices would raise Swedish proportion.

SOURCE: Beatrice G. Reubens, *Apprenticeship in Foreign Countries*, R & D Monograph 77 (U.S. Department of Labor, Employment and Training Administration, 1980), p. 12.

ing in many cases is unsatisfactory or nonexistent and because dropout rates are extremely high (70 percent).¹⁶ Australia and Great Britain had about 2 percent of civilian employment in apprenticeships, and France and Canada had about 1 percent. The United States had a lower ratio than any other country except Sweden. Sweden has a small, legally recognized apprenticeship sector, subsidized by the government, but an unknown number of unsubsidized apprentices are trained through company programs, and these are not included in the data in table 5.

Apprenticeship in North America has never acquired the scope that it has in Europe. A young person in North America can attain skilled status without completing apprenticeship training. This is not the case in Europe. Furthermore, apprentices in North America tend to be older than their European counterparts. The average age of a Canadian apprentice is 23, and an American, 25. By these ages many Europeans are already fully qualified journeymen, having begun their apprenticeships at age 16 or 17. The use of veterans' benefits to fund apprenticeship in the United States has been a significant factor in the higher average age of apprentices.

In response to rapid increases in youth unemployment, several foreign countries instituted government subsidies to firms which took on new apprentices. Much of this financial aid dates from 1975 or later. Germany offered tax cuts and other subsidies to employers to encourage the hiring of apprentices and also introduced a financial penalty for not doing so. A law passed in September 1976 provided that a payroll tax of up to 0.25 percent be levied on employers in any year that the total supply of apprenticeship places was not at least 12.5 percent above the total number of young people seeking places.¹⁷ New apprenticeship contracts in Germany rose markedly from 1976 through 1979, following several years of little change. However, there were still a number of unsatisfied applicants for apprenticeship places 20,200 in 1979.

Guidance and counseling. Several European countries and Japan have developed strong systems of services for youth which, like apprenticeship systems, help smooth the transition from school to work. These services provide extensive information, guidance, placement, induction, and followup activities. According to one expert, the countries that seem to have the most effective transition systems are Germany, Japan, and Sweden.¹⁸ These countries offer a comprehensive set of services which are conducive to the prearrangement of jobs, so that there is little initial unemployment for a majority of school leavers. Of course, a favorable economic climate also encourages prearrangement. Without jobs, the best guidance and counseling programs would be futile.

The public employment service in Japan reportedly has an extensive role in the youth labor market.¹⁹ It conducts guidance programs and provides information to the education authorities, who in turn give vocational orientation in the schools. The employment service estimates the number of school leavers who will be seeking jobs each March. It then informs employers of the potential supply of workers from various educational levels, collects job offers from employers, and escorts students in groups to recruiting employers. Under normal economic conditions, most Japanese have prearranged jobs before school ends. There is also an extensive post-employment guidance and vocational adjustment system conducted by the employment service. Several unusual factors allow the Japanese system to work as well as it does: The chronic shortage of young workers, the high value placed on young workers by hiring firms, and a tradition of conformity among employers permit the public employment service a high degree of control over the placement of youths in their first jobs.

The United States, Canada, and Italy rely on educational institutions to supply transition services. Because of this, these countries have had difficulty providing a comprehensive, integrated program. One researcher has concluded that an array of countries according to the difficulty of transition from school to work might place the United States and Italy at the top.²⁰ There are fewer prearranged jobs and more unemployment among new entrants in Italy and the United States than in the other European countries and in Japan. It has been said that few American students are exposed to occupational or labor market information and that many counselors and teachers suffer from the same lack of knowledge.²¹

Youth minimum wage. Legislated wage differentials for young workers are used on a very limited basis in the United States. The Fair Labor Standards Act contains provisions for subminimum wages for students and learners, but these provisions have not been used to any significant extent. In contrast, differentials between

youth and adult wages are common in Western Europe, Canada, and Japan. Some countries legislate lower minimums for teenagers, and others permit collective bargaining agreements to provide differential wages for young workers. Still other countries use both mechanisms.²²

It has been argued that wage differentials between teenagers and adults tend to facilitate the employment of youth. One 1970 study concluded: "The evidence from abroad indicates that low wages for youth are an inducement to employers to seek young workers eagerly. The relatively low youth unemployment rates abroad . . . are partially a reflection of the fact of low wages for youth."²³

This study pointed out that low wages for youth abroad do not exist separately from extensive apprenticeship programs in such countries as Germany and Great Britain, and from the lifetime employment system in Japan under which high wages in later years with the firm offset low youth wages. Also, the experience of foreign countries having institutions different from those in the United States has limited application for American teenagers, who are much more likely to be looking for part-time rather than permanent jobs.

Recent evidence indicates that the relative costs of employing young workers have changed abroad. Despite youth minimums, the actual postwar trend in earnings has favored youth over other age groups. Thus, there has been a narrowing of the actual wage differential between youth and adult workers. For instance, a recent British study reveals that pay for young people has risen considerably in relation to that of adults. Average hourly earnings of male manual workers under 21 as a percent of adult male earnings were 45 percent in 1948; 48 percent in 1960; 52 percent in 1970; and 62 percent in 1977.²⁴

Minority group unemployment. The United States has had exceptionally high levels of unemployment for black youth. In 1978, black teenagers had an unemployment rate about two and one-half times that for white teenagers. Furthermore, this racial disparity in unemployment experience has been worsening since the mid-1960's.²⁵ The special labor market problems of American black and other minority youth are unmatched in Europe, Australia, or Japan, and help to explain the relatively high youth unemployment in the United States.

Other countries do have minority youth employment problems, often arising from religious and cultural, rather than racial, differences. For example, nations which admitted large numbers of foreign workers on a temporary basis during the labor-short 1960's found that many of these workers settled in the host country, and married locally or brought wives and children from

home. Children of these immigrants faced a less favorable economic climate than their parents, and their educational and social differences often proved to be disadvantages in the labor market. However, these and other minority unemployment problems abroad have less impact in the aggregate, because minority groups in other countries are not as large proportionately as in the United States.

For example, comparative statistics for Sweden and the United States provide some insight into the differences in the impact of minority unemployment on youth joblessness. Children of foreign workers in Sweden, frequently more poorly educated, and not speaking Swedish, have an unemployment rate much higher than native youth. The foreign-born accounted for 8.8 percent of total teenage unemployment and 5.7 percent of the teenage labor force in Sweden during the second quarter of 1979. By contrast, in the United States, blacks and other minorities accounted for 24 percent of total teenage unemployment and 11 percent of the labor force in 1978. The contrast between the two nations is also marked for young adults. Immigrants made up 8.3 percent of the young adults unemployed in Sweden and 6.4 percent of the labor force. The corresponding figures for U.S. blacks and other minorities were 29 percent and 14 percent, respectively.

Minority group unemployment is also a problem in Great Britain, particularly among young Asians and West Indians. A special survey conducted in 1977-78

revealed unemployment rates of over 11 percent for those of minority ethnic origin born in the United Kingdom and over 7 percent for those of white ethnic origin.²⁶ Yet, in terms of total unemployment, the problem of minorities in Great Britain is much smaller than in the United States. In 1977-78, British minority groups accounted for 4.4 percent of total unemployment. In the United States, minorities make up almost 25 percent.

WHILE CERTAIN of the countries studied have been able to keep youth unemployment rates relatively low, all recorded rising rates during the 1970's. Economic growth in industrialized nations dropped precipitously in 1974 and 1975 and moved upward slowly thereafter. At the same time, the number of young persons in the labor force began to increase in several countries after many years of decline. The turnaround in demographic trends during a period of slow growth contributed to higher youth unemployment. Another factor in a number of countries has been the strengthening of employment protection legislation to the point where it reportedly adversely affects youth job opportunities. Finally, the narrowing of wage differentials between youths and adults has put youth at a cost disadvantage. In short, over the last decade, conditions in other countries which had contributed to low youth unemployment in the past began to change in a way adverse to youth employment opportunities. □

—FOOTNOTES—

¹ For this study, the terms "youth" and "young people" refer to the broad category of persons under 25 years of age. This group is divided between "young adults"—the 20- to 24-year-old group—and "teenagers"—those under 20 years of age. (The lower age limit for teenagers varies from 14 to 16 among the countries studied.) "Adults" describes persons 25 and over.

² See *International Comparisons of Unemployment*, Bulletin 1979 (Bureau of Labor Statistics, 1978), Appendix C, for a description of the methods used to derive comparable unemployment and labor force data by age. The appendix to *Youth Unemployment: An International Perspective*, Bulletin 2098 (Bureau of Labor Statistics, forthcoming) will present a detailed discussion of the important issues relating to international comparability of youth statistics.

³ Marcia Freedman, "The Youth Labor Market," in *From School to Work: Improving the Transition*, a collection of policy papers prepared for the National Commission for Manpower Policy (Washington, U.S. Government Printing Office, 1976), p. 24.

⁴ Margaret S. Gordon, *Youth Education and Unemployment Problems: An International Perspective* (Berkeley, Calif., Carnegie Council on Policy Studies in Higher Education, 1979), p. 55.

⁵ Organization for Economic Cooperation and Development, *Australia: Transition from School to Work or Further Study*, OECD Reviews of National Policies for Education (Paris, OECD, 1977), p. 47; International Labour Office, *Some Growing Employment Problems in Europe* (Geneva, ILO, 1974), p. 48; Klaus von Dohnanyi, *Education and Youth Employment in the Federal Republic of Germany* (Berkeley, Calif., Carnegie Council on Policy Studies in Higher Education, 1978), p. 38; and "Considering Employment: Unemployed (Part two)," *Mainichi* (Japanese newspaper), Dec. 3, 1977, p. 7.

⁶ For further discussion and charts on birth rate trends, see Gordon, *Youth Education*, pp. 17-20. See also Beatrice G. Reubens and others, *The Youth Labor Force 1945-1995: A Cross-national Analysis* (Montclair, N.J., Allanheld, Osmun and Co., 1981), Ch. 2.

⁷ Beatrice G. Reubens, "Foreign and American Experience with the Youth Transition," in *From School to Work*, p. 274.

⁸ *Employment and Training Report of the President* (Washington, U.S. Government Printing Office, 1978), p. 75; *Youth Unemployment and Minimum Wages*, Bulletin 1657 (Bureau of Labor Statistics, 1970), pp. 128-31 and 183; and Norman Bowers, "Young and marginal: an overview of youth unemployment," *Monthly Labor Review*, October 1979, pp. 4-5.

⁹ For further data and discussion, see *International Comparisons of Unemployment*, pp. 23-26.

¹⁰ *Unqualified, Untrained, and Unemployed*, Report of a Working Party set up by the National Youth Employment Council (London, Her Majesty's Stationery Office, 1974), p. 1.

¹¹ John Gennard, *Job Security and Industrial Relations* (Paris, OECD, 1979).

¹² Study quoted in von Dohnanyi, *Education and Youth Employment in Germany*, p. 34.

¹³ Reubens, "Foreign and American Experience with the Youth Transition," p. 287; and Organization for Economic Cooperation and Development, *Review of the Labor Market Situation in Less Industrialized Member Countries* (Paris, OECD, 1978), unpublished.

¹⁴ International Labour Office, *Some Growing Employment Problems in Europe* (Geneva, ILO, 1974), p. 48.

¹⁵ Beatrice G. Reubens, "Foreign Experience," in *Report of Congress-*

sional Budget Office Conference on the Teenage Unemployment Problem: What Are the Options? (Washington, U.S. Government Printing Office, 1976), p. 55.

¹⁶ Beatrice G. Reubens, *Apprenticeship in Foreign Countries*, R and D Monograph 77 (U.S. Department of Labor, Employment and Training Administration, 1980), p. 11.

¹⁷ Reubens, *Apprenticeship in Foreign Countries*, p. 58.

¹⁸ Beatrice G. Reubens, *From Learning to Earning: A Transnational Comparison of Transition Services*, R and D Monograph 63 (U.S. Department of Labor, Employment and Training Administration, 1979), pp. 11-14; and Reubens, "Foreign and American Experience," p. 291.

¹⁹ Reubens, *From Learning to Earning*, p. 13.

²⁰ Reubens, "Foreign and American Experience," p. 283.

²¹ Ben Burdetsky, "Troubled Transition: From School to Work," *Worklife*, November 1976, p. 2. See also Seymour L. Wolfbein, "In-

formational and Counselor Needs in the Transition Process," in *From School to Work*, p. 193.

²² *Youth Unemployment and Minimum Wages*, Bulletin 1657 (Bureau of Labor Statistics, 1970), Ch. 6.

²³ Thomas W. Gavett, "Youth unemployment and minimum wages," *Monthly Labor Review*, March 1970, p. 9.

²⁴ "The Young and Out of Work," *Department of Employment Gazette*, August 1978, p. 908.

²⁵ See Bowers, "Young and marginal: an overview of youth employment," pp. 5-7; and Curtis L. Gilroy, "Black and white unemployment: the dynamics of the differential," *Monthly Labor Review*, February 1974, pp. 38-47.

²⁶ Ann Barber, "Ethnic Origin and the Labor Force," *Department of Employment Gazette*, August 1980, pp. 841-48.

The role of part-time work

Organized labor in every industrial country views part-time work with concern. There is no question that the proliferation of part-time jobs has a negative impact on full-time employment. In many cases these jobs represent a downgrading of jobs that once were full time. (There are exceptions, such as retail trade, where this pattern has long been part of the nature of the business.) Part-time work also tends to undermine labor standards and depress wage levels.

On the other hand, there is certainly a place for permanent part-time work, and there are benefits to be derived for workers who truly prefer working part time, or must do so. Such employees include students, elderly people, the physically handicapped, parents with small children, and persons with other special needs.

Sweden has moved forward rapidly in this area through both national legislation and collective bargaining. Part-time workers receive full medical benefits under the Swedish health security program and full credit toward retirement. Unions are working to raise pay rates for part-timers so that in some cases it is hard to distinguish between part-time and short-time jobs. This is in considerable contrast to the United States, where some part-time workers have no fringe benefits and the vast majority have their medical insurance and pension benefits reduced or prorated.

"Innovation in Working
Patterns." *Transatlantic
Perspectives*, January 1981, p. 28.

The 1978–80 pay guidelines: meeting the need for flexibility

*Any anti-inflation program which caps wages
must include provisions
for the special needs of individual firms,
lest economic hardship fall disproportionately
on certain industries or worker groups*

LUCRETIA DEWEY TANNER AND MARY CONVERSE

On October 25, 1978, President Carter announced a program of voluntary pay and price guidelines designed to dampen inflationary expectations. Responsibility for administering the guidelines was given to the Council on Wage and Price Stability, an organization established by Congress in 1974 to monitor developments in the economy. Recognizing that strict adherence to rigid standards for pay increases might not always be possible or equitable, the council created a system to review companies' requests for relief ("pay exceptions") from the guidelines. This article describes the administration of the standard and analyses the types and numbers of pay exception requests submitted to the council during the 2 years of the anti-inflation program.

A general framework

As originally designed, the pay standard allowed a simple 7-percent average annual adjustment encompassing all wage and benefit increases negotiated under a collective bargaining agreement or granted under a pay plan. Parties negotiating multi-year contracts during the program were permitted to allocate the compound annual average standard of 7 percent unequally over the contract term, so long as the increase in any

year did not exceed 8 percent. Thus, a 3-year pact might provide compensation increases of 8 percent the first year, 7 percent the second, and 6 percent the third, for a compounded total of 21.5 percent over the life of the agreement. And, if subsequent changes in employee mix as a result of turnover reduced the actual annual pay raise below the level anticipated at the beginning of the year, companies were permitted to carry over the unused portion of the increase into the second program year. The first-year standard was in effect from October 1, 1978, through September 30, 1979, and evolved over that period from a general guideline into a precise and rigid set of computations and procedures for monitoring pay increases and for reviewing exceptions.

Cooperating employers were required to distinguish three types of "employee units" within their organizations: all management employees, generally defined as those exempt from the Fair Labor Standards Act; each group of employees subject to a collective bargaining contract; and all other employees. The average increase for each separate employee unit had to be in compliance with the standard, although individual workers within a unit could receive more or less than the guideline amount. For example, a company employing a number of engineers—professionals in high demand—within a larger unit might find it difficult to retain these workers and recruit others without offering them a substantial pay increase. If the unit's other workers were granted at least the guideline increase, the entire unit would be in noncompliance with the standard. Thus, the employer

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might choose to grant raises below the standard to other workers in the unit to offset the increase for engineers. (In practice, such differential increases often strained firms' internal pay structures, and employers were permitted instead to request pay exceptions for targeted subgroups within a unit.)

The average wage rate for the employee unit, combined with the cost of benefits, constituted the pay-rate base for calculation of the 7-percent increase. Federally mandated payroll taxes for social security, workers' compensation, and unemployment insurance were excluded from the definition of pay. And, increased costs of health insurance were not charged against the standard if new benefits were not added or existing benefits improved. As additional refinements were made, the council outlined them in special publications, or in the form of "Questions and Answers" which appeared in the *Federal Register* over the program's duration.

As the first year drew to a close, the Carter Administration established an 18-member Pay Advisory Committee, composed of representatives of labor, management, and the general public, which was to make recommendations for the second year of the program. While the committee deliberated, the council issued interim standards which loosened the 7-percent standard, beginning October 1, 1979, for those employees not covered by automatic cost-of-living adjustments (COLA's). This interim standard of 8 percent was in effect until March 13, 1980, when the second-year standard—a pay increase range of 7.5 to 9.5 percent made retroactive to October 1, 1979—was announced. The second-year pay standard was allowed to lapse, and the formal pay and price program was officially terminated by President Reagan's Executive Order issued on January 29, 1981.

The exceptions policy

Of course, few exceptions to a wage guideline are required when the standard adopted is close to the size of the increases that would otherwise be granted. By contrast, a strict standard produces a sizable volume of requests from employers with special problems. As the inflation rate edged upward, the first-year standard became even stricter than had initially been envisioned, and the unexpectedly large numbers of incoming requests for exceptions were viewed with greater sympathy.

On the other hand, the more liberal second-year standard generated fewer submissions. The council received almost 700 exception requests during the first year and 360 in the second; most of the second-year cases arose during the October 1979-March 1980 interim period when the stricter 7-percent standard (8 percent for units without automatic COLA protection) was still in place.

Over the life of the guidelines program, exception requests affected about 2 million employees. While submissions covered as few as two individuals and as many as 150,000, about 65 percent were for fewer than 1,000 people, mostly in employee units of 100 to 500 workers. About two-thirds of all submissions were for nonunion employees.

Criteria for exceptions were adopted in part from the Economic Stabilization Program of the early 1970's which had, in turn, borrowed from the experience of previous control periods. For example, both programs included exceptions to maintain pre-existing wage and benefit relationships between employee units (tandem). "Essential employees" of the Economic Stabilization Program became the "acute labor shortage" category under the voluntary standards, and the catch-all exception—gross inequity or severe hardship—was common to both. But unlike the earlier program, which limited the amount of the increase available under any type of exception to 1.5 percent above the 5.5-percent pay standard, the 1978–80 program imposed no limit to the additional amount that could be requested or granted.

Exception requests were reviewed on a case-by-case basis and assigned to one of the 18 labor economists or analysts in the council's Office of Pay Monitoring. Each staff member determined the adequacy of the supporting data supplied by the company and was responsible for the initial decision to approve or deny the request. In many situations, council staff met with firm representatives to discuss specific problems and offer suggestions for developing the data required to meet criteria for one of the exceptions.

To ensure consistency and efficiency in council exception procedures, certain rules were established. Because the council could not examine every pay decision, it limited requests for exceptions to situations affecting at least 100 people in a company having at least 1,000 employees, or to collective bargaining agreements covering at least 1,000 workers regardless of the number of workers employed by each signatory firm.

A show of "good cause" for an employee unit of any size was also sufficient for the council to issue a decision. Good cause could mean that a company and union had reached a labor contract contingent on the council's approval, or that a company was required to demonstrate compliance in order to bid on a Federal contract of \$5 million or more. While many submissions were eligible for council consideration on both grounds, almost three-fourths were eligible because they met the size requirement. Another 16 percent were from parties to contingent labor contracts, and 6 percent sought approval in order for firms to bid on government contracts. The remaining cases were eligible on miscellaneous grounds, including the need to demonstrate to a public utility rate commission that labor cost increases

had council approval, or as a prior defense to the council's issuing a notice of probable noncompliance.

Over the life of the guidelines program, notices of probable noncompliance (termed "notices of inquiry" during the second program year) were issued in 65 situations in which there was reason to believe that increases being paid exceeded the standard. The council was able to discover some of these situations from the PAY-1 reports on wages and salaries submitted periodically by large firms; other notices were issued on the basis of informal reports of possible noncompliance from secondary sources.

Initially the council self-imposed a 20-day turnaround from receipt of an exception request to the date a decision was issued. This quick response was difficult to achieve for many cases, particularly those requiring additional information. Although it later revised its schedule, the council was able to average a reasonably quick response time of about 40 days, although some submissions took considerably longer.

Types of exceptions

Four exception categories were outlined under the first-year pay standards: tandem compensation relationships between employee units; productivity increases resulting from union work rule changes; acute labor shortage; and gross inequity or undue hardship, which might represent any number of circumstances. The second-year program modified these categories by (1) adding a catchup category for employee units without cost-of-living protection, and (2) broadening the definition of tandem relationships and permitting companies to self-administer the tandem exception. In 2 years more than a thousand cases were submitted to the council for approval. Table 1 shows the distribution of these cases by type of exception justification.

Gross inequity exceptions. More than 40 percent of the cases in each of the 2 years were reviewed as gross inequity exceptions. Many of these were originally submitted as other exception types, but ultimately were considered on the basis of gross inequity if the information provided did not strictly meet the requirements of the original category. To qualify for a gross inequity ex-

ception, a company was required to provide evidence that compliance with the pay standard was manifestly unfair to the affected employees, or so threatened the firm's financial viability as to create a hardship.

Although employers often cited a combination of reasons for a gross inequity exception, the most frequently mentioned were wage compression or other disruptions of internal pay practices requiring additional increases to restore traditional differentials between employee groups. Of all gross inequity submissions, almost one-third of the first-year cases and more than two-fifths of second-year requests included such justifications. A common type of compression involved the disappearance of traditional differentials between first-line supervisors and the persons they supervised. This situation often arose because nonsupervisory employees had wage protection under an automatic cost-of-living provision and received payment for overtime work, but their supervisors did not.

Another frequent claim was disruption of pay relationships in an area labor market or deviation from an established industry pattern. Other circumstances supporting a gross inequity exception included a high proportion of workers in an employee unit earning less than the first-year low-wage exemption of \$4 per hour, increasing turnover rates, and productivity improvements. A number of requests originally submitted as acute labor shortage or tandem exceptions failed to meet the strict criteria established for these categories, but were reviewed as gross inequities when the combination of circumstances contributed to a hardship situation. The following tabulation shows the distribution of gross inequity exception requests according to the grounds specified:

Grounds	Percent of requests ¹
Disruption of pay practices or internal compression	37
Follows area wage pattern	30
"Near" acute labor shortage	24
"Near" tandem	20
Follows industry wage pattern	15
Other	17

Acute labor shortage. The next largest group of requests sought acute labor shortage exceptions, which permitted increases above the standard when it was necessary for companies to attract and retain employees in specific job categories. In such cases, the council expected the company to document the problem, and asked for evidence showing that there had been unusual increases in the proportion of vacancies in the designated jobs and in the time required to fill those vacancies during the preceding quarter, compared to the experience of the past 2 years. Companies were also expected to demonstrate that pay rates for entry level employees in these

Table 1. Cases by type of exception

Exception type	First year		Second year		Total	
	Number	Percent	Number	Percent	Number	Percent
Total	684	100.0	358	100.0	1,042	100.0
Gross inequity	299	43.7	169	47.2	468	44.9
Labor shortage	148	21.6	71	19.8	219	21.0
Tandem	177	25.9	19	5.3	196	18.8
Non-COLA catchup	35	5.1	86	24.0	121	11.6
Productivity	25	3.7	13	3.6	38	3.6

job categories had risen abnormally over the past 2 years. (An additional requirement that the local employment service agency certify that an acute labor shortage existed was informally dropped during the first year; the procedure proved to be cumbersome and the employment agencies were not primary clearing houses for highly skilled and professional jobs.) Companies unable to provide the necessary data were sometimes asked to submit the request as a gross inequity claim if additional evidence of hardship could be documented.

The labor shortage exception category usually involved highly skilled professional or technical personnel in short supply either nationally or in specific local markets. For example, more than half of all acute labor shortage requests were for computer specialists, engineers, and registered nurses. The number of requests for employees working in California and Texas far exceeded those submitted from other States, and accounted for more than one-third of all acute labor shortage cases. This reflects the expansion of the electronics, aerospace, and scientific instrument industries in California and the growth of oil and gas exploration in Texas. Almost all exceptions on behalf of registered nurses were submitted by hospitals in California and Arizona.

Tandem exceptions. Follower units justified tandem exceptions on several grounds. The most frequent was the assertion that the leader unit operated under a collective bargaining contract signed before the October 25, 1978, announcement of the pay standard; because the leader's contract was thus exempt from the guidelines, the follower unit which traditionally received the same increases should also be eligible for exclusion. Another reason commonly cited was that, although the leader's cents-per-hour pay increase was in conformance with the standard, this same amount would raise the follower's percentage increase above the standard because its base pay rate was lower. Similarly, because a leader with a multi-year contract or pay plan could exclude portions of COLA payments for compliance purposes, a follower without COLA protection was required to document a tandem relationship before implementing the same increases. Finally, collective bargaining contracts were permitted to "front load" the first year of an agreement—that is, to negotiate a first-year increase 1 percent above the standard if the increases over the life of the agreement compounded to the standard; thus, a follower unit might request the same ability to front load.

The nearly 200 tandem exception requests were submitted primarily during the first program year, because the second-year standard was changed both to broaden the definition and to permit self-administration. During the first year the council imposed a narrow definition of tandem, requiring that past pay increases of the two

employee units, the leader and the follower, had been equal in value and directly related in timing over the previous 6 years. In addition, the council initially adopted a very rigid rule that the amounts of increase, either in cents per hour or percent, be exactly equal in the two units over the 6-year preguideline period; however, this rule was later modified to permit some minor deviation. If a precise tandem could not be demonstrated, but the past pay increases of one unit had closely followed the pattern established by another, the case might be termed a "near" tandem and be reviewed for a gross inequity exception.

Tandem exception requests most frequently involved follower units of nonunion, nonmanagement employees seeking approval to implement pay increases in tandem to a unionized leader unit within the same company. Nonunion units accounted for 57 percent of all tandem followers, while unionized followers accounted for the balance.

Forty-five separate unions were identified as leader units in tandem pay relationships. The Oil, Chemical and Atomic Workers Union (AFL-CIO) predominated as a tandem leader. Three other major leaders were the International Brotherhood of Electrical Workers (AFL-CIO), the United Automobile, Aerospace and Agricultural Implement Workers of America (Ind.), and the International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America (Ind.). Although collective bargaining units accounted for the vast majority of the leaders, nonunion units at both the management and nonmanagement levels were also occasionally cited as tandem leaders.

One-half of the tandem cases proposed implementing a complete tandem, adopting all the wage and benefit improvements of the leader unit; nearly one-third of the followers sought to tandem only the wage portion of the package, as shown below:

<i>Types of tandem requests</i>	<i>Percent of requests¹</i>
Full tandem	50
Partial tandem:	
Wages	31
Health and welfare	9
Vacation, or holiday, or both	8
Pension	8
Other	6

The council's treatment of the tandem exception was one of the first issues reviewed by the Pay Advisory Committee, which recommended changes to liberalize the category. The committee advised that this exception be applied when pay-rate changes in an employee unit had been linked regularly to a survey of pay-rate changes in an identified labor market. Additionally, it recommended that "substantially equivalent over a peri-

od of years" be substituted for the stringent "exactly equal" requirement, and furthermore, that the leader-follower relationship need not be in the same company, industry, or geographical area. It also proposed that tandem exceptions be self-administered by firms, as long as the council was notified of such action. After the council adopted these principles only a few companies submitted tandem requests.

Productivity work rule changes. This exception permitted employees under collective bargaining contracts to boost productivity by modifying work rules in exchange for pay increases not exceeding the value of resulting cost reductions. Thirty-eight exception requests fell into this category. Other submissions which included some productivity-improving changes but which primarily documented an exception on other grounds were reviewed as gross inequities. Most typical of the work rule changes submitted were those which adjusted rest periods and holidays to permit continuous plant operation without penalty to the company; reduced or eliminated occupational classifications to allow greater flexibility of job assignments; and placed restrictions on job-bidding procedures to stabilize work assignments and to lower training costs. Savings were projected over the coming year, but the council made no provision to verify the savings at the conclusion of the period.

Non-COLA catchup. This category was initiated during the interim period (October 1979-March 1980) and formalized as an exception during the second program year. Its purpose was to remedy inequities that developed between employee units covered by automatic cost-of-living adjustments and those without such protection. Even before the second-year establishment of the catchup, however, the council reviewed some 35 first-year cases as gross inequities on this basis.

Because the pay standard allowed cost-of-living formulas tied to the CPI to be costed at a projected inflation rate much lower than the actual CPI increase, units with COLA provisions could receive pay increases above the guidelines and above those for units without such protection. During the first program year, COLA clauses were costed prospectively, assuming a 6-percent annual rise in the CPI; any amount generated by increases above 6 percent could be excluded for purposes of compliance. The second-year guidelines assumed 7.5-percent CPI growth. But employee units without automatic COLA provisions were fully charged for general wage increases, even if part of their pay raise was designated a "cost of living" increase but was not based on a predetermined formula.

The catchup category was designed to restore historical relationships between COLA and non-COLA units, where they had existed within a company or an area.

Virtually all non-COLA catchup requests sought relief on these grounds.

Exception decisions

The council approved almost 90 percent of the submissions and granted partial approval in another 5 percent of all cases not closed administratively or withdrawn. Requests were denied in 66 situations representing the remaining 7 percent. The council closed 159 incoming requests, or 15 percent of all cases, without issuing a decision, usually because the unit consisted of fewer than 100 people. In these situations, the company was told it could self-administer the exception and advised to retain documentation of the action. Occasionally the staff advised a company that the council would not approve a request and suggested that the proposed pay increase be reduced and resubmitted, or that the submission be withdrawn, because the increase was not adequately substantiated. Employers had the right to appeal a council decision and did so in 30 of the 66 denials. Twenty of the appeals were able to demonstrate their cause and the council reversed its decision, three were again denied, two were partially approved, and five were withdrawn or administratively closed. As table 2 shows, the council approved about the same proportion of cases in both program years. Partial approvals, however, rose from 2.5 percent of all cases in the first year to almost 9 percent in the second, and denials declined from 8.5 percent to slightly more than 2 percent.

Increases requested and granted

Data on the exception amounts requested and granted and the number of employees involved within individual units were available for 503 requests—294 in the first year and 209 in the second. The amounts of the exceptions varied considerably, from less than 1 percent to more than 20 percent on a per-case basis. A useful measure of the aggregate impact of pay exceptions weights the excepted pay increases by the number of employees affected. This method shows that first-year increases requested averaged 2.1 percent over the 7-percent standard for those employees directly affected, and 1.5 percent when this amount was spread over the entire employee unit. (See table 3.)

Table 2. Exception cases by decision

Decision	First year		Second year		Total	
	Number	Percent	Number	Percent	Number	Percent
Total	684	100.0	358	100.0	1,042	100.0
Approved	505	73.8	264	73.7	769	73.8
Partially approved	17	2.5	31	8.7	48	4.6
Denied	58	8.5	8	2.2	66	6.3
Administratively closed or withdrawn	104	15.2	55	15.3	159	15.3

Table 3. Weighted average above-standard increases requested and granted in pay exception cases, and numbers of employees and cases involved

Pay exception cases	First year	Second year
Percent requested:		
For unit	1.5	2.7
For affected employees	2.1	3.1
Percent granted:		
To unit	1.1	2.4
To affected employees	1.5	2.8
Number of employees:		
In units	840,913	905,868
In affected groups	584,685	748,768
Number of cases	294	209

In some instances, amounts granted were less than amounts requested. If, for example, the information submitted indicated that a lesser increase would suffice to restore a unit's historical position, the council determined that the full amount would not be required. Thus, the average first-year exception amount granted was 1.5 percent for the employees who would directly receive the compensation increases, and about 1 percent when the money was distributed over the entire unit.

Second-year requests and amounts granted in excess of the standard were not only larger absolutely than those for the first year, but were also placed on top of a more generous 9.5-percent pay standard. Second-year amounts granted averaged 2.8 percent for affected employees and 2.4 percent for the entire unit, while amounts requested averaged 3 percent and 2.7 percent, respectively.

Submissions based on non-COLA catchup requested and were granted the largest percentage amounts for entire employee units in both program years. Acute labor shortage exceptions, however, accounted for the highest increases requested and granted for specific employees.

Information concerning the increase amounts approved apparently overstates the impact of exceptions on increases actually paid to employees, because companies did not always implement the full amount of an ap-

proved exception. The council attempted to determine if and how much of the approved increases were actually paid. This was done by checking, when possible, information submitted by companies on the PAY-1 forms. During the first program year, the council requested all companies with 10,000 or more employees to provide on these forms complete data on the average hourly cost of wages and benefits, both on a prospective basis and after actual increases were implemented. In the second year the reporting threshold was dropped to include companies with 5,000 or more workers. Thus, while company data are not available for each exception, the PAY-1 forms do indicate that companies which were granted exceptions did not always find it necessary to implement the full amount requested, or that as a result of unexpected turnover and changes in the composition of the unit, the percentage impact of increases actually granted was smaller than anticipated.

ALTHOUGH THE GENERAL philosophy of those administering and monitoring the 1978-80 voluntary pay guidelines was in keeping with the original anti-inflation objective, it soon became clear that some companies needed relief from what became an absolute standard. Thus, procedures for granting exceptions were developed. While the council received more requests for such exceptions than anticipated—about 1,000 cases covering 2 million workers—this number represented a small fraction of the pay decisions made throughout the entire economy over the same period. Companies seeking exceptions were generally large corporations which had pledged their support of the program and wished to avoid the adverse publicity given noncompliers; firms under price scrutiny; or bidders on large government contracts that required full compliance. □

— FOOTNOTE —

¹ Because cases might appear under more than one category, total may exceed 100 percent.

Public and private pay levels: a comparison in large labor markets

City government workers in major localities earn less than private industry counterparts, but they enjoy comparable leave benefits; since 1975, clerical staff in both sectors have gained ground on Federal employees

FELICE PORTER AND RICHARD L. KELLER

Local government workers in 27 of the Nation's largest cities¹ generally fared less well than those in private industry during the late 1970's, as fiscal constraints tightened municipal purse strings. Despite losing ground to the private sector (and to Federal blue-collar employees), clerical workers in city governments increased their pay advantage over Federal Government clericals whose pay raises in recent years have been "capped" by Presidential decisions. Paralleling patterns in private industry, the highest paying city governments typically were in the North Central States and in the West and the lowest paying were in the South.

These findings are based on an analysis of municipal government wage surveys, conducted by the Bureau of Labor Statistics between the summer of 1974 and fall of 1980, in cities with approximately 500,000 inhabitants or more at the time of the 1970 census.² The surveys covered selected occupations in all functions of each city, except schools and hospitals. However, some functions such as local transit and utilities may be integral parts of one municipal government but handled separately (for example, by private industry) in another. Limitations on comparing data presented in this article include: varying workweeks among city governments; consolidation of city occupational titles; the paucity of city government data for some occupations; differences in the geographic coverage of private industry data,

which pertain to Standard Metropolitan Statistical Areas rather than just to cities; differences in the industrial composition of private industry occupational data; and subtle variations in occupational duties and responsibilities among city governments, private industry, and Federal installations. Notwithstanding the limitations of the data, these surveys provide a base for occupational wage comparisons among city governments and among three components of local labor markets—private industry, the Federal Government, and city government.³

Pay trends

During 1975–80, nearly all city governments studied showed a change in their pay relationships to private industry for clerical or skilled maintenance workers, or both. Over the period, a 4-percent average pay advantage for clerical workers in city governments over their private industry counterparts slipped to a 2-percent disadvantage; and for skilled maintenance workers, an average 7-percent advantage turned into a 3-percent disadvantage. Whereas 13 city governments paid clerical employees at least 3 percent more than private industry in 1975, only eight did so in 1980. For skilled maintenance workers, the number of city governments providing pay advantages over the private sector remained at nine, but they were not necessarily the same governments in both years; the size of the advantages dropped sharply over the period—by 8 percent or more—in each of the seven city governments maintaining advantages between 1975 and 1980. (See table 1.)

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While falling behind private industry, the clerical staff in city governments showed an improved pay picture in relation to their Federal Government counterparts. Their average pay advantage grew from 8 percent in 1975 to 13 percent by 1980; 11 cities recorded at least a 3-percent increase in their pay relationships to the Federal sector, while only four showed a decline of similar magnitude. This contrasts with the experience of city maintenance workers who saw a 6-percent pay advantage over their Federal counterparts turn into a 3-percent disadvantage; maintenance workers in 19 cities recorded a deterioration in their pay position. Largely influencing these inverse trends are the varied wage movements of two different Federal pay systems—the nationwide General Schedule (GS) covering white-collar employees, and the Federal Wage System (FWS) for blue-collar and service workers which is based on prevailing rates in selected local industries. The latter system showed a larger average increase (45 percent) than did the former (38 percent) during 1975–80.

1980 pay comparisons

Municipal governments. Three of the twenty-seven city governments studied during October 1979–September 1980 emerged as pay leaders among the five occupational groupings shown in table 2. Detroit led in three categories—clerical, public safety, and janitorial; Cleveland had the highest pay for skilled maintenance; and San Francisco, for sanitation workers. At the bottom of the array, New Orleans was lowest-paying for clerical and skilled maintenance workers; Baltimore, for public safety; Jacksonville, for sanitation; and San Antonio, for janitorial. However, it should be noted that rankings of individual cities commonly change from year to year, reflecting, in part, variation in the timing and duration of pay adjustments. For example, Philadelphia public safety workers received a 10.265-percent pay increase in fiscal 1979, but none in fiscal 1980. As a result, their relationship to public safety workers in the other cities went from a 4-percent advantage to a 6-percent disadvantage over the year and their ranking among cities dropped from 10th to 16/18th.

Although rankings of specific cities fluctuated over time, the highest-paying city governments were invariably in the North Central or West and the lowest-paying were in the South—a pattern also commonly found in BLS wage surveys of private industry. However, within broad regions pay relationships among city governments tended to vary considerably. This was especially evident in the North Central States, where, for example, the average pay spread for public safety workers was 58 percent between the highest-paying (Detroit) and lowest-paying (Indianapolis) cities studied.

It should be noted that intercity relationships reflect differences in several wage determinants, such as pay administration approaches and procedures, competitive

forces of local labor markets, needs and complexities of the cities, tax structures and financial resources, and the economic power of individual bargaining units. Moreover, within the same city these factors can produce relatively high pay for some groups but not for others. For example, Chicago ranked among the three highest-paying city governments studied for the skilled maintenance, sanitation, and janitorial groups; 6th for public safety; and 21st for clerical workers.

Municipal/private comparisons. Pay levels for the clerical and skilled maintenance groups tended to be lower in

Table 1. Municipal government salaries compared with those in private industry and the Federal Government, selected cities, fiscal 1975 and 1980

City	Clerical				Skilled maintenance			
	Municipal salaries as a percent of:				Municipal salaries as a percent of:			
	Private industry		Federal Government		Private industry		Federal Government	
	1975	1980	1975	1980	1975	1980	1975	1980
All-cities average ¹	104	98	108	113	107	97	106	97
Northeast:								
Boston	106	94	104	100	94	83	84	76
New York	102	(²)	115	(²)	153	138	138	124
Philadelphia	127	116	128	138	95	82	97	88
Pittsburgh	105	105	113	114	109	93	113	96
South:								
Atlanta	105	96	118	113	89	89	94	82
Baltimore	104	87	106	110	90	71	89	73
Dallas	(³)	99	(³)	106	(³)	93	(³)	88
Houston	105	96	103	127	99	89	100	100
Jacksonville	94	94	91	92	80	75	78	74
Memphis	100	94	99	103	124	103	124	103
New Orleans	89	74	85	78	73	71	70	64
San Antonio	(³)	93	(³)	83	(³)	85	(³)	71
Washington, D.C.	86	85	95	98	96	103	100	101
North Central:								
Chicago	95	88	109	106	132	122	144	127
Cleveland	95	100	103	122	182	163	174	171
Columbus	125	112	120	122	101	87	95	85
Detroit	(³)	123	(³)	166	(³)	113	(³)	125
Indianapolis	86	99	81	102	66	63	66	69
Kansas City	91	83	94	98	77	69	78	70
Milwaukee	126	119	131	131	129	110	134	114
St. Louis	112	109	116	118	88	91	91	85
West:								
Denver	99	94	99	108	110	99	99	96
Los Angeles	116	103	124	124	138	125	143	118
Phoenix	95	(⁴)	100	121	97	(⁴)	93	99
San Diego	106	98	108	107	99	94	103	96
San Francisco	113	100	128	129	141	105	145	109
Seattle	109	120	121	139	96	96	100	99

¹ An unweighted average of pay relatives for cities published for both 1974–75 and 1979–80. This included 24 observations for the municipal/Federal comparison of maintenance workers; 23 observations each for the municipal/Federal comparison of clericals and municipal/private industry comparison of maintenance workers; and 22 observations for the municipal/private industry comparison of clerical workers.

² Municipal government data were not comparable to BLS definitions.

³ Municipal Government Wage Survey was not conducted.

⁴ Area Wage Survey was not conducted.

NOTE: Wherever possible, the municipal government to private industry comparisons relate to survey reference months October 1979 through September 1980 (the Federal government's fiscal year 1980); however, for three cities—Chicago, Houston, and Milwaukee—1979 relationships (June for Chicago, September for Houston, and July for Milwaukee) were used because the information necessary to adjust the private industry pay levels to the municipal government survey reference months was not available at the time this article was completed. See "NOTE" to table 2 for more information on the method used for such adjustments. No adjustments were made to compensate for differences in standard work-weeks among sectors. Pay relatives of individual occupations making up the two broad occupational groups are available upon request.

city governments than in private industry. As shown in table 1, city government salaries for clerical workers were at least 3 percent below the private industry average for 12 areas, within 3 percent for 5 areas, and at least 3 percent above for 8 areas. For skilled maintenance workers, the corresponding pay relationships favored private industry in 17 comparisons and city governments in nine comparisons.

For specific occupations, city government to private industry pay relationships often varied widely within the same locality. For example, St. Louis' clerical group was paid 9 percent above comparable workers in private industry, but differences for individual occupations ranged from an 8-percent disadvantage for the city's ex-

perienced key entry (keypunch) operators to a 31-percent advantage for lower-level accounting clerks. Similarly, Washington's maintenance electricians were paid 10 percent less than workers in the private sector but its maintenance painters enjoyed a 25-percent edge over their private sector counterparts. In part, such disparate relationships reflect differences in occupational pay structures between private industry establishments and city governments. For example, the average pay advantage held by electricians over painters in Washington, D.C. private firms employing both was 14 percent; the corresponding wage spread in city government was 2 percent. Survey averages within the private sector highlight an even bigger difference: Maintenance electricians, primarily found in manufacturing industries, averaged 41 percent more than painters, who were employed chiefly in relatively low-paying nonmanufacturing firms in the Washington area.⁴

Municipal/Federal comparisons. Although generally below private industry, city government pay levels for clerical workers typically were above Federal Government scales. As a group, municipal clerical employees in 19 of 26 cities permitting comparison averaged at least 3 percent more than their Federal counterparts (the spread was 20 percent or more in 10 cities); in contrast, a Federal pay edge of at least 3 percent was reported in three southern cities—Jacksonville, New Orleans, and San Antonio. (See table 1.)

As was found for private industry comparisons, municipal government to Federal pay relationships varied widely among the different clerical occupations within the same locality; the spread between the most and the least favorable of these occupational pay relationships commonly exceeded 25 percent.

Similarly, broad differences for individual clerical occupations also existed among localities. For example, Detroit paid 80 percent above the average Federal salary for routine copy typists and Seattle paid 46 percent above, while San Antonio and Kansas City paid 10 and 11 percent below. Such diverse relationships reflect several factors, including differences in salary levels and salary plans among municipal governments, as well as how their workers are distributed among rate range steps that are prevalent in clerical salary plans.

Unlike their clerical coworkers, skilled maintenance employees of city governments typically were at a pay disadvantage to their Federal counterparts. For a composite of three maintenance trades (carpenters, electricians, and painters), 15 city governments paid 4 to 36 percent below Federal Wage System averages reported for installations in or near the cities. However, eight others were above Federal levels, by 3 to 71 percent. Their pay advantages primarily reflected the practice within some city governments of setting pay for mainte-

Table 2. Comparisons of municipal government pay levels in 27 cities, five occupational groups, October 1979–September 1980

[27 city average = 100]

City	Clerical	Skilled maintenance	Public safety	Sanitation	Janitorial
Northeast:					
Boston	91	76	103	...	95
New York	(1)	126	108	115	99
Philadelphia	115	82	94	92	110
Pittsburgh	101	99	94	128	96
South:					
Atlanta	98	86	85	85	74
Baltimore	93	69	81	85	98
Dallas	92	85	102	76	79
Houston	107	98	113	104	89
Jacksonville	82	76	91	70	77
Memphis	94	102	87	72	89
New Orleans	69	60	82	...	...
San Antonio	77	63	90	82	73
Washington, D.C.	91	107	110	122	105
North Central:					
Chicago	90	132	112	139	123
Cleveland	104	184	95	95	101
Columbus	105	85	93	102	112
Detroit	144	138	133	116	151
Indianapolis	87	68	84	80	95
Kansas City	83	73	94	83	82
Milwaukee	112	121	101	108	125
St. Louis	98	86	86	92	89
West:					
Denver	96	98	106	118	102
Los Angeles	114	130	129	115	103
Phoenix	106	98	101	97	107
San Diego	99	93	101	101	98
San Francisco	114	127	113	153	112
Seattle	123	110	120	...	119

¹ Not comparable with BLS definitions.

NOTE: Average pay is expressed as percents of averages for 27 municipal governments combined. The two sets of annual surveys conducted between September 1978 and October 1980 provide benchmarks which may be adjusted to correspond with the survey reference months of municipal governments studied. This involves calculating a percentage wage change for the cities between mid-1979 and mid-1980. Average pay was assumed to change uniformly each month over the total period studied. For a detailed description of this method, see *Area Wage Surveys, Metropolitan Areas, United States and Regional Summaries, 1977*, Bulletin 1950-77 (Bureau of Labor Statistics, 1980).

Also removed were the effects of intercity differences in employment composition within the multijob groups, and the effect of some individual job averages being unavailable for one or more of the cities. Relative pay levels for the clerical group were based on weekly pay, public safety on monthly pay, and skilled maintenance, sanitation, and janitorial on hourly pay. However, no adjustments were made for differences in standard workweeks when calculating the weekly and monthly pay relatives for the clerical and public safety groups. If such differences had been taken into account, a number of the pay relatives would have changed somewhat. For example, pay relatives in Boston would have been 100 for clerical and 113 for public safety employees.

Dashes indicate function is not performed by municipal government or wage data are not convertible to an hourly basis.

nance crafts in relation to local construction rates—typically among the highest blue-collar rates in an area.⁵ Indications are that these ties have loosened, sharply dropping advantages for municipal maintenance workers in these cities. (See table 1.)

Supplementary benefits

Although the pay position of city government workers has slipped in recent years, their benefit packages still compare favorably with those of other workers. A brief comparison of some of the major benefit areas follows.⁶

Paid holiday provisions in large city governments were somewhat more liberal than in the private or Federal Government sectors. During 1979–80, an average of 11 holidays a year was paid nonuniformed workers in the 27 city governments studied, compared with 9.5 days in the local private sector and 9 days throughout the Federal Government. Eighteen of twenty-seven city governments provided at least one more paid holiday than the corresponding private industry average, and 21 city governments exceeded the Federal Government provision. With the exception of Chicago, holiday provisions in city governments studied were the same for white-collar as for trades/labor employees (blue-collar and service workers). (See table 3.)

As indicated in the table, holiday provisions varied widely among the 27 city governments, from 8 days in Dallas to 14.5 days in Detroit. Southern cities, typically the lowest-paying, had fewer holidays than the all-city government average; however, their holiday provisions compared favorably with private industry in that region. Elsewhere, no consistent pattern linking pay levels and holiday provisions was evident.

Paid vacation provisions were similar for workers in city governments and the private sector; both were somewhat less liberal than Federal Government vacation plans. Table 3 shows that typical vacation provisions in city governments were 2 weeks after 1 year of service; 3 weeks after 5 or 10 years; and 4 weeks after 15 years. The more liberal Federal plan, as reflected in the Washington, D.C. figures, calls for 4 weeks of paid vacation after 3 years, and 5 weeks after 15 years.

City governments varied widely in terms of amount of vacation offered and service requirements. After 15 years of service, for example, three cities studied—Columbus, New York, and Washington—provided at least 5 weeks of vacation; eight other cities provided only 3 weeks after 15 years, all except one (San Antonio) granting a 4th week or more by the workers' 25th year of service. No direct correlation was found between city pay levels and vacation provisions or between city holiday and vacation provisions.

Table 3. Paid holiday and vacation provisions of nonuniformed workers in 27 city governments, fiscal 1980

City	Annual paid holidays	Annual days of paid vacation after specified years of service					
		1 year	5 years	10 years	15 years	20 years	25 years ¹
All-city average ²	10.9	11.2	13.0	16.3	19.1	21.2	22.3
Northeast:							
Boston	13	10	15	20	20	25	25
New York	11	15	20	25	27	27	27
Philadelphia	14	10	10	15	20	20	20
Pittsburgh	13	10	15	15	20	25	25
South:							
Atlanta	9	10	10	10	15	15	20
Baltimore	10	12	12	15	21	24	24
Dallas	8	10	10	15	15	20	20
Houston	10.5	10	10	15	20	22	22
Jacksonville	10						
Memphis	10	10	10	15	20	22	25
New Orleans	10	13	21	21	21	21	21
San Antonio	10	13	13	13	15	15	15
Washington, D.C.	10	13	20	20	26	26	26
North Central:							
Chicago	12 ³	10	10	15	20	20	20
Cleveland	11	10	10	15	20	20	25
Columbus	9	16	16	23	26	28	30
Detroit	14.5	10	10	17	20	20	20
Indianapolis	12	10	10	15	20	20	20
Kansas City	9	10	10	15	15	20	20
Milwaukee	10	10	10	15	15	20	25
St. Louis	14	10	15	15	20	25	25
West:							
Denver	9	15	15	18	18	18	18
Los Angeles	11.5	10	15	15	15	20	20
Phoenix	11.5	12	12	15	15	18	21
San Diego	9	10	10	15	15	20	20
San Francisco	12	10	15	15	20	20	20
Seattle	11	12	15	16	18	20	25

¹ Provisions were the same or virtually the same after longer periods of service.

² An unweighted average of the city data shown.

³ Chicago was the only city studied where paid holiday provisions varied substantially between white collar and trades/labor employees; the former group received 12 days and the latter group, 7 days a year.

NOTE: Personal leave, sick leave, and other types of paid leave arrangements (for example, funeral leave) were not included in the data shown here. Dashes indicate that paid vacation provisions for Jacksonville were not separable from sick leave.

Health, insurance, and retirement coverage is available to virtually all employees in large labor markets. However, the provisions of these plans vary greatly. To cite examples, life and health coverage are usually provided to city government and private industry workers without cost to them; this contrasts with Federal workers who contribute 25 to 50 percent of the total cost of their plans. In the retirement benefit area, monthly annuity benefits under the most generous city government pension plans were more than double those paid under the least generous plan. Compared with municipal plans studied, the Federal Government's normal retirement benefits program falls slightly below average; it yields 46 percent of pension base earnings after 25 years of service and age 60, and 56 percent after 30 years and age 55, while the municipal plans studied commonly yield 50 percent for 25 years and 60 percent following 30 years of service (with comparable ages). Many additional factors must be considered when fully evaluating

private and public benefit plans, including dollar amounts and types of benefits covered by health and in-

surance plans, as well as pension base formulas, benefit options, and cost-of-living adjustments to annuities. □

— FOOTNOTES —

¹ However, in 1974-75, data were available for only 24 cities; those excluded were Dallas, Detroit, and San Antonio.

² See also Stephen H. Perloff, "Comparing municipal salaries with industry and Federal pay," *Monthly Labor Review*, October 1971, pp. 46-50; and Charles Field V and Richard L. Keller, "How salaries of large cities compare with industry and Federal pay," *Monthly Labor Review*, November 1976, pp. 23-28. Twenty-seven cities fell within scope of these surveys (including Atlanta with slightly less than 500,000 inhabitants). Although cities of 500,000 inhabitants or more are only 1 in 700 municipalities, they accounted for 43 percent of the \$31.7 billion spent on salaries and wages by the nearly 19,000 city governments in fiscal 1979. See *City Government Finances in 1978-79* Series GF 79, No. 4 (Washington, Bureau of the Census, 1980).

³ Private industry data in this article are from the BLS annual wage survey program conducted in 70 metropolitan areas. In each area, data are obtained from representative establishments within six broad industry divisions: manufacturing; transportation, communications, and other public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and selected services. Major groups excluded from these studies are government operations and the construction and mining industries. Small establishments, defined as those with fewer than 100 workers in the 13 largest metropolitan areas and those with fewer than 50 workers elsewhere, are excluded from area wage surveys. Data for Federal workers refer to pay under the nationwide General Schedule (GS) for white-collar employees and the localized Federal Wage System (FWS) for blue-collar employees.

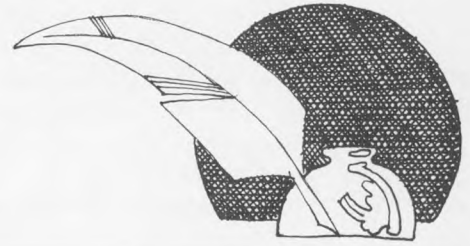
Nine clerical and three maintenance occupations, each equating to a single grade in either the GS or FWS, made up the two broad occupational groups compared within the labor markets studied. As a criterion for inclusion in the broad groups, the following jobs produced

publishable data for at least half of the city governments studied: *Clerical*—accounting clerks A and B, key entry operators A and B, messengers, general and senior stenographers, and typists A and B; *Maintenance*—carpenters, electricians, and painters. Three additional occupational groups were added in the analysis of pay levels among city governments: *Janitorial*—janitors, porters, and cleaners; *Public Safety*—firefighters, police officers, and police sergeants; and *Sanitation*—refuse collectors and refuse truckdrivers.

⁴ See *Area Wage Survey: Washington, D.C.-Md.-Va. Area, March 1980*, Bulletin 3000-4 (Bureau of Labor Statistics, 1980), pp. 11 and 13; and *Municipal Government Wage Surveys: Washington, D.C., October 1979*, Regional Report 45 (Bureau of Labor Statistics, 1980), p. 9.

⁵ An examination of the Bureau's quarterly reports on basic union rates for building trades workers in Municipal Government Wage Survey cities verifies this analysis. For each of the eight cities tying pay to prevailing construction rates, the differential between maintenance workers in city governments and similar craftworkers in unionized building trades was relatively small, topping out at about 25 percent; for the other 19 cities, the typical spread was at least 50 percent, with only one city—Washington—as low as 25 percent. Comparisons were based on union wage rates in effect within 2 months of the reference date for each 1979-80 city government survey.

⁶ For detailed accounts on employee benefits and other employee practices, see individual reports for the municipal governments studied; copies are available from BLS regional offices. These reports provide information on unionization; pay plans and salary structures; frequency of wage payment; scheduled workweeks; premium pay practices for overtime and shift differentials; and paid leave and health insurance, and retirement plans.



Inflation and early retirement: recent longitudinal findings

HERBERT S. PARNES

The long-run decline in the extent of work activity by middle aged and older men is well known. Between 1948 and 1979, the labor force participation rate of men 65 and older dropped from 47 to 20 percent and among men 55 to 64 from 90 to 73 percent.¹ The persistent trend toward earlier retirement, together with prospective increases in the proportion of older persons in the population, poses financial problems for the social security system and has generated fears that society will be unable or unwilling to bear an increasing burden of adult dependency.²

It is not clear, however, whether the trend toward earlier retirement will continue. Obviously it can be halted or reversed by policy measures such as an increase in the normal retirement age under the Social Security Act. Although this has been suggested, it may be politically difficult to implement.³ Keeping older men in the labor force was one of the arguments made in favor of the 1978 amendments to the Age Discrimination in Employment Act, which raised the minimum mandatory retirement age from 65 to 70. But the effect of this change, alone, is likely to be minimal.⁴ However, it is possible that retirement decisions will be modified even in the absence of legislative changes, by economic circumstance. Some observers have asserted that continuation of high inflation will tend to discourage retirement,⁵ because although social security benefits are fully tied to the Consumer Price Index (CPI), private pension plans almost invariably are not.

The results of a 1978 Louis Harris poll have frequently been cited in this context. The survey found that 49 percent of a national sample of employees in-

tended to continue working beyond the normal retirement age; that among those age 50 to 64, 48 percent expressed a desire to work beyond age 65; and that 46 percent of a national sample of retirees would prefer to be working.⁶ In testifying before the Select Committee on Aging of the House of Representatives, Harris concluded that the trend toward earlier retirement appeared to be reversing,⁷ with "more people postponing retirement."

Data that have recently become available from the 1978 National Longitudinal Survey of Middle Aged and Older Men (NLS)⁸ shed some light on this issue. Specifically, we are able to observe the changes that occurred between 1976 and 1978 in the retirement status and expectations of a representative national sample of men who were between the ages of 57 and 64 in 1978 and in the attitudes toward work and retirement of a representative national sample of retirees who in 1978 ranged between age 57 and 71. The story told by these data is quite different from that conveyed by the Harris survey, although the NLS survey was taken at about the same time.

NLS findings, 1966-76

As a backdrop against which to interpret the 1978 data, it is useful to review briefly the relevant findings from the surveys of the same sample of men between 1966 and 1976. During that time, the labor force participation rate of the 3,458 sample members, who by 1976 were 55 to 69 years of age, had dropped from 96 to 63 percent.⁹ Moreover, among men who had not yet reached 65, the proportion who were already retired or who expected to retire before 65 grew from about 26 percent in 1966 to 38 percent in 1971, and to 51 percent in 1976.¹⁰ By 1976, 1,600 members of the sample were retired, in the sense of having reported in one of the six surveys conducted during the 10-year period that they had "already stopped working at a regular job." Of these, only 3 percent, or 5 percent in the case of those age 65 to 69, had been unwillingly removed from jobs by mandatory retirement plans; 51 percent had retired because of failing health; and 46 percent had freely chosen to retire.¹¹

Less than 20 percent of the total group of retirees were employed at the time of the 1976 survey, primarily

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part time. Of those not in the labor market, less than 2 percent explained their absence by the belief that they could not find work. Only 3 percent said unconditionally that they would accept job offers in their local areas, while 85 percent indicated categorically that they would not, 44 percent because of health, the remainder because they simply did not choose to work.

Although family income of the retirees in 1975 averaged 40 percent below the preretirement level in constant purchasing power, large majorities were reasonably satisfied with their lot. Four-fifths reported in 1976 that their preretirement expectations had been fulfilled or exceeded. About three-fourths claimed that they would retire at the same or an earlier age if they had the decision to make again. A majority said that they were "very happy" with their lives, and only a tenth admitted to being "somewhat" or "very" unhappy. Excluding those who retired for health reasons, the remainder expressed as much satisfaction with various facets of their lives as men with the same amount of education who had continued to work.

On this basis, it seems that raising or eliminating the mandatory retirement age, however desirable, will have no substantial effect on labor force participation rates of older workers. It also seems that there is unlikely to be a reversal of the trend toward early retirement unless there are changes in institutional arrangements that encourage retirement prior to age 65. However, there is some uncertainty on this point if current high rates of inflation persist.¹²

The 1978 survey

When the NLS sample was interviewed for the eighth time in 1978, the original sample of 5,020 men had shrunk to 3,219. More than half of the 36-percent attri-

tion rate, 20 percent of the total, was attributable to death. Of the 1,367 who reported in 1976 that they were retired,¹³ 1,217 were reinterviewed two years later. There were 470 additional retirements during the 2-year interval. Thus, we are able to ascertain what changes, if any, occurred in labor market participation and attitudes of an identical group of men who were retired in both years, and to compare their 1978 responses with those of the group newly retired between 1976 and 1978. It is also possible to compare the retirement status and expectations of identical samples of men in 1976 and 1978.

Trend in early retirement. Is fear of inflation likely to choke early retirement? Members of the NLS sample are asked in each survey at what age they expect to retire from a regular job. Of the 1,954 members of the sample who were under age 65 in 1978, the proportion already retired or expecting to do so continued to rise between 1976 and 1978, from 51 percent to 55 percent (table 1). Because corresponding increases over the 5-year periods 1966-71 and 1971-76 were 12 and 13 percentage points, the 4-point increase over the 1976-78 period is not far below the trend line. Although not shown here, the pattern for both black men and white men, and for three age categories of men were similar.¹⁴

Even more pronounced is the trend evidenced by the 229 respondents who in both 1976 and 1978 were employed in jobs covered by mandatory retirement plans. They were asked in each survey whether they would work beyond the mandatory retirement age if they could. In 1976, 26 percent of the men expressed the desire to work longer, while about half expected to retire before the mandatory retirement age. The remainder either expected to retire at the mandatory age, 16 percent, or were uncertain about what they would do, 6 percent. By 1978, only 17 percent said they would like to work longer than the age of mandatory retirement, a decrease of 9 percentage points, while 58 percent expected to retire before that age, an increase of 7 percentage points.

Labor market activity of retirees. Between 1976 and 1978, there was no change in the labor force participation rate of the approximately 1,200 men who retired during 1966-76 and who were reinterviewed in 1978. About 10 percent were in the labor force at the times of each of the two surveys.¹⁵ Among the 1976-78 retirees who were reinterviewed in 1978, 13 percent were in the labor force.

Nor was there any substantial change in the degree of interest in work (table 2). About 83 percent of the 1976 retirees who were out of the labor force had said categorically that they would not accept a job offer in the area, and the proportion was identical in 1978. Howev-

Table 1. Retirement expectations in 1976 and 1978 of men under age 65 in 1978, and attitude toward retirement of employed men covered under mandatory retirement plans, 1976 and 1978

[In percent]

Characteristic	1976	1978
Expected age of retirement		
Number surveyed	1,954	1,954
Already retired	20	34
Under 65	31	21
65	25	18
Over 65	4	4
Never	10	10
Don't know	10	12
Attitude		
Number surveyed	229	229
Would like to work beyond mandatory age	26	17
Expect to retire at mandatory age	16	19
Expect to retire before mandatory age	51	58
Don't know	6	6

SOURCE: National Longitudinal Surveys. Tabulation of responses of the identical group of men interviewed in 1976 and 1978.

Table 2. Reaction to hypothetical job offer in 1976 and 1978 by 1976 retirees and in 1978 by 1976-78 retirees

[In percent]

Reaction	1976 retirees		1976-78 retirees
	1976	1978	1978
Number surveyed	1,098	1,098	445
Would definitely accept	3	6	5
Might accept	14	11	20
Would not accept: health	40	40	33
Would not accept: other	43	43	42

¹Includes 4 percent who were either working or seeking work at the time of the 1978 survey.

SOURCE: National Longitudinal Surveys. The 1976 retirees are respondents who reported in that year that they had already retired from a regular job and who were not in the labor force in 1976. In 1976-78 retirees are men who reported retiring between 1976 and 1978 and who were not in the labor force in 1978.

er, whereas only 3 percent of the group had said in 1976 that they would definitely take such a job, by 1978 the proportion who responded in this way or who were actually in the labor force had grown to 6 percent, a 3-percentage-point increase. Among the newly retired, the proportion responding affirmatively to the job-offer question was 5 percent, and respondents who would definitely turn it down was only 75 percent, 8 percentage points lower than among the 1976 retirees.

Retiree evaluation of retirement. There was very little change between 1976 and 1978 in the retirees' perception of retirement relative to their *a priori* expectations (table 3). However, the slight change that occurred was in the direction of greater disappointment. The proportion of the 1,102 retirees interviewed in both years who said that retirement did not meet their expectations grew from 19 to 23 percent, and the proportion who evaluated their experience as much better than they had expected shrank from 13 to 11 percent. On the other hand, the number whose experience exceeded their expectations grew by one percentage point. In both years, 3 in 4 of the retirees reported that their retirement experience was at least as good as they had anticipated.

There was, nevertheless, a substantial shift in the retirees' evaluation of their standard of living between 1976 and 1978. The proportion reporting themselves as "very happy" with this aspect of their lives dropped from 50 percent to 36 percent. Almost all of the decrease reflected a shift from "very" to "somewhat" happy. The proportion expressing unhappiness with their economic situation grew only slightly, from 13 to 15 percent.

Conclusions

This evidence does not provide a definitive indication of the potential effects of continuing high rates of inflation on retirement decisions. The 15-percent rise in the CPI over the 2-year period, while substantial compared with the average for the post World War II period, was

only about half as great as the rise over the two subsequent years. Nevertheless, even by 1976 the term "double-digit inflation" had leaped into the vocabularies of Americans after the CPI rose 11 percent between 1973 and 1974. A man contemplating retirement would have had to be almost completely insensitive to his environment not to be concerned about the implications of rising prices.

In any case, the conclusions drawn from the widely cited Harris poll of 1978 are not confirmed by the NLS data. Philip Rones has recently advanced several possible explanations for the results of the Harris poll, including the possibility that inflation had by 1978 created greater interest in working among retirees than had existed as recently as 4 or 5 years earlier.¹⁶ The present data make this explanation suspect. The trend toward earlier retirement that had been discernible in the longitudinal data between 1966 and 1976 continued without interruption between 1976 and 1978. Moreover, men who had been retired in 1976 showed only slightly more interest in postretirement jobs in 1978 than they had in 1976. And even the more recent retirees, those who had retired between 1976 and 1978, were only slightly more likely to be working, 13 percent versus 10 percent. Retirees were not unmindful of the impact of rising prices, but the chief manifestation of their concern was in the expression of less satisfaction with their economic circumstances. Our evidence is basically consistent with that reported by James N. Morgan on the basis of the 1979 wave of the Panel Survey of Income Dynamics. He reported that "even the few who said that inflation had affected their retirement ideas were indicating that it affected their feelings rather than their actions or plans."¹⁷

Wisdom requires ending on a note of caution. It is easier to describe the past than to predict the future.

Table 3. The 1976 retirees' evaluation of retirement relative to expectations and satisfaction with standard of living, 1976 and 1978

[In percent]

Evaluation	1976	1978
Expectation		
Number surveyed	1,102	1,102
Much better	13	11
Somewhat better	9	12
About same	59	53
Somewhat worse	13	16
Much worse	6	7
Degree of satisfaction		
Number surveyed	1,102	1,102
Very happy	50	36
Somewhat happy	38	50
Somewhat unhappy	10	11
Very unhappy	3	4

SOURCE: National Longitudinal Surveys. Tabulations of responses of the identical group of retirees in 1976 and 1978.

Table 4. Average civilian labor force participation rates of men age 55-64 and age 65 and older, by race, January-September, 1979 and 1980

[In percent]

Age and race	January-September 1979	January-September 1980
All men		
55-64	73.1	72.5
65 and over	20.2	19.2
White		
55-64	73.7	73.4
65 and over	20.2	19.4
Black and other		
55-64	67.1	62.9
65 and over	19.4	17.6

SOURCE: Calculated from data in *Employment and Earnings*, February-October, 1979, 1980.

Moreover, in this case, the past is already 2 years old. The results of the 1980 and 1981 surveys of the NLS sample will be awaited eagerly, for they contain even richer materials on post-retirement attitudes. Nevertheless, it is worth noting that even through 1980 there was no evidence in official labor force statistics of a reversal of the trend that has characterized the past decade (table 4). During the first three quarters of 1980, the labor force participation rate of men age 65 and over was 19.2 percent, 1 percentage point lower than in the corresponding period of 1979. For men age 55 to 64 the participation rate dropped 0.6 point, to 72.5. The decreases were considerably more pronounced among black men, 4.2 percentage points among those age 55 to 64 and 1.8 percentage points among those 65 and older. □

FOOTNOTES

¹ Data are from the *Employment and Training Report of the President* (Washington, Government Printing Office, 1980), table A-2.

² See Harold Sheppard and Sara Rix, *The Graying of Working Americans: The Coming Crisis of Retirement Age Policy* (New York, The Free Press, 1977), chapters 1 and 2.

³ A recent version of this proposal was made by the 1979 Advisory Council on Social Security, which recommended legislation that would raise the normal retirement age by two months annually commencing in the year 2000 and ending in 2018, at which time it would stand at 68. The minimum age for actuarially reduced benefits would rise from 62 to 65. A similar proposal has been made more recently by the President's Commission on Pension Policy. See Advisory Council on Social Security, *Social Security Financing and Benefits* (Washington, Social Security Administration, 1980).

⁴ See Herbert S. Parnes and Gilbert Nestel, "The Retirement Experience," in Parnes et al., *Work and Retirement Data: a Longitudinal Study of Men* (Cambridge, MIT Press, 1981), Chapter 6.

⁵ See, for example, J.W. Walker, "Will Early Retirement Retire Early?" *Personnel* January-February 1976, pp. 33-39.

⁶ The Harris report is reproduced in its entirety in *American Attitudes toward Pensions and Retirement*, hearing before the Select Committee on Aging, House of Representatives, 96th Congress, First session, Feb. 28, 1979, pp. 12, 80-81.

⁷ *American Attitudes*, p. 11.

⁸ For a detailed description of the National Longitudinal Surveys, see *The National Longitudinal Surveys Handbook* (Columbus, Ohio State University, Center for Human Resource Research, 1980).

⁹ See Herbert S. Parnes, Lawrence Less, and Gilbert Nestel, *Work and Retirement Data: National Longitudinal Surveys of Middle-Aged and Older Men* (Columbus, Ohio State University, Center for Human Resource Research, 1980), p. 48.

¹⁰ *Work and Retirement Data*, p. 138.

¹¹ "The Retirement Experience," pp. 204-05.

¹² "The Retirement Experience," p. 269.

¹³ This number is smaller than that of the 1,600 NLS respondents who retired during 1966-76 because it excludes those who had reported themselves retired in a previous survey but not in the 1976 survey.

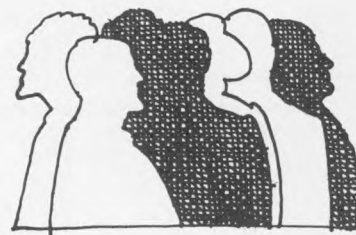
¹⁴ Race and age breakdowns were originally obtained in all tabulations. None of them are shown since there were no exceptions to the generalizations yielded by the aggregated data.

¹⁵ The rate for 1976 differs from that reported in the 1966-76 NLS findings because the data here exclude men who had earlier reported themselves retired but who did not so report themselves in the 1976 survey. See footnote 13.

¹⁶ See Philip L. Rones, "The retirement decision: a question of opportunity?" *Monthly Labor Review*, November 1980, p. 16.

¹⁷ See James N. Morgan, "Antecedents and Consequences of Retirement," preliminary draft of Chapter 7 in *Five Thousand American Families*, Vol. 9 (Ann Arbor, University of Michigan, Survey Research Center, 1980).

Special Labor Force Reports—Summaries



Labor force activity among students, graduates, and dropouts in 1980

ANNE MCDUGALL YOUNG

The number of young people in the population and the labor force was virtually unchanged over the year ending in October 1980. After two decades of annual increases, the total of youths age 16 to 24 had leveled off, as most members of the post-World War II baby boom had already reached age 25. More than 24 million were either working or looking for work—47.5 percent in school and 81.8 percent out of school. (See table 1.)

Reflecting the sluggish economy, unemployment among young men and women was generally higher in October 1980 than a year earlier, with a particularly large increase among high school dropouts.¹ The jobless rate for dropouts was 25.3 percent, 6 percentage points higher than in October 1979 and equal to the previous high reached in 1975. The increase was larger for men than for women and was particularly sharp for blacks. The unemployment rate for black dropouts was about 44 percent in October 1980, up from 32 percent a year earlier.

For youths who were no longer in school but who had at least a high school education, the effects of the economic slowdown were mixed. The year-to-year increase in unemployment rates among graduates was generally smaller than among dropouts and affected only men. The unemployment rate of college graduates showed no significant change. Altogether, unemployed out-of-school youths numbered 2.4 million in October 1980, accounting for almost one third of all jobless persons. In addition, nearly 1 million students were looking for a job, a number not significantly different from that of a year earlier.

Recent high school graduates and dropouts

Nearly half of the June 1980 high school graduates were enrolled in college as of October, the same proportion as in 1979. A higher proportion of female than

male graduates was enrolled—a reversal of the usual pattern. (See table 2.) The proportion of blacks enrolled was 43 percent, the third year of decline in their college attendance.

For those in college, labor force participation and unemployment rates were about the same as a year earlier. For those who had not gone on to college, labor force participation rates were also about the same as in 1979, but the male unemployment rate was much higher than a year earlier, 19.0 percent compared to 13.8 percent. The female unemployment rate was about the same as a year earlier.

About 740,000 young people, 16 to 24, dropped out of high school during the year. Half were 16 or 17. Almost 6 of 10 were men, who were especially affected by the recession. Their unemployment rate was 30.5 percent compared with 18.7 percent a year earlier. The majority of dropouts were in the labor force but their participation rate was substantially lower than that of high school graduates not in college (64 percent versus 85 percent) and their unemployment rate much higher (31.6 percent versus 18.0 percent).

Hours of work

School enrollment status remains a major determinant of the number of hours young people work.² Usually, high school students and full-time college students work only part time—on average less than 20 hours per week—to fit their classroom schedules. This was true of the average weekly hours of students employed in nonagricultural industries in October 1980:

	<i>Men</i>	<i>Women</i>
High school	15.8	14.1
College, full time	19.7	17.4
College, part time	36.3	34.0

Some of the difference between the hours worked by men and women was due to the large proportion of male students at the upper end of the age scale in both high school and college. For example, 62 percent of the male, full-time college students were 20 to 24 years old, compared with 53 percent of the women. Part-time college students (those taking fewer than 12 semester hours of classes) were generally older than the full-time students; almost 80 percent were 20 to 24 compared with 57 percent of the full-time students. One in 5 was

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Table 1. Employment status of persons 16 to 24 years old, by school enrollment status, educational attainment, sex and race, 1979 and 1980

[Numbers in thousands]

Characteristics	Civilian noninstitutional population		Civilian labor force									
			Number		Labor force participation rate		Employed		Unemployed			
	1979	1980	1979	1980	1979	1980	1979	1980	Number		Unemployment rate	
									1979	1980	1979	1980
Total, 16 to 24 years old	36,131	36,143	24,340	24,266	67.4	67.1	21,556	20,897	2,785	3,368	11.5	13.9
ENROLLED												
Total	15,262	15,363	7,341	7,298	48.1	47.5	6,392	6,302	949	996	12.9	13.6
16 to 19 years	10,972	10,917	4,883	4,760	44.5	43.6	4,143	3,970	739	790	15.1	16.6
20 to 24 years	4,290	4,446	2,458	2,538	57.3	57.1	2,249	2,332	210	206	8.5	8.1
Men	7,861	7,798	3,802	3,731	48.4	47.8	3,295	3,173	506	557	13.3	14.9
Women	7,402	7,566	3,539	3,568	47.8	47.2	3,093	3,130	445	441	12.6	12.4
White	12,921	13,011	6,594	6,576	51.0	50.5	5,868	5,786	726	791	11.0	12.0
Black	2,006	1,979	622	572	31.0	28.9	409	389	213	184	34.2	32.2
Elementary and high school	7,971	7,894	3,628	3,401	45.6	43.1	3,021	2,755	607	643	16.7	18.9
Men	4,233	4,102	1,985	1,836	47.0	44.8	1,668	1,470	317	364	16.0	19.8
Women	3,738	3,792	1,643	1,565	44.0	41.3	1,353	1,285	290	279	17.7	17.9
White	6,556	6,469	3,268	3,058	49.8	47.3	2,811	2,546	458	511	14.0	16.7
Black	1,266	1,261	319	284	25.1	22.5	177	168	143	115	44.8	40.5
Hispanic origin	483	559	143	179	29.6	32.0	107	137	37	43	25.8	24.0
College	7,291	7,470	3,711	3,897	50.9	52.2	3,368	3,541	345	353	9.3	9.1
Men	3,628	3,697	1,816	1,895	50.1	51.3	1,629	1,701	189	192	10.4	10.1
Women	3,663	3,773	1,895	2,002	51.7	53.1	1,739	1,840	156	161	8.2	8.0
Full-time students	6,079	6,237	2,608	2,786	42.9	44.7	2,315	2,496	293	291	11.2	10.4
Part-time students	1,213	1,233	1,103	1,111	90.9	90.1	1,053	1,045	50	62	4.5	5.6
White	6,365	6,543	3,327	3,518	52.3	53.8	3,057	3,238	269	278	8.1	7.9
Black	741	719	302	287	40.8	39.9	234	220	68	67	22.5	23.3
Hispanic origin	311	326	150	187	48.2	57.4	134	163	17	24	11.3	12.8
NOT ENROLLED												
Total	20,869	20,780	16,999	16,968	81.5	81.8	15,164	14,595	1,836	2,372	10.8	14.0
High school dropouts	5,263	5,084	3,512	3,430	66.7	67.5	2,845	2,563	667	867	19.0	25.3
Men	2,650	2,672	2,248	2,242	84.8	83.9	1,892	1,715	356	527	15.8	23.5
Women	2,614	2,412	1,264	1,188	48.4	49.3	953	848	311	340	24.6	28.6
16 to 19 years	2,085	1,993	1,344	1,279	64.5	64.2	1,036	907	308	372	22.9	29.1
20 to 24 years	3,178	3,093	2,168	2,148	68.2	69.4	1,809	1,655	359	493	16.6	23.0
White	4,167	4,065	2,873	2,859	68.9	70.3	2,402	2,239	471	621	16.4	21.7
Black	988	910	565	513	57.2	56.4	386	287	179	226	31.7	44.1
Hispanic origin	758	885	521	592	68.7	66.9	437	489	84	103	16.1	17.4
High school graduates	15,604	15,695	13,488	13,541	86.4	86.3	12,322	12,033	1,166	1,508	8.6	11.1
Men	7,197	7,245	6,863	6,868	95.4	94.8	6,359	6,029	504	839	7.3	12.2
Women	8,407	8,450	6,625	6,673	78.8	79.0	5,962	6,004	663	669	10.0	10.0
White	13,653	13,598	11,940	11,895	87.5	87.5	11,050	10,751	890	1,144	7.6	9.6
Black	1,675	1,821	1,325	1,438	79.1	79.0	1,068	1,093	257	345	19.4	24.0
Hispanic origin	691	748	573	606	82.9	81.0	512	548	61	58	10.6	9.7
High school, no college	11,094	11,318	9,382	9,541	84.6	84.3	8,460	8,347	922	1,194	9.8	12.5
College, 1 to 3 years	3,017	2,947	2,683	2,635	88.9	89.4	2,509	2,403	174	232	6.4	8.8
College graduates	1,493	1,430	1,423	1,362	95.2	95.2	1,352	1,282	71	80	5.0	5.9

NOTE: Because of rounding, sums of individual items may not equal totals.

married, compared to 1 in 16 full-time students. The largest number of part-time students was enrolled in evening classes in business and management, which make up the bulk of courses offered in "off" hours by educational institutions.

Having left school behind, at least for the moment, most male high school graduates were working full time. Half worked 35 to 40 hours and a third worked

41 hours or more, the same proportions as among men 25 and over. (See table 3.) On the other hand, the female graduates worked somewhat longer hours than older women, with relatively more of the younger women working a standard work week of 35 to 40 hours. This was probably because younger women are, on average, less encumbered by family responsibilities than older women. A high school diploma also gave these

women an advantage over some of the older women in the work force, 20 percent of whom had not completed high school.³

The high school dropouts who had full-time jobs were about as likely as graduates to work a standard workweek. However, the remaining dropouts were less likely to work overtime (41 hours or more) and more likely to work part time. The difference was greater among women—45 percent of the dropouts worked 35 hours or less compared to 29 percent of the graduates.

Much of the variation in working hours can be traced to the large proportion of employed dropouts who were 16 or 17 years old—11 percent of the men and 12 percent of the women. Less than 1 percent of the employed

Table 2. School enrollment and labor force status of 1980 high school graduates and 1979–80 school dropouts 16 to 24 years old, by sex and race, October 1980

[Numbers in thousands]

Characteristic	Civilian noninstitutional population	Civilian labor force				
		Number	Labor force participation rate	Employed	Unemployed	
					Number	Unemployment rate
Total, 1980 high school graduates	3,089	1,992	64.5	1,657	335	16.8
Men	1,500	1,027	68.5	842	185	18.0
Women	1,589	965	60.7	815	150	15.5
White	2,678	1,778	66.4	1,526	252	14.2
Black	354	184	52.0	106	78	42.4
Hispanic origin	129	80	62.0	65	15	18.8
Enrolled in college	1,524	662	43.4	579	83	12.5
Men	701	311	44.4	262	49	15.8
Women	823	351	42.6	317	34	9.7
Full-time students	1,396	557	39.9	481	76	13.6
Part-time students	128	105	82.0	98	7	6.7
White	1,339	606	45.3	529	77	12.7
Black	151	40	26.5	36	4	(¹)
Hispanic origin	68	30	(¹)	24	6	(¹)
Not enrolled in college	1,565	1,330	85.0	1,078	252	18.9
Men	799	716	89.6	580	136	19.0
Women	766	614	80.2	498	116	18.9
White	1,339	1,172	87.5	997	175	14.9
Black	203	144	70.9	70	74	51.4
Hispanic origin	61	50	(¹)	41	9	(¹)
Total, 1979–80 school dropouts ²	739	471	63.7	322	149	31.6
Men	422	305	72.3	212	93	30.5
Women	317	166	52.4	110	56	33.7
White	580	392	67.6	286	106	27.0
Black	146	73	50.0	33	40	(¹)
Hispanic origin	91	60	65.9	43	17	(¹)

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

² Persons who dropped out of school between October 1979 and October 1980. In addition, 76,000 persons 14 and 15 years old dropped out of school.

Table 3. Hours worked in nonagricultural industries by persons 16 to 24 years old not enrolled in school, and by persons 25 years and over, by sex, October 1980

[Numbers in thousands]

Hours worked:	Persons 16 to 24 not enrolled in school			
	Total		High school graduates	
	Men	Women	Men	Women
Persons at work ¹ :				
Number	7,059	6,538	5,536	5,747
Percent	100.0	100.0	100.0	100.0
Hours worked:				
41 or more	31.0	13.2	32.5	14.0
35 to 40	51.7	56.2	51.8	57.4
Under 35	17.2	30.6	15.8	28.6
For economic reasons	7.7	9.3	6.3	7.9
For other reasons	9.6	21.3	9.5	20.7
	Persons 16 to 24 not enrolled in school		Total, 25 years and over	
	High school dropouts			
	Men	Women	Men	Women
Persons at work ¹ :				
Number	1,523	791	41,114	29,618
Percent	100.0	100.0	100.00	100.00
Hours worked:				
41 or more	25.5	7.3	35.7	14.7
35 to 40	51.7	47.4	49.4	50.7
Under 35	22.8	45.1	14.8	34.8
For economic reasons	12.8	19.1	2.7	4.7
For other reasons	10.0	25.9	12.1	30.1

¹ Does not include employed persons who were sick or on vacation.

graduates were that young. Some young dropouts were at a disadvantage in competing for certain full-time jobs that are restricted by law to persons over age 18, such as those involving motor vehicle operation and some construction occupations.⁴ Their difficulty in the labor market was also reflected in the greater proportion of dropouts than graduates who worked fewer than 35 hours because they could not get full-time work. □

FOOTNOTES

¹ This report is based primarily on supplementary questions in the October 1980 Current Population Survey, conducted and tabulated for the Bureau of Labor Statistics by the Bureau of the Census. Most data relate to persons 16 to 24 years of age in the civilian non-institutional population in the calendar week ending October 18, 1980.

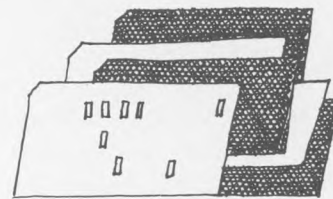
Sampling variability may be relatively large in cases where the numbers are small. Small estimates, or small differences between estimates, should be interpreted with caution.

The most recent report in this series was published in the *Monthly Labor Review*, September 1980, pp. 44–47, and reprinted as Special Labor Force Report 241.

² The importance of school enrollment in the labor force activity of youth has been recognized in the planned revision of the Current Population Survey. As of 1983, the survey will include information on school enrollment each month instead of once a year in October.

³ Unpublished data on educational attainment of the labor force from the March 1980 supplement to the Current Population Survey.

⁴ Fair Labor Standards Act of 1938, as amended (29 U.S.C. 201, et seq.).



On-the-job training: differences by race and sex

SAUL D. HOFFMAN

Wages of blacks and women are still substantially lower than those for white men. The latest figures for the third quarter of 1980 showed that for full-time wage-and-salary workers, median weekly earnings for black men were about 75 percent of those for white men; the corresponding figures were 63 percent for white women and 58 percent for black women. Careful studies of differences in earnings by race and sex suggest that a sizable portion of the observed differences—perhaps half or more—are *unexplained* by underlying race/sex differences in the average level of apparent worker skills such as education and work experience.¹ The indirect—and unproven—implication of this is that labor market discrimination is still prevalent. We also know that the jobs which women and blacks hold are worse in other ways as well—lower occupational status, less desirable working conditions, and greater vulnerability to cyclical unemployment.

But what about the skills and training that workers receive on the job? Are the jobs of women and blacks worse in that regard also? Do their jobs provide them with less opportunity for on-the-job training? A recent national survey suggests that the answer to this is yes, and that, for young black men especially, the amount of training provided on the job is quite limited.

Virtually all labor economists agree that on-the-job training is an important determinant of individual earnings and especially of the growth of earnings over the life cycle. It is commonplace now for economists to view a job as both a source of current income and as a place to learn new work skills or improve old ones—to acquire on-the-job training. Indeed, it appears that most of the skills actually used on the job are learned there, not in school. Those acquired skills lead to higher fu-

ture earnings by increasing and enhancing an individual's work skills and productivity. The continued acquisition of work skills on-the-job plays a central role in both the human capital model and even in labor market models which emphasize market segmentation, discrimination, and the role of institutional forces.

Information about the amount of skills and training provided on the job is also important for accurate race/sex wage comparisons. For example, if the jobs held by women and blacks offered fewer opportunities for skill acquisition and improvement, then current average wage differences by race and sex would understate the "true" differences.² In that event, we might expect future race/sex earnings differences to grow as average skill levels diverged over the life cycle. Precisely the opposite interpretation would be appropriate if blacks, women, or both were receiving greater training opportunities.

In spite of its acknowledged importance, relatively little of an empirical nature is known about the acquisition of training by individuals or about possible race/sex differences in amounts of training. There is some information, but it is all indirect, usually inferred from cross-sectional earnings regressions. Thus, for instance, virtually all studies of earnings differences by race, sex, or both find that the earnings of blacks and women tend to grow less rapidly with each additional year of work experience. A widely accepted explanation for this—that of the human capital model—interprets work experience as a proxy for investment in training and then concludes that the lower earnings growth per year of experience indicates that, on average, the jobs held by women and blacks provide less on-the-job training. This reasoning is logically consistent, but it is also completely circular. The problem is that the process of acquiring training cannot be observed, but is only "revealed" to have occurred *ex post* by a subsequent growth in individual earnings. This reasoning, by construction, precludes situations in which investment takes place but earnings do not grow and those in which earnings grow in the absence of skill acquisition. Thus it ignores the possibility that blacks, women, or both receive smaller rewards for the skills they do acquire.³

Some *direct* evidence on race/sex training differences

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is available in recent data provided by the Panel Study of Income Dynamics. This is a national longitudinal survey of the economic status of more than 5,000 families which has been conducted annually since 1968. In the study's 1976 interviews, questions relating to on-the-job training were included as part of an attempt to develop an extensive data base for the analysis of race and sex earnings differences. Household heads (arbitrarily taken to be the husband) and, for the first time, their wives were interviewed. The couples' answers provide information, when weighted, on a representative national survey of more than 3,100 working men (about 30 percent black) and approximately 2,100 working women (35 percent black) between the ages of 18 and 64.

Developing an objective, quantitative measure of the amount of on-the-job training provided by a job and received by a worker is not a simple matter. The human capital model, which has given the most theoretical attention to investment in training, measures the amount of training by the fraction of worktime devoted to learning and improving skills rather than working; thus, for example, one might spend 80 percent of the day working and 20 percent learning. This approach is useful theoretically, but it is not easily amenable to measurement—imagine trying to divide your workday into working and learning components. (It is usually assumed that you cannot do both simultaneously.) What the Panel Study researchers did in order to develop a measure of training was ask individuals about the length of time—how many months or years—it would take “the average new person to become fully trained and qualified” on their job. (The question asked about the “average new person” rather than “you” to minimize reported differences in training time because of experiences or skills unique to that individual.)

The answers to this question can be used to develop two measures of training. One is how many months or years it takes to become fully trained and qualified, the idea being that jobs with longer training periods provide more skills and training. Implicitly, this assumes that the “quality” or “intensity” of training does not vary among jobs, so that a 1-year training period represents exactly twice as much as that given in 6 months. While this measure of training clearly has flaws, it certainly seems preferable to the circular measure of usual training. The other training measure is whether or not an individual is currently receiving training—whether his or her job tenure is greater than or less than the reported length of the training period.

Whatever its possible problems are, the reported training periods seem to make sense. If we look at the average training time for various occupational groups the answers are generally consistent with conventional notions of occupational status and skill requirements.

(See table 1.) The average training period for all jobs was about a year and 8 months, but it ranged from nearly 3 years for professional and technical workers and managers down to approximately 6 to 9 months for the bottom of the blue-collar distribution. Skilled blue-collar workers (foremen and craftworkers) reported an average training period of more than 2-1/2 years, compared with about 9 months for secretaries and clerical help. There are really no anomalous results in the table.

We can look at the question we originally asked: In addition to carrying lower wages and a higher probability of unemployment, do the jobs of blacks and women provide less on-the-job training? The answer, according to the Panel Study data, is yes. The average training period for white men is 2.25 years, while that for white women and for black men and black women is less than 1 year.⁴ And as table 2 shows, the same order of difference—more than 2 to 1 persists even when white men are compared with blacks and women within the same age group or educational category. Thus, the lower training periods are not explained by race/sex differences in age or educational attainment.

The same race/sex pattern exists when we examine the other training variable (see table 3). While more than a quarter of white men were currently receiving training on their jobs (that is, their training period exceeded their job tenure), the corresponding figure was about 14 percent for white women and less than 9 per-

Table 1. Average length of training period by occupation

Occupation	Unweighted number of observations	Weighted percent of observations	Average length of training (in years)
Physicians, dentists	13	0.4	5.21
Other medical	63	1.5	1.95
Accountants	56	1.3	2.40
Teachers, primary and secondary	199	4.6	2.57
Teachers, college	50	1.3	3.29
Engineers, architects, chemists	92	2.8	2.89
Technicians	113	2.7	1.96
Public advisors	79	1.7	2.09
Judges, lawyers	22	0.5	2.51
Other professional	35	0.8	2.32
Managers, not self-employed	422	11.3	2.76
Managers, self-employed	126	3.0	2.14
Secretaries	198	4.3	.80
Other clerical	644	12.2	.81
Sales workers	238	5.6	1.40
Foremen	95	2.4	3.13
Other craftworkers	580	11.3	2.54
Police, firefighters	54	1.1	2.25
Armed forces	78	1.2	1.52
Transport equipment operatives	222	3.2	.52
Other operatives	762	12.0	.71
Unskilled laborers, nonfarm	204	2.1	.63
Farm laborers	56	0.6	.65
Private household workers	73	0.6	.52
Other service workers	662	9.9	.60
Farmers	78	1.9	2.86

cent for both black men and black women. Again, these race/sex differences remain even within age and educational groups. The differences between black and white men are especially large for workers between the ages of 18 and 35. Among white men, about 35 percent in this age group were receiving training compared with less than 10 percent for blacks.

Finally, the lower amounts of training for blacks and women do not appear to be because they hold low-wage jobs more often than white men. If we compare workers within the same hourly wage rate bracket, large differences in the percentages receiving training remain. Nearly a quarter of the white men in low-wage jobs (less than \$4 per hour) were still receiving training, compared with 11 percent for white women and only about 5 to 6 percent for black men and women.

What do these findings tell us about the prospects for narrowing race/sex earnings differences? First, they suggest that current variations in earnings understate the true differences: blacks and women receive less training on their jobs than white men and a smaller percentage are currently receiving training. Assuming this training usually translates into higher future earnings, then we may expect the earnings gap to widen as these individuals become older.⁵ Second, there is some evidence that the low-wage jobs held by white men are very dissimilar from those of blacks and women. Many of these jobs for white men also provide training, so the low wage is probably only temporary; for the other groups, the proportion of low-wage workers receiving training is much less, suggesting a more permanent low-wage condition. Finally, the results imply that young black men continue to lag behind their white counterparts—the training differential was extremely large for this age group.

One thing this study does not tell us is *why* blacks and women tend to receive less training. We could, of

Table 3. Proportion of workers receiving on-the-job training by age, education, and hourly earnings

Item	Men		Women	
	White	Black	White	Black
Total	258	019	141	.088
Age (in years):				
Less than 25	353	074	189	.094
25 to 34	349	103	167	.101
35 to 44	230	073	135	.063
45 to 54	176	.113	109	.131
55 to 64	135	079	084	.011
Education (in years):				
0 to 5	.145	.059	...	...
6 to 8	.079	.024	.103	.012
9 to 11	.232	.079	.051	.006
High school graduate	.191	.086	.099	.165
High school plus nonacademic training	.254	.102	.152	.058
Some college	.312	.141	.177	.163
Bachelor of Arts	.363	...	.222	.253
Advanced degree	.335	...	.276	...
Hourly earnings:				
Less than \$2.00	220	.107	.115	.021
\$2.00 to \$2.99	226	.055	.115	.058
\$3.00 to \$3.99	287	.049	.114	.090
\$4.00 to \$5.99	240	.072	.170	.105
\$6.00 to \$7.99	266	.110	.159	.180
More than \$8.00	272	.239	.207	...

NOTE: Dashes indicate less than 25 observations.

course, use the training differential as yet another example of labor market discrimination, but that does not really provide much explanation or insight. Economists still know very little about the ways in which different people wind up in different jobs—some with high wages or extensive training, some with less of both—and even less about the reasons. □

FOOTNOTES

¹ For an analysis along these lines, see Corcoran and Duncan, "Work History, Labor Force Attachment, and Earnings Differences Between Races and Sexes," *Journal of Human Resources*, Winter 1979, pp. 3-20.

² Edward Lazear has recently provided some empirical evidence on this, arguing that the current narrowing of observed black/white earnings differences for men reflects growing differences in current on-the-job training. For more on this, see Edward Lazear, "The Narrowing of Black-White Wage Differentials is Illusory," *The American Economic Review*, September 1979, pp. 553-63.

³ Another example of the first situation is acquisition of job skills with declining market value, while the latter could reflect increasing demand for a particular skill.

⁴ It is tempting to try to explain these differences as being the result of different perceptions, rather than different situations—for example, white men are self-aggrandizing while women and blacks tend to downgrade themselves and their jobs. However, this explanation is doubtful because the results were reversed when sample members were asked another question about whether they were learning things which could lead to a future job or promotion.

⁵ The predicted widening of the earnings gap for these individuals does not necessarily mean that aggregate black/white earnings differences will also increase. Changes in aggregate earnings differences over time are affected not only by these "within-cohort" earnings changes, but also by differences in the income standing of older workers who retire from the labor force relative to the income standing of younger workers who enter the labor force.

Table 2. Average length of training period by age and education

Age and education (in years)	Men		Women	
	White	Black	White	Black
Total	2.25	.99	.94	.81
Age:				
Less than 25	1.28	.50	.59	.45
25 to 34	1.95	.70	.96	.62
35 to 44	2.52	1.09	1.06	.82
45 to 54	2.65	1.64	.96	1.05
55 to 64	2.69	1.13	1.08	1.30
Education:				
0 to 5	1.65	.61	...	...
6 to 8	1.77	.78	.41	.32
9 to 11	1.82	.43	.34	.38
12: High school diploma	1.81	1.31	.70	.90
High school plus nonacademic training	2.28	1.01	.94	.52
Some college	2.33	.93	.95	.78
Bachelor of Arts	2.79	...	1.50	2.58
Advanced degree	3.20	...	2.86	...

NOTE: Dashes indicate less than 25 observations.

Occupational wage variation in wood household furniture plants

CARL BARSKY

In the manufacture of wood household furniture, firms producing upholstered furniture paid higher wages than those making nonupholstered products.¹ The pay advantage—\$4.78 an hour compared with \$4.22—stems primarily from differences in the occupational staffing patterns between the two industries, rather than differences in pay levels for similar types of work.

The survey, conducted in June 1979, is the Bureau of Labor Statistics' first occupational wage study of upholstered furniture factories and a resurvey of the other wood furniture plants.² Among the similarities found, both industries were primarily in nonmetropolitan areas, were located in all parts of the country but chiefly in the Southeast, and, for the most part, consisted of nonunion, single-plant firms. Many plants, in fact, man-

ufactured both types of furniture.

In both industries, pay levels were usually higher in metropolitan areas than in smaller communities, in plants of 100 workers or more than in smaller plants, and in union firms than in nonunion firms. Regionally, the highest average earnings usually were found in the Pacific States and the lowest in the South. (See table 1.)

There were also some important differences between the two industries. Plants making nonupholstered furniture had, on the average, larger work forces than the other establishments—136 workers compared with 112 workers. Upholstered furniture plants, on the other hand, had a higher proportion of workers in skilled or incentive-paid occupations—two factors which can contribute to higher wages.

To isolate the effects of certain wage-determining characteristics, multiple regression equations were developed for all production workers and for a number of representative occupations studied separately in the two industries.³ Included as variables in the analysis were establishment size and community size, unionization, type of furniture manufactured, and region. Also included as variables were sex and method of wage payment for selected occupations.

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Table 1. Average hourly earnings in factories making upholstered and other wood household furniture, United States and selected regions, June 1979

Characteristic	United States ¹		Middle Atlantic		Border States		Southeast		Great Lakes		Pacific	
	Upholstered	Other	Upholstered	Other	Upholstered	Other	Upholstered	Other	Upholstered	Other	Upholstered	Other
All production workers	\$4.78	\$4.22	\$5.08	\$4.54	\$4.19	\$3.60	\$4.49	\$3.89	\$5.38	\$4.66	\$5.82	\$5.61
Men	5.01	4.41	5.30	4.69	4.41	3.90	4.71	3.99	5.61	4.89	5.90	5.73
Women	4.38	3.84	4.55	3.93	3.80	3.60	4.11	3.70	5.08	4.33	5.87	4.63
Size of community:												
Metropolitan areas	5.01	4.51	5.23	4.36	4.41	3.90	4.43	3.99	5.07	4.77	5.82	5.61
Nonmetropolitan areas	4.61	3.99	4.95	4.95	3.90	3.60	4.51	3.83	5.47	4.62	5.87	4.63
Size of establishment:												
20-99 workers	4.71	4.57	4.93	4.28	4.41	3.90	4.29	3.75	4.72	4.50	5.77	6.15
100 workers or more	4.81	4.14	5.18	4.70	4.39	3.59	4.55	3.91	5.55	4.71	5.89	5.19
Labor-management contract coverage:												
Establishment with majority of workers covered	5.46	4.83	4.83	4.90	4.18	3.90	4.52	3.76	5.60	4.71	6.67	6.77
None or minority of workers covered	4.56	3.96	5.52	4.19	4.18	3.56	4.52	3.92	4.79	4.60	4.95	3.84
Selected occupations												
Assemblers, complete furniture pieces (case goods)	4.82	4.49	5.10	5.10	4.16	3.65	4.57	3.97	5.90	4.87	6.37	6.37
Assemblers, chairs	4.54	3.82	4.54	4.54	3.34	3.68	4.34	3.59	5.15	4.18	5.15	5.23
Assemblers, upholstery frames, final frame assemblies	4.71	4.33	5.07	5.07	4.16	3.65	4.49	3.97	5.90	4.87	6.37	6.37
Cushion-stuffing-machine operators	4.87	4.17	4.55	4.55	3.34	3.68	4.87	3.86	4.74	4.74	6.26	6.26
Cutters, electric knife	5.54	4.91	5.05	5.05	4.32	3.90	5.46	4.77	5.55	4.17	7.06	7.06
Cut-off-saw operators	4.41	4.69	4.23	4.53	3.78	3.90	4.12	4.21	5.67	4.37	4.98	6.61
Maintenance electricians	5.83	5.58	5.58	5.58	4.54	3.54	5.34	5.19	6.01	6.01	7.79	7.79
Maintenance workers, general utility	4.72	5.25	5.10	5.56	4.03	4.24	4.41	4.74	5.02	5.51	5.98	7.66
Off-bearers, machine	4.05	3.66	4.75	4.23	3.34	3.85	3.50	4.77	4.36	4.36	5.48	3.83
Packers, furniture	4.18	4.02	3.98	4.02	3.62	3.50	4.02	3.55	5.65	4.59	4.91	5.18
Router operators, feed only	3.57	4.08	5.03	5.03	3.42	3.52	3.94	3.94	4.54	4.54	4.85	4.85
Rubbers, furniture, hand	3.61	3.76	4.59	4.59	3.37	3.41	3.58	5.05	4.49	4.49	3.57	4.16
Sanders, furniture, hand	3.65	3.97	3.57	4.17	3.26	3.61	3.57	4.29	4.56	3.71	4.39	4.39
Sanders, furniture, machine, belt	4.25	4.15	4.77	4.77	4.27	3.82	3.72	3.99	5.88	4.78	5.14	4.26
Sewing-machine operators, all-round	4.88	4.35	4.63	4.63	4.08	4.08	4.67	4.66	5.13	3.86	6.21	6.21
Tenoner operators, set up and operate	4.82	4.84	6.09	6.09	4.15	4.15	4.75	4.27	5.12	5.12	6.72	6.72
Upholsterers, inside	6.88	6.23	5.74	5.74	5.46	5.46	7.02	7.02	7.06	7.06	7.56	7.56

¹ Includes data for regions in addition to those shown separately.

NOTE: Excludes premium pay for overtime and for work on weekends, holidays, and late

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

Table 2. Net earnings differentials among production workers of wood household furniture plants, June 1979

Occupation	Metropolitan areas	Large plants	Union plants	Upholstered furniture	Pacific region	Incentive workers
All production workers	¹ \$0.05	¹ \$0.04	\$0.48	\$0.54	\$1.34	(²)
Selected occupations						
Assemblers, complete furniture pieces, case goods (nonupholstered)	¹ .12	-.37	.58	¹ .54	1.95	\$0.93
Cut-off-saw operators	.53	¹ -.19	1.24	¹ -.12	1.20	1.21
Electricians, maintenance	¹ -.28	¹ -.20	¹ -.08	¹ .16	2.52	¹ .52
Maintenance workers, general utility	¹ .07	¹ -.29	.44	-.40	2.33	.79
Off-bearers, machine	¹ .07	.33	.42	.23	.23	.79
Router operators, feed only	.71	.94	.74	¹ .47	¹ .37	¹ .49
Sanders, furniture, machine, belt	.21	.64	.36	¹ .02	.55	.91
Sewing-machine operators, all-round (upholstered)	¹ .14	¹ .26	.67	¹ .18	1.37	1.01
Upholsterers, inside	¹ -.09	¹ -.04	¹ .13	¹ -.09	1.03	2.00

¹ Not statistically significant at a 99-percent confidence level.² Not applicable.

The regression coefficients presented in table 2 are estimates of the differentials associated with the characteristic or variable. For example, the table shows that when all other measured characteristics are held constant, union furniture plants pay, on average, 48 cents an hour more than nonunion plants.

The only characteristics typically showing a statistically significant relationship to higher wages among the occupations examined were unionization, location in the Pacific States, and incentive method of pay. Higher pay in upholstered furniture plants seemed to result primarily from the greater proportion of high-paying occupations than in the other industry. Only one of the nine occupations in table 2—machine off-bearers—showed a significant positive differential associated with the product variable, upholstered furniture.

Although unionization was significantly related to higher wages, there were exceptions, including two of the highest paying jobs—inside upholsterers and maintenance electricians. Other BLS wage studies also show that workers in union firms usually earn more than those in nonunion firms, but differences are less distinct among higher paid (higher skilled) workers.

Pay differentials calculated through multiple regression techniques are, for the most part, smaller than differentials found through simple cross-tabulations. This is to be expected because simple cross-tabulations do not isolate the individual effects of wage determinants that are often found in common—such as unionization and location in metropolitan areas.

A comprehensive survey report including data on occupational earnings and selected employee benefits (BLS Bulletin 2087) is available from the Bureau of Labor Statistics, Washington, D.C. 20212, or any of its regional offices. □

FOOTNOTES

¹ See *Standard Industrial Classification Manual*, upholstered furniture, industry 2512, nonupholstered furniture, industries 2511, 2517, and 2435.

² For an account of a November 1974 survey of nonupholstered furniture, see Carl Barsky, "Pay relationship in the furniture industry," *Monthly Labor Review*, April 1976, pp. 46-47.

³ See Martin E. Personick and Albert E. Schwenk, "Analyzing earnings differentials in Industry Wage Surveys," *Monthly Labor Review*, June 1974, pp. 56-59, for an explanation of regression techniques used in industry wage surveys.

Local-transit workers' union wages advance 8.8 percent during 1978-79

Average union wage rates for local-transit operating employees in large cities increased 8.8 percent between July 1, 1978, and July 1, 1979. It was the industry's third largest annual gain during the 1970's.¹ The average increase was 9.0 percent for operators of surface cars and buses during the survey period, and 7.4 percent for elevated and subway equipment operators. During the last 5 years, increases have been larger for bus operators than for subway operators, narrowing the average wage-rate difference between the two groups from 11 percent in 1974 to less than 1 percent on July 1, 1979.

Slightly more than nine-tenths of local-transit operating employees received wage rate increases during the year ending July 1, 1979. Nearly one-eighth received between 4 and 6 percent; one-fourth, between 6 and 8 percent; slightly more than one-fifth, between 8 and 10 percent; and about one-third, at least 10 percent.

Union wage rates for local-transit operating employees averaged \$8.17 per hour on July 1, 1979: for operators of surface cars and buses, about seven-eighths of employees covered by the survey, the average was \$8.16, and for operators of elevated and subway equipment, \$8.21. However, of the nine cities permitting comparison, wage rates for surface car and bus operators, and elevated and subway equipment operators, were the same in five: Atlanta, Cleveland, Newark, Philadelphia, and Washington; D.C. Wage rates were

Table 1. Average wage rates of local-transit operating employees in selected cities, July 1, 1978–July 1, 1979

City and region ¹	Average hourly rate ²	Change from July 1, 1978		City and region ¹	Average hourly rate ²	Change from July 1, 1978	
		Cents per hour	Percent			Cents per hour	Percent
All cities	\$8.17	66	8.8	Great Lakes	\$8.99	92	11.4
New England	8.42	79	10.4	Akron, Ohio (III)	6.60	56	9.3
Boston, Mass. (II)	9.29	82	9.7	Chicago, Ill. (I)	10.14	122	13.7
New Bedford, Mass. (IV)	6.69	81	13.8	Cincinnati, Ohio (III)	7.46	58	8.4
New Haven, Conn. (IV)	7.10	72	11.3	Cleveland, Ohio (II)	8.47	85	11.2
Providence, R.I. (IV)	7.32	77	11.8	Columbus, Ohio (II)	7.38	67	10.0
Stamford, Conn. (IV)	7.30	74	11.3	Detroit, Mich. (I)	8.31	40	5.1
Middle Atlantic	7.91	54	7.4	Flint, Mich. (IV)	6.01	—	—
Albany, N.Y. (IV)	6.97	65	10.3	Grand Rapids, Mich. (IV)	6.59	59	9.8
Buffalo, N.Y. (III)	7.33	51	7.5	Hammond, Ind. (IV)	7.51	69	10.1
New York, N.Y. (I)	7.86	51	6.9	Indianapolis, Ind. (II)	7.04	26	3.8
Newark, N.J. (III)	8.45	39	4.8	Milwaukee, Wis. (II)	8.13	60	8.0
Philadelphia, Pa. (I)	7.56	49	7.0	Minneapolis-St. Paul, Minn. (III)	8.79	102	13.1
Pittsburgh, Pa. (II)	9.01	94	11.6	Rockford, Ill. (IV)	8.18	58	7.6
Rochester, N.Y. (III)	7.90	71	9.9	Toledo, Ohio (III)	7.51	69	10.1
Scranton, Pa. (IV)	6.70	70	11.7	Middle West	7.71	22	4.0
Border States	8.57	94	12.3	Kansas City, Mo. (II)	8.20	—	—
Baltimore, Md. (II)	8.75	108	14.1	Omaha, Nebr. (III)	6.24	—	—
Louisville, Ky. (III)	7.41	65	9.6	St. Louis, Mo. (II)	8.64	—	—
Norfolk, Va. (III)	7.52	63	9.1	Wichita, Kans. (III)	4.85	50	11.5
Washington, D.C. (II)	9.22	108	13.2	Mountain	6.89	61	9.7
Southeast	7.22	61	9.2	Denver, Colo. (II)	8.30	82	11.0
Atlanta, Ga. (III)	8.28	85	11.4	Phoenix, Ariz. (II)	7.27	68	10.3
Chattanooga, Tenn. (IV)	7.01	45	6.9	Salt Lake City, Utah (IV)	6.11	49	8.7
Jacksonville, Fla. (II)	7.24	62	9.4	Pacific	8.39	53	6.8
Memphis, Tenn. (II)	7.83	74	10.4	Fresno, Calif. (IV)	7.44	83	12.6
Miami, Fla. (III)	7.15	—	—	Honolulu, Hi. (III)	7.58	—	—
Nashville-Davidson, Tenn. (III)	7.33	42	6.1	Long Beach, Calif. (III)	8.20	43	5.6
St. Petersburg, Fla. (IV)	4.39	20	4.8	Los Angeles, Calif. (I)	8.61	52	6.4
Southwest	6.82	47	8.1	Portland, Oreg. (III)	9.25	95	11.4
Fort Worth, Tex. (III)	5.75	40	7.5	Riverside, Calif. (IV)	8.61	52	6.4
Houston, Tex. (I)	7.62	—	—	Sacramento, Calif. (III)	7.71	—	—
New Orleans, La. (II)	6.52	50	8.3	San Diego, Calif. (II)	9.53	65	7.3
San Antonio, Tex. (II)	6.45	51	8.6	San Francisco, Calif. (II)	8.00	8	1.0
				Santa Ana, Calif. (IV)	8.13	138	20.4
				Seattle, Wash. (II)	9.19	85	10.2
				Spokane, Wash. (IV)	7.82	81	11.6

¹ The regions used in this study include: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Border States*—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia; *Southeast*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee; *Southwest*—Arkansas, Louisiana, Oklahoma, and Texas; *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; *Middle West*—Iowa, Kansas, Missouri, Nebraska, North Dakota, South Dakota; *Mountain*—Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming; *Pacific*—Alaska, California, Hawaii, Nevada, Oregon, and Washington. Population size of city is shown in parentheses as follows: group I=1,000,000 or more; group II=500,000 to 1,000,000; group III=250,000 to 500,000; and group IV=100,000 to 250,000.

² Wage rates used to calculate these averages represent those available and payable only on July 1, 1979, and do not include later increases retroactive to that date or before. Such retroactive increases are included in the wage rates reported in the following year's survey. Averages were developed by weighting the top rate of length-of-service progressions that ended at 3 years or less for each occupation in each contract by the number of union members at that rate on the survey date. In seven cities where progressions extended beyond 3 years, all contract-stipulated rates, and associated union membership, at steps of 3 years or beyond were included in the averages.

NOTE: Variations in the size of annual increases from survey to survey may reflect, in part, timing of negotiations. Dashes indicate no change in rate or a revised wage progression.

higher for bus operators in three cities: Boston, Chicago, and New York, and higher for subway operators in only one, San Francisco.

Local transit operating employees in the Great Lakes region recorded the highest average hourly rate, \$8.99, and those in the Southwest, the lowest, \$6.82 (table 1).

Union contracts commonly provide for pay differentials by length of service. Rate averages in table 1 are based largely on the highest rate of the pay structure as reported in each labor-management agreement within an individual city of the survey.² To develop averages, the Bureau of Labor Statistics weighted the rates at or near the top of the progression by the number of local-transit operating employees at those rates, about 67,100 total. Distribution of wage rates developed by the study, and year-to-year wage changes also relate only to union members at those rates. For national and regional wage averages, the 62 cities studied were appropriately

weighted to reflect union rates of local transit operating employees, in each city with a population of 100,000 or more.

A comprehensive report, *Union Wages and Benefits: Local-Transit Operating Employees, 1979*, BLS Bulletin 2074, is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. □

FOOTNOTES

¹ Higher increases were reported during 1973–74 (11.5 percent) and 1974–75 (11.3 percent). Union wage rates included in the BLS surveys are the straight-time hourly rates agreed upon through collective bargaining between employers and unions. They do not include employer payments for vacations, holidays, or other purposes. Thus, they may not represent actual amounts earned by employees.

² A single top rate was used whenever the progression ended at 3 years or less, in 55 out of 62 cities. For progressions extending beyond 3 years, contract-stipulated rates and associated union membership, at steps of 3 years or beyond, were included.

Foreign Labor Developments



British collective bargaining: a decade of reformation

WILLIAM A. BROWN

During the 1970's, two of the most distinctive features of British industrial relations were called into question. One was the informal way in which much bargaining was conducted—few written agreements and little sense of management strategy—and the other, the tradition of “voluntarism” under which collective bargaining was largely dissociated from the law. Management and unions, with the vacillating intervention of government, have been reorganizing themselves in the most radical period of change since World War I.

Before describing and accounting for the transformation, it is necessary to say something about its economic setting. Table 1 summarizes a number of relevant indicators for the 1960's and 1970's and shows a comparison with the economic situation in the United States. Both British and American economies have experienced a slower rate of productivity growth than their international competitors, and both have seen the rate fall over the period. For Britain, a high dependence upon international trade has made this particularly serious. Coupled with a much faster acceleration in price inflation than in the United States, the consequences would have been even more distasteful had it not been for the rapid development of North Sea oil. But, while helping to balance the foreign trade account, this has proved a mixed blessing. By strengthening sterling as an international currency it has weakened Britain's competitive position further and the country enters the 1980's with its manufacturing industry in deep trouble. Unemployment, which has risen steadily during the 1970's, will undoubtedly climb much further.

By the end of the 1960's, British industrial relations were in acute need of reform. More damaging than the high level of strikes in certain industries was the gener-

ally inefficient use of manpower throughout the economy. A Royal Commission under Lord Donovan argued in 1968 that the problem was essentially an inappropriate bargaining structure and that the solution lay with employers themselves. They should face the fact that their multiemployer bargaining arrangements might be ineffective and, if so, they should set about concluding single-employer agreements.

Development of the dual bargaining structure

Employers acted accordingly. By 1978, over two-thirds of employees in manufacturing depended principally upon single-employer arrangements for their pay. Some of the larger multiemployer agreements, such as those for engineering and chemicals, have been altered so that their pay rates only affect the low-paying firms. In these cases, the role of the employers' association has moved from one of negotiating with unions toward advising member employers and dealing with government on their behalf. But this has not been a total transformation. The bargaining structure of the British private sector, increasingly taking a form that would be familiar to Americans, is a dual structure, with multiemployer agreements in industries where ease of entry is greater (such as in construction, clothing, road haulage and catering) and with single-employer arrangements predominating in industries where large firms rule. And Britain, like America but in sharp contrast with continental European countries, is a country of giant firms. About half of all British employees in the private manufacturing industry work for organizations with more than 20,000 employees. (Indeed, one of the most interesting questions for the future of the British bargaining structure is how far these giant organizations centralize their bargaining arrangements. Some show great reluctance to allow the bargaining unit to extend beyond the individual factory or, at most, the product division. But in a crowded little country with an interventionist government, the pressures for centralization are considerable.)

The professionalism of industrial relations management has increased rapidly along with these changes in bargaining structure. Ten years ago it was unusual for a board of management to have a director whose sole responsibility was for personnel and industrial relations

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matters, but it is now normal. In the majority of workplaces, grievance procedures which were often *ad hoc* and ambiguous have been replaced by written procedures. One of the most important areas of reform has been payment systems. Payment-by-results or incentive wage systems continue to be popular, but they are less often the highly fragmented piecework schemes that used to cause so much difficulty, and there is much wider use of work study to back them up. Of particular importance has been the rapid spread in the use of job evaluation techniques in establishing the internal pay structures of bargaining units. Almost one-fourth of the manufacturing work force was covered at the end of the 1960's and well over a half is covered now. The combination of single-employer bargaining and better regulated payment systems has greatly improved the control that negotiators have over earnings. Whether or not their pay deals are considered inflationary, they at least arise from deliberate negotiation rather than aimless wage "drift."

Managers report that a major factor bringing about this increased professionalism has been the great increase in governmental intervention during the decade. Statutory incomes policies and the creation of legal liabilities for a diversity of matters (including unfair dismissal, sexual discrimination and health and safety) have forced employers to create specialized industrial relations functions. In addition, American-owned firms in Britain have undoubtedly had a catalytic effect in speeding change among the British through their preference for single-employer bargaining and their use of such techniques as job evaluation and productivity bargaining.

It was noted earlier that many of the major employers' associations have ceased to function primarily as pay negotiators and instead are used by their members as advisers and lobbyists. The one employer organization that has grown substantially in stature during the 1970's is the Confederation of British Industry. This umbrella body has fought some effective battles for its members to modify government action, most notably in neutralizing the Labour government's proposals to create statutory worker directors.

However, the confederation is still very weak by comparison with its European counterparts and the sources of its weakness are to be found back in the 19th century. By comparison with other countries, industrialization in Britain came early and it came slowly. The union movement that the first British factory owners had to deal with had a craft rather than a Marxist tradition. It was more concerned with regulating jobs at the place of work than with transforming the society outside. Elsewhere in Europe, a more rapid industrialization and a more radical challenge forced employers into firm coalitions aimed at preserving their preroga-

tives at the workplace. They achieved this through strong industry-wide agreements. The importance of employer solidarity and discipline has never been appreciated to the same extent in Britain. Probably the single most important question for the future of British industrial relations is whether this will change.

Compared to American employers, British employers, with few major exceptions, have not sought to avoid collective bargaining. It is unusual for an employer to take active steps to exclude trade unions, and both Conservative and Labour governments have frowned upon such actions. Thus, the response to the upsurge of trade union activity at the workplace that came with full employment was not to resist but to negotiate. The shop stewards, who were elected representatives of the workers, had developed from the craft traditions of the union movement. At first, management's dealings with them were often somewhat furtive but, with the encouragement of the Donovan Commission and the development of single-employer bargaining, they have come to play a more formal role. In much of manufacturing industry, and elsewhere, stewards have become the principal negotiators for unions. Their procedural position has been assured, they are entitled to hold meetings on working time and they are given substantial administrative support by management.

Union growth accelerates

This support for shop stewards has encouraged the rapid growth in trade union membership which, as table 1 shows, is in contrast to the American experience. There has been a widespread change in employer attitudes to the union shop (in Britain called "closed" shop). Until the 1970's, the closed shop was largely enforced by the unions. Now it is increasingly being administered by management, primarily because recent legislation makes the employer vulnerable if someone refuses to join a trade union. The closed shop spread rapidly during the 1970's and now covers about a half of all trade unionists (one-fourth of all employees). Also important in terms of union security has been the spread of dues checkoff arrangements. From being rather unusual at the start of the decade, these arrangements probably now cover three-fourths of union members.

In other respects, however, employers' involvement in union administration has raised major problems for the unions themselves. The typical shop steward is responsible for about 40 union members and the discharge of his duties takes a small part of his working week. But, especially where work forces are greater than 500 employees, it has become normal for there to be at least one senior shop steward who, although elected by the work force, is paid by management to attend to trade union duties full time. The number of such posts has roughly quadrupled over the decade, and they far out-

number the full-time officials who are employed directly by the trade unions. The problems raised by this development have been primarily constitutional. Everyday working relationships between full-time shop stewards and full-time union-employed officials are generally very good; their jobs are complementary. But it has often proved difficult for unions to alter their constitutions in order to involve these key negotiators in policymaking.

Although there is still a long way to go, British unions have progressed considerably towards adapting their manner of government to be more appropriate to less industry-wide bargaining and more State intervention. Shop stewards and lay activists have been brought into decisionmaking up to the national executive level. Although their coverage is haphazard and often overlapping, the number of unions has been greatly reduced, with the largest 20 containing over three-fourths of all trade union members. Their umbrella organization, the Trades Union Congress which covers 90 percent of all unionists, has gained authority during the 1970's. A major triumph of the congress was in defeating legislation—in this case Prime Minister Edward Heath's Industrial Relations Act. During 1975 and 1976, the congress designed and effectively ran the most successful post-War British incomes policy, the Social Contract, in return for a number of legislative concessions such as improved provisions for maternity leave.

Government treads lightly

The government has also played a crucial part in the transformation of British collective bargaining although it has not done so readily. Whatever their political complexion, successive governments have gone to strenuous lengths to avoid being caught up in the maelstrom. (Two prime ministers, Heath in 1974 and James Callaghan in 1979, found public sector strikes to be their political downfall.) And yet governments have, for three distinct reasons, been unable to avoid getting involved. They have been involved, first, as employers themselves, second as legislators, and third, as regulators of the economy.

The public sector in Britain is large by American standards, although not by European standards. It covers, for example, the energy, transport, education, health, aircraft, and water industries; in all about 30 percent of the work force, virtually all of whom are in trade unions and covered by collective agreements. For many decades the bargaining was conducted in a fairly sedate way. The general rule was that the various parts of the public sector kept their pay roughly in line with each other and slightly behind private industry. With a few exceptions (as in coal mining), the national union officials were in control. But in the late 1960's, efforts to increase productivity led to the introduction of pay-

ment-by-results in many public services and utilities. Coupled with the start of worldwide inflation, this led to an upsurge of shop steward activity and an unprecedented willingness to take strike action. Nurses, sewage men, pilots, civil servants, teachers, power station workers and many others thought the unthinkable and disrupted the public.

The immediate result in the early 1970's was that pay in the public sector surged ahead of that in private industry. To some extent the subsequent massive cuts in public spending have brought pay more into line, but the basic problem is unresolved. How can collective bargaining proceed in the nonmarket sector when the work force is strike-prone? Prime Minister Callaghan innovated a Commission on Pay Comparability which used job evaluation techniques to link public sector pay to that prevailing in the private sector. It brought a degree of peace but has now been abolished by the current Conservative government as being too inflationary. It will probably be reintroduced under a different name in the future. However, the Trade Union Congress and governments are moving, albeit crabwise, towards a coherent policy for the public sector. As the effective number of bargaining units within it diminishes, the chance of more orderly collective bargaining increases.

Government was first drawn into major industrial relations legislation by what was seen as a serious strike problem in the 1960's. As table 1 shows, the British strike problem, though fewer in days lost than the United States, was characterized by a relatively large num-

Table 1. Economic indicators for the United Kingdom and United States

Indicator	1960-64		1965-69		1970-74		1975-79	
	United Kingdom	United States	United Kingdom	United States	United Kingdom	United States	United Kingdom	United States
Productivity ¹ . . .	2.3	3.5	2.7	2.0	2.0	0.5	1.5	1.5
Cost of living ² (retail or consumer price indexes)	3.2	1.2	4.3	3.4	9.6	6.1	15.6	8.1
Unemployment (percent of total workforce)	1.7	5.7	2.0	3.8	3.0	5.4	5.6	7.0
Trade unionism (members as percent of total workforce)	42.9	22.6	43.2	22.7	48.9	22.0	52.5	...
Strikes (number per 100,000 employees)	10.8	5.7	10.0	6.9	12.7	7.2	10.4	6.2
Work days lost (per 100 employees)	14	30	17	53	62	57	53	40

¹ Indicates average annual percent change of Gross Domestic Product per employee or output per person in private sector.

² Average annual percent change.

NOTE: Data for United Kingdom are from Department of Government Gazette; data for United States are from the *Statistical Abstract of the United States*.

ber of short strikes. At the start of this century, legislators had sought to keep industrial disputes out of the courts by giving trade unions immunities from prosecution for the use of sanctions. Subsequently, bargaining developed with little contact with the law. The first big departure from this pattern came with the attempt of the Conservative government in 1971, in conscious imitation of the United States, to encourage legally binding agreements and to discourage the closed shop and unconstitutional strikes. This attempt, the Industrial Relations Act, was largely a failure. Trade unions refused to register under it, attempts to prosecute them were acutely embarrassing, and management carried on much as before.

It would not be surprising if the following Labour government had simply restored the *status quo ante*. What was a further major departure from British tradition was that, besides doing this, the government also introduced a varied mixture of fresh protections for trade unions and employees. At the request of the Congress, and in return for pay restraint, legislation was introduced to encourage shop steward training, involve workers in the monitoring of health and safety at work, improve maternity leave, and to increase pay. The tradition of "voluntarism", it seemed, was truly dead. Unions which previously sought to achieve gains through collective bargaining were turning to the legislation they had previously shunned.

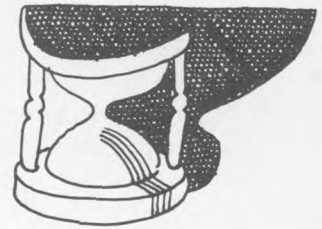
Consequently, it's not surprising that with the return of a Conservative British government in 1979 came an attempt to roll back some of these gains. The Employment Act of 1980 reduces some statutory protections, removes powers to force employers to recognize trade unions, and encourages the use of ballots in trade unions. Two provisions in the act are likely to draw the anger of trade unions: one applies more stringent rules to the introduction of a closed shop, the other seeks to limit the number of pickets during a strike. But these provisions have been drafted with a degree of caution that will probably deny them much impact. However much the electorate may demand action to reduce in-

dustrial unrest, governments are learning that their direct involvement may create more problems than it solves.

More than anything else, the rise in British strikes during the 1970's was caused by inflation. The inflation may be worldwide in origin but the British system of collective bargaining has proved itself a powerful amplifier of that inflation. In a fragmented bargaining structure, strong unions tend to chase up prices simply by seeking to preserve real incomes. At frequent intervals during the last 15 years, British governments have intervened in the bargaining process with recipes, threats, and inducements. Success has usually been short-lived, and the political price has been high. The arrival of North Sea oil revenues has temporarily removed the pressure from foreign creditors to embark on these thankless interventions and Prime Minister Margaret Thatcher's hopes have shifted to the use of a stringent monetary policy. But the policy also brings imbalances to Britain's position in the world economy, and it is questionable whether the accompanying high unemployment will reduce the desire of the employed to protect their real incomes. The question is not whether there will be further attempts at incomes policy but whether such attempts will benefit from past experience.

The best grounds for optimism come from the evidence outlined here on the reform of the British bargaining structure. In both private and public sectors bargaining units are becoming more clear-cut and pay determination less diffuse. In its Social Contract policy, the Trade Union Congress showed itself capable of keeping the very diverse unions in its membership to a remarkably strict policy. If the Confederation of British Industry can develop similar unity of purpose and action among employers, there is a chance for the coordination of pay bargaining necessary to prevent the spiraling of wages. The deeply rooted British reverence for free collective bargaining should not be confused with a desire to keep it fragmented. The role of government will increasingly become one of broker to some form of centralized negotiation. □

Major Agreements Expiring Next Month



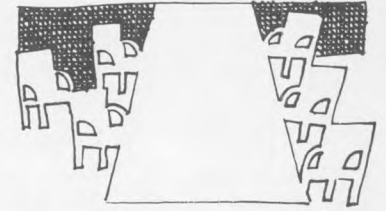
This list of collective bargaining agreements expiring in August is based on contracts on file in the Bureau's Office of Wages and Industrial Relations. The list includes agreements covering 1,000 workers or more.

Employer and location	Industry	Union ¹	Number of workers
Beech Aircraft Corp. (Kansas & Colorado)	Transportation equipment	Machinists	6,500
Bethlehem Steel Corp., Shipbuilding Department (Massachusetts, Maryland, and New Jersey)	Transportation equipment	Marine and Shipbuilding Workers	5,000
Champion International Corp., Champion Papers Division (Canton, N.C.)	Paper	Paperworkers	1,650
Colt Industries, Inc., Fairbanks Morse Engine Division (Beloit, Wis.)	Machinery	Steelworkers	1,200
Council of Hawaii Hotels Maui Hawaii Island (Hawaii)	Hotel	Longshoremen's Association	4,000
General Telephone Co. of Florida	Communication	Electrical Workers (IBEW)	7,700
Independent Restaurants & Taverns Agreement (California) ²	Restaurants	Hotel and Restaurant Employees	6,000
Leviton Manufacturing Co., Inc. (New York)	Electrical products	Electrical Workers (IBEW)	2,000
Maintenance Contractors Agreement (Massachusetts) ²	Services	Service Employees	4,000
Mechanical Contractors D.C. Association, Inc. (District of Columbia, Maryland, and Virginia)	Construction	Plumbers	1,800
Metropolitan Rigid Paper Box Manufacturers Association, Inc. (New York, N.Y.)	Paper	Paperworkers	1,050
New Jersey Zinc Co. (Palmerston, Pa.)	Primary metals	Steelworkers	1,250
Nabisco, Inc. (Interstate)	Food products	Bakery, Confectionery, and Tobacco Workers	2,700
Union Carbide Corp., Metals Division (Marietta, Ohio)	Primary metals	Oil, Chemical and Atomic Workers	1,000
William Powell Co. (Cincinnati, Ohio)	Fabricated metal products	Steelworkers	1,200
	Government activity	Employee organization¹	
Illinois: Chicago Board of Education	Education	American Federation of Teachers	27,000
Michigan: Warren Consolidated Schools, Teachers	Education	National Education Association (Ind.)	1,250
Missouri: Department of Mental Health	Health	American Federation of State, County and Municipal Employees	8,000
Nebraska: Omaha Board of Education, Teachers	Education	National Education Association (Ind.)	2,950
Ohio: Cleveland Board of Education, Teachers	Education	American Federation of Teachers	5,700
Columbus Board of Education, Teachers	Education	National Education Association (Ind.)	4,500
Pennsylvania State College, Faculty	Education	National Education Association (Ind.)	4,500
Washington: Spokane Public Schools, Teachers	Education	National Education Association (Ind.)	1,500

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

² Industry area (group of companies signing same contract).

Developments in Industrial Relations



Teamsters president dies

Teamsters President Frank E. Fitzsimmons died on May 6, ending a 14-year reign as leader of the Nation's largest union. Fitzsimmons, age 73, had been suffering from lung cancer since 1979. The union's executive board unanimously selected Teamsters Vice President Roy L. Williams to serve the remainder of Fitzsimmons' term. Later, at the union's scheduled convention, Williams was elected to a 5-year term.

Fitzsimmons gained the leadership of the 2.3-million member union in 1967, when he was elected to the new post of general vice president to conduct union affairs while President James R. Hoffa served a prison sentence. This "caretaker" arrangement ended on July 8, 1971, when delegates to the union convention elected him to succeed Hoffa, who was still in prison. Fitzsimmons then won a 5-year term as president at the union's 1976 convention. (Hoffa, who was released from prison in December 1971, announced plans to seek the presidency at the 1976 convention, but this possibility ended with his disappearance in July 1975.)

Under Fitzsimmons, operation of the union was decentralized, in contrast to the earlier years when all major decisions were made by Hoffa. The Fitzsimmons era did resemble that of Hoffa and his predecessor Dave Beck in one respect, as some officials were involved in legal disputes with the Federal Government over their conduct of union affairs. In 1978, the Department of Labor sued officials of the union to recover money lost as a result of their alleged mismanagement of the Central States, Southeast and Southwest Areas Pension Fund. This civil suit was expanded in April 1981 to include nine more allegedly mismanaged loan transactions.

President Reagan called the death of Fitzsimmons "a sad moment not only for the millions of Teamsters union members, but for our Nation as well" and described him as "a hard bargainer who won the respect of both business and political leaders." AFL-CIO Presi-

dent Lane Kirkland and Secretary-Treasurer Thomas Donahue said, "We are saddened by the death He cooperated with many of our affiliates on issues of mutual concern"

At the time of Fitzsimmons' death, the Teamsters' union was involved in efforts to enforce provisions of its 1979 agreement with the trucking industry, as some companies were refusing to pay a 35-cent-an-hour deferred wage increase and a 42-cent automatic cost-of-living increase scheduled for April 1. The employers said they could not afford the pay increases because the Motor Carrier Act of 1980, which deregulated the industry, made it difficult to pass the cost to shippers.

In 1980, the Teamsters turned down Trucking Management Inc.'s request for national bargaining on cost concessions the association said its members needed to compete effectively with nonunion firms. (See *Monthly Labor Review*, November 1980, p. 51.) The parties' current contract expires on March 31, 1982.

Delegates pick Roy Williams to head Teamsters

The major item of business at the Teamsters' 22nd convention in Las Vegas, Nev., was the election of interim president Roy Williams to a 5-year term as head of the union. Williams easily defeated Peter Camarata, a warehouse worker from Detroit and leader of the Teamsters for a Democratic Union, a small dissident group.

The 2,200 delegates also raised salaries for union officers. The increase for Williams, who already was the Nation's highest paid labor leader, was 44 percent, bringing his salary to \$225,000 a year. Secretary-treasurer Ray Schoessling received a 60-percent increase, to \$200,000.

In other business, the delegates approved several constitutional amendments that apparently gave the leaders more control of the union. The amendments include (1) a loyalty oath forbidding members from discussing, without authorization, union business with non-members; (2) a provision requiring seasonal and part-time workers to pay dues the entire year to be "in good standing" and eligible for office; (3) elimination of a requirement that officers "shall as nearly as practicable be uniformly distributed throughout the entire jurisdiction" of the union; and (4) a change forbidding the elec-

"Developments in Industrial Relations" is prepared by George Ruben and other members of the staff of the Division of Trends in Employee Compensation, Bureau of Labor Statistics, and is largely based on information from secondary sources.

tion of business agents unless the existing local bylaws already provide for their election.

The convention did not take up the issue of reaffiliating with the AFL-CIO. Earlier this year, AFL-CIO President Lane Kirkland had invited the Teamsters and other unions to rejoin the federation.

Concessions at General Tire

Workers at the General Tire & Rubber Co. plant in Logansport, Ind., have agreed to wage concessions in an effort to avoid further production cutbacks. A company official said the concessions were necessary to "enable the company to be more competitive in seeking new business" for the facility, which produces rubber and metal bushings.

Under the settlement, the employees, who are represented by the United Rubber Workers, will not receive a 25-cent-an-hour wage increase scheduled for July 1981, the existing agreement was extended 1 year (to July 1983), and employees will no longer receive automatic quarterly cost-of-living pay adjustments. They will receive a 30-cent wage increase in July 1982. The Supplemental Unemployment Benefits plan also was terminated, except for insurance retention and separation pay protections for laid off employees.

In 1980, the workers rejected a company request for wage concessions. Shortly afterwards, the company decided to move some production to other plants, resulting in the loss of 50 jobs. The Logansport plant currently employs about 160 workers represented by the union, down from 450 in 1978.

UAW prepares to rejoin AFL-CIO

Members of the United Auto Workers have authorized the union's executive board to take the necessary steps to reaffiliate with the AFL-CIO. UAW President Douglas A. Fraser said the executive board would move quickly to complete negotiations with the federation because labor unity "can only strengthen the trade union movement at a time when it is under severe attack. . . ." Reportedly, most of the conditions had already been worked out—the final terms only had to be approved by the union's executive board and the federation's executive council before a formal reaffiliation ceremony at the AFL-CIO's November convention.

Fraser had initiated reaffiliation discussions within the UAW shortly after his election in 1977 but terminated them because of opposition from some officers and rank-and-file members over financial and political is-

sues. Much of this opposition eased as these officers retired.

The 1.2-million member UAW has been one of the largest independent unions since 1968, when Walter Reuther led the union out of the AFL-CIO because of political and philosophical differences with George Meany, then president of the federation. AFL-CIO President Lane Kirkland led off his first term of office by inviting the UAW and other independent unions to join the federation.

Two service unions move toward merger

The Service Employees and the Retail, Wholesale, and Department Store unions moved toward a merger, as their executive boards agreed to submit the proposal to conventions scheduled for early 1982. If approved, the merged union would take the name of the Service Employees and, with more than 900,000 members, would be the fourth largest union in the AFL-CIO. Service Employee's President John Sweeney, would head the new organization. Sweeney said the merger would aid organizing efforts and improve geographic coverage, particularly in the health care field, where the two unions have been competing for the right to represent the same workers. Presently, health care employees represented by the Service Employees are concentrated in the Midwest and on the West Coast, while those represented by the Retail, Wholesale, and Department Store Union are concentrated along the East Coast. Alvin Heaps, president of the 235,000-member Retail, Wholesale, and Department Store Union would be executive vice president of the new organization.

California engineers accept \$4 cut in benefits

In Northern California, Local 3 of the Operating Engineers and some employers agreed to cuts in benefits to counter the increasing inroads of nonunion construction companies. The \$4-an-hour cut—which was limited to work on privately financed projects—applied to about 1,000 workers but negotiations were continuing for an additional 9,000. The settlements with the individual companies were in the form of "custom" agreements modifying the master contract between the union and the Associated General Contractors of California, which expires in June 1983. Prior to the cost concession settlements, the union members earned about \$22.50 an hour, including \$6.98 in benefits.

The area covered by the bargaining ranges from Bakersfield to the Oregon border, excluding the San Francisco, San Jose, and Sacramento metropolitan areas.

Sugar plantations settle early

In Hawaii, 14 sugar plantation companies and the International Longshoremen's and Warehousemen's union settled a year in advance of the scheduled 1982 expiration date of their existing contract. The new contract will expire in 1983.

The settlement for the 7,500 workers provided for a 10-percent wage increase on February 1, 1982. The 1980 agreement had provided for wage increases on February 1 of 1982 and 1983 that raised pay rates to a range of \$6.09 to \$8.62 an hour. The parties also negotiated a 5-year pension agreement (expiring in 1986) that provided for pensions to be determined on a combination of years of service and pre-retirement earnings, which the union said would result in larger benefits. Previously, benefits were based only on length of service.

Two automakers resume merit pay increases

Ford Motor Co. and General Motors Corp. announced a resumption of merit pay increases for salaried employees in an effort to keep key employees from leaving for better paying jobs in other industries. Merit increases had been suspended in 1980 at both companies as a result of operating losses. According to a Ford official, a small percentage of the payroll will be put into a pool to be distributed strictly on performance.

Chrysler Corp., which eliminated merit raises in September 1979, said that its latest corporate restructuring plan (see *Monthly Labor Review*, March 1981, p. 73) virtually eliminates the possibility of a resumption of merit raises for "the next 15 months or so." However, the corporation does grant salary increases to certain "high potential" employees.

Hotel and motel employees reopen contract

About 25,000 workers were covered by a settlement between the Hotel Association of New York City and the eight unions which make up the New York Hotel and Motel Trades Council. The bargaining was conducted under a contract provision permitting the reopening of negotiations if, during the year ended June 1980, the percentage rise in the Bureau of Labor Statistics Consumer Price Index for the New York City-Northeastern New Jersey area exceeded the total of the specified wage increases received during the period. The 1981 settlement provided for wage and benefit improvements and extended the existing contract by 3 years.

The initial wage increase, retroactive to January 1, 1981, was \$5.50 a week for nontipped employees and \$3.80 for tipped employees. Further increases are \$20,

\$25, and \$25.50 a week for nontipped employees on June 1 of 1981, 1982, and 1983. Tipped employees receive increases of \$13.75, \$17.20, and \$17.50 on the corresponding dates. The night shift differential was increased to 40 cents an hour, from 30 cents, and there also were additional pay adjustments for certain types of workers. The contract is subject to a cost-of-living reopening in 1984.

Benefit improvements included a \$30-, \$65-, and \$100-a-month increase in the \$150 pension for employees who retire after June 1 of 1981, 1982, and 1983, respectively.

Paid funeral leave and optical benefits were established. The optical plan is financed by an existing employer benefit cost obligation of \$1.50 a month for each worker.

Public employee settlements

The State of Illinois and the State, County and Municipal Employees negotiated a 2-year contract to become effective on the July 1, 1981, termination of their existing contract. The accord, which covered 40,000 State employees, provided for an 8-percent increase in salary scales on that date and an additional 8-percent increase a year later. Salary scales previously ranged from \$9,360 to \$50,000 a year.

In Minnesota, 2,700 Hennepin County employees approved a 2-year contract that provided for a 9-percent salary increase in each year. It also called for additional pay adjustments of 2.5 to 20 percent for 930 employees and for improvements in benefits. The employees are represented by the State, County and Municipal Employees union.

A 5-month strike against the Ravenna, Ohio, public school system ended when the school board approved a settlement with the local unit of the National Education Association. The walkout, possibly the longest in the history of U.S. public schools, began in November and centered on the teachers' salary demands. Initially, more than 200 teachers participated in the strike, but only 117 were still out at the time of the settlement. The schools continued to operate during the strike, staffed by nonstrikers, administrators, and substitute teachers. The contract, which expires on August 1, 1982, provides for a 6-percent salary increase for the teachers, contingent on the outcome of a special referendum on a tax increase to meet the cost.

The Kansas City, Mo., School District and the local affiliate of the American Federation of Teachers negotiated a 7-percent salary increase for the 1981-82 school year. School officials, who had been offering a 6-percent increase just prior to the settlement, said that the cost of the higher increase could lead to the furlough of 80 to 120 employees, in addition to an estimated 650 em-

ployees already expected to be laid off. Other provisions included an increase in length-of-service salary increments and in the District's financing of health and dental insurance.

Settlement reached in asbestos exposure case

Five asbestos companies have reached an out-of-court settlement with workers who claimed damages because of adverse health conditions resulting from exposure to the mineral. The settlement was approved just before the start of the trial of the 6-year-old case, which consolidated nine suits containing 680 claims of \$2 million each.

The claims were filed by employees of a former Raybestos-Manhattan, Inc., plant in Passaic, N.J. The employees contended that they were poisoned while making products from asbestos supplied by Johns-Manville Corp., Asbestos Corp. of America, and three Canadian Companies—Bell's Asbestos Co., Asbestos Corp., and Cassier Asbestos Ltd. Metropolitan Life Insurance Co., which did studies of the effects of asbestos in the 1930's, also was a defendant.

Under the settlement, the companies established a \$9.4-million fund to be distributed to the 680 workers in amounts to be decided later.

Although Raybestos-Manhattan was not a defendant in the case, it faced other claims resulting from exposure to asbestos. The company said that the number of complaints was 5,375 in January 1981, up from 2,240 at the end of 1979.

Employers cannot sue strikers, high court says

Employer rights to seek damages for violations of collective bargaining agreements were further limited by a Supreme Court ruling that individual union members can not be sued for losses resulting from an illegal strike, whether or not the strike was authorized by the union. The case arose in 1976 when Complete Auto Transit, Inc., and two other Flint, Mich., auto-transport companies sued members of Teamsters Local 332 for damages, contending that their 13-day wildcat strike violated a no-strike clause of the union's collective bargaining agreement with the companies. The employers did not seek damages from the local because it did not authorize or condone the strike. The walkout resulted from a dispute among the employees over whether the local was adequately representing them.

In the suit, filed in U.S. District Court for the Eastern District of Michigan, the companies contended that damages were available under Section 301 of the Labor Management Relations Act of 1947, which specifies the conditions under which employers can initiate suits for violation of contracts. However, the District Court held

that the act did not permit damages to be assessed against individual employees; this ruling was affirmed by the Sixth Circuit Court of Appeals.

In the Supreme Court's majority opinion, Justice William Brennan said that Section 301 specifically excludes damages against individual workers for breach of a collective bargaining agreement and that the legislative history of the act indicates "that Congress wanted to shield individual employees, even though it might leave the employer unable to recover for his losses." He interpreted the wording of Section 301 as "a deeply felt Congressional reaction" against the Supreme Court's 1915 Danbury Hatters ruling, in which many workers lost their homes to satisfy damage claims resulting from a nationwide union-directed boycott. Justice Lewis F. Powell concurred in the majority interpretation of the law, but expressed concern that the absence of remedies set by Congress results in a "lawless vacuum."

Chief Justice Warren E. Burger and Justice William H. Rehnquist dissented, explaining that the Court's ruling means that employees are a "special privileged class," able to hold employers liable for breaches of contract but immune from action for their own breaches.

In 1962, the Supreme Court ruled that individual union officials cannot be held liable for damages resulting from a union strike in violation of a contract. In 1979, the court ruled that a union could not be sued for damages for a wildcat strike it did not sanction.

Arbitration does not preclude Federal suit

The Supreme Court has ruled that submission of a wage claim to arbitration does not preclude employees from seeking redress under the Fair Labor Standards Act. The issue arose when Arkansas-Best Freight Systems of Little Rock, Ark., turned down a request by truck drivers that they be paid for time spent on mandatory safety inspections performed before each trip. The drivers then filed a grievance, citing a contract provision requiring Arkansas-Best to pay employees "for all time worked by them in the service of the employer." A joint union-industry arbitration panel rejected the claim, without explanation. Then, eight drivers filed a suit in Federal District Court asserting that the time was compensable under provisions of the Fair Labor Standards Act and that they were, therefore, entitled to actual and liquidated damages, costs, and attorney's fees. The drivers also alleged that they had not been adequately represented by the union and sought to have the arbitration award set aside and to have proper compensation awarded under terms of the labor contract.

The District Court addressed only the fair representation claim and rejected it. The Court of Appeals concurred, and also held that the lower court was cor-

rect in not addressing the Fair Labor Standards Act claim, concluding that the drivers' voluntary submission of the dispute to arbitration precluded them from seeking statutory relief.

In reversing the Eighth Circuit decision, Justice Brennan, writing for the majority, said:

"Not all disputes between an employee and his employer are suited for binding resolution in accordance with the procedures established by collective bargaining. While courts should defer to an arbitral decision where the employee's claim is based on rights arising out of the collective-bargaining agreement, different considerations apply where the employee's claim is based on rights arising out of a statute designed to provide minimum substantive guarantees to individual workers."

Brennan said similar considerations were the basis for the Court's 1974 decision in *Alexander v. Gardner-Denver Co.*, which held that arbitration does not prevent an employee from bringing suit under the Civil Rights Act of 1964.

In a dissenting opinion, Chief Justice Warren Burger and Justice William H. Rehnquist agreed with the majority decision that minimum wage provisions of the Fair Labor Standards Act may not be waived through the collective bargaining process and that the act creates a private cause of action to vindicate the right to a minimum wage. However, they contended that the majority opinion ignored "a strong congressional policy favoring grievance procedures and arbitration as a method of resolving labor disputes."

Supreme Court finds pension offset valid

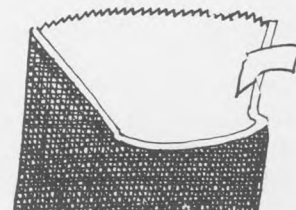
Pensions can be reduced by the amount of any award for an injury covered by a State workers' compensation law, according to the Supreme Court. The Court said that the Congress approved such an offset in enacting the Employee Retirement Income Security Act of 1974 (ERISA).

The case originated when General Motors Corp. and Raybestos-Manhattan, Inc. retirees in New Jersey filed class action suits in a State court charging that the companies violated a 1977 amendment to the New Jersey Compensation Act when they reduced pensions based on workers' compensation awards. Subsequently, the actions were shifted to the Federal District Court, which held that the amendment to the State law was valid; that Congress had not intended ERISA to preempt such State laws; that the offsets were prohibited by Section 203 of ERISA, which states that pension plans "shall provide that an employee's right to his normal retirement benefits is nonforfeitable upon attainment of normal retirement age;" and that a Department of the Treasury regulation authorizing such offsets was invalid. The Third Circuit Court of Appeals reversed the decisions, which led to the appeal to the Supreme Court.

In the unanimous decision, written by Justice Thurgood Marshall for the eight justices who participated, the Court said that the retirees' arguments based on Section 203 of ERISA ignored the fact that Congress did not restrict the freedom of private parties to determine the composition of the pension benefits protected by the section. The Court also decided that the act specifically limited the integration of pensions with social security and railroad retirement benefits, which the Court viewed as an indication that the Congress intended to permit the integration of pensions with workers' compensation and other types of payments.

The Court also rejected the retirees' contention that ERISA's provisions for preempting State or local laws only applied to such laws when they directly regulate pension plans. Justice Marshall said that the State's workers' compensation act was subject to preemption because ERISA "makes clear that even indirect State action bearing on private pensions may encroach upon the area of exclusive Federal concern." □

Book Reviews



Business versus government: a plea for comity

Business and Public Policy. Edited by John T. Dunlop. Boston, Mass., Harvard University press, 1980. 118 pp. \$6.95.

In 1980, the year of apparently modest economic downturn, business publications, and the public press, in general, have been filling many pages with questions about where American business is heading, the quality of its leadership, the degree of government contributions to the present state of affairs, and the amount of increased government intervention or accelerated deregulation desired, presumably to make matters right. Running below this surface turbulence is a condition identified by editor John T. Dunlop, whose carefully restrained opening sentence in one of the seven prescient essays presented here reads: "It is probably not too much to say that business executives and government officials often do not get along."

This slim volume is a prospectus and proposal by Harvard University through its Business School, on one hand, and its School of Government, on the other, to evolve and shape new educational models for replacing abrasive adversity with a more enlightened comity in the relationships between officials of the public and the private sectors. Appropriate staffs of professors and assistants will be assigned to each of the two specialized schools and from these separate bases will work together in establishing research and case study material for graduate and executive level work in the business—public policy area.

The essays which comprise this book, two by businessmen, Irving Shapiro and George Shultz, three by faculty of the Business School, and two by the editor, develop a history of business versus government, some viewpoints of how matters stand today, and a discussion of efforts needed to get a project of this magnitude under way. The opening faculty contribution points out that government regulation of business, starting in the latter part of the 19th century, developed from the appeals of small businessmen who felt threatened by rate discriminations in which the dominant railroads of the day favored large shippers over the small

and similar practices in which large entities bid to overrun the little business operator.

Regulation by government aimed at maintaining fair competitive practices, however, did not provoke the ire of business nearly as much as the comparatively recent growth of socially inspired regulation which sought benefits for the public at large. A cleaner environment, consumer protection, equality in employment, protection against workplace accidents and illnesses, plus the expansion of economic aid to the aged and the poor, have been viewed by large segments of business as particularly burdensome, and, in an economic sense, as counterproductive to normal business health and growth, and, thus, the national well-being.

Materially reducing the level of government subsidy to various public claimants, or the amount of regulation against the undesirable effects which often accompany some industrial activities, is not viewed as likely by the Harvard faculty people writing here. Business and government leaders, they feel, must therefore continue to confront such issues. However, with increased learning and knowledge, the leaders can move in the direction of improved mutual understanding, and thus more beneficial joint problem solving. The professors seem to agree with Irving Shapiro, who says, ". . . the basic lesson to learn is that government and business operate in different environments. What makes a convincing case in one of them may seem almost irrelevant in the other."

The main thrust of this book, the establishment of separated, but cooperating, learning centers for the development of a more realistic business and public policy, does not add claims of guaranteed solutions to the business-government dichotomy. Rather, it looks to a period of search and trial, a search and trial based on the solid foundations of these two schools, and further aided by the presence of representative business and government students in each of their graduate level programs. First among the topics to be explored are the decision-making processes in each realm—government policy and business actions—and how each of these is perceived and acted upon by the other. Also under consideration in curricular development, among numerous other areas of research, are possible adaptations that may make effective use of the existing hundreds of advi-

sory committees, many of which are now acting, according to the faculty writers, as window dressing to the government.

This is an important book because it presents in very readable style an important idea. Again quoting from Shapiro of Du Pont: "What the Nation needs from business and government is an understanding that neither one of those institutions has a monopoly on intelligence or probity. . . . Such understanding can be built only through education and experience."

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Another path to full employment

The Full Employment Alternative. By Andrew Levison.
New York, Coward, McCann & Geoghegan, Inc.,
1980. 252 pp., bibliography. \$10.95

Andrew Levison's book, directed to a general audience, is a call for the achievement of economic security for Americans, through national commitment to a broadened concept of full employment and the coordination and prioritizing of national goals. He views economic security as dependent first upon the availability of suitable jobs for those able to work and then upon legislation ensuring the basic necessities of adequate housing, education, and health. Levison's thesis is that the top priority domestic policy goal should be full employment, with unemployment measured by hardship or economic inadequacy rather than by the current official unemployment rate, which understates the impacts of unemployment by failing to measure subemployment or the severity of unemployment. He suggests the use of a measure such as the Employment and Earnings Inadequacy Index, developed by Sar Levitan, to more fully describe the impact and human meaning of unemployment.

Following this introduction to modern unemployment, analyzed as structurally different from unemployment of the 1930's, which he asserts still influences the policies taken, Levison presents what he dichotomizes as the "conservative solution" and the "liberal dilemma". He describes the conservative solution as imbedded in the neoclassical theory of a self-adjusting free market, which commits its proponents to an outmoded philosophy of *laissez faire*. In contrast, the liberal dilemma arises with the Keynesian-based recognition that *laissez faire* offers no pragmatic solution to modern structural unemployment but with liberals totally committed to standard monetary and fiscal policies to solve unemployment. These general stimulative policies also

fail to achieve the desired goal because they engender a trade-off perspective between unemployment and inflation. Levison's dichotomizing of these two views as basically Democratic and Republican is somewhat overstated, as there is a large area of overlap in both the rhetoric and policy thrusts of the two political parties. However, to extend this timely book a few months beyond its publication, I would point out that President Reagan's statements of long-range goals do not emphasize full employment or economic security in the terms in which Levison presents them.

As background to his proposed solution calling for coordination of government policies and a coalition of government, business, and labor, Levison describes the various approaches of England, Germany, France, and Sweden. He indicates that we could learn much by recognizing, as these European governments have, that neither the neoclassical nor the Keynesian solution suffices today and that an alternative approach is required. Levison's alternative proposal encompasses three fundamental features. He calls for coordination of all major forms of government intervention through the establishment of a basic framework of social goals. This "economic policy planning" is advocated as an extension of the approach established by the Humphrey-Hawkins Full Employment and Balanced Growth Act. Second, the concerted effort he advocates can be made only if labor, business, and government come to an accord or social contract to allow wage restraint and other concessions to be negotiated in the context of broad agreements, in contrast to unilateral wage-price guidelines or controls. Levison further wants to make economic security and jobs the central issue instead of current emphasis on income and poverty.

This book succeeds in presenting a broad approach to the achievement of meaningful full employment without the necessity of inflation. Levison's call for coordination of policies and long-term policy planning in the context of negotiated agreements among major economic constituencies provides the foundation for a viable full employment alternative. It is an important and thought-provoking issue. The book suffers, however, from an overabundance of too-long quotations, many of which are redundant and do little to clarify the fundamental issues. It appears Levison quotes a wide variety of sources in order to humanize the dismal science, but his own optimistic and viable alternative suffices to provide a humanistic thrust to policy formulation. The overriding question which ensues is: Will we have the wisdom and concerted drive to pursue such an alternative?

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Teen unemployment: is there a crisis?

Getting Started: The Youth Labor Market. By Paul Osterman. Cambridge, Mass., The MIT Press, 1980. 160 pp. \$20.

Youth unemployment statistics are by now depressingly familiar. During 1980, the unemployment rate for all youth aged 16–19 averaged almost 18 percent, and for black youth it was twice as high. These figures have led to references to a “youth employment crisis” and calls for drastic action.

There now exists a considerable literature debating the various causes of such extraordinary rates of unemployment and the effect on future labor market behavior. Paul Osterman has been a frequent contributor to these debates, and *Getting Started* represents a summation of that earlier work.

Osterman marshals a wealth of statistical data to support his analysis of the functioning of the youth labor market. While primarily relying on the National Longitudinal Survey, he has also done special surveys in Boston communities of young people and employers.

One of Osterman's main conclusions is that “youth unemployment is a structural problem arising from the marginality of youth labor” (p. 96). This marginality is a characteristic of the stage of adjustment that young people experience and which Osterman refers to as the “moratorium stage.” Structural sources of high unemployment include the hiring practices of firms, the relationship of work patterns to schooling, and the behavior of youth. These three primary causes of high unemployment are not independent of each other; as Osterman notes, the behavior patterns of youth affect the hiring patterns of firms. Nor should these behavior patterns be assumed to be fixed for all time. The economic environment that youth face helps to determine their behavior.

Part of the structure that Osterman emphasizes is the segmentation of the labor market into primary and secondary jobs. The latter typically pay less, provide little training or opportunity for promotion, and have poorer working conditions. Consequently, the work force is less stable than in the primary sector and has a greater proportion of women, blacks, and, of course, youth.

It should not be surprising that most youth find their first jobs in the secondary sector. Many are not interested in full-time or permanent work and have numerous competing interests. But if these youth show little attachment to the labor force, it is also an economic structure that demands little of them. As they mature, most move on to primary jobs. According to Osterman, youth unemployment should not be viewed as a serious problem for the vast majority.

One topic of interest concerns the effect of the minimum wage on youth employment. It is often argued

that the minimum wage prices youth out of the market due to their presumed lower productivity than adult workers. Osterman finds that while there is some negative effect, it is “not large enough that eliminating the minimum wage or imposing a dual minimum would reduce the unemployment of the young to acceptable levels” (p. 83).

If there is no general crisis facing youth, there is a crisis for black youth. While there has been improvement for blacks with regard to wages, education, and types of jobs held, their unemployment levels and participation rates have deteriorated. A major section of this book is devoted to an examination of the sources of this racial differential.

Osterman considers, and rejects, several possible explanations. He finds no significant racial differences in reservation wages, the minimum acceptable wage for taking a job. Other factors, such as qualifications, suburbanization of jobs, and competition from other groups, do explain part of the difference. This still leaves a considerable, unexplained residual. Discrimination, Osterman contends, accounts for this residual—“roughly 50 percent of the unemployment differential” (p. 147).

Osterman buttresses this conclusion with a rather exhaustive test of all alternative factors suggested by traditional theories of the labor market. While one might question his exact estimate of 50 percent, his assertion that the persistence of racial discrimination is a major explanatory factor of racial differentials seems beyond challenge.

Unfortunately, more information should have been provided on the actual models being tested and the theoretical justification for them. Without this, it is difficult to evaluate some of the results. For instance, Osterman concludes from one test that there is competition for jobs between women and young men, both white and black. Yet in a previous study, Osterman found competition only between women and black youth, both male and female. While different equations underlie the conflicting results, Osterman does not provide any reasons for his change in the specification of the model, and hence it is impossible to decide which model might be preferable or even if either makes any sense. Indeed, even Osterman finds the conclusions in the book perplexing, suggesting that they cast “doubt on the reliability of the findings concerning competition from women” (p. 121). One can only agree and wish that he had explored the reasons for this in more detail.

Osterman is not optimistic about the possibility of improving the employment situation of youths in general and blacks in particular. His basic recommendation would be for full employment because in the past, tight labor markets have led to improved conditions and a reduction of the racial differential. He argues that fur-

ther improvement for blacks will depend on developing programs specifically aimed at overcoming the discrimination that confronts blacks. This will require structural interventions in the economy. But, as Osterman points out, little work has been done on designing workable programs, and there appears to be little popular political support for such an orientation. One hopes this book will provide the stimulus for addressing those problems.

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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.

Seasonally adjusted labor force data in tables 2-7 were revised in the February 1981 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, February 1980). 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 begins with the August 1980 issue using the X-11 ARIMA seasonal adjustment methodology. New seasonal factors for productivity data in tables 33 and 34 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month to month and from quarter to quarter are

published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data 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 *BLS Handbook of Labor Statistics*, Bulletin 2070, 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*.

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
Employment situation	July 2	June	August 7	July	1-11
Producer Price Index	July 7	June	August 14	July	26-30
Consumer Price Index	July 23	June	August 25	July	22-25
Real earnings	July 23	June	August 25	July	14-20
Major collective bargaining settlements	July 27	2d quarter	.....	.....	35-36
Labor turnover in manufacturing	July 29	June	August 28	July	12-13
Work stoppages	July 29	June	August 28	July	37
Productivity and costs:					
Nonfarm business and manufacturing	July 30	2d quarter	.....	.....	31-34
Nonfinancial corporations			August 26	2d quarter	31-34

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 60,000 households beginning in May 1981, 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 long-term illness, those discouraged from seeking work because of personal or job market factors, and those who are voluntarily idle. The **noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy.

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 1980.

1. Employment status of the noninstitutional population, 16 years and over, selected years, 1950-80

[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	58,918	7,160	51,758	3,288	5.3	42,787
1955	112,732	68,072	60.4	65,023	62,170	6,450	55,722	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	84,240	61.1	80,734	77,902	3,606	74,296	2,832	3.5	53,602
1970	140,182	85,903	61.3	82,715	78,627	3,462	75,165	4,088	4.9	54,280
1971	142,596	86,929	61.0	84,113	79,120	3,387	75,732	4,993	5.9	55,666
1972	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	83,935	3,492	82,443	5,076	5.6	57,587
1975	153,449	94,793	61.8	92,613	84,783	3,380	81,403	7,830	8.5	58,655
1976	156,048	96,917	62.1	94,773	87,485	3,297	84,188	7,288	7.7	59,130
1977	158,559	99,534	62.8	97,401	90,546	3,244	87,302	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
1980	166,246	106,821	64.3	104,719	97,270	3,310	93,960	7,448	7.1	59,425

2. Employment status by sex, age, and race, seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		1980								1981				
	1979	1980	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
TOTAL															
Total noninstitutional population ¹	163,620	166,246	165,886	166,105	166,391	166,578	166,789	167,005	167,201	167,396	167,585	167,747	167,902	168,071	168,272
Total labor force	104,996	106,821	107,148	106,683	107,119	107,059	107,101	107,288	107,404	107,191	107,668	107,802	108,305	108,851	109,533
Civilian noninstitutional population ¹	161,532	164,143	163,799	164,013	164,293	164,464	164,667	164,884	165,082	165,272	165,460	165,627	165,774	165,941	166,145
Civilian labor force	102,908	104,719	105,060	104,591	105,020	104,945	104,980	105,167	105,285	105,067	105,543	105,681	106,177	106,722	107,406
Employed	96,945	97,270	97,116	96,780	96,999	97,003	97,180	97,206	97,339	97,282	97,696	97,927	98,412	98,976	99,235
Agriculture	3,297	3,310	3,352	3,232	3,267	3,210	3,399	3,319	3,340	3,394	3,403	3,281	3,276	3,463	3,353
Nonagricultural industries	93,648	93,960	93,764	93,548	93,732	93,793	93,781	93,887	93,999	93,888	94,294	94,646	95,136	95,513	95,882
Unemployed	5,963	7,448	7,944	7,811	8,021	7,942	7,800	7,961	7,946	7,785	7,847	7,754	7,764	7,746	8,171
Unemployment rate	5.8	7.1	7.6	7.5	7.6	7.6	7.4	7.6	7.5	7.4	7.4	7.3	7.3	7.3	7.6
Not in labor force	58,623	59,425	58,739	59,422	59,273	59,519	59,687	59,717	59,797	60,205	59,917	59,946	59,598	59,219	58,739
Men, 20 years and over															
Civilian noninstitutional population ¹	68,293	69,607	69,428	69,532	69,664	69,756	69,864	69,987	70,095	70,198	70,320	70,413	70,481	70,574	70,687
Civilian labor force	54,486	55,234	55,440	55,182	55,344	55,403	55,475	55,495	55,539	55,470	55,443	55,445	55,816	56,013	56,395
Employed	52,264	51,972	51,871	51,624	51,714	51,791	51,823	51,963	52,007	52,045	52,091	52,134	52,511	52,750	52,849
Agriculture	2,350	2,355	2,337	2,301	2,306	2,301	2,389	2,351	2,372	2,331	2,378	2,289	2,296	2,409	2,349
Nonagricultural industries	49,913	49,617	49,494	49,323	49,408	49,490	49,434	49,612	49,635	49,714	49,713	49,844	50,215	50,342	50,500
Unemployed	2,223	3,261	3,569	3,558	3,630	3,612	3,652	3,532	3,532	3,425	3,352	3,312	3,305	3,262	3,546
Unemployment rate	4.1	5.9	6.4	6.4	6.6	6.5	6.6	6.4	6.4	6.2	6.0	6.0	5.9	5.8	6.3
Not in labor force	13,807	14,373	13,988	14,350	14,320	14,353	14,389	14,492	14,556	14,728	14,877	14,968	14,665	14,561	14,292
Women, 20 years and over															
Civilian noninstitutional population ¹	76,860	78,295	78,090	78,211	78,360	78,473	78,598	78,723	78,842	78,959	79,071	79,175	79,271	79,377	79,498
Civilian labor force	38,910	40,243	40,193	40,182	40,383	40,523	40,317	40,486	40,629	40,570	40,942	41,090	41,293	41,481	41,852
Employed	36,698	37,696	37,600	37,613	37,728	37,890	37,804	37,754	37,909	37,820	38,191	38,410	38,567	38,760	39,014
Agriculture	591	575	598	550	564	555	592	576	574	665	621	615	606	603	583
Nonagricultural industries	36,107	37,120	37,002	37,063	37,164	37,335	37,212	37,178	37,335	37,155	37,570	37,794	37,961	38,157	38,431
Unemployed	2,213	2,547	2,593	2,569	2,655	2,633	2,513	2,732	2,720	2,750	2,750	2,680	2,725	2,721	2,838
Unemployment rate	5.7	6.3	6.5	6.4	6.6	6.5	6.2	6.7	6.7	6.8	6.7	6.5	6.6	6.6	6.8
Not in labor force	37,949	38,052	37,897	38,029	37,977	37,950	38,281	38,237	38,213	38,389	38,129	38,085	37,978	37,896	37,646
Both sexes, 16-19 years															
Civilian noninstitutional population ¹	16,379	16,242	16,281	16,271	16,268	16,235	16,205	16,174	16,145	16,114	16,069	16,039	16,022	15,991	15,961
Civilian labor force	9,512	9,242	9,427	9,227	9,293	9,019	9,188	9,186	9,117	9,027	9,158	9,146	9,068	9,228	9,159
Employed	7,984	7,603	7,645	7,543	7,557	7,322	7,553	7,489	7,423	7,417	7,414	7,384	7,334	7,465	7,372
Agriculture	356	380	377	381	397	354	418	392	394	398	404	376	374	451	421
Nonagricultural industries	7,628	7,223	7,268	7,162	7,160	6,968	7,135	7,097	7,029	7,019	7,010	7,008	6,960	7,014	6,951
Unemployed	1,528	1,640	1,782	1,684	1,736	1,697	1,635	1,697	1,694	1,610	1,744	1,762	1,734	1,763	1,787
Unemployment rate	16.1	17.7	18.9	18.3	18.7	18.8	18.5	18.6	18.6	17.8	19.0	19.3	19.1	19.1	19.5
Not in labor force	6,867	7,000	6,854	7,044	6,975	7,216	7,017	6,988	7,028	7,087	6,911	6,893	6,954	6,763	6,802
White															
Civilian noninstitutional population ¹	141,614	143,657	143,403	143,565	143,770	143,900	144,051	144,211	144,359	144,500	144,651	144,774	144,882	145,006	145,160
Civilian labor force	90,602	92,171	92,501	92,134	92,335	92,288	92,317	92,516	92,562	92,383	92,832	93,035	93,313	93,860	94,506
Employed	86,025	86,380	86,251	86,007	86,075	86,067	86,307	86,371	86,409	86,377	86,620	86,940	87,291	87,791	88,083
Agriculture	4,577	5,790	6,250	6,127	6,260	6,221	6,010	6,145	6,153	6,006	6,213	6,095	6,022	6,069	6,422
Nonagricultural industries	5.1	6.3	6.8	6.7	6.8	6.7	6.5	6.6	6.6	6.5	6.7	6.6	6.5	6.5	6.8
Unemployed	4,577	5,790	6,250	6,127	6,260	6,221	6,010	6,145	6,153	6,006	6,213	6,095	6,022	6,069	6,422
Unemployment rate	5.1	6.3	6.8	6.7	6.8	6.7	6.5	6.6	6.6	6.5	6.7	6.6	6.5	6.5	6.8
Not in labor force	51,011	51,486	50,902	51,431	51,435	51,612	51,734	51,695	51,797	52,117	51,819	51,739	51,569	51,146	50,654
Black and other															
Civilian noninstitutional population ¹	19,918	20,486	20,395	20,448	20,523	20,564	20,617	20,673	20,723	20,771	20,809	20,853	20,892	20,936	20,985
Civilian labor force	12,306	12,548	12,546	12,491	12,661	12,630	12,677	12,686	12,706	12,668	12,684	12,598	12,765	12,899	12,895
Employed	10,920	10,890	10,842	10,809	10,902	10,902	10,894	10,884	10,922	10,895	11,051	10,942	11,020	11,193	11,138
Unemployed	1,386	1,658	1,704	1,682	1,759	1,728	1,783	1,802	1,784	1,773	1,634	1,655	1,745	1,706	1,757
Unemployment rate	11.3	13.2	13.6	13.5	13.9	13.7	14.1	14.2	14.0	14.0	12.9	13.1	13.7	13.2	13.6
Not in labor force	7,612	7,938	7,849	7,957	7,862	7,934	7,940	7,987	8,017	8,103	8,125	8,255	8,127	8,037	8,090

¹As in table 1, population figures are not seasonally adjusted.

NOTE: The monthly data in this table have been revised to reflect seasonal experience through 1980.

3. Selected employment indicators, seasonally adjusted

[Number in thousands]

Selected categories	Annual average		1980								1981				
	1979	1980	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
CHARACTERISTIC															
Total employed, 16 years and over	96,945	97,270	97,116	96,780	96,999	97,003	97,180	97,206	97,339	97,282	97,696	97,927	98,412	98,976	99,235
Men	56,499	55,988	55,914	55,597	55,678	55,589	55,754	55,881	55,897	55,920	56,012	56,045	56,383	56,688	56,718
Women	40,446	41,283	41,202	41,183	41,321	41,414	41,426	41,325	41,442	41,362	41,684	41,882	42,029	42,288	42,517
Married men, spouse present	39,090	38,302	38,197	38,220	38,049	37,987	38,027	38,142	38,167	38,231	38,182	38,113	38,365	38,510	38,498
Married women, spouse present	22,724	23,097	23,145	23,131	23,118	23,126	23,027	22,993	23,065	23,063	23,352	23,356	23,513	23,529	23,831
OCCUPATION															
White-collar workers	49,342	50,809	50,627	50,836	51,023	51,307	51,074	51,101	51,148	51,065	51,594	51,698	51,746	51,801	51,967
Professional and technical	15,050	15,613	15,540	15,682	15,717	15,751	15,540	15,780	15,863	15,810	15,965	15,813	15,827	15,754	15,688
Managers and administrators, except farm	10,516	10,919	10,877	10,901	10,999	11,109	11,007	10,979	11,016	11,009	11,363	11,488	11,565	11,444	11,260
Salesworkers	6,163	6,172	6,072	6,046	6,130	6,140	6,316	6,277	6,155	6,175	6,265	6,271	6,220	6,145	6,461
Clerical workers	17,613	18,105	18,138	18,207	18,177	18,307	18,211	18,065	18,114	18,071	18,001	18,125	18,135	18,457	18,557
Blue-collar workers	32,066	30,800	30,800	30,443	30,276	30,232	30,436	30,521	30,550	30,373	30,338	30,446	30,594	31,156	31,373
Craft and kindred workers	12,880	12,529	12,551	12,357	12,403	12,346	12,490	12,485	12,424	12,337	12,336	12,386	12,605	12,624	12,743
Operatives, except transport	10,909	10,346	10,379	10,233	10,189	10,147	10,202	10,210	10,247	10,194	10,331	10,390	10,189	10,524	10,609
Transport equipment operatives	3,612	3,468	3,458	3,429	3,354	3,478	3,434	3,443	3,429	3,402	3,322	3,361	3,363	3,411	3,390
Nonfarm laborers	4,665	4,456	4,412	4,424	4,330	4,261	4,310	4,383	4,450	4,440	4,380	4,309	4,437	4,596	4,632
Service workers	12,834	12,958	12,947	12,941	13,017	12,928	12,943	12,891	12,888	12,982	12,946	13,070	13,279	13,255	13,213
Farmworkers	2,703	2,704	2,730	2,625	2,694	2,620	2,757	2,735	2,729	2,804	2,737	2,662	2,679	2,834	2,707
MAJOR INDUSTRY AND CLASS OF WORKER															
Agriculture:															
Wage-and-salary workers	1,413	1,384	1,396	1,369	1,360	1,282	1,417	1,363	1,417	1,411	1,465	1,336	1,338	1,524	1,464
Self-employed workers	1,580	1,628	1,642	1,606	1,631	1,640	1,688	1,640	1,612	1,655	1,615	1,610	1,615	1,648	1,644
Unpaid family workers	304	297	292	278	295	280	309	325	324	305	284	325	312	290	231
Nonagricultural industries:															
Wage-and-salary workers	86,540	86,706	86,722	86,370	86,432	86,490	86,395	86,587	86,643	86,513	87,125	87,236	87,870	88,195	88,877
Government	15,369	15,624	15,720	15,817	15,718	15,531	15,575	15,597	15,651	15,653	15,738	15,589	15,685	15,628	15,512
Private industries	71,171	71,081	71,002	70,553	70,714	70,959	70,820	70,990	70,992	70,860	71,387	71,647	72,185	72,567	73,365
Private households	1,240	1,166	1,197	1,204	1,230	1,196	1,125	1,144	1,148	1,110	1,197	1,176	1,235	1,241	1,164
Other industries	69,931	69,915	69,805	69,349	69,484	69,763	69,695	69,846	69,844	69,750	70,190	70,471	70,949	71,327	72,201
Self-employed workers	6,652	6,850	6,698	6,728	6,801	6,881	6,977	7,005	6,943	6,973	6,839	6,923	6,896	7,021	6,761
Unpaid family workers	455	404	406	445	426	403	416	417	405	396	422	371	354	306	338
PERSONS AT WORK¹															
Nonagricultural industries															
Full-time schedules	72,647	72,022	71,501	71,454	70,825	71,526	71,929	72,071	72,265	72,131	72,807	72,945	72,875	72,761	73,375
Part time for economic reasons	3,281	3,965	4,276	3,969	4,086	4,143	4,183	4,220	4,176	4,218	4,474	4,145	4,227	4,044	4,143
Usually work full time	1,325	1,669	1,998	1,734	1,794	1,709	1,701	1,685	1,620	1,647	1,698	1,622	1,638	1,517	1,630
Usually work part time	1,956	2,296	2,278	2,235	2,292	2,434	2,482	2,535	2,556	2,571	2,776	2,523	2,589	2,527	2,513
Part time for noneconomic reasons	12,205	12,338	12,197	12,571	12,520	12,526	12,134	12,197	12,253	12,119	12,218	12,351	12,481	12,397	12,352

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

NOTE: The monthly data in this table have been revised to reflect seasonal experience through 1980.

4. Selected unemployment indicators, seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		1980								1981				
	1979	1980	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
CHARACTERISTIC															
Total, 16 years and over	5.8	7.1	7.6	7.5	7.6	7.6	7.4	7.6	7.5	7.4	7.4	7.3	7.3	7.3	7.6
Men, 20 years and over	4.1	5.9	6.4	6.4	6.6	6.5	6.6	6.4	6.4	6.2	6.0	6.0	5.9	5.8	6.3
Women, 20 years and over	5.7	6.3	6.5	6.4	6.6	6.5	6.2	6.7	6.7	6.8	6.7	6.5	6.6	6.6	6.8
Both sexes, 16-19 years	16.1	17.7	18.9	18.3	18.7	18.8	17.8	18.5	18.6	17.8	19.0	19.3	19.1	19.1	19.5
White, total	5.1	6.3	6.8	6.7	6.8	6.7	6.5	6.6	6.6	6.5	6.7	6.6	6.5	6.5	6.8
Men, 20 years and over	3.6	5.2	5.8	5.7	5.8	5.8	5.8	5.7	5.7	5.5	5.5	5.4	5.4	5.2	5.6
Women, 20 years and over	5.0	5.6	5.7	5.7	5.8	5.8	5.5	5.8	5.9	6.0	6.0	5.7	5.6	5.7	6.0
Both sexes, 16-19 years	13.9	14.8	17.1	16.1	16.5	16.6	15.1	16.0	16.4	15.4	16.8	17.4	16.9	17.2	18.0
Black and other, total	11.3	13.2	13.6	13.5	13.9	13.7	14.1	14.2	14.0	14.0	12.9	13.1	13.7	13.2	13.6
Men, 20 years and over	8.4	11.4	11.7	12.2	12.5	12.5	13.2	12.1	12.0	11.6	10.5	10.8	10.8	10.6	11.8
Women, 20 years and over	10.1	11.1	11.6	10.9	11.3	10.9	10.6	12.3	12.2	12.3	11.0	11.9	12.6	11.8	12.0
Both sexes, 16-19 years	33.5	35.8	35.3	34.8	35.9	37.6	37.8	37.4	36.6	37.5	36.5	35.4	37.3	36.1	33.6
Married men, spouse present	2.7	4.2	4.6	4.6	4.9	4.8	4.7	4.6	4.4	4.3	4.2	4.1	4.1	3.8	4.1
Married women, spouse present	5.1	5.8	6.1	6.0	6.1	6.0	5.7	6.0	5.9	5.8	6.2	5.8	6.0	5.9	5.9
Women who head families	8.3	9.1	8.3	8.5	8.8	9.0	9.0	10.2	9.9	10.4	10.5	9.6	9.4	9.8	10.3
Full-time workers	5.3	6.8	7.3	7.2	7.4	7.3	7.3	7.3	7.4	7.3	7.1	7.1	7.1	6.9	7.3
Part-time workers	8.7	8.7	9.0	8.8	8.8	8.7	8.7	9.1	8.6	8.2	9.2	9.1	9.0	9.0	9.7
Unemployed 15 weeks and over	1.2	1.7	1.6	1.7	1.8	2.0	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.0	2.0
Labor force time lost ¹	6.3	7.9	8.6	8.1	8.4	8.3	8.2	8.4	8.3	8.2	8.2	8.1	8.1	8.2	8.6
OCCUPATION															
White-collar workers	3.3	3.7	3.8	3.7	3.7	3.7	3.8	3.9	3.9	4.0	3.9	3.7	3.9	4.0	4.1
Professional and technical	2.4	2.5	2.6	2.5	2.4	2.4	2.5	2.6	2.5	2.6	2.8	2.6	2.7	3.2	2.9
Managers and administrators, except farm	1.9	2.4	2.6	2.5	2.6	2.5	2.4	2.5	2.4	2.5	2.4	2.4	2.6	2.4	2.7
Salesworkers	3.9	4.4	4.4	4.4	4.2	4.2	4.3	4.6	4.8	4.7	4.4	4.0	3.8	4.0	4.6
Clerical workers	4.6	5.3	5.3	5.2	5.4	5.4	5.4	5.6	5.6	5.8	5.7	5.3	5.9	5.6	5.6
Blue-collar workers	6.9	10.0	10.9	11.1	11.3	11.1	10.8	10.8	10.7	10.5	10.2	10.1	9.8	9.6	10.0
Craft and kindred workers	4.5	6.6	7.5	7.5	7.2	7.6	7.4	7.1	7.1	7.1	6.8	7.2	7.1	6.8	7.7
Operatives, except transport	8.4	12.2	13.7	13.4	14.4	13.3	13.0	13.2	13.0	12.9	12.1	11.9	11.3	11.5	11.9
Transport equipment operatives	5.4	8.8	8.7	10.0	10.0	9.8	10.4	10.6	10.6	8.8	9.1	8.3	9.3	8.1	8.2
Nonfarm laborers	10.8	14.6	14.9	15.7	15.8	16.1	15.2	15.3	15.0	14.8	15.0	14.9	14.1	13.8	13.1
Service workers	7.1	7.9	8.2	8.1	8.3	8.5	8.1	8.3	8.3	7.8	8.0	8.7	8.1	8.5	9.4
Farmworkers	3.8	4.4	4.7	4.5	4.6	5.5	4.3	4.4	4.0	4.0	5.0	4.7	5.1	3.7	5.4
INDUSTRY															
Nonagricultural private wage-and-salary workers ²	5.7	7.4	8.0	8.0	8.0	8.0	7.8	7.8	7.8	7.7	7.5	7.5	7.3	7.2	7.8
Construction	10.2	14.2	16.6	15.6	15.8	17.3	15.9	14.6	14.8	13.8	13.3	13.2	14.7	14.4	16.3
Manufacturing	5.5	8.5	9.7	9.7	9.8	9.3	9.2	9.2	8.9	8.8	8.4	8.4	8.0	7.4	7.9
Durable goods	5.0	8.9	10.4	10.9	10.7	10.1	10.0	9.5	9.0	9.0	8.3	8.5	7.9	7.3	7.3
Nondurable goods	6.4	7.9	8.6	7.9	8.5	8.0	7.9	8.9	8.6	8.5	8.5	8.2	8.3	7.6	8.9
Transportation and public utilities	3.7	4.9	5.0	5.1	5.6	5.6	5.3	5.3	4.9	4.9	5.8	5.5	6.4	5.7	5.9
Wholesale and retail trade	6.5	7.4	7.5	7.7	7.6	7.7	7.7	7.8	8.2	8.3	7.6	7.6	7.3	7.3	8.4
Finance and service industries	4.9	5.3	5.6	5.6	5.6	5.5	5.4	5.6	5.5	5.5	5.8	6.0	5.6	5.9	5.9
Government workers	3.7	4.1	4.2	3.5	4.1	4.0	4.1	4.4	4.2	4.1	4.4	4.3	4.6	4.9	4.8
Agricultural wage-and-salary workers	9.1	10.8	11.4	10.4	10.8	13.2	10.7	11.1	10.1	10.6	11.5	12.1	11.9	9.1	11.1

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.

NOTE: The monthly data in this table have been revised to reflect seasonal experience through 1980.

5. Unemployment rates, by sex and age, seasonally adjusted

Sex and age	Annual average		1980									1981				
	1979	1980	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
	Total, 16 years and over	5.8	7.1	7.6	7.5	7.6	7.6	7.4	7.6	7.5	7.4	7.4	7.3	7.3	7.3	7.6
16 to 19 years	16.1	17.7	18.9	18.3	18.7	18.8	17.8	18.5	18.6	17.8	19.0	19.3	19.1	19.1	19.5	
16 to 17 years	18.1	20.0	21.2	20.0	20.5	22.1	20.1	20.9	21.4	19.9	21.0	21.4	21.3	22.0	21.6	
18 to 19 years	14.6	16.1	17.4	17.6	17.4	16.5	16.0	16.7	16.5	16.4	17.5	17.9	17.7	17.2	18.2	
20 to 24 years	9.0	11.5	12.5	12.1	12.1	12.0	12.0	12.3	12.1	11.7	11.9	11.8	11.7	12.1	12.9	
25 years and over	3.9	5.0	5.3	5.4	5.5	5.4	5.4	5.4	5.4	5.3	5.3	5.1	5.2	5.0	5.3	
25 to 54 years	4.1	5.4	5.6	5.8	5.9	5.9	5.9	5.9	5.9	5.8	5.7	5.5	5.5	5.4	5.6	
55 years and over	3.0	3.3	3.4	3.3	3.4	3.4	3.4	3.4	3.3	3.5	3.5	3.6	3.7	3.3	3.3	
Men, 16 years and over	5.1	6.9	7.5	7.5	7.6	7.6	7.6	7.4	7.4	7.2	7.2	7.1	7.0	6.9	7.4	
16 to 19 years	15.8	18.2	19.4	19.1	19.5	19.9	18.9	19.8	19.8	19.0	20.3	20.1	19.5	19.3	20.2	
16 to 17 years	17.9	20.4	21.5	21.5	20.9	23.7	21.2	21.8	22.3	20.5	23.0	22.1	21.1	22.7	22.7	
18 to 19 years	14.2	16.7	17.6	18.8	18.4	17.1	16.9	18.1	17.8	17.8	18.5	18.7	18.6	17.0	18.3	
20 to 24 years	8.6	12.5	13.5	13.4	13.2	13.6	13.5	13.8	13.2	12.5	12.8	12.7	13.0	13.2	14.2	
25 years and over	3.3	4.7	5.1	5.2	5.4	5.3	5.4	5.1	5.1	4.9	4.9	4.8	4.7	4.6	4.8	
25 to 54 years	3.4	5.1	5.4	5.6	5.8	5.7	6.0	5.6	5.6	5.4	5.2	5.2	5.1	4.9	5.1	
55 years and over	2.9	3.3	3.4	3.6	3.6	3.6	3.5	3.3	3.3	3.3	3.4	3.4	3.2	3.1	3.4	
Women, 16 years and over	6.8	7.4	7.6	7.4	7.7	7.6	7.2	7.7	7.7	7.7	7.7	7.6	7.7	7.7	7.9	
16 to 19 years	16.4	17.2	18.3	17.3	17.7	17.6	16.6	17.0	17.2	16.5	17.5	18.4	18.7	18.9	18.7	
16 to 17 years	18.3	19.5	20.9	18.3	20.1	20.2	18.8	19.8	20.3	19.3	18.7	20.5	21.6	21.1	20.4	
18 to 19 years	15.0	15.6	17.2	16.3	16.2	15.9	15.1	15.1	15.1	14.8	16.4	17.0	16.5	17.4	18.2	
20 to 24 years	9.6	10.3	11.3	10.6	10.9	10.2	10.2	10.6	10.8	10.8	10.8	10.8	10.1	10.9	11.4	
25 years and over	4.8	5.5	5.5	5.5	5.7	5.7	5.4	5.9	5.8	5.9	5.8	5.6	5.9	5.6	5.9	
25 to 54 years	5.2	5.9	6.0	6.0	6.1	6.2	5.9	6.4	6.2	6.3	6.3	5.9	6.2	6.0	6.4	
55 years and over	3.2	3.2	3.3	2.9	3.1	3.1	3.3	3.4	3.4	3.9	3.6	3.9	4.5	3.7	3.3	

6. Unemployed persons, by reason for unemployment, seasonally adjusted

[Numbers in thousands]

Reason for unemployment	1980									1981				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
NUMBER OF UNEMPLOYED														
Lost last job	4,164	4,468	4,364	4,319	4,387	4,240	4,229	4,226	3,847	3,896	3,846	3,819	4,084	
On layoff	1,771	1,954	1,832	1,699	1,744	1,692	1,453	1,470	1,258	1,267	1,299	1,280	1,368	
Other job losers	2,393	2,514	2,532	2,620	2,643	2,548	2,776	2,756	2,590	2,629	2,547	2,539	2,715	
Left last job	930	887	866	890	855	870	897	813	907	884	863	854	1,009	
Reentered labor force	1,975	1,834	1,868	1,883	1,844	2,013	1,896	1,869	2,039	1,970	2,040	2,017	2,126	
Seeking first job	871	872	893	870	862	880	890	868	1,000	928	986	987	938	
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	52.4	55.4	54.6	54.2	55.2	53.0	53.5	54.3	49.4	50.7	49.7	49.7	50.1	
On layoff	22.3	24.2	22.9	21.3	21.9	21.1	18.4	18.9	16.1	16.5	16.8	16.7	16.8	
Other job losers	30.1	31.2	31.7	32.9	33.3	31.8	35.1	35.4	33.2	34.2	32.9	33.1	33.3	
Job leavers	11.7	11.0	10.8	11.2	10.8	10.9	11.3	10.5	11.6	11.5	11.2	11.1	12.4	
Reentrants	24.9	22.8	23.4	23.6	23.2	25.2	24.0	24.0	26.2	25.7	26.4	26.3	26.1	
New entrants	11.0	10.8	11.2	10.9	10.8	11.0	11.2	11.2	12.8	12.1	12.7	12.9	11.5	
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE														
Job losers	4.0	4.3	4.2	4.1	4.2	4.0	4.0	4.0	3.6	3.7	3.6	3.6	3.8	
Job leavers	.9	.8	.8	.8	.8	.8	.9	.8	.9	.8	.8	.8	.9	
Reentrants	1.9	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	1.9	1.9	1.9	2.0	
New entrants	.8	.8	.9	.8	.8	.8	.8	.8	.9	.9	.9	.9	.9	

7. Duration of unemployment, seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		1980									1981				
	1979	1980	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	
Less than 5 weeks	2,869	3,208	3,714	3,281	3,317	3,255	3,042	3,196	3,108	3,115	3,259	3,203	3,209	3,074	3,369	
5 to 14 weeks	1,892	2,411	2,589	2,812	2,649	2,533	2,586	2,500	2,524	2,217	2,264	2,356	2,462	2,581		
15 weeks and over	1,202	1,829	1,686	1,777	1,935	2,150	2,295	2,292	2,329	2,378	2,358	2,250	2,192	2,168		
15 to 26 weeks	684	1,028	980	1,024	1,093	1,239	1,366	1,256	1,213	1,231	1,079	992	1,013	1,001		
27 weeks and over	518	802	706	753	842	911	929	1,036	1,116	1,147	1,279	1,257	1,179	1,104		
Average (mean) duration, in weeks	10.9	11.9	10.6	11.7	11.8	12.5	13.0	13.3	13.6	13.5	14.4	14.4	14.0	13.7		

NOTE: The monthly data in these tables have been revised to reflect seasonal experience through 1980.

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 166,000 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 services 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 June 1980 data, published in the August 1980 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 March 1980 and seasonally adjusted data from January 1974 through March 1980) 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 1978-80, see *Employment and Earnings*, March 1980, pp. 10-11. Real earnings data are adjusted using the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

8. Employment by industry, 1951-80

[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
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	82,471	813	3,851	19,682	4,713	18,516	4,708	13,808	4,467	15,303	15,127	2,727	12,399
1978	86,697	851	4,229	20,505	4,923	19,542	4,969	14,573	4,724	16,252	15,672	2,753	12,919
1979	89,886	960	4,483	21,062	5,141	20,269	5,204	15,066	4,974	17,078	15,920	2,773	13,147
1980	90,657	1,025	4,469	20,361	5,156	20,573	5,281	15,292	5,162	17,741	16,170	2,866	13,304

¹Data include Alaska and Hawaii beginning in 1959.

9. Employment by State

[Nonagricultural payroll data, in thousands]

State	Apr. 1980	Mar. 1981	Apr. 1981 ^P	State	Apr. 1980	Mar. 1981	Apr. 1981 ^P
Alabama	1,366.8	1,350.1	1,343.0	Montana	276.2	276.8	279.3
Alaska	166.6	165.5	169.9	Nebraska	633.6	620.8	628.8
Arizona	1,016.9	1,022.9	1,022.0	Nevada	394.8	405.7	408.9
Arkansas	747.6	746.5	751.3	New Hampshire	379.3	381.5	381.1
California	9,855.0	9,870.6	9,896.8	New Jersey	3,041.8	3,039.0	3,069.9
Colorado	1,245.6	1,260.2	1,262.1	New Mexico	462.9	461.7	463.6
Connecticut	1,427.6	1,428.6	1,432.6	New York	7,136.7	7,160.2	7,209.5
Delaware	254.7	255.4	256.6	North Carolina	2,395.1	2,387.1	2,395.9
District of Columbia	615.2	611.6	613.3	North Dakota	244.5	241.3	245.2
Florida	3,568.4	3,750.2	3,740.9	Ohio	4,425.3	4,330.8	4,369.4
Georgia	2,148.2	2,161.5	2,169.9	Oklahoma	1,130.9	1,166.9	1,171.9
Hawaii	408.5	406.2	405.3	Oregon	1,054.4	1,009.9	1,013.0
Idaho	328.0	325.8	326.2	Pennsylvania	4,778.5	4,684.0	4,697.2
Illinois	4,895.4	4,789.6	4,793.6	Rhode Island	398.2	392.9	396.4
Indiana	2,147.5	2,110.9	2,121.4	South Carolina	1,199.7	1,185.2	1,191.0
Iowa	1,120.8	1,075.9	1,085.9	South Dakota	237.5	230.2	233.0
Kansas	953.2	950.7	957.1	Tennessee	1,752.2	1,713.4	1,720.0
Kentucky	1,219.1	1,198.0	1,178.4	Texas	5,796.0	6,049.9	6,070.9
Louisiana	1,554.2	1,618.0	1,620.9	Utah	551.0	556.2	555.1
Maine	413.7	408.7	413.0	Vermont	196.9	204.2	200.8
Maryland	1,702.2	1,680.3	1,700.5	Virginia	2,108.1	2,118.1	2,122.7
Massachusetts	2,658.3	2,652.3	2,682.1	Washington	1,615.0	1,589.9	1,596.0
Michigan	3,438.0	3,442.6	3,460.4	West Virginia	646.4	637.2	589.2
Minnesota	1,768.4	1,733.5	NA	Wisconsin	1,936.8	1,909.0	1,935.8
Mississippi	837.9	826.0	831.2	Wyoming	200.1	201.3	202.4
Missouri	1,986.9	1,942.2	1,966.1	Virgin Islands	37.4	36.9	36.7

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10. Employment by industry division and major manufacturing group

[Nonagricultural payroll data, in thousands]

Industry division and group	Annual average		1980								1981				
	1979	1980	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. ^P	May ^P
TOTAL	89,886	90,657	90,849	91,049	89,820	90,072	90,729	91,332	91,693	91,846	90,082	90,245	90,817	91,363	91,860
MINING	960	1,025	1,024	1,049	1,030	1,029	1,035	1,039	1,055	1,064	1,069	1,073	1,086	943	952
CONSTRUCTION	4,483	4,469	4,471	4,611	4,633	4,712	4,690	4,700	4,618	4,431	4,080	3,985	4,135	4,286	4,350
MANUFACTURING	21,062	20,361	20,250	20,201	19,754	20,044	20,269	20,302	20,368	20,316	20,155	20,149	20,246	20,332	20,377
Production workers	15,085	14,277	14,172	14,093	13,657	13,947	14,182	14,204	14,260	14,199	14,047	14,048	14,127	14,203	14,260
Durable goods	12,772	12,215	12,150	12,065	11,774	11,827	12,028	12,100	12,195	12,186	12,110	12,082	12,159	12,230	12,248
Production workers	9,120	8,468	8,409	8,307	8,025	8,075	8,281	8,343	8,430	8,413	8,340	8,317	8,381	8,448	8,466
Lumber and wood products	766.1	686.9	654.8	668.0	666.8	683.0	689.2	686.9	682.8	679.8	668.1	667.8	671.4	679.4	691.3
Furniture and fixtures	499.3	473.7	469.1	460.8	438.1	454.6	466.6	470.3	473.8	475.8	475.0	476.9	477.5	482.7	484.1
Stone, clay, and glass products	709.7	667.9	668.1	666.2	656.0	663.2	667.4	665.5	667.2	654.3	637.4	632.9	641.3	654.2	657.4
Primary metal industries	1,250.2	1,133.3	1,149.8	1,112.9	1,055.5	1,059.6	1,081.8	1,093.1	1,111.9	1,124.6	1,125.5	1,125.7	1,129.1	1,136.0	1,133.9
Fabricated metal products	1,723.7	1,627.1	1,619.8	1,598.6	1,538.4	1,567.6	1,594.5	1,604.6	1,615.6	1,614.6	1,598.6	1,596.8	1,603.9	1,611.9	1,610.2
Machinery, except electrical	2,481.6	2,488.8	2,509.3	2,486.1	2,440.2	2,417.8	2,449.6	2,456.7	2,475.2	2,492.5	2,491.3	2,498.2	2,504.0	2,504.3	2,505.5
Electric and electronic equipment	2,124.3	2,126.3	2,120.2	2,102.2	2,066.5	2,080.7	2,103.5	2,119.3	2,134.9	2,143.9	2,140.1	2,138.5	2,146.0	2,158.9	2,165.5
Transportation equipment	2,082.8	1,889.8	1,835.1	1,847.0	1,810.2	1,785.4	1,857.9	1,885.7	1,912.2	1,888.4	1,872.0	1,840.8	1,876.9	1,887.1	1,882.5
Instruments and related products	688.9	699.7	699.4	702.9	698.3	697.8	695.5	695.9	700.6	702.2	700.6	697.9	699.5	702.1	702.9
Miscellaneous manufacturing	445.6	422.0	424.6	420.1	404.0	417.6	422.2	422.1	421.2	410.1	401.5	406.3	409.7	413.6	415.0
Nondurable goods	8,290	8,146	8,100	8,136	7,980	8,217	8,241	8,202	8,173	8,130	8,045	8,067	8,087	8,102	8,129
Production workers	5,965	5,809	5,763	5,786	5,632	5,872	5,901	5,861	5,830	5,786	5,707	5,731	5,746	5,755	5,792
Food and kindred products	1,728.1	1,690.4	1,638.5	1,676.8	1,709.5	1,795.3	1,790.5	1,738.8	1,696.6	1,667.2	1,625.0	1,617.3	1,609.7	1,605.4	1,616.2
Tobacco manufactures	69.9	69.0	62.7	64.6	63.9	71.3	75.5	76.4	75.6	74.7	72.0	70.4	67.9	65.6	64.3
Textile mill products	888.5	863.8	870.6	853.2	820.6	854.1	854.7	856.8	859.4	858.3	852.5	853.0	853.0	855.2	853.5
Apparel and other textile products	1,312.5	1,296.5	1,299.0	1,310.5	1,236.9	1,299.9	1,309.2	1,307.5	1,302.3	1,281.7	1,266.2	1,285.1	1,299.8	1,304.8	1,316.8
Paper and allied products	706.7	693.9	692.4	695.0	682.3	688.7	688.6	690.7	691.6	691.7	687.9	687.9	688.5	690.7	689.1
Printing and publishing	1,239.5	1,271.7	1,267.8	1,271.3	1,264.5	1,264.3	1,267.9	1,272.2	1,281.0	1,291.6	1,281.7	1,286.8	1,291.4	1,292.5	1,290.2
Chemicals and allied products	1,110.7	1,112.6	1,119.5	1,122.2	1,112.0	1,108.4	1,106.3	1,104.9	1,106.1	1,107.6	1,106.3	1,108.8	1,113.2	1,114.8	1,116.0
Petroleum and coal products	210.0	197.3	203.4	209.1	212.0	212.4	210.9	210.4	210.2	207.8	207.6	206.6	208.1	210.3	211.8
Rubber and miscellaneous plastics products	775.6	710.7	702.4	688.5	659.3	680.4	695.8	703.4	708.3	710.3	708.9	711.2	714.1	719.6	724.0
Leather and leather products	248.0	240.1	243.2	244.7	218.9	242.6	241.1	240.6	241.5	238.8	237.1	239.9	240.9	242.7	246.6
TRANSPORTATION AND PUBLIC UTILITIES	5,141	5,156	5,167	5,185	5,145	5,144	5,170	5,178	5,158	5,163	5,075	5,089	5,107	5,131	5,163
WHOLESALE AND RETAIL TRADE	20,269	20,573	20,497	20,562	20,506	20,579	20,692	20,708	20,937	21,313	20,555	20,396	20,480	20,710	20,899
WHOLESALE TRADE	5,204	5,281	5,263	5,287	5,278	5,284	5,291	5,313	5,313	5,318	5,278	5,275	5,294	5,317	5,337
RETAIL TRADE	15,066	15,292	15,234	15,275	15,228	15,295	15,401	15,395	15,624	15,995	15,277	15,121	15,186	15,393	15,562
FINANCE, INSURANCE, AND REAL ESTATE	4,974	5,162	5,137	5,201	5,229	5,232	5,194	5,204	5,215	5,229	5,226	5,235	5,252	5,281	5,307
SERVICES	17,078	17,741	17,747	17,846	17,973	17,966	17,915	17,949	17,951	17,978	17,788	17,945	18,103	18,293	18,458
GOVERNMENT	15,920	16,170	16,556	16,394	15,550	15,366	15,764	16,252	16,391	16,352	16,134	16,373	16,408	16,387	16,354
Federal	2,773	2,866	2,963	2,995	2,949	2,862	2,754	2,774	2,776	2,782	2,774	2,774	2,769	2,775	2,782
State and local	13,147	13,304	13,593	13,399	12,601	12,504	13,010	13,478	13,615	13,570	13,361	13,599	13,639	13,612	13,572

c = corrected.

11. Employment by industry division and major manufacturing group, seasonally adjusted

[Nonagricultural payroll data, in thousands]

Industry division and group	1980								1981				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. P	May P
TOTAL	90,468	90,047	89,867	90,142	90,384	90,710	90,961	91,125	91,481	91,653	91,705	91,490	91,474
MINING	1,023	1,029	1,013	1,013	1,028	1,037	1,054	1,072	1,086	1,095	1,100	949	951
CONSTRUCTION	4,436	4,379	4,322	4,359	4,404	4,442	4,475	4,508	4,610	4,518	4,514	4,441	4,315
MANUFACTURING	20,286	20,014	19,828	19,940	20,044	20,157	20,282	20,312	20,345	20,375	20,396	20,440	20,412
Production workers	14,186	13,931	13,759	13,872	13,972	14,065	14,179	14,195	14,219	14,241	14,255	14,286	14,273
Durable goods	12,140	11,947	11,819	11,860	11,955	12,043	12,146	12,160	12,188	12,196	12,222	12,259	12,238
Production workers	8,386	8,205	8,084	8,123	8,212	8,288	8,381	8,386	8,408	8,411	8,432	8,463	8,446
Lumber and wood products	654	648	650	662	674	677	683	688	693	692	691	690	691
Furniture and fixtures	472	461	449	456	464	466	469	472	475	477	478	485	487
Stone, clay, and glass products	663	647	641	648	655	656	661	660	663	661	662	659	652
Primary metal industries	1,144	1,096	1,049	1,059	1,074	1,096	1,119	1,133	1,133	1,134	1,135	1,135	1,128
Fabricated metal products	1,620	1,584	1,551	1,569	1,587	1,595	1,606	1,608	1,608	1,610	1,610	1,618	1,610
Machinery, except electrical	2,517	2,476	2,448	2,437	2,452	2,469	2,475	2,480	2,484	2,491	2,494	2,499	2,513
Electric and electronic equipment	2,127	2,094	2,079	2,083	2,091	2,107	2,120	2,135	2,147	2,149	2,155	2,170	2,172
Transportation equipment	1,819	1,831	1,839	1,840	1,851	1,873	1,901	1,868	1,866	1,865	1,879	1,881	1,866
Instruments and related products	700	696	698	697	697	697	701	701	702	700	702	703	704
Miscellaneous manufacturing	424	414	415	409	410	407	411	415	417	417	416	419	415
Nondurable goods	8,146	8,067	8,009	8,080	8,089	8,114	8,136	8,152	8,157	8,179	8,174	8,181	8,174
Production workers	5,800	5,726	5,675	5,749	5,760	5,777	5,798	5,809	5,811	5,830	5,823	5,823	5,827
Food and kindred products	1,691	1,677	1,683	1,690	1,672	1,682	1,686	1,684	1,680	1,685	1,672	1,669	1,668
Tobacco manufactures	70	71	69	67	68	69	71	70	70	71	71	72	72
Textile mill products	869	843	833	851	851	856	856	857	858	856	855	857	852
Apparel and other textile products	1,291	1,287	1,276	1,296	1,299	1,292	1,291	1,291	1,289	1,293	1,297	1,302	1,309
Paper and allied products	692	685	680	682	686	690	692	693	694	696	695	694	688
Printing and publishing	1,268	1,269	1,266	1,266	1,269	1,272	1,278	1,284	1,284	1,289	1,294	1,294	1,290
Chemicals and allied products	1,120	1,112	1,103	1,100	1,104	1,105	1,108	1,112	1,115	1,118	1,118	1,117	1,116
Petroleum and coal products	203	205	207	208	208	209	209	210	213	213	213	212	212
Rubber and miscellaneous plastics products	703	681	663	680	692	699	705	711	713	716	717	722	725
Leather and leather products	239	237	229	240	240	240	240	240	241	242	242	242	242
TRANSPORTATION AND PUBLIC UTILITIES	5,167	5,134	5,114	5,129	5,124	5,147	5,132	5,137	5,142	5,156	5,164	5,162	5,163
WHOLESALE AND RETAIL TRADE	20,487	20,459	20,506	20,589	20,620	20,641	20,660	20,638	20,762	20,885	20,917	20,808	20,888
WHOLESALE TRADE	5,268	5,245	5,247	5,263	5,280	5,292	5,297	5,302	5,315	5,328	5,326	5,338	5,342
RETAIL TRADE	15,219	15,214	15,259	15,326	15,340	15,349	15,363	15,336	15,447	15,557	15,591	15,470	15,546
FINANCE, INSURANCE, AND REAL ESTATE	5,137	5,150	5,167	5,180	5,194	5,214	5,225	5,245	5,268	5,277	5,284	5,297	5,307
SERVICES	17,659	17,652	17,760	17,788	17,861	17,913	17,969	18,068	18,133	18,181	18,212	18,275	18,366
GOVERNMENT	16,273	16,230	16,157	16,144	16,109	16,159	16,164	16,145	16,135	16,166	16,118	16,118	16,072
Federal	2,960	2,951	2,893	2,828	2,765	2,788	2,790	2,789	2,801	2,794	2,786	2,786	2,779
State and local	13,313	13,279	13,264	13,316	13,344	13,371	13,374	13,356	13,334	13,372	13,332	13,332	13,293

c=corrected.

12. Labor turnover rates in manufacturing, 1977 to date

[Per 100 employees]

Year	Annual average	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total accessions													
1977	4.0	3.7	3.7	4.0	3.8	4.6	4.9	4.3	5.3	4.6	3.9	3.1	2.4
1978	4.1	3.8	3.2	3.8	4.0	4.7	4.9	4.4	5.4	4.9	4.3	3.3	2.4
1979	4.0	4.0	3.4	3.8	3.9	4.7	4.8	4.3	5.0	4.5	4.1	3.0	2.2
1980	3.5	3.8	3.3	3.5	3.1	3.4	3.9	3.8	4.5	4.3	3.6	2.7	2.2
1981	...	3.4	3.0	3.4	P3.4	...	...	...	...	...	...	...	...
New hires													
1977	2.8	2.2	2.1	2.6	2.7	3.5	3.7	3.0	4.0	3.5	3.0	2.2	1.6
1978	3.1	2.5	2.2	2.7	2.9	3.6	3.9	3.3	4.2	3.9	3.5	2.6	1.7
1979	2.9	2.8	2.5	2.8	2.9	3.6	3.8	3.1	3.7	3.4	3.1	2.2	1.5
1980	2.1	2.4	2.2	2.3	2.1	2.1	2.4	2.1	2.5	2.6	2.2	1.6	1.2
1981	...	1.8	1.8	2.0	P2.0	...	...	...	...	...	...	...	...
Recalls													
1977	.9	1.2	1.3	1.1	.9	.8	.8	.9	1.0	.8	.6	.6	.6
1978	.7	1.0	.7	.8	.8	.8	.7	.8	.9	.7	.6	.5	.5
1979	.7	.9	.7	.7	.7	.8	.7	.9	.9	.8	.7	.5	.5
1980	1.1	1.1	.9	.9	.8	1.0	1.2	1.4	1.7	1.4	1.1	.9	.8
1981	...	1.3	1.0	1.1	P1.1	...	...	...	...	...	...	...	...
Total separations													
1977	3.8	3.9	3.4	3.4	3.4	3.5	3.5	4.3	5.1	4.9	3.8	3.4	3.4
1978	3.9	3.6	3.1	3.5	3.6	3.7	3.8	4.1	5.3	4.9	4.1	3.5	3.4
1979	4.0	3.8	3.2	3.6	3.7	3.8	3.9	4.3	5.7	4.7	4.2	3.8	3.5
1980	4.0	4.1	3.5	3.7	4.7	4.8	4.4	4.2	4.8	4.1	3.7	3.0	3.1
1981	...	3.6	3.1	3.2	P3.1	...	...	...	...	...	...	...	...
Quits													
1977	1.8	1.4	1.3	1.6	1.7	1.9	1.9	1.9	3.1	2.8	1.9	1.5	1.2
1978	2.1	1.5	1.4	1.8	2.0	2.1	2.2	2.1	3.5	3.1	2.3	1.7	1.3
1979	2.0	1.8	1.6	1.9	2.0	2.1	2.1	2.0	3.3	2.7	2.1	1.6	1.1
1980	1.5	1.6	1.5	1.6	1.5	1.5	1.4	1.4	2.2	1.9	1.4	1.1	.9
1981	...	1.2	1.1	1.2	P1.3	...	...	...	...	...	...	...	...
Layoffs													
1977	1.1	1.7	1.4	1.0	.9	.8	.8	1.5	1.0	1.1	1.1	1.1	1.5
1978	.9	1.2	.9	.9	.8	.7	.7	1.1	.8	.8	.9	1.0	1.4
1979	1.1	1.1	.8	.8	.9	.7	.9	1.4	1.3	1.1	1.2	1.5	1.7
1980	1.7	1.6	1.2	1.3	2.3	2.5	2.2	2.0	1.7	1.4	1.5	1.3	1.6
1981	...	1.6	1.2	1.2	P1.1	...	...	...	...	...	...	...	...

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		
	Apr. 1980	Mar. 1981	Apr. 1981 P	Apr. 1980	Mar. 1981	Apr. 1981 P	Apr. 1980	Mar. 1981	Apr. 1981 P	Apr. 1980	Mar. 1981	Apr. 1981 P	Apr. 1980	Mar. 1981	Apr. 1981 P	Apr. 1980	Mar. 1981	Apr. 1981 P
	1980	1981	1981 P	1980	1981	1981 P	1980	1981	1981 P	1980	1981	1981 P	1980	1981	1981 P	1980	1981	1981 P
MANUFACTURING	3.1	3.4	3.4	2.1	2.0	2.0	0.8	1.1	1.1	4.7	3.2	3.1	1.5	1.2	1.3	2.3	1.2	1.1
Seasonally adjusted	3.0	3.5	3.3	2.1	2.2	2.0	...	...	...	5.3	3.6	3.4	1.5	1.4	1.3	2.9	1.4	1.4
Durable goods	2.7	3.2	3.1	1.7	1.8	1.7	.7	1.1	1.2	4.7	2.9	2.7	1.2	1.0	1.0	2.6	1.2	1.0
Lumber and wood products	4.2	5.4	5.5	2.3	3.0	3.1	1.7	2.2	2.2	10.2	5.0	4.6	2.5	2.0	2.3	6.6	2.1	1.5
Furniture and fixtures	3.3	4.0	4.3	2.7	2.9	3.1	.4	.9	1.1	5.0	3.9	4.0	2.2	2.0	2.0	1.8	1.0	1.0
Stone, clay, and glass products	3.6	4.5	4.4	1.8	1.9	1.9	1.6	2.5	2.3	4.5	3.2	3.0	1.3	1.1	1.1	2.3	1.4	1.1
Primary metal industries	1.9	2.7	2.6	.9	1.0	.9	.8	1.4	1.3	3.8	2.4	2.1	.6	.5	.5	2.4	1.1	.8
Fabricated metal products	3.0	3.9	3.3	1.9	2.1	1.9	.9	1.4	1.1	5.9	3.4	3.1	1.5	1.2	1.1	3.6	1.4	1.3
Machinery, except electrical	2.0	2.5	2.3	1.6	1.6	1.5	2	6	6	3.4	2.4	2.4	1.0	.8	.9	1.6	.9	.9
Electric and electronic equipment	2.6	2.7	2.4	1.7	1.7	1.5	.4	6	5	3.5	2.4	2.3	1.2	1.0	.8	1.3	.6	.7
Transportation equipment	2.6	3.3	...	1.1	1.4	...	1.1	1.5	...	6.2	3.4	...	.8	.8	...	4.5	1.8	...
Instruments and related products	2.4	2.4	2.0	2.0	1.9	1.6	.2	.3	.3	2.6	2.0	2.0	1.2	1.0	1.0	.6	.4	.4
Miscellaneous manufacturing	4.4	4.3	4.3	3.1	2.5	2.4	1.0	1.7	1.7	5.0	3.5	3.6	1.9	1.4	1.5	2.0	1.3	1.3
Nondurable goods	3.8	3.6	3.7	2.6	2.4	2.4	.9	1.1	1.1	4.6	3.5	3.6	2.0	1.5	1.6	1.8	1.3	1.3
Food and kindred products	5.3	4.5	5.4	3.2	2.5	3.1	1.8	1.8	2.1	6.0	5.0	4.8	2.3	1.7	1.8	2.9	2.5	2.2
Tobacco manufacturers	2.6	2.0	...	.8	.8	...	1.0	.7	...	2.8	6.6	...	.3	.3	...	1.5	5.3	...
Textile mill products	4.0	3.3	3.8	3.2	2.4	2.9	.5	.6	.6	4.8	3.4	4.0	2.6	1.8	2.1	1.1	.7	.9
Apparel and other products	5.2	5.3	5.1	3.6	3.3	3.1	1.4	1.8	1.8	5.9	4.9	5.1	2.9	2.3	2.4	2.2	1.9	2.0
Paper and allied products	2.2	2.2	2.6	1.3	1.3	1.4	.7	.7	.9	2.9	2.4	2.3	.9	.8	.8	1.3	1.0	.8
Printing and publishing	2.8	3.1	2.6	2.4	2.5	2.1	.3	.5	.4	3.1	2.8	2.7	1.8	1.6	1.5	.7	.6	.6
Chemicals and allied products	1.5	1.7	1.6	1.2	1.3	1.2	2	3	2	1.8	1.5	1.5	.6	.6	.6	.6	.3	.3
Petroleum and coal products	2.5	2.1	2.6	1.7	1.6	1.9	.8	4	7	2.7	1.6	2.0	.7	.5	.6	1.5	.6	.7
Rubber and miscellaneous plastics products	3.2	4.1	3.6	2.2	2.6	2.3	.8	1.2	1.0	6.8	3.4	3.5	1.9	1.4	1.5	3.7	1.0	1.0
Leather and leather products	7.0	5.7	6.2	5.1	4.2	4.3	1.4	1.4	1.6	6.9	5.2	5.6	3.8	2.6	2.9	2.1	1.6	1.7

14. Hours and earnings, by industry division, 1950-80

[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		
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	332.88	43.4	7.67	318.69	36.8	8.66	249.27	40.4	6.17
1979	219.30	35.6	6.16	365.50	43.0	8.50	342.99	37.0	9.27	268.94	40.2	6.69
1980	235.10	35.3	6.66	396.58	43.2	9.18	367.78	37.0	9.94	288.62	39.7	7.27
	Transportation and public utilities			Wholesale and retail trade			Finance, insurance, and real estate			Services		
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	178.00	36.4	4.89	163.67	32.8	4.99
1979	325.98	39.9	8.17	164.96	32.6	5.06	190.77	36.2	5.27	175.27	32.7	5.36
1980	352.04	39.6	8.89	175.91	32.1	5.48	209.24	36.2	5.78	190.71	32.6	5.85

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		1980								1981				
	1979	1980	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. ^P	May ^P
TOTAL PRIVATE	35.6	35.3	35.0	35.3	35.3	35.5	35.3	35.3	35.3	35.6	35.1	34.9	35.2	35.2	35.2
MINING	43.0	43.2	42.7	43.2	41.9	43.1	43.5	43.5	43.5	44.1	43.5	42.8	42.2	43.5	43.7
CONSTRUCTION	37.0	37.0	36.9	37.9	37.7	37.3	37.9	37.9	36.8	37.1	36.4	35.0	37.2	36.9	36.9
MANUFACTURING	40.2	39.7	39.3	39.4	38.8	39.3	39.7	39.8	40.2	40.8	39.9	39.5	39.9	39.7	40.1
Overtime hours	3.3	2.8	2.5	2.5	2.4	2.7	3.0	2.9	3.1	3.3	2.9	2.8	2.8	2.6	3.0
Durable goods	40.8	40.2	39.7	39.8	39.1	39.7	40.2	40.3	40.7	41.5	40.4	39.9	40.5	40.3	40.7
Overtime hours	3.5	2.8	2.5	2.4	2.3	2.6	2.9	2.9	3.1	3.4	2.9	2.8	2.9	2.7	3.1
Lumber and wood products	39.4	38.6	37.6	38.4	38.2	39.2	39.3	39.2	39.2	39.6	38.8	38.4	39.0	39.0	39.5
Furniture and fixtures	38.7	38.1	37.3	37.3	36.2	37.6	38.3	38.5	38.4	39.6	38.1	38.2	38.8	38.2	38.3
Stone, clay, and glass products	41.5	40.8	40.6	41.0	40.3	40.7	41.1	41.3	41.4	41.6	40.4	39.6	40.7	40.9	41.4
Primary metal industries	41.4	40.1	39.3	39.1	38.6	39.0	39.9	39.9	40.8	41.6	41.1	40.7	41.1	41.3	41.2
Fabricated metal products	40.7	40.4	39.9	40.1	39.2	40.0	40.5	40.5	40.9	41.6	40.4	40.0	40.6	40.3	40.9
Machinery except electrical	41.8	41.1	40.8	40.8	40.0	40.4	41.0	40.7	41.3	42.2	41.2	40.8	41.2	40.8	41.3
Electric and electronic equipment	40.3	39.8	39.3	39.4	38.5	39.2	39.7	39.9	40.4	41.0	40.1	39.6	40.2	39.8	40.1
Transportation equipment	41.1	40.6	39.9	39.9	39.5	40.0	40.7	41.1	41.7	43.1	40.9	40.1	41.1	41.0	41.7
Instruments and related products	40.8	40.5	40.3	40.5	39.6	39.9	40.1	40.3	40.9	41.2	40.6	40.5	40.6	39.9	40.2
Miscellaneous manufacturing	38.8	38.7	38.2	38.3	37.8	38.5	39.1	38.9	39.1	39.5	38.6	38.4	38.9	38.6	39.1
Nondurable goods	39.3	39.0	38.7	38.8	38.5	38.9	39.1	39.1	39.3	39.8	39.1	38.8	39.0	38.8	39.3
Overtime hours	3.1	2.8	2.5	2.5	2.6	2.9	3.0	2.9	3.0	3.1	2.9	2.8	2.7	2.5	2.9
Food and kindred products	39.9	39.7	39.7	39.6	39.9	40.3	40.3	39.7	40.1	40.3	40.0	39.3	39.2	39.3	39.6
Tobacco manufactures	38.0	38.1	38.7	38.3	36.5	36.8	38.2	40.1	40.0	38.1	38.5	38.4	37.2	37.2	38.1
Textile mill products	40.4	40.0	39.8	39.6	38.5	39.2	39.8	39.9	40.3	40.8	39.9	39.8	40.0	39.4	40.4
Apparel and other textile products	35.3	35.4	35.3	35.6	35.3	35.4	35.2	35.4	35.4	35.9	35.2	^c 35.2	35.8	35.2	36.1
Paper and allied products	42.6	42.3	41.6	41.7	41.4	41.8	42.4	42.2	42.8	43.7	42.8	42.3	42.4	42.4	42.7
Printing and publishing	37.5	37.1	36.9	36.7	36.8	37.2	37.3	37.2	37.2	38.1	37.1	36.8	37.0	36.9	37.2
Chemicals and allied products	41.9	41.5	41.3	41.2	40.7	40.9	41.3	41.4	42.0	42.1	41.5	41.5	41.6	41.6	41.9
Petroleum and coal products	43.8	41.8	42.3	42.3	42.7	42.2	43.4	43.7	43.6	43.3	42.6	42.5	42.6	43.2	42.9
Rubber and miscellaneous plastics products	40.5	40.1	39.0	39.3	38.6	40.0	40.3	40.7	41.1	41.6	40.9	40.1	40.7	40.4	40.7
Leather and leather products	36.5	36.7	37.0	37.4	36.4	36.6	36.2	36.5	36.3	36.9	36.6	36.6	36.8	36.2	36.9
TRANSPORTATION AND PUBLIC UTILITIES	39.9	39.6	39.3	39.6	39.9	39.7	39.7	39.8	39.7	40.0	39.4	39.5	39.4	39.3	39.4
WHOLESALE AND RETAIL TRADE	32.6	32.1	31.9	32.3	32.5	32.7	32.1	32.1	32.0	32.4	31.7	31.7	31.9	32.1	32.0
WHOLESALE TRADE	38.8	38.5	38.5	38.2	38.2	38.4	38.5	38.7	38.6	38.9	38.5	38.3	38.5	38.5	38.6
RETAIL TRADE	30.6	30.1	29.9	30.4	30.7	30.9	30.1	30.0	30.0	30.5	29.5	29.6	29.8	30.1	30.0
FINANCE, INSURANCE, AND REAL ESTATE	36.2	36.2	36.1	36.4	36.2	36.3	36.1	36.3	36.3	36.3	36.3	36.4	36.3	36.3	36.2
SERVICES	32.7	32.6	32.3	32.8	33.1	33.1	32.5	32.6	32.6	32.6	32.5	32.6	32.6	32.6	32.4

c = corrected.

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	1980								1981				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. ^P	May ^P
TOTAL PRIVATE	35.1	35.0	34.9	35.1	35.2	35.3	35.4	35.4	35.5	35.3	35.4	35.4	35.3
MINING	42.7	43.2	41.9	43.1	43.5	43.5	43.5	44.1	43.5	42.8	42.2	43.5	43.7
CONSTRUCTION	36.8	37.1	36.8	36.5	37.4	37.0	37.2	37.1	38.5	36.3	37.6	36.9	36.8
MANUFACTURING	39.3	39.1	39.0	39.4	39.6	39.7	39.9	40.1	40.4	39.8	40.0	40.1	40.2
Overtime hours	2.6	2.4	2.5	2.7	2.7	2.8	2.9	3.1	3.1	2.9	2.9	2.9	3.1
Durable goods	39.7	39.5	39.4	39.9	40.1	40.1	40.5	40.6	40.9	40.2	40.5	40.7	40.7
Overtime hours	2.5	2.4	2.4	2.6	2.7	2.8	3.0	3.2	3.1	2.9	3.0	3.0	3.2
Lumber and wood products	37.5	37.6	38.1	38.9	38.8	38.7	39.3	39.4	40.1	38.9	39.4	39.2	39.3
Furniture and fixtures	37.6	37.0	36.6	37.4	38.0	38.0	38.0	38.6	38.9	38.8	38.8	38.8	38.6
Stone, clay, and glass products	40.3	40.4	40.2	40.3	40.9	40.9	41.1	41.3	41.6	40.6	40.9	41.1	41.1
Primary metal industries	39.2	38.8	38.6	39.2	39.7	40.1	40.9	41.4	41.2	40.8	41.1	41.3	41.1
Fabricated metal products	39.9	39.7	39.6	40.1	40.4	40.4	40.6	40.6	40.7	40.4	40.7	40.9	40.9
Machinery, except electrical	41.0	40.7	40.6	40.8	40.9	40.7	41.0	41.0	41.3	40.8	41.0	41.3	41.5
Electric and electronic equipment	39.5	39.2	39.0	39.4	39.5	39.9	40.0	40.2	40.4	39.7	40.2	40.1	40.3
Transportation equipment	39.7	39.5	39.6	40.9	40.6	40.8	41.4	41.3	41.9	40.5	41.1	41.8	41.5
Instruments and related products	40.3	40.4	40.1	40.1	40.1	40.2	40.5	40.5	41.0	40.6	40.4	40.2	40.2
Miscellaneous manufacturing	38.3	38.2	38.3	38.6	38.9	38.7	38.6	39.0	39.0	38.8	38.7	38.7	39.2
Nondurable goods	38.9	38.6	38.5	38.7	38.8	39.0	39.0	39.3	39.7	39.3	39.1	39.2	39.4
Overtime hours	2.6	2.5	2.6	2.8	2.7	2.8	2.9	3.0	3.1	3.0	2.8	2.8	3.0
Food and kindred products	39.9	39.6	39.7	39.8	39.7	39.6	39.8	39.8	40.3	39.9	39.6	40.0	39.8
Tobacco manufactures	38.2	37.3	38.5	37.3	37.5	39.5	38.9	37.2	39.7	39.4	37.2	37.2	37.6
Textile mill products	39.7	39.1	38.8	39.2	39.7	39.9	40.0	40.3	40.5	40.1	39.9	39.8	40.3
Apparel and other textile products	35.3	35.2	35.1	35.1	35.1	35.3	35.0	35.6	36.0	^c 35.7	35.7	35.7	36.1
Paper and allied products	41.7	41.4	41.4	41.8	42.2	42.2	42.6	43.0	43.1	42.8	42.7	42.7	42.8
Printing and publishing	37.1	36.8	36.9	37.1	36.9	37.1	36.8	37.4	37.7	37.2	37.0	37.3	37.4
Chemicals and allied products	41.3	41.1	40.8	41.0	41.3	41.4	41.7	41.7	41.8	41.8	41.6	41.5	41.9
Petroleum and coal products	42.5	42.3	42.2	42.2	42.7	43.1	43.2	43.2	43.4	43.5	42.9	43.2	43.1
Rubber and miscellaneous plastics products	39.3	39.2	39.0	40.2	40.1	40.4	40.8	40.9	41.3	40.1	40.6	40.8	41.0
Leather and leather products	36.7	36.7	36.1	36.5	36.2	36.5	36.2	36.6	37.1	37.0	37.3	36.8	36.6
TRANSPORTATION AND PUBLIC UTILITIES	39.3	39.6	39.9	39.7	39.7	39.8	39.7	40.0	39.4	39.5	39.4	39.3	39.4
WHOLESALE AND RETAIL TRADE	32.1	31.9	31.8	32.0	32.1	32.2	32.2	32.1	32.3	32.2	32.2	32.4	32.2
WHOLESALE TRADE	38.6	38.0	38.0	38.2	38.5	38.5	38.6	38.7	38.8	38.7	38.6	38.6	38.7
RETAIL TRADE	30.1	30.0	29.8	30.1	30.1	30.2	30.2	30.0	30.2	30.2	30.2	30.4	30.2
FINANCE, INSURANCE, AND REAL ESTATE	36.1	36.4	36.2	36.3	36.1	36.3	36.3	36.3	36.3	36.4	36.3	36.3	36.2
SERVICES	32.5	32.6	32.6	32.6	32.5	32.6	32.7	32.6	32.7	32.8	32.8	32.8	32.6

c = corrected.

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		1980									1981				
	1979	1980	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. ^P	May ^P	
TOTAL PRIVATE	\$6.16	\$6.66	\$6.57	\$6.61	\$6.64	\$6.68	\$6.80	\$6.86	\$6.93	\$6.94	\$7.03	\$7.07	\$7.10	\$7.13	\$7.16	
MINING	8.50	9.18	9.08	9.16	9.08	9.18	9.32	9.37	9.51	9.58	9.78	9.87	9.86	9.72	9.70	
CONSTRUCTION	9.27	9.94	9.77	9.81	9.91	10.05	10.19	10.25	10.25	10.35	10.43	10.42	10.45	10.44	10.54	
MANUFACTURING	6.69	7.27	7.13	7.20	7.29	7.30	7.42	7.49	7.59	7.69	7.73	7.74	7.80	7.87	7.91	
Durable goods	7.13	7.76	7.60	7.69	7.77	7.78	7.93	8.02	8.13	8.24	8.25	8.27	8.33	8.41	8.47	
Lumber and wood products	6.08	6.56	6.40	6.56	6.72	6.76	6.80	6.76	6.79	6.77	6.82	6.84	6.82	6.84	6.88	
Furniture and fixtures	5.06	5.48	5.42	5.49	5.52	5.54	5.58	5.59	5.62	5.69	5.70	5.73	5.76	5.79	5.82	
Stone, clay, and glass products	6.85	7.51	7.45	7.53	7.60	7.64	7.69	7.74	7.82	7.83	7.87	7.89	7.94	8.10	8.14	
Primary metal industries	8.97	9.76	9.61	9.65	9.82	9.84	9.95	10.09	10.28	10.35	10.36	10.56	10.52	10.78	10.80	
Fabricated metal products	6.84	7.44	7.32	7.42	7.42	7.48	7.62	7.68	7.75	7.86	7.87	7.90	7.99	8.03	8.13	
Nondurable goods	6.00	6.54	6.42	6.48	6.60	6.62	6.69	6.72	6.80	6.86	6.94	6.95	6.98	7.04	7.07	
Food and kindred products	6.27	6.86	6.82	6.84	6.89	6.90	6.93	6.95	7.09	7.13	7.21	7.25	7.29	7.37	7.39	
Tobacco manufactures	6.65	7.66	7.64	7.97	8.06	7.74	7.42	7.56	7.74	8.00	8.42	8.47	8.54	8.79	8.91	
Textile mill products	4.66	5.07	4.90	4.93	5.06	5.19	5.24	5.26	5.30	5.33	5.34	5.34	5.34	5.35	5.38	
Apparel and other textile products	4.23	4.57	4.45	4.51	4.50	4.60	4.70	4.73	4.75	4.81	4.89	4.87	4.94	4.96	4.97	
Paper and allied products	7.13	7.85	7.65	7.79	7.97	7.99	8.06	8.09	8.18	8.28	8.27	8.28	8.31	8.38	8.44	
Printing and publishing	6.95	7.54	7.44	7.46	7.53	7.63	7.73	7.75	7.79	7.88	7.92	7.96	8.03	8.01	8.08	
Chemicals and allied products	7.60	8.29	8.17	8.24	8.35	8.39	8.46	8.52	8.59	8.68	8.73	8.79	8.84	8.91	8.96	
Petroleum and coal products	9.36	10.09	10.07	10.22	10.25	10.22	10.33	10.39	10.52	10.37	11.06	11.32	11.23	11.40	11.40	
Rubber and miscellaneous plastics products	5.96	6.49	6.34	6.39	6.48	6.57	6.63	6.70	6.79	6.89	6.96	6.95	6.99	7.06	7.12	
Leather and leather products	4.22	4.57	4.53	4.54	4.54	4.59	4.61	4.64	4.68	4.73	4.85	4.87	4.89	4.92	4.97	
TRANSPORTATION AND PUBLIC UTILITIES	8.17	8.89	8.72	8.75	8.90	8.95	9.04	9.20	9.28	9.31	9.35	9.46	9.43	9.54	9.58	
WHOLESALE AND RETAIL TRADE	5.06	5.48	5.42	5.43	5.48	5.48	5.56	5.59	5.64	5.61	5.80	5.84	5.86	5.87	5.89	
WHOLESALE TRADE	6.39	6.97	6.89	6.95	6.99	7.01	7.08	7.10	7.20	7.24	7.33	7.39	7.44	7.49	7.54	
RETAIL TRADE	4.53	4.88	4.82	4.83	4.88	4.89	4.95	4.98	5.02	4.99	5.18	5.20	5.20	5.22	5.22	
FINANCE, INSURANCE, AND REAL ESTATE	5.27	5.78	5.70	5.77	5.77	5.82	5.87	5.91	6.01	6.00	6.10	6.21	6.19	6.18	6.21	
SERVICES	5.36	5.85	5.79	5.81	5.79	5.81	5.93	6.00	6.10	6.12	6.22	6.28	6.30	6.30	6.32	

18. Hourly Earnings Index for production or nonsupervisory workers on private nonagricultural payrolls, by industry division

[Seasonally adjusted data: 1967=100]

Industry	1980									1981					Apr. 1981 to May 1981	May 1980 to May 1981
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. ^P	May ^P			
TOTAL PRIVATE (in current dollars) ..	248.3	250.9	252.1	254.0	255.4	257.9	260.9	261.9	264.4	266.6	268.6	269.8	271.5	0.6	9.4	
Mining	284.2	286.3	285.3	288.9	290.4	294.4	298.7	302.3	306.6	309.2	311.0	311.0	311.8	.3	9.7	
Construction	234.2	235.3	236.7	239.0	239.3	241.6	243.0	245.3	247.8	248.1	250.1	250.3	251.3	.4	7.3	
Manufacturing	255.0	258.3	260.6	262.4	264.5	266.6	268.9	270.4	272.6	274.6	276.8	279.6	280.7	.4	10.1	
Transportation and public utilities ..	268.7	270.6	272.8	273.2	274.0	280.2	283.4	284.1	285.9	289.6	291.3	293.4	296.0	.9	10.2	
Wholesale and retail trade	239.8	241.8	243.5	245.3	246.5	247.7	250.9	250.9	254.6	256.7	258.7	259.2	261.1	.8	8.9	
Finance, insurance, and real estate ..	226.3	230.2	229.0	232.7	233.1	234.8	239.3	238.0	240.2	244.1	245.7	244.2	246.2	.8	8.8	
Services	245.7	248.4	247.6	249.8	251.7	254.2	258.5	259.4	261.3	263.9	265.8	266.0	268.2	.8	9.2	
TOTAL PRIVATE (in constant dollars) ..	101.5	101.6	102.1	102.0	101.5	101.4	101.5	100.8	101.0	100.9	101.1	101.2	...	...	...

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		1980								1981				
	1979	1980	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. P	May P
TOTAL PRIVATE	\$219.30	\$235.10	\$229.95	\$233.33	\$234.39	\$237.14	\$240.04	\$242.16	\$244.63	\$247.06	\$246.75	\$246.74	\$249.92	\$250.98	\$252.03
MINING	365.50	396.58	387.72	395.71	380.45	395.66	405.42	407.60	413.69	422.48	425.43	422.44	416.09	422.82	423.89
CONSTRUCTION	342.99	367.78	360.51	371.80	373.61	374.87	386.20	388.48	377.20	383.99	379.65	364.70	388.74	385.24	388.93
MANUFACTURING	268.94	288.62	280.21	283.68	282.85	286.89	294.57	298.10	305.12	313.75	308.43	305.73	311.22	312.44	317.19
Durable goods	290.90	311.95	301.72	306.06	303.81	308.87	318.79	323.21	330.89	341.96	333.30	329.97	337.37	338.92	344.73
Lumber and wood products	239.55	253.22	240.64	251.90	256.70	264.99	267.24	264.99	266.17	268.09	264.62	262.66	265.98	266.76	271.76
Furniture and fixtures	195.82	208.79	202.17	204.78	199.82	208.30	213.71	215.22	215.81	225.32	217.17	218.89	223.49	221.18	222.91
Stone, clay, and glass products	284.28	306.41	302.47	308.73	306.28	310.95	316.06	319.66	323.75	325.73	317.95	312.44	323.16	331.29	337.00
Primary metal industries	371.36	391.38	377.67	377.32	379.05	383.76	397.01	402.59	419.42	430.56	425.80	429.79	432.37	445.21	444.96
Fabricated metal products	278.39	300.58	292.07	297.54	290.86	299.20	308.61	311.04	316.98	326.98	317.95	316.00	324.39	323.61	332.52
Machinery except electrical	305.98	330.44	322.73	325.18	322.00	326.03	339.48	340.25	348.57	361.65	353.91	352.10	358.03	356.18	364.27
Electric and electronic equipment	254.70	277.01	266.45	270.68	267.96	275.18	283.46	287.28	294.52	302.99	297.54	295.02	301.10	299.30	303.16
Transportation equipment	350.99	379.20	361.49	368.68	368.93	374.00	389.09	401.55	412.41	435.74	408.18	398.59	415.11	416.56	428.26
Instruments and related products	251.74	275.81	270.82	275.40	271.66	273.71	277.49	280.09	287.12	294.17	291.91	291.60	293.54	288.88	294.26
Miscellaneous manufacturing	195.16	210.92	206.28	207.59	206.39	210.21	215.44	215.90	218.96	225.94	224.27	223.10	226.79	227.74	231.47
Nondurable goods	235.80	255.06	248.45	251.42	254.10	257.52	261.58	262.75	267.24	273.03	271.35	269.66	272.22	273.15	277.85
Food and kindred products	250.17	272.34	270.75	270.86	274.91	278.07	279.28	275.92	284.31	287.34	288.40	284.93	285.77	289.64	292.64
Tobacco manufactures	252.70	291.85	295.67	305.25	294.19	284.83	283.44	303.16	309.60	304.80	324.17	325.25	317.69	326.99	339.47
Textile mill products	188.26	202.80	195.02	195.23	194.81	203.45	208.55	209.87	213.59	217.46	213.07	212.53	213.60	210.79	217.35
Apparel and other textile products	149.32	161.78	157.09	160.56	158.85	162.84	165.44	167.44	168.15	172.68	172.13	c 171.42	176.85	174.59	179.42
Paper and allied products	303.74	332.06	318.24	324.84	329.96	333.98	341.74	341.40	350.10	361.84	353.96	350.24	352.34	355.31	360.39
Printing and publishing	260.63	279.73	274.54	273.78	277.10	283.84	288.33	288.30	289.79	300.23	293.83	292.93	297.11	295.57	300.58
Chemicals and allied products	318.44	344.04	337.42	339.49	339.85	343.15	349.40	352.73	360.78	365.43	362.30	364.79	367.74	370.66	375.42
Petroleum and coal products	409.97	421.76	425.96	432.31	437.68	431.28	448.32	454.04	458.67	449.02	471.16	481.10	478.40	492.48	489.06
Rubber and miscellaneous plastics products	241.38	260.25	247.26	251.13	250.13	262.80	267.19	272.69	279.07	286.62	284.66	278.70	284.49	285.22	289.78
Leather and leather products	154.03	167.72	167.61	169.80	165.26	167.99	166.88	169.36	169.88	174.54	177.51	178.24	179.95	178.10	183.39
TRANSPORTATION AND PUBLIC UTILITIES	325.98	352.04	342.70	346.50	355.11	355.32	358.89	366.16	368.42	372.40	368.39	373.67	371.54	374.92	377.45
WHOLESALE AND RETAIL TRADE	164.96	175.91	172.90	175.39	178.10	179.20	178.48	179.44	180.48	181.76	183.86	185.13	186.93	188.43	188.48
WHOLESALE TRADE	247.93	268.35	265.27	265.49	267.02	269.18	272.58	274.77	277.92	281.64	282.21	283.04	286.44	288.37	291.04
RETAIL TRADE	138.62	146.89	144.12	146.83	149.82	151.10	149.00	149.40	150.60	152.20	152.81	153.92	154.96	157.12	156.60
FINANCE, INSURANCE, AND REAL ESTATE	190.77	209.24	205.77	210.03	208.87	211.27	211.91	214.53	218.16	217.80	221.43	226.04	224.70	224.33	224.80
SERVICES	175.27	190.71	187.02	190.57	191.65	192.31	192.73	195.60	198.86	199.51	202.15	204.73	205.38	205.38	204.77

c = corrected.

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
1979	219.30	100.73	177.55	81.56	194.35	89.27	268.94	123.54	212.43	97.58	232.07	106.60
1980	235.10	95.18	188.82	76.45	206.40	83.56	288.62	116.85	225.79	91.41	247.01	100.00
1980: May	229.95	93.82	185.23	75.57	202.49	82.62	280.21	114.32	220.08	89.79	240.63	98.18
June	233.33	94.16	187.59	75.70	205.06	82.75	283.68	114.48	222.43	89.76	243.26	98.17
July	234.39	94.51	188.33	75.94	205.86	83.01	282.85	114.05	221.87	89.46	242.63	97.83
August	237.14	95.01	190.25	76.22	207.95	83.31	286.89	114.94	224.61	89.99	245.69	98.43
September	240.04	95.29	192.28	76.33	210.15	83.43	294.57	116.94	229.82	91.23	251.52	99.85
October	242.16	95.30	193.76	76.25	211.76	83.34	298.10	117.32	232.22	91.39	254.20	100.04
November	244.63	95.41	195.48	76.24	213.63	83.32	305.12	119.00	236.98	92.43	259.52	101.22
December	247.06	95.50	197.18	76.22	215.47	83.29	313.75	121.28	242.60	93.78	265.84	102.76
1981: January	246.75	94.65	195.68	75.06	213.96	82.07	308.43	118.31	237.60	91.14	260.36	99.87
February	246.74	93.64	195.67	74.26	213.95	81.20	305.73	116.03	235.81	89.49	258.40	98.06
March	249.92	94.24	197.88	74.62	216.34	81.58	311.22	117.35	239.37	90.26	262.38	98.94
April ^p	250.98	94.07	198.61	74.44	217.14	81.39	312.44	117.11	240.14	90.01	263.26	98.67
May ^p	252.03	...	199.34	...	217.93	...	317.19	...	243.15	...	266.70	...

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. These series are described in "The Spendable Earnings Series: A Technical Note on its Cal-

ulation," **Employment and Earnings and Monthly Report on the Labor Force**, February 1969, pp. 6-13. See also "Spendable Earnings Formulas, 1979-81," **Employment and Earnings**, March 1981, pp. 10-11.

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 State programs, Unemployment Compensation for Ex-Servicemen, and Unemployment Compensation for Federal Employees, 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	1980									1981			
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
All programs:													
Insured unemployment	3,629	3,680	3,790	4,140	3,911	3,961	3,661	3,726	4,085	4,621	4,264	3,948	3,453
State unemployment insurance program: ¹													
Initial claims ²	2,190	2,248	2,319	2,737	1,829	1,702	1,808	1,673	2,544	2,653	1,806	1,684	.....
Insured unemployment (average weekly volume)	3,278	3,343	3,455	3,692	3,408	3,087	2,903	2,983	3,321	3,844	3,669	3,382	2,988
Rate of insured unemployment	3.8	3.9	4.0	4.3	3.9	3.6	3.3	3.4	3.8	4.4	4.2	3.9	3.4
Weeks of unemployment compensated	12,689	12,302	12,441	14,398	12,786	11,689	11,443	9,524	12,603	14,228	12,882	13,504	.....
Average weekly benefit amount for total unemployment	\$99.52	\$99.55	\$99.88	\$98.75	\$99.68	\$99.86	\$92.32	\$101.96	\$101.43	\$102.34	\$101.89	\$105.63	.....
Total benefits paid	\$1,232,173	\$1,196,836	\$1,213,595	\$1,397,508	\$1,249,782	\$1,144,885	\$1,125,416	\$1,055,065	\$1,242,957	\$1,416,513	\$1,313,507	\$1,393,612	.....
Unemployment compensation for ex-servicemen: ³													
Initial claims ¹	21	20	23	27	23	25	23	17	21	19	17	18	.....
Insured unemployment (average weekly volume)	52	50	45	58	55	56	56	54	55	57	54	51	46
Weeks of unemployment compensated	246	220	122	331	244	245	255	216	261	257	221	234	.....
Total benefits paid	\$24,518	\$22,025	\$11,761	\$33,342	\$24,560	\$24,804	\$25,880	\$21,024	\$27,015	\$26,646	\$22,517	\$24,668	.....
Unemployment compensation for Federal civilian employees: ⁴													
Initial claims	11	12	14	17	15	19	21	14	18	22	13	12	.....
Insured unemployment (average weekly volume)	25	22	20	26	25	29	32	35	37	41	40	36	31
Weeks of unemployment compensated	108	88	50	124	93	105	130	118	150	160	148	156	.....
Total benefits paid	\$10,323	\$8,280	\$4,665	\$11,296	\$8,707	\$9,699	\$11,917	\$11,365	\$14,184	\$15,432	\$14,573	\$15,561	.....
Railroad unemployment insurance:													
Applications	4	6	24	44	13	10	9	7	11	13	5	5	6
Insured unemployment (average weekly volume)	27	23	27	44	39	40	38	38	39	53	50	44	41
Number of payments	62	54	55	66	86	89	84	70	83	118	104	115	94
Average amount of benefit payment	\$201.87	\$193.44	\$199.06	\$207.08	\$211.87	\$211.99	\$208.49	\$209.00	\$212.27	\$209.38	\$214.56	\$214.93	\$201.12
Total benefits paid	\$13,002	\$9,953	\$10,140	\$13,320	\$17,336	\$18,809	\$17,789	\$14,269	\$18,046	\$20,303	\$22,049	\$23,233	\$19,239
Employment service: ⁵													
New applications and renewals	10,021	11,446	12,864	14,249	15,431	16,632	.....	.....	4,476	.....	.....	8,659	.....
Nonfarm placements	2,143	2,413	2,730	3,105	3,445	3,827	.....	.....	871	.....	.....	1,574	.....

¹ Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.

² Includes interstate claims for the Virgin Islands. Excludes transition claims under State programs.

³ Excludes data on claims and payments made jointly with other programs.

⁴ Includes the Virgin Islands. Excludes data on claims and payments made jointly with State programs.

⁵ Cumulative total for fiscal year (October 1-September 30). Data computed quarterly.

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, 1967-80

[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
1979	217.7	11.5	228.7	10.9	227.5	12.3	166.4	4.3	212.8	14.5	240.1	9.4	187.6	6.5	196.3	7.2
1980	247.0	13.5	248.7	8.7	263.2	15.7	177.4	6.6	250.5	17.7	267.2	11.3	203.7	8.5	213.6	8.8

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)						
	1980			1981				1980			1981			
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
All items	242.5	256.2	258.4	260.5	263.2	265.1	266.8	242.6	256.4	258.7	260.7	263.5	265.2	266.8
Food and beverages	242.8	257.4	259.3	261.4	263.7	265.0	265.7	243.2	258.7	260.5	262.1	264.3	265.5	266.1
Housing	257.9	273.8	279.9	279.1	280.9	282.6	284.8	257.8	273.7	277.1	279.1	280.7	282.2	284.3
Apparel and upkeep	177.3	184.8	183.9	181.1	182.0	185.1	186.4	176.1	183.3	182.9	180.8	181.8	184.3	186.0
Transportation	246.8	259.0	261.1	264.7	270.9	273.5	275.3	247.7	259.7	261.9	265.7	272.1	274.4	276.3
Medical care	262.0	274.5	275.8	279.5	282.6	284.7	287.0	263.1	276.3	277.6	281.4	284.4	287.0	289.1
Entertainment	202.5	211.2	212.0	214.4	216.7	218.2	219.2	201.3	209.9	210.1	212.2	215.0	216.1	217.0
Other goods and services	209.8	222.8	224.6	226.2	227.4	228.7	229.9	209.2	221.0	223.0	224.4	225.6	226.8	227.9
Commodities	229.9	242.5	243.8	245.4	248.3	249.8	250.8	230.1	242.9	244.3	245.8	248.8	250.2	251.2
Commodities less food and beverages	220.4	232.0	232.9	234.3	237.4	239.0	240.0	220.6	232.0	233.1	234.7	237.9	239.4	240.5
Nondurables less food and beverages	239.5	245.3	246.8	250.2	258.6	263.1	263.8	241.7	247.1	248.8	252.6	261.4	265.7	266.5
Durables	204.9	220.6	221.1	221.0	220.3	219.8	221.1	203.3	218.9	219.7	219.5	218.6	217.8	219.3
Services	265.3	280.9	284.7	287.7	290.1	292.5	295.4	265.8	281.5	285.5	288.4	290.8	293.1	295.9
Rent, residential	187.0	198.3	199.6	200.9	201.9	203.0	204.2	186.9	198.0	199.4	200.6	201.6	202.7	203.9
Household services less rent	313.4	331.9	338.4	342.3	345.4	348.8	353.3	315.8	334.8	341.9	345.5	348.5	351.8	356.2
Transportation services	238.1	253.3	255.8	258.7	260.5	262.5	264.4	238.0	252.2	254.7	257.7	259.7	261.3	263.1
Medical care services	283.4	296.6	297.9	302.1	305.2	307.5	309.8	284.5	298.7	300.0	304.3	307.4	310.2	312.2
Other services	214.5	227.2	228.1	230.4	232.3	233.2	234.4	214.6	227.9	228.4	230.2	232.1	233.0	233.8
Special indexes:														
All items less food	239.9	253.2	255.5	257.6	260.4	262.3	264.2	240.2	253.4	255.7	257.9	260.8	262.6	264.4
All items less mortgage interest costs	231.8	244.5	245.9	247.8	250.6	252.3	253.6	232.4	245.1	246.7	248.5	251.4	252.9	254.2
Commodities less food	218.6	230.0	231.0	232.4	235.4	237.0	238.0	218.9	230.1	231.2	232.7	236.0	237.4	238.6
Nondurables less food	234.6	240.5	242.0	245.3	253.2	257.5	258.1	236.7	242.2	243.9	247.5	255.9	259.9	260.7
Nondurables less food and apparel	266.5	272.1	274.7	281.1	292.4	297.3	297.7	268.7	273.9	276.6	283.0	294.7	299.5	299.9
Nondurables	242.2	252.4	254.1	256.9	262.3	265.2	265.9	243.3	253.8	255.6	258.3	263.8	266.6	267.3
Services less rent	280.0	296.4	300.7	304.2	306.9	309.5	312.8	280.8	297.4	302.0	305.2	307.9	310.4	313.5
Services less medical care	261.5	277.2	281.2	284.2	286.5	288.9	291.8	261.9	277.7	281.9	284.7	287.0	289.2	292.0
Domestically produced farm foods	232.7	249.2	251.1	252.4	254.0	255.4	255.3	230.7	249.1	251.1	252.1	253.9	254.9	255.0
Selected beef cuts	268.0	278.9	276.2	276.2	273.0	270.9	267.7	269.5	280.7	278.4	277.9	275.1	273.9	270.7
Energy	358.8	366.1	370.4	381.7	401.1	409.3	409.8	363.3	369.5	373.7	385.2	405.4	413.7	414.0
All items less energy	233.4	247.7	249.7	251.2	252.5	253.8	255.6	232.7	247.2	249.3	250.6	251.8	252.9	254.7
All items less food and energy	228.5	242.4	244.5	245.7	246.8	248.1	250.1	227.5	241.5	243.6	244.8	245.8	246.9	248.9
Commodities less food and energy	198.2	211.2	211.7	211.5	211.7	212.2	213.5	196.9	209.9	210.6	210.4	210.5	210.7	212.2
Energy commodities	402.3	400.2	404.9	420.4	449.0	460.0	458.4	404.1	401.3	405.9	421.3	450.1	460.9	459.3
Services less energy	263.5	278.6	282.4	285.4	287.6	289.9	292.7	264.2	279.3	283.4	286.2	288.4	290.6	293.2
Purchasing power of the consumer dollar, 1967 = \$1	\$0.412	\$0.390	\$0.387	\$0.384	\$0.380	\$0.377	\$0.375	\$0.412	\$0.390	\$0.387	\$0.384	\$0.380	\$0.377	\$0.375

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)							
	1980			1981			1980			1981				
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
FOOD AND BEVERAGES	242.8	257.4	259.3	261.4	263.7	265.0	265.7	243.2	258.7	260.5	262.1	264.3	265.5	266.1
Food	249.1	264.5	266.4	268.6	270.8	272.2	272.9	249.5	265.7	267.6	269.2	271.4	272.6	273.2
Food at home	245.3	262.1	263.9	265.6	267.3	268.6	268.7	245.0	262.0	263.9	265.1	267.0	268.1	268.2
Cereals and bakery products	242.0	255.8	258.5	262.9	265.3	266.7	268.3	242.2	256.8	259.5	263.0	265.0	266.5	268.0
Cereals and cereal products (12/77 = 100)	129.4	138.7	140.8	143.2	144.5	145.2	145.4	130.1	139.7	142.3	144.5	145.5	146.5	146.9
Flour and prepared flour mixes (12/77 = 100)	127.8	132.9	133.5	135.9	137.5	138.5	137.1	128.9	133.6	134.4	136.8	137.9	139.4	139.2
Cereal (12/77 = 100)	129.4	141.1	143.8	145.8	146.5	146.9	147.8	129.7	141.5	145.0	147.2	148.0	148.5	148.9
Rice, pasta, and cornmeal (12/77 = 100)	130.8	140.5	143.1	146.0	147.9	148.9	149.5	131.9	142.7	145.8	147.8	149.3	150.5	151.4
Bakery products (12/77 = 100)	127.6	134.3	135.4	137.7	139.0	139.7	140.8	127.5	134.7	136.7	137.5	138.5	139.2	140.1
White bread	215.1	224.9	226.3	229.5	231.4	232.9	233.2	215.1	225.2	226.6	229.4	230.9	231.2	232.1
Other breads (12/77 = 100)	127.0	133.1	134.1	137.1	137.3	137.9	139.5	129.3	137.0	137.9	139.4	140.1	140.3	141.2
Fresh biscuits, rolls, and muffins (12/77 = 100)	126.9	134.6	135.4	137.6	138.9	140.1	140.4	125.3	134.1	135.1	136.4	136.9	138.4	138.7
Fresh cakes and cupcakes (12/77 = 100)	126.5	133.4	135.3	138.5	139.5	140.0	142.1	125.4	133.1	134.2	136.8	138.1	139.5	140.8
Cookies (12/77 = 100)	125.3	133.1	134.9	138.0	139.0	139.7	141.2	126.3	134.5	136.1	139.0	139.8	140.6	141.8
Crackers and bread and cracker products (12/77 = 100)	122.0	125.6	126.9	127.0	128.6	129.1	130.9	122.2	125.7	126.5	126.8	128.6	129.6	131.1
Fresh sweetrolls, coffeecake, and donuts (12/77 = 100)	126.6	135.3	135.9	138.0	140.4	141.1	141.7	128.0	136.1	136.4	138.5	140.0	140.7	141.7
Frozen and refrigerated bakery products and fresh pies, tarts, and turnovers (12/77 = 100)	129.7	136.2	137.5	139.7	141.4	141.9	144.0	125.3	132.4	134.0	135.2	136.3	137.6	139.0
Meats, poultry, fish, and eggs	235.1	254.9	255.7	255.1	252.5	250.5	247.7	234.3	254.2	255.0	254.1	251.6	249.9	247.1
Meats, poultry, and fish	241.1	260.7	259.9	260.6	257.9	256.2	253.0	240.2	259.9	259.2	259.4	257.0	255.7	252.2
Meats	242.6	261.1	260.0	259.7	256.4	254.4	251.0	241.3	260.3	259.3	259.2	256.0	254.2	250.7
Beef and veal	267.0	277.9	275.3	275.3	272.3	270.3	267.4	268.2	279.1	276.8	276.4	273.8	272.6	269.5
Ground beef other than canned	272.9	277.1	276.1	276.3	272.8	269.7	264.8	274.7	280.4	281.0	279.3	275.7	272.9	269.0
Chuck roast	277.9	291.7	288.5	285.3	288.1	284.1	281.4	286.1	301.9	296.0	295.2	298.6	295.6	291.8
Round roast	242.7	251.2	245.7	250.0	248.0	243.9	242.8	242.1	249.9	246.6	249.6	247.5	248.8	247.5
Round steak	253.5	263.8	260.2	262.4	259.0	256.1	252.9	249.6	261.8	257.6	255.5	254.7	253.3	251.3
Sirloin steak	256.1	271.8	267.6	264.9	262.0	259.8	261.5	257.8	274.9	269.7	266.3	263.5	264.5	262.7
Other beef and veal (12/77 = 100)	153.3	161.8	160.4	160.3	157.7	157.8	156.1	153.1	160.3	159.2	159.5	156.9	156.7	154.9
Pork	197.1	228.6	229.1	228.2	223.6	221.6	217.4	196.7	228.5	228.8	228.5	223.2	221.3	216.7
Bacon	182.1	229.5	231.9	228.1	221.7	218.5	209.0	183.9	232.3	234.1	232.5	225.7	221.6	210.0
Chops	187.0	208.5	208.7	211.6	210.3	209.3	209.2	184.7	204.8	206.8	210.2	207.6	206.9	206.3
Ham other than canned (12/77 = 100)	90.6	107.9	107.8	104.1	100.0	98.7	95.2	88.7	106.0	105.7	102.2	98.2	96.3	92.6
Sausage	255.1	283.5	285.6	287.8	282.3	281.0	277.4	258.0	285.9	287.2	288.5	282.0	282.7	280.1
Canned ham	213.5	237.7	238.4	241.1	238.0	236.6	230.1	214.5	242.2	242.6	243.3	240.6	237.9	230.8
Other pork (12/77 = 100)	110.7	128.4	127.6	127.4	125.4	124.2	123.4	110.0	128.8	127.4	127.9	125.0	124.3	123.8
Other meats	243.9	261.8	262.8	262.9	260.8	258.5	255.4	239.0	259.0	259.4	260.4	259.1	256.0	253.4
Frankfurters	240.6	262.6	264.0	262.5	259.4	257.8	253.5	239.3	262.6	263.4	262.6	261.0	257.2	252.8
Bologna, liverwurst, and salami (12/77 = 100)	134.9	148.4	149.1	151.2	149.4	147.0	143.5	131.1	145.7	145.2	148.0	146.0	144.7	142.6
Other luncheon meats (12/77 = 100)	121.9	129.7	129.9	130.3	129.8	128.1	127.9	118.4	127.5	127.7	128.1	128.6	126.4	126.4
Lamb and organ meats (12/77 = 100)	140.1	146.1	146.6	145.0	144.1	144.7	143.1	141.3	147.7	148.5	147.8	146.5	146.0	143.8
Poultry	177.2	204.1	202.7	202.4	203.7	201.6	196.8	176.0	201.4	201.1	199.2	201.3	200.6	194.6
Fresh whole chicken	174.7	208.7	206.9	202.5	207.0	203.1	198.0	170.6	203.5	202.2	197.2	201.7	200.9	194.1
Fresh and frozen chicken parts (12/77 = 100)	114.5	131.8	131.6	132.7	131.9	131.6	127.5	114.7	131.6	132.3	131.3	131.9	130.1	125.8
Other poultry (12/77 = 100)	117.3	128.0	126.6	128.7	128.5	127.6	125.9	118.1	126.5	126.2	127.9	127.8	128.9	126.3
Fish and seafood	325.3	343.0	346.9	358.0	355.0	358.8	359.7	325.1	340.0	343.1	350.0	349.5	351.5	353.7
Canned fish and seafood (12/77 = 100)	122.9	136.0	136.4	137.4	138.0	138.9	138.8	121.8	133.5	133.7	135.3	135.9	136.2	136.6
Fresh and frozen fish and seafood (12/77 = 100)	124.5	127.5	129.6	135.7	133.5	135.3	135.9	125.1	127.0	128.8	132.0	131.4	132.5	133.6
Eggs	161.2	185.2	206.6	190.2	188.2	180.5	184.3	161.5	185.7	206.6	190.1	187.0	180.5	185.5
Dairy products	222.4	235.4	238.0	240.1	242.1	242.6	243.5	223.1	235.9	238.8	240.7	242.5	242.7	243.8
Fresh milk and cream (12/77 = 100)	124.7	130.4	131.9	133.0	134.0	134.3	134.6	124.9	130.4	132.2	133.4	134.1	134.1	134.7
Fresh whole milk	204.9	213.3	216.2	218.2	219.3	219.9	220.4	204.8	213.0	216.5	218.5	219.3	219.4	220.2
Other fresh milk and cream (12/77 = 100)	123.5	130.5	131.4	132.1	134.2	134.4	134.5	124.1	131.0	131.9	132.9	134.4	134.5	135.2
Processed dairy products (12/77 = 100)	127.0	136.9	138.2	139.6	140.8	141.1	142.0	128.0	137.9	139.2	140.1	141.6	141.8	142.6
Butter	219.9	241.5	241.0	242.7	242.2	243.0	244.3	222.7	244.4	244.1	246.5	246.0	246.4	247.7
Cheese (12/77 = 100)	126.2	135.9	137.0	138.2	139.2	139.8	140.6	126.8	136.2	137.4	138.3	139.9	140.0	140.5
Ice cream and related products (12/77 = 100)	128.6	139.1	141.4	143.6	145.9	145.3	146.7	130.4	140.9	143.2	144.3	146.8	146.1	147.8
Other dairy products (12/77 = 100)	124.0	130.6	132.4	133.3	134.5	135.1	135.7	123.6	131.9	133.1	132.9	135.0	136.1	136.1
Fruits and vegetables	240.9	253.3	255.6	257.6	267.3	278.2	281.9	239.8	251.4	253.9	255.1	266.5	275.0	280.0
Fresh fruits and vegetables	245.2	258.3	262.0	263.9	278.1	293.9	296.4	244.8	255.7	260.2	260.3	277.6	289.4	294.5
Fresh fruits	257.0	258.6	251.8	245.6	256.8	265.2	271.6	255.6	255.5	248.6	241.1	254.4	259.0	268.6
Apples	265.5	213.5	218.8	220.8	217.1	227.9	231.1	264.4	213.0	216.9	216.8	218.2	225.7	232.1
Bananas	242.8	235.7	244.1	237.8	256.9	264.1	266.8	243.5	232.0	239.2	228.9	249.4	258.8	262.2
Oranges	240.6	316.6	299.3	272.9	284.9	287.4	287.5	234.3	300.4	287.0	258.9	269.4	268.4	274.3
Other fresh fruits (12/77 = 100)	136.5	134.9	128.6	127.8	135.9	141.1	147.1	135.7	136.4	129.2	128.4	137.9	139.9	147.6
Fresh vegetables	234.2	258.0	271.5	281.1	298.0	320.8	319.6	235.2	256.0	270.9	277.8	298.7	316.9	318.0
Potatoes	201.7	293.0	297.7	326.1	350.2	363.9	378.1	198.2	289.9	298.0	322.9	347.1	359.6	369.8
Lettuce	271.9	273.5	255.3	234.2	220.4	225.2	226.9	281.9	267.2	258.8	229.9	225.6	219.3	231.5
Tomatoes	201.2	192.2	206.1	247.2	312.8	367.8	375.3	197.7	188.9	204.5	239.8	308.6	354.0	370.7
Other fresh vegetables (12/77 = 100)	134.6	139.6	156.3	157.8	163.5	177.0	170.0	135.3	140.0	156.2	156.9	164.8	177.1	170.0
Processed fruits and vegetables	238.4	250.1												

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)							
	1980			1981			1980			1981				
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
FOOD AND BEVERAGES Continued														
Food Continued														
Food at home Continued														
Fruits and vegetables Continued														
Cut corn and canned beans except lima (12/77=100)	115.6	124.1	124.5	126.0	128.2	128.4	130.2	114.3	121.8	122.8	124.5	126.5	126.3	129.0
Other canned and dried vegetables (12/77=100)	114.7	121.5	122.9	123.4	124.7	126.4	128.7	112.7	120.3	121.0	122.1	123.5	125.3	127.1
Other foods at home	295.1	314.8	317.1	320.5	323.0	324.1	324.7	294.6	315.7	317.8	320.8	323.6	325.2	325.4
Sugar and sweets	319.5	381.3	386.3	385.4	385.4	383.2	375.8	320.8	383.9	388.9	387.3	387.7	384.6	377.8
Candy and chewing gum (12/77=100)	126.3	135.7	136.9	138.6	141.1	142.8	144.1	126.5	136.8	137.4	139.4	142.0	143.6	145.1
Sugar and artificial sweeteners (12/77=100)	156.9	225.9	230.3	222.8	217.7	209.7	195.5	158.6	225.9	231.4	223.4	217.9	209.6	196.0
Other sweets (12/77=100)	121.3	132.5	133.7	137.1	137.7	139.3	139.8	120.0	131.9	133.1	135.5	137.3	138.2	138.7
Fats and oils (12/77=100)	238.3	247.4	251.9	260.4	267.3	268.9	270.1	238.3	248.2	252.6	261.8	268.9	270.5	270.4
Margarine	247.9	254.9	253.6	256.9	256.8	255.7	256.1	248.3	256.9	254.6	257.4	258.3	257.7	256.1
Nondairy substitutes and peanut butter (12/77=100)	119.8	127.4	139.6	156.0	171.8	179.3	182.4	120.0	139.9	139.9	156.4	172.7	180.0	182.3
Other fats, oils, and salad dressings (12/77=100)	124.8	129.0	129.1	130.3	131.0	129.9	129.8	124.4	128.8	129.1	131.0	131.4	130.3	129.7
Nonalcoholic beverages	390.3	405.5	405.2	409.7	411.9	412.2	414.4	389.2	407.8	407.4	410.7	413.6	415.4	415.8
Cola drinks, excluding diet cola	261.7	284.0	285.2	290.8	295.3	295.9	298.0	260.1	283.6	284.0	288.2	293.4	295.4	294.9
Carbonated drinks, including diet cola (12/77=100)	125.6	133.8	134.8	137.5	140.1	140.5	141.8	123.4	133.2	133.5	135.0	137.8	138.7	138.8
Roasted coffee	434.0	399.2	389.7	380.7	364.9	359.4	356.7	430.4	395.5	386.2	376.4	360.3	355.0	352.5
Freeze dried and instant coffee	380.2	364.9	356.5	354.6	345.3	340.8	339.5	379.2	364.0	358.1	355.8	347.0	343.9	340.9
Other noncarbonated drinks (12/77=100)	120.7	126.7	127.5	129.1	130.8	132.4	133.5	119.6	126.2	127.7	129.6	130.9	132.7	133.5
Other prepared foods	226.6	239.9	242.4	244.9	246.9	249.4	251.2	226.6	240.4	242.8	245.1	247.1	250.0	252.4
Canned and packaged soup (12/77=100)	120.5	125.1	127.2	128.1	128.7	128.4	129.3	120.6	125.6	128.0	127.9	129.3	129.2	129.8
Frozen prepared foods (12/77=100)	130.4	136.6	137.6	138.6	140.0	142.3	142.3	128.8	133.5	134.8	136.9	137.9	139.6	139.8
Snacks (12/77=100)	124.8	135.2	138.6	141.1	142.3	143.9	145.6	126.0	136.1	140.1	141.7	143.5	145.5	148.1
Seasonings, olives, pickles, and relish (12/77=100)	125.2	133.5	134.2	135.2	137.2	139.1	139.9	124.5	132.8	133.4	134.5	136.3	137.9	138.7
Other condiments (12/77=100)	127.1	133.3	133.5	134.4	135.8	138.1	139.2	128.1	136.5	136.3	136.3	137.3	140.0	141.7
Miscellaneous prepared foods (12/77=100)	124.4	133.5	133.8	135.4	135.8	135.9	136.7	123.7	133.8	133.5	135.2	136.0	136.2	137.7
Other canned and packaged prepared foods (12/77=100)	123.1	128.6	130.3	131.6	132.4	134.1	135.1	123.3	128.9	130.2	132.1	132.4	134.4	135.9
Food away from home	263.0	275.3	277.7	280.9	284.7	286.1	288.2	265.3	279.5	281.8	284.2	287.3	288.6	290.7
Lunch (12/77=100)	127.9	134.3	135.7	137.2	138.6	139.2	140.7	128.9	135.7	137.3	138.5	139.8	140.3	141.4
Dinner (12/77=100)	127.9	133.4	134.4	136.2	138.2	138.8	139.4	129.1	136.1	136.7	138.2	139.4	140.1	141.1
Other meals and snacks (12/77=100)	126.4	132.5	133.7	134.7	137.0	137.9	138.8	127.7	134.5	135.6	136.4	138.5	139.3	140.1
Alcoholic beverages	183.9	190.9	191.6	193.7	195.9	197.1	197.8	185.0	192.8	193.7	195.5	197.6	198.7	199.4
Alcoholic beverages at home (12/77=100)	119.9	124.4	124.9	126.1	127.4	128.1	128.5	120.8	125.9	126.5	127.6	128.8	129.6	130.0
Beer and ale	185.9	192.0	192.9	194.5	197.6	198.2	199.7	185.1	192.2	192.9	194.5	197.2	198.5	199.8
Whiskey	133.4	138.9	138.9	140.0	140.0	141.6	141.3	134.6	139.8	140.2	141.5	142.0	142.3	142.3
Wine	206.6	215.2	217.6	221.7	224.0	224.3	224.7	209.8	224.0	227.2	229.4	231.6	233.6	233.2
Other alcoholic beverages (12/77=100)	108.2	112.9	112.7	113.7	113.9	115.0	114.9	107.8	112.0	112.1	113.2	113.3	114.0	114.1
Alcoholic beverages away from home (12/77=100)	120.5	125.3	125.8	127.6	129.7	131.1	131.6	120.5	125.5	126.2	127.4	129.4	129.9	130.6
HOUSING	257.9	273.8	276.9	279.1	280.9	282.6	284.8	257.8	273.7	277.1	279.1	280.7	282.2	284.3
Shelter	276.0	294.7	298.5	300.1	300.5	301.6	303.8	277.2	296.4	300.4	301.7	301.7	302.6	304.6
Rent, residential	187.0	198.3	199.6	200.9	201.9	203.0	204.2	186.9	198.0	199.4	200.6	201.6	202.7	203.9
Other rental costs	260.7	268.3	267.7	273.9	278.5	283.6	285.9	260.5	268.4	267.3	273.6	278.3	283.5	285.8
Lodging while out of town	279.3	284.2	282.6	291.5	297.4	304.8	307.5	278.0	283.3	281.0	289.9	296.0	303.2	306.0
Tenants' insurance (12/77=100)	119.9	126.5	126.9	127.6	129.3	130.1	131.2	120.1	126.8	127.2	128.0	129.9	130.8	131.6
Homeownership	307.7	329.4	334.2	335.8	335.8	336.8	339.3	310.0	332.3	337.5	338.6	338.2	338.8	341.1
Home purchase	246.5	267.3	267.2	266.2	263.0	261.1	260.7	246.5	268.2	268.0	266.4	262.7	260.2	259.7
Financing, taxes, and insurance	390.6	416.9	429.4	435.2	437.1	441.1	447.1	395.3	423.1	436.0	441.3	442.6	446.4	452.6
Property insurance	338.9	364.5	365.8	369.8	373.1	375.6	378.5	340.4	367.8	369.0	373.2	376.6	379.9	382.5
Property taxes	188.4	192.8	194.5	196.0	198.5	199.0	199.9	190.1	194.7	196.4	197.9	200.6	201.0	201.7
Contracted mortgage interest cost	499.4	536.7	555.5	563.5	565.0	570.9	579.8	500.9	539.7	558.7	565.9	566.5	572.0	580.9
Mortgage interest rates	199.4	198.0	205.1	209.0	211.9	216.0	219.5	199.8	198.4	205.5	209.4	212.3	216.7	220.3
Maintenance and repairs	282.9	294.2	296.8	296.8	302.8	306.1	309.3	281.7	291.1	294.2	294.1	299.9	302.7	304.5
Maintenance and repair services	307.9	318.6	321.5	321.3	328.7	332.6	337.0	307.7	315.9	320.3	319.8	327.7	331.3	334.1
Maintenance and repair commodities	224.3	237.1	239.1	239.7	242.4	243.9	244.4	224.3	235.6	236.2	236.7	238.6	239.9	239.7
Paint and wallpaper, supplies, tools, and equipment (12/77=100)	126.6	137.4	139.2	139.5	141.6	143.7	143.4	126.0	134.7	134.9	135.1	136.9	138.5	136.8
Lumber, awnings, glass, and masonry (12/77=100)	118.8	122.3	123.2	123.4	124.0	123.3	124.3	119.7	122.0	122.9	122.7	123.3	122.4	123.1
Plumbing, electrical, heating, and cooling supplies (12/77=100)	119.1	124.2	124.8	125.2	127.3	127.6	127.9	120.0	124.6	124.9	124.5	127.0	127.8	127.9
Miscellaneous supplies and equipment (12/77=100)	118.2	123.7	124.2	124.7	125.2	125.9	126.4	119.4	126.4	126.3	127.9	127.8	128.8	129.9
Fuel and other utilities	270.5	285.7	289.9	296.7	304.5	308.4	310.5	271.0	286.3	290.7	297.5	305.6	309.4	311.4
Fuels	337.8	358.7	364.7	375.4	387.4	393.7	396.5	337.6	358.2	364.5	375.0	387.3	393.4	396.2
Fuel oil, coal, and bottled gas	556.4	567.0	585.3	625.9	675.6	693.4	690.6	557.1	568.3	587.0	627.9	678.5	696.3	693.7
Fuel oil	580.7	589.8	610.0	656.0	712.0	730.9	727.0	580.7	590.3	610.9	657.1	714.2	733.2	729.4
Other fuels (6/78=100)	139.6	145.7	148.4	152.3	157.5	161.5	162.5	140.8	147.3	150.1	154.1	159.4	162.9	164.2
Gas (pipel) and electricity	288.0	310.5	313.9	318.5	322.9	326.7	330.6	287.6	309.8	313.4	317.7	322.1	325.9	329.6
Electricity	241.5	258.7	262.3	266.9	271.3	273.9	277.3	241.5	258.4	262.1	266.5	271.1	275.5	276.8
Utility (pipel) gas	347.9	379.0	381.5	385.3	389.0	395.2	399.4	346.4	376.7	379.7	388.3	386.8	392.8	397.2

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)							
	1980			1981			1980			1981				
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
HOUSING Continued														
Fuel and other utilities—Continued														
Other utilities and public services	162.3	169.0	170.6	171.9	173.6	174.0	175.1	162.3	169.1	170.7	172.0	173.9	174.4	175.4
Telephone services	133.4	138.7	140.3	141.1	142.4	142.5	143.4	133.2	138.7	140.3	141.1	142.5	142.6	143.4
Local charges (12/77 = 100)	103.5	108.3	110.5	111.6	113.5	113.6	114.8	103.3	108.3	110.6	111.7	113.6	113.7	114.9
Interstate toll calls (12/77 = 100)	97.3	101.7	101.8	101.8	101.8	101.8	101.8	97.4	101.8	101.8	101.9	101.9	101.9	101.9
Intrastate toll calls (12/77 = 100)	99.0	100.6	100.9	101.0	101.2	101.2	101.4	98.9	100.5	100.7	100.8	101.0	101.0	101.2
Water and sewerage maintenance	255.2	267.0	267.8	271.4	274.7	277.1	278.4	256.2	268.0	268.7	272.5	276.3	279.0	280.3
Household furnishings and operations	203.0	211.0	211.6	212.6	214.9	216.9	219.2	200.7	208.1	209.0	209.7	211.7	213.7	215.9
Housefurnishings	172.7	178.1	178.3	178.7	180.8	182.6	183.9	171.5	176.4	176.9	176.9	178.5	180.2	181.6
Textile housefurnishings	188.2	192.4	193.2	191.9	195.1	199.8	200.5	186.3	195.7	196.6	193.4	196.9	201.4	202.9
Household linens (12/77 = 100)	114.8	117.3	117.2	114.6	118.6	123.1	123.0	113.8	122.6	122.7	117.0	121.4	124.1	125.0
Curtains, drapes, slipcovers, and sewing materials (12/77 = 100)	119.9	122.7	123.8	124.9	124.8	126.1	127.1	118.9	121.2	122.4	124.6	124.4	127.2	128.2
Furniture and bedding	190.9	196.5	197.0	196.6	199.3	201.6	203.7	189.4	193.9	194.4	193.6	195.6	198.0	200.0
Bedroom furniture (12/77 = 100)	124.3	128.6	129.2	128.3	131.3	133.2	134.5	120.9	125.5	125.7	125.1	127.7	129.4	130.7
Sofas (12/77 = 100)	111.6	114.2	115.3	114.2	114.5	115.8	116.5	111.8	113.6	114.7	113.2	113.2	114.1	114.9
Living room chairs and tables (12/77 = 100)	110.9	113.3	113.1	113.1	115.9	116.5	116.6	112.6	115.6	115.2	114.3	115.2	116.7	117.6
Other furniture (12/77 = 100)	124.0	127.9	127.8	128.7	129.1	130.8	133.4	123.1	124.6	124.7	125.6	126.6	128.3	130.1
Appliances including TV and sound equipment	139.3	142.6	142.4	143.1	143.9	144.2	145.3	139.7	141.4	142.0	142.7	142.9	143.4	144.2
Television and sound equipment (12/77 = 100)	105.7	107.4	107.2	107.4	107.9	108.0	108.6	105.4	106.1	106.1	106.5	106.6	106.4	107.1
Television	104.0	105.1	105.2	105.6	105.7	105.6	106.0	102.8	103.8	103.7	104.2	104.2	104.3	104.7
Sound equipment (12/77 = 100)	108.3	110.6	110.1	110.2	111.0	111.2	112.1	108.6	109.1	109.2	108.4	109.6	109.3	110.2
Household appliances	161.4	166.2	165.9	167.2	168.2	168.9	170.4	162.3	165.2	166.3	167.6	167.8	169.0	169.9
Refrigerators and home freezers	160.6	166.1	166.5	168.0	168.4	168.5	170.6	163.5	169.2	170.9	171.7	172.3	172.7	174.7
Laundry equipment (12/77 = 100)	117.5	122.0	123.4	123.6	123.7	124.5	126.1	117.8	120.2	121.4	121.9	122.8	124.3	125.7
Other household appliances (12/77 = 100)	111.5	114.2	113.1	114.2	115.4	115.9	116.6	111.6	112.4	112.8	114.0	113.7	114.5	114.4
Stoves, dishwashers, vacuums, and sewing machines (12/77 = 100)	110.0	113.0	112.0	114.8	115.1	115.1	115.8	111.6	112.6	113.9	115.7	114.2	115.2	113.9
Office machines, small electric appliances, and air conditioners (12/77 = 100)	113.1	115.5	114.3	113.6	115.7	116.9	117.4	111.6	112.1	111.5	112.0	113.1	113.7	115.0
Other household equipment (12/77 = 100)	118.4	124.6	124.8	125.6	127.9	129.1	130.0	117.0	123.2	123.1	123.8	125.6	126.9	127.9
Floor and window coverings, infants', laundry, cleaning, and outdoor equipment (12/77 = 100)	118.2	124.3	124.6	125.7	128.7	130.7	131.4	113.1	119.0	118.4	118.9	120.8	123.2	124.4
Clocks, lamps, and decor items (12/77 = 100)	115.6	121.4	121.7	122.3	124.1	125.7	125.6	112.6	119.2	118.8	119.2	121.7	121.7	120.9
Tableware, serving pieces, and nonelectric kitchenware (12/77 = 100)	123.4	130.6	130.8	131.9	134.8	135.6	137.1	121.4	127.4	127.6	128.0	131.0	132.1	134.1
Lawn equipment, power tools, and other hardware (12/77 = 100)	113.5	118.4	118.7	118.7	119.9	120.8	121.5	115.9	122.3	122.3	123.8	123.8	125.1	125.9
Housekeeping supplies	240.7	256.0	257.7	259.5	262.8	264.2	266.9	238.1	253.5	256.0	257.5	260.1	261.2	263.4
Soaps and detergents	233.2	252.4	254.0	255.6	256.2	255.3	259.4	231.1	248.2	252.3	253.4	254.3	253.8	256.7
Other laundry and cleaning products (12/77 = 100)	117.6	126.7	127.6	128.8	129.3	129.7	131.0	118.1	126.2	127.6	129.0	129.6	130.3	130.4
Cleansing and toilet tissue, paper towels and napkins (12/77 = 100)	126.2	135.6	136.1	137.3	138.4	137.9	138.4	128.1	136.6	137.6	139.2	139.2	138.1	138.5
Stationery, stationery supplies, and gift wrap (12/77 = 100)	115.6	118.3	119.5	119.9	121.4	122.3	123.1	114.9	118.8	120.0	120.7	122.4	123.7	124.8
Miscellaneous household products (12/77 = 100)	122.0	131.1	132.5	132.6	135.9	137.3	138.1	119.2	128.4	129.5	129.3	132.2	133.2	134.5
Lawn and garden supplies (12/77 = 100)	123.8	128.0	128.4	130.0	134.0	136.6	139.1	116.5	122.5	122.5	122.7	126.1	128.5	131.1
Housekeeping services	266.0	276.1	277.1	279.6	281.6	284.8	289.9	264.3	272.5	273.8	276.4	279.4	283.3	288.6
Postage	257.3	257.3	257.3	257.3	257.3	274.3	308.0	257.3	257.3	257.3	257.3	257.3	274.2	308.1
Moving, storage, freight, household laundry, and drycleaning services (12/77 = 100)	128.3	134.6	134.4	137.0	138.2	139.0	140.7	127.8	131.4	131.8	134.3	137.8	139.0	140.2
Appliance and furniture repair (12/77 = 100)	116.5	120.7	121.4	122.4	123.6	124.5	125.2	116.2	119.7	120.6	121.5	122.4	123.8	124.3
APPAREL AND UPKEEP	177.3	184.8	183.9	181.1	182.0	185.1	186.4	176.1	183.3	182.9	180.8	181.8	184.3	186.0
Apparel commodities	170.2	177.2	176.0	172.6	173.2	176.3	177.6	169.5	176.0	175.3	172.6	173.3	175.8	177.5
Apparel commodities less footwear	167.2	173.9	172.5	168.9	169.6	172.7	174.0	166.3	172.5	171.6	168.7	169.6	172.3	173.9
Men's and boys'	166.9	174.8	174.3	171.1	171.6	175.0	175.6	167.3	174.8	174.4	171.7	172.2	174.9	176.1
Men's (12/77 = 100)	105.0	110.1	109.8	107.5	107.8	110.2	110.5	105.2	110.2	109.9	107.9	108.2	110.1	110.9
Suits, sport coats, and jackets (12/77 = 100)	101.1	104.7	103.5	99.9	100.5	103.2	104.1	97.3	99.4	98.2	95.1	96.1	98.5	98.3
Coats and jackets (12/77 = 100)	96.5	100.5	99.7	95.2	95.6	97.9	98.1	97.0	101.9	101.9	97.4	96.0	98.9	99.6
Furnishings and special clothing (12/77 = 100)	116.6	123.3	123.9	123.9	125.3	127.2	127.5	114.2	119.7	120.0	119.9	120.2	121.5	122.7
Shirts (12/77 = 100)	111.5	119.6	119.7	115.4	114.8	118.0	117.0	111.7	120.4	120.7	116.7	116.8	119.2	119.5
Dungarees, jeans, and trousers (12/77 = 100)	99.4	103.5	103.4	103.4	102.7	104.7	105.4	104.2	108.7	108.1	108.2	108.7	110.0	111.5
Boys' (12/77 = 100)	108.9	113.3	113.1	112.0	112.6	113.7	114.5	108.7	112.7	112.6	111.6	111.9	112.9	113.9
Coats, jackets, sweaters, and shirts (12/77 = 100)	104.4	109.4	108.6	104.8	104.3	106.5	107.2	107.2	112.5	111.8	107.9	107.0	109.5	110.9
Furnishings (12/77 = 100)	113.3	118.4	118.7	119.1	119.1	121.2	121.5	111.6	115.2	116.2	115.8	116.1	117.4	118.2
Suits, trousers, sport coats, and jackets (12/77 = 100)	110.7	114.3	114.3	114.8	116.6	116.5	117.4	108.8	111.9	112.0	112.9	114.2	113.9	114.8
Women's and girls'	155.9	159.9	157.4	152.1	153.4	157.5	158.8	154.7	159.9	158.2	153.9	155.4	158.9	160.7
Women's (12/77 = 100)	103.9	106.3	104.4	100.8	101.9	104.4	105.0	103.3	106.6	105.3	102.3	103.5	105.5	106.7
Coats and jackets	168.3	164.7	161.4	150.4	160.7	157.9	157.6	167.8	175.5	172.2	162.1	159.1	156.9	156.8
Dresses	167.8	168.1	163.8	155.5	156.9	166.4	167.8	154.1	157.7	154.3	147.3	150.5	154.3	158.8
Separates and sportswear (12/77 = 100)	101.1	102.9	101.4	98.2	97.1	99.3	100.2	101.6	102.8	102.4	100.1	99.7	101.6	102.6
Underwear, nightwear, and hosiery (12/77 = 100)	111.5	116.7	116.8	116.0	116.4	117.8	119.3	111.7	116.4	116.6	115.6	116.0	117.7	119.1
Suits (12/77 = 100)	90.4	97.4	91.9	87.8	90.0	93.0	91.6	98.2	102.8	98.2	95.5	103.6	109.5	108.0
Girls (12/77 = 100)	102.6	106.5	106.1	102.9	102.8	106.4	108.6	101.1	105.3	104.9	102.5	102.7	106.4	107.8
Coats, jackets, dresses, and suits (12/77 = 100)	99.8	102.7	101.3	96.0	94.4	101.2	106.4	96.8	99.1	98.6	94.4	93.5	98.4	101.3
Separates and sportswear (12/77 = 100)	101.4	105.9	106.1	103.6	104.2	106.2	106.8	100.5	106.8	106.6	104.4	105.8	109.1	109.5
Underwear, nightwear, hosiery, and accessories (12/77 = 100)	109.5	114.0	113.8	113.1	113.9	115.6	115.5	108.9	112.6	112.2	112.2	112.5	114.6	115.4

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)						
	1980			1981				1980			1981			
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
APPAREL AND UPKEEP—Continued														
Apparel commodities—Continued														
Apparel commodities less footwear—Continued														
Infants' and toddlers'	234.3	248.9	250.1	249.7	254.3	255.3	259.2	241.1	254.0	255.4	256.9	264.0	266.4	269.3
Other apparel commodities	201.9	213.7	213.3	214.2	212.3	212.2	214.1	198.5	204.0	204.4	205.3	204.4	204.5	205.6
Sewing materials and notions (12/77 = 100)	107.9	110.3	110.6	111.9	112.2	113.3	114.8	106.9	110.2	110.0	110.8	112.2	113.3	114.3
Jewelry and luggage (12/77 = 100)	140.1	149.9	149.5	149.7	147.9	147.3	148.4	138.1	141.8	142.3	142.8	141.3	140.9	141.4
Footwear	188.3	196.5	196.6	194.9	194.9	197.4	199.3	188.1	196.4	196.7	195.5	194.9	195.9	198.4
Men's (12/77 = 100)	119.7	125.4	124.6	124.4	125.0	125.2	126.8	122.4	126.7	126.0	126.1	125.7	125.4	128.0
Boys' and girls' (12/77 = 100)	119.5	126.2	126.6	125.7	125.3	127.6	128.2	119.5	127.4	127.8	127.0	126.2	127.3	126.7
Womens' (12/77 = 100)	115.6	119.4	120.0	118.1	117.9	120.0	121.3	112.6	116.5	117.5	115.9	115.9	117.0	119.3
Apparel services	230.0	241.9	243.4	246.3	249.9	252.4	254.3	226.0	239.9	242.2	245.5	248.7	251.5	252.7
Laundry and drycleaning other than coin operated (12/77 = 100)	135.5	142.4	143.5	145.3	147.6	149.6	150.9	134.1	141.6	143.2	145.5	147.3	149.3	150.4
Other apparel services (12/77 = 100)	123.3	130.0	130.5	131.7	133.3	133.7	134.5	120.4	129.1	129.9	131.1	132.9	133.9	134.0
TRANSPORTATION														
Private	246.8	259.0	261.1	264.7	270.9	273.5	275.3	247.7	259.7	261.9	265.7	272.1	274.4	276.3
New cars	177.0	184.3	184.5	185.3	184.8	182.9	186.1	177.7	184.5	184.6	185.7	185.0	187.2	189.1
Used cars	196.7	230.8	234.4	234.0	234.3	235.4	239.1	196.8	230.8	234.4	234.0	234.4	235.4	236.2
Gasoline	374.7	370.5	373.3	385.2	410.8	420.7	419.3	376.3	371.7	374.4	386.6	412.5	422.3	420.8
Automobile maintenance and repair	264.1	278.4	280.1	282.7	285.4	287.7	289.0	264.3	278.9	280.6	283.2	285.4	288.2	289.7
Body work (12/77 = 100)	129.1	136.1	136.8	137.3	139.2	140.3	140.8	128.4	135.9	137.3	137.3	139.2	140.2	140.7
Automobile drive train, brake, and miscellaneous mechanical repair (12/77 = 100)	126.1	133.6	134.0	135.8	136.8	137.7	138.0	127.4	135.0	135.6	137.5	138.3	140.2	140.5
Maintenance and servicing (12/77 = 100)	124.7	131.0	131.6	132.5	133.7	134.8	135.5	124.2	131.1	131.7	132.7	133.5	134.7	135.7
Power plant repair (12/77 = 100)	124.4	131.3	132.7	134.4	135.5	137.0	137.8	124.6	130.8	132.2	133.5	134.7	135.9	136.7
Other private transportation	221.3	228.8	231.0	232.4	234.2	234.7	236.3	223.1	230.6	233.2	235.0	236.9	237.3	239.2
Other private transportation commodities	194.1	203.1	203.6	203.7	205.8	206.2	208.1	195.8	203.4	205.7	206.2	207.5	208.0	210.4
Motor oil, coolant, and other products (12/77 = 100)	129.8	137.8	138.8	139.1	141.6	141.6	143.5	129.1	137.3	139.0	139.2	139.0	139.8	140.5
Automobile parts and equipment (12/77 = 100)	124.8	130.3	130.6	130.6	131.8	132.1	133.2	126.2	130.6	132.0	132.4	133.4	133.7	135.4
Tires	171.2	181.7	182.1	181.5	183.5	184.1	185.8	174.9	182.5	184.7	184.8	186.6	186.9	189.6
Other parts and equipment (12/77 = 100)	127.1	127.3	127.6	128.6	129.3	129.2	130.1	125.1	126.9	127.8	128.9	129.3	129.5	130.8
Other private transportation services	230.6	237.9	240.6	242.4	244.0	244.6	246.2	232.6	240.1	242.9	244.9	247.0	247.4	249.2
Automobile insurance	245.2	251.9	252.5	253.3	253.7	254.4	255.7	244.9	251.5	252.0	251.8	253.2	253.9	255.2
Automobile finance charges (12/77 = 100)	148.6	154.4	159.4	163.4	165.1	164.3	166.5	147.8	153.2	157.9	161.7	163.9	163.4	166.3
Automobile rental, registration, and other fees (12/77 = 100)	111.5	115.0	115.8	116.2	116.7	118.2	118.2	112.2	116.7	117.5	118.2	119.3	119.9	119.3
State registration	146.4	146.6	146.9	146.9	146.9	146.9	146.9	146.5	146.6	147.0	146.9	147.0	147.0	147.0
Drivers' licenses (12/77 = 100)	104.7	105.0	105.3	105.3	105.4	105.4	105.5	104.4	104.7	105.1	105.1	105.1	105.1	105.2
Vehicle inspection (12/77 = 100)	119.7	123.2	124.3	124.8	125.8	126.1	126.0	120.3	123.9	125.1	125.6	126.6	126.7	126.6
Other vehicle related fees (12/77 = 100)	122.7	130.7	132.7	133.7	134.7	138.4	138.4	127.8	140.0	142.0	144.1	147.2	148.9	147.1
Public	235.9	277.0	280.1	286.4	288.1	293.9	297.2	229.7	269.2	271.8	279.0	280.6	285.1	287.7
Airline fare	264.3	321.8	327.4	331.9	334.1	343.7	348.6	263.9	319.8	325.7	330.2	332.7	342.3	346.6
Inter-city bus fare	291.5	308.0	310.1	310.7	312.8	323.2	329.1	291.0	308.0	309.8	310.6	312.2	323.9	329.2
Intracity mass transit	203.0	236.1	237.1	247.1	248.4	250.8	251.7	200.8	235.6	236.5	246.5	247.8	249.1	249.8
Taxi fare	256.4	269.2	269.7	271.0	271.4	273.8	279.9	261.6	275.6	275.9	277.5	277.7	280.5	287.4
Inter-city train fare	237.3	255.6	270.1	276.4	276.5	276.7	277.2	237.2	255.7	270.3	276.8	276.9	277.1	277.5
MEDICAL CARE														
Medical care commodities	164.9	173.8	175.1	176.7	179.2	180.7	182.4	166.0	174.1	175.6	177.5	179.6	181.2	183.4
Prescription drugs	152.2	159.6	160.7	162.7	165.0	166.5	168.5	153.5	160.2	161.5	163.4	165.3	166.8	169.2
Anti-infective drugs (12/77 = 100)	118.5	124.6	124.7	127.7	129.2	130.5	130.2	120.4	125.6	126.4	128.6	129.5	131.0	132.4
Tranquilizers and sedatives (12/77 = 100)	122.9	128.9	130.2	130.7	131.9	132.8	134.4	122.7	127.7	128.6	129.4	130.7	131.5	133.3
Circulators and diuretics (12/77 = 100)	114.2	118.3	119.1	120.6	121.9	122.2	123.9	115.9	119.9	120.2	121.3	122.9	123.7	125.3
Hormones, diabetic drugs, biologicals, and prescription and supplies (12/77 = 100)	131.3	140.4	142.3	143.9	147.4	148.2	151.2	131.3	139.6	141.7	143.8	146.5	147.8	150.9
Pain and symptom control drugs (12/77 = 100)	121.4	126.7	126.9	128.7	130.9	132.7	134.5	122.6	128.3	129.6	131.4	133.3	134.1	135.8
Supplements, cough and cold preparations, and respiratory agents (12/77 = 100)	117.1	121.2	122.4	123.2	124.5	126.3	128.6	118.5	122.3	123.1	123.8	125.2	126.5	128.8
Nonprescription drugs and medical supplies (12/77 = 100)	118.4	125.3	126.2	127.1	128.9	129.9	130.9	119.2	125.5	126.5	127.9	129.4	130.5	131.9
Eyeglasses (12/77 = 100)	115.0	121.2	120.8	121.5	123.1	124.6	125.1	115.3	120.2	120.4	121.1	122.3	122.6	123.4
Internal and respiratory over-the-counter drugs	184.4	195.8	198.1	199.3	202.7	204.2	205.9	185.4	195.8	198.0	200.4	203.0	205.5	208.0
Nonprescription medical equipment and supplies (12/77 = 100)	115.3	121.5	122.5	123.6	124.5	125.0	126.2	116.3	123.0	123.7	125.1	126.5	127.1	128.2
Medical care services	283.4	296.6	297.9	302.1	305.2	307.5	309.8	284.5	298.7	300.0	304.3	307.4	310.2	312.2
Professional services	248.2	260.4	261.7	264.7	267.2	269.6	271.7	251.2	263.8	265.0	268.7	271.6	274.2	276.2
Physicians' services	264.8	278.0	280.3	283.9	287.7	290.3	292.2	269.7	283.8	285.7	290.0	293.9	296.3	297.9
Dental services	237.2	248.0	248.6	251.4	252.8	254.9	257.1	238.9	250.4	251.3	254.9	257.0	259.8	262.2
Other professional services (12/77 = 100)	121.7	128.5	128.5	129.3	130.0	131.5	132.6	121.1	126.7	126.6	127.6	128.5	129.9	131.3
Other medical care services	325.8	340.5	341.6	347.3	351.1	353.4	355.9	325.3	341.6	342.9	347.8	351.3	354.4	356.2
Hospital and other medical services (12/77 = 100)	129.7	141.1	141.7	144.5	146.1	147.1	148.1	128.6	140.5	141.3	143.7	145.2	146.7	147.3
Hospital room	408.0	441.0	443.7	453.8	458.2	460.9	465.0	403.6	438.8	443.1	451.9	455.9	459.2	461.4
Other hospital and medical care services (12/77 = 100)	128.8	140.9	141.4	143.7	145.5	146.7	147.3	128.0	140.2	140.6	142.7	144.4	146.3	146.8

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)						
	1980			1981				1980			1981			
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
ENTERTAINMENT	202.5	211.2	212.0	214.4	216.7	218.2	219.2	201.3	209.9	210.1	212.2	215.0	216.1	217.0
Entertainment commodities	205.7	214.5	215.3	217.1	219.7	222.1	223.6	202.8	210.2	210.9	213.0	216.2	218.0	219.4
Reading materials (12/77 = 100)	120.1	127.6	128.2	130.0	130.9	133.2	134.1	119.7	127.1	127.6	129.6	130.7	133.0	134.1
Newspapers	234.8	245.6	246.2	249.7	253.8	256.6	262.5	234.3	244.9	245.5	249.4	254.0	256.7	262.5
Magazines, periodicals, and books (12/77 = 100)	120.8	130.7	131.5	133.4	132.9	136.2	134.8	120.6	130.8	131.5	133.5	132.9	136.3	134.8
Sporting goods and equipment (12/77 = 100)	118.7	122.8	122.9	123.5	124.7	126.1	127.5	114.1	117.0	117.8	118.5	119.3	120.3	120.9
Sport vehicles (12/77 = 100)	120.6	(¹)	(¹)	(¹)	126.5	128.5	130.4	113.0	(¹)	(¹)	(¹)	118.1	119.5	120.0
Indoor and warm weather sport equipment (12/77 = 100)	111.3	114.7	116.2	115.7	115.9	116.2	116.7	110.5	112.2	113.4	114.5	115.3	115.2	115.4
Bicycles	178.6	185.7	184.7	185.9	187.2	188.4	188.3	179.8	185.8	184.9	186.7	188.3	189.4	189.7
Other sporting goods and equipment (12/77 = 100)	113.1	119.9	120.4	120.9	120.6	121.2	122.6	114.0	119.1	119.3	119.2	119.2	119.3	121.1
Toys, hobbies, and other entertainment (12/77 = 100)	118.4	122.8	123.5	124.4	126.3	127.2	127.8	118.0	121.6	121.8	122.9	125.8	126.3	127.2
Toys, hobbies, and music equipment (12/77 = 100)	117.3	120.7	121.3	122.4	124.7	125.6	126.2	116.5	118.4	118.5	119.4	123.0	123.1	124.0
Photographic supplies and equipment (12/77 = 100)	120.1	121.8	122.0	121.5	122.6	124.0	125.4	118.9	122.7	122.4	122.3	124.4	125.5	126.7
Pet supplies and expense (12/77 = 100)	119.2	127.3	128.4	130.1	132.0	132.3	132.4	120.0	126.8	127.6	129.7	131.9	132.8	133.2
Entertainment services	198.5	206.9	207.8	210.9	213.0	213.0	213.4	199.9	210.5	209.7	212.0	213.9	213.8	213.9
Fees for participant sports (12/77 = 100)	119.0	125.2	125.7	128.1	129.4	129.8	130.7	119.3	126.7	125.9	127.8	129.0	129.6	130.2
Admissions (12/77 = 100)	118.7	122.6	123.1	124.7	125.3	125.3	124.5	120.1	124.3	124.0	125.2	126.2	125.9	124.7
Other entertainment services (12/77 = 100)	114.8	118.7	119.4	120.1	122.0	121.0	121.1	115.1	121.6	121.8	122.0	123.0	121.7	122.4
OTHER GOODS AND SERVICES	209.8	222.8	224.6	226.2	227.4	228.7	229.9	209.2	221.0	223.0	224.4	225.6	226.8	227.9
Tobacco products	198.8	207.3	210.8	211.9	212.3	212.5	213.3	198.9	206.8	210.4	211.7	211.9	212.4	213.2
Cigarettes	201.4	209.6	213.5	214.6	214.8	214.8	215.5	201.6	209.3	213.2	214.5	214.5	214.9	215.5
Other tobacco products and smoking accessories (12/77 = 100)	117.6	124.3	124.9	125.4	126.5	128.0	129.6	117.2	123.9	124.5	125.4	126.4	128.1	130.0
Personal care	209.7	219.0	220.9	222.5	224.6	226.9	228.7	209.5	218.5	220.0	221.1	223.2	225.1	226.4
Toilet goods and personal care appliances	201.8	212.4	215.2	216.9	219.5	222.4	223.9	201.8	212.7	214.3	216.1	218.5	220.9	222.5
Products for the hair, hairpieces, and wigs (12/77 = 100)	117.9	124.5	125.2	126.3	128.3	131.4	131.9	117.9	123.2	125.3	126.2	126.7	128.4	128.8
Dental and shaving products (12/77 = 100)	120.5	127.2	128.4	130.8	132.9	135.3	136.6	119.3	125.9	125.4	128.3	131.2	133.3	135.1
Cosmetics, bath and nail preparations, manicure and eye makeup implements (12/77 = 100)	115.7	120.8	122.6	122.9	123.2	123.9	125.3	115.2	121.0	121.4	122.2	122.8	123.4	124.4
Other toilet goods and small personal care appliances (12/77 = 100)	115.4	122.2	124.8	125.5	127.5	128.3	128.4	117.2	125.3	126.8	126.6	129.0	130.7	131.3
Personal care services	217.2	225.5	226.8	228.3	230.0	231.7	233.7	217.2	224.4	225.8	226.3	228.1	229.4	230.5
Beauty parlor services for women	218.6	227.5	228.7	230.1	231.7	233.6	236.0	218.6	226.1	227.5	227.6	229.4	230.8	231.7
Haircuts and other barber shop services for men (12/77 = 100)	121.7	125.6	126.4	127.3	128.5	129.2	129.9	121.5	125.2	126.0	126.7	127.6	128.4	129.1
Personal and educational expenses	228.7	251.3	251.5	253.6	254.4	255.2	256.2	228.7	251.4	251.7	254.0	255.0	256.0	257.1
Schoolbooks and supplies	207.1	221.9	222.1	228.6	229.8	230.5	230.8	210.9	225.6	225.8	232.4	233.6	234.4	234.6
Personal and educational services	234.0	258.1	258.2	259.7	260.4	261.2	262.4	233.4	257.8	258.1	259.6	260.6	261.6	262.9
Tuition and other school fees	118.6	132.2	132.2	132.6	132.7	132.8	132.8	118.7	132.4	132.4	132.8	132.9	133.0	133.0
College tuition (12/77 = 100)	117.9	131.5	131.5	132.0	132.1	132.3	132.3	117.9	131.5	131.5	132.0	132.1	132.3	132.3
Elementary and high school tuition (12/77 = 100)	120.9	134.4	134.4	134.4	134.4	134.4	134.4	120.7	134.3	134.3	134.3	134.3	134.4	134.4
Personal expenses (12/77 = 100)	126.1	133.0	133.4	135.7	137.1	138.7	141.8	123.3	131.6	132.2	134.4	136.3	138.1	141.1
Special indexes:														
Gasoline, motor oil, coolant, and other products	369.3	365.5	368.3	379.9	404.8	414.5	413.2	370.8	366.7	369.4	381.2	406.3	415.9	414.5
Insurance and finance	335.2	355.3	364.5	368.9	370.7	373.6	378.1	335.2	355.6	364.7	368.8	370.4	373.0	377.6
Utilities and public transportation	233.4	253.1	255.8	259.4	262.3	265.2	267.9	232.6	251.6	254.4	258.0	261.0	263.6	266.1
Housekeeping and home maintenance services	295.7	306.4	308.4	309.5	314.6	318.3	323.1	295.1	303.5	306.6	307.4	313.4	317.2	321.1

¹ Not available.

c = corrected.

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)		
	1980		1981	1980		1981	1980		1981	1980		1981
	Dec.	Feb.	Apr.	Dec.	Feb.	Apr.	Dec.	Feb.	Apr.	Dec.	Feb.	Apr.
Northeast												
EXPENDITURE CATEGORY												
All items	132.8	135.7	137.3	139.8	143.2	144.4	143.8	146.6	149.8	137.8	141.6	143.4
Food and beverages	132.8	135.2	136.8	135.8	137.6	138.3	137.7	139.8	141.4	132.8	134.8	135.2
Housing	135.2	138.0	139.1	144.6	149.0	149.1	153.7	156.3	161.5	142.0	147.5	149.7
Apparel and upkeep	114.8	114.9	116.9	116.8	114.0	118.2	124.8	119.5	121.7	120.3	119.1	123.3
Transportation	141.9	147.3	149.7	149.4	155.0	157.3	146.5	153.0	154.9	146.5	151.0	153.0
Medical care	128.0	130.5	132.9	129.3	131.2	132.9	130.1	132.1	133.8	130.7	134.4	135.9
Entertainment	120.7	124.6	126.3	123.2	127.5	130.2	120.4	124.2	125.8	126.7	126.7	128.5
Other goods and services	122.7	123.7	124.5	127.5	128.5	130.4	130.3	131.1	132.6	124.4	126.5	127.1
COMMODITY AND SERVICE GROUP												
Commodities	133.7	137.0	137.9	140.8	144.3	145.0	142.1	144.6	147.1	138.1	141.7	143.3
Commodities less food and beverages	134.3	138.2	138.7	143.2	147.6	148.3	144.1	146.8	149.7	140.7	145.0	147.1
Services	131.6	134.0	136.4	138.3	141.5	143.4	146.7	149.8	154.1	137.3	141.4	143.6
North Central												
EXPENDITURE CATEGORY												
All items	143.3	144.0	145.9	140.0	142.8	143.5	136.6	139.7	140.2	136.2	139.6	141.1
Food and beverages	135.0	137.1	137.5	132.9	136.4	136.6	135.1	137.0	137.8	139.1	139.6	140.5
Housing	155.3	152.7	155.0	146.0	147.7	147.4	139.1	141.5	140.5	135.9	140.5	142.1
Apparel and upkeep	110.8	109.4	112.3	118.8	116.9	119.8	114.8	114.5	116.4	116.2	114.1	115.6
Transportation	146.4	151.8	153.9	146.8	152.3	154.3	146.2	153.1	155.1	145.4	150.3	152.6
Medical care	130.5	134.6	137.1	131.4	136.2	138.1	132.4	136.7	138.6	134.6	140.1	142.1
Entertainment	125.1	127.5	130.2	121.3	124.2	125.3	124.0	126.8	129.2	120.8	124.8	125.7
Other goods and services	124.2	126.3	127.9	130.3	132.7	134.0	123.9	126.4	127.9	129.8	131.1	131.7
COMMODITY AND SERVICE GROUP												
Commodities	139.9	140.3	141.7	136.5	139.5	140.1	135.2	138.2	138.6	133.4	136.0	136.9
Commodities less food and beverages	142.3	141.8	143.7	138.0	140.9	141.5	135.3	138.7	139.0	130.9	134.5	135.4
Services	148.4	149.4	152.1	145.6	148.1	149.0	138.9	142.2	142.7	140.6	145.3	147.8
South												
EXPENDITURE CATEGORY												
All items	139.0	142.1	144.1	140.9	144.9	146.7	138.6	142.1	143.7	136.5	138.8	141.8
Food and beverages	136.8	138.8	139.0	135.4	138.6	139.8	137.2	138.4	139.0	136.9	140.2	142.3
Housing	143.1	146.1	148.7	146.7	151.5	153.0	142.5	146.6	148.3	137.5	138.4	142.4
Apparel and upkeep	120.0	119.3	121.1	117.3	117.1	121.3	114.1	113.0	115.5	108.9	105.6	109.4
Transportation	146.8	152.9	155.7	147.9	153.4	155.9	145.7	152.2	153.8	144.8	151.4	154.3
Medical care	127.9	130.4	132.5	132.1	135.1	136.5	133.7	136.8	140.0	140.7	144.0	146.4
Entertainment	120.4	123.5	123.2	127.9	129.0	130.0	127.5	129.0	130.5	130.7	131.0	131.2
Other goods and services	128.1	129.4	131.3	128.8	131.0	132.0	126.7	128.6	129.7	129.9	130.5	131.6
COMMODITY AND SERVICE GROUP												
Commodities	137.2	140.1	141.5	137.5	140.8	142.3	136.3	139.1	140.1	135.6	138.4	140.7
Commodities less food and beverages	137.3	140.7	142.6	138.3	141.7	143.4	135.9	139.5	140.6	135.0	137.6	140.0
Services	141.5	144.8	147.6	146.1	151.2	153.3	142.3	146.6	149.2	138.0	139.3	143.6
West												
EXPENDITURE CATEGORY												
All items	140.7	142.6	145.7	141.4	144.0	146.7	138.4	141.2	142.1	139.8	141.0	143.6
Food and beverages	134.3	136.8	138.2	136.5	139.4	141.4	132.7	134.8	136.2	137.3	140.8	141.3
Housing	146.0	147.2	151.2	146.7	148.7	151.8	142.1	145.2	144.8	140.6	138.3	142.0
Apparel and upkeep	117.9	116.4	119.9	123.8	122.3	125.2	112.0	112.1	114.9	129.0	129.8	133.7
Transportation	146.7	150.8	154.2	146.6	151.9	154.9	148.5	152.6	155.6	148.0	154.1	156.0
Medical care	134.3	137.5	139.5	133.1	136.0	137.5	134.5	137.5	139.0	136.6	139.6	140.8
Entertainment	123.8	127.0	127.0	125.0	126.6	128.9	126.3	126.6	128.9	133.5	140.5	142.1
Other goods and services	127.7	129.1	131.8	129.0	131.4	133.3	125.2	126.8	128.6	130.4	131.5	133.0
COMMODITY AND SERVICE GROUP												
Commodities	135.3	137.3	139.5	137.5	140.0	142.2	135.2	137.1	139.1	137.2	139.7	141.6
Commodities less food and beverage	135.7	137.6	140.1	138.0	140.3	142.6	136.2	138.0	140.2	137.1	139.3	141.6
Services	147.8	149.6	154.0	146.7	149.4	152.9	142.9	146.9	146.4	143.8	142.9	146.5

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)						
	1980			1981				1980			1981			
	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
U.S. city average ²	242.5	256.2	258.4	260.5	263.2	265.1	266.8	242.6	256.4	258.7	260.7	263.5	265.2	266.8
Anchorage, Alaska (10/67=100)	...	236.5	...	240.1	...	241.1	...	...	232.0	...	235.0	...	236.2	...
Atlanta, Ga.	235.3	...	258.3	...	263.0	...	265.9	239.3	...	260.3	...	266.4	...	268.8
Baltimore, Md.	...	258.4	...	264.3	...	270.3	...	...	257.4	...	262.6	...	269.3	...
Boston, Mass.	...	248.8	...	256.4	...	262.3	...	...	249.2	...	255.7	...	261.8	...
Buffalo, N.Y.	233.7	...	246.5	...	251.4	...	254.6	233.3	...	245.2	...	249.7	...	252.7
Chicago, Ill.-Northwestern Ind.	240.1	259.9	260.3	258.9	259.6	259.7	263.7	239.8	258.9	258.9	258.1	258.8	258.9	263.0
Cincinnati, Ohio-Ky.-Ind.	...	262.1	...	264.5	...	266.1	...	...	236.5	...	266.3	...	267.7	...
Cleveland, Ohio	247.3	...	266.5	...	273.5	...	272.0	248.4	...	266.7	...	273.9	...	272.1
Dallas-Ft. Worth, Tex.	251.4	...	269.5	...	274.4	...	279.6	249.6	...	268.2	...	272.9	...	276.9
Denver-Boulder, Colo.	...	271.9	...	277.3	...	281.4	...	...	276.7	...	282.2	...	285.8	...
Detroit, Mich.	248.2	266.4	269.7	268.5	270.2	268.2	272.4	248.0	263.6	265.5	264.4	265.5	263.6	268.0
Honolulu, Hawaii	227.4	...	236.1	...	243.3	...	250.0	228.4	...	237.0	...	243.5	...	250.2
Houston, Tex.	260.8	...	274.8	...	281.5	...	286.4	257.3	...	272.1	...	277.7	...	283.1
Kansas City, Mo.-Kansas	243.8	...	259.1	...	261.9	...	265.4	242.2	...	257.2	...	260.1	...	264.3
Los Angeles-Long Beach, Anaheim, Calif.	244.6	255.5	258.7	259.4	261.6	263.3	265.5	247.8	258.4	262.2	262.7	265.0	266.5	269.1
Miami, Fla. (11/77=100)	...	133.9	...	137.3	...	140.0	...	...	135.6	...	138.8	...	141.7	...
Milwaukee, Wis.	...	262.1	...	266.2	...	269.9	...	...	267.5	...	271.9	...	274.6	...
Minneapolis-St. Paul, Minn.-Wis.	244.3	...	259.0	...	260.6	...	266.5	245.7	...	260.6	...	262.4	...	267.3
New York, N.Y.-Northeastern N.J.	233.1	244.7	247.3	249.4	252.7	253.9	255.4	232.4	244.2	247.2	249.1	252.7	253.7	254.8
Northeast, Pa. (Scranton)	...	247.0	...	252.4	...	257.6	...	...	249.5	...	255.1	...	260.6	...
Philadelphia, Pa.-N.J.	237.4	249.2	250.5	253.2	255.9	258.3	261.0	237.9	251.1	252.3	255.5	258.1	259.5	261.5
Pittsburgh, Pa.	240.9	...	262.0	...	265.5	...	265.7	242.2	...	262.9	...	266.4	...	267.3
Portland, Oreg.-Wash.	...	261.9	...	266.4	...	268.1	...	...	260.7	...	265.0	...	267.0	...
St. Louis, Mo.-Ill.	...	253.8	...	255.7	...	259.3	...	...	254.2	...	255.9	...	259.4	...
San Diego, Calif.	...	279.1	...	287.7	...	293.1	...	...	275.1	...	282.9	...	288.0	...
San Francisco-Oakland, Calif.	243.5	...	254.9	...	260.5	...	270.3	242.8	...	255.7	...	261.6	...	270.9
Seattle-Everett, Wash.	...	262.6	...	264.9	...	271.1	...	...	259.4	...	262.3	...	267.9	...
Washington, D.C.-Md.-Va.	...	253.6	...	257.2	...	262.3	...	...	255.7	...	259.4	...	264.2	...

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.
² Average of 85 cities.

26. Producer Price Indexes, by stage of processing

[1967=100]

Commodity grouping	Annual average 1980	1980								1981				
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May
FINISHED GOODS														
Finished goods	'247.0	243.4	244.9	249.3	251.4	251.4	255.4	256.2	257.2	'260.4	262.4	265.3	267.7	268.9
Finished consumer goods	'248.9	245.2	246.8	251.7	254.1	254.1	257.0	257.9	258.9	'262.0	264.0	267.3	269.6	270.6
Finished consumer foods	'239.5	231.9	233.0	241.6	246.5	247.4	248.0	248.9	249.3	'251.2	250.9	251.8	251.5	252.0
Crude	'237.2	229.1	224.5	240.9	247.0	259.8	237.8	250.5	254.8	'257.9	265.0	279.1	278.8	262.3
Processed	'237.8	230.3	231.8	239.7	244.4	244.3	246.9	246.7	246.7	'248.6	247.6	247.3	247.0	249.1
Nondurable goods less foods	283.9	284.2	285.9	288.4	290.0	290.9	291.7	293.9	296.2	'301.3	307.1	314.7	318.8	319.6
Durable goods	'206.2	201.9	204.1	207.5	208.1	206.2	214.0	213.1	213.5	'214.5	213.9	213.7	216.2	217.7
Consumer nondurable goods less food and energy	'191.2	189.6	191.1	192.8	193.9	194.6	195.6	196.9	197.6	'200.6	203.0	204.5	206.5	207.1
Capital equipment	'239.8	236.7	237.8	240.6	241.9	241.8	249.2	250.2	250.9	'254.5	256.3	257.8	260.5	262.6
INTERMEDIATE MATERIALS														
Intermediate materials, supplies, and components	'280.3	277.0	278.8	281.6	284.3	285.3	287.7	289.1	291.9	'296.2	297.8	301.4	305.4	306.6
Materials and components for manufacturing	'265.7	262.5	264.3	265.6	268.9	269.5	273.3	273.9	275.7	'279.7	279.7	281.0	283.9	285.0
Materials for food manufacturing	'264.4	255.3	259.7	264.4	277.9	275.8	295.1	299.0	279.6	'281.0	273.8	267.9	264.0	260.3
Materials for nondurable manufacturing	259.5	260.4	261.0	261.7	263.4	263.2	265.0	266.7	268.5	'274.1	275.8	278.7	283.8	286.6
Materials for durable manufacturing	301.0	294.1	297.0	297.3	299.2	300.5	304.7	303.8	304.3	'307.2	305.5	306.5	310.2	311.1
Components for manufacturing	'231.8	229.0	230.3	232.4	235.6	237.0	238.4	238.3	246.3	'250.2	251.7	253.5	255.2	256.0
Materials and components for construction	'268.3	265.2	266.9	269.6	271.4	271.7	272.4	274.0	276.6	'279.3	280.2	282.6	287.7	288.3
Processed fuels and lubricants	'503.0	498.2	502.0	514.2	517.4	519.5	516.2	521.3	539.4	'551.9	568.3	595.8	607.0	608.7
Manufacturing industries	'425.7	420.9	425.4	431.0	436.0	440.8	440.6	445.2	457.9	'469.5	481.5	501.6	506.9	510.9
Nonmanufacturing industries	'570.9	565.9	569.6	586.1	588.4	588.9	583.7	589.3	611.4	'624.7	644.8	678.7	695.2	695.0
Containers	254.5	254.4	256.2	257.0	257.4	257.9	260.1	259.5	260.6	'264.4	268.0	270.6	274.2	276.0
Supplies	244.5	240.0	241.2	245.3	247.7	250.3	252.3	255.2	255.0	'257.5	257.5	258.6	262.1	263.8
Manufacturing industries	'231.9	230.5	232.8	234.2	235.4	236.1	237.5	238.7	239.5	'242.4	244.6	246.7	250.3	251.7
Nonmanufacturing industries	251.1	245.0	245.7	251.1	254.1	257.6	259.9	263.8	263.0	'265.4	264.3	265.0	268.4	270.1
Feeds	'229.0	207.5	205.1	225.2	234.7	246.8	250.3	259.2	251.5	'251.9	238.1	232.2	239.5	243.2
Other supplies	'253.6	251.9	253.4	254.7	255.8	256.9	258.8	261.3	262.4	'265.3	267.6	270.1	272.4	273.6
CRUDE MATERIALS														
Crude materials for further processing	'304.6	289.3	288.4	304.3	317.0	319.3	322.8	324.6	323.5	'328.0	335.5	333.0	335.2	333.2
Foodstuffs and feedstuffs	'259.2	243.0	243.0	263.4	276.8	276.6	279.1	277.3	271.6	'270.7	267.1	262.0	263.4	260.6
Nonfood materials	'401.0	387.5	384.6	390.8	401.9	409.8	415.4	424.9	433.8	'450.1	481.7	484.8	488.8	488.6
Nonfood materials except fuel	'346.1	333.3	328.9	333.9	344.8	351.4	355.6	363.9	373.3	'391.0	428.1	430.6	432.7	428.6
Manufacturing industries	'357.4	343.8	338.9	343.9	355.4	362.6	367.1	376.1	386.5	'405.2	445.7	448.2	450.4	445.7
Construction	'237.6	232.8	234.1	239.1	243.7	244.8	245.3	246.5	247.4	'254.8	257.9	260.2	262.3	263.4
Crude fuel	'615.0	600.0	604.0	615.1	626.3	639.1	650.9	664.9	670.2	'677.4	679.0	685.2	697.2	715.3
Manufacturing industries	'690.5	670.3	675.7	690.5	705.4	722.0	738.1	755.8	762.9	'771.9	773.1	781.4	795.9	819.7
Nonmanufacturing industries	'567.0	555.9	558.8	567.1	575.5	585.4	593.8	605.2	608.9	614.9	616.8	621.5	631.6	645.2
SPECIAL GROUPINGS														
Finished goods excluding foods	'247.8	245.6	247.3	250.2	251.4	251.1	256.2	257.0	258.2	'261.7	264.4	268.0	271.2	272.6
Finished consumer goods excluding foods	'250.8	249.0	250.9	253.9	255.0	254.6	258.7	259.5	260.9	'264.2	267.3	271.7	275.1	276.1
Finished consumer goods less energy	'218.0	213.4	214.9	219.7	221.9	221.9	225.0	225.5	226.0	'228.1	228.9	229.8	231.3	232.1
Intermediate materials less foods and feeds	'282.3	279.6	281.5	283.8	285.8	286.6	288.2	289.3	293.5	'298.0	300.4	304.7	309.0	310.5
Intermediate materials less energy	'265.3	261.9	263.5	265.5	268.3	269.2	272.2	273.3	274.9	'278.4	278.6	280.0	283.4	284.6
Intermediate foods and feeds	'252.6	239.7	242.0	251.4	263.7	265.9	280.3	285.7	270.0	'271.1	261.9	256.0	255.6	254.1
Crude materials less agricultural products	'446.4	430.2	428.6	434.6	447.1	454.1	463.2	473.8	482.8	'504.0	543.7	547.5	551.9	552.8
Crude materials less energy	'256.1	241.0	239.0	256.1	268.5	269.9	272.4	271.7	267.5	'266.0	262.6	259.4	261.1	257.9

¹ Data for January 1981 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.

² Not available.

r = revised.

NOTE: Figures in this table may differ from those previously reported because stage-of-processing indexes from January 1976 through December 1980 have been revised to reflect 1972 input-output relationships.

27. Producer Price Indexes, by commodity groupings

[1967 = 100 unless otherwise specified]

Code	Commodity group and subgroup	Annual average 1980	1980								1981				
			May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. 1	Feb.	Mar.	Apr.	May
	All commodities	268.8	264.2	265.6	270.4	273.8	274.6	277.8	279.1	280.8	284.6	286.9	289.6	292.8	293.7
	All commodities (1957-59 = 100)	285.2	280.3	281.8	286.9	290.5	291.4	294.7	296.1	297.9	302.0	304.4	307.3	310.7	311.6
	Farm products and processed foods and feeds	244.7	233.8	234.3	246.6	255.1	256.5	259.4	260.5	257.0	258.0	254.9	253.1	253.6	252.6
	Industrial commodities	274.8	271.9	273.5	276.2	278.2	278.8	282.0	283.4	286.6	291.2	294.8	298.9	302.8	304.1
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS														
01	Farm products	249.4	233.5	233.4	254.3	263.8	267.0	263.6	264.9	265.3	264.5	262.3	260.6	263.2	259.5
01-1	Fresh and dried fruits and vegetables	238.6	244.0	233.5	252.0	254.0	266.2	240.9	246.6	245.1	258.7	270.4	291.6	285.2	273.9
01-2	Grains	230.0	219.0	215.3	244.8	256.5	260.6	269.2	270.9	265.2	277.7	267.5	261.8	264.7	257.7
01-3	Livestock	252.7	233.3	240.0	260.5	275.7	266.8	263.0	254.8	251.4	244.3	244.6	239.3	246.6	251.8
01-4	Live poultry	202.1	171.3	166.6	227.2	224.5	241.0	222.9	221.0	218.9	213.1	220.8	213.5	195.4	207.2
01-5	Plant and animal fibers	271.1	272.7	247.0	267.0	280.8	295.2	278.5	287.2	294.1	284.1	266.4	270.1	274.2	258.3
01-6	Fluid milk	271.2	265.4	265.5	265.8	271.6	275.5	280.9	284.7	290.5	288.4	289.5	289.5	287.2	283.6
01-7	Eggs	171.0	140.5	146.8	159.3	176.9	188.4	175.2	194.0	217.5	185.7	184.8	180.4	196.2	165.0
01-8	Hay, hayseeds, and oilseeds	247.1	206.9	207.4	251.4	261.5	280.7	284.4	298.3	310.2	311.8	295.0	289.5	296.3	299.0
01-9	Other farm products	299.0	311.0	309.4	292.4	282.7	292.0	285.8	296.6	296.0	296.1	295.1	295.9	295.9	259.7
02	Processed foods and feeds	241.2	233.1	233.9	241.5	249.4	249.8	256.1	257.2	251.5	253.4	250.0	248.1	247.4	248.0
02-1	Cereal and bakery products	236.0	234.7	233.2	234.7	235.8	238.3	241.5	245.3	248.7	251.1	251.7	251.9	253.5	255.1
02-2	Meats, poultry, and fish	243.1	224.5	226.6	248.5	259.9	257.8	256.0	250.9	248.1	248.9	243.9	242.0	239.2	244.8
02-3	Dairy products	230.6	228.5	229.5	230.1	232.6	233.7	238.0	240.2	242.3	244.7	245.5	245.5	245.8	245.0
02-4	Processed fruits and vegetables	228.7	225.4	227.2	229.8	230.7	231.3	233.8	234.7	236.6	238.4	241.1	251.8	258.7	260.1
02-5	Sugar and confectionery	322.5	327.8	325.4	313.5	347.1	341.4	404.7	409.0	339.8	344.6	324.7	302.6	286.0	265.3
02-6	Beverages and beverage materials	233.0	231.2	234.3	234.6	237.1	236.1	239.5	240.6	240.5	243.0	242.2	242.8	243.4	245.0
02-7	Fats and oils	226.8	212.0	212.8	226.9	240.2	238.3	231.0	238.0	234.1	230.2	228.3	230.0	232.6	228.6
02-8	Miscellaneous processed foods	227.2	223.7	223.4	223.5	224.0	226.8	230.6	235.0	240.5	244.2	248.0	249.2	249.9	251.1
02-9	Manufactured animal feeds	226.8	207.2	205.0	223.9	232.4	243.4	246.9	254.5	247.1	248.8	235.3	231.5	237.8	241.2
	INDUSTRIAL COMMODITIES														
03	Textile products and apparel	183.5	182.0	183.0	184.7	185.6	186.6	188.1	189.6	190.4	193.0	193.1	194.5	196.5	198.0
03-1	Synthetic fibers (12/75 = 100)	134.7	133.2	134.5	136.0	137.5	139.5	140.2	140.7	140.8	146.5	147.8	149.6	151.6	156.7
03-2	Processed yarns and threads (12/75 = 100)	122.5	124.2	122.8	122.4	123.2	124.3	125.1	125.8	128.2	129.8	129.6	133.9	134.6	137.1
03-3	Gray fabrics (12/75 = 100)	138.1	136.5	134.8	135.7	137.5	141.0	143.5	145.0	144.0	143.5	143.1	144.0	145.7	146.1
03-4	Finished fabrics (12/75 = 100)	115.7	115.3	115.8	116.6	116.8	117.0	118.3	119.1	120.1	122.2	122.2	122.5	124.1	124.7
03-81	Apparel	172.4	170.2	172.7	174.4	175.1	175.0	176.2	176.8	177.5	179.9	179.3	180.1	182.1	182.4
03-82	Textile housefurnishings	206.9	202.6	202.7	210.7	211.0	212.9	213.8	213.8	214.3	219.7	225.4	225.4	226.3	231.1
04	Hides, skins, leather, and related products	248.9	240.7	240.9	245.1	251.3	247.8	251.2	255.4	256.9	258.2	257.4	262.4	264.9	265.9
04-1	Hides and skins	370.9	289.7	315.7	356.6	398.4	356.1	381.5	409.1	392.8	377.8	367.3	(2)	(2)	(2)
04-2	Leather	310.6	290.4	284.4	292.2	314.2	298.1	301.9	317.3	332.4	332.6	310.0	322.5	337.8	337.0
04-3	Footwear	233.1	231.9	231.9	232.7	233.7	235.5	236.6	237.5	236.9	238.4	240.5	240.5	241.1	241.1
04-4	Other leather and related products	218.3	217.4	215.9	217.5	218.7	218.8	221.8	222.6	225.3	230.1	235.8	243.4	243.5	249.3
05	Fuels and related products and power	574.0	572.1	576.5	585.5	590.6	593.5	592.9	600.2	615.7	634.6	663.8	692.2	703.8	706.0
05-1	Coal	467.3	466.5	466.6	467.5	468.7	471.3	470.7	475.4	475.3	477.8	480.8	481.3	486.4	487.7
05-2	Coke	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.1	430.1	430.6	430.6	430.6	468.5
05-3	Gas fuels ³	760.7	745.1	749.2	762.1	772.6	786.2	802.2	825.5	844.3	857.1	858.8	867.6	884.5	906.0
05-4	Electric power	321.6	316.5	326.0	331.1	333.6	338.3	337.4	333.8	337.6	341.4	345.4	350.4	355.8	360.7
05-61	Crude petroleum ⁴	556.4	540.1	549.0	551.4	566.8	571.3	579.6	600.6	632.8	704.4	842.9	843.0	842.6	840.0
05-7	Petroleum products, refined ⁵	674.7	680.9	681.7	693.9	697.6	696.4	690.4	697.6	717.0	736.9	767.8	822.4	839.1	835.4
06	Chemicals and allied products	260.3	262.5	262.8	263.3	264.4	263.4	264.8	266.7	268.1	274.3	277.2	279.4	285.8	288.2
06-1	Industrial chemicals ⁶	324.0	328.5	329.5	328.7	330.0	327.5	330.0	332.7	334.6	344.6	349.4	352.5	360.8	366.6
06-21	Prepared paint	235.3	238.8	238.8	238.8	238.8	239.3	239.3	241.4	241.4	242.9	246.9	246.9	248.5	250.4
06-22	Paint materials	273.9	273.9	275.0	277.2	278.4	278.9	279.6	279.8	281.0	284.0	286.4	288.3	295.2	300.1
06-3	Drugs and pharmaceuticals	174.5	172.8	174.4	175.7	176.1	176.8	178.4	181.1	182.6	184.7	187.4	189.1	190.9	192.3
06-4	Fats and oils, inedible	298.0	294.7	255.8	260.0	307.6	304.5	302.0	308.2	317.1	310.7	289.7	295.7	312.7	312.1
06-5	Agricultural chemicals and chemical products	257.1	258.5	257.6	258.7	260.0	260.6	260.6	261.1	263.3	267.5	271.3	274.8	277.3	278.6
06-6	Plastic resins and materials	279.2	288.4	287.6	285.7	281.5	276.5	276.1	276.2	274.1	274.9	276.1	278.3	285.4	287.9
06-7	Other chemicals and allied products	224.5	224.8	226.9	228.5	229.0	229.1	230.9	232.4	234.1	244.2	246.7	247.8	256.4	255.8
07	Rubber and plastic products	217.4	215.0	217.3	218.8	220.5	222.0	222.8	223.4	223.3	224.8	226.5	228.8	230.9	232.0
07-1	Rubber and rubber products	237.5	234.7	236.8	239.0	240.2	242.6	244.6	245.0	244.9	246.2	249.2	253.0	253.9	255.3
07-11	Crude rubber	264.3	263.9	264.1	263.4	264.3	267.3	271.7	271.0	268.5	279.1	280.8	280.6	279.1	282.9
07-12	Tires and tubes	236.9	233.2	236.6	238.0	238.0	242.1	245.2	245.2	245.2	240.9	243.1	248.2	250.3	250.8
07-13	Miscellaneous rubber products	226.6	224.0	226.4	229.3	232.0	232.1	232.0	233.3	234.0	238.5	243.0	246.5	246.8	248.6
07-2	Plastic products (6/78 = 100)	121.1	119.9	121.4	122.0	123.2	123.7	123.6	124.0	123.9	125.0	125.3	125.9	127.8	128.3
08	Lumber and wood products	288.9	272.1	279.8	289.2	296.1	292.2	289.0	293.4	299.4	296.6	294.5	293.6	298.1	297.8
08-1	Lumber	325.8	301.4	313.0	327.2	333.7	328.0	320.6	324.9	333.0	331.6	327.8	324.7	331.3	334.9
08-2	Millwork	260.4	251.8	253.0	255.9	260.3	264.5	264.5	270.0	273.3	273.6	275.7	275.7	276.5	274.8
08-3	Plywood	246.5	230.6	241.7	252.8	266.0	252.6	252.9	256.6	263.5	251.1	248.6	246.7	254.4	248.4
08-4	Other wood products	239.1	240.7	238.7	236.9	236.2	236.8	236.7	236.6	236.2	238.5	238.1	239.3	238.2	238.1

See footnotes at end of table.

27. Continued — Producer Price Indexes, by commodity groupings

[1967 = 100 unless otherwise specified]

Code	Commodity group and subgroup	Annual average 1980	1980								1981				
			May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May
INDUSTRIAL COMMODITIES Continued															
09	Pulp, paper, and allied products	249.2	249.2	251.1	251.7	252.4	252.8	254.3	255.0	256.7	261.3	266.2	268.4	270.6	271.6
09-1	Pulp, paper, and products, excluding building paper and board	250.6	250.6	252.4	252.9	253.8	254.1	255.6	256.2	257.9	260.9	264.6	266.9	269.1	270.4
09-11	Woodpulp	380.3	385.6	387.7	388.3	388.3	388.2	389.6	390.2	390.2	390.2	392.6	392.6	396.6	396.6
09-12	Wastepaper	208.7	226.1	206.6	194.0	193.8	192.5	193.5	192.3	191.5	191.5	186.1	185.1	184.2	182.7
09-13	Paper	256.8	256.1	257.9	258.2	258.6	258.7	262.1	264.1	269.4	271.7	273.1	274.0	275.5	276.1
09-14	Paperboard	234.6	235.5	238.9	237.1	238.4	239.5	239.9	241.7	239.6	251.0	253.2	255.9	257.8	262.3
09-15	Converted paper and paperboard products	238.5	237.6	239.8	241.2	242.3	242.7	243.7	243.5	244.7	246.6	252.0	255.1	257.4	258.6
09-2	Building paper and board	206.2	206.8	208.9	211.8	210.3	210.2	212.7	216.5	219.7	219.7	225.2	227.3	231.9	236.9
10	Metals and metal products	286.4	281.8	281.9	282.5	285.1	287.3	291.9	291.1	290.6	294.1	293.7	296.1	298.7	299.2
10-1	Iron and steel	305.2	304.8	303.4	300.6	302.6	304.5	310.5	312.7	316.4	322.9	323.0	328.0	330.9	330.6
10-13	Steel mill products	302.7	305.5	305.8	301.0	301.0	301.0	307.5	309.4	313.7	322.6	322.9	328.7	331.8	332.0
10-2	Nonferrous metals	305.0	289.7	288.8	292.6	298.4	302.2	309.4	302.1	293.4	292.8	286.2	285.5	288.0	287.8
10-3	Metal containers	298.6	302.7	302.7	303.0	303.2	303.2	304.4	303.3	303.3	311.4	313.8	314.1	314.1	314.1
10-4	Hardware	240.5	238.4	240.5	242.6	243.3	245.9	246.6	249.6	251.7	254.5	256.0	256.5	256.4	257.3
10-5	Plumbing fixtures and brass fittings	246.7	247.5	248.6	249.7	250.4	250.6	250.6	252.3	254.9	256.7	259.0	259.2	265.2	265.6
10-6	Heating equipment	206.5	204.0	205.0	206.2	208.0	208.8	210.6	212.0	214.0	216.7	216.1	217.6	218.8	221.7
10-7	Fabricated structural metal products	270.5	269.9	270.1	272.2	273.0	274.1	276.9	278.0	279.3	283.0	285.6	289.4	293.5	294.3
10-8	Miscellaneous metal products	250.0	246.7	250.4	251.1	253.2	255.0	256.3	256.9	257.6	260.5	264.0	265.7	268.1	270.6
11	Machinery and equipment	239.8	237.6	239.2	241.5	242.6	244.7	246.8	248.3	249.8	253.2	254.8	256.9	259.2	260.6
11-1	Agricultural machinery and equipment	259.2	256.4	257.1	258.6	259.9	263.9	265.4	271.6	272.9	276.4	277.2	278.7	281.2	284.4
11-2	Construction machinery and equipment	289.4	285.9	287.6	291.5	293.4	295.7	299.1	300.1	301.4	305.3	308.4	311.3	314.7	318.3
11-3	Metalworking machinery and equipment	274.4	272.9	275.4	278.0	278.8	280.2	282.5	283.9	285.7	289.6	291.2	294.7	298.1	299.5
11-4	General purpose machinery and equipment	264.6	262.8	264.8	266.1	267.0	270.0	272.5	274.3	275.6	278.6	279.9	281.3	283.1	285.3
11-6	Special industry machinery and equipment	275.8	273.0	274.3	276.7	277.1	283.0	286.0	287.7	290.9	295.1	299.3	300.9	303.8	307.4
11-7	Electrical machinery and equipment	201.7	199.9	201.6	203.7	205.0	206.0	207.0	207.5	208.9	211.9	213.6	215.9	217.8	218.0
11-9	Miscellaneous machinery	229.9	227.3	228.2	231.1	232.1	233.6	236.5	238.5	239.6	243.3	243.7	245.4	248.1	248.4
12	Furniture and household durables	187.7	185.4	186.5	188.0	188.9	189.5	190.9	191.5	193.1	193.9	194.6	195.4	196.4	197.5
12-1	Household furniture	204.8	203.0	204.0	206.5	208.0	208.5	209.8	210.9	212.1	212.9	212.1	214.4	216.9	217.6
12-2	Commercial furniture	236.0	233.9	235.5	237.2	237.3	237.8	241.4	242.2	242.4	246.1	251.2	253.2	254.3	256.9
12-3	Floor coverings	163.0	161.9	162.1	163.2	163.8	163.9	164.4	165.5	170.7	172.3	172.4	174.0	176.2	179.9
12-4	Household appliances	174.2	173.2	175.5	175.8	176.3	177.2	177.5	178.5	179.5	182.2	182.3	183.0	183.8	184.2
12-5	Home electronic equipment	91.4	92.0	91.8	91.7	91.3	91.6	91.5	91.2	91.0	91.0	91.7	91.3	91.3	91.0
12-6	Other household durable goods	278.6	265.6	266.5	271.5	275.9	276.2	281.8	281.2	285.7	278.9	280.2	277.6	276.2	277.6
13	Nonmetallic mineral products	283.0	284.0	283.4	284.8	286.0	286.8	288.6	288.7	291.2	296.6	297.7	301.2	310.2	311.7
13-11	Flat glass	196.5	195.3	193.6	194.3	199.5	199.7	200.7	203.1	203.0	203.9	204.3	204.8	208.1	208.1
13-2	Concrete ingredients	274.0	272.4	273.2	275.9	278.6	278.9	279.0	279.1	279.7	290.0	289.6	291.9	296.4	297.2
13-3	Concrete products	273.9	275.2	275.8	275.9	276.0	277.3	277.5	277.7	277.6	286.1	286.6	286.9	289.5	290.7
13-4	Structural clay products, excluding refractories	231.5	230.0	230.1	230.1	229.7	230.1	233.3	233.5	233.6	239.5	240.4	245.2	245.6	249.6
13-5	Refractories	264.6	264.4	265.8	268.7	270.6	270.6	273.2	273.2	273.2	282.6	294.4	297.1	297.3	304.2
13-6	Asphalt roofing	396.8	401.1	400.9	413.8	411.2	407.9	408.5	397.1	394.6	394.8	389.3	400.7	416.3	412.4
13-7	Gypsum products	256.3	256.5	257.1	253.1	251.8	251.8	249.5	253.3	252.7	259.6	257.3	257.6	256.8	261.1
13-8	Glass containers	292.7	294.3	294.3	294.3	294.3	294.6	306.2	306.2	311.4	311.4	311.5	311.5	326.0	334.5
13-9	Other nonmetallic minerals	394.6	400.7	394.8	396.9	397.1	400.7	402.7	403.3	418.9	418.7	424.7	441.7	479.9	477.6
14	Transportation equipment (12/68 = 100)	207.0	202.5	203.1	206.2	208.8	204.4	217.4	217.8	224.3	227.4	228.5	228.5	231.5	233.2
14-1	Motor vehicles and equipment	208.8	204.5	205.2	208.6	211.7	205.6	218.2	218.6	226.2	228.9	230.2	229.9	233.2	235.3
14-4	Railroad equipment	313.1	310.5	312.2	316.4	318.0	320.0	323.3	323.6	323.9	332.5	334.4	335.8	341.8	337.1
15	Miscellaneous products	258.8	251.7	258.0	261.7	260.1	265.1	266.0	263.6	265.3	264.3	263.2	262.4	265.5	266.1
15-1	Toys, sporting goods, small arms, ammunition	198.6	196.0	197.5	200.2	201.3	202.3	202.7	202.8	205.7	208.4	209.5	210.4	211.7	212.3
15-2	Tobacco products	245.7	247.7	248.1	248.2	248.2	248.2	249.4	254.4	254.8	254.8	255.3	255.4	268.4	268.4
15-3	Notions	217.2	217.0	217.0	221.7	223.8	223.9	224.0	224.1	225.0	227.2	247.3	247.3	248.4	248.4
15-4	Photographic equipment and supplies	202.9	199.6	201.7	201.6	200.9	200.9	200.8	206.7	206.6	207.4	209.6	211.1	211.6	212.9
15-51	Mobile homes (12/74 = 100)	150.2	150.4	150.6	151.2	151.4	151.7	153.2	152.7	153.0	153.0	152.5	154.4	155.2	155.3
15-9	Other miscellaneous products	363.4	340.2	360.2	370.9	364.6	381.9	383.4	367.0	370.5	363.3	353.2	346.7	347.8	348.4

¹ Data for January 1981 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.

² Not available.

³ Prices for natural gas are lagged 1 month.

⁴ Includes only domestic production.

⁵ Most prices for refined petroleum products are lagged 1 month.

⁶ Some prices for industrial chemicals are lagged 1 month.

r = revised.

28. Producer Price Indexes, for special commodity groupings

[1967 = 100 unless otherwise specified]

Commodity grouping	Annual average 1980	1980										1981				
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May		
All commodities less farm products	269.6	265.9	267.5	270.9	273.8	274.3	278.1	279.4	281.2	285.4	288.0	291.1	294.3	295.6		
All foods	244.7	237.3	237.7	245.9	254.1	254.3	258.8	259.7	254.3	255.8	253.9	253.2	251.6	250.3		
Processed foods	246.6	239.0	239.9	247.3	255.7	254.9	261.7	261.9	255.5	257.0	254.2	252.2	250.5	250.6		
Industrial commodities less fuels	243.5	240.6	242.0	243.9	245.6	246.0	249.6	250.3	252.3	255.4	256.6	258.2	261.4	262.6		
Selected textile mill products (Dec. 1975 = 100)	124.3	122.9	123.7	125.5	126.0	126.6	127.5	128.1	129.3	131.8	132.7	133.1	134.6	136.3		
Hosiery	123.2	121.5	122.2	123.5	125.9	126.4	126.7	126.4	129.5	130.1	130.5	130.5	134.1	134.5		
Underwear and nightwear	185.4	182.8	187.1	188.3	189.3	189.5	189.7	190.3	190.6	199.2	201.2	201.6	202.1	202.3		
Chemicals and allied products, including synthetic rubber and manmade fibers and yarns	250.7	252.8	253.8	254.2	254.7	254.0	255.4	257.0	258.2	264.8	268.0	270.2	276.0	278.7		
Pharmaceutical preparations	167.1	165.9	167.6	168.1	168.4	168.8	170.8	173.7	174.6	177.1	179.7	181.8	184.0	185.7		
Lumber and wood products, excluding millwork and other wood products	304.0	282.0	293.5	306.9	315.5	307.4	302.3	306.5	314.2	309.2	305.7	303.0	310.1	310.6		
Special metals and metal products	258.5	254.0	254.4	256.2	259.0	257.8	265.7	268.6	271.8	272.2	273.5	276.4	277.7	277.7		
Fabricated metal products	258.2	256.8	258.6	259.9	261.2	262.6	264.3	265.2	266.3	269.9	272.6	274.7	277.3	278.7		
Copper and copper products	222.0	212.2	208.5	214.5	220.4	214.1	216.5	215.7	210.8	207.4	205.9	205.2	207.5	207.1		
Machinery and motive products	230.4	227.1	228.3	231.0	232.9	232.1	239.2	240.2	244.1	247.4	248.8	250.0	252.6	254.2		
Machinery and equipment, except electrical	263.0	259.6	261.2	263.7	264.6	270.2	273.0	275.1	276.7	277.3	278.9	280.9	283.5	285.5		
Agricultural machinery, including tractors	267.3	263.9	264.7	266.3	268.1	272.9	274.8	280.9	281.4	285.0	285.8	286.7	287.8	292.2		
Metalworking machinery	299.4	296.8	299.7	303.3	304.5	306.5	309.6	311.2	314.1	318.9	320.0	323.3	325.7	327.1		
Numerically controlled machine tools (Dec. 1971 = 100)	225.6	226.9	228.5	228.7	229.3	230.0	231.7	232.1	230.6	234.6	235.4	236.1	236.1	237.7		
Total tractors	287.3	282.9	284.0	288.3	291.1	295.8	298.3	299.9	301.2	305.8	310.2	310.9	315.6	321.5		
Agricultural machinery and equipment less parts	261.2	258.0	258.7	260.8	262.2	266.5	268.3	273.7	274.3	278.0	279.0	280.2	281.7	285.5		
Farm and garden tractors less parts	268.8	264.7	264.8	267.2	270.3	273.3	278.0	282.4	282.4	284.4	286.4	286.8	288.5	296.8		
Agricultural machinery excluding tractors less parts	266.5	263.6	265.0	265.9	266.6	269.7	272.5	279.9	280.9	285.7	285.5	286.9	287.5	288.8		
Industrial valves	287.8	288.4	290.1	291.1	291.3	292.4	294.6	296.0	297.8	300.7	302.7	306.8	310.4	311.0		
Industrial fittings	291.8	291.5	295.9	296.1	296.1	296.1	298.6	298.6	298.6	298.6	298.6	298.8	302.7	303.0		
Abrasive grinding wheels	(²)	261.3	261.3	261.5	261.5	261.3	263.4	273.0	273.8	(²)	(²)	(²)	(²)	(²)		
Construction materials	266.4	261.8	264.2	267.0	269.6	269.3	269.9	271.9	274.1	276.7	277.1	279.0	283.4	284.1		

¹ Data for January 1981 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.

² Not available.

29. Producer Price Indexes, by durability of product

[1967 = 100]

Commodity grouping	Annual average 1980	1980										1981				
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May		
Total durable goods	251.5	247.1	248.7	251.2	253.1	253.7	258.4	258.6	261.0	262.6	263.1	264.5	267.4	268.4		
Total nondurable goods	282.4	277.6	278.8	285.6	290.3	291.2	293.0	295.2	296.3	302.3	306.0	310.0	313.3	314.1		
Total manufactures	261.5	258.3	259.8	263.0	265.7	265.8	269.6	270.5	272.0	277.1	278.7	281.8	284.8	286.0		
Durable	250.8	246.7	248.5	251.0	252.7	253.1	257.8	257.9	260.4	262.1	262.7	264.0	266.9	268.0		
Nondurable	273.0	270.7	271.7	275.9	279.5	279.5	282.1	284.0	284.3	293.1	295.9	301.0	304.3	305.4		
Total raw or slightly processed goods	305.7	292.7	293.8	307.7	315.7	319.9	319.6	322.9	326.2	322.9	328.9	329.7	333.3	332.7		
Durable	278.2	262.2	249.9	255.2	265.8	274.9	282.7	285.6	284.0	275.9	275.7	280.8	286.2	281.0		
Nondurable	306.7	294.0	296.1	310.6	318.4	322.2	321.3	324.6	328.2	325.3	331.7	332.2	335.6	335.4		

¹ Data for January 1981 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 1980	1980										1981				
			May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May		
MINING																	
1011	Iron ores (12/75 = 100)	152.9	152.6	152.6	155.8	155.8	155.8	155.8	155.8	155.8	155.8	168.1	168.1	168.1	168.1		
1092	Mercury ores (12/75 = 100)	331.2	337.5	322.9	331.2	329.1	335.4	338.7	343.7	325.0	297.9	324.5	335.4	347.9			
1211	Bituminous coal and lignite	466.7	466.0	466.0	466.9	467.9	470.3	469.7	474.2	473.9	476.1	478.3	478.8	484.9			
1311	Crude petroleum and natural gas	643.8	619.6	631.5	638.0	656.7	667.6	681.8	704.6	731.7	786.5	885.6	895.9	904.6			
1442	Construction sand and gravel	252.7	249.3	250.0	254.8	255.8	258.5	261.8	263.2	264.3	270.1	271.7	274.9	277.3			
1455	Kaolin and ball clay (6/76 = 100)	136.0	136.6	136.6	136.6	136.6	136.6	137.2	132.1	133.7	137.1	137.1	137.1	137.1			
MANUFACTURING																	
2011	Meatpacking plants	244.0	227.2	230.0	249.1	265.3	257.1	258.0	251.4	249.0	245.9	237.3	236.1	237.7	243.0		
2013	Sausages and other prepared meats	220.1	193.3	190.9	213.7	233.0	240.0	247.0	249.5	247.4	235.8	232.7	229.9	230.4			
2016	Poultry dressing plants	191.9	164.7	164.2	214.2	212.1	226.0	211.3	205.9	201.8	201.9	208.3	203.9	186.7	196.2		
2021	Creamery butter	258.5	253.7	255.7	256.3	268.5	265.8	273.2	273.3	274.8	273.6	273.5	273.6	273.4			

See footnote 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 1980	1980								1981				
			May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. 1	Feb.	Mar.	Apr.	May
MANUFACTURING—Continued															
2022	Cheese, natural and processed (12/72 = 100)	204.4	201.9	202.5	203.4	206.8	208.0	213.7	214.9	216.1	215.9	217.4	217.5	218.1	218.0
2024	Ice cream and frozen desserts (12/72 = 100)	193.3	192.1	195.2	195.2	195.5	196.1	199.5	199.8	207.5	210.1	210.6	210.6	211.4	212.4
2033	Canned fruits and vegetables	221.4	217.3	219.9	222.9	223.4	224.3	227.6	231.1	232.0	233.3	238.3	241.7	245.0	246.9
2034	Dehydrated food products (12/73 = 100)	160.2	156.4	156.3	157.7	159.6	159.9	162.6	168.6	170.4	174.1	170.1	172.9	174.5	175.3
2041	Flour mills (12/71 = 100)	189.1	182.3	180.8	188.6	193.1	196.1	201.5	205.1	199.5	203.8	198.0	195.1	201.5	199.4
2044	Rice milling	243.4	254.5	236.0	225.3	219.9	225.9	237.2	265.8	287.2	289.6	289.6	298.0	300.9	300.3
2048	Prepared foods, n.e.c. (12/75 = 100)	124.2	116.9	116.2	122.2	126.6	129.6	129.2	133.3	133.9	132.5	129.7	127.0	128.8	130.2
2061	Raw cane sugar	414.1	456.1	402.4	381.8	484.0	458.9	588.2	563.8	402.9	418.0	367.1	318.8	275.7	224.8
2063	Beet sugar	358.0	339.9	348.0	342.3	365.5	384.5	460.1	512.2	423.3	414.5	403.1	375.0	360.7	351.3
2067	Chewing gum	290.7	282.0	282.0	282.4	282.4	302.4	322.4	322.9	322.9	323.0	323.0	323.1	323.1	303.1
2074	Cottonseed oil mills	192.9	150.4	155.1	191.3	215.1	232.9	218.7	231.8	228.0	221.2	193.7	204.4	218.3	216.6
2075	Soybean oil mills	244.3	212.9	208.6	37.4	256.9	275.2	279.2	290.5	270.5	272.0	253.0	253.0	257.7	258.1
2077	Animal and marine fats and oils	290.2	262.9	238.9	274.5	297.4	307.0	311.0	317.2	311.8	310.8	287.2	284.2	301.7	304.3
2083	Malt	249.9	244.1	244.1	244.1	244.1	244.1	267.4	267.4	267.4	286.1	286.1	286.1	286.1	286.1
2085	Distilled liquor, except brandy (12/75 = 100)	123.0	118.9	120.5	121.0	127.7	127.7	127.9	128.5	129.2	129.2	133.9	133.9	133.9	134.3
2091	Canned and cured seafoods (12/73 = 100)	174.0	173.1	175.3	175.9	177.5	178.6	180.0	183.1	183.4	187.3	186.8	187.6	187.8	187.4
2092	Fresh or frozen packaged fish	366.9	360.0	361.2	363.7	365.2	355.0	353.8	353.3	353.9	374.9	367.2	385.7	394.9	379.7
2095	Roasted coffee (12/72 = 100)	269.3	270.9	283.1	274.5	274.7	263.9	257.0	252.5	248.5	238.2	238.3	238.3	238.5	238.6
2098	Macaroni and spaghetti	233.8	230.5	230.5	230.5	230.5	239.3	243.6	243.6	243.6	243.6	243.6	243.6	243.6	246.6
2111	Cigarettes	254.6	257.3	257.4	257.4	257.4	257.4	257.8	263.5	263.6	263.6	263.9	263.9	278.3	278.3
2121	Cigars	158.6	155.3	159.8	159.9	159.9	159.9	163.7	164.0	165.1	165.1	162.6	164.2	165.6	165.6
2131	Chewing and smoking tobacco	279.8	278.6	278.6	279.5	279.7	279.7	295.0	295.0	298.8	298.7	310.4	310.4	320.4	320.4
2211	Weaving mills, cotton (12/72 = 100)	215.8	212.9	212.9	217.7	219.0	221.9	223.4	224.2	225.0	227.4	230.2	232.3	235.2	236.3
2221	Weaving mills, synthetic (12/77 = 100)	124.8	122.4	121.2	123.0	124.9	127.7	130.7	133.0	132.5	131.9	131.8	132.9	134.2	135.3
2251	Women's hosiery, except socks (12/75 = 100)	106.3	105.4	105.4	105.4	108.8	108.8	108.7	109.0	108.6	109.1	109.2	109.0	114.2	114.3
2254	Knit underwear mills	190.1	187.1	190.4	192.6	192.9	194.1	194.2	194.7	195.0	205.6	208.6	209.4	209.7	209.9
2257	Circular knit fabric mills (6/76 = 100)	104.6	104.4	105.0	105.4	105.7	105.8	106.7	107.1	107.5	109.3	108.2	107.8	109.3	109.0
2261	Finishing plants, cotton (6/76 = 100)	135.1	134.5	134.6	137.2	137.3	136.9	139.1	139.3	140.2	142.4	144.5	144.6	146.8	147.0
2262	Finishing plants, synthetics, silk (6/76 = 100)	113.6	111.8	112.1	113.8	114.1	115.3	117.3	117.9	120.5	121.7	123.0	124.2	124.8	126.4
2272	Tufted carpets and rugs	138.1	137.1	137.4	137.7	138.3	138.3	138.8	140.0	145.7	148.2	148.2	150.2	152.5	156.0
2281	Yarn mills, except wool (12/71 = 100)	203.5	204.5	202.8	202.9	204.3	206.2	207.9	209.9	215.1	216.9	218.1	220.6	221.0	224.1
2282	Throwing and winding mills (6/76 = 100)	115.5	118.1	115.8	115.0	115.8	117.2	118.2	118.4	120.1	123.2	121.6	129.5	130.6	134.9
2284	Thread mills (6/76 = 100)	139.1	143.0	142.9	143.0	143.1	143.1	143.8	143.9	143.9	144.1	144.3	148.4	150.8	150.9
2298	Cordage and twine (12/77 = 100)	123.6	123.8	125.0	125.0	125.0	125.0	127.1	129.2	129.3	129.3	129.3	130.9	132.7	134.3
2311	Men's and boys' suits and coats	212.6	210.9	211.6	214.9	214.9	214.9	216.2	216.3	216.1	218.2	219.7	220.4	220.5	220.4
2321	Men's and boys' shirts and nightwear	204.4	203.7	205.1	206.5	206.7	207.7	208.0	208.6	208.5	206.3	203.9	205.0	205.3	204.9
2322	Men's and boys' underwear	208.0	204.3	208.5	211.1	211.2	212.8	212.8	212.8	212.9	224.9	229.0	230.9	230.9	230.9
2323	Men's and boys' neckwear (12/75 = 100)	112.6	112.4	112.4	112.4	112.4	112.4	112.4	112.4	115.4	115.4	115.4	115.4	115.4	115.4
2327	Men's and boys' separate trousers	175.3	174.9	175.1	175.3	175.3	175.3	180.2	180.2	180.3	185.3	180.4	180.4	185.7	185.8
2328	Men's and boys' work clothing	240.5	241.8	242.6	244.8	244.1	243.9	244.3	244.3	244.4	242.2	241.7	241.9	246.2	247.4
2331	Women's and misses' blouses and waists (6/78 = 100)	110.3	107.6	107.8	111.4	112.6	112.6	114.0	114.0	115.4	116.3	114.8	115.1	115.2	115.2
2335	Women's and misses' dresses (12/77 = 100)	114.7	113.9	114.0	114.0	115.4	115.4	116.3	116.3	116.3	116.5	116.7	117.9	118.2	118.7
2341	Women's and children's underwear (12/72 = 100)	154.4	153.2	155.0	155.4	156.9	155.4	156.0	157.1	158.1	165.5	168.0	168.0	169.5	168.8
2342	Brassieres and allied garments (12/75 = 100)	126.5	125.4	126.6	127.8	129.0	129.0	129.0	129.1	129.1	131.7	133.2	134.5	134.5	134.5
2361	Children's dresses and blouses (12/77 = 100)	109.9	105.6	108.0	112.7	112.7	112.2	112.7	115.1	117.4	118.1	117.7	118.0	119.2	119.4
2381	Dress and work gloves, fabric	268.6	271.1	271.1	271.1	271.1	271.1	271.1	272.1	272.1	284.9	289.1	289.1	289.1	292.1
2394	Canvas and related products (12/77 = 100)	123.8	123.4	123.4	123.4	123.4	123.9	125.1	125.1	126.1	126.8	127.4	128.4	129.9	130.6
2396	Automotive and apparel trimmings (12/77 = 100)	122.4	122.3	122.3	122.3	122.3	122.3	122.3	131.0	131.0	131.0	131.0	131.0	131.0	131.0
2421	Sawmills and planing mills (12/71 = 100)	227.7	209.4	218.1	228.9	234.2	229.0	223.2	226.8	233.5	232.4	230.0	228.1	231.9	233.6
2436	Softwood veneer and plywood (12/75 = 100)	144.6	130.3	140.5	150.4	160.7	149.6	149.1	152.3	158.2	149.8	147.0	145.3	151.2	145.8
2439	Structural wood members, n.e.c. (12/75 = 100)	155.6	152.1	152.1	152.1	152.2	155.5	156.2	157.0	157.1	157.1	157.0	157.1	158.3	158.2
2448	Wood pallets and skids (12/75 = 100)	160.1	162.8	159.7	157.1	156.0	154.9	154.6	154.7	154.1	153.8	152.8	152.7	153.0	153.1
2451	Mobile homes (12/74 = 100)	150.3	150.5	150.7	151.3	151.4	151.8	153.2	152.7	153.1	153.1	152.5	154.5	155.3	155.4
2492	Particleboard (12/75 = 100)	161.5	167.3	171.7	168.7	169.4	163.7	159.8	163.6	165.9	163.9	169.1	171.0	179.6	183.2
2511	Wood household furniture (12/71 = 100)	183.8	182.2	183.5	185.1	186.4	187.7	188.1	189.1	190.0	191.2	191.7	193.4	195.3	196.2
2512	Upholstered household furniture (12/71 = 100)	163.6	161.1	162.5	166.1	166.2	166.2	167.7	168.6	170.5	169.8	167.2	170.0	173.4	173.4
2515	Mattresses and bedsprings	179.1	176.0	176.0	180.8	186.4	186.4	186.5	186.5	186.5	186.3	188.2	192.1	194.5	194.5
2521	Wood office furniture	235.2	233.9	234.0	235.5	235.5	235.5	239.7	239.7	240.9	244.1	250.3	253.5	254.6	255.5
2611	Pulp mills (12/73 = 100)	240.0	249.9	243.9	244.5	244.5	244.4	246.1	246.8	246.8	246.8	249.1	249.1	254.4	253.5
2621	Paper mills, except building (12/74 = 100)	145.5	145.8	146.2	146.4	146.7	146.7	148.2	149.2	150.7	152.0	152.8	153.5	154.3	154.8
2631	Paperboard mills (12/74 = 100)	139.0	139.5	141.2	140.3	141.1	141.7	142.3	143.2	142.4	148.2	149.4	151.0	152.0	154.1
2647	Sanitary paper products	322.0	319.3	321.2	327.4	331.1	331.1	332.6	334.7	338.2	338.3	343.6	344.1	344.2	345.4
2654	Sanitary food containers	216.0	215.5	217.2	218.2	220.3	222.3	222.3	223.3	225.3	223.0	236.5	239.1	240.4	240.4
2655	Fiber cans, drums, and similar products (12/75 = 100)	150.6	148.7	150.6	152.2	155.2	155.2	155.5	155.5	155.0	157.7	159.7			

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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 1980	1980								1981				
			May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ¹	Feb.	Mar.	Apr.	May
3021	Rubber and plastic footwear (12/71 = 100)	177.9	173.7	173.8	181.8	181.9	182.0	182.0	182.4	182.3	182.5	183.7	184.4	183.7	184.0
3031	Reclaimed rubber (12/73 = 100)	184.7	186.5	186.5	186.5	185.9	185.9	184.0	184.1	186.7	190.4	192.1	195.1	195.2	195.5
3079	Miscellaneous plastic products (6/78 = 100)	121.7	120.5	122.2	122.7	123.9	124.4	124.2	124.6	124.5	125.4	125.6	126.2	128.4	128.8
3111	Leather tanning and finishing (12/77 = 100)	146.6	137.9	134.6	137.7	147.9	140.0	(²)	149.3	156.6	157.0	145.5	151.4	158.6	158.3
3142	House slippers (12/75 = 100)	149.1	145.4	145.4	151.1	151.1	151.1	153.5	158.2	154.9	(²)	(²)	(²)	(²)	(²)
3143	Men's footwear, except athletic (12/75 = 100)	159.8	158.5	158.5	158.5	159.5	161.5	161.6	162.4	162.4	164.6	166.4	167.4	168.4	168.4
3144	Women's footwear, except athletic	213.5	213.8	213.8	214.2	214.3	215.2	217.1	217.1	217.8	217.8	220.0	218.8	218.7	219.3
3171	Women's handbags and purses (12/75 = 100)	137.9	140.8	140.9	140.9	140.0	140.9	140.9	140.9	140.9	149.5	149.5	149.7	149.7	158.4
3211	Flat glass (12/71 = 100)	161.3	160.8	158.9	159.5	162.6	162.8	163.8	166.4	166.3	167.1	167.5	168.1	171.7	171.7
3221	Glass containers	292.6	294.2	294.2	294.2	294.2	294.2	306.1	306.1	311.4	311.4	311.4	311.4	325.9	334.4
3241	Cement, hydraulic	310.8	313.8	313.8	313.3	313.1	312.3	311.8	310.5	310.5	324.3	319.1	321.3	329.0	329.2
3251	Brick and structural clay tile	277.3	278.5	278.5	278.5	277.6	278.5	282.6	282.9	282.9	286.6	287.0	296.2	297.0	298.3
3253	Ceramic wall and floor tile (12/75 = 100)	122.5	117.6	117.6	117.6	117.6	117.6	120.1	120.1	120.1	127.1	127.1	127.2	127.2	129.6
3255	Clay refractories	273.6	275.6	275.9	279.2	279.5	279.7	280.2	280.7	280.7	291.5	306.9	309.9	310.3	312.7
3259	Structural clay products, n.e.c.	202.7	204.1	204.4	204.7	205.0	204.8	204.9	205.0	205.1	209.5	213.3	213.5	213.1	224.3
3261	Vitreous plumbing fixtures	234.8	236.1	235.8	237.2	240.4	241.1	241.5	242.6	245.0	244.7	248.9	249.4	252.0	252.5
3262	Vitreous china food utensils	317.3	313.4	318.6	318.3	318.3	318.7	327.4	327.4	327.4	327.4	327.4	328.0	328.2	336.6
3263	Fine earthenware food utensils	295.5	293.9	294.7	294.6	294.6	296.4	297.9	297.9	297.9	298.6	298.3	307.6	307.6	309.1
3269	Pottery products, n.e.c. (12/75 = 100)	152.6	151.5	152.7	152.7	152.7	153.3	155.4	155.5	155.5	155.5	155.4	158.4	158.5	160.5
3271	Concrete block and brick	257.3	259.4	259.4	259.5	259.5	260.5	259.4	259.4	259.4	264.1	264.9	263.2	267.3	271.1
3273	Ready-mixed concrete	279.9	281.5	282.5	282.6	282.6	283.6	282.7	282.8	282.9	294.8	295.4	296.1	298.6	299.5
3274	Lime (12/75 = 100)	157.7	157.3	157.7	159.6	160.2	158.8	160.8	160.8	161.8	165.7	171.9	172.8	172.4	172.4
3275	Gypsum products	256.7	257.0	257.5	253.5	252.3	252.2	250.0	253.6	253.1	259.9	257.6	257.9	257.1	261.4
3291	Abrasive products (12/71 = 100)	212.6	211.8	213.5	215.2	215.7	217.1	218.8	220.2	220.2	226.7	226.9	229.7	232.0	233.0
3297	Nonclay refractories (12/74 = 100)	161.1	159.7	161.2	162.8	164.9	164.8	167.8	167.5	167.6	172.4	177.5	179.0	178.9	185.9
3312	Blast furnaces and steel mills	310.5	313.3	313.5	308.6	308.5	308.6	314.8	316.6	320.7	328.7	328.9	334.0	336.6	337.6
3313	Electrometallurgical products (12/75 = 100)	117.7	118.6	118.7	117.1	117.1	117.2	117.3	117.3	117.3	119.9	119.9	120.0	120.8	120.6
3316	Cold finishing of steel shapes	284.0	288.1	288.2	282.2	282.3	282.3	288.1	288.8	293.3	302.8	303.1	306.1	308.3	308.3
3317	Steel pipes and tubes	290.9	286.9	290.4	292.4	292.6	292.6	294.2	302.4	308.4	315.5	315.7	326.2	333.1	334.2
3321	Gray iron foundries (12/68 = 100)	282.5	280.5	282.5	283.0	283.2	283.3	289.7	290.1	290.7	293.4	293.0	293.0	296.9	298.3
3333	Primary zinc	270.5	268.2	268.6	255.9	255.9	264.0	269.9	282.0	288.7	289.7	296.3	296.0	308.0	321.6
3334	Primary aluminum	297.9	287.0	290.1	312.1	312.2	313.0	325.6	328.5	328.0	331.1	334.9	334.8	334.6	336.0
3351	Copper rolling and drawing	227.5	222.0	222.0	222.8	222.2	220.2	222.0	222.9	222.8	221.6	215.4	212.0	212.1	211.9
3353	Aluminum sheet plate and foil (12/75 = 100)	158.2	157.6	157.8	158.2	157.6	157.6	161.5	163.3	165.1	169.3	170.7	172.1	173.9	174.4
3354	Aluminum extruded products (12/75 = 100)	167.7	167.7	167.7	168.3	168.4	168.2	173.2	176.3	176.4	176.8	177.1	177.3	180.6	180.7
3355	Aluminum rolling, drawing, n.e.c. (12/75 = 100)	146.2	145.2	146.7	147.4	147.6	147.5	150.7	151.2	151.1	155.3	157.5	157.5	157.5	157.5
3411	Metal cans	291.6	295.2	294.9	295.6	295.9	296.1	297.9	297.2	297.3	302.1	303.0	304.7	304.7	304.7
3425	Hand saws and saw blades (12/72 = 100)	182.1	181.5	181.9	183.5	185.4	185.8	186.8	187.2	190.5	195.4	195.1	197.6	197.8	199.8
3431	Metal sanitary ware	248.3	249.7	249.9	250.9	251.4	251.4	251.5	252.2	253.8	256.0	256.3	256.6	262.9	263.7
3465	Automotive stampings (12/75 = 100)	136.9	133.8	137.8	137.8	139.8	140.1	140.2	140.9	141.2	143.0	144.1	144.5	145.2	145.3
3482	Small arms ammunition (12/75 = 100)	145.6	141.4	144.6	145.1	147.3	145.3	145.8	146.3	160.9	157.9	163.2	163.2	163.2	163.2
3493	Steel springs, except wire	230.3	229.2	230.3	230.3	230.8	231.9	233.0	233.3	234.3	238.4	239.0	239.4	240.6	241.6
3494	Valves and pipe fittings (12/71 = 100)	230.0	229.9	231.8	232.5	232.7	233.3	235.8	236.9	238.3	240.2	240.8	243.4	245.9	246.5
3498	Fabricated pipe and fittings	315.5	313.1	313.8	317.2	317.2	319.9	325.0	329.9	329.9	335.7	335.7	338.5	358.8	359.9
3519	Internal combustion engines, n.e.c.	275.4	271.6	271.7	276.8	278.6	283.2	285.2	289.1	289.9	298.2	294.2	298.5	304.2	304.2
3531	Construction machinery (12/76 = 100)	141.1	139.5	140.3	141.8	142.7	143.8	146.0	146.6	147.5	149.7	150.4	151.5	154.3	155.0
3532	Mining machinery (12/72 = 100)	258.5	257.3	258.2	259.4	262.0	264.1	266.0	268.0	270.0	272.4	273.5	275.7	279.1	279.6
3533	Oilfield machinery and equipment	338.1	337.3	337.4	342.6	345.7	347.3	352.9	358.4	360.9	366.5	373.7	375.8	380.7	382.8
3534	Elevators and moving stairways	239.3	234.1	242.8	244.2	243.8	246.4	248.3	248.8	249.5	250.3	250.3	251.1	251.2	251.2
3542	Machine tools, metal forming types (12/71 = 100)	279.5	275.1	279.2	284.3	285.3	285.6	286.8	287.4	292.0	297.5	298.5	301.8	302.9	304.4
3546	Power driven hand tools (12/76 = 100)	132.2	131.2	131.1	133.5	134.5	135.3	136.6	136.7	137.9	142.0	143.9	144.8	146.4	147.0
3552	Textile machinery (12/69 = 100)	216.6	213.6	217.0	221.7	222.1	222.3	223.8	224.5	226.0	231.0	233.7	236.6	241.0	241.1
3553	Woodworking machinery (12/72 = 100)	212.5	212.1	213.7	215.9	216.0	216.0	217.0	217.7	221.5	222.5	223.1	225.0	225.8	225.7
3576	Scales and balances, excluding laboratory	215.0	208.2	208.6	215.4	226.2	226.2	226.3	226.9	217.9	219.9	221.1	224.2	225.9	230.2
3592	Carburetors, pistons, rings, valves (6/76 = 100)	156.6	153.0	153.5	158.6	159.3	160.1	164.9	165.2	167.6	168.9	170.6	170.8	171.9	171.9
3612	Transformers	184.9	181.5	182.9	186.0	190.6	190.7	193.9	193.0	193.3	194.9	197.0	204.4	206.2	207.9
3623	Welding apparatus, electric (12/72 = 100)	209.9	209.2	211.0	212.1	212.1	211.7	214.4	214.9	215.8	218.9	220.0	221.1	223.8	225.4
3631	Household cooking equipment (12/75 = 100)	133.1	133.1	134.7	134.9	134.4	134.7	134.8	135.8	137.5	140.1	140.0	140.9	140.3	140.5
3632	Household refrigerators, freezers (6/76 = 100)	121.4	119.4	122.0	122.2	122.2	123.3	124.1	125.1	125.1	127.5	126.1	126.2	128.1	128.1
3633	Household laundry equipment (12/73 = 100)	162.0	161.7	162.3	161.2	163.6	165.5	166.1	166.6	167.4	169.7	170.1	170.9	171.1	173.8
3635	Household vacuum cleaners	154.4	149.3	155.8	158.4	158.5	158.6	158.8	158.8	159.1	159.1	149.9	151.8	151.8	151.9
3636	Sewing machines (12/75 = 100)	129.1	129.2	129.2	130.0	130.0	130.0	130.3	130.3	130.3	130.3	129.7	131.3	131.2	153.1
3641	Electric lamps	260.3	251.3	258.1	266.3	268.1	269.2	268.7	270.2	266.2	265.8	271.2	272.6	275.5	275.2
3644	Noncurrent-carrying wiring devices (12/72 = 100)	219.7	218.2	220.4	220.3	220.7	220.9	221.8	223.7	229.2	233.1	238.5	242.9	244.9	245.2
3646	Commercial lighting fixtures (12/75 = 100)	139.3	138.5	139.2	139.2	140.4	142.3	142.8	143.1	144.7	145.1	148.5	151.9	156.6	156.7
3648	Lighting equipment, n.e.c. (12/75 = 100)	139.9	140.2	140.7	140.7	140.9	143.2	143.3	144.7	145.0	146.3	146.8	152.7	153.2	153.3
3671	Electron tubes receiving type	251.8	254.7	255.2	255.5	255.6	255.7	264.6	264.8	272.7	284.3	284.5	285.1	285.1	285.2
3674	Semiconductors and related devices	90.7	91.2	92.0	92.1	91.8	92.0	91.8	91.2	91.6	91.1	90.8	91.7	91.7	91.2
3675	Electronic capacitors (12/75 = 100)	162.7	160.7	160.5	168.6	172.6	174.0	170.1	170.2	170.3	170.3	170.6	172.5	171.4	171.0
3676	Electronic resistors (12/75 = 100)	134.2	133.0	135.2	135.3	136.3	136.9	137.7	137.8	137.8	138.2	138.8	139.5	139.7	140.9
3678	Electronic connectors (12/75 = 100)	148.1	146.8	148.7	148.9	149.1	149.6	149.7	149.7	149.7					

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. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years, 1950-80

[1977=100]

Item	1950	1955	1960	1965	1970	1973	1974	1975	1976	1977	1978	1979	1980
Private business sector:													
Output per hour of all persons	50.3	58.2	65.1	78.2	86.1	94.8	92.7	94.8	97.9	100.0	99.8	99.4	^r 99.1
Compensation per hour	20.0	26.3	33.9	41.7	58.2	71.3	78.0	85.5	92.9	100.0	108.4	119.2	131.1
Real compensation per hour	50.4	59.6	69.4	80.0	90.8	97.3	95.9	96.3	98.8	100.0	100.7	99.5	96.4
Unit labor cost	39.8	45.2	52.1	53.3	67.6	75.2	84.2	90.2	94.8	100.0	108.6	119.9	^r 132.3
Unit nonlabor payments	43.5	47.8	50.8	57.8	63.4	75.6	78.9	90.7	94.4	100.0	105.1	110.9	^r 118.4
Implicit price deflator	41.0	46.1	51.7	54.8	66.2	75.3	82.4	90.4	94.7	100.0	107.4	116.9	127.6
Nonfarm business sector:													
Output per hour of all persons	56.2	62.7	68.2	80.4	86.7	95.3	93.1	95.0	98.1	100.0	99.8	99.0	^r 98.6
Compensation per hour	21.8	28.3	35.6	42.8	58.6	71.7	78.4	86.0	93.0	100.0	108.5	118.8	^r 130.5
Real compensation per hour	55.0	63.9	73.0	82.2	91.5	97.7	96.4	96.8	99.0	100.0	100.7	99.2	^r 96.0
Unit labor cost	38.8	45.1	52.3	53.2	67.6	75.2	84.3	90.5	94.8	100.0	108.7	120.0	132.4
Unit nonlabor payments	42.8	47.9	50.5	58.2	64.0	71.9	76.1	88.9	94.0	100.0	103.6	108.5	^r 117.6
Implicit price deflator	40.2	46.0	51.7	54.9	66.4	74.1	81.6	89.9	94.5	100.0	107.0	116.2	127.4
Nonfinancial corporations:													
Output per hour of all employees	(¹)	(¹)	66.3	79.9	85.4	94.5	91.3	94.4	97.4	100.0	100.4	100.3	^r 100.8
Compensation per hour	(¹)	(¹)	36.3	43.0	58.3	70.8	77.6	85.5	92.5	100.0	108.2	118.6	130.4
Real compensation per hour	(¹)	(¹)	74.2	82.6	91.0	96.5	95.4	96.3	98.5	100.0	100.5	99.0	95.9
Unit labor cost	(¹)	(¹)	54.7	53.8	68.3	74.9	85.1	90.6	95.0	100.0	107.8	118.2	^r 129.4
Unit nonlabor payments	(¹)	(¹)	54.6	60.8	63.1	70.7	75.7	90.9	95.0	100.0	103.8	108.3	^r 117.3
Implicit price deflator	(¹)	(¹)	54.7	56.2	66.5	73.4	81.8	90.7	95.0	100.0	106.4	114.8	125.2
Manufacturing:													
Output per hour of all persons	49.5	56.5	60.1	74.6	79.2	93.1	90.9	93.5	97.7	100.0	100.9	101.9	101.4
Compensation per hour	21.5	28.8	36.7	42.9	57.6	69.1	76.4	85.5	92.4	100.0	108.2	118.7	131.2
Real compensation per hour	54.1	65.2	75.1	82.3	89.9	94.2	93.9	96.3	98.3	100.0	100.5	99.1	96.5
Unit labor cost	43.4	51.0	61.1	57.4	72.7	74.2	84.1	91.4	94.6	100.0	107.3	116.5	^r 129.4
Unit nonlabor payments	55.1	59.4	62.0	70.3	66.0	71.6	70.4	88.5	95.1	100.0	104.7	105.7	(¹)
Implicit price deflator	46.8	53.4	61.3	61.2	70.7	73.4	80.1	90.6	94.7	100.0	106.5	113.4	(¹)

¹ Not available.

r = revised.

32. Annual changes in productivity, hourly compensation, unit costs, and prices, 1970-80

Item	Year											Annual rate of change	
	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1950-80	1960-80
Private business sector:													
Output per hour of all persons	0.9	3.6	3.5	2.7	-2.3	2.3	3.3	2.1	-0.2	-0.4	r -0.3	2.5	2.2
Compensation per hour	7.4	6.6	6.5	8.0	9.4	9.6	8.6	7.7	8.4	9.9	10.0	6.0	7.1
Real compensation per hour	1.4	2.2	3.1	1.7	-1.4	0.4	2.7	1.2	0.7	-1.2	-3.1	2.4	1.9
Unit labor cost	6.4	2.9	2.9	5.2	11.9	7.2	5.1	5.5	8.6	10.4	r 10.3	3.5	4.8
Unit nonlabor payments	0.7	7.6	4.5	5.9	4.4	15.0	4.1	5.9	5.1	5.5	r 6.8	3.2	4.4
Implicit price deflator	4.5	4.4	3.4	5.4	9.4	9.7	4.7	5.6	7.4	8.8	9.2	3.4	4.7
Nonfarm business sector:													
Output per hour of all persons	0.3	3.3	3.7	2.5	-2.4	2.1	3.2	2.0	-0.2	-0.8	r -0.4	2.1	1.9
Compensation per hour	7.0	6.6	6.7	7.6	9.4	9.6	8.1	7.6	8.5	9.6	r 9.8	5.7	6.8
Real compensation per hour	1.0	2.2	3.3	1.3	-1.4	0.4	2.2	1.0	0.7	-1.5	-3.3	2.1	1.6
Unit labor cost	6.6	3.1	2.8	4.9	12.1	7.4	4.7	5.5	8.7	10.4	r 10.3	3.5	4.8
Unit nonlabor payments	1.1	7.4	3.2	1.3	5.9	16.7	5.7	6.4	3.6	4.8	r 8.3	3.1	4.2
Implicit price deflator	4.8	4.5	3.0	3.7	10.1	10.3	5.1	5.8	7.0	8.6	r 9.7	3.4	4.6
Nonfinancial corporations:													
Output per hour of all employees	0.4	4.8	3.0	2.6	-3.4	3.4	3.2	2.7	0.4	-0.1	r 0.5	(¹)	2.0
Compensation per hour	6.8	6.5	5.8	7.7	9.7	10.1	8.2	8.1	8.2	9.6	r 10.0	(¹)	6.7
Real compensation per hour	0.8	2.1	2.5	1.4	-1.1	0.9	2.3	1.5	0.5	-1.5	r -3.1	(¹)	1.5
Unit labor cost	6.3	1.6	2.8	4.9	13.6	6.5	4.9	5.3	7.8	9.7	r 9.5	(¹)	4.6
Unit nonlabor payments	0.5	7.4	2.7	1.5	7.1	20.1	4.6	5.2	3.8	4.4	r 8.3	(¹)	3.8
Implicit price deflator	4.4	3.5	2.8	3.8	11.4	10.9	4.8	5.2	6.4	7.9	9.1	(¹)	4.3
Manufacturing:													
Output per hour of all persons	-0.2	6.1	5.0	5.4	-2.4	2.9	4.4	2.4	0.9	1.0	0.5	r 2.4	2.4
Compensation per hour	6.8	6.1	5.4	7.2	10.6	11.9	8.0	8.3	8.2	9.7	10.5	5.6	6.7
Real compensation per hour	0.8	1.8	2.0	0.9	-0.3	2.5	2.1	1.7	0.5	-1.4	-2.7	2.0	1.5
Unit labor cost	7.0	0.0	0.3	1.7	13.3	8.8	3.4	5.7	7.3	8.6	11.0	3.1	4.2
Unit nonlabor payments	-2.5	11.2	0.8	-3.3	-1.8	25.9	7.4	5.2	4.7	0.9	(¹)	4.6	8.3
Implicit price deflator	4.3	3.1	0.5	0.3	9.0	13.1	4.6	5.6	6.5	6.4	(¹)	4.5	7.6

¹ Not available.

r = revised.

33. Quarterly indexes of productivity, hourly compensation, unit costs, and prices, seasonally adjusted

[1977=100]

Item	Annual average		Quarterly indexes										
			1978		1979				1980				1981
	1979	1980	III	IV	I	II	III	IV	I	II	III	IV	I
Private business sector:													
Output per hour of all persons	99.4	r 99.1	100.0	99.9	99.7	99.6	99.2	99.0	99.3	98.8	99.2	r 98.9	P 99.8
Compensation per hour	119.2	131.1	109.4	111.9	115.0	118.0	120.5	123.0	126.0	129.7	132.8	135.5	P 139.2
Real compensation per hour	99.5	96.4	100.5	r 100.3	r 100.6	r 100.3	99.0	r 97.8	96.5	r 96.3	96.7	r 95.7	P 95.7
Unit labor cost	119.9	r 132.3	109.4	112.1	115.4	118.5	121.4	124.2	127.0	131.3	133.9	r 137.0	P 139.5
Unit nonlabor payments	110.9	r 118.4	106.7	109.1	109.6	110.4	111.5	112.3	115.3	116.0	119.8	r 122.8	P 125.2
Implicit price deflator	116.9	127.6	108.5	111.1	113.4	115.8	118.1	120.2	123.0	126.1	129.1	132.2	P 134.7
Nonfarm business sector:													
Output per hour of all persons	99.0	r 98.6	99.9	99.8	99.5	99.1	98.7	98.6	98.6	97.9	98.8	r 98.7	P 99.6
Compensation per hour	118.8	r 130.5	109.4	111.9	114.9	117.6	119.9	122.7	125.6	129.0	131.9	135.0	P 138.6
Real compensation per hour	99.2	r 96.0	100.5	r 100.3	100.4	r 99.9	98.6	r 97.6	96.2	95.7	96.1	r 95.4	P 95.3
Unit labor cost	120.0	132.4	109.5	112.2	115.4	118.7	121.5	124.4	127.4	131.8	133.5	r 136.8	P 139.2
Unit nonlabor payments	108.5	r 117.6	105.1	107.0	107.1	107.7	109.3	110.2	114.0	115.2	119.2	r 122.1	P 125.2
Implicit price deflator	116.2	127.4	108.0	110.5	112.6	115.1	117.4	119.7	122.9	126.3	128.8	131.9	P 134.5
Nonfinancial corporations:													
Output per hour of all employees	100.3	r 100.8	100.4	100.5	100.6	100.6	100.3	99.7	100.0	99.8	101.5	P 101.5	(¹)
Compensation per hour	118.6	130.4	109.2	111.5	114.5	117.5	119.8	122.4	125.3	128.9	132.1	P 135.1	(¹)
Real compensation per hour	99.0	95.9	100.2	r 99.9	100.1	r 99.8	98.5	r 97.3	95.9	r 95.7	96.2	P 95.4	(¹)
Total unit costs	116.8	r 129.7	107.6	109.6	112.2	115.3	118.2	121.3	124.2	129.2	131.1	P 134.1	(¹)
Unit labor cost	118.2	r 129.4	108.7	111.0	113.8	116.8	119.5	122.8	125.4	129.1	130.2	P 133.1	(¹)
Unit nonlabor costs	112.7	r 130.2	104.4	106.0	107.8	111.2	114.6	117.2	120.9	129.3	133.8	P 136.9	(¹)
Unit profits	99.0	r 90.2	105.9	108.9	105.6	100.7	97.5	92.2	95.5	83.4	89.1	P 92.4	(¹)
Implicit price deflator	114.8	125.2	107.4	109.6	111.5	113.7	115.9	118.1	121.0	124.1	126.4	P 129.5	(¹)
Manufacturing:													
Output per hour of all persons	101.9	101.4	101.7	102.0	101.4	102.3	101.9	101.9	r 102.0	r 100.7	r 100.3	103.0	P 103.5
Compensation per hour	118.7	131.2	109.1	111.5	114.5	118.5	119.7	122.0	125.0	129.6	133.5	136.8	P 140.3
Real compensation per hour	99.1	96.5	100.2	r 100.0	r 100.2	r 100.7	98.4	r 97.0	95.7	r 96.2	r 97.2	r 96.7	P 96.5
Unit labor cost	116.5	r 129.4	107.3	109.3	112.9	115.9	117.5	119.8	r 122.5	r 128.7	r 133.1	132.8	P 135.6

¹ Not available.

r = revised.

34. Percent change from preceding quarter and year in productivity, hourly compensation, unit costs, and prices, seasonally adjusted at annual rate

[1977=100]

Item	Quarterly percent change at annual rate						Percent change from same quarter a year ago					
	III 1979 to IV 1979	IV 1979 to I 1980	I 1980 to II 1980	II 1980 to III 1980	III 1980 to IV 1980	IV 1980 to I 1981	IV 1978 to IV 1979	I 1979 to I 1980	II 1979 to II 1980	III 1979 to III 1980	IV 1979 to IV 1980	IV 1980 to I 1981
	Private business sector:											
Output per hour of all persons	-1.1	1.3	-1.9	1.5	r -1.2	r 3.9	-0.9	-0.4	-0.8	0.0	r -0.1	P 0.5
Compensation per hour	8.6	10.4	12.2	9.7	r 8.4	r 11.5	9.9	9.6	9.9	10.2	10.2	P 10.5
Real compensation per hour	r -4.9	r -5.2	r -0.8	r 1.8	r -4.0	r 0.1	-2.5	r -4.1	r -4.0	-2.3	r -2.1	P -0.7
Unit labor cost	9.8	9.0	14.4	8.1	r 9.7	r 7.4	10.9	10.0	10.8	10.3	r 10.3	P 9.9
Unit nonlabor payments	2.6	11.3	2.6	13.6	r 10.3	r 8.2	2.9	5.2	5.1	7.4	r 9.4	P 8.6
Implicit price deflator	7.4	9.7	10.5	9.8	r 9.9	r 7.6	8.2	8.4	9.0	9.4	10.0	P 9.5
Nonfarm business sector:												
Output per hour of all persons	-0.3	0.0	-3.0	3.8	r -0.4	r 3.6	-1.1	-0.9	-1.2	0.1	r -0.1	P 1.0
Compensation per hour	9.6	9.9	11.2	9.3	r 9.6	r 11.3	9.6	9.4	9.7	10.0	10.0	P 10.3
Real compensation per hour	-4.0	r -5.7	r -1.7	r 1.4	r -2.9	r -0.1	-2.7	r -4.3	r -4.2	r -2.5	r -2.3	P -0.8
Unit labor cost	9.9	9.9	14.6	5.3	r 10.1	r 7.5	10.9	10.4	11.0	9.9	r 9.9	P 9.3
Unit nonlabor payments	3.3	14.6	4.2	14.9	r 10.0	r 10.5	3.0	6.4	6.9	9.1	r 10.8	P 9.8
Implicit price deflator	7.8	11.3	11.3	8.2	10.0	r 8.4	8.3	9.1	9.7	9.6	10.2	P 9.5
Nonfinancial corporations:												
Output per hour of all employees	-2.4	1.2	-0.5	6.9	P -0.1	(¹)	-0.8	-0.6	-0.7	1.2	P 1.8	(¹)
Compensation per hour	8.9	9.8	12.0	10.3	P 9.2	(¹)	9.8	9.5	9.7	10.3	P 10.3	(¹)
Real compensation per hour	r -4.6	r -5.7	r -1.0	r 2.3	P -3.2	(¹)	-2.6	r -4.2	-4.1	r -2.3	P -2.0	(¹)
Total unit costs	11.0	9.8	17.0	6.2	P 9.4	(¹)	10.7	10.6	12.0	11.0	P 10.5	(¹)
Unit labor costs	11.6	8.6	12.6	3.2	P 9.4	(¹)	10.7	10.1	10.5	8.9	P 8.4	(¹)
Unit nonlabor costs	9.3	13.5	30.6	14.7	P 9.5	(¹)	10.6	12.2	16.3	16.8	P 16.8	(¹)
Unit profits	-20.2	15.3	-41.9	30.3	P 15.7	(¹)	-15.4	-9.5	-17.2	-8.6	P 0.3	(¹)
Implicit price deflator	7.8	10.3	10.5	7.9	P 9.9	(¹)	7.8	8.5	9.1	9.1	P 9.6	(¹)
Manufacturing:												
Output per hour of all persons	0.1	r 0.6	r -5.2	r -1.5	r 11.4	P 1.6	-0.1	r -0.6	r -1.6	r -1.5	1.1	P 1.4
Compensation per hour	8.1	10.1	15.5	12.7	r 10.2	P 10.6	9.4	9.1	9.3	11.6	12.1	P 12.2
Real compensation per hour	r -5.4	r -5.6	r 2.1	r 4.6	r -2.4	P -0.8	-2.9	r -4.5	-4.5	r -1.2	r -0.4	P 0.8
Unit labor cost	8.0	r 9.5	r 21.9	r -14.5	r -1.1	P 8.8	9.6	r 8.5	11.0	r 13.3	10.8	P 10.7

¹ Not available.

r = revised.

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, 1976 to date

[In percent]

Sector and measure	Annual average					Quarterly average							
	1976	1977	1978	1979	1980	1979			1980				1981 ^P
						II	III	IV	I	II	III	IV	
Wage and benefit settlements, all industries:													
First-year settlements	8.5	9.6	8.3	9.0	10.4	10.5	9.0	8.5	8.8	10.2	11.4	8.5	10.4
Annual rate over life of contract	6.6	6.2	6.3	6.6	7.1	7.8	6.1	6.0	6.7	7.4	7.2	6.1	7.3
Wage rate settlements, all industries:													
First-year settlements	8.4	7.8	7.6	7.4	9.5	8.9	6.8	6.3	8.2	9.1	10.5	8.3	9.0
Annual rate over life of contract	6.4	5.8	6.4	6.0	7.1	7.2	5.1	5.3	6.5	7.3	7.4	6.5	7.7
Manufacturing:													
First-year settlements	8.9	8.4	8.3	6.9	7.4	9.7	6.3	5.6	7.2	6.7	8.4	7.8	9.0
Annual rate over life of contract	6.0	5.5	6.6	5.4	5.4	8.1	4.7	4.2	5.7	5.1	5.6	5.8	6.7
Nonmanufacturing (excluding construction):													
First-year settlements	8.6	8.0	8.0	7.6	9.5	8.5	9.4	7.8	9.4	10.3	9.5	8.2	8.3
Annual rate over life of contract	7.2	5.9	6.5	6.2	6.6	5.8	6.5	7.4	7.6	8.5	5.9	6.8	7.6
Construction:													
First-year settlements	6.1	6.3	6.5	8.8	13.6	8.7	9.7	7.5	10.8	12.2	15.4	14.3	13.4
Annual rate over life of contract	6.2	6.3	6.2	8.3	11.5	8.3	8.5	7.6	9.1	10.4	13.0	12.0	11.6

36. Effective wage adjustments going into effect in major collective bargaining units, 1976 to date

[In percent]

Sector and measure	Average annual changes					Average quarterly changes								
	1976	1977	1978	1979	1980	1979				1980				1981 P
						I	II	III	IV	I	II	III	IV	
Total effective wage rate adjustment, all industries	8.1	8.0	8.2	9.1	9.9	1.4	2.6	3.3	1.6	1.6	3.3	3.5	1.3	1.3
Change resulting from														
Current settlement	3.2	3.0	2.0	3.0	3.6	.2	1.1	1.0	5	4	1.0	1.7	.5	.2
Prior settlement	3.2	3.2	3.7	3.0	3.5	.6	1.0	1.0	4	5	1.4	1.2	.3	.5
Escalator provision	1.6	1.7	2.4	3.1	2.8	.6	.5	1.2	.7	.7	8	7	6	.5
Manufacturing	8.5	8.4	8.6	9.6	10.2	1.5	2.3	3.2	2.4	2.0	3.4	2.9	1.7	1.6
Nonmanufacturing	7.7	7.6	7.9	8.8	9.7	1.4	2.8	3.4	1.0	1.3	3.2	4.0	1.1	1.0

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	4,230	.....	1,623	.....	36,922	.17
1979	4,827	.....	1,727	.....	34,754	.15
1980 P: April	357	649	98	218	2,579	.14
May	388	704	116	172	2,099	.10
June	385	699	173	224	2,441	.13
July	414	733	241	336	3,954	.21
August	374	704	80	211	3,079	.15
September	420	724	126	247	3,407	.20
October	347	630	90	200	2,195	.11
November	201	427	52	101	1,110	.06
December	66	247	18	48	617	.03
1981 P: January	253	297	50	68	614	.03
February	347	517	90	136	647	.04
March	314	545	271	336	1,419	.07
April	371	560	101	273	5,117	.25

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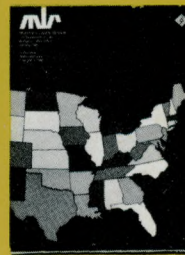
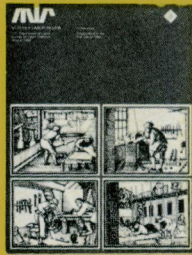
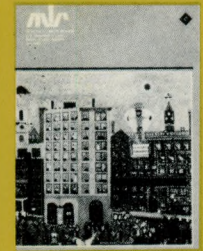
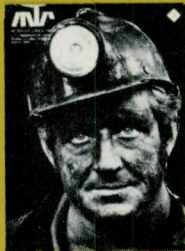
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