



MONTHLY LABOR REVIEW

U.S. Department of Labor
Bureau of Labor Statistics
January 1982

In this issue:
Articles on prices, collective bargaining,
and State labor legislation in 1981





U.S. DEPARTMENT OF LABOR
Raymond J. Donovan, *Secretary*

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

The Monthly Labor Review is published by the Bureau of Labor Statistics of the U.S. Department of Labor. Communications on editorial matters should be addressed to the Editor-in-Chief, Monthly Labor Review, Bureau of Labor Statistics, Washington, D.C. 20212. Phone: (202) 523-1327.

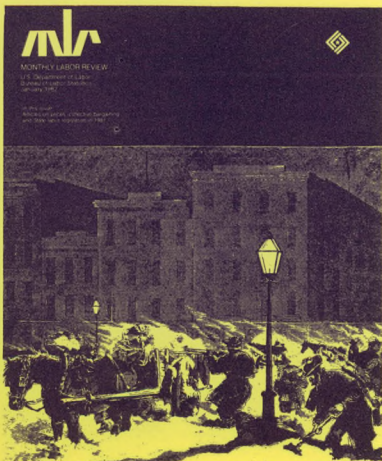
Subscription price per year —
 \$23 domestic, \$28.75 foreign.
 Single copy \$3.50

Subscription prices and distribution policies for the Monthly Labor Review (ISSN 0098-0818) and other Government publications are set by the Government Printing Office, an agency of the U.S. Congress. Send correspondence on circulation and subscription matters (including address changes) to:
 Superintendent of Documents,
 Government Printing Office,
 Washington, D.C. 20402

Make checks payable to Superintendent of Documents.

The Secretary of Labor has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this Department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through October 31, 1982. Second-class postage paid Laurel, Md.

Library of Congress Catalog
 Card Number 15-26485



January cover:

Detail from *Carting Snow from the Streets, 1867*, an engraving by Stanley Fox, from *New York in the Nineteenth Century: 321 Engravings from Harper's Weekly and Other Contemporary Sources*, by John Grafton.

Cover design by Richard L. Mathews,
 Division of Audio-Visual Communications Services,
 U.S. Department of Labor.

**Regional Commissioners
 for Bureau of Labor Statistics**

Region I — Boston: *Paul V. Mulkern*
 1603 JFK Federal Building, Government Center,
 Boston, Mass. 02203
 Phone: (617) 223-6761
 Connecticut
 Maine
 Massachusetts
 New Hampshire
 Rhode Island
 Vermont

Region II — New York: *Samuel M. Ehrenhalt*
 1515 Broadway, Suite 3400, New York, N.Y. 10036
 Phone: (212) 944-3121
 New Jersey
 New York
 Puerto Rico
 Virgin Islands

Region III — Philadelphia: *Alvin I. Margulis*
 3535 Market Street
 P.O. Box 13309, Philadelphia, Pa. 19101
 Phone: (215) 596-1154
 Delaware
 District of Columbia
 Maryland
 Pennsylvania
 Virginia
 West Virginia

Region IV — Atlanta: *Donald M. Cruse*
 1371 Peachtree Street, N.E., Atlanta, Ga. 30367
 Phone: (404) 881-4418
 Alabama
 Florida
 Georgia
 Kentucky
 Mississippi
 North Carolina
 South Carolina
 Tennessee

Region V — Chicago: *William E. Rice*
 9th Floor, Federal Office Building, 230 S. Dearborn Street,
 Chicago, Ill. 60604
 Phone: (312) 353-1880
 Illinois
 Indiana
 Michigan
 Minnesota
 Ohio
 Wisconsin

Region VI — Dallas: *Bryan Richey*
 Second Floor, 555 Griffin Square Building, Dallas, Tex. 75202
 Phone: (214) 767-6971
 Arkansas
 Louisiana
 New Mexico
 Oklahoma
 Texas

Regions VII and VIII — Kansas City: *Elliott A. Browar*
 911 Walnut Street, Kansas City, Mo. 64106
 Phone: (816) 374-2481

VII
 Iowa
 Kansas
 Missouri
 Nebraska

VIII
 Colorado
 Montana
 North Dakota
 South Dakota
 Utah
 Wyoming

Regions IX and X — San Francisco: *D. Bruce Hanchett*
 450 Golden Gate Avenue, Box 36017,
 San Francisco, Calif. 94102
 Phone: (415) 556-4678

IX
 American Samoa
 Arizona
 California
 Guam
 Hawaii
 Nevada
 Trust Territory of the Pacific Islands

X
 Alaska
 Idaho
 Oregon
 Washington



LIBRARY

FEB 8 1982



MONTHLY LABOR REVIEW

JANUARY 1982
VOLUME 105, NUMBER 1

Henry Lowenstern, Editor-in-Chief
Robert W. Fisher, Executive Editor

- Paul O. Flaim 3 **The spendable earnings series: has it outlived its usefulness?**
Questions are raised about its accuracy, relevance, and concepts; statistical evidence indicates the series has been seriously deficient in tracking 'spendable' earnings
- W. Thomas and others 10 **Large meat, grain supplies cut recent food price increases**
Food prices helped to hold down the overall rate of inflation in the first half of 1981, although a resurgence took place during the third quarter
- Douglas R. LeRoy 16 **Scheduled wage increases and cost-of-living provisions in 1982**
Deferred increases will average 6.3 percent, more than in any year since 1971, and are payable to 4.3 million workers; cost-of-living clauses cover 3.4 million
- George Ruben 21 **Organized labor in 1981: a shifting of priorities**
The quickened pace of wage-and-benefit concessions and employment declines in major industries left the movement with little to celebrate during its centennial
- Richard R. Nelson 29 **State labor legislation enacted in 1981**
The minimum wage was raised in 26 jurisdictions, sometimes above the Federal rate; more attention was paid to protecting 'whistleblowers' and workers in plant closings

REPORTS

- J. A. Bunn, J. E. Triplett 43 Reconciling the CPI and the PCE Deflator: an update
R. Bednarzik, R. Tiller 45 Area labor market response to national unemployment patterns

DEPARTMENTS

- 2 Labor month in review
43 Research summaries
53 Major agreements expiring next month
54 Book reviews
61 Current labor statistics

RESEARCH LIBRARY
Federal Reserve Bank
of St. Louis

Labor Month In Review



JOB SAFETY. Job-related injuries and illnesses declined in 1980. The Bureau of Labor Statistics' annual survey, conducted in 1981, shows that 1 injury or illness occurred for every 12 workers in the private economy during 1980. The ratio was 1 out of 11 in each of the previous 4 years.

The latest survey also shows that incidence rates and total cases fell for the first time in 5 years. The incidence rate fell from 9.5 injuries and illnesses per 100 full-time workers in 1979 to 8.7 in 1980. About 10 percent of the 0.8 decline in the incidence rate was the result of a decrease in total hours worked between 1979 and 1980.

In 1980, work-related deaths in units with 11 or more employees also fell—from 4,950 in 1979 to 4,400 in 1980. The fatality rate fell from 8.6 per 100,000 workers in 1979 to 7.7 in 1980. Over the 2-year period from 1979 to 1980, 30 percent of all occupational fatalities were associated with the operation of cars and trucks. (See page 49 for a report on job-related deaths.)

Occupational injuries. Occupational injuries occurred at a rate of 8.5 per 100 full-time workers during 1980—down from 9.2 in 1979.

Among industry divisions, only agriculture, forestry, and fishing showed a slight increase in the incidence of injuries. Rates for the remaining seven industry divisions fell.

Of the 69 major industry groups, incidence rates decreased in 57, increased in 9, and 3 remained at the 1979 level. Incidence rates for injuries involving lost workdays decreased in 48, increased in 9, and were unchanged in 12 of the 69 industries.

The severity of injuries is reflected in the incidence rate of lost workdays. In 1980, there were 63.7 lost workdays per 100 full-time workers due to injury—down from 66.2 in 1979. Mining was the only industry division to show an increase in the lost workdays rate; it had the highest rate of lost workdays among all industry divisions. Since 1977,

the lost workdays incidence rate in mining has been more than twice the national average.

Injury incidence rates in establishments with fewer than 50 or more than 1,000 workers were lower than in mid-size establishments. Rates continued to be highest in establishments with 100 to 249 employees.

About 6.0 million work-related injuries occurred in 1979 compared with nearly 5.5 million in 1980—a decline of about half a million cases. Both lost workday injuries and nonfatal injuries without lost workdays decreased. As in 1979, 45 percent of all injuries involved lost worktime.

There were 1.7 million fewer days lost due to occupational injuries in 1980 than in 1979. The 40.9 million workdays lost in 1980 represent lost work time equivalent to a full year's work for nearly 163,600 employees.

Occupational illnesses. The recording and reporting of illnesses continue to present measurement problems, since employers (and physicians) often are unable to recognize some illnesses as work-related. The annual survey includes data only on the incidence of visible illnesses of workers. To the extent that occupational illnesses are unrecognized and, therefore, unreported, the survey estimates understate their occurrence.

Occupational illnesses include any abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment.

The incidence of occupational illnesses measured by the annual survey refers to the number of new illness cases occurring during a year and does not measure continuing conditions of illness reported in previous surveys. Illnesses are recorded only for the year in which they are recognized and diagnosed as work-related.

Nearly 130,200 occupational illnesses were recognized in 1980; the number recognized in 1979 was 148,000. During this period, the number of illnesses decreased in 7 of the 8 industry divisions; cases increased in agriculture, forestry, and fishing.

As in previous years, skin diseases or disorders continued to account for the majority of all illnesses—about 4 of every 10 cases. This is largely because they are more readily observable than other illnesses.

Background of survey. The Annual Survey of Occupational Injuries and Illnesses is a Federal/State cooperative program in which State agencies participate with the Bureau of Labor Statistics of the U.S. Department of Labor. Response to the 1980 survey was mandatory. The sample consisted of 280,000 units in the private sector.

The occupational injury and illness data reported through the annual survey are based on the records which employers maintain under the Occupational Safety and Health Act of 1970.

A BLS bulletin with full survey details is planned for publication later this year. □

Rebasing of price indexes delayed

Because of severe budget constraints, the Bureau of Labor Statistics has not been able to carry out by January 1982 the Government directive to rebase the Consumer Price Index and the Producer Price Index to the new Federal 1977=100 reference base. Postponement is required because of the direct production work necessary to prepare the data and the information services to explain the change. No alternative date for adopting the 1977 reference base has been set.

v. 105
Jan.-Je.
1982

The spendable earnings series: has it outlived its usefulness?

Enough questions have been raised about accuracy, relevance, and concepts to suggest that this is a series whose time is up; statistical evidence indicates that the measure has been seriously deficient in tracking 'spendable' earnings

PAUL O. FLAIM

Are American workers "better off" now than they were 5 or 10 years ago? That is, considering wage and inflation trends, have workers been making further gains or losing ground in terms of the purchasing power of their earnings?

The answers to this question can vary considerably, depending on what statistical series is used to determine the basic trends in gross earnings and on what calculations and assumptions are made in translating the statistics on gross earnings into estimates of purchasing power.

One of the statistics most often used to depict the trend in purchasing power of American workers has been the "real spendable weekly earnings of workers with three dependents." This series, published monthly by the Bureau of Labor Statistics, was initiated about four decades ago. Its initial purpose was to keep track of the purchasing power of factory workers by taking into account changes in consumer prices as well as deductions from pay for Federal income taxes and social security contributions. In the early 1960's, the scope of the series was expanded to all production and

nonsupervisory workers in the private nonfarm economy. The following tabulation shows the trend in this series (in 1977 dollars) over the 1950-80 period:

1950	.....	\$131.08
1955	.....	143.46
1960	.....	149.20
1965	.....	166.28
1970	.....	163.65
1975	.....	164.02
1980	.....	151.65

According to the tabulation, real spendable weekly earnings grew steadily and significantly from 1950 to 1965, were stagnant until 1975, and then dipped considerably over the next 5 years. Why this change in trend? Is it possible that, after making considerable progress over the 1950-65 period, the average American worker lost ground in terms of purchasing power over the next 15 years?

As will be shown in this article, the change in the trend of the spendable earnings series in the mid-1960's did not stem from any sudden change in the earnings of individual workers. Rather, it reflects demographic and social changes which began at about that time and which greatly altered the composition of the labor force over the next 15 years.

Paul O. Flaim is chief of the Division of Labor Force Studies, Bureau of Labor Statistics.

Comparisons with other earnings and income series indicate that the majority of American workers have made further progress in terms of purchasing power over the 1965–80 period, even though they may indeed have suffered a dip after 1975 when inflation intensified. These comparisons also show that workers who are likely to have three dependents earn—and take home—much more than is indicated by the “spendable earnings” series.

More representative in early days

Computation of the spendable earnings series began in 1939. Records do not show why the series was started, but it should be recalled that the Social Security Act had gone into effect in 1937, and the need must have soon arisen to measure the effects of the deduction for social security as well as those for Federal income taxes on the take-home pay of typical factory workers.

To measure the impact of Federal income taxes, two series were started, one for workers assumed to have three dependents (a nonworking wife and two children) and one for those assumed to have no dependents. It is important to note, however, that both series were based on the same earnings average—that for all production workers in manufacturing. In subsequent years, the series for workers with three dependents became the more prominent and widely quoted of the two, presumably because of the greater interest in the earnings situation of a family’s principal breadwinner.

Of course, in 1939, and even in the years immediately following World War II (although not necessarily during the war), the factory labor force was much more male dominated than is now the case. In fact, this was also true in other industries, as the labor force participation rate for women, especially wives, was extremely low. Thus, the use of the earnings average for all factory production workers to represent the earnings of a factory worker with three dependents was not unsound in the early days of the series.

And the fact that no allowance was made for deductions for State and local taxes in translating the gross earnings of factory workers into “spendable” (or after-tax) earnings also was not a significant omission in those years. It was only after World War II that State and local income taxes began to take a significant and growing portion of a worker’s earnings, a trend that continued at least until the recent advent of “Proposition 13” and similar measures designed to limit local tax burdens.

The deductions for social security and Federal income taxes were also extremely low in the early days of the spendable earnings series. In 1939, for example, a factory worker whose gross weekly earnings equaled the average for the industry—\$23.86—took home \$23.62 if he had three dependents and \$23.58 if he had no depen-

dents. In either case, the total deductions barely exceeded 1 percent, a far cry from the situation in 1980, when comparable deductions totaled 14 percent for a worker with three dependents and 22 percent for one with no dependents. And this does not take into account any deductions for State and local taxes.

All things considered, the spendable earnings series, as constructed in its early days, gave a reasonable approximation of the take-home pay of a worker with three dependents. This was particularly true when the series was limited to the manufacturing industry, where men (many with three or more dependents) made up a majority of the work force. But, the situation has changed radically since those early days, and there has been mounting evidence that the series has become less representative of the earnings situation of workers with three dependents.

Growing problems and criticisms

In 1964, the coverage of the spendable earnings series, previously limited to production workers in manufacturing, was expanded to include production and nonsupervisory workers in all private nonfarm establishments. In retrospect, this change made the series much more susceptible to the effects of the pervasive demographic and social changes which, over the next 15 years, greatly altered the makeup of the American work force.

The mid-1960’s marked the beginning of a large and sustained increase in labor force participation among women age 20 to 40. It was also during that time that the leading edge of the huge post-World War II baby-boom generation reached age 18 and began to enter the job market. Suddenly, women and teenagers began to account for most of the year-to-year gains in the work force. Many of these new workers took only part-time jobs, but even if working full time (as most of them eventually did), they were generally paid much less per week than men who had been at their jobs for many years. Thus, as women and teenagers increased their proportion of the work force, the average weekly earn-

‘Spendable earnings’ discontinued

Since the preparation of this article, the Bureau of Labor Statistics has announced the termination of the “spendable earnings series” with the publication, in January 1982, of the data for December 1981. Discontinuation of the series was a specific recommendation of the National Commission on Employment and Unemployment Statistics and was endorsed by the Secretary of Labor in his final report to the Congress on the recommendations of the Commission, dated October 26, 1981.

ings for all production and nonsupervisory workers (which formed the base of the spendable earnings series) no longer grew as fast, even though there was no change in the earnings trends for individual workers.

By the early 1970's, some economists were already arguing that, because of the change in the composition of the labor force and other developments, the spendable earnings series no longer provided a reliable indication of the true trend in earnings. For example, in 1972, George Perry of the Brookings Institution called the series "most misleading" for having signaled a halt in increases in real wages when, in his view, none had occurred.

Perry noted that the failure of the series to show any further growth during the late 1960's was due primarily to (1) a change in the mix of workers; (2) a related decline in hours worked; (3) an increase in deductions for Federal income taxes (the reference being to the surtax of 1968); and (4) the use of what he claimed to be an inappropriate deflator to measure the impact of price changes on earnings.¹

The Bureau of Labor Statistics reacted to this criticism in various ways. First, it endeavored to explain more specifically what the spendable earnings series did and did not represent. It emphasized that the series, as related to workers with three dependents, applied only to those whose gross earnings were equal to the average for all production and nonsupervisory workers. The Bureau also sought, through several analytical efforts, to place the spendable earnings series in proper perspective by comparing its levels and trends to those of other earnings and income series.² And, as the 1970's progressed, it developed alternative measures of earnings from payroll data which would be less affected by changes in the mix of workers—the Hourly Earnings Index and the Employment Cost Index.³ And finally, it expanded the collection and publication of demographically oriented earnings data through the Current Population Survey (CPS).⁴

Despite these and other efforts to shed more light on earnings and thus reduce the misuse of the spendable earnings series, this statistic has continued to be criticized. In 1979, the National Commission on Employment and Unemployment Statistics reported that the series "... is misleading because it is not the earnings figure associated with a married male with three dependents; it is simply an average of all workers' earnings with deductions for Federal income tax liabilities and social security adjusted for inflation. This hybrid figure does not measure what it purports to measure."⁵

And in 1980, Geoffrey Moore, former Commissioner of Labor Statistics, was also critical of the series. Moore said that although the Bureau had endeavored to explain what the series did and did not do, "These statistics have become one of the most misleading series

published by the Federal Government. They are subject to a large and increasing downward bias."⁶

Comparisons with other data

Was the criticism of the spendable earnings series sound? If so, to what extent has the series been understating the level and trend in earnings of a worker with three dependents? These questions are addressed in the following comparisons of the data underlying the spendable earnings series with data from other sources.

Current Population Survey (CPS). The earnings data obtained through the CPS, while subject to some limitations, are more suitable for tracking the earnings of specific groups of workers than are the data obtained from establishment surveys. This is because the CPS data are obtained separately for individual workers in the sample and can be linked with the information on marital status, family situation, and other characteristics of these individuals. From 1967 to 1978, data on weekly earnings were obtained through the CPS in May of each year. Beginning in 1979 they have been collected monthly (although from only one-quarter of the sample) and are published quarterly. These data are most useful in determining the accuracy of the spendable earnings series.

The earnings *level* which underlies the establishment-based series on the spendable earnings of workers with three dependents is compared below with CPS data on the earnings of workers who actually have three dependents. For this purpose, the CPS data are limited to a universe of husbands in full-time wage and salary jobs who have a wife and two children under age 18. Using the weekly earnings data for this universe, two separate arithmetic means were constructed, one for production and nonsupervisory workers in the private nonfarm sector (the same universe as that used in computing the establishment-based earnings averages) and one for the entire economy, including supervisory and nonproduction personnel as well as rank-and-file workers. Following are CPS averages, based on data culled from the microtapes for March, May, and October 1979, which are compared with the average (mean) weekly earnings for the same 3 months based on data from the establishment survey:

<i>Mean gross weekly earnings</i>	
Establishment-based average	\$219
CPS-based averages:	
Men in full-time production and nonsupervisory jobs in private nonfarm sector who have a wife and two children under age 18	316
Men in all full-time wage and salary jobs who have a wife and two children under age 18	357

From the data, it is clear that average weekly earnings from the establishment survey used to compute the spendable weekly earnings for workers with three dependents has, at least in recent years, fallen far short of the actual earnings of this group of workers. According to the CPS, these workers earn 44 percent more than the establishment-based average if the comparison is restricted to full-time private production and nonsupervisory jobs, and 63 percent more if the CPS universe is expanded to all full-time wage and salary jobs.⁷

The establishment-based series is much lower than the CPS figures because the former is an average for all workers, whether in full- or part-time jobs, and regardless of age, sex, marital status, and family makeup. As noted earlier, among this amorphous group of workers has been a rapidly increasing proportion of women and youth whose weekly earnings are much lower than those of men of prime working age.⁸ In contrast, the two CPS averages are limited, almost by definition, to the earnings of men of prime working age.

While the preceding comparisons establish that the actual earnings *levels* for workers with three dependents differ radically from the average earnings of all production and nonsupervisory workers, it is perhaps even more useful to compare the *trends* in earnings of these two widely different universes. Table 1 relates trends in the establishment-based mean gross weekly earnings with trends in median weekly earnings for the most important groups of workers as reported in the CPS. The data are for 1967 (the first year for which data on weekly earnings were collected in the CPS) and 1980.

Both measures exhibited roughly the same percentage increase (or decrease in constant or real dollars) for universes that include full- and part-time workers. This indicates that the measures have been equally sensitive to the changes in the composition of the work force in terms of its full-time and part-time components and in terms of the demographic mix within these components.

Most important, however, is what the CPS data show in terms of the earnings trends for full-time workers, and particularly for those 25 years and over. Whereas the earnings for all wage and salary workers declined by 6.9 percent in real terms over the 1967–80 period, those for full-time workers 25 years and over, who still make up the majority of the work force, show increases of 6.1 percent for men and 11.3 percent for women. Only for younger men and women (16 to 24) do the CPS data indicate a significant decline in real weekly earnings. This decline has been widely attributed to the rapid expansion of this young age group and to the keen competition that its members face upon entering the labor force.⁹

These data from the CPS highlight the importance of looking at the earnings trends of specific demographic groups. One is led to conclude from the data—the spendable earnings series notwithstanding—that the average worker with three dependents did not experience a decline in real earnings over the 1967–80 period. In fact, the data suggest that for these workers, who in most cases are in the 25 and over age group, earnings are most likely to have increased.

Per-capita income. A comparison of the trend in spendable earnings with the trend in “real per-capita disposable personal income”¹⁰ reveals an even more striking divergence than do the above comparisons with CPS data. Chart 1 traces the course of the two series from the late 1940’s to the end of the 1970’s. Both series followed a similar upward trend until the mid-1960’s, then each veered from its previous course, with the disposable income series rising faster than before and the spendable earnings series becoming very stagnant. Both series had accumulated gains of approximately 40 percent from 1947 to 1965. Over the next 15 years, the per-capita income series posted a further gain of 60 percentage points and by 1980 was slightly more than twice its 1947 level. In contrast, the spendable earnings series did not show any sustained growth after 1965, and in 1980, it actually dipped well below its mid-1960’s level.

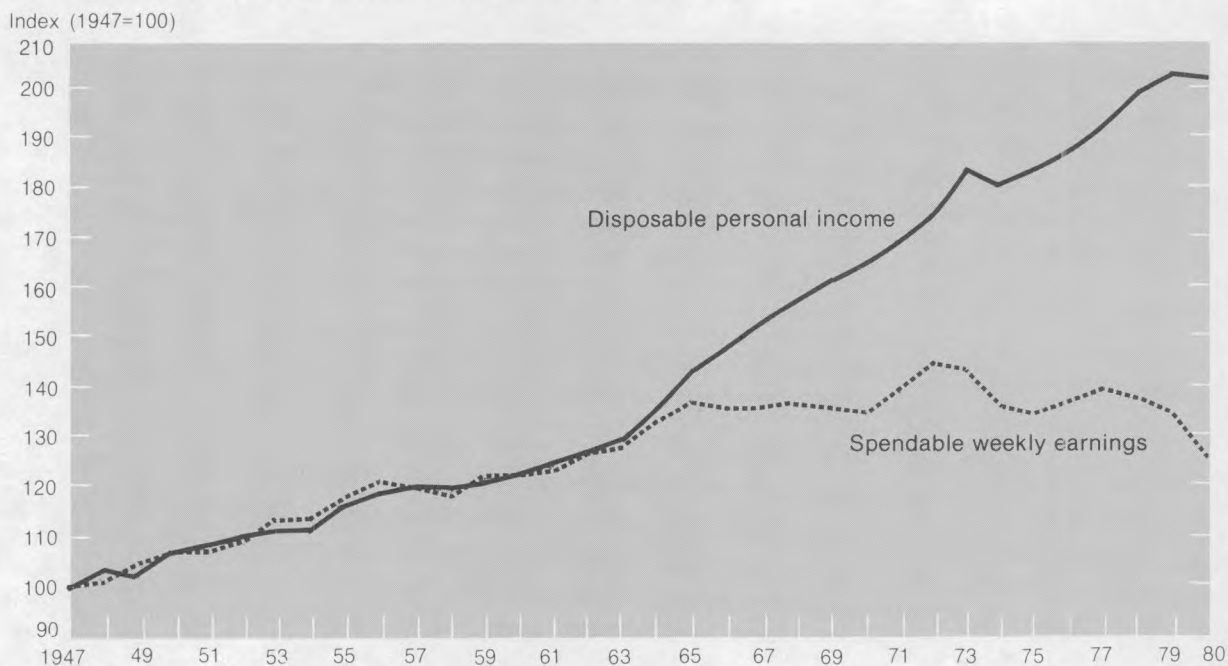
Several reasons for the sharp divergence between these two series were identified and quantified by Paul Ryscavage in 1979.¹¹ However, before examining those reasons, it is important to note the major definitional differences between the two series—spendable earnings relate to the average after-tax earnings of a specific group of workers; per-capita income relates to the average after-tax income from all sources accruing to all Americans, regardless of age or labor force status.

A paradox of the post-1965 divergence between the two series is that some of the factors which have given upward impetus to one acted as a drag on the other. For example, the increases in labor force participation

Table 1. Weekly earnings in 1967 and 1980, as measured in the establishment survey and in the Current Population Survey (CPS)

Series	May 1967	Annual average 1980	Percent change	
			In current dollars	In constant (real) dollars
Establishment-based:				
Mean weekly earnings for all production and nonsupervisory workers on private nonfarm payrolls	\$100.55	\$235.10	133.8	-5.9
CPS-based:				
Median weekly earnings for—				
All wage and salary workers	100.00	232.00	132.0	-6.9
Full-time wage and salary workers	109.00	266.00	144.0	-1.8
Men, 25 and over	131.00	346.00	164.1	6.1
Women, 25 and over	79.00	217.00	174.7	11.3
Men, 16 to 24 years	97.00	214.00	120.6	-11.2
Women, 16 to 24 years	74.00	171.00	131.1	-6.8

Chart 1. Trends in real per capita disposable personal income and real spendable weekly earnings of a worker with three dependents, 1947-80



SOURCE: Real per capita disposable personal income series, U.S. Department of Commerce.

of women and youth since the mid-1960's have added significantly to the aggregate earnings of American workers, and this, coupled with a decline in the rate of growth of the American population—primarily reflecting a drop in the birth rate¹²—has resulted in higher increases in per-capita income. But the impact on average weekly earnings has been just the opposite. Because many of the women and youth who joined the labor force since the mid-1960's work only part time, and because most are paid less than men even if working full time, their inflow into the labor force has kept average weekly earnings from rising as much as it would have had they not entered the labor force.

In other words, greater aggregate earnings has meant higher per-capita income but lower earnings per worker. Following is an illustration of this apparent anomaly:

In a hypothetical family of four persons, the father is, initially, the only worker, earning \$200 a week. This is the total family income, yielding a per-capita income of \$50 a week. Suppose now that the father receives a 10-percent increase in pay, raising his earnings to \$220 a week, and that the mother joins the work force, earning \$80 a week in a part-time job. Total family income now rises to \$300 a week and per-capita income jumps to \$75. But look what happens to average weekly earnings per worker—it de-

clines from \$200 to \$150. And if one of the children were to join the work force, per-capita income would increase again, while average earnings per worker would probably drop further.

The greater role of women and youth in the labor force has not been the sole cause for the sharp divergence between the disposable income and the spendable earnings series. The growing role of income transfer payments has also given a boost to the disposable income series. In addition, the disposable income series is translated into dollars of constant purchasing power using the Personal Consumption Expenditures (PCE) deflator. Hence, adjustments of the personal income series for inflation have been somewhat less severe than those which would have occurred had the Consumer Price Index been used as a deflator, as is done in the spendable earnings series.¹³ But the main factors in the post-1965 parting of the series are those illustrated by the hypothetical family. In other words, much of the stagnation of the spendable earnings series is attributable to events which have resulted in increases in per-capita income.

Other issues

The statistical evidence and analogies presented in this article confirm that the series on spendable earnings for workers with three dependents has been under-

estimating both the level and trend in the earnings of such workers. But underestimation is not the only issue surrounding the series; there are also problems of conceptual and operational nature.

In a narrow sense, spendable earnings can be defined as "take-home pay," that is gross pay minus all deductions. In a broader sense, spendable earnings may be defined as take-home pay plus those amounts which, although deducted from one's pay, are funneled into programs which are of direct benefit to the worker or his or her family (medical insurance, for example). This concept could also be stretched to cover deductions earmarked for a fund on which the worker or the worker's family have a high probability of drawing for future consumption (for example, social security). However, the same principle would certainly not apply as strongly to that portion of earnings which are deducted (or which the worker must eventually pay out) for Federal, State, and local taxes, inasmuch as tax monies may be spent on projects which do not necessarily bring direct or indirect benefits to the persons from whose pay the deductions are made. Yet another complication arises from the treatment of the nonpecuniary benefits that many workers now receive (paid vacations, health insurance, dental insurance, and so forth). Clearly, the line between what is "spendable" and what is "not spendable" in terms of one's earnings is not at all obvious and raises many issues. Following is a discussion of some of these issues in light of the procedures which have been used to translate gross earnings into spendable earnings.

Deductions (or liabilities) for State and local taxes have not been considered in the spendable earnings computation. While these taxes were not very significant when the series was launched, they have grown rapidly in the post-World War II period. For example, in 1950, the average taxpayer paid less than 5 cents to State and local governments for each dollar paid to the Federal Government. But by 1980—"Proposition 13" and similar measures notwithstanding—the total personal income taxes paid to States and local municipalities had grown to 18 percent of the amount paid to the Federal Government.¹⁴ And because the recently enacted reductions in Federal tax rates do not appear likely to be accompanied by similar declines in State and local rates, the above ratio is almost certain to grow in the future.

Thus, in addition to the crucial measuring problems, the fact that deductions for State and local taxes are ignored in translating gross earnings into spendable earnings raises a further question concerning the relevance of the spendable earnings series. Unfortunately, estimating such taxes at the national level would be exceedingly difficult, given that some States collect no personal income taxes and that most others have varying rates. Computation would be difficult even if the establish-

ment-based earnings data were accompanied by currently nonexistent information on the family situation of each worker.

Even the computation of Federal income taxes, as used to construct the spendable earnings series, is based on questionable assumptions. For example, weekly earnings are annualized to compute the tax liabilities, and it is thus assumed that the average production worker works 52 weeks a year. Yet, we know that this is not the case. It is also assumed that the worker with three dependents for whom the tax burden is calculated has a nonworking wife and is, thus, the sole worker in the family. While this may have been the case 30 or 40 years ago, it is clearly not the rule today. At least half of the wives of men in production and nonsupervisory jobs are now working.¹⁵ Another assumption is that the worker with three dependents would always take the "standard deduction" in computing Federal taxes. Although the proportion of taxpayers taking the standard deduction (rather than submitting an itemized list) has indeed been growing, there are still millions who do in fact itemize deductions, thereby paying a lower tax than they would had they taken the standard deduction. Internal Revenue Service statistics for 1978 (the last year for which such data are available) show that deductions were itemized in 40 percent of the returns with adjusted gross income ranging from \$15,000 to \$20,000—a bracket that would include many of the workers with three dependents. And, the higher the earnings brackets, the higher the percentage of returns with itemized deductions.¹⁶

A final question of conceptual nature is whether it is proper to treat a worker's contributions to social security as a tax. According to the U.S. Treasury Department, a tax is a "compulsory payment for which no special benefit is received in return."¹⁷ Could this be said of social security contributions? Although compulsory for most wage and salary workers, these contributions are made with definite expectations of benefits to be received in the future. These contributions do, of course, reduce the portion of earnings that is immediately spendable, but so do deductions for medical insurance, life insurance, and so on, and these have not been considered as reducing spendable earnings.

Can 'spendable' earnings be measured?

Could an accurate computation of the "spendable" portion of the earnings of workers with three dependents (or any other number of dependents) be made if there were a reliable measure of the gross or pretax earnings of such workers?

Unfortunately, it is doubtful that a more useful and accurate spendable earnings series could be constructed from alternative sources of data, such as those from the CPS. The CPS provides valuable information on the earn-

ings of individual workers and on the makeup of their families, and this information could be used to make more appropriate calculations of the tax burden of these workers. But the CPS data are subject to other limitations: they could not be used to construct a monthly series, as they are collected from only one-fourth of the household sample each month and must be accumulated for several months before their statistical reliability reaches acceptable standards. Perhaps the best role that the CPS earnings data can play is to provide reliable measures—based, perhaps, on annual averages—of the year-to-year and long-term movement in the earnings of specific groups of workers. More accurate estimation of the Federal tax burden of workers may also be attempted annually with CPS data. But even with the additional information accompanying the CPS data, it

would be most difficult to accurately estimate State and local taxes—and this would remain a glaring deficiency in any meaningful measurement of spendable earnings.

IN SUMMARY, statistical evidence proves that, because of the gradual change in the mix of workers, the spendable earnings series has become severely downward biased. Crucial questions also emerge regarding the formula used to translate gross earnings into spendable earnings. The fact that deductions for State and local taxes have been ignored in the computation process looms as an omission of growing importance and one that is likely to become even more important in the future, given current fiscal trends. In other words, enough questions can be raised about the series to conclude that it has probably outlived its usefulness. □

—FOOTNOTES—

¹ George L. Perry, "Real Spendable Weekly Earnings," *Brookings Papers on Economic Activity* (Washington, The Brookings Institution, 1972), pp. 779–87. As some economists do now, Perry was suggesting even in 1972 that the "personal consumption expenditures deflator" used in conjunction with the national accounts would have been a more accurate and objective measure of the impact of inflation on earnings than the Consumer Price Index.

² Among the *Monthly Labor Review* articles on this subject published in the early 1970's are Paul M. Schwab, "Two measures of purchasing power contrasted," April 1971, pp. 3–14; Jack Alterman, "Compensation per man-hour and take-home pay," June 1971, pp. 25–34; Thomas W. Gavett, "Measures of changes in real wages and earnings," February 1972, pp. 48–53; and Robert L. Stein and Paul M. Ryscavage, "Measuring annual earnings of household heads in production jobs," April 1974, pp. 3–11.

³ For a technical description of both of these series, see *BLS Measures of Compensation*, Bulletin 1941 (Bureau of Labor Statistics, 1977).

⁴ Data on weekly earnings from the CPS were collected in May of each year from 1967 to 1978 (with the exception of 1968). Data on hourly earnings were collected each May from 1973 to 1978. Beginning in 1979, both weekly and hourly earnings data have been collected each month, with the weekly earnings data being published quarterly. For a detailed description of these data, see "Weekly and Hourly Earnings Data from the Current Population Survey," *Special Labor Force Report 195* (Bureau of Labor Statistics, 1977), and *Technical Description of the Quarterly Data on Weekly Earnings from the Current Population Survey*, Report 601 (Bureau of Labor Statistics, 1980).

⁵ National Commission on Employment and Unemployment Statistics, *Counting the Labor Force* (U.S. Government Printing Office, 1979), pp. 206–08.

⁶ Geoffrey H. Moore, "Inflation and Statistics," in *Contemporary Economic Problems* (American Enterprise Institute, 1980), pp. 167–91.

⁷ It should be noted that relative to the total number of workers, the number whose family includes a wife and two children under age 18 is relatively small. In the months for which the CPS data were studied there were, on average, 3.2 million such men with full-time production and nonsupervisory jobs in the private nonfarm sector. The average for the entire economy was 6 million.

⁸ The only data on the demographic composition of the work force available from the establishment survey relate to the number of female

employees, and even these data are not available separately for the production and nonsupervisory universe. But the decline in average weekly hours for this universe—from 38.8 in 1965 to 35.3 in 1980—is ample evidence of the increase in the number of part-time workers.

⁹ For a detailed discussion of this hypothesis, see James P. Smith and Finis Welch, "No Time to be Young: The Economic Prospects for Large Cohorts in the United States," *Population and Economic Review*, March 1981, pp. 71–83; Irving Leveson, *Generational Crowding: Economic, Social and Demographic Effects of Changes in Relative Cohort Size* (N.Y., Hudson Institute, 1980); and Richard B. Freeman, "The Effect of Generational Crowding on the Labor Market for Young Male Workers," *Proceedings of the American Statistical Association*, 1979, pp. 46–49.

¹⁰ Data on "per-capita income" are from the U.S. Department of Commerce.

¹¹ Paul M. Ryscavage, "The divergent measures of purchasing power," *Monthly Labor Review*, August 1979, pp. 25–30.

¹² The results of the 1980 census indicate that the rate of growth of the population may not have declined quite as much during the 1970's as had been previously thought. According to the Bureau of the Census, the actual population count for April 1980 was about 4.8 million higher than the estimate that had been carried forward from the 1970 census. The exact implications of this for the per-capita income series are not yet known, but the addition of 4.8 million persons to the denominator used in the computation of the series should, other things equal, result in downward revision of about 2 percent in the 1980 levels of the series.

¹³ For a distinction between the Consumer Price Index and the Personal Consumption Expenditures deflator, see Jack E. Triplett, "Reconciling the CPI and the PCE Deflator," *Monthly Labor Review*, September 1981, pp. 3–15.

¹⁴ *Survey of Current Business*, April 1981 (U.S. Department of Commerce), p. 17.

¹⁵ An examination of CPS microdata for March 1980 revealed that of the husbands in four-person families who were in production and nonsupervisory jobs during 1980, about 60 percent had a wife who also worked during the year.

¹⁶ See *1978 Statistics of Income: Individual Tax Returns*, Publication 79 (U.S. Department of Treasury, Internal Revenue Service, 1981), p. 53.

¹⁷ Quotation from *The Wall Street Journal*, Sept. 19, 1979.

Large supplies of meats, grains cut recent food price increases

Food prices helped to hold down the overall rate of inflation during the first half of 1981, although a resurgence took place in the third quarter; weather conditions and long-term production decisions are major factors in agricultural markets

WILLIAM THOMAS, JOHN WETMORE,
AND ANDREW CLEM

Food price increases accelerated to double-digit rates in 1978 and 1979, slowed somewhat through early 1980, then rose sharply during the second half of the year because of a severe summer drought. Price hikes were much more moderate through the first half of 1981, primarily reflecting the large output and lower feed costs of meat and poultry producers. However, increases accelerated again during June–September 1981, spurred by an upturn in meat prices.

The Consumer Price Index (CPI) for food rose at a 4.5-percent seasonally adjusted annual rate during the first 6 months of 1980, then surged at a 16.3-percent pace for the rest of the year. In the first half of 1981, however, food prices at retail edged up at a 1.0-percent annual rate. Price increases accelerated from June to September, as the CPI for foods recorded a 10.9-percent yearly rate of advance. (See table 1.) At the producer level, food prices declined somewhat in the first half of 1980, then rebounded at a 16.9-percent annual rate during the second half. From December 1980 to September 1981, the Producer Price Index for finished consumer

foods slowed to a 3.0-percent yearly pace.

Food prices constitute 17.3 percent of the CPI for all items and 23.1 percent of the Producer Price Index for finished goods. Historically, food prices have been more volatile than other prices, alternately rising rapidly and contributing to inflation, then stabilizing or falling and thus moderating inflation. Food prices rose faster than non-food prices at both the retail and producer levels during 1978. Since the second quarter of 1979, they have risen more slowly than other prices in every quarter except for the third quarter of 1980 and, for the PPI only, the third quarter of 1981, when non-food producer prices showed their smallest increase since fourth-quarter 1972.

The following discussion focuses on some of the most significant price movements for foods and food-related commodities during the last 2 years. In some cases, we will refer to earlier periods to facilitate an understanding of the fundamental market forces underlying food price changes. Because many agricultural products normally follow multi-year production and marketing cycles, a longer term perspective enhances trend analysis. Seasonally adjusted data are used as a rule; however, unadjusted figures are cited where there is no stable seasonal pattern of price movement.

William Thomas, John Wetmore, and Andrew Clem are economists in the Office of Prices and Living Conditions, Bureau of Labor Statistics. Craig Howell, an economist in the same office, assisted in the preparation of this article.

Beef prices react to competition, weather

Beef and veal prices rose more than 20 percent in both 1978 and 1979. After declining at a seasonally adjusted 10.1-percent annual pace in the first half of 1980, the CPI for beef and veal climbed at a 22.8-percent rate from June to December. The index then fell at an annualized 14 percent through the first half of 1981. By the end of the third quarter, however, retail prices for beef and veal had turned up significantly, reflecting a surge in producer prices.

Processors' prices for beef and veal declined in 4 of the 5 quarters from December 1979 through March 1981; the exception was the third quarter of 1980, when searing summer heat damaged pastures and slowed cattle weight gains. Generally falling prices in 1980 and early 1981 reflected the large-scale liquidation of stock by cattle owners in the face of climbing interest rates and intense price competition from pork and poultry producers.

The U.S. Department of Agriculture estimates that the typical cattle production cycle lasts about 10 years—6 years of supply increases and 4 years of declines. Because it takes 28 months from the time a choice beef animal is bred to the time it is ready for sale, cattle producers cannot adjust to changing price and profit conditions as rapidly as poultry and pork producers. The last

full cattle cycle began in the late 1960's, when cattle producers were encouraged by rising beef prices to boost production. This expansion resulted in a record U.S. stock of 132 million cattle in 1975. The subsequent liquidation of large cattle herds greatly affected the 1980-81 supply.

In 1980, beef production was 1 percent above year-earlier levels, the first over-the-year advance since 1976. (See table 2.) This resulted from a 0.4-percent increase in cattle slaughter and, more importantly, a record-setting average dressed beef carcass weight¹ of 635 pounds. Dressed slaughter weights were relatively large in the first half of 1980, averaging nearly 643 pounds. Because the market for fed cattle was slow, many of these animals were over-finished when they were finally sold. At the same time, favorable weather conditions contributed to relatively heavy weights for nonfed slaughter cattle. The average dressed weight in the second half of 1980 fell to 628 pounds, in large part because of the drought, but had recovered to nearly 645 pounds by September 1981.

The pattern of price change for live cattle was about the same as that cited earlier for beef and veal at the processor level. Prices fell during most of 1980, except during the summer when the heat drove up grain and feed prices. Record interest rates further increased production costs late in the year. However, a glut of pork and poultry prevented beef prices from rising enough to cover these cost increases. Feedlot owners also operated at a loss during the year, despite falling prices for the cattle they purchased for fattening.

During the first half of 1981, an unusually high average dressed weight of nearly 644 pounds held beef production above the corresponding 1980 level. And, while the slaughter of fed animals declined slightly from 12.1 million head in 1980 to 11.9 million in 1981, there was a sharp rise, from 1 million to 1.6 million, in nonfed slaughter as a result of inadequate grazing capacity. Large supplies of other red meats and poultry, coupled with a sluggish economy, also contributed to lower prices for cattle during the first quarter. However, during the second quarter of 1981, the prices of slaughter animals turned up as supplies of both hogs and cattle declined, and demand by beef packers improved.

Pork prices follow beef trends

Like beef and veal prices, retail pork prices fell in the first half of 1980, climbed rapidly in the second half, and declined through May 1981 before turning up in the third quarter. They decreased sharply during periods of abundant supplies even though consumers were substituting pork for more costly beef. Prices surged in mid-1980, when intense summer heat resulted in slow weight gains and a large number of hog deaths.

The pork market in 1980-81 was very volatile, gener-

Table 1. Changes in retail and producer prices for selected foods, September 1979-81

Commodity and index	Relative importance, Dec. 1980	Percent change		Compound annual rate, seasonally adjusted except as noted, for 3 months ended—				
		Sept. 1979 to Sept. 1980	Sept. 1980 to Sept. 1981	1980		1981		
				Sept.	Dec.	Mar.	June	Sept.
Consumer foods: ¹								
CPI	100.0	10.1	6.5	19.7	13.1	2.1	-0.1	10.9
PPI	100.0	8.5	3.3	31.0	4.3	1.6	.5	7.0
Beef and veal:								
CPI	9.8	9.2	-1	48.8	1.4	-19.4	-8.2	32.6
PPI	12.1	3.6	-4.6	35.0	-11.6	-30.6	10.7	21.5
Pork: ²								
CPI	4.7	7.8	6.9	87.2	12.0	-12.5	-7	34.2
PPI	6.5	12.6	6.6	171.7	-2.7	-21.9	23.6	37.6
Poultry:								
CPI	2.3	17.4	-2.7	89.0	10.3	-18.6	-11.7	13.0
PPI	3.3	31.9	-16.5	262.0	-15.3	-22.7	-9.8	-17.7
Sugar and sweets: ³								
CPI	2.9	28.0	.1	33.8	39.5	-11.1	-25.0	8.0
PPI	4.8	57.2	-27.7	21.2	-1.9	-37.6	-28.6	-37.5
Roasted coffee: ²								
CPI .....	.8	0	-19.0	-5.7	-30.0	-27.7	-6.8	-8.8
PPI	3.6	-6.2	-11.6	-20.2	-21.0	-1.8	-22.7	1.9

¹ Includes items not listed. The CPI includes prices of food away from home, which accounts for about 31 percent of the food index. The PPI for finished consumer foods does not reflect restaurant prices.

² Not seasonally adjusted in the CPI.

³ "Sugar and confectionery" in the PPI. Not seasonally adjusted in the PPI.

NOTE: Monthly data for the PPI have been revised through May 1981 to reflect the availability of late reports and corrections by respondents. For this reason, some of the figures shown above and elsewhere in this report may differ from those previously published.

ally characterized by large supplies and increased production costs. During the 1970's, most years had been profitable for pork producers; the pork production cycle (9 to 10 months) is considerably shorter than the cattle cycle, and permits more rapid adjustments to changing market conditions. But while the domestic inventory of hogs and pigs shrank for the first time in 4 years, the 64.5 million head count as of December 1980 was still relatively large. Thereafter, pork production remained high despite operating losses. At the same time, burdensome interest rates discouraged storage of meat, adding to already ample supplies.

The changing character of the industry in recent years has greatly influenced prices, as well as breeding and marketing decisions. There appear to be divergent interests between large producers, with temperature-controlled piggeries and other sophisticated equipment, and smaller farmers, who face more severe credit and cost problems. The relatively high fixed capital costs incurred by larger producers constitute an incentive for them to maintain output even in the face of higher operating costs. During 1977, producers with 500 or more hogs accounted for 35.3 percent of total production; by 1980, this share had increased to 42.3 percent. Future retail pork prices will also be greatly influenced by those packers who are marketing boxes of vacuum-packed chunks; this practice, pioneered by beef packers, reduces the need for butchers in retail outlets.

Poultry producers have flexibility

The poultry component of the CPI declined at a seasonally adjusted annual rate of 8.5 percent in the first half of 1980, then turned up at a 44.4-percent yearly pace in the second half. The 1980 summer heat affected chickens much more than other livestock, and millions of chickens died. During the first half of 1981, retail poultry prices decreased at a 15.2-percent annual rate, but rebounded at an annualized 13 percent over the quarter ended September 1981.

The poultry production period is even shorter than

the pork cycle. Because the time from fertilization to market-ready chicken is only about 11 weeks, poultry farmers can respond quickly to changing market conditions. However, in anticipation of a cutback in pork supplies, poultry producers have expanded operations in recent years, even in the face of unfavorable prices. For example, during the spring of 1981, producers estimated that they were losing as much as 12 cents per chicken sold, largely because of earlier increases in the costs of grains and energy. Nonetheless, broiler production in the first half of 1981 was 4 percent above that for the same period in 1980.

Grains, oilseeds, and animal feeds

Prices for grains and feeds turned down in 1981, following 3 years of general increase. Even soybean prices, which had displayed no clear trend in recent years, began to fall sharply in late 1980 and continued to edge down in most subsequent months. (See table 3.) This widespread easing of crop prices reflected both short-term influences, such as good weather and weak export demand, as well as long-term cyclical factors.

The 1970's witnessed a tremendous expansion of world trade in grains and oilseeds. The share of U.S. farm cash receipts accounted for by exports grew from an average of 13.9 percent in the 1960's to 22.1 percent during the 1970's. By 1980, this proportion was approaching 30 percent. As a result, farm prices have become increasingly sensitive to conditions abroad.

Export demand boosts prices. During the summer of 1972, the Soviet Union purchased massive amounts of American grain to alleviate a drought-related shortage. Wheat prices climbed rapidly as a result, and by January 1974 were 4 times their June 1972 level. The reaction in the corn market was more delayed; prices began to rise in late 1972, then tripled over the next 2 years. The declining exchange value of the U.S. dollar during this time further stimulated foreign demand for grains and soybeans, and consequent price increases.

The explosion of grain prices during 1972-74 pushed up prices for bread, animal feeds, livestock, and meats; this ultimately translated into a substantial increase in the overall rate of inflation. As a result, U.S. farm policy, which historically had been directed toward limiting acreage planted, disposing of chronic surpluses, and supporting prices, was modified to encourage farmers to maximize crop production. This move and the incentive of higher crop prices did lead to bigger domestic harvests. Soon, however, harvests abroad also improved, grain markets were swamped with excess supplies, and wheat and corn prices tumbled from late 1974 through the summer of 1977. During the latter year, the government reinstated price supports, and initiated a new program to help farmers purchase their own grain storage

Table 2. Annual commercial production of beef, pork, and chicken broilers, 1971-81

[In millions of pounds]

Year	Beef	Pork	Broilers
1971	21,697	14,606	7,724
1972	22,218	13,460	8,147
1973	21,088	12,578	8,025
1974	22,844	13,583	8,126
1975	23,673	11,314	8,127
1976	25,667	12,219	9,067
1977	24,986	13,051	9,418
1978	24,010	13,209	10,129
1979	21,261	15,270	11,219
1980	21,470	16,431	11,334
1981 ¹	22,006	15,452	11,997

¹ Data are preliminary.

SOURCE: U.S. Department of Agriculture.

Table 3. Changes in producer prices for grains, feeds, and livestock, 1979-81

Grouping	Percent change		Compound annual rate, seasonally adjusted except as noted, for 3 months ended —					
	Sept. 1979 to Sept. 1980	Sept. 1980 to Sept. 1981	1980		1981			
			Sept.	Dec.	Mar.	June	Sept.	
Grains:								
Wheat	3.5	-5.1	36.0	-0.6	-4.3	-1.1	-13.9	
Corn ¹	26.4	-20.2	194.8	-3.7	-3	0	-57.9	
Soybeans	17.4	-19.0	374.6	-25.2	-35.7	-9.1	-1.6	
Feeds:								
Grain by-product feeds	7.1	-13.4	106.9	-14.1	-40.0	48.8	-26.5	
Vegetable cake and meal feeds	25.0	-13.8	436.1	-19.4	-39.7	14.0	-4	
Formula feeds	7.0	-8.3	88.4	-4.6	-24.6	5.0	-6.3	
Miscellaneous feeds except pet food ¹	(²)	-12.7	351.2	-13.2	-36.9	4.4	1.6	
Livestock:								
Cattle .....	.7	-5.5	44.0	-14.2	-33.4	36.4	2.2
Hogs	20.6	6.0	299.8	-7.2	-50.2	150.7	8.7	
Live poultry	38.9	-18.4	303.6	1.4	-32.7	-8.2	-29.0	

¹Not seasonally adjusted.

²Data not available.

facilities. It was hoped that by enabling farmers to withhold their crops from the market in times of low prices, the new program would help to stabilize prices and farm earnings in the future.

The recent years. Wheat and corn prices reversed their slide and began to rise substantially in late 1977, as poor overseas harvests and the declining value of the dollar again boosted sales and commodity prices. In response, farmers devoted more acreage to wheat and corn during 1978-81. (See table 4.)

For the most part, soybean prices moved independently of grain prices during the second half of the 1970's. Because U.S. soybean exports faced increased competition from Brazilian products, the large upward trend in corn and wheat prices during 1978-80 was not followed by soybeans.

Prices for grains and oilseeds turned down somewhat in late 1979 and early 1980 because of good harvests. However, the drought in mid-1980 caused severe damage to corn and soybean crops; total production and per-acre yields for both were nearly one-fifth below year-earlier levels. During third-quarter 1980, prices for corn advanced 31 percent and for soybeans, 47.6 percent. Because most of the winter wheat crop (which accounts for about 70 percent of total annual wheat production) had already been harvested by summer, and the remaining spring wheat fields were not affected as badly by the drought, wheat prices rose considerably less than those for other grains and oilseeds.

The sharp increase in animal feed prices during the third quarter of 1980 reflected both reduced harvests of the commodities from which they are manufactured and the damage caused to pasture lands by the intense summer heat. However, feed prices turned down in late 1980 and early 1981, in part because the relatively mild winter in livestock feeding areas dampened demand.

From late 1980 through the spring of 1981, prices for wheat and corn generally receded. A reduction in export demand resulted from the appreciation of the U.S. dollar in currency markets. At the same time, exceptionally high interest rates, which discouraged speculation in grain markets and induced firms to minimize their holdings of grain, lessened domestic demand. Soybean prices likewise decreased over this period, for similar reasons. However, the rate of descent was much steeper than that for grains, because bumper harvests in Brazil glutted the world market. A further negative impact on grain, soybean, and feed prices was the above-mentioned weakened demand for animal feeds.

Weather was relatively moderate during the summer of 1981, and rain was sufficient to permit steady growth. Prices for grains, oilseeds, and feeds plummeted as harvest estimates were raised throughout the summer. The latest statistics available indicate record production of wheat and corn, reflecting both increased area planted and higher yields per acre. Corn prices fell very sharply during the third quarter; wheat prices also declined, although not as rapidly. The soybean harvest was greater than in 1980, although smaller than in 1979, and prices edged down only slightly from June to September. Nevertheless, by the close of third-quarter 1981, prices for wheat, corn, and soybeans were almost as low as those prevailing before the 1980 summer drought.

Sugar prices reflect changing consumption patterns

The United States imports over a third of its sugar. A complex series of price supports and loan programs, combined with tariffs and duties, normally keeps domestic sugar prices above world prices. But because these supports constitute a floor rather than a ceiling, any large increases in world prices are quickly reflected in domestic markets.

Table 4. Selected production statistics for wheat, corn, and soybeans, 1976-81

Year	Area planted (million acres)			Area harvested (million acres)			Yield (bushels per acre)			Total production (million bushels)		
	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans
1976	80.4	84.6	50.3	70.9	71.5	49.4	30.3	88.0	26.1	2,149	6,289	1,289
1977	75.4	84.3	59.0	66.7	71.6	57.8	30.7	90.8	30.6	2,046	6,505	1,767
1978	66.0	81.7	64.7	56.5	71.9	63.7	31.4	101.0	29.4	1,776	7,268	1,869
1979	71.4	81.4	71.6	62.5	72.4	70.6	34.2	109.7	32.1	2,134	7,939	2,268
1980	80.4	84.1	70.1	70.9	73.1	67.9	33.4	91.0	26.8	2,370	6,648	1,817
1981 ¹	88.8	84.3	68.1	80.7	74.1	66.9	34.1	109.2	31.0	2,750	8,097	2,076

¹ Data are preliminary.SOURCE: U.S. Department of Agriculture, *Agricultural Outlook*, October 1981.

Twice in the last decade world sugar prices have soared, only to plummet almost as rapidly. The principal cause of the 1974 run-up in prices was a failure of production to keep pace with demand; in 1980, the major factor was a sharp drop in production. Because sugar is a key ingredient in many processed foods, it has a broader impact on food prices than its direct consumption would indicate.

World sugar consumption grew every year for two decades prior to 1974 because of general population growth, and rising living standards in many Third World countries. However, sugar production increased more erratically. Despite record output in 1973 and 1974,² world stocks were lower at the end of the crop year in 1974 than in 1970. More significantly, stocks as a percentage of consumption fell sharply from 29.3 percent to 21.9 percent over the 1970-74 period. (See table 5.)

The shrinkage of stocks relative to consumption led to a doubling of world raw sugar prices from June 1971 to June 1973 to their highest level since 1964. Prices exploded in 1974, quintupling by year's end. Domestic prices rose more slowly at first as duties were lowered, but then climbed with world prices. However, by late 1974 it was clear that 1975 sugar production would not be as low as originally feared and total world consumption had declined for the first time in decades. As a result, prices fell sharply during the first half of 1975, although they remained above the 1973 level.

World production set new records each year from 1976 to 1978, and stocks became more closely aligned with consumption. Thus, a slight decline in production in 1979 did not seriously affect prices. In 1980, however, there was a sharp drop in output, reflecting poor harvests in several countries (most notably Cuba and the Soviet Union), and prices for raw sugar soared. World prices tripled from their 1979 level; domestic prices only doubled, however, owing to decreases in the level of import fees. In 1981, the world crop was slightly larger, but stocks fell again, this time to their lowest level since 1976 (the lowest since 1974 when expressed as a fraction of consumption).

Even so, a number of factors caused prices to start

falling by the end of 1980. World consumption declined in response to higher prices and increased use of sugar substitutes. At the same time, high interest rates and predictions of sizable output in 1982 discouraged speculation and the holding of large inventories, and many commercial users allowed their own buffer stocks to run down. Prices fell throughout the first three quarters of 1981, finally reaching early-1980 levels. Domestic prices followed the world price downward until import fees were resumed in mid-September.

As previously indicated, a peculiarity of the sugar market is the fact that close substitutes are available, the most important of which are corn syrups. Because the capacity to produce substitutes is fixed in the short run, their prices tend to rise and fall in tandem with that of sugar. However, the increased use of other sweeteners is apparently contributing to a long-term decline in per capita sugar consumption in some industrialized nations, such as the United States, Canada, and Japan, although consumption is still increasing in the Third World.

World markets determine cocoa prices

Because the United States imports all of its cocoa beans, the domestic price is determined by the world price. A small number of tropical countries are responsible for most of the world supply. The International Cocoa Agreement, designed to control supplies and prices, does not include either the Ivory Coast—currently the world's largest exporter—or the United States—the world's largest importer. Consequently, world prices depend primarily on market conditions.

World production of cocoa beans fluctuated widely over the last 10 years. Harvests were especially small in 1973 and 1977,³ boosting prices to new highs from which they never fully retreated. Production increased sharply from 1978 through 1981, with new records set in each of the last 2 years. As a result, prices declined sporadically from their late 1977 peak. Over the same period, consumption lagged behind production, and surpluses were recorded in every year since 1978; in particular, U.S. per capita consumption fell by almost a fourth from 1972 through 1977, and remained near the

1977 level through 1980. Over the years, periods of high cocoa prices have encouraged a gradual switch to chocolate substitutes. Consumption was further discouraged during 1980 by the rapid rise in the price of sugar, an important ingredient in most products containing cocoa.

Cocoa bean prices fell during most of 1980. Stocks reached record levels in 1981, and by June prices had fallen to their lowest level since 1976. The 1982 harvest, forecast to be large, may lead to the fifth consecutive year of surpluses, despite recent increases in per capita consumption in response to lower prices for both sugar and cocoa. Nevertheless, speculation regarding renewed efforts by the International Cocoa Agreement signatories to support prices caused an upturn in prices in the third quarter of 1981.

Coffee price trends

The United States imports virtually all of its coffee, 75 percent of which comes from Latin America. Therefore, the domestic price at the producer level follows the world price. Although there is an International Coffee Agreement, it is generally regarded as ineffective in moderating price swings as the supply situation changes. Consumers do not often see the effects of world price developments immediately because of long time lags as green coffee beans move from stockpiles to roasters. And the frequent use of coffee as a loss leader in retail stores also helps to divorce consumer price trends from producer price movements.

World coffee prices showed only moderate fluctuations during the early 1970's. However, in mid-1975, a number of developments adversely affected the world coffee crop. Most notable were a severe frost in coffee-producing regions of Brazil, which reduced that nation's 1976 output by 60 percent,⁴ and civil war in Angola, which resulted in a long-term 75-percent drop in pro-

Table 5. Selected global sugar statistics, annual world production, consumption, and stocks of sugar, selected years, 1965-82

[Million metric tons, raw value]

Crop year ¹	Production	Consumption	Ending stocks	Ending stocks as a percent of consumption
1965	64.5	58.3	16.6	28.5
1970	71.2	71.1	20.8	29.3
1971	70.7	73.5	19.0	25.9
1972	71.4	74.9	17.0	22.7
1973	75.1	77.7	17.3	22.3
1974	80.0	80.0	17.5	21.9
1975	78.5	77.0	19.1	24.8
1976	81.7	79.2	21.2	26.8
1977	86.3	81.9	25.0	30.5
1978	92.5	86.2	29.8	34.6
1979	91.2	89.6	30.6	34.2
1980	84.2	89.5	23.6	26.4
1981	86.8	88.4	21.3	24.1
1982 ²	95.8	92.0	25.1	27.3

¹ Crop year September through August, but includes the sugar harvests of several Southern Hemisphere countries which begin before September.

² Data are preliminary.

SOURCE: U.S. Department of Agriculture.

duction. With supplies curtailed, coffee prices registered sharp increases until 1977, then declined until another, much less severe Brazilian frost in 1979 caused a brief surge. Prices fell to the 1979 pre-frost level during 1980 and the first half of 1981, as supplies again became plentiful. Another frost in Brazil during July 1981, although potentially severe, will not affect production and prices until the 1982 harvest.

Domestic per capita coffee consumption declined by nearly 40 percent from 1962 through 1981, while soft drinks, tea, and juices increased in popularity. Coffee consumption dropped sharply in 1977 because of high prices, recovered for 2 years, then resumed its downward trend in 1980. By 1981, it had reached its lowest level since records were started in 1950. □

FOOTNOTES

¹ A glossary of some of the technical terms used in this section:

—*Dressed beef carcass weight* represents the weight of slaughtered animals after removal of hides, hoofs, and internal organs.

—*Fed or feeder cattle* are animals given a diet of grains and formula feeds while in feedlots to enhance meat quality prior to marketing.

—*Nonfed cattle*, commonly called grass-fed cattle, are those that graze in crop fields already harvested or in pastures.

—*Over-finished cattle* are fed cattle with a high fat-to-meat ratio.

² Crop years ending August 31.

³ Crop years ending September 30.

⁴ Crop year beginning July 1.

Scheduled wage increases and cost-of-living provisions in 1982

Deferred increases will average 6.3 percent, more than in any year since 1971, and are payable to 4.3 million workers; approximately 3.4 million may receive cost-of-living adjustments

DOUGLAS R. LEROY

In 1982, about 4.3 million workers in private industry are scheduled to receive wage increases under major collective bargaining agreements¹ that were negotiated in earlier years. These "deferred" increases will average 6.3 percent—the highest average recorded since 1971 (7.7 percent). About 3.4 million workers covered by agreements that will be in effect during part or all of 1982 may anticipate wage changes from cost-of-living adjustment clauses. Some 2.3 million of these workers will also receive deferred increases. About 3.7 million workers will be covered by contracts expiring or with provisions for reopening in 1982, making this a relatively heavy bargaining year.²

This article focuses on deferred wage increases and cost-of-living adjustments (COLA) provided by the major agreements that will remain in effect through 1982. The analysis of deferred increases does not include contracts covering 1.2 million workers which expired before 1982, but had not been renegotiated or for which data were not available at this writing.³

Deferred wage increases

Deferred wage increases are those that are implemented in one calendar year but had been negotiated in

an earlier year, usually as part of a multiyear agreement. They include general wage adjustments covering all workers, and changes which affect only a portion of the bargaining unit such as those that alter skill differentials or premiums.

The comparatively large mean deferred wage increase in 1982 results from increases negotiated during 1981, which averaged 8.5 percent and covered 1.3 million workers. Deferred increases from contracts negotiated during 1980, which covered 2.9 million workers, averaged 5.1 percent.

The proportion of workers with cost-of-living provisions in their contracts influences the size of average deferred increases—contracts with COLA clauses generally provide smaller deferred wage increases than those without. Cost-of-living provisions covered only 21 percent of the workers under settlements reached in 1981, compared with 61 percent of those under 1980 settlements. Workers covered by 1981 agreements with COLA will receive average deferred increases of 5.9 percent in 1982, compared with 9.3 percent for those without such clauses.

The size of deferred increases varies significantly by industry and prevalence of COLA. For example, the largest increases, in both cents-per-hour and percentage terms, will occur in the construction industry, where COLA clauses are rare. About 1 million construction

Douglas R. LeRoy is an economist in the Office of Wages and Industrial Relations, Bureau of Labor Statistics.

workers are scheduled to receive average deferred wage increases of 10.6 percent or \$1.52 per hour in 1982.⁴ The 159,000 construction workers covered by contracts with COLA clauses will receive deferred increases averaging 7.5 percent, compared with 11.2 percent for the 869,000 workers under contracts without cost-of-living provisions.

The metalworking industries, where COLA clauses cover 90 percent of the workers, have deferred increases averaging only 3.1 percent, or 32.1 cents per hour, for 1

million workers in 1982. (See tables 1 and 2.) For the 2.7 million workers with COLA coverage, the average deferred increase is 2.7 percent, compared with 6.6 percent for the remaining 92,000 workers.

Table 3 shows distributions of workers receiving deferred payments by month during 1982. In August, the month with the greatest concentration, 1.2 million workers, 80 percent of whom are in the steel manufacturing and telephone communications industries, are scheduled for increases.

Table 1. Workers receiving deferred wage increases in 1982, by major industry group and size of increase

[Workers in thousands]

Average hourly increases	Number of contracts	All private nonagricultural industries	Manufacturing						Nonmanufacturing				
			Total ¹	Selected industries					Total ²	Selected industries			
				Food and kindred products	Lumber and wood products	Paper and allied products	Stone, clay, glass	Metal-working		Contract construction	Transportation, communications, gas, and electric utilities	Warehousing, wholesale and retail trade	Services
Total	996	4,295	1,481	87	60	55	73	1,002	2,814	1,027	974	444	147
CENTS PER HOUR													
Under 15 cents	41	92	49	10	...	...	...	38	43	2	15	2	...
15 and under 20	39	125	106	...	...	...	4	86	20	4	14	1	...
20 and under 25	44	135	78	...	...	2	...	75	56	...	42	4	10
25 and under 30	124	117	485	3	...	2	...	449	687	...	646	32	...
30 and under 35	67	299	238	4	...	8	...	202	61	...	33	...	...
35 and under 40	35	106	56	6	...	1	...	27	50	10	15	13	2
40 and under 45	30	88	38	...	...	...	...	18	50	6	...	10	31
45 and under 50	20	36	16	1	...	...	...	11	20	...	8	9	3
50 and under 60	115	375	153	20	...	1	62	38	222	28	42	110	39
60 and under 70	59	222	103	15	37	12	1	21	119	5	2	61	31
70 and under 80	62	248	73	13	21	13	3	14	175	47	4	120	4
80 and under 90	38	103	32	10	1	7	2	4	71	33	14	24	...
90 and under 100	33	257	29	1	...	7	...	18	228	29	32	8	...
100 and under 110	50	152	18	3	...	...	...	1	135	94	13	14	3
110 and under 120	28	84	...	...	...	...	...	1	83	28	44	8	3
120 and over	211	801	6	...	1	...	...	...	795	741	41	3	10
Mean increase	...	74.0	40.0	57.4	72.0	67.5	55.0	32.1	91.8	151.7	48.5	63.1	66.2
With cost-of-living clauses	...	40.9	32.9	43.6	...	29.9	54.0	29.8	48.1	116.6	33.3	55.6	97.8
Without cost-of-living clauses	...	111.8	59.8	64.3	72.0	69.0	62.9	55.5	124.4	158.1	124.8	67.4	64.1
Median increase	...	51.1	30.3	60.0	70.0	70.6	55.0	28.7	75.0	150.0	28.5	62.5	50.5
PERCENT³													
Under 2 percent	64	175	116	5	...	...	4	107	58	6	22	7	...
2 and under 3	171	1,441	688	7	...	2	...	657	753	17	719	9	...
3 and under 4	77	235	159	4	...	...	...	102	76	8	43	18	2
4 and under 5	44	98	43	4	...	10	4	18	55	3	3	41	8
5 and under 6	59	207	51	8	...	...	9	21	155	64	15	64	12
6 and under 7	73	160	64	12	7	...	3	16	96	48	2	42	4
7 and under 8	114	495	194	19	51	20	48	39	301	61	38	152	48
8 and under 9	127	565	124	13	1	20	4	32	441	161	33	36	52
9 and under 10	85	268	31	14	...	2	...	5	238	93	74	40	10
10 and under 11	39	124	7	...	1	...	...	3	117	87	10	19	1
11 and under 12	44	139	5	2	...	...	...	2	135	119	2	8	6
12 and over	99	389	...	...	...	...	...	...	389	361	14	8	5
Mean increase	...	6.3	4.2	6.8	7.1	7.3	6.7	3.1	7.4	10.6	4.0	7.1	8.0
With cost-of-living clauses	...	3.7	3.2	4.9	...	2.7	6.5	2.7	4.2	7.5	3.1	6.1	7.6
Without cost-of-living clauses	...	9.2	7.0	7.7	7.1	7.5	7.8	6.6	9.7	11.2	8.2	10.6	8.1
Median increase	...	6.0	2.9	7.4	7.0	8.0	7.2	2.7	7.7	10.9	2.7	7.5	8.2

¹ Includes workers in the following industry groups for which separate data are not shown: tobacco (22,000); textiles (12,500); apparel (18,000); furniture (13,000); printing (37,000); petroleum refining (2,000); chemicals (32,000); rubber (4,000); leather (33,000); instruments (25,000); and miscellaneous manufacturing (6,000).

² Includes 199,000 workers in mining industry for which separate data are not shown because of concerns on the confidentiality of earnings data, and 23,000 workers in the financial, insurance and real estate industries.

³ Percent of straight-time average hourly earnings.

NOTE: Workers are distributed according to the average adjustment for all workers in each bargaining unit considered. Deferred wage increases include guaranteed minimum adjustments under cost-of-living clauses. Only bargaining units in the private, nonagricultural economy covering 1,000 workers or more are considered in this table. Because of rounding, sums of individual items may not equal totals. Dashes indicate there are no workers having wage increases that fall within that stated range.

In general, multiple year contracts tend to provide higher wage changes in the initial years than in subsequent years. For instance, 3-year agreements negotiated in 1981 provided average adjustments of 11.3 percent during the first year, 8.3 percent in the second year, and 6.8 percent in the third.

Cost-of-living adjustments

Fifty-six percent of workers covered by major agreements have cost-of-living protection. Two-thirds of the workers with COLA clauses will have at least one review during 1982.⁵ (See table 4.) COLA provisions are designed to help workers recover purchasing power lost through price increases. The number of workers receiv-

ing COLA increases and the proportion of purchasing power actually recovered under individual bargaining agreements depend on the specific formula used to relate wage and price increases, the timing of COLA reviews, and possible "caps" limiting the amount of COLA payments. Through the first 9 months of 1981, cost-of-living adjustments returned about three-quarters of the rise in the Consumer Price Index (CPI).

The number of workers affected by COLA clauses has been decreasing since 1977, largely because of employment declines in industries where such clauses are common. The slightly larger than proportionate drop in COLA coverage in 1978, resulted from the elimination of the COLA provision from the bituminous coal contract.

Table 2. Prevalence of cost-of-living adjustment (COLA) clauses in major collective bargaining agreements, October 1981

[Workers in thousands]

2-digit standard industry classification (SIC)	Industry	All contracts		Contracts with COLA clauses		Percent of workers covered by COLA clauses
		Workers covered	Number of contracts	Workers covered	Number of contracts	
	Total	9,027	1,912	5,080	735	56.3
10	Metal mining	39	14	35	11	89.5
11	Anthracite mining	2	1	2	1	100.0
12	Bituminous coal and lignite mining	160	1	.....	.....	.....
15	Building construction general contractors	668	168	49	9	7.4
16	Construction other than building construction	451	115	102	14	22.5
17	Construction—special trade contractors	421	193	36	20	8.6
20	Food and kindred products	305	99	94	33	31.0
21	Tobacco manufacturing	23	8	20	6	85.9
22	Textile mill products	50	20	3	2	6.4
23	Apparel and other finished products	475	52	148	6	31.1
24	Lumber and wood products, except furniture	66	15	2	1	2.4
25	Furniture and fixtures	28	17	8	6	28.9
26	Paper and allied products	88	62	2	1	2.3
27	Printing, publishing and allied industries	64	30	32	12	50.6
28	Chemicals and allied products	79	39	30	13	38.7
29	Petroleum refining and related industries	36	18	.....	.....	.....
30	Rubber and miscellaneous plastics	83	15	76	11	91.5
31	Leather and leather products	35	14	.....	.....	.....
32	Stone, clay, glass, and concrete products	87	36	70	26	80.2
33	Primary metals industries	483	113	459	99	95.0
34	Fabricated metal products	106	58	83	42	78.1
35	Machinery, except electrical	269	84	249	72	92.5
36	Electrical machinery equipment and supplies	438	99	413	81	94.3
37	Transportation equipment	1,149	103	1,004	80	87.4
38	Instruments and related products	46	14	25	5	53.8
39	Miscellaneous manufacturing industries	22	12	3	2	14.8
40	Railroad transportation	399	18	399	18	100.0
41	Local and urban transit	17	3	16	2	93.5
42	Motor freight transportation	474	19	468	17	98.8
44	Water transportation	90	19	34	7	38.2
45	Transportation by air	181	42	126	22	69.9
48	Communications	742	45	707	32	95.2
49	Electric, gas, and sanitary services	227	76	48	13	21.2
50	Wholesale trade—durables	26	17	6	3	22.9
51	Wholesale trade—nondurables	22	8	6	3	24.5
53	Retail trade—general merchandise	84	23	25	4	29.8
54	Food stores	525	99	203	36	38.8
55	Automotive dealers and service stations	13	9	1	1	9.7
56	Apparel and accessory stores	8	5	.....	.....	.....
58	Eating and drinking places	68	22	.....	.....	.....
59	Miscellaneous retail stores	17	6	8	3	46.0
60-65	Finance, insurance, and real estate	105	19	61	9	58.5
70-89	Services	353	81	23	11	6.5

NOTE: Due to rounding, sums of individual items may not equal totals, and percentages may not reflect shown ratios.

Dashes indicate absence of cost-of-living coverage.

The following tabulation shows the total number of workers and those under cost-of-living clauses (in millions) on January 1, 1971-82.⁶

Year	Workers		Year	Workers	
	With COLA	All		With COLA	All
1971	3.0	10.8	1977	6.0	9.8
1972	4.3	10.6	1978	5.8	9.6
1973	4.1	10.4	1979	5.6	9.5
1974	4.0	10.2	1980	5.4	9.3
1975	5.3	10.3	1981	5.3	9.1
1976	6.0	10.1	1982	5.1	9.0

Five unions account for 57 percent of the workers under major agreements with COLA clauses. The Automobile Workers represent 962,000; the Communications Workers, 609,000; the Teamsters, 513,000; the Steelworkers, 486,000; and the Machinists, 310,000. Each of the remaining unions represents fewer than 200,000 workers with cost-of-living provisions.

Adjustment formula. The most common rate of adjustment is 1 cent per hour for each 0.3-point rise in the CPI. Members of the Steel Industry Coordinating Committee⁷ and companies which follow the steel contract pattern use this formula.

In addition, the 1979 Automobile Workers agreements provided COLA payments at this rate using a combined U.S.-Canadian index for the first 2 years, but changed the formula to 1 cent for each 0.26-point rise at the beginning of the 1981 contract year. COLA clauses

Table 3. Workers receiving deferred increases in 1982 in bargaining units covering 1,000 workers or more, by month

[Workers in thousands]

Effective month	Principal industries affected	Workers covered
Total		14,295
January	Construction	331
February	Metalworking	169
March	Metalworking, trade	276
April	Construction, metalworking, food stores	275
May	Construction	455
June	Mining, construction	795
July	Construction, utilities, food stores	547
August	Primary metals, communications	1,204
September	Mining, food stores	339
October	Transportation equipment	292
November	Construction	133
December	Mining	254

¹ This total is smaller than the sum of individual items because 775,000 workers will receive more than one increase. This total is based on data available as of Oct. 1, 1981, and thus may understate the number of workers receiving deferred increases for the entire year.

in rubber industry contracts provide 1 cent for each 0.26-point increase in the CPI beginning in 1981, the second year of the agreements. The Bell System operating companies and manufacturing firms that follow their contract pattern specify changes of 55 cents per week plus 0.65 percent of each employee's weekly rate for each 1-percent movement in the CPI.

Timing, "caps", and indexes. COLA clauses provide reviews of changes in the CPI at regular intervals to deter-

Table 4. Timing of 1982 cost-of-living reviews in major contracts, by year of contract expiration and frequency of review

[Workers in thousands]

Type of contract, by expiration and frequency of cost-of-living review	First quarter		Second quarter		Third quarter		Fourth quarter		Full year ¹	
	Number of contracts	Workers covered	Number of contracts	Workers covered	Number of contracts	Workers covered	Number of contracts	Workers covered	Number of contracts	Workers covered
All contracts										
Total	358	2,187	338	2,044	344	1,969	290	1,124	532	3,439
Quarterly	282	1,846	274	1,839	249	1,008	234	892	289	1,866
Semiannual	53	240	28	72	39	154	34	91	75	316
Annual	23	101	36	133	56	807	22	141	143	1,203
Other ²	...	...	...	...	...	...	...	...	25	55
Contracts expiring in 1982 ³										
Total	87	1,123	47	960	30	158	3	4	103	1,177
Quarterly	53	960	43	942	16	107	2	3	53	960
Semiannual	29	138	2	14	13	48	0	0	31	152
Annual	5	24	2	4	1	3	1	1	11	47
Other ²	...	...	...	...	...	...	...	...	8	18
Contracts expiring in later years										
Total	271	1,064	291	1,084	314	1,811	287	1,120	429	2,262
Quarterly	229	885	231	897	233	901	232	890	236	905
Semiannual	24	102	26	58	26	106	34	91	44	164
Annual	18	77	34	129	55	803	21	140	132	1,156
Other ²	...	...	...	...	...	...	...	...	17	37

¹ Includes only those reviews through the termination of the present agreements; does not assume the continuation of existing reviews after contract expiration dates.

² Includes monthly, combinations of annual and quarterly, combinations of annual and

semiannual, and reviews dependent on levels of the Consumer Price Index.

³ Contracts that have at least one review in the year.

NOTE: Dashes indicate data not available.

mine if there are to be wage adjustments. Quarterly reviews are the most common; they cover 2.1 million workers, including those in the steel and automobile industries. Annual reviews affect 1.6 million workers, most notably in communications—Bell System agreements provide for reviews in August 1982. Semiannual reviews cover nearly 1.3 million workers, including more than 400,000 workers each in the railroad and trucking industries; in both industries, the frequency of review was changed from annual to semiannual in the 1978 and 1979 agreements.

“Caps”, or maximum limits may also affect the amounts of cost-of-living adjustments. Slightly more than 1.1 million workers have such caps in their contracts. Currently, the largest single group with limits on COLA adjustments are the 400,000 workers in the railroad industry.

In addition, the amounts of cost-of-living increases are affected by the index used in the formulas. Contracts covering about 80 percent of the workers under

COLA provisions use the BLS Consumer Price Index, U.S. “all cities” average. About 265,000 workers are under contracts with clauses using individual city indexes. Automobile industry contracts, covering 695,000 workers, use a combination of the U.S. and Canadian indexes because bargaining units in both countries are involved.

Minimums or “guaranteed COLA”, which provide a “floor” for the size of wage change under the provision, cover 547,000 workers. These amounts are negotiated at the time the contract is agreed upon and do not depend upon CPI movements. Therefore, they are included in our tabulations as specified wage changes.

GIVEN THE CURRENT economic climate, it is possible that some of the increases discussed above will not be implemented as scheduled. During 1981, there were a number of contract reopenings that provided for suspension of COLA provisions, wage decreases, or delays in instituting previously negotiated increases. □

— FOOTNOTES —

¹ Major collective bargaining units are those which cover 1,000 workers or more in the private nonfarm sector.

² For an analysis of the bargaining schedule for 1982, see Mary Anne Andrews and David Schlein, “Bargaining calendar will be heavy in 1982,” *Monthly Labor Review*, December 1981, pp. 20–30.

³ These units include 870,000 workers covered by 185 agreements which expired or reopened prior to Oct. 1, 1981, but for whom settlements were not reached or for which information was not available in time to be included in these tabulations. About half of these workers were in railroad industry agreements. Another 284,000 workers were covered by 108 agreements expiring or reopening between Oct. 1 and Dec. 31, 1981, after the closing date for this article.

⁴ About 481,000 construction workers will receive deferred increases under settlements in which the parties agreed to a total wage and

benefit package, with the final allocation between wages and benefits to be determined by the union. Because the final division was not known at the time this article was prepared, the entire package has been treated as a wage increase and may be overstated.

⁵ For more detailed information about cost-of-living provisions offsetting inflation, see Victor J. Sheifer, “Cost-of-living adjustment: keeping up with inflation?” *Monthly Labor Review*, June 1979, pp. 14–17.

⁶ The data for 1982 are based on information available as of Oct. 1, 1981.

⁷ The firms are Allegheny Ludlum Industries, Inc.; Armco Steel Corp.; Bethlehem Steel Corp.; Inland Steel Co.; Jones and Laughlin Steel Corp.; National Steel Corp.; Republic Steel Corp.; United States Steel Corp.; and Wheeling-Pittsburgh Steel Corp.

Organized labor in 1981: a shifting of priorities

The quickened pace of wage-and-benefit concessions and employment declines in major industries left organized labor with little to celebrate in its 100th year; these factors made labor and management more aware of the cooperation needed to resolve mutual problems

GEORGE RUBEN

The organized labor movement was 100 years old in 1981, but the celebration was muted by continuing difficulties in attracting workers to the movement, by employment cutbacks in some heavily unionized industries, and by disagreements with the Reagan Administration over social and economic policies. Opposition to Administration policies culminated in a September "Solidarity Day" rally of 400,000 workers in Washington, D.C., to publicize labor's grievances. And, in a break with tradition, the AFL-CIO did not invite the President to attend its annual convention. Shortly afterwards, in December, President Reagan met with AFL-CIO President Lane Kirkland and other labor leaders in an effort to improve relations, with mixed results. Kirkland agreed to help in attaining closer consultation on labor matters, but said that organized labor would continue to oppose the President's economic program.

The steel industry rebounded somewhat from its 1980 operating losses, but economic difficulties continued in the automobile and automobile parts, trucking, rubber, construction, and airline transportation industries. One consequence was an increase in the number of settlements calling for employee "sacrifices"—wage-and-benefit reductions or deferrals. The only beneficial aspect of these somber developments was an increased awareness by labor and management of the need to cooperate in countering mutual problems, such as foreign competi-

tion, energy shortages, and plant and product obsolescence. In some cases, this cooperative spirit was manifested by the establishment of formal bipartite committees that would continue after immediate difficulties are resolved.

There was some moderation in the inflation rate, but the unemployment rate increased as the economy entered a recession in the second half of the year. The voluntary program of wage and price restraints, initiated by the previous Administration, was ended in January. President Reagan said the program was "totally ineffective in controlling inflation" and that it "imposed unnecessary burdens on labor and industry." The Council on Wage and Price Stability, administrator of the program, generally agreed with the President's assessment, but said that the program had been successful in "preventing a bad situation from becoming even worse."

Auto industry's problems continue

Although 1981 was a "nonbargaining year" for the major automobile manufacturers, at Chrysler Corp., the Auto Workers and other unions agreed to wage-and-benefit concessions to aid the beleaguered company. General Motors Corp., Ford Motor Co., and American Motors Corp. also pressed the Auto Workers to reopen their contracts, contending that immediate reductions in labor costs were needed to compete effectively with Chrysler and foreign manufacturers. The union maintained that these companies were in better financial condition than Chrysler and would have to await the

George Ruben is co-editor of *Current Wage Developments*, a monthly publication of the Bureau of Labor Statistics.

1982 contract bargaining to present their demands. However, late in the year, the Auto Workers agreed to start the 1982 bargaining earlier than usual. Union president Douglas Fraser said the decision was impelled by the deteriorating condition of the industry. General Motors and Ford (and Chrysler) contracts expire in September 1982 and American Motors' contract, in 1983.

In December of 1980, Chrysler submitted a wage concession plan to the Auto Workers and the other unions to enable the company to qualify for another \$400 million in Federal aid under the Chrysler Corporation Loan Guarantee Act of 1979. The company lost \$1.77 billion in 1980, and \$1.1 billion in 1979. Lee A. Iacocca, chairman of Chrysler's board of directors, predicted that Chrysler would be bankrupt in February 1981 without an infusion of money. This impelled intensive negotiations in which Auto Workers' members agreed to \$622 million in wage-and-benefit reductions, in addition to the \$446 million in reductions (from the General Motors and Ford settlement pattern) the union had accepted in November 1979 and January 1980. The severity of the concessions could be reduced as a result of the company's commitment to negotiate profit-sharing and stock-ownership plans.

The wage concession plan approved by the Chrysler Loan Guarantee Board specified that Chrysler "take all possible steps" to get additional capital. This led to some merger talks between Ford and Chrysler, but Ford directors decided that a merger was contrary to "the best interests of Ford and its stockholders."

Some Auto Workers locals bargained with General Motors and Ford on the issue of "excessive" labor costs. In addition, the union engaged in unscheduled bargaining with several parts suppliers who sought pay concessions because of operating losses attributed to the automobile sales slump:

- At Ford's steelmaking operation in Dearborn, Mich., the Auto Workers agreed to an 86-cent-an-hour cut in earnings of incentive employees. This averted a planned cessation of steel sales to outside users, which would have resulted in the termination of 3,200 of the plant's 5,000 hourly workers. Ford said the pay cut was necessary because its "contractual" labor costs was 30 percent higher than those of competing steel companies.
- Ford gained efficiency-increasing changes in work rules at several plants, including Livonia and Sterling Heights, Mich., and at a stamping plant in Cleveland, Ohio, and it was seeking changes at a number of other locations. The work rule changes included the scheduling of overtime work and the ratios of inspectors and machine set-up workers to production workers. After the concessions, Ford announced a \$1-billion project to convert the two Michigan plants

to produce transmissions. A company official said that the changes in work rules had enabled the two plants to underbid Tokyo Kogo (which is 25 percent owned by Ford) for the production contract.

- Possible closing of a General Motors roller bearing plant in Clark, N.J., was averted when employees agreed to purchase the operation. The employees also agreed to a 25-percent reduction in compensation, which would be partly offset by a distribution of stock shares to employees and by possible monthly and semiannual payments based on the plant's output.

As the year closed, there was no relief in sight for the auto industry, as sales continued at a substantially lower rate than in 1980. Ford, Chrysler, and General Motors reported a combined loss of more than \$950 million for the third quarter. The situation was particularly acute at Chrysler, where the loss was \$149 million, instead of the \$38 million the company had forecast in the survival plan approved by the loan guarantee board.

Steel industry rebounds

Most of the Nation's steel producers operated at a profit during 1981, after suffering losses in 1980. At U.S. Steel Corp., the turnaround was attributed to the closing of inefficient plants and the revamping of others, and to the completion of some required antipollution measures.

The biggest question in the industry's relationship with the United Steelworkers was the status of the Experimental Negotiating Agreement. The agreement, which prohibited the union from striking over economic issues in return for a "floor" under each wage and benefit settlement, was first negotiated in 1973 and was renewed in each subsequent settlement, but not in 1980. This means that the union can strike when the current 3-year wage-and-benefit contract expires in 1983, and that any 1983 settlement would not be subject to the economic floor.

The delay on the fate of the Experimental Negotiating Agreement apparently resulted from management's concern that the floor under economic settlements might be too high a price to pay for the operating economies resulting from a strike-free relationship. Specifically, management was concerned that the required minimum increase in compensation in each contract year (an amount equal to 3 percent of average straight-time hourly earnings) and the required retention of an uncapped cost-of-living clause had helped to widen a labor cost disparity with foreign producers. Despite these misgivings, the parties did conduct intermittent talks on the agreement.

Even though the fate of the Experimental Negotiating Agreement was uncertain, there were instances of a cooperative approach to mutual problems. The latest effort consisted of Labor-Management Participation Teams set up in the plants of five companies under provisions of the 1980 agreement. The aim of the experi-

mental teams is to increase productivity and improve working conditions through better communication and cooperation between supervisors and employees.

In addition, the Steelworkers pressed for reactivation of the Steel Tripartite Advisory Committee that had been established in 1978 to seek solutions to problems of capital formation, trade, technology, environment, and community assistance. President Carter had announced a national steel policy based on recommendations of the committee, but some aspects were not enacted prior to the end of his term of office.

Despite improved performance in 1981, several major companies were planning to sue some European steel producers for allegedly engaging in unfair practices, such as selling in the United States at prices below their production costs. The Department of Commerce initiated unfair trade charges against 5 countries, asserting that they had subsidized steel produced for export to the United States.

Analysis of 'new' contracts

Postal Service—change in approach. In terms of the number of workers involved, the major 1981 settlements involved the U.S. Postal Service, which bargained with four unions representing 600,000 employees. The talks were scheduled to start in April, 3 months before expirations of the current agreements. The Postal Service refused to start then because the unions, departing from past procedures, requested separate bargaining. The bargaining approach involved one set of negotiations for the two largest unions, the American Postal Workers (representing 300,000 workers) and the National Association of Letter Carriers (195,000), and another set for the Rural Letter Carriers (63,000) and the Mail Handlers Division of the Laborers union (39,000). The Postal Service asked the National Labor Relations Board to order the unions to bargain jointly, but the board upheld the unions' bargaining approach.

The Postal Workers and the National Association of Letter Carriers settled about 16 hours after the July termination date of their contracts. There was no walkout, although the unions' members had agreed to strike if they had no contract upon expiration of the existing one. The Rural Letter Carriers union, whose members (like the Mail Handlers) did not authorize a strike, settled several hours earlier on essentially the same terms as the two largest unions.

The 3-year contracts provided for \$300 increases in annual salaries in July of each year, a \$150 "contract signing bonus," a \$350 cash payment each year, and possible payments under a new productivity plan. There was no change in the cost-of-living formula.

The Mail Handlers contended that the other unions had accepted inadequate pay, health, and safety provisions and opted for resolution of these and other issues

through continued bargaining. This failed and the parties were in arbitration at yearend.

Airlines—controllers fired. A strike by 15,000 members of the Professional Air Traffic Controllers Association (PATCO) began on August 3, after they rejected an offer valued at \$40 million a year from the Federal Aviation Administration. The accord would have raised controllers' annual earnings by 6.6 percent, or about \$2,300. (This would have been in addition to the 4.8-percent increase PATCO members, and other Federal white-collar employees, were scheduled to receive in October.) Part of the increase would have resulted from a new "responsibility differential" giving the controllers time-and-one-half pay for the 37th, 38th, 39th, and 40th hours worked in a week; the balance would have come from increasing premium pay to 15 percent, from 10 percent, for hours worked between 6 p.m. and 6 a.m., and from eliminating a requirement that premium pay for Sunday and holiday work count toward the \$1,927.40 statutory limit on biweekly pay. The rejected accord also would have given employees a greater voice in developing operating rules and in selecting new equipment.

Reportedly, the workers turned down the proposed agreement and walked out because they wanted a larger pay increase, accelerated retirement to counter the problem of job stress, and a shorter workweek.

President Reagan warned that strikers who did not return to work by 3 p.m. on August 5 would be fired for violating the no-strike law applicable to Federal employees. Despite this ultimatum, only a few hundred strikers returned to work; the Administration then began the procedures necessary to terminate the workers, took steps to decertify PATCO as the workers' bargaining representative, and began the long process of training replacements for the dismissed workers. In October, the Federal Labor Relations Authority, (which oversees labor relations in the Government), decertified the union; PATCO's appeal is presently in Federal court.

The walkout did not draw heavy support from other unions; one apparent reason was that they may not have wanted to be involved in an illegal stoppage. But it did spawn a variety of opinions about the rights of public employees. Labor mediator Theodore W. Kheel said that the strike pointed out the "inherent, irresolvable conflict between giving public workers the right to bargain on one hand, and declaring strikes by such workers illegal on the other." (Federal employees are generally not permitted to bargain on wages and benefits, but the Federal Aviation Administration had agreed to bargain with PATCO because of concern over the stress and equipment problems faced by controllers. Any resulting settlement could have been implemented only by congressional action.)

As the year ended, the strikers' appeal was still be-

fore the courts, the Administration had submitted the rejected settlement to the Congress for enactment, and labor and consumer leaders were filing a suit alleging that the Administration's refusal to rehire the strikers was disrupting air travel and endangering public health and safety.

Railroads—39-month contracts. The procedure leading to settlements for nearly half a million railroad workers began early in the year, when the 13 unions served the required notices on the carriers specifying their demands for changes in wages, benefits, and work rules. However, intensive negotiations started in August, after the unions and the carriers agreed on proposed changes in the Railroad Retirement Act and sent them to the Congress for action.

In mid-November, six unions and the National Railway Labor Conference, the industry bargaining arm, settled on a 39-month contract for 240,000 workers. Reportedly, the accord provided for a total pay increase of 32.5 percent plus improvements in health and welfare benefits. The union gave up its demand for a liberalized cost-of-living pay adjustment clause because, according to Railroad and Airline Clerks president Richard Kilroy, "it wasn't the time to be saber rattling," referring to the recession and President Reagan's response to the strike by air traffic controllers. The members of the six unions will continue to receive semiannual adjustments calculated at 1 cent for each 0.3-point movement in the BLS Consumer Price Index for Urban Wage Earners and Clerical Workers (1967=100). As before, pairs of adjustments are limited to the amount resulting from an 8-percent rise in the index.

In an earlier settlement, the Consolidated Rail Corp.'s union-represented employees had agreed to limits on wage increases intended to save the deficit-ridden carrier \$600 million. Employees not represented by unions gave up a proportionate sum of \$57 million.

The Conrail settlement with the various unions provided that employees receive the same wage-and-benefit terms as each union's "national" settlement, except that all wage increases to be effective before January 1, 1982, would be paid only to the extent that their sum exceeded a 10-percent increase. Increases effective on or after January 1, 1982, would be paid to Conrail employees, but only to the extent that their sum exceeded a 12-percent pay increase.

The wage limit goal for Conrail employees was specified in the Northeast Rail Service Act of 1981, which also provided for additional Federal financial aid to Conrail (Conrail was formed in 1976 to take over the freight operations of six bankrupt railroads); for a possible employee purchase of Conrail in 1984 if two financial tests are passed in 1983 (if Conrail does not pass both tests, the Secretary of Transportation would be permitted to sell Conrail in parts); and for Conrail

to reduce its 17,000 miles of track and its number of employees, with affected workers receiving severance payments financed by a designated part of the Federal aid. In a hopeful note, Conrail announced a third-quarter profit of \$64.9 million, only the third profitable quarter in its history. In the third quarter of 1980, Conrail had lost \$88.1 million.

As noted, the delay in reaching a national rail accord occurred because the parties were busy formulating proposed amendments to the Railroad Retirement Act. The Railway Labor Executives Association, composed of leaders of the 21 rail unions, reported that the fund was nearly exhausted because of the size of cost-of-living adjustments, and because there were more than a million current beneficiaries and only about 560,000 active employees.

The resulting legislation provided for a number of changes designed to help close the gap between fund income and benefit payments. One change reduced the social security payment to retirees eligible for both social security and railroad retirement benefits as a result of service performed under both systems prior to 1975. The reduction varies according to the amount of money allocated by the Congress for a particular fiscal year; for the fiscal year beginning October 1981, the reduction would be about \$23 a month, or 21 percent.

The employer and employee financing rate for "Tier I" benefits (similar to social security benefits) remained at the same level as the rate for workers covered by social security, but the employer payment rate for "Tier II" benefits (similar to usual pensions in other industries) was raised to 11.75 percent of the first \$1,850 of monthly earnings, from 9.5 percent. In addition, employees began contributing to Tier II benefits at a rate equal to 2 percent of the monthly earnings base.

Coal mining—63-day strike. The United Mine Workers and the Bituminous Coal Operators' Association (BCOA) had predicted a peaceful renewal of their contract, although their last five collective bargaining settlements were preceded by strikes. Some of the factors influencing the goal of a strike-free settlement were the desire to demonstrate that their mines could be relied on to help alleviate the energy shortage; production declines in BCOA mines and accelerated production in western surface mines where the UMW has had limited organizing success; and concern over the possible fragmentation of the 130-member BCOA that could result from a stoppage. To decrease the chance of a strike, talks were started 6 months before the March expiration of the existing contract. The first settlement, on March 23, was rejected by the rank-and-file and a resulting strike lasted 63 days, ending when the operators agreed to modify certain provisions of the rejected contract.

One disputed point was resolved when the operators agreed to continue paying royalties to the miners' benefit

funds on coal purchased for resale. The miners had contended that elimination of the royalty payment would lead to widespread purchase of coal from nonunion mines. The cost of this concession was partly offset by providing that current and future widows of miners who retired prior to December 6, 1974, would receive a \$95-a-month pension beginning in March 1982, instead of the \$100 a month that would have been effective 2 months earlier under the rejected contract.

The Arbitration Review Board was terminated. The board was established by the previous contract to make precedent-setting decisions on grievances. However, the parties agreed that existing precedents would be used to settle future grievances. The union had viewed the board as pro-management; explaining that the union had prevailed in only 8 of the 72 decisions in the board's 3 years of existence.

The approved contract also prohibited operators from contracting out work or leasing coal lands or operations if it deprived UMW members of work they had normally performed in the past. (The 1978 contract had required contractors and lessees to employ only UMW members, but this provision had been invalidated by a 1980 court decision.) Wage and benefit improvements included \$3.60 an hour in "set" wage increases, including \$1.50 in quarterly increases designated as cost-of-living adjustments but not contingent on the movement of the Consumer Price Index; increases in pensions for current and future retirees; adoption of dental coverage for miners and their dependents and increases in life insurance and sickness and accident benefits for miners.

The parties agreed to establish a joint committee to decide if each company should be permitted to maintain its own pension plan providing a standardized schedule of benefits, instead of the existing common plan funded by all companies.

Despite the duration of the walkout there was no major impact on coal users, who had built up larger than normal stockpiles in anticipation of a stoppage.

Pay and benefit concessions

The wage concession accords at Chrysler and Conrail drew the most attention, but there also were concession accords in other industries, including airline transportation, rubber, trucking, and meatpacking. Clearly, instances of worker concessions in 1981 exceeded the number in 1980 which, in turn, exceeded the number in 1979. However, the number of workers affected in 1981 was relatively small, compared with the number of workers covered by 1981 settlements that provided for improvements in wages and other contract provisions.

Airlines. The Nation's airlines continued to be buffeted by operating losses attributed to high fuel costs and cost competition resulting from deregulation of the industry. In addition, the air traffic controllers strike was

expected to restrict air traffic for at least 2 years. As a result of these events, some unions agreed to wage concessions to aid their employers.

The concessions varied. The accord between United Airlines and the Air Line Pilots Association provided for the pilots to receive a 29-percent pay increase over the 26-month contract term. In return, the pilots agreed to a number of changes in operating rules to improve productivity, such as a 7.5 hour increase in maximum credited monthly flying hours; a reduction in the number of nonflying hours credited as flying hours; use of two pilots on Boeing 737 aircraft; and a straight salary instead of the previous complex pay formula that was based on such things as the speed and weight of the aircraft and whether the flight was at night or over water.

Most of the other concession agreements generally provided for a 10-percent pay decrease extending for specified periods. At the end of that period, pay scales would be restored to the prereduction level and raised by the amount of any pay increases that had been scheduled to go into effect during the period.

Trucking. In September, the Teamsters union announced that it would accede to the industry's request for early bargaining on renewal of the current 3-year agreement, scheduled to expire in March 1982. Union president Roy Williams indicated that the union "could live with" a freeze on specified pay increases in the new contract if fringe benefits and cost-of-living allowances were maintained. At the time, 117,000 members of the union were on layoff in the trucking industry, compared with 60,000 a year earlier.

In 1980, the Teamsters turned down an industry request to reopen bargaining on the labor-cost issue. Since then, some local unions have agreed to pay cuts or changes in work rules to aid their employers. One example was Yellow Freight Systems of St. Louis, where changes in work rules included a ban on premium pay for nonovertime weekend work. This change was expected to save the company \$265,000 over a 1-year period.

System 99, a California-based trucking firm tried a different approach. About 1,500 of its employees participated in a voluntary plan under which they received only 85 percent of their usual pay. The company will pay the withheld amount in monthly steps beginning in May 1982 if its income exceeds basic expenses.

Rubber. Rubber workers continued to experience difficulties in 1981, and agreed to wage or work rule concessions to help assure continuation of their jobs. Problems plaguing the industry included increased production of lighter cars and radial tires contributing to longer tire wear, a reduction in driving resulting from higher fuel costs, and obsolete plants.

The first concession accord involved a Firestone Tire

and Rubber Co. plant in Memphis, Tenn., which produces bias ply tires. The changes included a "restructuring" of jobs that would result in lower pay rates for non-incentive employees (incumbents were guaranteed their current rates); a requirement that maintenance workers perform some work outside their normal trade, in exchange for increased pay when they became proficient in the new duties; and adoption of a 7-day-a-week operation, with straight-time pay for nonovertime weekend work.

A majority of the 13 Rubber Workers' locals that bargain with Goodyear Tire & Rubber Co. approved a concession accord at a plant in Topeka, Kans., after first rejecting it. One change called for straight-time pay for nonovertime weekend work. Goodyear said it would now be able to operate the plant more efficiently and proceed with plans to convert the plant from production of bias-ply tires to production of radial truck tires. The conversion may mean that Goodyear will not close down a 44-year-old plant in Jackson, Mich., which also produces bias-ply tires. Goodyear said it did not need two plants producing the same type of tires.

Meatpacking. The industry most severely hit by production cutbacks, plant closings, and employee pay concessions in recent years has been meatpacking. Cutbacks have been limited to the "old line" meatpackers, who experienced serious difficulties in competing with new companies which usually have lower paid nonunion labor and modern single-story plants located in animal producing areas, and which use techniques such as selling precut boxed meat.

Examples of concessions in the industry include a Swift & Co. plant in Rochelle, Ill., that was closed, then purchased by Dubuque Packing Co. and reopened with, according to employees, a 60-percent cut in compensation and Dubuque Packing Co., which reversed its decision to close a plant in LeMars, Iowa, after employees agreed to a 2-year freeze on wages and benefits.

Similar concessions and bargaining were also underway with other companies. Virtually all of the production workers at the "old-line" companies (Armour and Co., Swift & Co., Wilson & Co., Cudahy Co., for example) are covered by agreements with the United Food and Commercial Workers that expire in 1982.

Union wage increases, strikes

Major collective bargaining settlements (those covering 1,000 employees or more) reached in private industry during the first 9 months of 1981 provided wage adjustments averaging 11.5 percent for the first year of the contract and 9.3 percent a year over the life of the contract. The average adjustment when the same parties bargained previously (on average about 32 months earlier), was 9.2 percent in the first contract year and 7.8 percent over the life of the agreement. Set-

tlement data exclude wage changes that occurred under cost-of-living adjustment (COLA) clauses.

During the first 9 months of 1981 settlements covered 1.5 million workers in 418 major collective bargaining units. Approximately 9 million workers in about 2,000 units are included in the Bureau of Labor Statistics' major collective bargaining series.

Because measures of wage settlements exclude possible COLA changes, they tend to be lower in settlements with COLA clauses. First-year negotiated adjustments averaged 7.9 percent in agreements with COLA clauses, compared with 12.4 percent in those without; wage adjustments over the life of the agreements were 6.4 percent and 10.0 percent, respectively. Agreements with COLA clauses had an average duration of 33.6 months; those without averaged 30.6 months.

COLA clauses covered 306,000 workers or 21 percent of those under settlements concluded during the first 9 months of 1981. About 45,000 workers were covered by seven agreements which introduced COLA clauses or reestablished a COLA provision that had been dropped earlier. COLA clauses were dropped in nine agreements, covering 28,000 workers. When benefits were combined with wages (in settlements for 5,000 workers or more) the average adjustment was 11.8 percent in the first contract year and 10.0 percent over the life of the agreement.

In a broader measure of wage change, about 7.7 million workers received "effective" adjustments averaging 8.4 percent during the first 9 months of 1981. This data series combines wage changes resulting from settlements during the period with deferred increases resulting from earlier settlements and increases under COLA clauses. When the 8.4-percent increase was prorated over the 9 million workers under major agreements (including the 1.3 million who did not receive an increase during the period), the average adjustment was 7.1 percent.

Fewer work stoppages. Labor-management disputes led to about 3,563 work stoppages that either began in the first 10 months of 1981 or began earlier and were carried over into the period, according to preliminary estimates. This was lower than for the comparable periods of all recent years. Similarly, there were fewer workers involved in strikes in the first 10 months than in the comparable period of any recent year. The data are limited to stoppages involving six workers or more and lasting a full shift or longer.

State of unions

Data for 1981 are not yet available, but union membership dropped to 20.9 percent of the labor force in 1980, from 24.7 percent 10 years earlier. Actually, the number of union members increased from 21.2 million to about 22.4 million over the period but this gain was more than offset by the growth of the labor force.

The economic difficulties in some industries were evident from decreases in membership of certain unions from 1978 to 1980. The Auto Workers led the declines (down by 142,000 members), followed by the Steelworkers (48,000), the Clothing and Textile Workers (46,000), and the Teamsters (33,000). Percentage-wise, the most seriously affected were the Rubber Workers (down 15.2 percent), Oil, Chemical and Atomic Workers (14.4 percent), and the Auto Workers (9.5 percent). The State, County and Municipal Employees gained the most members over the 1978-80 period (78,000 or 7.6 percent), followed by the Food and Commercial Workers (64,000 or 5.2 percent), and the American Federation of Teachers (49,000 or 9.8 percent).

In 1981, there was no major organizing breakthrough, such as that which occurred in 1980 when the Clothing and Textile Workers succeeded, after a 17-year campaign, in organizing several of J.P. Stevens & Co.'s 75 textile mills. A cautious working relationship has developed between the parties in the wake of their 1980 agreement in which Stevens recognized the Clothing and Textile Workers as bargaining agent at 10 of its plants in return for the union's promise to end its consumer boycott and publicity campaign. The union lost the one representation election held in 1981 at a Steven's denim manufacturing plant in South Carolina, but contended that the loss was not significant because it was the first election at the plant.

The Steelworkers union continued its 7-year campaign to gain the right to represent workers at DuPont Co. Currently, the Steelworkers represent workers at one DuPont facility in Minnesota. In November, the parties ended a dispute by agreeing that representation elections would be conducted at 16 plants in December 1981. DuPont has about 100 plants, with about 70,000 production workers. About 40 percent of the workers are represented by unions, usually local independent unions.

Although several unions discussed merger possibilities during the year, there was only one merger (the American Radio Association with the Masters, Mates, and Pilots). This was not indicative of the pace of mergers in recent years—eight mergers during 1980 and 1981 accounted for 13 percent of all mergers that have occurred since the unification of the American Federation of Labor and the Congress of Industrial Organizations in 1955.

In internal union affairs, the major event was the re-affiliation of the Auto Workers with the AFL-CIO. Auto Workers' president Douglas Fraser said the return would "strengthen the trade union movement." The union left the federation in 1968 because of policy differences between Auto Workers' president Walter Reuther and AFL-CIO president George Meany.

There were several leadership changes—Teamsters'

president Frank E. Fitzsimmons died and was succeeded by Roy Williams; Railway Clerks' president Fred J. Kroll died and was succeeded by Richard I. Kilroy; and Rubber Workers' president Peter Bommarito retired and was succeeded by Milan Stone.

Labor laws and regulations

Although the economic and social policies of the new Administration drew the most criticism from organized labor, unions were also concerned about changes planned or instituted in labor laws and regulations.

Davis-Bacon Act. The Administration announced plans to modify the Davis-Bacon Act, which authorizes the Department of Labor to set wage levels for workers on federally-financed construction project based on the prevailing area wages. Secretary of Labor Raymond Donovan emphasized that the proposed changes would significantly reduce the cost of construction projects. This position was supported by a study conducted by the Carter Administration's Council of Economic Advisers, and by a 1979 study by the General Accounting Office (the investigative arm of the Congress) which called for repeal of the act. Objecting to the proposal, Robert Georgine, president of the AFL-CIO's Building and Construction Trades Department, argued that the act prevents contractors from importing workers from other communities to drive down labor costs to win Federal contracts.

The proposed changes would set the pay rate for any given trade on a project at the rate prevailing for at least 50 percent of the workers in that trade in the area, or if a majority were not paid the same rate, at the average for all employees in that trade (now, pay rates can be based on the prevailing rates for as few as 30 percent of the workers in the area); permit contractors to use one helper for every five journeypersons; prohibit the use of urban wage data in setting rates on rural projects; and reduce reporting requirements for contractors. A decision on these proposals is expected in 1982.

Service Contract Act. In a companion move, the department proposed changes in the Service Contract Act, which requires contractors servicing Federal agencies to pay their employees the Federal minimum wage or the prevailing local wage for the occupation, whichever is higher.

The proposed changes called for exemption of a number of types of contracts, including those for research and development and for maintenance and repair of computers and scientific equipment. A final decision on this proposal also is expected in 1982.

Job safety and health. With the change of administration came a change in the approach to the Occupational

Safety and Health Administration's rule-setting and inspection methods. In accord with a presidential order directing Federal agencies to assess the costs and benefits of major regulations, OSHA began a review of its standard for employee exposure to cotton dust. The cost-benefit approach to rule setting drew sharp criticism from labor leaders, particularly from the Clothing and Textile Workers union. And in June, the Supreme Court ruled that OSHA must protect workers against toxic substances to the greatest extent possible, without regard to the balance between cost and benefit.

Other actions taken by OSHA during the year included a drive to eliminate unnecessary rules, a program to permit worker-management teams to conduct safety inspections in firms that have good safety records (all other firms would continue to be checked by OSHA or State inspectors); issuance of a noise standard, replacing the standard issued in the closing days of the Carter Administration, and withdrawal of the "walkaround pay" rule that required employers to compensate employees for time spent accompanying OSHA inspectors.

Home-work restrictions. A controversy that lasted throughout the second half of the year erupted when the Department of Labor announced proposals to lift the ban on employers hiring people to perform certain types of work in their homes. The proposal came after a group of knitters in Vermont protested the Department's move to stop them from producing ski wear in their homes. The general arguments of the Ladies Garment Workers, the Clothing and Textile Workers, and many manufacturers were that the change would result in a substantial increase in "sweatshop" operations that would offer unregulated, unfair competition to firms that use inplant labor.

The October decision lifted the ban on knitting outerwear at home but continued the ban for women's apparel, jewelry, gloves and mittens, buttons and buckles, handkerchiefs, and embroideries.

Later, the two unions and a number of knitted outerwear makers sued the department, contending the decision was contrary to most of the comments and testimony received on the issue and that the change would foster unfair competition.

Anti-discrimination. The new Administration also brought new approaches to enforcing Federal anti-job discrimination laws. The Department of Labor proposed some revisions of its anti-bias regulations covering companies that do business with the Federal Government. One change would exempt companies with fewer than 250 employees and a contract worth less than \$1 million from preparing a written plan for hiring women and minorities. Currently, rules cover

firms with 50 workers or more and a \$50,000 contract. Other changes would exempt employers from setting goals and timetables for job groups in which women and minorities equal at least 80 percent of their availability in the general work force; permit contractors with 250 to 499 employees to file abbreviated affirmative action plans; eliminate pre-award reviews of employers scheduled to receive Federal contracts of at least \$1 million; and reduce from 16 to 9 the number of affirmative action steps required of construction contractors and apply the steps, goals, and timetables only to the larger contractors.

Equal employment opportunity

The year was marked by a surge of interest in the "comparable worth" theory. In general, proponents of the theory contend that women should be paid the same as men—even if their duties are different—if the jobs are of comparable worth to society. Opponents contend that implementation of the theory could severely disrupt the economy because of the extreme difficulty of making precise comparisons of the worth of dissimilar jobs.

Attention focused on the Supreme Court ruling on the issue: the court held that a woman may not be paid less for a job simply because she is a woman, and that women who claim that their wage rates have been undervalued because of sex discrimination may file suit under Title VII of the Civil Rights Act of 1964. Previously, the only remedy was under the Equal Pay Act of 1963, which requires equal pay for equal work. Supporters of the theory described the Supreme Court decision as a major step toward comparable worth; their adversaries said the implications of the decision were much more restricted.

Some major disputes concerning equal employment opportunity were settled during the year. Sears Roebuck & Co. and the Equal Employment Opportunity Commission (EEOC) settled out of court on a series of racial discrimination charges, ending an 8-year dispute. The accord called for Sears facility managers to intensify their efforts to attract minority job applicants and to document their efforts for the company's group managers and the EEOC.

A Federal district judge revoked an order issued by the Department of Labor in July 1980 that banned Firestone Tire & Rubber Company from doing business with the Federal Government because of alleged employment discrimination. The judge held that the department had relied on an erroneous internal memorandum written by a Firestone employee. Firestone actually did not lose any government business during the period because it obtained stays of the debarment order pending a final judicial decision. □

State labor legislation enacted in 1981

The minimum wage was raised in 26 jurisdictions, sometimes above the Federal rate; more attention was paid to special protection for 'whistleblowers' and unemployment from plant closings and layoffs, as well as for veterans and disabled workers; and one State repealed its prevailing wage law

RICHARD R. NELSON

State labor legislation passed in 1981 covered a wide variety of subjects,¹ including such traditional fields as minimum wage, prevailing wage, child labor, job discrimination, and regulation of private employment agencies. At the same time, new interest was shown in problems of "whistleblower" protection and of plant closings and resulting mass layoffs.²

Minimum wage rates were increased in 26 jurisdictions last year, primarily resulting from previously adopted wage escalation schedules, although a few increases were approved this year. Eighteen jurisdictions have a minimum rate for some or all occupations equal to or exceeding the \$3.35-per-hour Federal standard that took effect January 1, 1981, the last scheduled increase prescribed by the 1977 amendments to the Fair Labor Standards Act. Two more States will reach the \$3.35-an-hour rate during 1982.

In other minimum wage action, coverage in North Carolina was extended to employers of three or more rather than four or more as before; the minimum salary level for exemption of executive, administrative, or professional employees was increased in Maine; and in Oregon, persons over age 65 were removed from a list of those for whom a subminimum hourly wage rate may be set.

Laws pertaining to wage garnishment or assignment were enacted in 16 jurisdictions, with many setting limits on the amount of earnings subject to assignment for the payment of child support. Employees in Alaska, Illinois, Louisiana, Nevada, Tennessee, and Wyoming are now protected from disciplinary action imposed as the result of any garnishment or assignment, and existing protections were expanded in Hawaii, and North Dakota. Rhode Island made the wages of State and local government employees subject to garnishment.

Again in 1981, as in the last two years, many bills were introduced to repeal State prevailing wage laws. Although bills were introduced in 14 States, only the Utah law was repealed, an action taken over the Governor's veto. All the other repeal attempts failed, including bills vetoed in Colorado and New Mexico; measures in California and Wisconsin, still in committee, will be carried over to the 1982 legislative session. Courts in Michigan and Missouri upheld the constitutionality of the prevailing wage laws in those States, both of which rely solely on collectively bargained rates as the prevailing rates. Decisions on the same issue had differed in previous years. The New Jersey law was upheld and the Arizona rate determination methodology was ruled invalid.

In other prevailing wage developments, Rhode Island made wage-rate violators subject to an 18-month ban on bidding for or being awarded a public contract. The labor department in Montana was given subpoena pow-

Richard R. Nelson is a labor standards adviser in the Division of State Employment Standards, Employment Standards Administration, U.S. Department of Labor.

er to compel the production of payroll records, and the prevailing wage rate is to be included in bid specifications and contracts. New Jersey extended coverage of its prevailing wage law to any construction by the New Jersey Building Authority. Oklahoma mandated use of Federal Davis-Bacon rates where available and required payment of prevailing fringes. In Washington, wage rates must now be posted at the job site.

A comprehensive law in Minnesota grants seasonal farmworkers important new protection. These workers now must be paid for a guaranteed number of hours; are to be provided written pay statements itemizing deductions from wages; and are to be informed, at the time of recruitment, of the minimum duration of employment, and of working conditions, wages, and housing provision if any.

Similarly, in Oregon, a new amendment requires that migrant workers be furnished with the names and addresses of their employers, with notification of any labor dispute at the work site, and with statements of hours of work and rates of pay. Texas prohibited the use of short-handled hoes in most agricultural labor.

Texas adopted a comprehensive new child labor law setting 14 as the basic minimum age for employment, requiring the Labor Commissioner to determine hazardous occupations for workers under age 18. The law also prescribes hours of work restrictions, and provides for age certificates and the issuance of individual variances. In other States, most of the changes in child labor law involved the easing of either nightwork restrictions (Alaska, Connecticut, Florida, Maine, and Oregon) or of certificate requirements. New Jersey, Virginia, and West Virginia passed laws permitting minors to participate in activities of volunteer fire departments or rescue squads.

In a year designated as the International Year of Disabled Persons, State interest in furthering equal opportunity for handicapped individuals was reflected in the enactment of laws in 13 States, to provide new or expanded employment rights or opportunities. Among the more significant were a new equal-employment-for-the-handicapped law in Georgia; an amendment to the Civil Rights Act in Oklahoma, adding discrimination because of handicap to the list of unfair employment practices; and an amendment to the Vermont antidiscrimination law, prohibiting discrimination in employment based on physical or mental condition. Tennessee and Texas provided for alternate forms of testing handicapped job applicants. Other States extended protection from discrimination to additional classifications of handicapped individuals including those with mental impairments and the aurally handicapped.

Other forms of employment discrimination were the subject of legislation in 18 States. Among the more

significant, public employees were made subject to the Hawaii Fair Employment Practice law, and the prohibition against sex discrimination was defined to specifically include discrimination because of pregnancy and related medical conditions. Connecticut also defined sex discrimination to include matters relating to pregnancy or related medical conditions, and also required that employees be informed of substances involved in the job which might cause birth defects, or be hazardous to a worker's reproductive system or to the fetus. Employment, transfers, or promotions may not be conditioned on the sterilization of the employee. A new law in Alaska prohibits sex discrimination in employment in public education.

In an area of emerging interest, California established a policy of "comparable worth" in setting salaries in State government in jobs dominated by women, on the basis of the value of the work performed. Resolutions were passed in Hawaii urging all employers to adopt this concept of equal pay for work of comparable value.

The antidiscrimination law in Vermont was amended to prohibit age discrimination, and mandatory retirement because of age was prohibited except for police officers, firefighters, and tenured employees of colleges and universities. The upper age limit in the ban on age discrimination in employment was raised from 65 to 70 in Georgia and Oregon. Although Nevada, which formerly had no age limits, made the prohibition on age discrimination inapplicable to those not between age 40 and 69.

Legislation for the benefit of veterans was enacted in a number of States. These laws either provide preference in public employment for veterans or their spouses, or establish training programs or seminars to further employment opportunities.

There is extensive State interest in developing legislative remedies to alleviate the impact of plant closings on workers and communities. Measures of this nature were proposed in 19 legislatures this year but not adopted. Although the proposals are not identical, they share one or more features, such as advance notice, severance pay, entitlement to retirement benefits, creation of a community assistance fund and, sometimes, employee option to purchase the plant. The only laws enacted in the past are a 1975 Wisconsin statute requiring that the State labor department be notified in advance of any closings, and a Maine law, expanded this year, which requires advance notification to the labor department, the employees, and the municipality, and severance pay to employees. Connecticut created a committee to study plant relocation and mass layoffs and to make legislative recommendations to the 1982 General Assembly.

California prohibited awarding of State contracts to contractors found to be in violation of a National Labor Relations Board order more than once in the pre-

ceding two years. Similar laws were enacted in Michigan, Ohio, and Wisconsin in 1980 and in Connecticut in 1979. Among other labor relations laws, local public employees in California were authorized to negotiate agency shop agreements, collective bargaining rights were extended to county employees in Maine, and North Carolina prohibited strikes by public employees.

Twelve States enacted legislation affecting the regulation of private employment agencies. Most significant actions were in South Dakota, which repealed its law; Montana, where maximum placement fees charged by agencies will no longer be set by statute; and South Carolina, where licensing and enforcement authority were removed from the Department of Labor, and rule-making, investigatory, and penalty provisions were deleted from the law. Licenses in South Carolina will now be issued by the Secretary of State, and enforcement will be by court action. Several amendments were made in the Ohio law, including a ban on registration fees, tightened restrictions on misleading advertising, and requirements that applicant contracts be in writing and placement fees refunded in certain circumstances. Maximum placement fees for jobs paying less than \$13,000 annually are now set by statute.

Five States: Connecticut, Illinois, Louisiana, Ohio, and Oregon, amended individual statutes in 1981 to protect from employer retaliation an employee who reports a violation of law or participates in an enforcement proceeding. Michigan adopted a separate "Whistleblowers' Protection Act" to afford such protection to all employees in both the private and public sectors.

The following is a summary, by jurisdiction, of labor legislation during 1981.

Alabama

Wages. Up to 40 percent of a parent's weekly disposable earnings are now subject to court-ordered garnishment for child support.

Alaska

Wages. By prior law, which sets the minimum wage at 50 cents per hour above the Federal rate, the minimum wage rate rose to \$3.85 on January 1, 1981.

Orders for support of a minor child now have priority over all other assignments or garnishments, and must contain an income assignment order, with 50 percent of gross wages or \$100 a week, whichever is less, exempt from assignment. Employees may not be discharged on the basis of this assignment.

Child labor. Restrictions for minors under 16 were relaxed to permit work as early as 5 a.m. and until 9 p.m. Previously, minors could not work before 6 a.m. or after 7 p.m.

Equal employment opportunity. Sex discrimination is now prohibited in employment in public education. No difference is allowed between the sexes in conditions of employment or advancement opportunities, and affirmative action procedures are to be developed by the State Board of Education, which will administer this law. Career counseling services must stress

access to opportunities without regard to sex.

Arizona

Private employment agencies. The law regulating private employment agencies no longer applies to agencies which do not charge a fee to job applicants.

Employment and training. Among numerous limitations placed on State agency competition with private enterprise, the Department of Economic Security, which administers the public employment service, is expressly prohibited from engaging in activity not prescribed by Federal or State law or Federal regulation, and may not participate in radio, television, or newspaper advertising of specific job openings unless prescribed by Federal law.

Other laws. Training programs receiving State assistance under the Work-Site Education and Training Act must now ensure training on a priority basis to Vietnam era veterans in addition to other groups previously specified.

Arkansas

Wages. The minimum wage rate was increased from \$2.70 an hour to \$2.80 effective January 1, 1982 with a further increase to \$2.95 scheduled for January 1, 1983. In addition, the maximum tip credit allowance permitted was changed from a dollar amount to 50 percent of the minimum wage.

California

Wages. Prior wage orders provided for an increase in the minimum hourly wage rate from \$3.10 to \$3.35 effective January 1, 1981.

Compensation of prison inmates for productive work in prisons was changed from a previous rate range of 2 cents to 35 cents an hour, to a rate not to exceed half the minimum wage.

The prevailing wage law threshold amount was increased from \$500 to \$1,000.

Ski establishment employers may arrange a regularly scheduled workweek of up to 56 hours without being in violation of overtime pay regulations, provided employees receive premium rates after 56 hours.

Equal employment opportunity. A new measure, effective in January 1982, established a policy of "comparable worth" in setting salaries based on value of work for women-dominated jobs in the State service. Also, the Department of Personnel Administration is to examine comparable worth studies done by other jurisdictions and make an annual report on them to the legislature, and to the exclusive bargaining agent of State employees prior to collective bargaining.

Compulsory retirement, otherwise prohibited for employees who wish to and can continue working, will be permitted for physicians who have attained age 70 and are employed by a professional medical corporation with bylaws on compulsory retirement.

The Fair Employment and Housing Commission was transferred from the Department of Fair Employment and Housing to the State and Consumer Services Agency. Under the same law, apprenticeship programs are no longer exempted from the prohibited age limitations in the age discrimination law.

Prohibitions on sex discrimination in employment may not affect the right of an employer to provide preferences for veterans and their surviving spouses. The law also prohibits the use of State funds to challenge this provision in court (an existing regulation provides that veterans preference may not

be used as a basis for selection unless work performed during military service is related to job performance, except where required by a constitutional provision authorizing such preference in the civil service, or by Federal law). A similar new law also allows employers to give special consideration to Vietnam era veterans.

Worker privacy. The law prohibiting employers from compelling employees or applicants to take a lie detector or similar test, now requires the employer, before requesting that the test be taken, to advise the employee in writing of the prohibition against compulsion.

The Department of Justice was authorized to furnish records of convictions to nonprofit corporations or other organizations, as specified by the Attorney General, involving sex crimes of persons who apply for employment, or volunteers for positions involving supervisory or disciplinary power over minors.

Labor relations. Local public agencies and their unions may now negotiate agency shop agreements. Religious or conscientious objectors may alternatively be required to pay sums, equaling union fees, to a nonreligious, nonlabor, charitable fund.

A new law was enacted governing local public transportation labor disputes, except for those involving local public agencies subject to other collective bargaining legislation. It provides for the exchange of contract proposals and data between the parties and for mediation of disputes. Where a strike or lockout appears likely, the Governor may appoint a board to investigate the issues and make a written report. Any strike or lockout during the period of investigation is prohibited.

Garment industry. A late 1980 law requires all garment industry manufacturers, jobbers, and contractors to register annually with the State Labor Commissioner, beginning July 1, 1981, and to keep certain hour, wage, production, and contract price records. Failure to register or doing business with an unregistered contractor may result in penalties, including fines and garment confiscation.

Private employment agencies. Agents for professional athletes are now to be licensed and regulated by the Labor Commissioner. Agents must deposit a \$10,000 bond and may not engage in certain practices.

Employment agencies which use a computer system as their only means of procuring employment for clients, are no longer limited to a nonrefundable fee of \$20. However, the fee to be charged for furnishing such services must be clearly stated in the contract.

Employment and training. The Director of Corrections is authorized to conduct demonstration industrial enterprises for prerelease work training of inmates. Inmates may be paid wages prevailing in comparable industries in the State, and wage deductions may be made for room and board, the California Victim Indemnity Fund, family support, savings, and personal expenses.

A California Welfare Employment Skills Training Act, administered by the Employment Development Department, provides for a program to give Aid-to-Families-with-Dependent-Children recipients vocational training and job placement assistance, so they may acquire marketable job skills.

Under the provisions of a new law, unemployed parents who do not qualify for Aid-to-Families-with-Dependent-Children

under Federal standards, but who qualify for the State program, are to receive priority for employment and training services under certain existing programs, and special pilot projects to provide on-the-job training are to be developed for these individuals. This act will become operative only if funds are made available by the legislature.

Other laws. State contracts are to contain a sworn statement by the contractor that no more than one final finding of contempt of court has been issued against the contractor within the last 2 years because of failure to comply with a Federal court order, enforcing a ruling of the National Labor Relations Board. In case of a false statement, the State may rescind the contract.

Public entities may not permit any peace officer to be employed by a private sector employer as a security guard at the site of a strike, lockout, picketing, or other labor dispute which occurs in the same jurisdiction where the peace officer is regularly employed or on loan.

Colorado

Wages. Payment bonds must now be furnished on public works contracts exceeding \$50,000, rather than on those exceeding \$10,000 as was previously required.

Equal employment opportunity. The Division of Correctional Industries was authorized to contract for the training or employment of offenders, with training to be in accordance with standards set by the Department of Labor and Employment whenever possible. Wages earned under the program are to be used to compensate the offender's victims, pay support to the offender's dependents, defray costs of confinement, and establish a trust fund for the offender payable upon release.

Occupational safety and health. Coal mine inspections need now be made only once rather than four times annually, and inspections will be made only of mines in which an average of less than 75 full-time workers were employed during the preceding calendar year. Mines of larger size are deemed to affect interstate commerce and therefore are subject to Federal inspection.

Connecticut

Wages. By prior law, the hourly minimum wage increased from \$3.12 to \$3.37 on January 1, 1981.

Child labor. Minors age 16 and 17 may now work until 11 p.m. (rather than 10 p.m.) on days preceding schooldays, in restaurants or as ushers in nonprofit theaters.

Equal employment opportunity. Prohibited discrimination on the basis of sex was defined to specifically include matters relating to pregnancy, child bearing capacity, sterilization, fertility, or related medical conditions. Employers must inform employees and job applicants of substances involved in the job which may cause birth defects or be hazardous to a worker's reproductive system or to a fetus. Employment, transfers, or promotions may not be conditioned on the sterilization of the employee.

Labor relations. The State Labor Relations Act was amended to provide that an agent investigating complaints or violations referred by the State Board of Labor Relations shall not disclose any confidential communication made during the investigation, unless authorized by the party making such

communication. Similarly, mediators appointed by the labor commissioner are now subject to the same restrictions.

No private employer or employee organization, involved in a labor dispute, may hire any member of a municipal police department in the town in which the dispute is taking place, for protection or other duties related to the dispute.

Private employment agencies. The surety bond that each employment agency must post was increased from \$5,000 to \$7,500, and agency license fees increased from \$75 to \$150.

Occupational safety and health. Any employee who believes there is a violation of the information and notice requirements for employers using or producing carcinogens may now request an inspection by filing a written complaint with the Labor Commissioner who is authorized to investigate and to assess civil penalties for violations. Retaliation against an employee for filing a complaint is prohibited.

Employment and training. The Department of Labor was authorized to contract with local and regional boards of education to provide full-time programs for adult basic education for qualified Work Incentive Program registrants.

Other laws. A committee consisting of legislative, labor, management and municipal representatives was created to study all aspects of plant relocation and mass layoffs, and to make recommendations for legislation to reduce the hardships.

Delaware

Child labor. An 18- or 19-year-old child of a liquor store retailer may be employed in the store, except in the sale or service of liquors (20 is the minimum age otherwise applicable).

District of Columbia

Wages. Wage Order Number 12, applicable to occupations not covered by other wage orders, was revised effective October 31, 1981 to increase the minimum wage rate for parking attendants to \$3.40 an hour, provided that at least 40 cents an hour is received in tips; for car wash attendants to \$3.50 provided that at least 15 cents an hour is received in tips; for day labor ticket takers and ushers to \$3.75; and for all other occupations from \$2.75 an hour to \$3.90.

Wage Order Number 10, applicable to hotel, restaurant, apartment building and allied occupations was also revised to increase the minimum hourly rate from \$2.80 to \$3.80, effective January 2, 1982. Among other changes, the maximum tip allowance against the minimum wage was increased from \$1.45 an hour to \$1.95, and the minimum hourly rate for employees under the age of 18 was raised from \$2.25 to \$3.35.

Florida

Agriculture. The law providing for the licensing and regulation of migrant labor camps, which was scheduled for repeal on July 1, 1982 under sunset legislation, was extended to October 1, 1983.

Child labor. Numerous changes were made in the child labor law. Employment certificate provisions for children age 12 through 15 were repealed. Age certificates are authorized for such children, as well as for 16- and 17-year-olds, although employers may accept other forms of proof of age. Children are no longer permitted to work during school hours in domestic work or farm labor for their own parents. Nightwork restrictions for 16- and 17-year-olds were relaxed to allow work until 1 a.m. on days preceding schooldays, although in-

dividual variances had been allowed before.

Waivers of the child labor restrictions may be granted by the Division of Labor, on a case-by-case basis, if in the best interests of the child. High school graduates, minors who have served in the Armed Forces, and legally emancipated minors are exempted from coverage. Also, married minors and those with court approved employment continue to be exempt.

Equal employment opportunity. The prohibition under the Human Rights Act, against mandatory retirement, will not apply where individual applicants fail to meet bona fide job requirements. Nor will it apply where employment would require changes in bona fide retirement or pension programs or existing collective bargaining agreements during the life of the contract or until October 1, 1983, whichever is first. Employers may require physical examinations of applicants and employees to determine job fitness.

Labor relations. The definition of public employees, for collective bargaining purposes, was amended to exempt persons in inspection positions in Federal-State fruit and vegetable inspection service, persons employed by the Public Employees Relations Commission, and graduate and undergraduate students enrolled and employed by the State University System.

Occupational safety and health. Among changes to the law regulating elevators, annual safety inspection is now required, except that those elevators covered by a safety maintenance contract must be inspected every 2 years.

Employment and training. A new Public Assistance Productivity Act provides for the Department of Health and Rehabilitative Services to plan, integrate, and coordinate employment related services for public assistance recipients, and directs it to help fund a privately administered demonstration pilot project designed to reduce welfare costs and provide viable work opportunities to AFDC recipients.

The Department of Corrections is to lease the facilities of the prison industry program to a private nonprofit corporation organized solely for the purpose of operating the program. Deductions are to be made from prisoner wages for lodging, food, and other maintenance expenses, and for payments to dependents and crime victims.

Georgia

Wages. Employee pensions subject to the Federal Employee Retirement Income Security Act of 1974 (ERISA) are subject to garnishment only for alimony or child support, and then only when the benefits are currently due and payable or transferable to the pension plan's member or beneficiary.

Child labor. The minimum age for employment was lowered from 14 to 12. Formerly children 12 and 13 were permitted to work only in stores (with permits) and in occupations exempt at any age—agriculture, domestic service, and family employment. Prohibitions on specific occupations for minors under 16 were removed, and the Commissioner of Labor was given rulemaking authority to declare occupations hazardous. Changes were also made in the certificate provisions.

Equal employment opportunity. The upper age limit in the ban on age discrimination in employment was raised from 65 to 70.

A new equal-employment-for-the-handicapped law prohibits discrimination based on physical or mental impairment (other

than drug or alcohol addiction) which substantially limits normal function. The law applies to both public or private employers of 15 or more persons, labor organizations, employment agencies, and to apprenticeship and other training programs, and will be enforceable in the courts.

A 15-member Commission on Women's Opportunities was created to study statutes, regulations and agency practices, to determine whether any distinction, exclusion, or preference is made based on sex, affecting equal employment opportunities. A report and recommendations are to be made to the Governor and the Legislature prior to the 1983 legislative session. The Commission may not make a recommendation on the merits of the Equal Rights Amendment to the United States Constitution.

Veterans' services are to be provided for surviving spouses of veterans, rather than only to widows as before, and veterans' preference in employment in the State Department of Veterans Service was also extended to widowers of veterans.

Guam

Wages. The minimum wage rose to \$3.35 an hour on January 1, 1981, under a prior law which adopted the Federal Fair Labor Standards Act rates by reference.

A Child Support Employment Office was established in the Department of Public Health and Social Services, and the courts were authorized to order garnishment of wages or pensions for child support.

Hawaii

Wages. By prior law, the minimum wage rate was increased from \$3.10 to \$3.35 an hour effective July 1, 1981.

Employment under the work release plan of a youth correctional facility may now be at a wage less than the minimum wage, provided that no more than five hours of a person's work week will be paid at the subminimum rate.

Equal employment opportunity. Employees of State and local government are now subject to the Fair Employment Practice law, and prohibition against sex discrimination was defined to specifically include discrimination because of pregnancy, childbirth, or related medical conditions. Investigation and enforcement authority and procedures are now spelled-out in greater detail.

House and Senate resolutions were passed expressing concern over inequities in the salaries of women, and urging all employers to adopt the concept of equal pay for work of comparable value.

Other laws. The protection against suspension or discharge from employment because of wage garnishment, employee bankruptcy, or work injury, was extended to include an employee's testimony or being subpoenaed to testify in proceedings relating to any such suspension or discharge.

Another law specifically prohibited discrimination against an employee, in addition to discharge or suspension, because of garnishment, employee bankruptcy, or work injury.

Illinois

Wages. The requirement in the wage payment act that an employer notify the State Department of Labor of the amount of wages to be withheld when the amount or legitimacy of the deduction is in dispute, was amended to require the employer to also state in writing the reasons for withholding payment.

Courts may require an assignment of wages to enforce an order for child or spouse support. Employers may not dis-

charge or discipline an employee as a result of such an assignment.

Agriculture. Migrant labor camps housing fewer than 10 migrant workers or four families must now meet certain specified safety and health standards and be open to inspection by the Department of Public Health, although a license is not required.

Worker privacy. Local governments and school districts may obtain information on convictions from the Department of Law Enforcement for use in evaluating the character and qualifications of employees and job applicants.

Other laws. The identity of any State employee who reports the violation of any law, rule, regulation, or mismanagement, may not be revealed during an investigation, and no disciplinary action may be taken against the employee.

Indiana

Employment and training. The Department of Commerce is to establish an industrial training program to train and upgrade the skills of potential employees of new or expanding industries.

Iowa

Labor relations. The law requiring that official meetings be open to the public was amended. It now exempts meetings of governmental bodies held to discuss strategy, involving negotiations with employees not covered by collective bargaining agreements.

Louisiana

Wages. An individual may not be denied employment or discharged because of a voluntary or involuntary assignment of wages.

Child labor. School records will no longer be required as a prerequisite for the issuance of street-trades permits or certificates for the employment of minors under 16 outside school hours during the school term.

Private employment agencies. Among changes to the employment agency regulatory law, the Private Employment Service Advisory Council was reconstituted to include three representatives from the industry, and one representative each from labor and consumer interests.

Occupational safety and health. Reprisals were prohibited against employees who report or complain of possible environmental violations. For infraction of the ban, in addition to other available remedies, an employee may bring civil action against the employer to recover triple damages and court costs including attorney's fees.

Employment and training. The Occupational Information Coordinating Council and the Governor's State Employment and Training Council were transferred to the Department of Labor.

Other laws. A new law gives preference in the awarding of nonconstruction public contracts to in-State vendors, over vendors from those States which favor their resident vendors over those from Louisiana. Public works construction contractors have been protected by a similar law.

Maine

Wages. The minimum wage rate was increased to \$3.35 an hour on January 1, 1981, under a prior law which provided for matching State increases to the Federal rate, up to a maximum \$4 rate.

The minimum qualifying salary for exemption from the minimum wage law as an executive, administrative, or professional employee was increased from \$150 to \$175 a week.

The law permitting wage deductions to repay an employee's debt to the employer was restricted to a debt of benefit to the employee, and banned deductions for such items as cash or inventory shortages, dishonored checks or credit cards, damage to the employer's property, or merchandise purchased by a customer.

Hours. A law was enacted permitting State government employees to work alternative work schedules including flexible hours, part-time work, and job sharing.

Child labor. Nightwork restrictions were amended to permit 15-year-olds to work until 10 p.m., rather than 9 p.m. as before. The starting time of 7 a.m. was unchanged.

Equal employment opportunity. In an effort to expand work opportunities for handicapped citizens, the State Purchasing Law now permits giving preference to goods or services produced by in-State sheltered workshops.

Labor relations. Collective bargaining rights, previously granted to employees of municipalities, schools, and special districts, were extended to county employees.

An employer may not cancel a group health insurance policy during a strike until the insured employees have been notified.

Occupational safety and health. Penalties were established for refusing to comply with the requirement that information be provided to employees about the identities and hazards of chemicals in the work area by such means as labels, chemical identification lists, and education and training.

Other laws. The name of the Department of Manpower Affairs was changed to the Department of Labor, and the name of the Bureau of Labor was changed to Bureau of Labor Standards.

In addition to making severance payments to employees and notifying the Director of the Bureau of Labor 60 days in advance of relocating or terminating an establishment, employers of 100 or more persons must now also notify employees and municipal officers at least 60 days before relocating an establishment outside the State.

Maryland

Wages. The minimum wage rate rose to \$3.35 to match the Federal rate under the existing State law which conforms to the Fair Labor Standards Act rate by reference.

Those agricultural employees who are subject to the State minimum wage are to be paid time-and-a-half their usual hourly wage rate for work after 60 hours per week.

Equal employment opportunity. Employment discrimination against public school teachers because of handicap was prohibited, unless the handicap adversely affects the person's ability to perform the duties of the position.

Private employment agencies. Private employment agencies whose fees are completely employer-paid and that do not require job applicants to sign a contract are not subject to the agency licensing and regulatory law.

Occupational safety and health. Temporary help firms may not permit their employees to work in confined spaces such as tanks, tunnels, vats, and sewers, without written authorization of the Commissioner of Labor and Industry based upon a satisfactory showing of adequate worker protection, or without an approved variance.

Employment and training. A State Use Industries Organization was established to develop industries to provide full-time work experience or rehabilitation programs for eligible prison inmates.

Massachusetts

Wages. The minimum wage rose to \$3.35 an hour on January 1, 1981, under provisions of a 1977 amendment.

Child labor. An exception was made to the hazardous occupations restrictions on minors under 18, permitting 16- and 17-year-old minors to be employed, consistent with Federal law, if enrolled in State or local cooperative vocational training programs under specified circumstances. Formerly the exception applied only to agricultural training programs.

Equal employment opportunity. Conscientious objection to abortion may not be grounds for dismissal, discrimination in hiring, failure to promote, or withholding of pay.

A special commission was established to study the concerns of Vietnam era veterans, including government programs and practices relating to employment, re-employment, retraining, and rehabilitation.

Labor relations. Among various changes involving the Board of Conciliation and Arbitration, the Board is now an independent agency, composed of a permanent chairperson who is authorized to appoint one labor and one management representative to the Board on a case-by-case basis.

Michigan

Wages. By prior law, the minimum wage increased from \$3.10 an hour to \$3.35 on January 1, 1981.

Constitutionality of the prevailing wage law, which relies solely on collectively-bargained rates to determine prevailing rates, was upheld by the State Court of Appeals. The appellate court reversed a lower court decision which had held the statute to be an unconstitutional delegation of legislative authority because of its method of rate determination.

Child labor. A minor may not work after sunset or 8 p.m., whichever is earlier, in an occupation that involves a cash transaction, unless an adult is present.

Equal employment opportunity. Among changes to the civil rights act for handicapped persons, coverage was extended to the restored mentally ill; employers were specifically required to accommodate handicapped persons unless it would impose an undue hardship. A union may not, because of a member's handicap give inadequate representation in a grievance process. Public contracts for the State or political subdivisions must include a prohibition against discrimination because of a

handicap that is unrelated to the individual's ability to perform a particular job, and the Civil Rights Commission was given rulemaking authority.

Other laws. A "whistleblowers' protection act" was passed, prohibiting reprisal against public or private sector employees who report, or are about to report, any violation of a State, local, or Federal law, or who participate in an investigation, hearing, inquiry or court action. An employer may not discharge, threaten, or otherwise discriminate against such an employee. The employee may bring a civil action for injunction or damages or both, and the court may order reinstatement, back pay, and other relief.

Coverage of the law on standards of conduct for State employees was amended to include elected or appointed officials. New protections from adverse actions for public officers or employees who report or are about to report violations were added, and provision was made for bringing civil action against violators.

Minnesota

Wages. By prior law, the minimum wage rose from \$2.90 an hour to \$3.10 effective January 1, 1981. A further increase to \$3.35 is scheduled for January 1, 1982.

Employee payments for required uniforms, special clothing, equipment, and certain travel expenses are to be subtracted from wages paid in calculating whether minimum wage requirements are met.

Overtime pay requirements will not apply to employers of sugarbeet hand laborers who are paid on a piece-rate basis, provided that the regular hourly rate of pay exceeds the minimum wage rate by at least 40 cents. This provision was to expire December 13, 1981.

Agriculture. A new law requires employers using agents to recruit out-of-State migrant workers to provide each worker, at the time recruited, with a written employment statement of the minimum duration of employment, working conditions, wages, and housing provision if any. Workers are to receive a minimum of 70 hours pay, at no less than the Federal minimum wage, in any two consecutive weeks, unless work is unavailable due to weather conditions. Workers are also to receive a written pay statement itemizing deductions from wages. Workers may bring a civil action in case of violation.

Equal employment opportunity. Individuals may now file equal employment opportunity complaints directly in the district court instead of seeking prior administrative resolution, and the Commissioner of Human Rights was authorized to adopt policies to determine the order in which charges are to be processed. Reprisals against persons who have taken part in actions under this law were defined to include any form of intimidation, retaliation, or harassment.

The enforcement provisions of the Human Rights Act were amended. Penalty payments may now include damages for mental anguish and suffering, and the maximum award of punitive damages was raised.

Worker privacy. The law regulating the collection and dissemination of data by State agencies was amended to, among other things, classify labor relations information on specific labor organizations, as nonpublic data, and to permit the dissemination of personnel data to unions when it is determined that the information is needed for elections and other purposes.

Labor relations. The definition of public employee under the Public Employment Labor Relations Act was amended to exclude part-time instructors in adult vocational education programs.

An exception was made to the State open meeting law permitting public employers to hold closed meetings to determine strategy for labor negotiations. Such sessions must be tape recorded and must be available to the public after negotiations are completed and a contract signed.

Mississippi

Hours. Restrictions on hours of work for persons over age 16 were removed. Hours had been limited to 10 per day in canneries, workshops, mills, factories, or manufacturing establishments. Night workers had been limited to 60 hours per week.

The law which prohibited a female from working more than 10 hours a day or 60 hours a week was repealed.

Missouri

Wages. In January 1981, the State Supreme Court upheld the rate determination methodology, used by the Labor and Industrial Relations Commission under the prevailing wage act.

Hours. The maximum 8-hour day in any mining, mechanical, chemical manufacturing, or smelting business was amended to allow additional hours with the employee's consent.

Montana

Wages. The minimum wage was increased from \$2.00 an hour to \$2.50 effective July 1, 1981 with a further increase to \$2.75 scheduled for July 1, 1982. The minimum amount that may be paid to seasonal farm workers on a monthly basis in lieu of the minimum hourly rate was increased from \$460 to \$575 a month on July 1, 1981, and to \$635 a month beginning July 1, 1982.

The labor department was granted subpoena power to compel the production of payroll records in case of public contractor refusal. Also, bid specifications and contracts are now to include the prevailing wage rates that are to be paid. Failure to do so relieves the contractor of his obligation to pay the prevailing wage rate and places such obligation on the contracting agency.

Private employment agencies. The maximum placement fees charged by private employment agencies will no longer be regulated by statute, but will now be determined by the agencies themselves. These fees were specifically made not subject to disapproval by the Commissioner of the Department of Labor and Industry. Agents for professional athletes were specifically exempted from the employment agency regulatory law.

Nevada

Wages. The prevailing wage law was amended to exclude construction projects costing less than \$4,000 as well as contracts directly related to the normal operation of the government agency or the normal maintenance of its property, and contracts awarded to meet emergency situations resulting from natural or man-made disasters.

Payment bonds must now be furnished on all public works contracts exceeding \$5,000, rather than on those exceeding \$2,000 as was previously required.

Employers may not discharge or take disciplinary action against an employee because of court ordered wage assignment for child support.

Equal employment opportunity. Discriminatory actions based on an employee's age will not be considered unlawful if the person is less than 40 or more than 69 years of age. Formerly there were no age limits in the law.

The ban against unlawful job discrimination was extended to cover the hearing impaired (in addition to visual or physical handicap and other bases). It is unlawful for an employer to refuse to permit a hearing impaired employee to keep a hearing dog with him or her.

The labor commissioner is authorized to approve and regulate 6-month to 2-year programs for training in actual employment for veterans in occupations which do not offer programs of apprenticeship. Such programs must comply with Federal and State equal employment opportunity laws.

Worker privacy. A separate polygraph examiners licensing and regulatory law was enacted. Formerly, polygraph examiners were regulated along with private investigators, patrolmen, process servers and repossessioners. The new law gives the examinee the right to refuse to answer any question which would tend to incriminate or degrade him. The person to be examined must be told of the purpose of the examination and consent to it in writing. The examination must not be conducted for the purpose of interfering with or preventing lawful activities of organized labor. Inquiries into the examinee's religion, political or labor organization affiliations, or sexual activities are prohibited unless germane and made at the request of the examinee.

Public agencies may request information from the FBI on the personal history of any person who is an applicant for a license or employment.

Occupational safety and health. Among amendments to the occupational safety and health law, a notice may be issued (in lieu of a citation) in cases of violations which are not serious and which the employer agrees to correct within a reasonable time. Also, temporary variances from standards adopted under the law will no longer be granted. Employers may still apply for permanent variances.

A comprehensive statute was enacted to control the generation, transportation, treatment, storage, and disposal of hazardous waste, and a separate statute instituted controls over the transport and disposal of radioactive, chemical, and other hazardous materials.

New Hampshire

Wages. By prior enactment, the minimum wage rate rose to \$3.35 an hour on January 1, 1981 to match the Federal rate.

Equal employment opportunity. The Commission on the Status of Women which was to be terminated on July 1, 1981, under sunset legislation, was extended to July 1, 1987.

Occupational safety and health. The law regulating the management of hazardous wastes was amended to, among other things, require permits to transport such materials, and to prohibit employers from retaliating against employees for reporting violations as required by law.

The State Civil Defense Agency was directed to initiate and carry out a radiological emergency response plan for each nuclear electrical generating plant, in order to deal with the effect of nuclear incidents or accidents.

New Jersey

Wages. The minimum wage rate was increased from \$3.10 an

hour to \$3.35 effective January 1, 1981. The rates for minors, whose minimum wage coverage is derived from wage orders rather than statute, were also increased to \$3.35, without any youth differential based on age alone.

A New Jersey Building Authority was established to construct and operate office buildings and related facilities to meet the needs of State agencies. The Authority is to pay prevailing wage rates, as determined by the labor commissioner, to workers employed on its construction projects, and is to establish an affirmative action program for the hiring of minority workers.

Child labor. Activities of 16-to 18-year-olds in any Junior Firemen's Auxiliary were specifically exempted from hazardous occupation restrictions in the child labor law. (Junior firemen cannot be required to perform duties exposing them to the same degree of hazard as regular members of a volunteer fire company). Restrictions on employment of minors under 16 in theatrical productions were eased.

Equal employment opportunity. The law against discrimination in employment was amended to include discrimination on the basis of a person's atypical hereditary cellular or blood trait, including sickle cell, cystic fibrosis, or Tay-Sachs.

Private employment agencies. Temporary help service firms are no longer subject to the private employment agency regulatory law, provided that no fee is charged any employee. Such firms may not prevent employees from accepting other employment, or knowingly send employees to places where strikes or lockouts are in progress.

New Mexico

Wages. By prior law, the minimum wage rate was increased from \$2.90 an hour to \$3.35 effective July 1, 1981. The farm rate rose to \$3.10 on July 1, 1981, with a further increase to \$3.35 scheduled for July 1, 1982.

School attendance. A minor may be excused from compulsory school attendance at age 16, with parental consent, if he or she will be employed or engaged in an alternative form of education. Formerly the child could leave school on completion of the 10th grade, at whatever age, after a consultation between child, school officials, and parent, with no employment or other education requirement.

Other laws. The Human Rights Commission, the Labor and Industrial Commission, and the Office of Labor Commissioner, scheduled for termination under sunset legislation, were extended to July 1, 1987.

New York

Wages. By prior law, the minimum wage rate for nonagricultural workers was increased from \$3.10 an hour to \$3.35 on January 1, 1981.

The wage payment law was amended to require employers to notify employees of the company policy on sick leave, vacation, personal leave, holidays, and hours, through written or posted notice.

Employers must have the advance written consent of an employee before depositing his or her pay directly in a bank or other financial institution.

The labor commissioner, rather than the fiscal officer, will now determine the rate of interest to be imposed by orders

directing the payment of wages or supplements, found to be due under the minimum wage act or the wage payment law.

Labor relations. Provisions in the civil service law for mediation and arbitration of collective bargaining disputes by the Public Employment Relations Board, due to expire July 1, 1981 were extended for 2 years.

Garment industry. A Garment Industry Job Retention Act was enacted, directing the Industrial Commissioner to study the garment manufacturing industry and the industrial homework process, including the feasibility of registration or licensing and bonding of employers in the garment industry. The study will also deal with labor standards practices and violations, and the adequacy of health and safety conditions. An advisory committee on garment manufacturing will be appointed to assist in the study, consisting of representatives of a cross section of the industry. Enforcement authority and penalty provisions were strengthened in the industrial homework law.

Occupational safety and health. The transportation law and the vehicle and traffic law were amended regarding the regulation of the transportation of hazardous materials. Rules and regulations are to cover transportation by highway, railroad or water, and are to be no less protective than those established by the Federal government. Hazardous materials were defined, training and education programs are to be established, and penalties were established for violation.

Employment and training. A pilot project to improve and expand employment opportunities for senior citizens through job development and placement efforts was established, to be implemented and administered by the Industrial Commissioner of the Department of Labor, in consultation with the Director of the State Office for the Aging.

Other laws. Contractors engaged in performing work or services, or providing goods to the State in an amount exceeding \$5,000 are prohibited from participating in an international boycott in violation of Federal law. Contracts will not be let to contractors who have previously participated in such boycotts.

North Carolina

Wages. The minimum wage rate was increased from \$2.90 an hour to \$3.10 effective January 1, 1982 with a further increase to \$3.35 scheduled for January 1, 1983. The law will now be applicable to employers of three or more rather than four or more as before.

Among other amendments to the wage and hour act, the subminimum wage rate for full-time students, learners, apprentices, and messengers will now be 90 percent of the basic minimum rate rather than a fixed dollar amount. Also, changes were made in some of the wage deduction provisions, and in the exemptions from minimum wage, overtime, youth employment, and record-keeping requirements.

Hours. A work-options program for State employees providing for flexible work hours, job sharing, and permanent part-time positions was established, to be administered by the State Personnel Commission.

Child labor. Among various changes in the youth employment law, youths 14- and 15-years of age may now be employed only in occupations permitted under the Fair Labor Standards

Act (FLSA). Minors under 18 are still prohibited from working in occupations declared hazardous under FLSA. However, now the Commissioner of Labor may, after public hearing, declare additional occupations to be prohibited. Youths under 18 may not prepare or serve alcoholic beverages and youths under 16 may not be employed on the premises where such beverages are served. FLSA-covered employers, who have been exempt from all but the certificate provisions, will be subject to the prohibitions on occupations declared detrimental by the Commissioner and to the alcoholic beverage restrictions.

Worker privacy. The law restricting the dissemination of information contained in city and county personnel records was amended to, among other things, authorize the release of information concerning specific personnel actions when it is determined in writing that the release is essential to maintaining public confidence in the administration of city or county services.

Labor relations. A new law was enacted prohibiting strikes by public employees.

Any State employee may voluntarily authorize, in writing, dues deductions for membership in a State employee's association, provided the association has at least 5,000 members and does not engage in collective bargaining.

North Dakota

Wages. Among other rights, persons with developmental disabilities performing labor of economic benefit for a public or private institution from which they are receiving treatment or other services, are entitled to receive wages commensurate with the value of the work performed and in accordance with applicable Federal and State laws.

Employees may not be discharged because their wages have been garnished for any reason (a prior law provides for protection against discharge as the result of wage assignment for child support payments). Also, wage garnishment for support payments will now be limited to 50 percent of disposable earnings if another spouse or child is being supported or 60 percent if not.

Court-ordered wage assignments and orders to withhold wages for child support payments are now subject to the limitations on withholding set by Federal law.

Ohio

Private employment agencies. Among several changes in the Private Employment Agency Licensing Law, maximum placement fees for jobs paying less than \$13,000 annually are now set by statute. Registration fees were banned, restrictions designed to prevent misleading advertising were tightened, contracts with job applicants must be in writing, and placement fees must be refunded under specified circumstances.

Other laws. An employer may not discharge or threaten to discharge any permanent employee who is summoned for jury duty and who gives reasonable advance notice.

As part of a comprehensive surface mining control act, employers are prohibited from retaliating against employees filing a complaint or participating in any proceedings under the law.

Oklahoma

Wages. Among amendments to the prevailing wage law, Federal Davis-Bacon rates will now be used where available, a new procedure was adopted for rate determination in the absence of such rates, a Wage Appeals Board was established,

and fringe benefits were added to the definition of a prevailing hourly rate of wages.

The required posting of a wage payment bond by coal mine employers was repealed.

Equal employment opportunity. The Civil Rights Act was amended to add discrimination because of handicap to the list of unfair employment practices. Such discrimination is prohibited unless the action is related to a bona fide occupational qualification. Handicapped person was defined to mean a person who has a physical or mental impairment which substantially limits the person's major life activities, has a record of such an impairment, or is regarded as having the impairment.

Labor relations. Principals and assistant principals in school districts with an average daily attendance of 15,000 or more will now constitute a separate entity for purposes of collective bargaining. An average daily attendance of 35,000 was previously required.

Other laws. A new law permits municipal employees to participate in political activities during off-duty hours if not in uniform, and if not prohibited from doing so by a Federal statute or municipal charter. Municipal corporations may establish employment requirements prohibiting employees from filing as a candidate for public office while employed by the municipality.

Oregon

Wages. As provided in a prior law, the minimum wage rate was increased from \$2.90 an hour to \$3.10 effective January 1, 1981.

The Wage and Hour Commission may no longer set a subminimum wage rate for persons over 65 years of age. Also, authority to adopt rules prescribing procedures and requirements for issuance of special certificates authorizing employment of student-learners at subminimum wages was transferred from the State Board of Education to the Commissioner of the Bureau of Labor and Industries.

Among other changes in the prevailing wage law, the labor commissioner may now seek an injunction against employers to prevent future failure to pay the prevailing wage or overtime pay. Awarding agencies must notify the labor department of contracts which are subject to the law. And the commissioner may take Federally-determined rates into consideration as part of the rate determination process. Also, once a public works contract is executed, the prevailing wage rate will not be subject to attack in any legal proceeding, and an employer-employee agreement cannot serve as a defense for paying less than the prevailing wage.

Agriculture. The labor commissioner or any person may seek an injunction to prevent the use of unlicensed farm labor contractors or to prevent anyone acting as a contractor from violating the law. Up to triple the \$5,000 bond on deposit may now be required of license applicants with previously unsatisfied judgments. Workers must be furnished the names and addresses of owners of operations where they will be employed, and a notice of the existence of any labor dispute at the worksite. In addition, with each wage payment, they must receive a statement of hours worked and rate of pay, or, if on piece rate, rate of pay and pieces done.

Child labor. Nightwork restrictions were removed for children under age 16 employed under a special permit issued by the Wage and Hour Commission. Formerly, the permit prohibited

work before 7 a.m. and after 10 p.m. (children without special permits may not be employed before 7 a.m. or after 6 p.m.).

A civil penalty of up to \$1,000 may be imposed for each violation of the child labor law by employers who are not subject to FLSA. The penalties are payable to the labor commissioner, to be used for reimbursement of enforcement costs.

Equal employment opportunity. The maximum age for protection from age discrimination was increased from 65 to 70, and an amendment prohibits employment agencies from discriminating on any covered basis in classification or referral for employment except in the case of a bona fide occupational requirement.

The Vocational Rehabilitation Division or the Commission for the Blind may refer severely handicapped persons as applicants for vacancies in the State service. Such persons must be interviewed provided they meet the standards necessary to qualify for the position. The Personnel Division is to maintain a record of all handicapped individuals hired, and the Vocational Rehabilitation Division is to submit an annual statistical report on the employment progress of severely handicapped persons, along with recommendations for legislative action.

All State boards, commissions, and advisory bodies are to implement the State's policy of being a leader in affirmative action in making appointments. State agencies must submit their affirmative action objectives and performance to both the governor and legislature for review. They must also rate the effectiveness of managers in achieving affirmative action objectives.

Worker privacy. The Department of State Police may now make criminal offender information available to employers for employment purposes, provided the employer has first advised the employee or prospective employee that such information might be sought.

The law prohibiting employers from requiring a lie detector test as a condition of employment was expanded to include a breathalyzer test to detect the presence of alcohol. However, employers may require administration of such a test by a third party if there are reasonable grounds to believe the individual is under the influence of alcohol.

Occupational safety and health. The Director of the Workers' Compensation Department may require any public or private sector employer of 10 or more employees to establish and administer a safety committee if the employer has a rate of lost workday cases greater than that consistent with reasonable workplace health and safety for employees of that particular occupational classification.

The Workers' Compensation Department may not issue or enforce any occupational safety and health rules or standards with respect to farms on which temporary labor camps are not maintained and on which no more than 10 workers are employed, except that inspections and enforcement proceedings may be conducted in response to complaints relating to an accident, or relating to the issuance of a citation.

All amusement rides must be inspected annually by the Department of Commerce or a certified amusement ride inspector.

New procedures and requirements were enacted governing the transportation of hazardous materials within the State. A permit must be obtained to transport any material. Provision was made for requirements for notification, record keeping, reporting, packaging, and emergency response, and a civil pen-

alty may be assessed by the circuit court upon complaint of any person injured by a violation of the law.

Private employment agencies. Agencies no longer must enter into written contracts with job applicants and prepare written job referrals for placements in which the employer pays the fee. The exemption from the law from employer-paid fee agencies now applies if no referrals are made to positions paying less than \$50,000 per year instead of \$30,000 as before.

Other laws. Employers are prohibited from discharging, demoting, suspending, or otherwise retaliating against an employee who has in good faith reported possible violations of the laws regulating health care and residential facilities.

Employers may not restrict access by authorized persons, including government officials, to any employer-provided employee housing, but may adopt reasonable rules concerning use and occupancy, including hours of access. Retaliation is prohibited against employees who report violations or confer with or invite to residential areas any authorized or otherwise invited person.

Pennsylvania

Wages. By previous enactment, the minimum wage was increased from \$3.10 an hour to \$3.35 effective January 1, 1981.

Rhode Island

Wages. As provided for in a prior law, the minimum wage rate was increased from \$2.90 an hour to \$3.10 effective July 1, 1981 with a future increase to \$3.35 scheduled for July 1, 1982.

State overtime pay requirements no longer apply to motor carrier employees whose maximum hours of work are regulated under the Federal Motor Carriers Act.

Guaranteed daily pay was reduced from 4 hours to 3 for employees who report for duty with the employer's permission but who are not furnished work of that duration.

Violators of the prevailing wage law will not be allowed to bid on or be awarded any public works contract for a period of 18 months.

The wages of State and local government employees are now subject to garnishment. Retirement benefits and contributions will be exempt.

Hours. The law governing required meal periods was extended to men in addition to women and children as before.

Equal employment opportunity. Back pay, in cases where unlawful employment practices are found, was defined to include the economic value of all benefits and wage increases an employee would have been entitled to had an unfair employment practice not been committed.

Discrimination in employment will now be prohibited based on mental impairment as well as physical handicap. The definition of handicap was amended to refer to physical or mental impairment which substantially limits major life activities.

Labor relations. The law giving certified public school teachers the right to organize and bargain collectively was amended to specifically include certified support personnel whose positions require a professional certificate issued by the State Department of Education. Supervisors above the rank of assistant principal are excluded from coverage.

Other laws. A number of State agencies scheduled to be abolished between June 30, 1981 and June 30, 1985, under

prior sunset legislation, were continued, including the Labor Relations Board, the Governors Committee on Employment of the Handicapped, the Apprenticeship Council, and the Commission for Human Rights.

South Carolina

Labor relations. Amendments to the public-sector law, relating to permissible payroll deductions for contributions to eligible charitable organizations and credit unions, were made specifically inapplicable to deductions for labor organizations.

Private employment agencies. Licensing and enforcement under the employment agency law were removed from the Department of Labor, and administrative authority to issue rules and regulations, conduct investigations and hearings, suspend and revoke licenses, and levy fines, was deleted. Licenses will now be issued by the Secretary of State, and enforcement is by court action.

South Dakota

Wages. Parents may be directed to pay a specific portion of wages indirectly, from the parent's employer to the entitled child, in child support cases.

Private employment agencies. The law providing for the licensing and regulation of private employment agencies was repealed.

Employment and training. The Department of Social Services was directed to develop a workfare program to provide useful public service work for unemployed individuals who receive public assistance. Refusal to participate can result in the termination of aid.

Tennessee

Wages. Courts may require an assignment of wages as part of an order to enforce child support, and employers may not discharge or discipline an employee on the basis of the wage assignment.

Equal employment opportunity. Handicapped applicants for State employment who are certified as unable to take a written examination, may instead be given a work-test period during their normal probation time.

Labor relations. The law governing payroll deductions for employee association dues for State employees was amended. Among other things, it now provides that a State employee who participates in, authorizes, or encourages a work stoppage will be guilty of gross misconduct, and will permanently forfeit the automatic deduction of membership dues previously authorized.

Other laws. The prohibition against Sunday employment was repealed.

Texas

Agriculture. Licensing requirements for labor agents were amended to exclude farm labor contractors registered under the Federal Farm Labor Contractor Registration Act.

The use of short handled hoes in performing agricultural labor in commercial farming operations was prohibited, with the exception of work in greenhouses or nurseries.

Child labor. Effective January 1, 1982, the existing child labor law will be replaced by a modernized law with several new

features. Fourteen will be the basic minimum age for employment, with certain exceptions. Exempt employment includes newspaper delivery, agricultural employment when school attendance is not required, casual employment with parental consent, parent-supervised work in a family business, and work study participation. The labor commissioner will be required to declare occupations hazardous for minors under 18. Other new provisions relate to hours of work restrictions, age certificates, and granting the labor commissioner authority for rulemaking, inspections, and the issuance of variances in hardship cases.

Equal employment opportunity. Examiners in the public or private sector who are testing handicapped adult job applicants may use alternate forms of testing, including any procedure or adaptation to help ensure the applicant's best performance possible, including oral or visual testing, use of readers or tape recorders, removal of time limits, and use of multiple testing sessions.

A Committee on Purchases of Products and Services of Blind and Severely Disabled Persons was established, to facilitate the purchase by State agencies and political subdivisions of goods and services produced by handicapped individuals. The committee is authorized to adopt procedures, practices, and standards used for similar Federal programs.

Worker privacy. Limitations were placed on the disclosure of information obtained from a polygraph examination, and new penalties were enacted in the event of violation.

A school district may obtain the criminal history record of any applicant for employment from any law enforcement agency, provided it has written authorization from the applicant.

Occupational safety and health. Effective January 1, 1983, all State, county, and municipal full-time paid firefighters must be provided with protective clothing meeting minimum standards, and as of January 1, 1982, all self-contained breathing apparatus must be approved and certified, and tested at least every 30 days.

Other laws. The right of employees to attend a precinct convention of a political party without penalty was extended to include any county, district, or State convention to which the employee is a delegate. Employees need not be paid for any such time lost.

Utah

Wages. An increase in the minimum wage to \$2.75 an hour, authorized by a 1978 administrative action, took effect on January 1, 1981, for the retail trade, public housekeeping, restaurant, laundry, cleaning, dyeing, and pressing industries in Salt Lake, Weber, Utah, and Davis counties, and in all cities with populations of 5,000 or more. The minimum wage for other areas was raised to \$2.50 an hour.

The prevailing wage law was repealed, over the governor's veto. A similar measure in 1979 was defeated when the governor's veto was sustained.

The \$400 limitation on wage claims considered preferred debts of a business in receivership was raised to \$1,000, and the Industrial Commission may now award reasonable attorney's fees in addition to amounts due for wages.

Equal employment opportunity. Authority was given the Director of the Department of Finance to contract with various veteran's organizations to provide assistance to veterans, and

their widows and children, especially those in the outlying areas of the State, by disseminating information on veteran's rights and benefits under State or Federal laws, on employment or reemployment of veterans, on preference for employment, and on emergency relief.

Worker privacy. The polygraph regulatory law governing use of equipment, and licensing of examiners was expanded to apply to all deception detection instruments, including voice stress devices. All instruments must have prior approval of the Department of Public Safety, and additional safeguards were prescribed to protect the subject. Denial or termination of employment may not be based on refusal to submit to any such examination.

Employment and training. The State Apprenticeship Council will permit apprentices to substitute prior educational experience in a trade for supplemental instruction if the apprentice passes an equivalency test administered by an accredited school.

Vermont

Wages. By prior law, the minimum wage rate was raised to \$3.35 an hour effective January 1, 1981.

Equal employment opportunity. The anti-discrimination law was amended to prohibit discrimination in employment based on age (18 or older), or for physical or mental condition. A separate provision which had provided some limited protection for physically handicapped persons was repealed. Mandatory retirement because of age is prohibited, except under a police or firefighter retirement system, and except that institutions of higher learning may retire a tenured employee at age 65 (70 after July 1, 1982).

Employment and training. The name of the Department of Employment Security was changed to the Department of Employment and Training, and a new Comprehensive Employment and Training Office was created within it. The new office will provide job training and employment opportunities for economically disadvantaged, unemployed, or underemployed persons through a system of Federal and State programs, serving as a prime sponsor in accordance with the Comprehensive Employment and Training Act, so long as Federal funding continues.

Virginia

Child labor. Minors participating in the activities of a volunteer rescue squad were exempted from the child labor law.

Labor relations. Collective bargaining contracts entered into by the Washington Metropolitan Area Transit Authority must hereafter prohibit strikes or lockouts. Binding arbitration to settle a bargaining impasse was replaced with procedures for mediation, and if mediation is unsuccessful, for advisory fact finding.

Occupational Safety and Health. The owner or operator of a company constructing a shaft or slope coal mine is now required to provide classroom and on-the-job training for workers hired on or after July 1, 1981, who have not had previous training or comparable experience in similar mine construction work.

Internal combustion engines will no longer be permitted underground in any coal mine. They were previously allowed with the written approval of the Chief of the Division of Mines.

Employment and training. The Apprenticeship Council was transferred to the Department of Labor and Industry.

Other laws. An employer may not discharge a person summoned to serve on jury duty, nor require the employee to use sick leave or vacation time, provided the employer was given reasonable notice of the summons.

Virgin Islands

Wages. As the result of a wage order, effective in 1979, the minimum wage rate was automatically increased from \$3.10 an hour to \$3.35 on January 1, 1981 for non-tipped employees. A few individual occupational rates, established under earlier wage orders, which are higher than the \$3.35 rate remain in effect. The minimum rate for most agricultural employees rose from \$2.87 to \$3.17.

Washington

Wages. For public works contracts over \$10,000, contractors must now post at the job site a copy of a statement of intent to pay prevailing wages, a copy of the rates determined for each classification of workers, and the address and telephone number of the Industrial Statistician of the Department of Labor and Industries where complaints or inquiries may be filed.

The exemption from wage garnishment was amended to now include any amount that is exempt under Federal law in addition to the prior exemption prescribed by State law, whichever is greater.

Equal employment opportunity. The Department of Employment Security is to conduct employer awareness seminars to ensure private-sector employer knowledge and support for veterans' employment programs. At least one seminar is to have direct impact upon incarcerated veterans.

West Virginia

Wages. The minimum wage rate was increased from \$2.75 an hour to \$3.05 effective January 1, 1982, and certain employees of the legislature were exempted from coverage of the law.

The wage payment and collection law was extended to include fringe benefits in the same manner as wages. Employers are to pay wages and fringes within 5 days after they are due instead of 20 days before. Also, wage payment bonds will be required of all employers engaged in construction work or mining except for those who have been doing business in the State for at least 5 consecutive years. The Commissioner of Labor may waive or terminate the bond requirement upon determining that an employer is of sufficient financial responsibility to pay wages and fringe benefits.

Child labor. Children age 16 to 18 may work for volunteer fire departments if they have the proper training and written parental consent. They are not to operate fire-fighting vehicles, enter a burning building, or engage in other dangerous activities unless under the immediate supervision of a fire line officer.

Equal employment opportunity. The Human Rights Act was amended to prohibit discrimination in employment, public accommodations, and housing on the basis of handicap, in addi-

tion to blindness, the only previous prohibition.

A new law prohibits forced retirement prior to age 70 of college or university professors with unlimited tenure.

Occupational safety and health. The Commissioner of Labor is to establish and maintain a list of up to 600 chemical substances and materials which have been determined or are suspected to be hazardous or toxic to the health of employees. Employers of ten or more are to post a warning notice in the work area where any such substance or material is used, and all employers are to report incidents of over-exposure by employees within 10 days. The law does not apply to coal mining or processing or any agricultural or horticultural activity.

A Hazardous Waste Management Act was passed to provide for regulation of the storage, transportation, treatment, and disposal of hazardous waste by the Department of Natural Resources.

Coal mine operators must develop and submit for approval of the Director of the Department of Mines, under regulations to be established, a comprehensive safety program for each mine. Employees of each mine must be given a chance to review the plan and submit comments to the Director before its submission.

All surface mine employees must now wear approved safety helmets when working in areas of possible danger of head injury, unless operating machinery with adequate cab protection.

Other laws. The Department of Labor, scheduled to terminate on July 1, 1981 under sunset legislation, was continued until July 1, 1987.

Wisconsin

Wages. By prior administrative action, the nonfarm minimum hourly wage rate was increased from \$3 to \$3.25 effective January 1, 1981. The farm rate was increased from \$2.80 an hour to \$3.05.

Wyoming

Wages. Employees whose payroll records are maintained outside the State and who quit or are discharged must now be paid within 72 hours of termination instead of 48 hours as before.

Assignment of up to 25 percent of a parent's earnings is permitted in cases where support payments are more than 60 days overdue. The employer may deduct an additional \$2 for each payment made for costs incurred in administering the assignment. An employee may not be discharged because of the assignment.

Private employment agencies. Placement services of the University of Wyoming were specifically exempted from the private employment agency regulatory law.

Occupational safety and health. Controlled substances and persons under their influence are now banned in or around mines, aside from the previous ban on liquor.

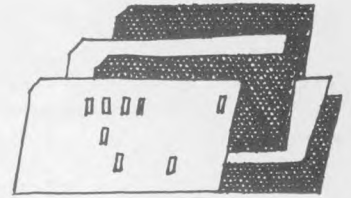
The Department of Fire Prevention and Electrical Safety, scheduled to be abolished on July 1, 1981, under sunset legislation, was continued for 6 years. □

FOOTNOTES

¹ Unemployment insurance and worker compensation are not within the scope of this article. Separate articles will appear on each of these subjects in forthcoming issues of the *Monthly Labor Review*.

² Kentucky was the only State where the legislature did not meet in

1981. Sessions were held in Idaho, Kansas, Nebraska, and Puerto Rico, but no significant labor legislation was enacted in the concerns covered by this article.



Reconciling the CPI and the PCE Deflator: an update

JULIE A. BUNN AND JACK E. TRIPLETT

In an article in the September 1981 issue of the *Monthly Labor Review*,¹ a technique was developed for determining the effect of differences in index number construction on the measurement of inflation. The technique permits a straightforward reconciliation of the Federal government's two major inflation measures—the Consumer Price Index (CPI), published by the Bureau of Labor Statistics, and the Implicit Price Deflator for Personal Consumption Expenditures (PCE Deflator), produced by the Bureau of Economic Analysis. This update advances the reconciliation to the third quarter of 1981.

Differences between movements in the CPI and PCE inflation measures can be attributed to three factors: owner-occupied housing, different index weights, and “all other” factors. By comparing alternative versions of the indexes published by the Bureau of Labor Statistics and the Bureau of Economic Analysis (the Federal Government currently publishes ten aggregate consumption expenditure price measures), the difference between the CPI and PCE measures can be decomposed into these three categories.

For technical reasons, two reconciliations are necessary.² The first reconciliation addresses the question: “What are the reasons the CPI and PCE price measures show different rates of change from one period to the next?” The second answers the question: “What accounts for the cumulative divergence in the CPI and PCE measures since 1972?”

Reconciling period-to-period changes

Table 1 shows the reconciliation of period to period percent changes in the Consumer Price Index for All

Urban Consumers (CPI-U) and “PCE: Chain-Weight” index. The Implicit PCE Deflator, a Paasche-formula index, cannot be used for this reconciliation because Paasche formulas lend themselves to statistical interpretation only when referring back to the base year (in this case, 1972).³

In most recent quarters, the CPI-U has recorded a greater price change than the “PCE: Chain-Weight” index. The difference between the two seems to be diminishing from the historically high values of 1979–80. The exception to this statement occurs in the third quarter of 1981, in which the difference between the two surged to 3.3 percentage points.

In nearly every case, the treatment of owner-occupied housing accounts for most of the difference between the CPI and PCE price measures. For example, alternative treatments of housing accounted for 3.1 percentage points of the total 3.3 point differential in 1981's third

Table 1. “Reconciliation” of annual and quarterly percent changes in the CPI-U and the Personal Consumption Expenditure price measures, 1979–81

Difference	1979	1980	1980 ^{1, 2}				1981 ²		
			I	II	III	IV	I	II	III
CPI-U ³	11.3	13.5	16.5	13.1	7.7	12.9	10.8	7.5	12.0
PCE: Chain-Weight ⁴	9.3	10.6	12.5	9.7	9.5	10.1	10.3	6.5	8.7
Total difference ⁵ (CPI-U minus PCE: Chain-Weight)	2.0	2.9	4.0	3.4	-1.8	2.8	0.5	1.0	3.3
Housing treatment ⁶ ..	1.7	2.3	3.2	3.2	-1.9	2.2	0.0	0.2	3.1
Weighting effect ⁷	0.3	0.4	0.7	0.2	0.0	0.0	0.6	0.0	-0.5
“All other” effect ⁸	0.0	0.2	0.1	0.0	0.1	0.6	-0.1	0.8	0.7

¹ Owing to changes in seasonal adjustment factors, the 1980 quarterly figures may differ slightly from those which appeared in table 3, p. 9, in the September 1981 *Monthly Labor Review*.

² Seasonally adjusted annual rates.

³ Annual and quarterly changes in the CPI-U are taken from tables provided by the Office of Prices and Living Conditions, Bureau of Labor Statistics (BLS). The changes are compiled from 1967 based indexes.

⁴ Data for the “PCE: Chain-Weight” were obtained from the Bureau of Economic Analysis (BEA), U.S. Department of Commerce. The data incorporate revisions released by BEA in April 1981.

⁵ CPI-U minus “PCE: Chain-Weight” equals the sum of “housing treatment”, “weighting” and “all other” effects.

⁶ Change in CPI-U minus change in CPI-X1. See September 1981 *Monthly Labor Review*, p. 21, for fuller explanation. Source of CPI-X1 data is same as footnote 3.

⁷ Change in “PCE: 1972-Weight” minus change in “PCE: Chain-Weight”. See September 1981 *Monthly Labor Review*, pp. 8-9, for fuller explanation. Data source for “PCE: 1972-Weight” changes is same as for footnote 4.

⁸ Change in CPI-X1 minus change in “PCE: 1972-Weight”. See September 1981 *Monthly Labor Review*, p. 6, for fuller explanation.

Julie A. Bunn is an economist in and Jack E. Triplett is Assistant Commissioner of the Office of Research and Evaluation, Bureau of Labor Statistics.

quarter, and in quarters in which the total difference between the two price measures was low (1980-III, 1981-I, 1981-II), so was the housing effect.

Note we estimated the housing treatment effect by comparing the two BLS indexes which are published monthly and which have different treatments of housing. In October, the BLS announced plans to change the treatment of housing to more nearly approximate a rental equivalence treatment in the CPI-U index, beginning in January 1983.⁴

Weighting effects have behaved erratically and unpredictably over recent quarters. Generally, one expects that the longer the interval between weights, the greater the weighting effect in the price index. This expectation has been true of most CPI-PCE comparisons in the past.⁵ However, the size of the weighting effect became noticeably smaller in the last half of 1980, and except for the first quarter of 1981, has contributed very little to CPI-PCE differences for over a year. In 1981 III, the index with 1981 weights (actually 1981 II weights) showed higher inflation than did the index with 1972 weights, so the weighting effect was negative (minus 0.5 percentage points), a surprising result.

"All other" factors are the sum total of computational and compilation differences in which the CPI and PCE indexes differ (that is, everything other than the period for which the weights were drawn, and the treatment of owner-occupied housing). The "all other" effect has typ-

Table 3. Relative distribution of CPI-PCE reconciliation factors, 1979-81¹

Factor	1979		1980		1981 ²	
	Index points	Percent	Index points	Percent	Index points	Percent
Total difference	11.3	100	18.1	100	23.1	100
Housing treatment	7.0	62	11.7	65	14.2	61
Weighting effect	3.7	33	5.4	30	7.3	32
"All other" effect	0.6	5	1.0	6	1.7	7

¹ Data based on table 2.
² Average of first three quarters.

ically been small in the past.⁶ The precise source of the "all other" effect has not been identified, but seasonal adjustment methods undoubtedly are important.

Reconciling cumulative changes

Table 2 shows the reconciliation of the CPI-U and the Implicit Price Deflator (PCE: Current-Weight) index levels, with 1972=100. The cumulative effect created by differences in owner-occupied housing treatment from 1972 to 1981 third quarter amounted to 15.5 index points, which is roughly 13 percent of the inflation over this interval, as measured by the CPI-U. As expected, the cumulative effect of updating weights in the price measures increases in index points as the periods providing the comparisons grow further apart. The 7.1 index number difference for the third quarter of 1981, however, accounts for only roughly 7 percent of the measured inflation from 1972 to that quarter (as recorded by the PCE measures). When computed as a percentage of the inflation that has occurred since 1972, both the housing treatment and weighting effects have grown somewhat larger in recent quarters.

As a percent of the total difference between the CPI-U and PCE Deflator in any particular period, however, all three categories have maintained roughly their same proportions to the total difference. These proportions are shown in table 3.

In summary, housing treatment continues to account for most of the difference between the CPI and PCE inflation measures. The effects of updating weights and "all other" factors play a much less significant role. □

Table 2. "Reconciliation" of the CPI-U and the Personal Consumption Expenditure price measures: cumulative percent change from 1972 to the date shown (1979-81)

Difference	1979	1980	1980 ¹				1981		
			I	II	III	IV	I	II	III
CPI-U (1972=100) ²	173.6	197.0	189.3	195.3	199.0	205.1	210.4	214.3	220.4
PCE Deflator (1972=100) ³ (Current-Weight)	162.3	178.9	172.9	177.0	180.7	184.9	188.5	191.5	195.7
Total difference ⁴ (CPI-U minus PCE Deflator)	11.3	18.1	16.4	18.3	18.3	20.2	21.9	22.8	24.7
Housing treatment ⁵	7.0	11.7	10.6	12.3	11.8	13.1	13.3	13.7	15.5
Weighting effect ⁶	3.7	5.4	4.9	5.1	5.6	5.9	7.3	7.4	7.1
"All other" effect ⁷	0.6	1.0	0.9	0.9	0.9	1.2	1.3	1.7	2.1

¹ Owing to changes in seasonal adjustment factors, the 1980 quarterly figures may differ slightly from those which appeared in table 4, p. 10, in the September 1981 *Monthly Labor Review*.

² Annual data for the CPI-U were computed by the Office of Research and Evaluation (BLS) from unadjusted monthly data provided by the Office of Prices and Living Conditions (BLS). The quarterly data for 1980 and 1981 were computed by the Office of Research and Evaluation employing seasonally adjusted monthly data provided by the Office of Prices and Living Conditions.

³ Data for the Implicit PCE Deflator, or "PCE: Current-Weight" index, were provided by the BEA. The data incorporate revisions released in April 1981.

⁴ CPI-U minus PCE Deflator equals the sum of "housing treatment", "weighting" and "all other" effects.

⁵ CPI-U minus CPI-X1. See September 1981 *Monthly Labor Review*, p. 5, for fuller explanation. Data source for the CPI-X1 is the same as footnote 2.

⁶ "PCE: 1972-Weight" minus "PCE: Current-Weight". See September 1981 *Monthly Labor Review*, p. 6, for fuller explanation. Data source for the "PCE: 1972-Weight" is same as footnote 3.

⁷ CPI-X1 minus "PCE: 1972-Weight". See September 1981 *Monthly Labor Review*, p. 6, for fuller explanation.

FOOTNOTES

¹ Jack E. Triplett, "Reconciling the CPI and PCE Deflator," *Monthly Labor Review*, September 1981, pp. 3-15.

² See *ibid.*, pp. 7, 13-14.

³ *Ibid.*

⁴ See "Labor Month in Review: CPI Changes," *Monthly Labor Review*, November 1981, p. 2.

⁵ Triplett, *op. cit.*, pp. 6-7, 9.

⁶ *Ibid.*, pp. 6 and 8.

Area labor market response to national unemployment patterns

ROBERT W. BEDNARZIK AND RICHARD B. TILLER

Unemployment varies widely among geographical areas in the United States. In 1980, the rate of joblessness ranged from a high of 8.2 percent in the North Central region of the country to a low of 6.4 percent in the South. (The unemployment rates in the two remaining major census regions—the Northeast and the West—were near the national rate of 7.1 percent.) The concern of policymakers with the sensitivity of regional labor markets to national economic conditions has generated a number of time series studies of the impact of national fluctuations in unemployment on regional jobless rates.¹

Such studies measure regional sensitivity as the change in regional unemployment rates relative to the change in the national average rate. During recessionary periods, differences in regional sensitivities to national fluctuations imply that unemployment rates in some areas will rise faster than the national average. Thus, deflationary policy measures targeted at selected national economic aggregates may unintentionally impose a disproportionately large share of the recessionary burden on some regions. Conversely, during periods of national full employment, differences in sensitivities mean that some areas may experience far greater labor demand pressures, and consequent wage inflation, than others. Over the longer run, differences in the magnitude of changes in area rates relative to the national average may indicate growing structural imbalances (such as deterioration in the competitive position of industries in certain regions) of which the policymaker should be aware.

Heretofore, most research has focused only on short-run relationships among unemployment series. We undertook a study which used a time series model that distinctly characterized the sensitivity of regional unemployment to both short- and long-run fluctuations in national unemployment during 1967–80.² For our purposes, the short run is defined as that period within which business cycles occur. We used the National Bureau of Economic Research designation of the length of post-World-War II business cycles as a guide for defining the length of our cyclical component. Within our sample period, these cycles ranged in length from ap-

proximately 2 to 7 years. The long run refers to periods of more than 7 years.

Thus, we were able to explore several questions requiring the separation of short-run (business cycle) from long-run (secular) developments: Are there major geographical differences in the importance of short- and long-run cycles in unemployment? How do various regional and local labor markets differ in their sensitivity to fluctuations in national unemployment? And, are areas responsive to national business cycles also sensitive to secular changes in the national unemployment rate?

Subnational unemployment rate data were analyzed using a spectral approach, whereby each series was broken down into its component cycles and trends to determine which of these movements exerted the most influence on the original series. This method also permits the estimation of the sensitivity of the components of one series to the corresponding components of other series. For example, we can estimate the sensitivity of the components of regional unemployment to the corresponding components of the national unemployment rate series. Thus, we can assess not only the impact of aggregate national developments on regional labor markets but also the extent to which a region exhibits its own independent business cycle or secular movements. There has been longstanding argument as to whether independent area business cycles can exist in a highly interdependent economy such as ours.

Data and methodology

Our sample consisted of monthly unemployment data from the Current Population Survey (CPS) covering the period January 1967–June 1980 for census regions and divisions, and for the 15 most populous States. (See exhibit 1.) January 1967 is the earliest date for which such information is available for subnational areas.³ Unemployment estimates for previous studies of data for earlier periods were based on counts of unemployment insurance benefit claimants, inflated to represent total unemployment for an area using the so-called “Handbook procedure.” However, this technique is known to produce biased results, particularly for business cycle analyses.⁴

In our model, regional unemployment rates were broken down into four major components:⁵ (1) a national cyclical component, which measures short-run fluctuations related to the national business cycle; (2) a regional cyclical component, reflecting short-run fluctuations that are independent of the national business cycle; (3) a national secular measure of long-run national trends; and (4) a regional secular component, which tracks long-run area developments that are independent of national trends.

Robert W. Bednarzik is an economist in the Division of Employment and Unemployment Analysis, Bureau of Labor Statistics. Richard B. Tiller is an economist in the Bureau's Division of Local Area Unemployment Statistics.

Regional differences in joblessness generally reflect both aggregate supply and demand considerations. Specifically, the long-run trend of output and employment in a particular region is primarily determined by supply, which is in turn governed by the growth of labor, capital, and technology. Short-run fluctuations, on the other hand, reflect the ups and downs in consumer and business demand or, in some instances, temporary capacity bottlenecks on the supply side.

Thus, we can roughly separate the forces that affect regional unemployment rates into: (1) those caused by changes in aggregate demand or by capacity constraints, which appear as short-run cycles in the region-

al unemployment rate series; and, (2) those that originate largely on the supply side of the labor market and are reflected as long-run trends. At the regional level, we can further distinguish between shifts in demand and supply that originate within and outside the region.

Links between unemployment series

During 1967-69, the first 3 years of the sample period, the national unemployment rate was slightly below 4 percent. It then rose sharply, reaching nearly 6 percent in 1971. Subsequently, joblessness remained between 4.5 and 6 percent until 1975, when it jumped to 9 percent. Thus, over the period studied, the national rate was characterized by a long upward movement, as well as by major short-run fluctuations. In fact, the 1967-80 period encompassed two complete business cycles, including the most severe contraction in the post-war era, and the first phase of a third cycle.

The secular rise in the national jobless series has prompted economists to continually revise upward their estimates of the national rate for "full employment." A number of labor supply factors have been offered as possible explanations for this rise, including demographic changes in the composition of the labor force, expanded income transfer programs, increases in the minimum wage, and growth in the number of multi-worker families. The quantitative importance of these factors, however, remains to be established.⁶

Secular and cyclical forces. The relative importance of cyclical and secular movements in each area unemployment series is shown in table 1. Columns 1 and 4 provide the proportions of the total combined variation in national and regional unemployment due to secular and cyclical forces, respectively. The national series (columns 2 and 5) is given as a point of reference; its secular component accounts for 51 percent of the variation, compared to 40 percent for the cyclical component. This highlights the importance of the long-run trend in the national unemployment rate. The national pattern must, of course, be reflected in the regional unemployment rate series, because the former is a weighted average of the latter.

For all regions, 7 of the 9 divisions, and 11 of the 15 States, the secular component contributes more to variance than the cyclical component. However, there is considerable difference among areas in the relative size of the secular component, which ranges from a high of 57 percent in the Middle Atlantic division to a low of 37 percent in the Mountain and East South Central sections. The range for the 15 largest States is slightly wider, from 58 percent for New York to 33 percent for Indiana.

While generally smaller than the secular component, the cyclical component nevertheless accounts for a sub-

Exhibit 1. Regions and geographic divisions of the United States

<p>Northeast</p> <p>New England Connecticut Maine Massachusetts¹ New Hampshire Rhode Island Vermont</p> <p>Middle Atlantic New Jersey¹ New York¹ Pennsylvania¹</p> <p>North Central</p> <p>East North Central Illinois¹ Indiana¹ Michigan¹ Ohio¹ Wisconsin¹</p> <p>West North Central Iowa Kansas Minnesota Missouri¹ Nebraska North Dakota South Dakota</p>	<p>South</p> <p>South Atlantic Delaware District of Columbia Florida¹ Georgia Maryland North Carolina¹ South Carolina Virginia¹ West Virginia</p> <p>East South Central Alabama Kentucky Mississippi Tennessee</p> <p>West South Central Arkansas Louisiana Oklahoma Texas¹</p> <p>West</p> <p>Mountain Arizona Colorado Idaho Montana Nevada New Mexico Utah Wyoming</p> <p>Pacific</p> <p>Alaska California¹ Hawaii Oregon Washington</p>
--	---

¹One of the 15 most populous States.

Table 1. Variance decomposition of unemployment rates by area, 1967-80

Area	Percent of variance accounted for by — ¹						
	Secular component ²			Cyclical component ²			Seasonal component (7)
	Total (1)	National (2)	Regional (3)	Total (4)	National (5)	Regional (6)	
United States	51	51	—	40	40	—	2
Northeast	57	57	0	38	37	1	2
New England	56	50	6	38	35	3	2
Massachusetts	57	52	5	36	33	4	2
Middle Atlantic	57	56	2	38	36	2	2
New Jersey	57	55	1	37	34	3	2
New York	58	56	1	39	36	3	1
Pennsylvania	52	48	4	38	35	3	4
North Central	42	41	1	41	39	2	6
East North Central	41	40	1	42	40	2	6
Illinois	44	41	3	38	34	4	6
Indiana	33	28	5	45	35	10	6
Michigan	38	37	2	42	39	3	6
Ohio	38	37	1	43	41	3	6
Wisconsin	40	40	1	34	32	2	8
West North Central	40	39	1	34	31	3	11
Missouri	41	40	1	32	28	4	9
South	48	47	2	38	37	2	6
South Atlantic	53	50	3	38	35	3	4
Florida	55	52	3	39	34	5	2
North Carolina	34	29	5	44	35	9	8
Virginia	47	42	6	31	26	5	8
East South Central	37	32	5	38	33	5	10
West South Central	39	37	1	35	33	2	12
Texas	40	38	1	36	32	3	9
West	47	40	7	41	35	6	5
Mountain	37	35	2	36	31	5	12
Pacific	49	40	9	41	35	7	4
California	49	40	9	41	34	8	4

¹ The percentages for the secular, cyclical, and seasonal components of a series do not add to 100 because there is other variation (principally random) not accounted for.
² The national and regional subcomponents may not add to the total because of rounding.

stantial portion of the variance. In fact, cyclical variation in joblessness in the East North Central division and 3 of its 5 States—Indiana, Michigan, and Ohio—was even greater than the secular variation. This was also the case for North Carolina. Cyclical variation as a percent of the total was smallest for Virginia and Missouri.

Table 1 also indicates the relatively minor contribution of independent regional cycles to total variance.⁷ Column 6 provides the portion of the variance accounted for by the independent cyclical component of regional unemployment. In three States—Indiana, North Carolina, and California—this component was 8 to 10 percent of the total variance in the unemployment rate series, accounting for more variation than the seasonal movements (column 7). In the remaining 12 States, the regional cyclical component was 5 percent or less of the variance. Clearly, national fluctuations account for most of regional cyclical unemployment patterns.

On the other hand, there is evidence that distinct regional business cycles, although relatively small, do exist. Some have asked how such cycles could develop. In a highly interdependent economy such as ours, one might expect economic impulses to be diffused rapidly,

and that there would thus be strong conformity between regional and national business cycles. But, in fact, these cycles may be normal by-products of a dynamic economy.

For example, it has been established that random events in time series can generate wavelike movements with business cycle properties.⁸ At the regional level, unexpected changes in relative demands for goods and services become shocks to the labor market, the effects of which tend to persist because the supply of labor adjusts slowly to new conditions. However, these random disturbances tend to cancel out in the aggregate. That is, shocks in one region tend to be offset by countershocks in other regions. For example, assume there is a country with an area whose economy depends upon the production of slide rules, while in another area of the same country a new industry develops that produces pocket calculators. Suddenly, the demand for slide rules falls and that for pocket calculators rises. It is entirely possible that, at the national level, these changes would be offsetting. But because it takes time for an area to switch production emphasis (either to producing more or less), local business cycles may persist for a while, independent of national movements. Only when such shocks accumulate in one direction are national business cycles generated.

Of course, this also implies that the larger the regional economy, the less important will be independent regional business cycles, because internal shocks tend to average out. This hypothesis is supported by our observation that the smaller the area, the larger the independent regional cyclical component—3 percent for census regions, 4 percent for census divisions, and 5 percent for the 15 States.

The independent secular component of regional unemployment (column 3 in table 1) is relatively weak. And, on average, independent long-run regional fluctuations account for only 3 percent of the total variation in the State unemployment rates. California, at 9 percent, is the one notable exception; Virginia followed at 6 percent. Based on these statistics, it would appear that area labor markets conform to long-run national developments, rather than manifesting their own distinctive secular trends.

Sensitivity of regional to national unemployment. Our technique also provides estimates of the sensitivity of the components of regional unemployment to corresponding components in the national series.⁹ These estimates are presented in table 2. The larger the index value, the greater is the amplitude of the national component in the regional unemployment rate series. For a secular index value greater than 1, this implies a tendency for a region's unemployment rate to rise above that of the Nation during a long-run upswing in the national

rate and to remain there for an extended period. This was the case for the jobless pattern in the Northeast, which was very sensitive to the national unemployment rate trend. In the other three census regions, the index was less than 1, indicating a tendency for the long-run rise in the regional rate to be less than that in the national rate.

Of the nine census divisions, the Middle Atlantic and New England States were the most sensitive to long-run national patterns. The South Atlantic and East North Central divisions have index values very close to 1, indicating that the amplitude of the secular component of their unemployment rates was roughly the same as that of the corresponding national component. Among the 15 largest States, Massachusetts and New Jersey were the most sensitive, as were the divisions in which they are located. On the other hand, jobless patterns in Florida and Michigan were somewhat unique in that they were much more sensitive to the national rate than were their divisions. Texas and the West South Central area ranked by far the lowest in degree of sensitivity to the national rate.

Turning to the cyclical component (column 2, table 2), the jobless pattern in the Northeast was the most sensitive to national business cycles, while those of the South and the West were least sensitive. The North Central index value, which is close to 1, suggests that national business cycles tend to be transmitted to this

region with unchanged amplitude. However, this essentially results from the counterbalancing unemployment relationship between its two divisions: Jobless patterns in the East North Central division were very sensitive to national business cycles, while those in the West North Central division were not.

There is a broad range of sensitivity to the national business cycle in the jobless patterns of the 15 largest States; indexes ranged from a high of 1.66 in Michigan to a low of 0.54 in Texas. Index values dropped off rapidly, with Massachusetts and New Jersey following Michigan. At the lower end of the sensitivity spectrum, Virginia was the only State relatively close to Texas.

Generally, if an area was sensitive to national secular patterns, it was also sensitive to national business cycles. Indiana was the only clear-cut exception, being responsive only to national secular developments.

Interpretation of results

There is no unified theory of the determinants of a region's response to national cycles and trends. Differences in industry mix, local multiplier effects (propensities of residents to spend their income outside their home region), competitive market strengths, layoff policies,¹⁰ unemployment insurance benefit levels,¹¹ labor force composition, growth,¹² and inflationary impacts¹³ have all been cited as likely causes of the variance in regional jobless patterns.

Our findings indicate that the unemployment patterns in the New England and Middle Atlantic divisions and selected States in the East North Central division were affected more strongly than those in other areas by national economic trends over the period under study. Most States in these divisions tend to be highly sensitive to both short- and long-run national developments. These divisions comprise what geographers call the "manufacturing belt"—an area characterized by cyclically sensitive durable goods industries. For example, Michigan, which is dominated by the automobile industry, exhibited the highest cyclical sensitivity among the States studied.

At the same time, long-run structural factors may have resulted in a deterioration in the competitive position of the manufacturing belt, in which most of the older central cities are located. Aging capital and rising energy prices appear to have rendered these areas less viable for manufacturing.

In contrast, California was neither cycle- nor secular-sensitive, exhibiting the most independence from national patterns. In fact, there was some evidence that California may have a cycle of its own.

With few exceptions, independent regional cycles, although in evidence, contributed very little to regional fluctuations. And systematic leads or lags in regional unemployment rates relative to the national rate could

Table 2. Amplitude of national secular and cyclical components in area jobless series, and mean unemployment rate, 1967-80

Area	Index value		Mean unemployment rate (3)
	Secular (1)	Cyclical (2)	
United States	1.00	1.00	5.7
Northeast	1.50	1.38	6.2
New England	1.50	1.42	6.0
Massachusetts	1.73	1.56	6.2
Middle Atlantic	1.50	1.37	6.2
New Jersey	1.72	1.53	6.9
New York	1.63	1.48	6.5
Pennsylvania	1.15	1.11	5.8
North Central .....	.87	.99	5.2
East North Central .....	.99	1.15	5.7
Illinois .....	.89	.93	5.0
Indiana .....	.84	1.17	5.4
Michigan	1.35	1.66	7.9
Ohio .....	.93	1.15	5.7
Wisconsin .....	.81	.83	4.5
West North Central .....	.60	.61	4.0
Missouri .....	.83	.79	4.6
South .....	.81	.82	5.2
South Atlantic	1.04	.99	5.2
Florida	1.50	1.37	5.9
North Carolina .....	.72	.98	4.9
Virginia .....	.76	.68	4.4
East South Central .....	.66	.81	5.4
West South Central .....	.53	.57	4.9
Texas .....	.52	.54	4.5
West .....	.79	.84	6.8
Mountain .....	.60	.65	5.6
Pacific .....	.86	.91	7.2
California .....	.86	.90	7.2

not be detected. Apparently, national aggregate supply and demand disturbances are quickly transmitted throughout the economy, and both short- and long-run changes in regional labor market conditions conform closely to national developments. Regions do differ, however, in the degree of their sensitivity to changing national conditions. But generally, areas that are responsive to national secular trends are also sensitive to national business cycles. □

— FOOTNOTES —

¹ Frank Brechling's "Trends and Cycles in British Regional Unemployment," *Oxford Economic Papers*, March 1967, pp. 1-22, is foremost among these studies. A number of European and Canadian studies followed Brechling's approach; see, for example, C.P. Harris and A.P. Thirwall, "Interregional Variations in Cyclical Sensitivity to Unemployment in the UK 1949-1964," *Bulletin Oxford University Institute of Economics and Statistics*, February 1968, pp. 55-56; J.J. Van Duijn, "The Cyclical Sensitivity to Unemployment of Dutch Provinces," *Regional Science and Urban Economics*, May 1975, pp. 107-32; and L.J. King and G.L. Clark, "Regional Unemployment Patterns and the Spatial Dimensions of Macro-Economic Policy: The Canadian Experience 1966-1975," *Regional Studies*, 1978, pp. 283-96. Similar U.S. studies include Robert M. Fearn, "Cyclical, Seasonal, and Structural Factors in Area Unemployment Rates," *Industrial and Labor Relations Review*, April 1975, pp. 424-31, and Thomas Hyclak and David Lynch, "An Empirical Analysis of State Unemployment Rates in the 1970's," *Journal of Regional Science*, No. 3, 1980, pp. 377-86.

² Richard B. Tiller and Robert W. Bednarzik, "A Detailed Analysis of Regional and State Unemployment Patterns in the U.S.: 1967-1980," unpublished paper presented at the Atlantic Economic Society meetings, October 1981.

³ During the first 3 years of our sample period, the national unemployment rate, while lower than for earlier years in the decade, was near full employment (4 percent). In subsequent years, the unemployment rate at full employment was redefined substantially upward. Thus, although our sample starts at a somewhat lower than average national jobless rate, the distortion effects on our estimate of the secular component of unemployment rates should be small.

⁴ See Richard Tiller, "An Exploratory Time Series Analysis of Errors in Area Estimates of Unemployment," *Proceedings of the Business and Economic Statistics Section of The American Statistical Association*, 1979, pp. 165-69, for more detail.

⁵ This is done using spectral analysis, which is a time series analysis technique in the frequency domain whereby a series is decomposed into uncorrelated (random) components according to frequencies. "Frequency" simply refers to the fraction of a cycle completed in a given period. The spectrum at a particular frequency represents the contribution of that frequency to the total variation of the series. This method of analysis is quite general in that it does not require strong assumptions concerning the properties of the series being decomposed. A more complete description of the procedures used to develop the discussion in this article is available from the authors upon request.

⁶ See, for example, Paul O. Flaim, "The effect of demographic changes on the Nation's jobless rate," *Monthly Labor Review*, March 1979, pp. 13-23, and Joseph Antos and others, "What is the current equivalent to unemployment rates of the past?" *Monthly Labor Review*, March 1979, pp. 36-46. Some economists argue that the long-run rate of unemployment will fall because the birth cohorts of the baby boom are now moving into age groups characterized by more stable work experience; in this regard, see Michael L. Wachter, "The Demographic Impact on Unemployment: Past Experience and the Outlook for the Future," in *Demographic Trends and Full Employment* (Washington, National Commission for Manpower Policy, 1976), pp. 27-98. Some of our preliminary analysis tends to lend evidence for the view that the long-run rate may be falling. When business cycle frequencies were eliminated from the national and regional

unemployment series, a clearly visible long-run cycle was left that appears to have peaked in most series in 1975.

⁷ The spectral decomposition of a series is analogous to an analysis of variance problem. The importance of each component of the series can be assessed in terms of its contribution to the total variance of the series. A measure of the proportion of variance in $Ur(f)$ (fth frequency component of regional series) not accounted for by $UR(f)$ (fth frequency component in national series) is equal to $1 - [Var V(f)/Var Ur(f)]$, where $Var V(f)$ is equal to the variance of the residual component of $Ur(f)$ and $Var Ur(f)$ is equal to the variance of the fth frequency component of regional unemployment.

⁸ J. H. McCulloch, "The Monte Carlo Cycle in Business Activity," *Economic Inquiry*, September 1975, pp. 303-21.

⁹ This results from an extension of spectral analysis to the bivariate, called cross-spectral analysis. Specifically, a gain statistic (which compares the amplitude of the regional jobless series to that of the national series) is generated and, as such, is similar to a regression slope coefficient.

¹⁰ Lynn E. Browne, "Regional Industry Mix and the Business Cycle," *New England Economic Review*, November-December 1978, pp. 35-53.

¹¹ John Barron and Wesley Mellow, "Interstate Differences in Unemployment Insurance," *National Tax Journal*, April 1981, pp. 105-14.

¹² Philip L. Rones, "Moving to the sun: regional job growth, 1968 to 1978," *Monthly Labor Review*, March 1980, pp. 12-19.

¹³ Benjamin H. Stevens and Glynnis A. Trainer, "Differential Regional Impacts of Inflation with Special Reference to Recent Experience in the Northeastern U.S.," in P.B. Carbin and M. Sabrin, eds., *American Geographical Society's First Symposium on Geographical Aspects of Inflationary Processes, Part Two* (Pleasantville, N.Y., Redgrave Publishing Co., 1976), pp. 54-65.

Occupational deaths declined in 1980, BLS survey finds

Bureau of Labor Statistics survey results show that 4,400 work-connected deaths occurred during 1980 in private sector workplaces employing 11 workers or more.¹ (See table 1.) This was 11 percent less than the 4,950 deaths in 1979. The corresponding fatality rate per 100,000 employees dropped from 8.6 in 1979 to 7.7 in 1980.²

Employers participating in the Bureau's Annual Survey of Occupational Injuries and Illnesses were asked to supply specific information about all deaths caused by hazards in the work environment, that is, the object or event most closely associated with the circumstances of the fatality. Fatality percentage estimates by cause have been calculated for both the 1979 and 1980 surveys combined rather than for each year separately, as large sampling errors at the industry division level preclude precise comparisons based on year-to-year changes. Some key survey results:

- Thirty percent of all occupational fatalities were associated with the operation of over-the-road motor vehicles. (See table 2.)

Table 1. Occupational injury and illness fatalities and employment for employers with 11 employees or more by industry, 1979 and 1980

Industry	Annual average employment ¹				Fatalities			
	1979		1980		1979		1980	
	Number (thousands)	Percent	Number (thousands)	Percent	Number	Percent	Number	Percent
Private sector	61,660	100	61,677	100	4,950	100	4,400	100
Agriculture, forestry, and fishing	876	1	943	2	110	2	140	3
Mining	890	1	944	2	490	10	460	10
Construction	3,138	5	3,141	5	960	19	830	19
Manufacturing	20,325	33	19,630	32	1,100	22	1,080	25
Transportation and public utilities	4,637	8	4,665	8	915	19	810	18
Wholesale and retail trade	14,938	24	14,474	23	930	19	580	13
Finance, insurance, and real estate	3,905	6	4,078	7	85	2	150	3
Services	12,951	21	13,802	22	360	7	350	8

¹ Annual average employment for nonagricultural industries is based on the employment and earnings survey conducted by BLS, in cooperation with State agencies. The employment estimate for the services division is adjusted to exclude the nonfarm portion of agricultural services and nonclassifiable establishments. The employment estimates have been adjusted based on County Business Patterns to exclude establishments with fewer than 11 employees. Annual average employment for the agriculture, forestry, and fishing division is a composite of data from

State unemployment insurance programs and estimates of hired farmworkers engaged in agricultural production provided by the Department of Agriculture. The agricultural production employment estimate as originally published by the Department of Agriculture is adjusted to exclude employment on farms with fewer than 11 employees.

NOTE: Because of rounding, components may not add to totals.

- Deaths from heart attacks (11 percent) accounted for about 1 of 9 cases.
- Industrial vehicles or equipment were linked to 10 percent of the deaths, and falls accounted for 9 percent.
- The remaining 40 percent of the deaths were largely caused by electrocutions (8 percent), aircraft crashes (5 percent), objects other than vehicles or equipment striking workers (5 percent), or gun shots (4 percent).
- Heart attack cases were concentrated about equally in manufacturing and trade industries at approximately 20 percent of the total. (See table 3.)

Falls continued to take a heavy toll in the construction industry (48 percent of deaths) as do cases where employees are caught in, under, or between objects other than vehicles or equipment (47 percent).

The 4,400 work injury and illness fatalities in 1980 for units with 11 employees or more represent all deaths reported resulting from an occupational injury or illness that occurred in 1980, regardless of the length of time between the injury and death or the length of the illness resulting in death. Of these, about 500 were related to illness.

Slight decreases in employment and fatalities oc-

Table 2. Causes of fatalities resulting from occupational injury and illness in 1979 and 1980¹ in units with 11 employees or more, private sector, by industry, distribution by industry

[In percent]

Cause ²	Total ³	Agriculture, forestry, and fishing	Mining — oil and gas extraction only	Construction	Manufacturing	Transportation and public utilities ⁴	Wholesale and retail trade	Finance, insurance, and real estate	Services
Total	100	100	100	100	100	100	100	100	100
Over-the-road motor vehicles	30	28	21	16	18	46	48	53	29
Heart attacks	11	15	10	9	9	9	14	24	16
Industrial vehicles or equipment	10	20	20	15	12	5	2	4	8
Falls	9	4	9	22	9	4	2	5	8
Electrocutions	8	5	15	12	6	9	3	1	9
Aircraft crashes	5	6	10	1	4	11	4	11	3
Struck by objects other than vehicles or equipment	5	8	5	8	8	4	2	1	1
Plant machinery operations	4	2	1	1	12	1	2	0	2
Gun shots	4	1	0	(⁵)	1	3	17	1	6
Caught in, under, or between objects other than vehicles or equipment	3	1	1	6	4	1	1	0	(⁵)
Fires	3	5	2	1	6	2	2	0	2
Explosions	2	2	2	3	4	1	1	0	(⁵)
Gas inhalations	2	2	1	2	4	1	(⁵)	0	1
All other	4	2	4	3	4	4	3	1	16

¹ It is impossible to estimate year-to-year changes precisely because at the industry division level sampling errors are large. Therefore, the results are for both years rather than a comparison between them.

² Cause is defined as the object or event associated with the fatality.

³ Excludes coal, metal and nonmetal mining, and railroads for which data are not available.

⁴ Excludes railroads.

⁵ Less than 1 percent.

NOTE: Because of rounding, percentages may not add to 100.

Table 3. Causes of fatalities resulting from occupational injury and illness in 1971 and 1980¹ in units with 11 employees or more, private sector, by industry, distribution by cause

[In percent]

Cause ²	Total ³	Agriculture, forestry, and fishing	Mining—oil and gas extraction only	Construction	Manufacturing	Transportation and public utilities ⁴	Wholesale and retail trade	Finance insurance and real estate	Services
Over-the-road motor vehicles . . .	100	3	4	11	16	28	26	5	7
Heart attacks	100	4	5	17	22	15	21	6	11
Industrial vehicles or equipment . . .	100	6	11	30	33	9	4	1	6
Falls	100	1	6	48	27	7	3	2	7
Electrocutions	100	2	11	30	22	20	7	(⁵)	9
Aircraft crashes	100	4	11	5	19	40	11	6	5
Struck by objects other than vehicles or equipment	100	5	6	28	40	13	8	(⁵)	1
Plant machinery operations	100	1	1	6	79	2	8	0	3
Gun shots	100	(⁵)	0	1	7	11	70	1	11
Caught in, under, or between objects other than vehicles or equipment	100	1	2	47	40	5	5	0	1
Fires	100	5	5	6	56	13	11	0	5
Explosions	100	2	4	28	47	12	7	0	1
Gas inhalation	100	3	2	22	59	7	3	0	5
All other	100	2	5	12	24	16	12	1	29

¹ It is impossible to estimate year-to-year changes precisely because at the industry division level sampling errors are large. Therefore, the results are for both years rather than a comparison between them.

² Cause is defined as the object or event associated with the fatality.

³ Excludes coal, metal and nonmetal mining, and railroads for which data are not available.

⁴ Excludes railroads.

⁵ Less than 1 percent.

NOTE: Because of rounding, percentages may not add to 100.

occurred in manufacturing industries during 1979 and 1980. (See table 1). Construction employment remained constant in 1980 at 5 percent of the total as did the percentage of deaths at 19 percent; however, the number of fatalities decreased 14 percent. Another industry which showed a substantial decrease in deaths was wholesale and retail trade, which dropped 38 percent, while employment declined only slightly. Agriculture, forestry, and fishing; mining; and the services industries recorded some increases in employment and relatively minor fluctuations in their proportion of fatalities.

Industry characteristics

The following is a summary by industry of the objects or events associated with fatalities.

Agriculture, forestry, and fishing. Almost half of all deaths in this industry involved vehicles—28 percent highway cars and trucks and 20 percent industrial types of vehicles or equipment such as tractors, logging equipment, and so forth. Heart attacks accounted for 15 percent and the worker being struck by objects, such as falling trees, for 8 percent.

Mining—oil and gas extraction only. Over-the-road and industrial vehicles were traced to more than 2 of 5 deaths in this section of the mining industry. Electrocutions were the cause of 15 percent of the fatalities and heart attacks, for 10 percent.

Construction. Falls continue to be the major cause of death in the construction industry—22 percent of all cases. Vehicles, both highway and industrial, were charged with almost one-third of the deaths; electrocu-

tions accounted for 12 percent, and heart attacks, 9 percent.

Manufacturing. Vehicles (industrial and highway) were blamed for 30 percent of the deaths, and the operation of plant machinery resulted in 12 percent.

Transportation and public utilities. As in past years, highway motor vehicle accidents were connected with close to one-half of all occupational deaths and aircraft, for 11 percent. Heart attacks were responsible for an additional 9 percent, as were electrocutions primarily in the public utilities.

Wholesale and retail trade. Of all deaths caused by gun shot, 7 of 10 were in this industry. However, 48 percent of the deaths were because of car and truck accidents and 14 percent were traceable to heart attacks.

Finance, insurance, and real estate. Over three-fourths of all fatalities in this industry were attributed to motor vehicles (53 percent) and heart attacks (24 percent). Eleven percent were caused by aircraft crashes.

Services. Following the same pattern as other industries, almost one-third of the fatalities that occurred were connected with over-the-road motor vehicles, while heart attacks made up 16 percent. However, 16 percent of deaths in this industry were caused by objects or events not specified in the tables. These come under "all other" causes and include, for example, contact with toxic substances, drowning, and freezing or extreme cold among the many other causes of occupational death.

Background of survey

The Occupational Injuries and Illnesses Survey is a Federal and State program in which reports are received and processed by State agencies participating with BLS. The occupational fatality data reported through the annual survey are based on the records which employers maintain under the Occupational Safety and Health Act of 1970. Excluded from coverage under the act are working conditions which come under other Federal safety and health laws.

The survey covers units in private industries. Excluded are the self-employed; farmers with fewer than 11

employees; private households; and employees in Federal, State, and local government agencies. In a separate reporting system, agencies of the Federal Government are filing reports comparable with those of private industry with the Secretary of Labor.

The 1980 survey, to which a response was mandatory, involved a sample of 220,000 units with 11 employees or more. Estimates based on a sample may differ from figures that would have been obtained had a complete census of establishments been possible using the same schedules and procedures. A relative standard error is calculated for the estimates generated from the Annual Survey of Occupational Injuries and Illnesses. □

— FOOTNOTES —

¹ Since 1977, the fatality data have been published only for units with 11 employees or more because the reductions of the survey samples affected primarily employers with fewer than 11 employees. The reductions were in response to Presidential directives on reducing the paperwork burden of employers selected to participate in statistical surveys. Data for occupational fatalities in coal, metal, and nonmetal

mining and railroads were provided by the Mine Safety and Health Administration of the U.S. Department of Labor and by the Federal Railroad Administration of the U.S. Department of Transportation; however, data were not provided on the objects or events which resulted in on-the-job deaths for these industrial activities.

² The change may be attributed to sampling error.

A note on communications

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

Major Agreements Expiring Next Month



This list of collective bargaining agreements expiring in February 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.

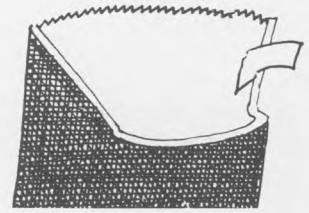
Employer and location	Industry	Union ¹	Number of workers
Anheuser-Busch, Inc. (St. Louis, Mo.)	Food products	Teamsters (Ind.)	1,800
Campbell Soup Co. (Camden, N.J.)	Food products	Food and Commercial Workers	1,300
Central Telephone Co. of Florida	Communication	Electrical Workers (IBEW)	1,050
Cessna Aircraft Co. (Hutchinson, Kans.)	Machinery	Machinists	2,100
Eugene Area Food Agreement (Oregon) ²	Retail trade	Food and Commercial Workers	1,000
Health Manpower Management, Inc. (Minnesota)	Hospitals	Service Employees	5,000
Kroger Co. (Columbus, Ohio)	Retail trade	Food and Commercial Workers	4,150
Ladish Co. (Cudahy, Wis.)	Primary metals	Machinists	2,000
Marine Towing & Transportation Employers' Association (New Jersey and New York)	Water transportation	Longshoremen's Association	2,000
MTL, Inc. (Honolulu, Hawaii)	Transit	Teamsters (Ind.)	1,200
National Airlines, Inc. (Interstate) ³	Air Transportation	Transit Union	1,200
Regional Transportation District (Denver, Colo.)	Transit	Transit Union	1,500
Retail Apparel Merchants Association (New York)	Retail trade	Clothing and Textile Workers	2,500
Rockwell International Corp. (Newport Beach, Calif.)	Electrical products	Electrical Workers (IBEW)	1,200
Rockwell International Corp., Collins Radio Group (Dallas, Tex.)	Electrical products	Electrical Workers (IUE)	2,500
Rockwell International Corp., Radio Group (Cedar Rapids, Iowa)	Electrical products	Electrical Workers (IBEW)	5,200
San Diego Gas & Electric Co. (California)	Utilities	Electrical Workers (IBEW)	2,400
Screen Actors Guild 1975 Commercial Contract (Interstate) ²	Motion pictures	Actors	39,000
Walt Disney Productions Disneyland (Anaheim, Calif.)	Amusements	Service Employees; Food and Commercial Workers; Hotel and Restaurant Employees; Bakery, Confectionary and Tobacco Workers; and Teamsters (Ind.)	1,800
	Government activity	Union or employee organization	
Louisiana Charity Hospital	Hospitals	American Federation of State, County and Municipal Employees	3,000

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

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

³Information is from newspaper report.

Book Reviews



Frontline report on the Depression

One Third of a Nation: Lorena Hickok Reports on the Great Depression. Edited by Richard Lowitt and Maurine Beasley. Champaign, Ill., University of Illinois Press, 1981. 365 pp. \$18.95.

In July 1933, Harry Hopkins, administrator of the Federal Emergency Relief Administration, asked Lorena Hickok to travel the country and report her observations on economic conditions and relief activities. "I don't want statistics from you. I don't want the social-worker angle. I just want your own reaction, as an ordinary citizen Tell me what you see and hear. All of it," Hopkins said. "Don't ever pull your punches."

For the next year and a half, Hickok crossed the country, writing some 120 reports to Hopkins. Meanwhile, she corresponded almost daily with Eleanor Roosevelt. Richard Lowitt (Iowa State University) and Maurine Beasley (University of Maryland) present some 80 letters to Hopkins and 13 to Roosevelt, all from the Franklin D. Roosevelt Library at Hyde Park, N.Y., which give an extensive, pointed, and moving account of the national situation.

Hickok had climbed to the top of the Associated Press as one of the foremost women reporters, following a precarious childhood. The AP assigned her to cover Eleanor Roosevelt during the 1932 Presidential campaign and she became her confidante and unofficial press adviser. In succeeding years, she traveled with the First Lady through New England and eastern Canada, through the West, and to the Caribbean. Indeed, this friendship had strained her relations with the AP, leading her to resign in June 1933. The editors explain, "No doubt the job [for Hopkins] was arranged through Mrs. Roosevelt."

In her travels, Hickok encountered farm strikers and entered California in the aftermath of the San Francisco General Strike. She witnessed the effects of the wind and cold in the Northern Plains, the drought in the Western Plains, and the heat of California's Imperial Valley. And she wrote dramatically of both the poverty suffered and the dilemmas posed by the large black and Mexican populations in the South and Southwest.

With a keen reporter's eye, she sought the story from several angles, talking with local, State, and Federal officials as well as businessmen, farmers, journalists, and

ordinary people from all walks of life—often playing "dumb" to encourage her informants. Then she wrote hard-hitting memos to Hopkins. Of the relief situation in Florida, she said, "It seems to me that I've seen more greed in this State than anywhere else I've been. The whole attitude, both of communities and individuals, seems to be: 'It's Government money! Come on, let's get our share!'"

And she posed a crucial question for all such emergency programs—how to provide enough assistance without eroding confidence and social relations. She quoted a Republican county chairman in Pennsylvania, "What's the use of going back to work if you're worse off than you were before?" In Syracuse, N.Y., she noted that a man with a large family could get \$16 a week on relief while the average minimum wage in private industry was \$14.

Yet, she wrote of the great privation endured. "Do you and your husband and the children all sleep in this bed?" the investigator asked. "We have to," she replied simply, "to keep warm." It was 5 degrees above zero in Bottineau County yesterday."

But she reserved some of her strongest remarks for victims in the broad middle class. For example, she feared the creation of "A whole stranded generation" of workers 40 or 45 or older considered too old for many industries. "Add that whole generation to the list of people who aren't going to get their jobs back because of technological advances, and—well, you've got something."

Yet, she stayed alert to sparks of the human spirit: "They say miners are lazy, but it seems to me you could hardly call a family lazy that would clear and dig up with a pitchfork and spade four acres of land on a mountainside so steep that you could probably not drive a team of horses with a plow up there even if you had them."

Her sympathies definitely lay with the victims—she entitled her own uncompleted attempt to collect and publish her letters, "The Unsung Heroes of the Depression" and dedicated it to the "chislers" and the "shovel-leaners" who have been living on the taxpayers' money." And her observations hit with the impact of Studs Terkel's *Hard Times*, another book which personalizes and humanizes the political histories. Yet, she reaffirms the essential conservatism of most Americans she

met. In something of a rebuke to the revisionists, she quotes the president of the Nebraska Farmers' Union: "We're from Missouri. We don't like Mr. Wallace much, but—we're willing to wait awhile and see what happens."

Two major biases or prejudices are evident. In writing of the South and Southwest, Hickok described the poverty—approaching peonage—experienced by blacks and Mexican-Americans, but her primary concern lay with the white or Anglo "white-collar" middle class. Apparently she spent little time with either blacks or Mexicans. On another level, Hickok traveled mostly through rural areas, and most of her comments emphasized agricultural problems. Although she visited New York, Philadelphia, and other large cities, her observations focused on the immediate need for housing, food, and work. She apparently made little effort to talk to many industrial workers or to the more radical labor organizers.

Hickok's assignment, after all, was to report on economic conditions and the effectiveness of various relief programs. She accomplished this in excellent fashion, providing perceptive personal, administrative, and sociological comment. These reports provide graphic descriptions of the country before the "safety nets" were raised and of the difficulties encountered in erecting them. They are especially pertinent reading at a time when the country is reassessing the role of government developed during the Depression, for they tell it all—the good and the gruesome, the greed and the grace.

—WILLIAM T. MOYE
Historian
Bureau of Labor Statistics

The future of work

Working in the Twenty-First Century. Edited by C. Stewart Sheppard and Donald C. Carroll. New York, Philip Morris, Inc., 1980. 235 pp., bibliography. \$18.95, John Wiley and Sons, New York.

Because work is the primary connection to life for most persons, this collection of thoughtful essays is an attempt to project what life will be like in the coming century. This book focuses on likely patterns of personal value changes, the effects of these on domestic, economic, and social institutions, and how the amalgam of all can be affected by the emerging trends in global, political, and economic activities.

The Business schools of the Universities of Pennsylvania and Virginia cosponsored a symposium to analyze the future. Fifteen knowledgeable persons from business, labor, and the sciences, both social and technical,

were invited to present papers which form the substance of this excellent book. The authors are generally optimistic but they don't evade the projected threats and pitfalls even though the dangers pointed to are sometimes contradictory in accordance with their doctrinal beliefs.

In considering individual values, Suzanne Keller, from a university, enlarges on a theme by Kenneth Boulding, who sees us moving from a "cowboy economy"—reckless, violent and romantic—where incremental production and consumption become almost ends in themselves, to a "spaceship economy" in which production and consumption have value only in relation to protecting people and resources. She maintains that while most people can accommodate the idea of technological change, they are less comfortable with changes in social institutions and customs. Another academician, James O'Toole, sees today's growing erosion of responsibility as a trend which must be shifted to secure a safe passage into the next century. A pervasive march toward cradle to grave entitlements, not only among the unionized work force, but also in the managerial ranks, has sapped, he says, the long-run health of the U.S. economy. He gleans some hope for increasing our acceptance of responsibility in recent northern plant closings where groups of middle-managers and workers have taken over under austere conditions to attempt a rescue of jobs and output.

A spate of authors has raised questions about the new technology. How will it help our society, how will it impinge on the worker, what does it portend for the national ecology? One author says that biosciences and advanced information handling will continue our shift from the industrial to the post-industrial society, bringing many improvements in life and the need for a highly sophisticated work force. William Lucy of the American Federation of State, County and Municipal Employees (AFSCME) points to the preponderance of jobs in services over manufacturing and indicates a continuation of that trend, which, he avers, means a growing group of less skilled, alienated workers in lower-paying jobs, in which any one person is easily replaced. Further, he states that antiunionism is on the rise. Highly sophisticated consultants are placed in establishments to foment clever obstructions where union development might arise. There is also intensive lobbying against prolabor legislation in the Congress.

Theodore Kheel believes, nevertheless, that collective bargaining will be with us during the 21st century, and, if we maintain our system of free enterprise, basic negotiations on conditions of employment will be little changed. He says that unionization in the private sector will remain at about the same level as now, public sector unionization may continue its growth for a while, mergers of unions will continue for more economical

operations, and their political lobbying will continue to grow in seeking favorable labor legislation. The Machinists' William Wimpisinger sees unions influencing corporate decisions by the use of pension fund payments and, alarmed by the growth of multinational companies, predicts that initial attempts will be made to settle industrial relations disputes on a global basis.

Jerome Rosow discusses a University of Michigan survey which indicates a steady decline in worker satisfaction, and states that this "cannot be isolated from the steady decline in the Nation's productivity growth rate." He says that to correct this problem in the future, alternative work patterns like flexitime, part-time shared jobs, and increased worker participation in decisions that affect their jobs will require increasing attention.

James Jordon, an industrial vice president for labor relations, believes that, in the future, plant layoffs will be an obsolete way of controlling variable costs. Given a year or more of training per worker, who in some plants control millions of dollars in capital equipment, new ways to assure job security will become a management goal. On balance, however, he cannot see any sudden future shifts that will greatly change the present status of either management or unions. Ian Wilson, a General Electric consultant, in one of the very few references to poverty in the book, assumes that there will be fewer people in poverty in the coming century because over the past five generations—since 1800—per capita income has doubled each 30 odd years, and despite some possible slowing will likely continue to grow. This increasing affluence will bring greater education, a labor force with more subtle methods at its command for seeking its new values and demands, and an increased emphasis on social, ego, and self-fulfillment needs.

George Vojta, a Citibank vice president, is one of several spokesmen identifying the growing debate on whether future life and work should be based on notions of efficiency or equality. He is a reasoned proponent of free enterprise, which he believes can more efficiently use national resources than can government enterprise because in Schumpeter's terms private enterprise, under pressure to survive, is more likely to destroy old systems and replace with new, while government dominated enterprise, not undergoing similar pressures, often goes the way of Britain, Italy, or the Communist nations. In contrast to William Lucy, Vojta maintains that service jobs will be outpaced by skilled professional, technical, and managerial job growth, and that while the individual productivity of these skilled workers will not markedly increase, the new technology they will direct will yield increasing productivity and opportunity in the service sector.

Only at the risk of its own domestic and international

stability can the United States ignore the needs of the developing countries, says Cecilio Morales, an officer of the Inter-American Development Bank. He identifies the gap between industrial and developing countries in the fact that the industrial countries now have almost the entire world stock of infrastructure, technical know-how, and scientific research capacity. At the same time, high levels of unemployment and poverty in the Third World foster local political instabilities and subsequent international peril points. In the new century, he naturally sees the need for increasing developmental lending, but more important, and even more painful to the United States and Europe, he foresees the need to shift many of their soft-goods industries to those developing nations that offer more natural advantages.

This modest volume is a first-rate repository of seminal ideas for those in business, government, or labor who have the will and courage to look ahead to the next 100 years. All will not agree with these provisions of life and work, but few will lightly cast aside these thoughts.

—KENNETH G. VAN AUKEN, JR.
Special Assistant to the Commissioner
Bureau of Labor Statistics

Want to get ahead? Consider your generation

Birth and Fortune: The Impact of Numbers on Personal Welfare. By Richard A. Easterlin. New York, Basic Books, Inc., 1980. 205 pp. \$11.95.

Is the American malaise identified by former President Carter a temporary blemish or a permanent scar? Economist Richard A. Easterlin believes it is temporary, the result of 1950's baby-boom children desperately competing for good jobs, career promotions, housing, and living space. The national mood will change when the 1970's baby-bust generation comes of age after 1985.

Birth and Fortune is the best-written introduction to the theory that population changes affect and are affected by our sense of economic well-being. After World War II, "government policies stabilizing demand and capping immigration set the stage for the leading role that generation size today plays in determining a cohort's economic welfare." Your cohort or generation now determines, *inter alia*, your economic future; your chances of marrying, having children, and staying married; and your vulnerability to psychological stress and mental illness. Although "other important influences" are also at work, a "baby-boom generation finds the going comparatively tough. Correspondingly, a baby-bust generation will find life relatively easy."

The book is divided into four parts. The first two chapters summarize the argument and the second three discuss the implications of demographic waves on the family. Part three outlines the economic effects of population changes and the final two chapters contain predictions.

Demographic wave theory argues that the relative *size* of your generation (or cohort) blesses or burdens you throughout your lifetime. In the United States, the lucky was born during the 1930's. Its children are the unlucky ones born in the 1950's. The "baby-bust" of the 1960's and 1970's will make life easy for the youth of the 1980's and 1990's, but the 1980's baby boom expected because of these good times will increase competition again after 2005. And so it goes. Every 20 years, a new lucky or unlucky generation comes of age.

Generation size shows up in decisions to marry and have children. A couple's economic prospects depend on their potential earnings and their material aspirations. Because "people generally find mates from within the same economic class," Easterlin approximates earnings potential by comparing the actual income of a young man to his parents' income. As the young man's income rises relative to his parents' income, he (and other young adults) "will feel less economic pressure and hence freer to marry and have children." Using crude approximations, Easterlin finds, not surprisingly, rising relative incomes for young men during the 1946 to 1957 baby boom and declining relative incomes to explain the baby bust since (except for the 1965-69 Vietnam-era boom).

But what about the effects of the pill and women's liberation? Easterlin's not too convincing explanation asserts: "that traditional sex-role attitudes predominate in the population," that improved contraception techniques primarily permit young couples to respond faster to changing economic pressures; and that women still hold largely "female" jobs. Thus, "traditional sex roles will persist." Contraception and liberation only accentuate trends dictated by economics.

Easterlin believes that the social forces reshaping American life *reinforce* more important generation-size effects. The discussion of divorce is illustrative. The "typical" male finds his success linked to his work. "The woman's sense of personal fulfillment . . . in contrast, depends much more on her sense as a parent than as a worker." Couples from large and small generations "retain the same notions about their respective roles," but marital strains and divorce are more common in a large generation.

Large generations do more than break up families and reduce levels of social well-being. They also aggravate inflation, the final nail in the picture that "creates a general feeling of deterioration in society."

How do large generations contribute to stagflation? Easterlin believes that employers hire older experienced workers and younger workers in fixed proportions. When experienced workers are available, employers can hire both old and young and increase production. But large generations lead to a labor market mismatch that impairs traditional Keynesian demand management. When experienced workers are not available, employers stop adding new plants and machines because the employer "cannot staff it with young, inexperienced workers."

Large generations increase the natural or noninflationary unemployment rate in three ways. First, young persons traditionally have higher unemployment rates because searching for a first or new job takes longer without experience. As the youth share of the total work force rises, the unemployment rate creeps up because the "age composition" has changed. There is also a second, reinforcing "age-specific" effect. Because youth and older persons are hired from separate labor queues, more youth increases competition for available jobs and raises the youth unemployment rate. Third, the labor-market problems of young men encourage young women to seek jobs, further increasing competition and raising the youth and total unemployment rate. It is estimated that these labor force changes have added "about 1.5 percentage points" to the noninflationary unemployment rate since 1960.

What does our demographic future hold? Easterlin sees "American society as possibly subject to waves of good times and bad." Declining birth rates (1940-60) make life easy and encourage baby booms. Competition increases when baby booms enter the work force (1960-80), discouraging births. But the baby-bust generation that comes of age between 1980 and 2000 can look forward to "the good news . . . that things will get better." Good times, especially in the 1990's, will prompt another baby boom that will once again increase competition and provoke bad times after 2000. The United States is driven by 20-year fertility cycles, more important than the politicians that will alternately claim and disclaim responsibility for them.

Demographic wave theory argues that the typical couple's outlook depends on its earnings prospects relative to past actual earnings of parents. The all-important male spouse's earnings prospects depend on the share of inexperienced youth workers in the total labor force. This youth share is a result of fertility decisions made 20 years earlier.

Is Easterlin's study of *one* baby boom and bust cycle from 1940 to 1980 really indicative of the future? Easterlin reasserts his belief in the persistence of traditional sex roles, the simple youth share analysis and basic American optimism. However, attitude and structural changes may mute the coming baby boom. But

Easterlin still believes that the baby boom and bust of the last 40 years show that "American life is now subject to a sizable self-generating cycle in economic and social conditions."

Is Easterlin correct to say that the theory will remain valid even if parts of it turn out to be wrong? I believe Easterlin underestimates the social and labor market effects of 1970's insecurities and attitude changes. More important, he draws too sharp a distinction between pre- and post-1940 developments. For example, the 800,000 legal immigrants and refugees admitted to the United States in 1980 are as many as were admitted during the peak 1900-14 immigration waves. To these legal immigrants must be added an unknown number of illegal immigrants—perhaps 300,000 to 500,000 annually. Thus, immigration alone could maintain population growth rates and discourage the expected baby boom.

Some observers look to the 1985 labor force entrance of baby-bust youth with trepidation. They argue that the American economy is ill-prepared to adjust to the labor force shrinkage necessary to spur Easterlin's baby boom. Many want temporary alien workers—guestworkers—to smooth out labor force growth. If the United States obeys these guestworker advocates, it may kill the incentive that would automatically correct this labor force swing.

—PHILIP L. MARTIN
Associate Professor
University of California, Davis

Publications received

Agriculture and natural resources

Musser, Wesley N. and Kostas G. Stamoulis, "Evaluating the Food and Agriculture Act of 1977 with Firm Quadratic Risk Programming," *American Journal of Agricultural Economics*, August 1981, pp. 447-56.

Schultz, Theodore W., "Knowledge Is Power in Agriculture," *Challenge*, September-October 1981, pp. 4-12.

Seligman, Clive and Lawrence J. Baker, Issue eds., "Energy Conservation," *The Journal of Social Issues*, Spring 1981, pp. 1-171.

Economic and social statistics

"Assessment of Federal Support for the Committee on National Statistics," *Statistical Reporter*, August 1981, pp. 437-51.

Hausman, Jerry A., Bronwyn Hall, Zvi Griliches, *Econometric Models for Count Data with an Application to the Patents R&D Relationship*. Cambridge, Mass., National Bureau of Economic Research, Inc., 1981, 57 pp. (Technical Working Paper Series, 17.) \$1.50.

Organization of American States, *Report of The XIV Session of the Committee on Improvement of National Statistics (COINS) Held in Caracas, Venezuela, Oct. 23-30, 1979*.

Washington, General Secretariat of the Organization of American States, *Inter-American Statistical Institute*, 1981, 160 pp. \$9.

Education

Cohen, Gaynor, "Culture and Educational Achievement," *Harvard Educational Review*, May 1981, pp. 270-85.

Venti, Steven and David A. Wise, *Test Scores, Educational Opportunities, and Individual Choice*. Cambridge, Mass., National Bureau of Economic Research, Inc., 1981, 50 pp. (NBER Working Paper Series, 710.) \$1.50.

Economic growth and development

American Enterprise Institute for Public Policy Research, *Essays in Contemporary Problems, Demand, Productivity, and Population*. Washington, 1981, 350 pp. \$17.25, cloth; \$9.25, paper.

Sternlieb, George and David Listokin, eds., *New Tools for Economic Development: The Enterprise Zone, Development Bank, and RFC*. New Brunswick, N.J., Rutgers-The State University of New Jersey, Center for Urban Policy Research, 1981, 231 pp., bibliography. \$12.50, paper.

Health and safety

Deutsch, Steven, ed., "Theme Issue: Occupational Safety and Health," *Labor Studies Journal*, Spring 1981, pp. 3-160.

Patrick, Pamela K. S., *Health Care Worker Burnout: What It Is, What to Do About It*. Chicago, Ill., Inquiry Books, Blue Cross and Blue Shield Associations, 1981, 139 pp. \$11.95, paper.

Industrial relations

Brown, Charles, *The Federal Attack on Labor Market Discrimination: The Mouse That Roared?* Cambridge, Mass., National Bureau of Economic Research, Inc., 1981, 59 pp. (NBER Working Paper Series, 669.) \$1.50.

DeBrock, Lawrence M. and Alvin E. Roth, "Strike Two: Labor-Management Negotiations in Major League Baseball," *The Bell Journal of Economics*, Autumn 1981, pp. 413-25.

Ichniowski, Casey, *Have Angels Done More? The Steel Industry Consent Decree*. Cambridge, Mass., National Bureau of Economic Research, Inc., 1981, 54 pp. (NBER Working Paper Series, 674.) \$1.50.

Latta, Geoffrey W., "Union Organization Among Engineers: A Current Assessment," *Industrial and Labor Relations Review*, October 1981, pp. 29-42.

Meyer, Herbert E., "The Decline of Strikes," *Fortune*, Nov. 2, 1981, beginning on p. 66.

International economics

American Enterprise Institute for Public Policy Research, *Proposed Revisions of the Foreign Corrupt Practices Act*. Washington, 1981, 37 pp. (Legislative Analysis, 29, 97th Cong., 1st sess.)

Crockett, Andrew D., "Stabilization Policies in Developing Countries: Some Policy Considerations," *International Monetary Fund Staff Papers*, March 1981, pp. 54-79.

Fairlamb, David, "Protectionism on Rise in Europe," *Dun's Business Month*, October 1981, beginning on p. 94.

Galenson, Walter, *The International Labor Organization: An*

American View. Madison, Wis., The Board of Regents of the University of Wisconsin System, 1981, 351 pp. \$21.50, cloth; \$7.75, paper, The University of Wisconsin Press, Madison.

Khan, Mohsin S. and Malcolm D. Knight, "Stabilization Programs in Developing Countries: A Formal Framework," *International Monetary Fund Staff Papers*, March 1981, pp. 1-53.

Laker, John F., "Fiscal Proxies for Devaluation: A General Review," *International Monetary Fund Staff Papers*, March 1981, pp. 118-43.

Ruble, Blair A., *Soviet Trade Unions: Their Development in the 1970s*. New York, Cambridge University Press, 1981, 190 pp., bibliography. \$29.50.

Sachs, Jeffrey D., "The Current Account and Macroeconomic Adjustment in the 1970s," *Brookings Papers on Economic Activity* 1, 1981, pp. 201-82.

Steinherr, Alfred, "Effectiveness of Exchange Rate Policy for Trade Account Adjustment," *International Monetary Fund Staff Papers*, March 1981, pp. 199-224.

Timmer, C. Peter, "China and the World Grain Market," *Challenge*, September-October 1981, pp. 13-21.

Wallich, Henry C., "LDC Debt—To Worry or Not to Worry," *Challenge*, September-October 1981, pp. 28-34.

Labor force

Applebaum, Eileen, *Back to Work: Determinants of Women's Successful Re-entry*. Boston, Mass., Auburn House Publishing Co., 1981, 141 pp. \$19.95.

Barron, John M. and Wesley Mellow, "Changes in Labor Force Status Among the Unemployed," *The Journal of Human Resources*, Summer 1981, pp. 427-41.

Ferber, Marianne A. and Bonnie G. Birnbaum, "Labor Force Participation Patterns and Earnings of Women Clerical Workers," *The Journal of Human Resources*, Summer 1981, pp. 416-26.

Great Britain, Department of Employment, *Labour Force Information from the National Dwelling and Housing Survey*. By Ann Barber. (67 pp., Research Paper, 21); *Qualitative Research Among Homeworkers*. By Arnold Cragg and Tim Dawson. (42 pp., Research Paper, 17). London, England, 1981.

Herzog, Henry W., Jr. and Alan M. Schlottmann, "Labor Force Migration and Allocative Efficiency in the United States: The Roles of Information and Psychic Costs," *Economic Inquiry*, July 1981, pp. 459-75.

Miller, W.H., *Building a Skilled Workforce: A Case Study of Employment and Training Practices in an Oil Platform Construction Yard*. Edinburgh, Scotland, Manpower Services Commission, Manpower Intelligence and Planning Division, 1981, 45 pp.

Moore, Willial J., Douglas K. Pearce, R. Mark Wilson, "The Regulation of Occupations and the Earnings of Women," *The Journal of Human Resources*, Summer 1981, pp. 366-83.

Ragan, James F., Jr. and Sharon P. Smith, "The Impact of Differences in Turnover Rates on Male/Female Pay Differentials," *The Journal of Human Resources*, Summer 1981, pp. 343-65.

U.S. Department of Labor, *Job Options for Women in the 80's*. Washington, U.S. Department of Labor, Office of the Secretary, Women's Bureau, 1981, 22 pp. (Pamphlet 18.) \$1.75, Superintendent of Documents, Washington 20402.

Management and organization theory

Carter, Michael F., "Comparable Worth: An Idea Whose Time Has Come?" *Personnel Journal*, October 1981, pp. 792-94.

McGregor, Georgette F. and Joseph A. Robinson, *The Communication Matrix: Ways of Winning with Words*. New York, AMACOM, A division of American Management Associations, 1981, \$15.95.

Merkle, Ned, *Do's and Don'ts of Pension Fund Management*. New York, AMACOM, A division of American Management Associations, 1981, 55 pp. \$5, AMA members; \$7.50, nonmembers.

Ross, Joyce D., "A Definition of Human Resources Management," *Personnel Journal*, October 1981, pp. 781-83.

Ulery, John D., *Job Descriptions in Manufacturing Industries*. New York, AMACOM, A division of American Management Associations, 1981, 161 pp. \$21.95.

Vardaman, George T., *Making Successful Presentations*. New York, AMACOM, A division of American Management Associations, 1981, 271 pp. \$18.95.

Walker, Alfred J., "Management Selection Systems that Meet the Challenges of the '80s," *Personnel Journal*, October 1981, beginning on p. 775.

Monetary and fiscal policy

Blinder, Alan S., "Monetarism Is Obsolete," *Challenge*, September-October 1981, pp. 35-41.

Frederic W. Cook and Co., *Future Value Incentive Plans: Survey of Executive Plans and Trends Among the 200 Largest Industrial Companies*. New York, Frederic W. Cook & Co., Inc., 1981, 16 pp.

Hester, Donald D., "Innovations and Monetary Control," *Brookings Papers on Economic Activity* 1, 1981, pp. 141-99.

Summers, Lawrence H., "Taxation and Corporate Investment: A q-Theory Approach," *Brookings Papers on Economic Activity* 1, 1981, pp. 67-140.

Prices and living conditions

Community Council of Greater New York, *Annual Price Survey—Family Budget Costs, October 1980*. 21st ed. New York, Community Council of Greater New York, Research and Program Planning Information Department, 1981, 63 pp. \$8.

Cornell, Bradford, "Relative Vs. Absolute Price Changes: An Empirical Study," *Economic Inquiry*, July 1981, pp. 506-14.

Flaherty, M. Therese, "Prices Versus Quantities and Vertical Financial Integration," *The Bell Journal of Economics*, Autumn 1981, pp. 507-25.

Wilson, Marilyn, "Inflation Fears—and Facts," *Dun's Business Month*, October 1981, pp. 36-40.

Productivity and technological change

Baily, Martin Neil, "Productivity and the Services of Capital

and Labor," *Brookings Papers on Economic Activity* 1, 1981, pp. 1-65.

Great Britain, Department of Employment, *Inter-plant Comparisons of Productivity and Earnings*. By John M. Ball and N. K. Skeoch. London, England, Department of Employment, Unit for Manpower Studies, 1981, 138 pp. (Government Economic Service Working Paper, 38, Department of Employment Working Paper, 3.)

Urban affairs

Downs, Anthony, *Neighborhoods and Urban Development*. Washington, The Brookings Institution, 1981, 189 pp. \$22.95, cloth; \$8.95, paper.

Viton, Philip A., "On Competition and Product Differentiation in Urban Transportation: The San Francisco Bay Area," *The Bell Journal of Economics*, Autumn 1981, pp. 362-79.

Wages and compensation

American Enterprise Institute for Public Policy Research, *Proposals for a Subminimum Wage for Youth*. Washington, 1981, 68 pp. (Legislative Analysis 28, 97th Cong., 1st sess.)

Ellig, Bruce R., *Executive Compensation—A Total Pay Perspective*. New York, McGraw-Hill Book Co., Inc., 1982, 343 pp. \$24.95.

Freeman, Richard B., Wayne Gray, Casey Ichniowski, *Low Cost Student Labor: The Use and Effects of the Subminimum Wage Provisions for Full-time Students*. Cambridge, Mass., National Bureau of Economic Research, Inc., 1981, 57 pp. (NBER Technical Paper Series, 765.) \$1.50.

Geringer, Wendy M., "Identification and Evaluation of Data Necessary to Establish 'Equitable' Pay Scales for Federal Government Employees," *Public Personnel Management Journal*, Summer 1981, pp. 207-16.

Perham, John, "Flexible Benefits Are Spreading Fast," *Dun's Business Month*, September 1981, pp. 82-85.

U.S. Bureau of Labor Statistics, *Earnings and Other Characteristics of Organized Workers, May 1980*. Prepared by Larry T. Adams. Washington, 1981, 70 pp. (Bulletin 2105.) \$4.25, Superintendent of Documents, Washington 20402.

— *Industry Wage Survey: Banking, February 1980*. Prepared by Carl F. Prieser. Washington, 1981, 90 pp. (Bulletin 2099.) \$4.50, Superintendent of Documents, Washington 20402.

Welfare programs and social insurance

Andrews, David, *Your Rights to Social Security Benefits*. New York, Andrews Publishing Co., 1981, 186 pp. \$4.95, paper, Facts on File, Inc., New York.

Bethell, Tom, "Social Security: Permit for Idleness?" *The Journal/The Institute for Socioeconomic Studies*, Autumn 1981, pp. 40-51.

Chambers, Donald E., "Another Look at Poverty Lines in England and the United States," *Social Service Review*, September 1981, pp. 472-83.

Gustman, Alan L. and Thomas L. Steinmeier, *Partial Retirement and the Analysis of Retirement Behavior*. Cambridge,

Mass., National Bureau of Economic Research, Inc., 1981, 41 pp. (NBER Working Paper Series, 763.) \$1.50.

Kingson, Eric R., "Involuntary Early Retirement," *The Journal/The Institute for Socioeconomic Studies*, Autumn 1981, pp. 27-39.

Mitchell, Olivia S. and Gary S. Fields, *The Effects of Pensions and Earnings on Retirement: A Review Essay*. Cambridge, Mass., National Bureau of Economic Research, Inc., 1981, 60 pp. (NBER Working Paper Series, 772.) \$1.50.

Myles, John, "The Trillion Dollar Misunderstanding," *Working Papers Magazine*, July-August 1981, pp. 22-31.

Organization for Economic Cooperation and Development, *The Welfare State in Crisis: OECD Conference on Social Policies in the 1980's, Paris, Oct. 20-23, 1981*. Washington, 1981, 274 pp. Available from OECD Publications and Information Center, Washington.

Packwood, Bob, "Long-Term Care: Public and Private Sector Policy Options," *The Journal/The Institute for Socioeconomic Studies*, Autumn 1981, pp. 13-26.

Price, Daniel N., "Federal Civil Service Adult Survivor Annuity and Social Security, December 1975," *Social Security Bulletin*, August 1981, pp. 3-14.

Pusic, Eugen, "Social Planning, Social Policy, and Political Change," *Social Service Review*, September 1981, pp. 411-18.

Skidmore, Felicity, ed., *Social Security Financing*. Cambridge, Mass., The MIT Press, 1981, 295 pp. \$30.

Stoesz, David, "A Wake for the Welfare State: Social Welfare and the Neoconservative Challenge," *Social Service Review*, September 1981, pp. 398-410.

Turner, John A., "Inflation and the Accumulation of Assets in Private Pension Funds," *Economic Inquiry*, July 1981, pp. 410-25.

Worker training and development

"Average Salaries . . . and Why They're Not So Average," *Occupational Outlook Quarterly*, Fall 1981, pp. 24-25.

Briggs, Vernon M., Jr. and Felician F. Foltman, eds., *Apprenticeship Research: Emerging Findings and Future Trends*. Ithaca, N.Y., Cornell University, New York State School of Industrial and Labor Relations, 1981, 227 pp. \$7.50, paper.

Cain, Pamela S. and Donald J. Treiman, "The Dictionary of Occupational Titles as a Source of Occupational Data," *American Sociological Review*, June 1981, pp. 253-78.

Flanders, Russell B. and Neale Baxter, "The Sweat of Their Brows: A Look Back Over Occupational Information and Career Counseling," *Occupational Outlook Quarterly*, Fall 1981, pp. 8-11.

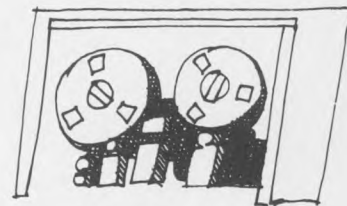
Griffin, John, "Legal Assistants," *Occupational Outlook Quarterly*, Fall 1981, pp. 12-15.

Martin, Gail M., "Prepping Up for a Campus Visit," *Occupational Outlook Quarterly*, Fall 1981, pp. 2-7.

—"You're a What? Color Consultant," *Occupational Outlook Quarterly*, Fall 1981, pp. 30-31.

Novak, Kathy, "Cosmetologists Evaluate Their Schools: An Exploratory Study," *Occupational Outlook Quarterly*, Fall 1981, pp. 26-27. □

Current Labor Statistics



Notes on Current Labor Statistics	62
Schedule of release dates for major BLS statistical series	62
Employment data from household survey. Definitions and notes	63
1. Employment status of noninstitutional population, selected years, 1950-80	63
2. Employment status by sex, age, and race, seasonally adjusted	64
3. Selected employment indicators, seasonally adjusted	65
4. Selected unemployment indicators, seasonally adjusted	66
5. Unemployment rates, by sex and age, seasonally adjusted	67
6. Unemployed persons, by reason for unemployment, seasonally adjusted	67
7. Duration of unemployment, seasonally adjusted	67
Employment, hours, and earnings data from establishment surveys. Definitions and notes	68
8. Employment by industry, 1951-80	69
9. Employment by State	69
10. Employment by industry division and major manufacturing group	70
11. Employment by industry division and major manufacturing group, seasonally adjusted	71
12. Labor turnover rates in manufacturing, 1977 to date	72
13. Labor turnover rates in manufacturing, by major industry group	72
14. Hours and earnings, by industry division, 1950-80	73
15. Weekly hours, by industry division and major manufacturing group	74
16. Weekly hours, by industry division and major manufacturing group, seasonally adjusted	75
17. Hourly earnings, by industry division and major manufacturing group	76
18. Hourly Earnings Index, by industry division, seasonally adjusted	76
19. Weekly earnings, by industry division and major manufacturing group	77
20. Gross and spendable weekly earnings, in current and 1967 dollars, 1961 to date	78
Unemployment insurance data. Definitions	79
21. Unemployment insurance and employment service operations	79
Price data. Definitions and notes	80
22. Consumer Price Index, 1967-80	81
23. Consumer Price Index, U.S. city average, general summary and selected items	81
24. Consumer Price Index, cross classification of region and population size class	87
25. Consumer Price Index, selected areas	88
26. Producer Price Indexes, by stage of processing	89
27. Producer Price Indexes, by commodity groupings	90
28. Producer Price Indexes, for special commodity groupings	92
29. Producer Price Indexes, by durability of product	92
30. Producer Price Indexes for the output of selected SIC industries	92
Productivity data. Definitions and notes	95
31. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years, 1950-80	95
32. Annual changes in productivity, hourly compensation, unit costs, and prices, 1970-80	96
33. Quarterly indexes of productivity, hourly compensation, unit costs, and prices, seasonally adjusted	96
34. Percent change from preceding quarter and year in productivity, hourly compensation, unit costs, and prices	97
Labor-management data. Definitions	98
35. Wage and benefit settlements in major collective bargaining units, 1976 to date	98
36. Effective wage rate adjustments going into effect in major collective bargaining units, 1976 to date	99
37. Work stoppages, 1947 to date	99

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

Series	Release date	Period covered	Release date	Period covered	MLR table number
Employment situation	January 8	December	February 5	January	1-11
Producer Price Index	January 12	December	February 12	January	26-30
Consumer Price Index	January 22	December	February 25	January	22-25
Real earnings	January 22	December	February 25	January	14-20
Labor turnover in manufacturing	January 27	December	...	...	12-13
Productivity and costs:					
Nonfarm business and manufacturing	January 28	4th quarter	...	...	31-34
Work stoppages	January 29	December	February 26	January	37
Major collective bargaining settlements	January 29	1981	...	...	35-36

NOTE: Because of budget reductions in the Bureau of Labor Statistics, the labor turnover series will be discontinued effective with the release of December 1981 data in January 1982.

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	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
TOTAL															
Total noninstitutional population ¹	163,620	166,246	167,201	167,396	167,585	167,747	167,902	168,071	168,272	168,480	168,685	168,855	169,049	169,252	169,435
Total labor force	104,996	106,821	107,404	107,191	107,668	107,802	108,305	108,851	109,533	108,307	108,603	108,762	108,401	108,893	109,187
Civilian noninstitutional population ¹	161,532	164,143	165,082	165,272	165,460	165,627	165,774	165,941	166,145	166,349	166,546	166,695	166,884	167,095	167,277
Civilian labor force	102,908	104,719	105,285	105,067	105,543	105,681	106,177	106,722	107,406	106,176	106,464	106,602	106,236	106,736	107,029
Employed	96,945	97,270	97,339	97,282	97,696	97,927	98,412	98,976	99,235	98,392	98,962	98,944	98,270	98,217	98,025
Agriculture	3,297	3,310	3,340	3,394	3,403	3,281	3,276	3,463	3,353	3,265	3,258	3,370	3,310	3,337	3,363
Nonagricultural industries	93,648	93,960	93,999	93,888	94,294	94,646	95,136	95,513	95,882	95,127	95,704	95,574	94,959	94,880	94,662
Unemployed	5,963	7,448	7,946	7,785	7,847	7,754	7,764	7,746	8,171	7,784	7,502	7,657	7,966	8,520	9,004
Unemployment rate	5.8	7.1	7.5	7.4	7.4	7.3	7.3	7.3	7.6	7.3	7.0	7.2	7.5	8.0	8.4
Not in labor force	58,623	59,425	59,797	60,205	59,917	59,946	59,598	59,219	58,739	60,173	60,082	60,093	60,648	60,359	60,248
Men, 20 years and over															
Civilian noninstitutional population ¹	68,293	69,607	70,095	70,198	70,320	70,413	70,481	70,574	70,687	70,788	70,894	70,978	71,086	71,208	71,331
Civilian labor force	54,486	55,234	55,539	55,470	55,443	55,445	55,816	56,013	56,395	55,876	55,957	56,045	56,063	56,100	56,194
Employed	52,264	51,972	52,007	52,045	52,091	52,134	52,511	52,750	52,849	52,451	52,811	52,724	52,608	52,327	52,151
Agriculture	2,350	2,355	2,372	2,331	2,378	2,289	2,296	2,409	2,349	2,320	2,329	2,402	2,343	2,388	2,358
Nonagricultural industries	49,913	49,617	49,635	49,714	49,713	49,844	50,215	50,342	50,500	50,131	50,482	50,323	50,264	49,939	49,794
Unemployed	2,223	3,261	3,532	3,425	3,352	3,312	3,305	3,262	3,546	3,425	3,147	3,321	3,455	3,733	4,043
Unemployment rate	4.1	5.9	6.4	6.2	6.0	6.0	5.9	5.8	6.3	6.1	5.6	5.9	6.2	6.7	7.2
Not in labor force	13,807	14,373	14,556	14,728	14,877	14,968	14,665	14,561	14,292	14,912	14,937	14,933	15,023	15,108	15,137
Women, 20 years and over															
Civilian noninstitutional population ¹	76,860	78,295	78,842	78,959	79,071	79,175	79,271	79,377	79,498	79,617	79,739	79,848	79,968	80,095	80,211
Civilian labor force	38,910	40,243	40,629	40,570	40,942	41,090	41,293	41,481	41,852	41,743	41,879	41,857	41,395	41,911	42,113
Employed	36,698	37,696	37,909	37,820	38,191	38,410	38,567	38,760	39,014	39,011	39,082	39,155	38,576	38,958	39,050
Agriculture	591	575	574	665	621	615	606	603	583	562	575	601	603	583	655
Nonagricultural industries	36,107	37,120	37,335	37,155	37,570	37,794	37,961	38,157	38,431	38,449	38,507	38,554	37,973	38,376	38,395
Unemployed	2,213	2,547	2,720	2,750	2,860	2,725	2,721	2,838	2,731	2,797	2,701	2,819	2,953	3,062	
Unemployment rate	5.7	6.3	6.7	6.8	6.7	6.5	6.6	6.6	6.8	6.5	6.7	6.5	6.8	7.0	7.3
Not in labor force	37,949	38,052	38,213	38,389	38,129	38,085	37,978	37,896	37,646	37,874	37,860	37,991	38,573	38,184	38,098
Both sexes, 16 to 19 years															
Civilian noninstitutional population ¹	16,379	16,242	16,145	16,114	16,069	16,039	16,022	15,991	15,961	15,944	15,913	15,869	15,831	15,792	15,735
Civilian labor force	9,512	9,242	9,117	9,027	9,158	9,146	9,068	9,228	9,159	8,558	8,628	8,700	8,778	8,724	8,722
Employed	7,984	7,603	7,423	7,417	7,414	7,384	7,334	7,465	7,372	6,930	7,069	7,065	7,086	6,931	6,823
Agriculture	356	380	394	398	404	376	374	451	421	383	354	368	364	366	350
Nonagricultural industries	7,628	7,223	7,029	7,019	7,010	7,008	6,960	7,014	6,951	6,547	6,715	6,697	6,722	6,565	6,473
Unemployed	1,528	1,640	1,694	1,610	1,744	1,762	1,734	1,763	1,787	1,628	1,559	1,635	1,692	1,793	1,899
Unemployment rate	16.1	17.7	18.6	17.8	19.0	19.3	19.1	19.1	19.5	19.0	18.1	18.8	19.3	20.6	21.8
Not in labor force	6,867	7,000	7,028	7,087	6,911	6,893	6,954	6,763	6,802	7,386	7,285	7,169	7,053	7,068	7,013
White															
Civilian noninstitutional population ¹	141,614	143,657	144,359	144,500	144,651	144,774	144,882	145,006	145,160	145,316	145,464	145,575	145,715	145,871	146,007
Civilian labor force	90,602	92,171	92,562	92,383	92,832	93,035	93,313	93,860	94,506	93,464	93,767	93,789	93,355	93,845	94,045
Employed	86,025	86,380	86,409	86,377	86,620	86,940	87,291	87,791	88,083	87,500	87,979	88,046	87,329	87,344	87,058
Unemployed	4,577	5,790	6,153	6,006	6,213	6,095	6,022	6,069	6,422	5,964	5,787	5,743	6,026	6,501	6,987
Unemployment rate	5.1	6.3	6.6	6.5	6.7	6.6	6.5	6.5	6.8	6.4	6.2	6.1	6.5	6.9	7.4
Not in labor force	51,011	51,486	51,797	52,117	51,819	51,739	51,569	51,146	50,654	51,852	51,697	51,786	52,360	52,026	51,962
Black and other															
Civilian noninstitutional population ¹	19,918	20,486	20,723	20,771	20,809	20,853	20,892	20,936	20,985	21,033	21,081	21,120	21,169	21,224	21,270
Civilian labor force	12,306	12,548	12,706	12,668	12,684	12,598	12,765	12,899	12,895	12,741	12,658	12,793	12,872	12,913	12,951
Employed	10,920	10,890	10,922	10,895	11,051	10,942	11,020	11,193	11,138	10,928	10,939	10,877	10,924	10,905	10,944
Unemployed	1,386	1,658	1,784	1,773	1,634	1,655	1,745	1,706	1,757	1,813	1,719	1,916	1,948	2,008	2,007
Unemployment rate	11.3	13.2	14.0	14.0	12.9	13.1	13.7	13.2	13.6	14.2	13.6	15.0	15.1	15.5	15.5
Not in labor force	7,612	7,938	8,017	8,103	8,125	8,255	8,127	8,037	8,090	8,292	8,423	8,327	8,297	8,311	8,319

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

3. Selected employment indicators, seasonally adjusted

[Numbers in thousands]

Selected categories	Annual average		1980		1981										
	1979	1980	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
CHARACTERISTIC															
Total employed, 16 years and over	96,945	97,270	97,339	97,282	97,696	97,927	98,412	98,976	99,235	98,392	98,962	98,944	98,270	98,217	98,025
Men	56,499	55,988	55,897	55,920	56,012	56,045	56,383	56,688	56,718	56,026	56,494	56,368	56,349	56,046	55,783
Women	40,446	41,283	41,442	41,362	41,684	41,882	42,029	42,288	42,517	42,366	42,467	42,577	41,920	42,171	42,241
Married men, spouse present	39,090	38,302	38,167	38,231	38,182	38,113	38,365	38,510	38,498	38,216	38,283	38,315	38,169	38,059	37,798
Married women, spouse present	22,724	23,097	23,065	23,063	23,352	23,356	23,513	23,529	23,831	23,763	23,820	23,683	23,174	23,399	23,326
OCCUPATION															
White-collar workers	49,342	50,809	51,148	51,065	51,594	51,698	51,746	51,801	51,967	51,959	51,857	52,123	51,826	52,104	51,935
Professional and technical	15,050	15,613	15,863	15,810	15,965	15,813	15,827	15,754	15,688	16,057	15,966	16,299	16,254	16,347	16,284
Managers and administrators, except farm	10,516	10,919	11,016	11,009	11,363	11,488	11,565	11,444	11,260	11,174	11,418	11,217	11,341	11,434	11,210
Salesworkers	6,163	6,172	6,155	6,175	6,265	6,271	6,220	6,145	6,461	6,440	6,220	6,369	6,295	6,225	6,269
Clerical workers	17,613	18,105	18,114	18,071	18,001	18,125	18,135	18,457	18,557	18,288	18,254	18,238	17,937	18,099	18,172
Blue-collar workers	32,066	30,800	30,550	30,373	30,338	30,446	30,594	31,156	31,373	30,922	31,038	31,113	30,637	30,222	29,904
Craft and kindred workers	12,880	12,529	12,424	12,337	12,306	12,386	12,605	12,624	12,743	12,482	12,575	12,508	12,202	12,124	12,096
Operatives, except transport	10,909	10,346	10,247	10,194	10,331	10,390	10,189	10,524	10,609	10,550	10,567	10,501	10,334	10,187	9,913
Transport equipment operatives	3,612	3,468	3,429	3,402	3,322	3,361	3,363	3,411	3,390	3,425	3,481	3,499	3,453	3,530	3,364
Nonfarm laborers	4,665	4,456	4,450	4,440	4,380	4,309	4,437	4,596	4,632	4,466	4,415	4,605	4,649	4,381	4,531
Service workers	12,834	12,958	12,888	12,982	12,946	13,070	13,279	13,255	13,213	12,930	13,284	13,002	13,093	13,231	13,419
Farmworkers	2,703	2,704	2,729	2,804	2,737	2,662	2,679	2,834	2,707	2,648	2,689	2,732	2,717	2,752	2,791
MAJOR INDUSTRY AND CLASS OF WORKER															
Agriculture:															
Wage and salary workers	1,413	1,384	1,417	1,411	1,465	1,336	1,338	1,524	1,464	1,377	1,457	1,472	1,416	1,470	1,395
Self-employed workers	1,580	1,628	1,612	1,655	1,615	1,610	1,615	1,648	1,644	1,657	1,568	1,629	1,649	1,616	1,631
Unpaid family workers	304	297	324	305	284	325	312	290	231	258	235	250	254	264	333
Nonagricultural industries:															
Wage and salary workers	86,540	86,706	86,643	86,513	87,125	87,236	87,870	88,195	88,877	87,734	88,291	88,189	87,457	87,556	87,265
Government	15,369	15,624	15,651	15,653	15,738	15,589	15,685	15,628	15,512	15,460	15,349	15,140	15,111	15,151	15,066
Private industries	71,171	71,081	70,992	70,860	71,387	71,647	72,185	72,567	73,365	72,274	72,942	73,048	72,346	72,405	72,199
Private households	1,240	1,166	1,148	1,110	1,197	1,176	1,235	1,241	1,164	1,146	1,211	1,236	1,052	1,114	1,173
Other industries	69,931	69,915	69,844	69,750	70,190	70,471	70,949	71,327	72,201	71,128	71,731	71,812	71,294	71,291	71,026
Self-employed workers	6,652	6,850	6,943	6,973	6,839	6,923	6,896	7,021	6,761	7,005	6,886	6,942	7,093	7,033	7,001
Unpaid family workers	455	404	405	396	422	371	354	306	338	369	389	378	392	448	423
PERSONS AT WORK ¹															
Nonagricultural industries	88,133	88,325	88,694	88,468	89,499	89,441	89,583	89,202	89,870	89,625	90,837	89,823	88,886	89,448	89,359
Full-time schedules	72,647	72,022	72,265	72,131	72,807	72,945	72,875	72,761	73,375	73,115	74,232	72,932	72,192	72,187	72,276
Part time for economic reasons	3,281	3,965	4,176	4,218	4,474	4,145	4,227	4,044	4,143	3,798	4,225	4,187	4,537	5,026	4,988
Usually work full time	1,325	1,669	1,620	1,647	1,698	1,622	1,638	1,517	1,630	1,367	1,632	1,654	1,675	2,023	1,898
Usually work part time	1,956	2,296	2,556	2,571	2,776	2,523	2,589	2,527	2,513	2,431	2,593	2,533	2,862	3,003	3,090
Part time for noneconomic reasons	12,205	12,338	12,253	12,119	12,218	12,351	12,481	12,397	12,352	12,713	12,380	12,704	12,157	12,235	12,094

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

4. Selected unemployment indicators, seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		1980		1981										
	1979	1980	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
CHARACTERISTIC															
Total, 16 years and over	5.8	7.1	7.5	7.4	7.4	7.3	7.3	7.3	7.6	7.3	7.0	7.2	7.5	8.0	8.4
Men, 20 years and over	4.1	5.9	6.4	6.2	6.0	6.0	5.9	5.8	6.3	6.1	5.6	5.9	6.2	6.7	7.2
Women, 20 years and over	5.7	6.3	6.7	6.8	6.7	6.5	6.6	6.6	6.8	6.5	6.7	6.5	6.8	7.0	7.3
Both sexes, 16 to 19 years	16.1	17.7	18.6	17.8	19.0	19.3	19.1	19.1	19.5	19.0	18.1	18.8	19.3	20.6	21.8
White, total	5.1	6.3	6.6	6.5	6.7	6.6	6.5	6.5	6.8	6.4	6.2	6.1	6.5	6.9	7.4
Men, 20 years and over	3.6	5.2	5.7	5.5	5.5	5.4	5.4	5.2	5.6	5.3	4.9	5.1	5.3	5.9	6.3
Women, 20 years and over	5.0	5.6	5.8	5.9	6.0	5.7	5.6	5.7	6.0	5.7	5.8	5.4	5.7	6.1	6.4
Both sexes, 16 to 19 years	13.9	14.8	16.4	15.4	16.8	17.4	16.9	17.2	18.0	16.5	16.1	15.6	17.0	17.6	19.3
Black and other, total	11.3	13.2	14.0	14.0	12.9	13.1	13.7	13.2	13.6	14.2	13.6	15.0	15.1	15.5	15.5
Men, 20 years and over	8.4	11.4	12.0	11.6	10.5	10.8	10.8	10.6	11.8	12.5	11.6	12.4	13.0	13.3	14.0
Women, 20 years and over	10.1	11.1	12.2	12.3	11.0	11.9	12.6	11.8	12.0	12.0	12.0	12.8	13.7	13.3	12.8
Both sexes, 16 to 19 years	33.5	35.8	36.6	37.5	36.5	35.4	37.3	36.1	33.6	38.6	36.4	45.7	37.5	42.9	41.3
Married men, spouse present	2.7	4.2	4.4	4.3	4.2	4.1	4.1	3.8	4.1	4.2	3.9	3.9	4.3	4.7	5.1
Married women, spouse present	5.1	5.8	5.9	5.8	6.2	5.8	6.0	5.9	5.9	5.6	5.6	5.3	5.9	6.1	6.6
Women who head families	8.3	9.1	9.9	10.4	10.5	9.6	9.4	9.8	10.3	10.6	11.5	9.8	10.6	10.7	10.9
Full-time workers	5.3	6.8	7.4	7.3	7.1	7.1	7.1	6.9	7.3	7.0	6.7	6.7	7.2	7.7	8.1
Part-time workers	8.7	8.7	8.6	8.2	9.2	9.1	9.0	9.0	9.7	9.2	9.3	9.7	9.6	9.5	10.2
Unemployed 15 weeks and over	1.2	1.7	2.2	2.3	2.2	2.1	2.1	2.0	2.0	2.2	2.0	2.1	2.1	2.1	2.2
Labor force time lost ¹	6.3	7.9	8.3	8.2	8.2	8.1	8.1	8.2	8.6	8.0	7.9	7.9	8.5	9.1	9.4
OCCUPATION															
White-collar workers	3.3	3.7	3.9	4.0	3.9	3.7	3.9	4.0	4.1	3.8	4.1	3.9	4.1	4.1	4.2
Professional and technical	2.4	2.5	2.5	2.6	2.8	2.6	2.7	3.2	2.9	2.8	2.8	2.4	2.8	2.6	2.7
Managers and administrators, except farm	1.9	2.4	2.4	2.5	2.4	2.4	2.6	2.4	2.7	2.8	2.7	2.8	2.7	2.7	3.0
Salesworkers	3.9	4.4	4.8	4.7	4.4	4.0	3.8	4.0	4.6	4.1	5.1	4.7	5.2	4.9	5.2
Clerical workers	4.6	5.3	5.6	5.8	5.7	5.3	5.9	5.6	5.6	5.3	5.7	5.6	5.7	6.1	6.1
Blue-collar workers	6.9	10.0	10.7	10.5	10.2	10.1	9.8	9.6	10.0	9.8	9.4	9.3	10.2	11.0	11.8
Craft and kindred workers	4.5	6.6	7.1	7.1	6.8	7.2	7.1	6.8	7.7	7.2	6.7	6.9	7.6	8.4	8.4
Operatives, except transport	8.4	12.2	13.0	12.9	12.1	11.9	11.3	11.5	11.9	11.0	11.1	11.0	11.5	12.8	14.2
Transport equipment operatives	5.4	8.8	10.6	8.8	9.1	8.3	9.3	8.1	8.2	8.4	6.9	7.9	8.9	7.9	10.7
Nonfarm laborers	10.8	14.6	15.0	14.8	15.0	14.9	14.1	13.8	13.1	14.8	14.2	12.9	14.4	15.7	16.2
Service workers	7.1	7.9	8.3	7.8	8.0	8.7	8.1	8.5	9.4	9.0	8.0	8.9	8.9	9.3	9.8
Farmworkers	3.8	4.4	4.0	4.0	5.0	4.7	5.1	3.7	5.4	6.0	4.5	5.6	3.7	6.1	6.1
INDUSTRY															
Nonagricultural private wage and salary workers ²	5.7	7.4	7.8	7.7	7.5	7.5	7.3	7.2	7.8	7.4	7.2	7.2	7.6	8.1	8.5
Construction	10.2	14.2	14.8	13.8	13.3	13.2	14.7	14.4	16.3	16.6	15.0	16.7	16.3	18.0	18.2
Manufacturing	5.5	8.5	8.9	8.8	8.4	8.4	8.0	7.4	7.9	7.6	7.3	7.0	7.8	8.6	9.4
Durable goods	5.0	8.9	9.0	9.0	8.3	8.5	7.9	7.3	7.3	7.4	7.3	6.4	7.6	8.6	9.4
Nondurable goods	6.4	7.9	8.6	8.5	8.5	8.2	8.3	7.6	8.9	7.8	7.3	7.9	8.0	8.6	9.5
Transportation and public utilities	3.7	4.9	4.9	4.9	5.8	5.5	6.4	5.7	5.9	4.7	4.0	4.8	4.0	4.6	5.5
Wholesale and retail trade	6.5	7.4	8.2	8.3	7.6	7.6	7.3	7.3	8.4	7.5	7.9	7.8	8.6	8.3	8.7
Finance and service industries	4.9	5.3	5.5	5.5	5.8	6.0	5.6	5.9	5.9	5.8	5.6	5.6	5.9	6.3	6.1
Government workers	3.7	4.1	4.2	4.1	4.4	4.3	4.6	4.9	4.8	4.5	4.5	4.4	4.6	4.6	5.3
Agricultural wage and salary workers	9.1	10.8	10.1	10.6	11.5	12.1	11.9	9.1	11.1	13.1	10.3	12.6	10.6	13.3	14.4

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

² Includes mining, not shown separately.

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

Sex and age	Annual average		1980		1981										
	1979	1980	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Total, 16 years and over	5.8	7.1	7.5	7.4	7.4	7.3	7.3	7.3	7.6	7.3	7.0	7.2	7.5	8.0	8.4
16 to 19 years	16.1	17.7	18.6	17.8	19.0	19.3	19.1	19.1	19.5	19.0	18.1	18.8	19.3	20.6	21.8
16 to 17 years	18.1	20.0	21.4	19.9	21.0	21.4	21.3	22.0	21.6	22.6	19.3	20.5	21.2	21.4	23.1
18 to 19 years	14.6	16.1	16.5	16.4	17.5	17.9	17.7	17.2	18.2	17.3	17.7	17.4	18.1	19.9	20.7
20 to 24 years	9.0	11.5	12.1	11.7	11.9	11.8	11.7	12.1	12.9	12.1	11.3	11.8	12.1	12.8	13.0
25 years and over	3.9	5.0	5.4	5.3	5.3	5.1	5.2	5.0	5.3	5.2	5.1	5.1	5.4	5.8	6.1
25 to 54 years	4.1	5.4	5.9	5.8	5.7	5.5	5.5	5.4	5.6	5.6	5.4	5.4	5.8	6.1	6.6
55 years and over	3.0	3.3	3.3	3.5	3.5	3.6	3.7	3.3	3.3	3.4	3.5	3.5	3.8	3.9	3.7
Men, 16 years and over	5.1	6.9	7.4	7.2	7.2	7.1	7.0	6.9	7.4	7.1	6.6	7.0	7.2	7.7	8.3
16 to 19 years	15.8	18.2	19.8	19.0	20.3	20.1	19.5	19.3	20.2	19.8	18.4	19.7	19.3	19.7	22.0
16 to 17 years	17.9	20.4	22.3	20.5	23.0	22.1	21.1	22.7	22.7	24.4	19.8	21.5	21.2	20.6	23.0
18 to 19 years	14.2	16.7	17.8	17.8	18.5	18.7	18.6	17.0	18.3	18.1	17.8	18.1	18.1	19.1	21.2
20 to 24 years	8.6	12.5	13.2	12.5	12.8	12.7	13.0	13.2	14.2	12.8	11.3	12.7	12.9	13.9	14.6
25 years and over	3.3	4.7	5.1	4.9	4.9	4.8	4.7	4.6	4.8	5.0	4.7	4.8	5.0	5.5	5.8
25 to 54 years	3.4	5.1	5.6	5.4	5.2	5.2	5.1	4.9	5.1	5.3	4.9	5.0	5.5	5.9	6.4
55 years and over	2.9	3.3	3.3	3.3	3.4	3.4	3.2	3.1	3.4	3.5	3.4	3.4	3.5	3.8	3.6
Women, 16 years and over	6.8	7.4	7.7	7.7	7.7	7.6	7.7	7.7	7.9	7.6	7.7	7.5	7.9	8.3	8.5
16 to 19 years	16.4	17.2	17.2	16.5	17.5	18.4	18.7	18.9	18.7	18.2	17.7	17.8	19.3	21.5	21.5
16 to 17 years	18.3	19.5	20.3	19.3	18.7	20.5	21.6	21.1	20.4	20.6	18.7	19.5	21.1	22.4	23.3
18 to 19 years	15.0	15.6	15.1	14.8	16.4	17.0	16.5	17.4	18.2	16.4	17.5	16.8	18.1	20.8	20.1
20 to 24 years	9.6	10.3	10.8	10.8	10.8	10.8	10.1	10.9	11.4	11.2	11.3	10.8	11.2	11.5	11.2
25 years and over	4.8	5.5	5.8	5.9	5.8	5.6	5.9	5.6	5.9	5.6	5.7	5.5	5.9	6.1	6.4
25 to 54 years	5.2	5.9	6.2	6.3	6.3	5.9	6.2	6.0	6.4	6.0	6.1	5.9	6.3	6.5	6.9
55 years and over	3.2	3.2	3.4	3.9	3.6	3.9	4.5	3.7	3.3	3.3	3.7	3.6	4.4	4.1	3.8

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

[Numbers in thousands]

Reason for unemployment	1980		1981										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
NUMBER OF UNEMPLOYED													
Lost last job	4,229	4,226	3,847	3,896	3,846	3,819	4,084	4,219	3,691	3,929	4,338	4,422	4,786
On layoff	1,453	1,470	1,258	1,267	1,299	1,280	1,368	1,367	1,178	1,205	1,412	1,607	1,790
Other job losers	2,776	2,756	2,590	2,629	2,547	2,539	2,715	2,852	2,513	2,724	2,925	2,815	2,996
Left last job	897	813	907	884	863	854	1,009	863	898	838	889	962	886
Reentered labor force	1,896	1,869	2,039	1,970	2,040	2,017	2,126	1,955	2,022	1,939	1,949	2,172	2,311
Seeking first job	890	868	1,000	928	986	987	938	956	873	944	953	987	977
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	53.5	54.3	49.4	50.7	49.7	49.7	50.1	52.8	49.3	51.4	53.4	51.8	53.4
On layoff	18.4	18.9	16.1	16.5	16.8	16.7	16.8	17.1	15.7	15.7	17.4	18.8	20.0
Other job losers	35.1	35.4	33.2	34.2	32.9	33.1	33.3	35.7	33.6	35.6	36.0	33.0	33.4
Job leavers	11.3	10.5	11.6	11.5	11.2	11.1	12.4	10.8	12.0	11.0	10.9	11.3	9.9
Reentrants	24.0	24.0	26.2	25.7	26.4	26.3	26.1	24.5	27.0	25.4	24.0	25.4	25.8
New entrants	11.2	11.2	12.8	12.1	12.7	12.9	11.5	12.0	11.7	12.3	11.7	11.6	10.9
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE													
Job losers	4.0	4.0	3.6	3.7	3.6	3.6	3.8	4.0	3.5	3.7	4.1	4.1	4.5
Job leavers .....	.9	.8	.9	.8	.8	.8	.8	.8	.8	.8	.8	.9	.8
Reentrants	1.8	1.8	1.9	1.9	1.9	1.9	2.0	1.8	1.9	1.8	1.8	2.0	2.2
New entrants .....	.8	.8	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9

7. Duration of unemployment, seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		1980		1981										
	1979	1980	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Less than 5 weeks	2,869	3,208	3,108	3,115	3,259	3,203	3,209	3,074	3,369	3,172	3,187	3,161	3,383	3,652	3,815
5 to 14 weeks	1,892	2,411	2,524	2,217	2,264	2,324	2,356	2,462	2,581	2,360	2,196	2,345	2,489	2,605	2,861
15 weeks and over	1,202	1,829	2,329	2,378	2,358	2,250	2,192	2,105	2,168	2,315	2,100	2,194	2,212	2,251	2,330
15 to 26 weeks	684	1,028	1,213	1,231	1,079	992	1,013	1,001	1,022	1,205	1,068	1,059	1,151	1,156	1,213
27 weeks and over	518	802	1,116	1,147	1,279	1,257	1,179	1,104	1,146	1,110	1,132	1,135	1,061	1,095	1,117
Average (mean) duration, in weeks	10.9	11.9	13.6	13.5	14.4	14.4	14.0	13.7	13.2	14.2	13.9	14.5	13.7	13.7	13.2

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 1981 data, published in the August 1981 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 1981 and seasonally adjusted data from January 1974 through March 1981) 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 1979-81, see *Employment and Earnings*, March 1981, 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	89,823	958	4,463	21,040	5,136	20,192	5,204	14,989	4,975	17,112	15,947	2,773	13,147
1980	90,564	1,020	4,399	20,300	5,143	20,386	5,281	15,104	5,168	17,901	16,249	2,866	13,383

¹Data include Alaska and Hawaii beginning in 1959.

9. Employment by State

[Nonagricultural payroll data, in thousands]

State	Oct. 1980	Sept. 1981	Oct. 1981 ^P	State	Oct. 1980	Sept. 1981	Oct. 1981 ^P
Alabama	1,357.8	1,350.4	1,351.2	Montana	283.2	288.9	285.8
Alaska	174.0	184.9	180.4	Nebraska	632.1	636.9	635.8
Arizona	1,007.8	1,012.6	1,022.4	Nevada	406.3	425.9	427.9
Arkansas	754.1	757.8	756.5	New Hampshire	388.4	392.4	390.8
California	9,872.5	9,986.1	9,993.1	New Jersey	3,065.4	3,104.0	(¹)
Colorado	1,262.6	1,278.6	1,282.4	New Mexico	462.0	471.7	471.1
Connecticut	1,428.9	1,432.3	1,431.9	New York	7,243.4	7,236.5	7,278.8
Delaware	260.7	259.9	259.6	North Carolina	2,408.0	2,405.9	2,410.3
District of Columbia	609.8	604.6	606.2	North Dakota	250.3	251.2	254.9
Florida	3,606.5	3,754.6	3,767.4	Ohio	4,413.3	4,398.0	4,407.5
Georgia	2,163.8	2,160.4	2,168.7	Oklahoma	1,148.5	1,193.0	1,196.1
Hawaii	400.0	394.8	398.4	Oregon	1,044.1	1,021.2	1,018.6
Idaho	337.8	330.7	330.8	Pennsylvania	4,764.6	4,655.6	4,681.0
Illinois	4,881.9	4,860.0	4,865.2	Rhode Island	403.8	403.8	405.7
Indiana	2,143.2	2,141.4	2,128.4	South Carolina	1,190.4	1,188.5	1,191.4
Iowa	1,096.2	1,082.5	1,082.4	South Dakota	237.2	233.0	234.5
Kansas	952.4	958.4	957.8	Tennessee	1,734.6	1,732.2	1,726.8
Kentucky	1,214.6	1,199.3	1,202.0	Texas	5,975.6	6,183.7	6,212.8
Louisiana	1,599.4	1,649.4	1,656.1	Utah	556.3	556.8	556.9
Maine	426.3	423.6	419.5	Vermont	204.1	203.2	205.1
Maryland	1,699.0	1,698.0	1,690.0	Virginia	2,141.4	2,154.9	2,150.4
Massachusetts	2,664.6	2,655.0	2,681.0	Washington	1,610.4	1,591.8	1,582.6
Michigan	3,491.4	3,484.9	3,471.4	West Virginia	651.3	632.7	633.4
Minnesota	1,783.9	1,782.9	1,782.9	Wisconsin	1,960.3	1,984.1	1,969.2
Mississippi	834.4	824.5	825.1	Wyoming	210.4	212.3	211.6
Missouri	1,972.7	1,979.5	1,976.3	Virgin Islands	35.7	35.2	34.8

¹ Not available.

10. Employment by industry division and major manufacturing group

[Nonagricultural payroll data, in thousands]

Industry division and group	Annual average		1980		1981										
	1979	1980	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. P	Nov. P
TOTAL	89,823	90,564	91,599	91,750	89,988	90,138	90,720	91,337	91,848	92,481	91,600	91,598	92,159	92,389	92,331
MINING	958	1,020	1,051	1,060	1,066	1,071	1,084	941	957	1,132	1,155	1,169	1,169	1,166	1,177
CONSTRUCTION	4,463	4,399	4,533	4,343	3,995	3,901	4,048	4,246	4,356	4,477	4,554	4,579	4,516	4,494	4,382
MANUFACTURING	21,040	20,300	20,293	20,238	20,075	20,065	20,160	20,253	20,342	20,531	20,337	20,473	20,600	20,353	20,142
Production workers	15,068	14,223	14,190	14,126	13,975	13,971	14,049	14,127	14,195	14,325	14,108	14,230	14,376	14,138	13,935
Durable goods	12,760	12,181	12,156	12,147	12,072	12,042	12,120	12,197	12,235	12,334	12,198	12,188	12,292	12,157	12,021
Production workers	9,110	8,438	8,391	8,374	8,305	8,279	8,345	8,412	8,438	8,500	8,347	8,323	8,440	8,312	8,173
Lumber and wood products	766.9	690.3	687.9	685.9	674.6	674.5	678.3	686.9	703.4	711.0	708.6	701.5	691.0	666.1	647.3
Furniture and fixtures	497.8	468.8	468.6	470.5	469.6	471.7	472.1	478.0	479.0	480.5	472.0	480.6	484.7	482.0	473.7
Stone, clay, and glass products	708.7	665.6	665.2	652.3	635.0	630.6	639.5	652.6	659.7	671.0	666.7	669.1	664.5	653.0	642.9
Primary metal industries	1,253.9	1,144.1	1,123.3	1,136.3	1,136.7	1,137.7	1,141.3	1,149.9	1,147.5	1,155.5	1,135.5	1,140.3	1,138.8	1,108.0	1,097.3
Fabricated metal products	1,717.7	1,609.0	1,597.6	1,596.4	1,580.2	1,578.1	1,585.4	1,593.7	1,596.1	1,606.8	1,584.5	1,590.9	1,607.5	1,584.3	1,562.3
Machinery, except electrical	2,484.8	2,497.0	2,479.6	2,496.8	2,496.9	2,498.4	2,504.3	2,506.1	2,508.6	2,531.3	2,517.4	2,511.4	2,540.7	2,527.8	2,525.4
Electric and electronic equipment	2,116.9	2,103.2	2,109.6	2,118.0	2,114.0	2,112.3	2,119.5	2,129.7	2,134.7	2,152.7	2,138.9	2,146.1	2,164.8	2,157.7	2,133.1
Transportation equipment	2,077.2	1,875.3	1,894.6	1,871.4	1,854.9	1,824.8	1,860.4	1,874.3	1,877.4	1,882.7	1,840.3	1,799.6	1,848.3	1,829.9	1,796.9
Instruments and related products	691.2	708.5	711.2	713.8	712.4	710.1	712.1	714.4	715.2	723.2	722.1	726.2	723.1	719.2	715.3
Miscellaneous manufacturing	444.8	419.3	417.9	405.9	398.0	403.3	406.7	411.3	413.4	419.5	412.3	421.8	428.7	429.3	426.6
Nondurable goods	8,280	8,118	8,137	8,091	8,003	8,023	8,040	8,056	8,107	8,197	8,139	8,285	8,308	8,196	8,121
Production workers	5,958	5,786	5,799	5,752	5,670	5,692	5,704	5,715	5,757	5,825	5,761	5,907	5,936	5,826	5,762
Food and kindred products	1,732.5	1,710.8	1,719.3	1,688.5	1,645.2	1,639.2	1,632.5	1,631.0	1,648.1	1,673.4	1,714.8	1,773.2	1,776.1	1,721.8	1,674.2
Tobacco manufactures	70.0	69.2	75.3	74.4	72.0	70.6	68.3	66.2	65.2	66.4	66.3	75.6	77.7	77.1	75.4
Textile mill products	885.1	852.7	847.8	846.1	841.0	841.1	840.9	841.6	844.3	851.0	836.5	847.3	850.2	833.7	827.3
Apparel and other textile products	1,304.3	1,265.8	1,262.3	1,241.1	1,222.8	1,238.7	1,250.2	1,255.2	1,265.9	1,283.9	1,231.1	1,276.8	1,287.3	1,272.7	1,260.4
Paper and allied products	706.8	694.0	691.4	691.5	687.7	687.7	688.6	690.9	693.1	701.0	696.4	700.3	702.0	692.8	691.5
Printing and publishing	1,235.1	1,258.3	1,268.2	1,278.3	1,269.0	1,273.6	1,278.2	1,280.4	1,281.8	1,286.2	1,286.5	1,289.4	1,294.1	1,298.7	1,308.6
Chemicals and allied products	1,109.3	1,107.4	1,100.1	1,101.2	1,100.1	1,102.9	1,106.8	1,106.2	1,110.3	1,121.1	1,116.6	1,112.0	1,110.5	1,103.3	1,101.3
Petroleum and coal products	209.8	196.6	209.5	206.8	206.5	205.7	207.0	209.5	212.9	215.4	216.1	215.4	212.7	211.0	210.2
Rubber and miscellaneous plastics products	781.6	730.7	730.6	733.2	731.8	734.2	737.2	743.5	749.2	759.0	747.0	756.8	760.8	748.2	738.2
Leather and leather products	245.7	232.6	232.5	229.4	226.9	229.5	230.4	231.7	235.9	239.1	227.5	238.6	237.0	236.7	234.2
TRANSPORTATION AND PUBLIC UTILITIES	5,136	5,143	5,147	5,150	5,063	5,076	5,095	5,120	5,148	5,195	5,177	5,175	5,222	5,200	5,197
WHOLESALE AND RETAIL TRADE	20,192	20,386	20,761	21,138	20,366	20,196	20,290	20,513	20,672	20,795	20,735	20,811	20,919	20,993	21,136
WHOLESALE TRADE	5,204	5,281	5,312	5,315	5,276	5,273	5,293	5,317	5,335	5,381	5,376	5,386	5,370	5,381	5,378
RETAIL TRADE	14,989	15,104	15,449	15,823	15,090	14,923	14,997	15,196	15,337	15,414	15,359	15,425	15,549	15,612	15,758
FINANCE, INSURANCE, AND REAL ESTATE	4,975	5,168	5,223	5,237	5,235	5,245	5,263	5,295	5,326	5,384	5,408	5,408	5,361	5,348	5,344
SERVICES	17,112	17,901	18,118	18,149	17,972	18,126	18,287	18,512	18,633	18,764	18,847	18,835	18,812	18,820	18,790
GOVERNMENT	15,947	16,249	16,473	16,435	16,216	16,458	16,493	16,457	16,414	16,203	15,387	15,148	15,560	16,015	16,163
Federal	2,773	2,866	2,776	2,782	2,773	2,774	2,769	2,773	2,782	2,825	2,833	2,803	2,735	2,734	2,738
State and local	13,174	13,383	13,697	13,653	13,443	13,684	13,724	13,684	13,632	13,378	12,554	12,345	12,825	13,281	13,425

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

[Nonagricultural payroll data, in thousands]

Industry division and group	1980		1981										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. P	Nov. P
TOTAL	90,844	90,949	91,091	91,258	91,347	91,458	91,564	91,615	91,880	91,901	92,033	91,798	91,561
MINING	1,052	1,069	1,083	1,091	1,098	950	957	1,110	1,132	1,151	1,162	1,164	1,179
CONSTRUCTION	4,389	4,387	4,390	4,389	4,416	4,418	4,334	4,284	4,272	4,275	4,272	4,260	4,242
MANUFACTURING	20,188	20,175	20,174	20,177	20,191	20,332	20,414	20,424	20,535	20,505	20,496	20,227	20,038
Production workers	14,081	14,059	14,053	14,053	14,074	14,187	14,247	14,245	14,327	14,294	14,281	14,018	13,825
Durable goods	12,090	12,077	12,084	12,074	12,099	12,207	12,254	12,278	12,333	12,332	12,311	12,108	11,953
Production workers	8,320	8,301	8,306	8,297	8,325	8,412	8,442	8,455	8,491	8,485	8,465	8,265	8,103
Lumber and wood products	683	687	689	691	692	702	710	699	702	686	677	654	642
Furniture and fixtures	463	464	464	466	467	478	484	486	488	487	485	479	468
Stone, clay, and glass products	658	655	654	654	651	656	658	658	658	660	655	645	635
Primary metal industries	1,126	1,137	1,137	1,140	1,141	1,145	1,142	1,144	1,140	1,148	1,139	1,112	1,099
Fabricated metal products	1,582	1,581	1,579	1,577	1,581	1,595	1,604	1,604	1,614	1,610	1,606	1,575	1,545
Machinery, except electrical	2,489	2,490	2,487	2,481	2,480	2,491	2,511	2,521	2,533	2,542	2,551	2,548	2,536
Electric and electronic equipment	2,096	2,103	2,110	2,110	2,117	2,134	2,143	2,148	2,163	2,166	2,163	2,149	2,120
Transportation equipment	1,874	1,839	1,840	1,833	1,849	1,878	1,872	1,886	1,886	1,889	1,889	1,808	1,777
Instruments and related products	712	712	713	711	712	714	716	717	723	727	727	722	715
Miscellaneous manufacturing	407	409	411	411	409	414	414	415	426	417	419	416	416
Nondurable goods	8,098	8,098	8,090	8,103	8,092	8,125	8,160	8,146	8,202	8,173	8,185	8,119	8,085
Production workers	5,761	5,758	5,747	5,756	5,749	5,775	5,805	5,790	5,836	5,809	5,816	5,753	5,722
Food and kindred products	1,705	1,701	1,696	1,705	1,691	1,697	1,703	1,673	1,691	1,668	1,669	1,668	1,661
Tobacco manufactures	71	71	71	72	72	72	71	71	71	73	71	70	71
Textile mill products	844	842	841	839	838	842	843	846	856	849	849	833	823
Apparel and other textile products	1,253	1,250	1,244	1,243	1,243	1,250	1,258	1,264	1,278	1,272	1,273	1,258	1,252
Paper and allied products	692	692	691	691	689	691	694	695	696	698	703	693	692
Printing and publishing	1,265	1,269	1,269	1,272	1,276	1,280	1,283	1,284	1,290	1,295	1,301	1,301	1,306
Chemicals and allied products	1,103	1,105	1,106	1,109	1,108	1,107	1,109	1,111	1,110	1,106	1,112	1,107	1,105
Petroleum and coal products	209	209	211	210	210	211	213	212	212	212	211	210	210
Rubber and miscellaneous plastics products	725	729	730	731	734	744	753	757	760	764	760	744	733
Leather and leather products	231	230	231	231	231	231	233	232	238	236	236	235	232
TRANSPORTATION AND PUBLIC UTILITIES	5,114	5,118	5,124	5,135	5,139	5,161	5,148	5,149	5,167	5,170	5,186	5,164	5,161
WHOLESALE AND RETAIL TRADE	20,464	20,470	20,529	20,600	20,635	20,636	20,714	20,717	20,796	20,862	20,872	20,910	20,826
WHOLESALE TRADE	5,296	5,300	5,305	5,313	5,316	5,333	5,346	5,349	5,360	5,375	5,370	5,360	5,362
RETAIL TRADE	15,168	15,170	15,224	15,287	15,319	15,303	15,368	15,368	15,436	15,487	15,502	15,550	15,464
FINANCE, INSURANCE, AND REAL ESTATE	5,235	5,254	5,268	5,283	5,293	5,316	5,326	5,331	5,344	5,354	5,366	5,359	5,355
SERVICES	18,160	18,240	18,300	18,343	18,371	18,475	18,540	18,560	18,642	18,667	18,774	18,782	18,828
GOVERNMENT	16,242	16,236	16,223	16,240	16,204	16,170	16,131	16,040	15,992	15,917	15,905	15,932	15,932
Federal	2,796	2,800	2,799	2,795	2,781	2,767	2,779	2,781	2,777	2,770	2,765	2,756	2,757
State and local	13,446	13,436	13,424	13,445	13,423	13,403	13,352	13,259	13,215	13,147	13,140	13,176	13,175

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	3.3	3.5	4.0	3.6	4.0	3.5	P2.8	...	...
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	2.0	2.1	2.4	2.1	2.5	2.6	2.2	1.6	1.2
1981	...	1.8	1.8	2.0	2.0	2.3	2.8	2.4	2.7	2.3	P1.8	...	...
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	.6	.5
1980	1.1	1.1	.9	.9	.8	1.0	1.2	1.5	1.7	1.4	1.1	.9	.8
1981	...	1.3	1.0	1.1	1.1	1.0	.9	1.0	1.0	.9	P.8	...	...
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	3.8	3.0	3.1
1981	...	3.6	3.1	3.2	3.1	3.1	3.2	3.6	4.4	4.1	P4.3	...	...
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	1.3	1.3	1.4	1.5	2.1	1.8	P1.2	...	...
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	1.0	1.0	1.1	1.3	1.3	1.5	P2.3	...	...

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		
	Oct. 1980	Sept. 1981	Oct. 1981 ^P	Oct. 1980	Sept. 1981	Oct. 1981 ^P	Oct. 1980	Sept. 1981	Oct. 1981 ^P	Oct. 1980	Sept. 1981	Oct. 1981 ^P	Oct. 1980	Sept. 1981	Oct. 1981 ^P	Oct. 1980	Sept. 1981	Oct. 1981 ^P
MANUFACTURING	3.6	3.5	2.8	2.2	2.3	1.8	1.1	0.9	0.8	3.8	4.1	4.3	1.4	1.8	1.2	1.5	1.5	2.3
Seasonally adjusted	3.7	2.9	2.9	2.1	1.8	1.7	1.3	.9	.9	3.6	3.7	4.1	1.3	1.3	1.1	1.5	1.7	2.3
Durable goods	3.4	3.0	2.4	1.8	1.8	1.4	1.2	.9	.7	3.2	3.7	4.1	1.1	1.4	1.0	1.3	1.5	2.3
Lumber and wood products	4.3	3.8	3.0	3.1	2.4	1.8	1.1	1.2	1.0	4.8	6.5	8.5	2.2	2.5	1.6	1.6	3.2	6.1
Furniture and fixtures	4.2	3.9	2.8	3.2	3.1	2.2	.9	.6	.4	4.3	4.4	2.1	2.3	1.6	1.2	1.1	2.0	2.0
Stone, clay, and glass products	3.3	2.8	2.4	1.9	1.7	1.3	1.2	.9	.9	3.7	4.0	4.5	1.2	1.4	1.0	1.6	1.8	2.7
Primary metal industries	3.5	2.4	2.0	.7	1.0	.7	2.3	1.1	1.1	3.0	4.0	5.0	.5	.8	.5	1.7	2.4	3.7
Fabricated metal products	3.6	3.2	2.7	2.1	2.1	1.6	1.2	.9	.9	3.7	4.1	4.5	1.3	1.5	1.1	1.7	1.8	2.7
Machinery, except electrical	2.5	2.4	2.1	1.5	1.6	1.3	.7	.6	.5	2.6	2.7	2.8	.9	1.1	.8	1.0	.9	1.3
Electric and electronic equipment	2.9	2.9	2.3	1.7	1.8	1.4	.7	.7	.4	2.7	3.1	3.2	1.1	1.3	.9	.8	.9	1.4
Transportation equipment	4.7	3.4	...	1.8	1.2	...	2.0	1.7	...	3.1	3.6	...	.8	.9	...	1.5	2.0	...
Instruments and related products	2.2	2.2	1.7	1.7	1.8	1.4	.3	.2	.1	2.3	3.0	2.4	1.3	1.8	1.1	.5	.6	.8
Miscellaneous manufacturing	4.4	5.2	4.3	3.2	4.2	3.1	1.0	.8	.9	5.0	5.2	5.3	2.2	2.5	1.8	1.9	1.5	2.5
Nondurable goods	3.8	4.2	3.3	2.7	3.0	2.3	.9	1.0	.8	4.6	4.7	4.6	1.9	2.3	1.6	1.9	1.5	2.2
Food and kindred products	5.8	7.0	4.7	3.9	4.3	2.9	1.6	2.5	1.5	8.4	7.5	7.8	2.7	3.3	2.0	4.7	3.3	4.9
Tobacco manufacturers	3.3	3.7	...	2.1	2.4	...	.6	.5	...	2.9	4.0	...	.9	1.2	...	.9	1.3	...
Textile mill products	3.5	3.3	3.1	2.7	2.6	2.1	.6	.4	.7	3.7	3.9	4.3	2.0	2.2	1.7	.8	.8	1.7
Apparel and other products	4.5	5.7	4.7	3.0	4.1	3.2	1.3	1.3	1.2	5.3	5.4	5.3	2.4	3.2	2.5	2.2	1.4	1.9
Paper and allied products	2.2	2.3	2.0	1.4	1.6	1.2	.7	.5	.6	2.5	3.3	3.3	.9	1.4	.9	.9	1.1	1.8
Printing and publishing	3.1	3.6	3.2	2.5	3.0	2.6	.5	.5	.4	3.3	3.6	3.1	1.7	2.2	1.7	1.0	.7	.8
Chemicals and allied products	1.5	1.5	1.2	1.0	1.1	.9	.3	.2	.2	1.5	2.0	1.8	.6	1.0	.5	.4	.5	.7
Petroleum and coal products	2.0	1.9	1.7	1.5	1.5	1.5	.4	.3	.1	1.8	2.9	2.7	.6	.9	.6	.6	.9	1.3
Rubber and miscellaneous plastics products	4.4	3.7	2.9	2.7	2.8	1.9	1.2	.6	.7	4.2	4.5	4.4	2.0	2.1	1.3	1.3	1.5	2.2
Leather and leather products	5.8	5.4	4.6	4.6	4.1	3.2	.9	1.0	1.1	6.6	6.4	6.2	3.4	3.5	2.6	2.3	2.0	2.6

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	219.91	35.7	6.16	365.07	43.0	8.49	342.99	37.0	9.27	269.34	40.2	6.70
1980	235.10	35.3	6.66	396.14	43.2	9.17	367.04	37.0	9.92	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	325.58	39.9	8.16	164.96	32.6	5.06	190.77	36.2	5.27	175.27	32.7	5.36
1980	351.25	39.6	8.87	176.46	32.2	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	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^P	Nov. ^P
TOTAL PRIVATE	35.7	35.3	35.3	35.6	35.1	35.0	35.2	35.2	35.2	35.4	35.6	35.6	35.0	35.1	35.1
MINING	43.0	43.2	43.6	44.1	43.6	42.8	42.3	43.6	43.8	42.1	43.5	44.1	43.8	44.4	44.6
CONSTRUCTION	37.0	37.0	36.8	37.2	36.4	35.0	37.2	36.9	36.9	37.2	37.7	37.3	35.7	37.3	36.8
MANUFACTURING	40.2	39.7	40.2	40.8	39.9	39.5	39.9	39.7	40.1	40.2	39.6	39.8	39.5	39.6	39.7
Overtime hours	3.3	2.8	3.1	3.3	2.9	2.8	2.8	2.6	2.9	3.0	2.8	3.0	2.9	2.8	2.6
Durable goods	40.8	40.1	40.7	41.5	40.4	39.9	40.5	40.3	40.6	40.6	39.9	40.2	39.8	40.0	40.0
Overtime hours	3.5	2.8	3.1	3.4	2.9	2.8	2.9	2.7	3.0	3.0	2.8	2.9	2.8	2.7	2.5
Lumber and wood products	39.4	38.6	39.2	39.7	38.8	38.5	39.0	39.1	39.6	39.5	38.7	39.0	37.9	38.1	37.8
Furniture and fixtures	38.7	38.1	38.4	39.6	38.1	38.3	38.8	38.2	38.5	38.9	37.8	38.6	37.7	38.8	38.1
Stone, clay, and glass products	41.5	40.8	41.4	41.6	40.3	39.6	40.6	40.9	41.1	41.2	40.8	41.0	40.6	40.6	40.9
Primary metal industries	41.4	40.1	40.8	41.6	41.1	40.7	41.1	41.2	40.9	40.9	40.3	40.3	40.8	39.6	39.6
Fabricated metal products	40.7	40.4	40.9	41.6	40.4	40.0	40.6	40.2	40.7	40.8	39.9	40.3	39.6	40.1	40.0
Machinery except electrical	41.8	41.0	41.3	42.2	41.2	40.8	41.2	40.8	41.2	41.1	40.4	40.7	40.4	40.6	40.8
Electric and electronic equipment	40.3	39.8	40.4	41.0	40.1	39.6	40.2	39.8	40.1	40.2	39.7	40.0	39.7	40.0	39.7
Transportation equipment	41.1	40.6	41.7	43.1	40.9	40.1	41.1	41.0	41.6	41.3	40.7	40.5	39.9	40.5	40.9
Instruments and related products	40.8	40.5	40.9	41.2	40.6	40.5	40.6	39.9	40.3	40.4	39.9	40.4	40.4	40.2	40.5
Miscellaneous manufacturing	38.8	38.7	39.1	39.5	38.6	38.4	38.9	38.6	38.9	39.0	38.5	39.0	38.7	39.2	39.5
Nondurable goods	39.3	39.0	39.4	39.9	39.2	38.9	39.1	38.9	39.4	39.5	39.1	39.4	39.1	39.1	39.2
Overtime hours	3.1	2.8	3.0	3.1	2.9	2.8	2.7	2.6	2.9	2.9	2.8	3.0	3.1	2.9	2.8
Food and kindred products	39.9	39.7	40.1	40.3	40.0	39.3	39.2	39.3	39.8	39.8	39.6	40.0	39.8	39.6	39.8
Tobacco manufactures	38.0	38.1	40.1	38.1	38.6	38.5	37.2	37.2	38.6	38.5	38.6	40.7	40.2	39.6	38.9
Textile mill products	40.4	40.1	40.3	40.9	39.9	39.9	40.1	39.4	40.3	40.4	39.7	40.0	38.9	39.5	39.4
Apparel and other textile products	35.3	35.4	35.4	35.9	35.2	35.3	35.8	35.2	36.0	36.4	36.0	36.3	35.2	35.9	35.9
Paper and allied products	42.6	42.3	42.8	43.7	42.7	42.2	42.4	42.3	42.5	42.7	42.4	42.5	43.2	42.5	42.6
Printing and publishing	37.5	37.1	37.2	38.1	37.1	36.9	37.1	37.0	37.3	37.2	37.2	37.5	37.4	37.2	37.2
Chemicals and allied products	41.9	41.5	42.0	42.1	41.6	41.5	41.6	41.6	41.6	41.6	41.5	41.4	42.2	41.4	42.0
Petroleum and coal products	43.8	41.8	43.6	43.3	42.6	42.5	42.6	43.9	43.6	43.5	43.7	43.0	44.4	43.8	43.8
Rubber and miscellaneous plastics products	40.5	40.1	41.1	41.6	41.0	40.2	40.7	40.4	40.9	40.9	40.0	40.4	39.8	40.3	39.7
Leather and leather products	36.5	36.7	36.3	36.9	36.5	36.7	36.8	36.3	37.4	38.1	36.6	36.9	36.0	36.7	36.6
TRANSPORTATION AND PUBLIC UTILITIES	39.9	39.6	39.7	40.0	39.4	39.5	39.4	39.3	39.3	39.8	39.8	39.5	39.2	39.4	39.5
WHOLESALE AND RETAIL TRADE	32.6	32.2	32.1	32.5	31.7	31.7	31.9	32.1	32.0	32.3	32.8	32.8	32.2	31.9	31.9
WHOLESALE TRADE	38.8	38.5	38.5	38.9	38.5	38.3	38.5	38.5	38.5	38.6	38.8	38.7	38.5	38.6	38.8
RETAIL TRADE	30.6	30.2	30.0	30.5	29.5	29.6	29.8	30.0	29.9	30.4	30.9	30.9	30.2	29.8	29.8
FINANCE, INSURANCE, AND REAL ESTATE	36.2	36.2	36.3	36.3	36.4	36.4	36.4	36.3	36.1	36.1	36.3	36.3	36.0	36.2	36.4
SERVICES	32.7	32.6	32.6	32.6	32.5	32.6	32.6	32.6	32.5	32.7	33.0	32.9	32.4	32.5	32.5

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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^P	Nov. ^P
TOTAL PRIVATE	35.3	35.3	35.3	35.2	35.3	35.4	35.3	35.2	35.3	35.2	34.9	35.0	35.1
MANUFACTURING	39.8	39.9	40.1	39.8	39.9	40.2	40.3	40.1	40.0	40.0	39.3	39.5	39.3
Overtime hours	3.0	3.0	3.0	2.8	2.8	2.9	3.2	3.0	3.0	3.0	2.7	2.7	2.5
Durable goods	40.4	40.4	40.6	40.1	40.4	40.8	40.8	40.5	40.5	40.5	39.7	39.9	39.7
Overtime hours	3.0	3.1	3.0	2.8	2.8	3.0	3.2	3.0	3.0	3.0	2.6	2.6	2.4
Lumber and wood products	39.1	39.3	39.8	39.1	39.1	39.6	39.8	39.0	38.8	38.6	37.3	37.5	37.7
Furniture and fixtures	38.0	38.4	38.5	38.6	38.6	38.8	39.0	38.9	38.5	38.6	37.5	38.3	37.7
Stone, clay, and glass products	40.9	41.0	41.3	40.6	40.7	41.2	41.0	40.8	40.9	40.8	40.3	40.1	40.4
Primary metal industries	40.8	41.2	41.1	40.7	41.0	41.2	41.0	40.8	40.5	40.7	40.6	39.8	39.6
Fabricated metal products	40.5	40.4	40.5	40.2	40.4	40.9	40.9	40.7	40.5	40.5	39.5	40.0	39.6
Machinery, except electrical	41.0	40.9	41.1	40.8	40.9	41.3	41.4	41.1	41.1	41.2	40.3	40.7	40.5
Electric and electronic equipment	39.9	40.0	40.1	39.6	40.0	40.2	40.4	40.2	40.5	40.4	39.6	40.0	39.2
Transportation equipment	41.2	41.0	41.3	40.5	40.9	42.0	41.8	41.4	41.2	41.3	39.9	40.1	40.4
Instruments and related products	40.4	40.4	40.6	40.5	40.5	40.1	40.4	40.4	40.5	40.8	40.5	40.2	40.0
Miscellaneous manufacturing	38.6	38.9	38.8	38.6	38.7	38.9	39.2	39.1	39.2	39.1	38.4	38.9	39.0
Nondurable goods	39.1	39.2	39.5	39.2	39.2	39.3	39.6	39.4	39.3	39.3	38.9	39.0	38.8
Overtime hours	2.9	2.9	3.0	2.9	2.8	2.9	3.1	3.0	2.9	2.9	2.8	2.8	2.7
Food and kindred products	39.8	39.7	40.3	39.9	39.7	40.1	40.0	39.8	39.4	39.4	39.2	39.5	39.5
Textile mill products	39.9	40.1	40.0	40.0	39.9	39.8	40.5	40.2	40.4	40.3	38.9	39.4	39.0
Apparel and other textile products	35.2	35.5	36.1	35.6	35.7	35.5	36.0	36.1	35.9	36.1	35.2	35.8	35.7
Paper and allied products	42.4	42.8	42.6	42.4	42.4	42.6	42.8	42.7	42.7	42.7	43.1	42.5	42.2
Printing and publishing	36.8	37.4	37.5	37.3	37.1	37.3	37.6	37.4	37.3	37.3	37.1	37.1	36.8
Chemicals and allied products	41.6	41.6	41.6	41.6	41.5	41.5	41.7	41.7	41.8	41.7	42.3	41.4	41.6
Petroleum and coal products	42.9	43.2	43.8	43.8	43.5	44.1	43.8	43.4	43.1	42.8	43.3	42.8	43.1
Rubber and miscellaneous plastics products	40.8	40.8	40.9	40.3	40.5	40.7	41.3	41.0	40.5	40.6	39.6	40.1	39.4
Leather and leather products	36.3	36.6	36.8	37.0	37.1	36.6	37.1	37.1	36.5	36.9	36.1	36.8	36.7
WHOLESALE AND RETAIL TRADE	32.2	32.1	32.2	32.2	32.2	32.3	32.1	32.1	32.2	32.1	32.1	31.9	32.0
WHOLESALE TRADE	38.5	38.6	38.8	38.6	38.6	38.6	38.5	38.5	38.7	38.6	38.5	38.4	38.8
RETAIL TRADE	30.2	30.0	30.1	30.2	30.2	30.3	30.1	30.1	30.1	30.1	30.1	29.9	29.9
SERVICES	32.7	32.7	32.7	32.8	32.8	32.8	32.7	32.5	32.5	32.4	32.4	32.5	32.6

NOTE: The industry divisions of mining; construction; tobacco manufactures (a major manufacturing group, nondurable goods); transportation and public utilities; and finance, insurance, and real estate are no longer shown. This is because the seasonal component in these is

small relative to the trend-cycle, or irregular components, or both, and consequently cannot be precisely separated.

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	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. P	Nov. P
TOTAL PRIVATE	\$6.16	\$6.66	\$6.92	\$6.94	\$7.03	\$7.06	\$7.10	\$7.13	\$7.17	\$7.20	\$7.24	\$7.30	\$7.40	\$7.42	\$7.46
MINING	8.49	9.17	9.49	9.57	9.77	9.86	9.85	9.70	9.68	9.94	10.11	10.15	10.29	10.32	10.50
CONSTRUCTION	9.27	9.92	10.24	10.33	10.42	10.41	10.44	10.43	10.53	10.60	10.74	10.87	11.02	11.08	11.05
MANUFACTURING	6.70	7.27	7.60	7.70	7.73	7.75	7.80	7.88	7.92	7.97	8.02	8.02	8.15	8.14	8.18
Durable goods	7.13	7.75	8.11	8.23	8.23	8.26	8.32	8.40	8.45	8.52	8.55	8.57	8.68	8.69	8.74
Lumber and wood products	6.07	6.53	6.76	6.74	6.79	6.81	6.79	6.83	6.92	7.10	7.16	7.13	7.15	7.11	7.17
Furniture and fixtures	5.06	5.49	5.63	5.70	5.71	5.74	5.76	5.78	5.83	5.89	5.91	5.98	6.00	6.04	6.04
Stone, clay, and glass products	6.85	7.50	7.81	7.83	7.87	7.89	7.94	8.11	8.20	8.31	8.39	8.41	8.53	8.49	8.50
Primary metal industries	8.98	9.77	10.29	10.36	10.36	10.56	10.52	10.76	10.68	10.76	10.79	10.99	11.22	11.99	11.13
Fabricated metal products	6.85	7.45	7.77	7.88	7.89	7.91	8.01	8.05	8.17	8.23	8.22	8.27	8.34	8.37	8.39
Nondurable goods	6.01	6.56	6.82	6.89	6.97	6.98	7.01	7.08	7.11	7.14	7.23	7.24	7.37	7.34	7.38
Food and kindred products	6.27	6.86	7.09	7.13	7.21	7.24	7.29	7.37	7.43	7.43	7.47	7.50	7.58	7.53	7.61
Tobacco manufactures	6.67	7.73	7.86	8.10	8.50	8.56	8.61	8.90	9.03	9.33	9.43	8.61	8.66	8.61	8.99
Textile mill products	4.66	5.08	5.31	5.34	5.35	5.35	5.36	5.40	5.42	5.51	5.66	5.69	5.69	5.73	5.74
Apparel and other textile products	4.23	4.57	4.75	4.81	4.89	4.87	4.94	4.96	4.98	5.00	4.94	4.98	5.06	5.07	5.05
Paper and allied products	7.13	7.84	8.18	8.27	8.27	8.28	8.30	8.37	8.42	8.55	8.73	8.67	8.95	8.81	8.91
Printing and publishing	6.94	7.53	7.79	7.88	7.92	7.96	8.02	8.04	8.10	8.13	8.22	8.27	8.40	8.43	8.45
Chemicals and allied products	7.60	8.30	8.60	8.69	8.74	8.80	8.84	8.94	8.99	9.07	9.16	9.19	9.38	9.34	9.39
Petroleum and coal products	9.36	10.09	10.52	10.38	11.06	11.33	11.23	11.40	11.28	11.29	11.41	11.31	11.53	11.47	11.53
Rubber and miscellaneous plastics products	5.97	6.56	6.88	6.97	7.06	7.04	7.07	7.15	7.22	7.23	7.28	7.32	7.38	7.40	7.33
Leather and leather products	4.22	4.58	4.69	4.74	4.86	4.88	4.90	4.93	4.95	4.98	4.96	4.97	5.08	5.07	5.07
TRANSPORTATION AND PUBLIC UTILITIES	8.16	8.87	9.27	9.30	9.33	9.45	9.42	9.54	9.59	9.63	9.69	9.89	9.97	9.97	10.04
WHOLESALE AND RETAIL TRADE	5.06	5.48	5.64	5.62	5.80	5.84	5.85	5.87	5.89	5.89	5.91	5.94	6.04	6.00	6.05
WHOLESALE TRADE	6.39	6.96	7.19	7.23	7.32	7.38	7.42	7.47	7.51	7.51	7.59	7.67	7.71	7.74	7.79
RETAIL TRADE	4.53	4.88	5.02	4.99	5.18	5.20	5.20	5.22	5.23	5.23	5.24	5.26	5.37	5.30	5.34
FINANCE, INSURANCE, AND REAL ESTATE	5.27	5.78	6.02	6.00	6.10	6.21	6.19	6.20	6.24	6.24	6.27	6.37	6.38	6.42	6.54
SERVICES	5.36	5.85	6.09	6.12	6.21	6.27	6.29	6.30	6.33	6.33	6.34	6.41	6.51	6.57	6.65

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

[Seasonally adjusted data: 1977=100]

Industry	1980		1981											Oct. 1981 to Nov. 1981	Nov. 1980 to Nov. 1981
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. P	Nov. P		
TOTAL PRIVATE (in current dollars) ..	132.1	132.6	133.8	135.0	135.8	136.7	137.7	138.4	139.0	140.7	141.5	141.8	143.1	0.9	8.3
Mining ¹	139.2	139.8	142.1	143.2	144.0	145.7	145.6	147.2	148.9	149.4	151.5	151.6	154.4	1.9	11.0
Construction	125.2	126.2	127.6	128.0	128.6	129.0	129.4	130.4	131.8	132.5	132.9	134.1	134.7	.5	7.6
Manufacturing	134.6	135.4	136.5	137.5	138.5	139.9	140.7	141.6	142.5	143.6	144.8	145.4	146.0	.5	8.5
Transportation and public utilities ..	132.6	132.8	133.7	135.4	136.1	137.3	138.9	139.8	139.3	141.8	141.7	142.1	143.4	1.0	8.2
Wholesale and retail trade	132.3	132.4	133.7	135.0	135.8	136.4	137.4	137.8	138.4	140.0	141.2	140.6	141.8	.9	7.2
Finance, insurance, and real estate ..	132.4	131.9	133.2	135.0	136.0	135.4	136.8	137.1	137.4	140.4	140.3	141.0	143.9	2.0	8.6
Services	130.5	131.1	132.0	133.2	134.0	134.8	136.0	136.6	136.9	139.4	139.8	140.6	142.3	1.2	9.0
TOTAL PRIVATE (in constant dollars)	93.3	92.7	92.8	92.7	92.8	93.0	93.1	92.9	92.2	92.7	92.1	92.0	(²)	(²)	(²)

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

² Not available.

19. Weekly earnings, by industry division and major manufacturing group

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	Annual average		1980		1981										
	1979	1980	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^P	Nov. ^P
TOTAL PRIVATE	\$219.91	\$235.10	\$244.28	\$247.06	\$246.75	\$247.10	\$249.92	\$250.98	\$252.38	\$254.88	\$257.74	\$259.88	\$259.00	\$260.44	\$261.85
MINING	365.07	396.14	413.76	422.04	425.97	422.01	416.66	422.92	423.98	418.47	439.79	447.62	450.70	458.21	468.30
CONSTRUCTION	342.99	367.04	376.83	384.28	379.29	364.35	388.37	384.87	388.56	394.32	404.90	405.45	393.41	413.28	406.64
MANUFACTURING	269.34	288.62	305.52	314.16	308.43	306.13	311.22	312.84	317.59	320.39	317.59	319.20	321.93	322.34	324.75
Durable goods	290.90	310.78	330.08	341.55	332.49	329.57	336.96	338.52	343.07	345.91	341.15	344.51	345.46	347.60	349.60
Lumber and wood products	239.16	252.06	264.99	267.58	263.45	262.19	264.81	267.05	274.03	280.45	277.09	278.07	270.99	270.89	271.03
Furniture and fixtures	195.82	209.17	216.19	225.72	217.55	219.84	223.49	220.80	224.46	229.12	223.40	230.83	226.20	234.35	230.12
Stone, clay, and glass products	284.28	306.00	323.33	325.73	317.16	312.44	322.36	331.70	337.02	342.37	342.31	344.81	346.32	344.69	347.65
Primary metal industries	371.77	391.78	419.83	430.98	425.80	429.79	432.37	443.31	436.81	440.08	434.84	442.90	457.78	435.20	440.75
Fabricated metal products	278.80	300.98	317.79	327.81	318.76	316.40	325.21	323.61	332.52	335.78	327.98	333.28	330.26	335.64	335.60
Machinery except electrical	305.98	328.00	346.09	358.70	351.44	349.25	355.14	353.74	360.50	362.09	357.54	360.60	362.79	367.02	371.28
Electric and electronic equipment	254.70	276.61	293.71	302.58	297.14	294.23	300.29	298.90	302.76	305.52	305.29	310.40	309.26	313.60	312.44
Transportation equipment	350.58	378.39	411.58	434.88	407.36	398.19	414.29	415.74	426.40	427.87	421.25	417.15	415.36	428.90	432.31
Instruments and related products	251.74	275.40	286.71	293.76	291.91	291.60	293.54	289.28	294.59	296.54	296.86	305.42	307.04	305.52	312.26
Miscellaneous manufacturing	195.16	211.69	219.74	226.34	224.65	223.87	227.57	228.13	230.68	231.27	230.23	232.83	234.91	238.34	242.14
Nondurable goods	236.19	255.84	268.71	274.91	273.22	271.52	274.09	275.41	280.13	282.03	282.69	285.26	288.17	286.99	289.30
Food and kindred products	250.17	272.34	284.31	287.34	288.40	284.53	285.77	289.64	295.71	295.71	295.81	300.00	301.68	298.19	302.88
Tobacco manufactures	253.46	294.51	315.19	308.61	328.10	329.56	320.29	331.08	348.56	359.21	364.00	350.43	348.13	340.96	349.71
Textile mill products	188.26	203.71	213.99	218.41	213.47	213.47	214.94	211.18	217.62	218.97	218.75	226.40	221.34	226.34	226.16
Apparel and other textile products	149.32	161.78	168.15	172.68	172.13	171.91	176.85	174.59	179.28	182.00	177.84	180.77	178.11	182.01	181.30
Paper and allied products	303.74	331.63	350.10	361.40	353.13	349.42	351.92	354.05	357.85	365.09	370.15	368.48	386.64	374.43	379.57
Printing and publishing	260.25	279.36	289.79	300.23	293.83	293.72	297.54	297.48	302.13	302.44	305.78	310.13	314.16	313.60	314.34
Chemicals and allied products	318.44	344.45	361.20	365.85	363.58	365.20	367.74	371.90	373.98	377.31	380.14	380.47	395.84	386.68	394.38
Petroleum and coal products	409.97	421.76	458.67	449.45	471.16	481.53	478.40	500.46	491.81	491.12	498.62	486.33	511.93	502.39	505.01
Rubber and miscellaneous plastics products	241.79	263.06	282.77	289.95	289.46	283.01	287.75	288.86	295.30	295.71	291.20	295.73	293.72	298.22	291.00
Leather and leather products	154.03	168.09	170.25	174.91	177.39	179.10	180.32	178.96	185.13	189.74	181.54	183.39	182.88	186.07	185.56
TRANSPORTATION AND PUBLIC UTILITIES	325.58	351.25	368.02	372.00	367.60	373.28	371.15	374.92	376.89	383.27	385.66	390.66	390.82	392.82	396.58
WHOLESALE AND RETAIL TRADE	164.96	176.46	181.04	182.65	183.86	185.13	186.62	188.43	188.48	190.25	193.85	194.83	194.49	191.40	193.00
WHOLESALE TRADE	247.93	267.96	276.82	281.25	281.82	282.65	285.67	287.60	289.14	289.89	294.49	296.83	296.84	298.76	302.25
RETAIL TRADE	138.62	147.38	150.60	152.20	152.81	153.92	154.96	156.60	156.38	158.99	161.92	162.53	162.17	157.94	159.13
FINANCE, INSURANCE, AND REAL ESTATE	190.77	209.24	218.53	217.80	222.04	226.04	225.32	225.06	225.26	225.26	227.60	231.23	229.68	232.40	238.06
SERVICES	175.27	190.71	198.53	199.51	201.83	204.40	205.05	205.38	206.73	206.99	209.22	210.89	210.92	213.53	216.13

20. Gross and spendable weekly earnings, in current and 1977 dollars, 1961 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	1977 dollars	Current dollars	1977 dollars	Current dollars	1977 dollars	Current dollars	1977 dollars	Current dollars	1977 dollars	Current dollars	1977 dollars
1961	\$82.60	\$167.21	\$67.08	\$135.79	\$74.48	\$150.77	\$92.34	\$186.92	\$74.60	\$151.01	\$82.18	\$166.36
1962	85.91	172.16	69.56	139.40	76.99	154.29	96.56	193.51	77.86	156.03	85.53	171.40
1963	88.46	175.17	71.05	140.69	78.56	155.56	99.23	196.50	79.51	157.45	87.25	172.77
1964	91.33	178.38	75.04	146.56	82.57	161.27	102.97	201.11	84.40	164.84	92.18	180.04
1965	95.45	183.21	79.32	152.25	86.63	166.28	107.53	206.39	89.08	170.98	96.78	185.76
1966	98.82	184.37	81.29	151.66	88.66	165.41	112.19	209.31	91.45	170.62	99.33	185.32
1967	101.84	184.83	83.38	151.32	90.86	164.90	114.49	207.79	92.97	168.73	100.93	183.18
1968	107.73	187.68	86.71	151.06	95.28	165.99	122.51	312.43	97.70	170.21	106.75	185.98
1969	114.61	189.44	90.96	150.35	99.99	165.27	129.51	214.07	101.90	168.43	111.44	184.20
1970	119.83	186.94	96.21	150.09	104.90	163.65	133.33	208.00	106.32	165.87	115.58	180.31
1971	127.31	190.58	103.80	155.39	112.43	168.31	142.44	213.23	114.97	172.11	124.24	185.99
1972	136.90	198.41	112.19	162.59	121.68	176.35	154.71	224.22	125.34	181.65	135.57	196.48
1973	145.39	198.35	117.51	160.31	127.38	173.78	166.46	227.09	132.57	180.86	143.50	195.77
1974	154.76	190.12	124.37	152.79	134.61	165.37	176.80	217.20	140.19	172.22	151.56	186.19
1975	163.53	184.16	132.49	149.20	145.65	164.02	190.79	214.85	151.61	170.73	166.29	187.26
1976	175.45	186.85	143.30	152.61	155.87	166.00	209.32	222.92	167.83	178.73	181.32	193.10
1977	189.00	189.00	155.19	155.19	169.93	169.93	228.90	228.90	183.80	183.80	200.06	200.06
1978	203.70	189.31	165.39	153.71	180.71	167.95	249.27	231.66	197.40	183.46	214.87	199.69
1979	219.91	183.41	178.00	148.46	194.82	162.49	269.34	224.64	212.70	177.40	232.38	193.81
1980	235.10	172.74	188.82	138.74	206.06	151.65	288.62	212.06	225.79	165.90	247.01	181.49
1980: November	244.28	172.88	195.24	138.17	213.37	151.00	305.52	216.22	237.26	167.91	259.83	183.89
December	247.06	173.38	197.18	138.37	215.47	151.21	314.16	220.46	242.86	170.43	266.14	186.76
1981: January	246.75	171.83	195.68	136.27	213.96	149.00	308.43	214.78	237.60	165.46	260.36	181.31
February	247.10	170.18	195.92	134.93	214.22	147.53	306.13	210.83	236.08	162.59	258.70	178.17
March	249.92	171.06	197.88	135.44	216.34	148.08	311.22	213.02	239.37	163.84	262.38	179.59
April	250.98	170.73	198.61	135.11	217.14	147.71	312.84	212.82	240.39	163.53	263.55	179.29
May	252.38	170.18	199.59	134.59	218.20	147.13	317.59	214.15	243.40	164.13	266.99	180.03
June	254.88	170.49	201.32	134.66	220.08	147.21	320.39	214.31	245.18	164.00	269.01	179.94
July	257.74	170.35	203.30	134.37	222.24	146.89	317.59	209.91	243.40	160.87	266.99	176.46
August	259.88	170.64	204.79	134.46	223.85	146.98	319.20	209.59	244.42	160.49	268.15	176.07
September	259.00	168.40	204.18	132.76	223.20	145.12	321.93	209.32	246.15	160.05	270.13	175.64
October ^P	260.44	169.01	207.07	134.37	225.23	146.16	322.34	209.18	249.14	161.67	271.95	176.48
November ^P	261.85	(¹)	208.07	(¹)	226.30	(¹)	324.75	(¹)	250.70	(¹)	273.72	(¹)

¹ Not available.

NOTE: The earnings expressed in 1977 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-

 culation," *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

NATIONAL UNEMPLOYMENT INSURANCE DATA are compiled monthly by the Employment and Training Administration of the U.S. Department of Labor from monthly records of unemployment insurance activity prepared by State agencies. 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 10 percent 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									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
All programs:													
Insured unemployment	3,661	3,726	4,085	4,621	4,264	3,948	3,453	3,111	2,949	3,012	2,874	2,680	2,760
State unemployment insurance program:¹													
Initial claims ²	1,808	1,673	2,544	2,653	1,806	1,684	1,647	1,417	1,741	2,114	1,610	1,681	1,994
Insured unemployment (average weekly volume)	2,903	2,983	3,321	3,844	3,669	3,382	2,988	2,691	2,596	2,743	2,656	2,488	2,598
Rate of insured unemployment	3.3	3.4	3.8	4.4	4.2	3.9	3.4	3.1	3.0	3.1	3.0	2.9	3.0
Weeks of unemployment compensated	11,443	9,524	12,603	14,228	12,882	13,504	11,871	9,790	9,928	10,486	9,594	9,565	9,405
Average weekly benefit amount for total unemployment	\$92.32	\$101.96	\$101.43	\$102.34	\$101.89	\$105.63	\$105.96	\$105.49	\$99.02	\$103.47	\$105.94	\$107.39	\$108.93
Total benefits paid	\$1,125,416	\$1,055,065	\$1,242,957	\$1,416,513	\$1,313,507	\$1,393,612	\$1,226,815	\$1,006,341	\$1,012,764	\$1,061,899	\$1,004,864	\$1,001,020	\$995,880
Unemployment compensation for ex-servicemen:³													
Initial claims ¹	23	17	21	19	17	18	16	15	19	22	19	15	12
Insured unemployment (average weekly volume)	56	54	55	57	54	51	46	43	42	44	44	34	26
Weeks of unemployment compensated	255	216	261	257	221	234	214	183	192	203	190	153	116
Total benefits paid	\$25,880	\$21,024	\$27,015	\$26,646	\$22,517	\$24,668	\$23,048	\$19,965	\$21,145	\$22,785	\$21,425	\$17,144	\$12,993
Unemployment compensation for Federal civilian employees:⁴													
Initial claims	21	14	18	22	13	12	12	11	13	15	17	18	20
Insured unemployment (average weekly volume)	32	35	37	41	40	36	31	27	25	25	25	29	30
Weeks of unemployment compensated	130	118	150	160	148	156	135	107	105	105	102	100	112
Total benefits paid	\$11,917	\$11,365	\$14,184	\$15,432	\$14,573	\$15,561	\$13,701	\$11,023	\$10,705	\$10,805	\$9,543	\$10,495	\$11,682
Railroad unemployment insurance:													
Applications	9	7	11	13	5	5	6	6	26	41	13	.....	.....
Insured unemployment (average weekly volume)	38	38	39	53	50	44	41	35	30	28	29	.....	.....
Number of payments	84	70	83	118	104	115	94	79	86	32	63	.....	.....
Average amount of benefit payment	\$208.49	\$209.00	\$212.27	\$209.38	\$214.56	\$214.93	\$201.12	\$199.43	\$201.06	\$199.63	\$202.53	.....	.....
Total benefits paid	\$17,789	\$14,269	\$18,046	\$20,303	\$22,049	\$23,233	\$19,239	\$15,428	\$16,206	\$11,541	\$7,071	.....	.....
Employment service:⁵													
New applications and renewals .....	.....	.....	4,476	.....	.....	8,778	.....	.....	12,868	.....	.....	.....	.....
Nonfarm placements .....	.....	.....	871	.....	.....	1,595	.....	.....	2,446	.....	.....	.....	.....

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.

r = revised.

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					
	Oct.	May	June	July	Aug.	Sept.	Oct.	Oct.	May	June	July	Aug.	Sept.	Oct.
All items	253.9	269.0	271.3	274.4	276.5	297.3	279.9	254.1	269.1	271.4	274.6	276.5	279.1	279.7
Food and beverages	255.5	265.4	266.5	268.9	270.1	270.7	270.3	256.6	265.9	267.0	269.4	270.6	271.0	270.7
Housing	271.1	288.5	292.2	297.0	299.7	303.7	303.5	271.0	288.1	291.9	297.0	299.6	303.6	303.3
Apparel and upkeep	183.9	186.4	185.8	184.7	187.4	190.7	191.5	182.8	186.2	185.8	185.5	187.9	190.5	190.6
Transportation	256.1	277.8	279.9	282.6	283.7	285.2	287.2	256.6	278.9	281.0	283.9	285.1	286.6	288.9
Medical care	272.8	289.0	291.5	295.6	299.3	301.7	304.8	274.3	290.8	292.9	295.4	298.6	300.9	304.0
Entertainment	210.9	220.3	220.8	221.1	222.3	224.0	225.5	209.2	217.7	218.3	218.7	219.9	221.5	223.4
Other goods and services	221.5	232.2	233.4	234.4	235.6	243.0	245.2	219.9	230.4	231.4	232.4	233.5	239.3	241.4
Commodities	240.7	251.9	253.2	255.0	256.2	257.7	257.9	240.8	252.4	253.8	255.7	256.9	258.2	258.4
Commodities less food and beverages	230.2	241.7	243.1	244.7	245.8	247.6	248.0	230.0	242.3	243.8	245.5	246.7	248.4	248.7
Nondurables less food and beverages	244.4	263.8	263.5	262.9	263.9	265.8	266.4	246.1	266.6	266.3	266.0	266.8	268.5	268.6
Durables	218.1	223.9	226.6	229.6	230.9	232.6	232.9	216.3	222.4	225.2	228.4	229.9	231.5	232.0
Services	277.9	299.6	303.5	308.8	312.2	317.3	318.6	278.6	300.0	303.9	309.6	312.7	317.7	319.2
Rent, residential	197.1	205.9	206.8	207.8	210.3	211.9	213.6	196.8	205.5	206.4	207.4	209.9	211.5	213.2
Household services less rent	327.4	360.4	366.7	374.8	379.9	387.4	387.2	330.3	363.5	370.1	379.4	384.2	392.2	391.8
Transportation services	250.8	266.6	269.6	275.0	275.7	277.7	281.0	249.6	265.5	268.2	273.8	274.3	276.3	279.9
Medical care services	294.8	311.7	314.4	319.2	323.4	326.1	329.7	296.6	313.6	315.8	318.5	322.1	324.7	328.3
Other services	226.7	235.3	236.3	237.6	239.1	245.8	247.8	227.4	234.5	235.6	236.8	238.3	243.6	246.6
Special indexes:														
All items less food	250.9	267.0	269.5	272.7	274.9	278.2	279.0	251.0	267.2	269.7	273.1	275.2	278.2	279.1
All items less mortgage interest costs	243.0	255.2	256.9	259.3	260.9	262.9	263.6	243.5	255.8	257.5	260.0	261.5	263.3	264.0
Commodities less food	228.3	239.6	241.1	242.6	243.8	245.5	245.9	228.2	240.3	241.8	243.5	244.7	246.3	246.6
Nondurables less food	239.6	258.2	258.0	257.5	258.4	260.3	260.7	241.3	260.9	260.7	260.4	261.2	262.9	263.0
Nondurables less food and apparel	271.1	298.0	298.0	297.8	298.0	299.1	299.5	272.8	300.1	300.0	299.8	300.0	301.3	301.5
Nondurables	251.0	265.8	266.2	267.1	268.1	269.5	269.5	252.3	267.2	267.6	268.7	269.7	270.7	270.7
Services less rent	293.2	317.4	321.9	328.1	331.7	337.5	338.7	294.2	318.2	322.6	329.3	332.6	338.3	339.7
Services less medical care	274.2	296.2	300.1	305.4	308.8	314.1	315.1	274.7	296.4	300.4	306.3	309.4	314.6	315.8
Domestically produced farm foods	247.3	254.7	255.9	259.5	260.6	260.8	259.5	247.0	254.2	255.3	259.0	259.9	259.9	258.6
Selected beef cuts	276.8	270.9	271.6	275.3	276.7	277.9	275.5	279.0	273.8	274.3	277.9	277.2	279.7	276.5
Energy	368.0	411.3	414.0	415.7	416.1	417.1	414.9	371.1	414.9	417.3	418.9	418.9	420.1	417.9
All items less energy	245.1	257.9	260.2	263.5	265.6	268.6	269.4	244.5	257.0	259.3	262.7	264.7	267.5	268.3
All items less food and energy	239.7	253.0	255.6	259.0	261.3	264.8	265.9	238.7	251.9	254.5	258.1	260.3	263.6	264.8
Commodities less food and energy	209.4	215.7	217.5	219.4	220.9	222.9	223.4	207.8	214.6	216.6	218.7	220.2	222.1	222.6
Energy commodities	399.1	455.4	453.1	451.3	449.9	449.3	448.2	400.3	456.0	453.7	451.9	450.6	450.0	448.9
Services less energy	274.9	296.5	299.8	304.9	308.3	313.6	315.3	275.6	297.0	300.2	305.7	308.9	314.0	316.0
Purchasing power of the consumer dollar, 1967 = \$1	\$0.394	\$0.372	\$0.369	\$0.364	\$0.362	\$0.358	\$0.357	\$0.394	\$0.372	\$0.368	\$0.364	\$0.362	\$0.358	\$0.358

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				
	Oct.	May	June	July	Aug.	Sept.	Oct.	Oct.	May	June	July	Aug.	Sept.	Oct.
FOOD AND BEVERAGES	255.5	265.4	266.5	268.9	270.1	270.7	270.3	256.6	265.9	267.0	269.4	270.6	271.0	270.7
Food	262.4	272.5	273.6	276.2	277.4	278.0	277.6	263.4	272.9	274.0	276.6	277.7	278.1	277.8
Food at home	260.0	267.7	268.7	271.6	272.8	273.2	272.1	259.7	267.2	268.2	271.1	272.2	272.3	271.3
Cereals and bakery products	253.7	270.0	271.5	272.4	272.6	274.3	275.0	254.3	269.4	270.7	271.5	272.0	273.2	274.0
Cereals and cereal products (12/77 = 100)	137.5	146.8	148.3	149.0	149.5	150.1	150.0	138.5	148.4	150.0	150.6	151.3	151.2	151.5
Flour and prepared flour mixes (12/77 = 100)	133.2	138.8	139.0	139.5	139.6	139.5	139.3	133.8	140.3	141.4	141.9	142.0	141.1	140.9
Cereal (12/77 = 100)	139.3	149.8	152.4	153.4	154.6	155.7	156.1	139.3	151.3	154.0	154.8	156.4	157.2	157.9
Rice, pasta, and cornmeal (12/77 = 100)	138.9	149.8	150.9	151.2	151.4	151.6	151.1	141.6	152.0	152.7	153.2	153.1	152.6	152.7
Bakery products (12/77 = 100)	133.1	141.5	142.1	142.5	142.4	143.5	144.0	133.3	140.6	141.0	141.4	141.5	142.4	142.8
White bread	222.7	235.1	236.0	236.4	235.6	238.2	238.4	222.6	233.2	233.1	233.9	233.0	235.9	235.5
Other breads (12/77 = 100)	132.5	139.3	140.2	140.6	140.8	141.5	141.6	135.8	141.7	142.5	142.9	143.4	143.4	143.6
Fresh biscuits, rolls, and muffins (12/77 = 100)	133.4	141.5	141.7	142.4	143.4	143.3	144.8	132.1	139.6	139.7	141.7	141.0	140.1	141.7
Fresh cakes and cupcakes (12/77 = 100)	132.5	142.3	142.3	142.7	142.7	144.4	143.9	132.6	141.2	141.2	141.4	141.2	142.3	141.7
Cookies (12/77 = 100)	131.0	141.8	143.3	143.0	143.1	143.9	145.7	132.5	142.1	143.3	142.6	144.1	144.6	146.4
Crackers and bread and cracker products (12/77 = 100)	126.4	128.2	130.7	131.6	130.6	132.0	133.2	126.5	128.9	131.5	131.2	130.9	132.2	134.0
Fresh sweetrolls, coffeecake, and donuts (12/77 = 100)	133.4	142.8	142.9	143.9	143.9	144.3	144.4	134.1	142.5	142.3	142.8	143.4	144.8	144.9
Frozen and refrigerated bakery products and fresh pies, tarts, and turnovers (12/77 = 100)	135.3	147.0	146.1	147.2	147.1	148.0	148.9	130.9	140.1	140.3	140.9	141.5	142.1	142.8
Meats, poultry, fish, and eggs	252.6	247.0	248.7	254.1	255.8	257.7	256.4	251.8	246.3	248.4	254.1	255.5	257.5	256.0
Meats, poultry, and fish	259.0	253.2	255.0	260.7	262.2	263.4	262.2	258.1	252.4	254.5	260.5	261.8	263.2	261.7
Meats	258.7	252.3	254.2	259.6	262.0	263.4	262.5	258.1	251.7	253.9	259.7	261.3	263.3	262.1
Beef and veal	275.8	270.3	271.1	274.5	275.9	277.1	274.9	277.4	272.5	273.0	276.5	275.9	278.3	275.3
Ground beef other than canned	275.8	264.1	264.6	264.5	267.4	270.3	267.4	278.9	267.8	267.9	267.9	269.4	273.8	268.6
Chuck roast	284.4	280.3	281.0	283.5	285.3	289.4	287.8	294.0	290.9	288.9	295.5	295.5	299.9	297.2
Round roast	250.6	246.8	246.2	245.6	247.2	244.1	245.1	251.1	249.4	249.5	249.8	247.3	249.1	250.1
Round steak	258.9	256.0	255.1	258.9	256.0	255.9	259.0	257.9	253.7	253.6	257.0	251.5	252.5	254.9
Sirloin steak	270.7	271.4	274.6	284.3	282.2	281.9	273.3	272.8	275.3	278.7	285.6	279.2	281.9	275.1
Other beef and veal (12/77 = 100)	161.0	159.2	159.9	163.5	164.3	164.9	163.4	160.3	158.5	159.2	162.4	162.6	162.8	161.3
Pork	225.8	217.3	221.2	231.5	235.3	238.1	238.6	225.8	216.3	221.3	232.6	236.5	239.4	239.3
Bacon	224.7	212.7	216.5	228.1	231.1	237.1	240.1	226.0	215.2	220.5	230.5	234.5	241.1	245.1
Chops	207.8	203.7	209.8	221.8	224.1	225.1	223.1	207.3	201.5	209.8	222.4	224.4	224.7	221.3
Ham other than canned (12/77 = 100)	105.5	97.2	98.0	102.0	105.3	106.8	109.4	103.5	93.8	95.1	100.4	103.7	105.6	107.5
Sausage	282.4	277.7	278.9	289.7	297.2	300.7	298.7	283.2	278.5	278.7	293.4	298.6	302.3	302.1
Canned ham	232.5	230.5	229.8	233.0	234.9	239.5	241.9	235.2	231.4	230.1	234.4	238.0	242.9	244.7
Other pork (12/77 = 100)	127.6	122.7	126.7	133.6	135.0	135.4	134.1	127.9	122.4	127.7	134.5	136.3	136.7	134.5
Other meats	259.4	253.9	255.9	258.4	261.4	260.7	261.6	255.8	250.6	253.1	255.6	259.6	258.7	260.5
Frankfurters	260.9	247.6	250.7	251.8	259.8	256.4	261.2	260.3	247.0	249.8	251.9	260.4	259.1	262.4
Bologna, liverwurst, and salami (12/77 = 100)	146.5	143.0	143.9	145.9	147.0	147.5	147.6	143.6	140.6	141.9	144.6	145.7	144.8	146.9
Other lunchmeats (12/77 = 100)	127.8	126.9	127.6	129.1	130.6	131.8	131.8	125.5	124.8	126.0	126.5	128.8	129.5	130.2
Lamb and organ meats (12/77 = 100)	146.1	145.3	146.5	147.6	146.8	144.4	143.4	146.5	145.9	147.1	148.9	148.3	146.0	145.0
Poultry	209.1	194.7	196.8	204.8	202.0	199.7	196.6	205.4	192.5	194.4	203.1	201.2	198.1	194.7
Fresh whole chicken	216.7	190.3	193.8	206.9	201.4	197.3	194.0	210.5	187.0	190.3	202.9	199.6	194.0	189.9
Fresh and frozen chicken parts (12/77 = 100)	134.7	127.5	128.3	133.0	131.8	130.5	129.2	133.5	126.6	127.0	133.3	131.6	130.1	129.7
Other poultry (12/77 = 100)	128.7	128.3	128.9	130.0	129.7	129.9	127.2	127.1	127.5	128.2	129.3	129.9	129.6	126.1
Fish and seafood	336.6	353.2	352.1	356.9	356.8	362.6	360.8	333.8	349.9	349.8	353.5	356.4	358.6	358.2
Canned fish and seafood (12/77 = 100)	133.9	139.2	139.3	140.6	139.8	140.9	140.5	131.2	137.8	137.9	139.0	138.5	139.4	140.3
Fresh and frozen fish and seafood (12/77 = 100)	124.8	131.8	131.0	133.1	133.6	136.5	135.6	124.6	130.5	130.4	131.9	134.1	134.9	134.0
Eggs	175.3	170.5	172.1	174.2	177.6	188.8	185.9	174.4	171.5	173.0	175.0	177.7	189.5	187.2
Dairy products	232.7	243.8	243.8	244.2	243.8	244.3	244.6	233.1	243.9	243.9	243.9	243.9	244.1	244.2
Fresh milk and cream (12/77 = 100)	129.1	134.9	134.8	134.9	134.5	134.7	134.7	129.1	134.7	134.5	134.4	134.3	134.3	134.4
Fresh whole milk	211.3	220.8	220.7	220.7	220.2	220.0	220.2	211.0	220.0	220.0	219.9	219.8	219.4	219.5
Other fresh milk and cream (12/77 = 100)	129.1	134.7	134.6	134.9	134.2	135.4	135.2	129.5	134.8	135.1	134.5	134.4	135.3	135.2
Processed dairy products (12/77 = 100)	134.9	141.9	142.0	142.5	142.5	143.0	143.3	135.8	142.6	142.9	143.1	143.3	143.4	143.6
Butter	238.9	245.2	245.1	245.8	246.2	247.1	247.2	242.5	247.6	248.7	247.7	248.5	249.9	249.7
Cheese (12/77 = 100)	133.4	140.5	140.5	140.7	140.8	140.8	140.9	133.8	140.6	140.9	141.3	141.5	140.9	140.7
Ice cream and related products (12/77 = 100)	138.0	146.2	146.4	147.6	147.9	148.7	149.9	139.1	147.8	148.0	147.9	147.9	149.1	149.9
Other dairy products (12/77 = 100)	129.0	136.1	136.3	136.6	135.6	137.3	137.0	129.4	136.4	136.8	137.2	137.2	137.6	138.1
Fruits and vegetables	254.2	276.8	278.1	284.4	286.1	281.6	275.2	252.3	274.3	275.3	281.7	282.5	276.3	270.8
Fresh fruits and vegetables	262.3	284.4	285.2	294.0	295.8	286.9	273.5	259.6	281.8	281.0	290.2	290.4	278.2	267.2
Fresh fruits	272.9	276.6	278.9	292.1	306.9	306.4	291.4	270.4	271.5	272.1	285.5	298.4	293.7	279.5
Apples	242.2	235.4	239.9	251.9	282.1	262.9	237.0	243.7	232.7	241.0	253.1	284.6	261.8	236.5
Bananas	233.4	266.3	260.5	240.6	245.2	250.7	254.9	230.2	264.2	259.0	233.8	239.9	251.3	253.3
Oranges	312.9	274.1	287.1	327.8	353.7	346.2	328.5	301.5	261.1	274.0	307.0	325.1	314.6	299.9
Other fresh fruits (12/77 = 100)	145.4	154.9	154.4	160.4	163.5	168.4	160.9	145.6	153.3	149.9	158.9	160.5	161.5	154.7
Fresh vegetables	252.4	291.7	291.1	295.9	285.5	268.6	256.8	249.9	291.1	289.0	294.4	283.2	264.4	256.1
Potatoes	295.6	384.4	414.3	414.9	375.1	329.1	290.4	292.0	378.1	402.7	404.2	362.8	316.8	287.7
Lettuce	249.1	252.5	238.7	261.3	290.6	241.3	255.3	241.3	255.6	237.1	259.2	290.0	292.9	257.2
Tomatoes	237.3	200.2	205.2	194.0	209.9	193.9	207.3	235.6	193.8	200.8	195.5	211.0	191.3	206.4
Other fresh vegetables (12/77 = 100)														

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						
	Oct.	May	June	July	Aug.	Sept.	Oct.	Oct.	May	June	July	Aug.	Sept.	Oct.
FOOD AND BEVERAGES — Continued														
Food — Continued														
Food at home — Continued														
Fruits and vegetables — Continued														
Cut corn and canned beans except lima (12/77=100)	122.5	131.5	134.6	136.0	137.4	136.8	137.7	120.6	130.1	133.6	134.8	135.4	135.1	135.5
Other canned and dried vegetables (12/77=100)	120.3	129.8	131.4	134.6	135.4	134.6	134.6	118.5	128.0	129.7	132.8	133.7	133.8	133.3
Other foods at home	311.5	323.7	323.6	323.3	325.1	325.7	326.4	311.7	324.8	324.5	324.2	326.1	326.2	327.1
Sugar and sweets	369.0	367.1	361.3	360.0	361.3	361.4	359.9	369.8	368.1	363.0	362.8	362.7	363.1	360.2
Candy and chewing gum (12/77=100)	134.7	145.1	145.2	145.9	146.1	146.8	148.8	135.4	145.8	146.0	147.3	147.4	147.6	148.7
Sugar and artificial sweeteners (12/77=100)	209.4	178.4	168.2	164.6	164.3	163.0	157.1	209.5	179.2	169.3	166.6	165.3	164.9	158.4
Other sweets (12/77=100)	131.5	141.4	142.6	142.9	145.0	145.3	145.2	129.2	139.7	140.8	141.8	142.9	143.8	144.0
Fats and oils (12/77=100)	246.0	270.7	269.6	269.0	269.2	268.5	268.5	247.0	270.9	269.5	269.0	268.7	267.4	268.1
Margarine	254.2	256.1	256.1	255.9	258.2	256.7	256.6	256.6	256.7	256.0	256.6	255.7	254.5	255.9
Nondairy substitutes and peanut butter (12/77=100)	125.6	182.7	181.8	181.0	179.8	178.5	176.5	125.5	181.6	180.5	179.4	178.8	177.2	175.2
Other fats, oils, and salad dressings (12/77=100)	128.5	130.4	129.6	129.4	129.4	129.6	130.5	128.7	130.4	129.6	129.4	129.6	129.2	130.3
Nonalcoholic beverages	404.9	412.3	412.8	410.3	413.1	413.7	414.8	405.8	414.6	414.6	411.3	415.2	414.7	416.0
Cola drinks, excluding diet cola	280.4	295.7	297.0	294.7	298.2	298.9	301.1	279.6	293.7	294.1	290.8	296.6	295.6	297.7
Carbonated drinks, including diet cola (12/77=100)	133.9	140.6	140.8	139.6	141.5	142.4	142.3	131.8	139.4	139.3	138.3	138.9	140.3	139.6
Roasted coffee	411.8	354.4	353.1	351.4	346.0	345.1	343.1	409.3	350.5	348.5	346.6	342.8	340.5	338.9
Freeze dried and instant coffee	368.1	339.1	335.2	334.3	333.3	330.8	329.9	366.3	340.2	337.1	334.9	333.8	331.4	332.7
Other noncarbonated drinks (12/77=100)	125.8	134.0	134.5	134.2	134.9	134.9	135.6	125.3	133.9	134.4	134.0	135.0	134.6	135.0
Other prepared foods	236.6	252.9	254.4	256.3	257.9	259.0	260.5	236.9	254.7	255.8	257.9	259.7	260.5	262.3
Canned and packaged soup (12/77=100)	124.1	131.5	132.6	133.2	133.6	134.9	133.1	124.9	132.1	133.5	134.5	134.8	134.6	135.6
Frozen prepared foods (12/77=100)	133.9	141.6	142.2	143.7	143.5	144.8	144.1	131.9	139.6	140.8	142.3	142.5	142.7	142.8
Snacks (12/77=100)	130.6	145.9	147.2	147.5	148.8	149.6	152.0	131.0	149.1	149.1	150.0	151.5	152.6	155.3
Seasonings, olives, pickles, and relish (12/77=100)	131.9	140.0	141.1	142.0	144.4	144.4	146.2	132.2	139.3	140.3	141.4	142.8	142.7	144.8
Other condiments (12/77=100)	133.4	141.1	140.8	142.3	142.9	143.3	143.5	135.3	143.6	143.2	144.4	145.6	145.3	145.5
Miscellaneous prepared foods (12/77=100)	132.0	138.6	139.3	140.7	142.0	142.3	144.5	131.7	139.6	139.9	141.0	142.1	142.8	143.9
Other canned and packaged prepared foods (12/77=100)	127.9	136.6	137.7	139.0	139.5	139.9	140.5	128.2	137.2	138.5	139.8	140.8	141.1	141.9
Food away from home	273.1	289.3	290.6	292.4	293.7	294.8	296.2	277.4	291.9	293.5	295.2	296.4	297.6	299.0
Lunch (12/77=100)	132.9	141.0	141.5	142.6	143.2	143.6	143.9	134.4	141.8	142.8	143.6	144.2	144.6	145.3
Dinner (12/77=100)	132.4	139.9	140.7	141.3	141.9	142.4	143.2	135.1	141.7	142.6	143.0	143.7	144.3	144.8
Other meals and snacks (12/77=100)	131.8	139.9	140.3	141.6	142.1	143.1	143.9	133.9	141.1	141.3	142.7	143.1	143.9	144.8
Alcoholic beverages	190.4	199.1	199.8	200.5	201.4	202.5	201.4	192.5	201.2	202.1	202.8	203.8	204.6	204.3
Alcoholic beverages at home (12/77=100)														
Beer and ale	191.7	201.4	202.0	201.8	202.6	203.6	202.5	192.0	201.8	202.4	202.4	203.2	203.5	203.1
Whiskey	137.7	142.5	143.0	143.7	144.7	145.4	144.0	139.0	143.2	144.0	144.7	145.6	146.2	146.4
Wine	215.4	223.9	224.6	226.5	227.4	229.7	228.2	224.2	234.3	233.4	236.9	235.5	237.6	238.1
Other alcoholic beverages (12/77=100)	112.5	115.5	116.1	116.3	117.0	117.5	116.3	111.6	115.7	115.9	115.9	117.0	117.1	115.7
Alcoholic beverages away from home (12/77=100)	125.1	132.6	133.1	134.1	134.7	135.4	135.5	125.3	132.0	133.4	134.0	135.4	136.2	136.4
HOUSING														
Shelter	290.4	308.4	312.6	318.5	322.0	326.9	326.6	292.0	309.4	313.7	320.2	323.6	328.6	328.1
Rent, residential														
Other rental costs	268.8	286.4	289.5	293.6	298.5	308.1	308.7	268.8	286.1	289.7	293.3	299.0	308.0	308.4
Lodging while out of town	286.0	307.2	311.8	318.3	325.7	326.3	324.2	284.9	305.5	310.6	316.3	324.4	325.3	323.3
Tenants' insurance (12/77=100)	125.4	131.9	133.1	133.3	133.9	135.9	140.0	126.0	132.3	133.4	133.7	134.5	136.4	140.1
Homeownership														
Home purchase	265.5	263.0	266.6	271.4	272.6	274.5	272.5	266.4	262.2	266.2	271.2	272.3	273.8	271.4
Financing, taxes, and insurance	404.7	458.3	467.2	480.0	488.3	501.8	501.8	410.8	464.3	473.8	486.9	495.3	509.0	508.3
Property insurance	362.0	383.7	386.6	387.1	389.0	389.7	392.5	365.3	387.1	388.1	388.3	390.5	391.9	394.7
Property taxes	192.0	199.8	200.3	201.4	205.2	206.2	207.4	193.8	201.7	202.2	203.2	207.1	208.0	209.2
Contracted mortgage interest cost	518.1	596.9	610.4	630.1	641.3	662.0	661.3	521.2	598.6	612.9	632.6	643.8	664.4	662.5
Mortgage interest rates	192.6	224.0	226.4	229.4	232.4	238.2	239.5	193.0	224.9	227.2	230.3	233.3	239.2	240.5
Maintenance and repairs	292.8	312.9	315.5	319.3	320.5	321.6	320.8	290.4	307.3	308.2	316.2	315.8	318.1	319.2
Maintenance and repair services	317.0	341.2	344.4	349.0	350.6	352.5	351.1	315.1	337.6	338.7	350.5	349.5	352.5	354.2
Maintenance and repair commodities	236.3	246.3	247.6	249.3	249.5	248.7	249.3	235.0	241.1	241.5	242.4	243.1	244.1	244.0
Paint and wallpaper, supplies, tools, and equipment (12/77=100)	136.9	143.9	145.3	146.7	146.9	146.2	146.7	133.1	137.7	138.4	138.2	139.2	139.1	139.9
Lumber, awnings, glass, and masonry (12/77=100)	122.4	125.1	124.7	125.0	124.2	125.0	124.4	122.5	123.7	122.7	123.0	122.0	123.2	122.3
Plumbing, electrical, heating, and cooling supplies (12/77=100)	123.8	130.7	131.2	132.7	132.0	131.2	132.4	126.6	128.1	128.5	130.1	130.6	131.7	132.1
Miscellaneous supplies and equipment (12/77=100)	123.3	127.6	128.5	129.2	130.5	131.2	131.7	125.9	130.8	131.7	132.5	133.3	134.3	133.7
Fuel and other utilities	287.6	314.9	320.2	325.1	327.8	331.1	330.1	288.0	315.7	321.2	326.4	328.7	332.3	330.9
Fuels														
Fuel oil, coal, and bottled gas	558.7	685.8	682.0	677.9	674.6	673.4	672.7	559.9	688.6	685.1	681.1	677.9	677.0	675.9
Fuel oil	581.5	720.6	715.7	711.0	707.3	705.7	704.3	581.8	723.1	718.4	713.8	710.2	709.0	707.1
Other fuels (6/78=100)	143.1	163.6	164.3	164.0	163.6	163.8	165.0	144.8	164.7	165.5	165.4	165.1	165.3	166.4
Gas (piped) and electricity	317.1	339.6	350.2	357.6	360.8	364.5	360.6	316.0	338.1	349.0	356.7	359.4	363.6	359.3
Electricity	265.3	281.9	296.7	306.2	311.9	309.8	303.0	265.3	281.2	296.6	306.2	312.1	309.9	302.7
Utility (piped) gas	384.6	416.5	416.9	418.6	416.2	431.7	434.5	380.9	413.0	413.2	415.8	411.2	428.5	430.8

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				
	Oct.	May	June	July	Aug.	Sept.	Oct.	Oct.	May	June	July	Aug.	Sept.	Oct.
HOUSING—Continued														
Fuel and other utilities—Continued														
Other utilities and public services	167.8	176.2	177.1	180.8	183.7	187.4	189.4	167.8	176.6	177.3	181.3	184.3	187.8	189.8
Telephone services	137.5	144.0	143.5	147.2	149.2	152.5	154.3	137.4	144.1	143.6	147.5	149.5	152.7	154.5
Local charges (12/77 = 100)	106.6	115.5	114.9	116.7	117.3	120.5	121.5	106.5	115.7	115.1	116.9	117.6	120.7	121.8
Interstate toll calls (12/77 = 100)	102.1	101.8	101.8	109.1	113.4	114.9	116.6	102.1	101.9	101.9	109.6	113.8	115.1	116.6
Intrastate toll calls (12/77 = 100)	100.1	101.7	101.5	101.5	101.8	103.9	105.5	99.9	101.5	101.3	101.3	101.6	103.7	105.3
Water and sewerage maintenance	266.2	282.3	291.2	294.0	299.2	304.1	305.2	267.3	284.7	292.5	295.8	301.4	306.0	307.3
Household furnishings and operations	210.1	220.1	221.1	222.4	222.9	224.5	225.6	206.8	216.8	217.8	219.1	219.8	221.2	222.2
Housefurnishings	177.9	184.2	185.2	186.0	186.2	187.9	188.7	175.6	182.1	182.8	184.1	184.5	185.7	186.6
Textile housefurnishings	195.9	198.3	202.5	202.9	203.4	207.7	210.4	195.1	202.3	204.4	206.2	207.3	213.0	214.1
Household linens (12/77 = 100)	119.5	122.3	125.1	123.3	124.6	127.7	130.1	119.5	124.7	125.7	126.0	126.8	129.7	132.0
Curtains, drapes, slipcovers, and sewing materials (12/77 = 100)	124.9	125.0	127.4	129.8	129.1	131.4	132.2	124.1	127.7	129.5	131.5	132.1	136.3	135.2
Furniture and bedding	195.2	204.2	204.6	206.0	205.4	207.7	207.9	192.5	200.6	200.1	202.3	201.4	202.7	203.8
Bedroom furniture (12/77 = 100)	127.4	133.4	134.6	135.0	135.9	137.6	137.4	124.6	129.2	129.2	130.7	132.2	132.9	132.3
Sofas (12/77 = 100)	113.8	117.0	116.2	117.6	116.0	118.6	119.3	113.0	115.8	116.0	116.2	115.0	117.4	119.0
Living room chairs and tables (12/77 = 100)	113.0	117.5	116.9	117.9	116.7	116.8	117.0	114.4	119.1	118.2	119.5	116.9	117.2	118.5
Other furniture (12/77 = 100)	127.0	134.7	135.4	136.2	135.9	137.3	137.3	123.6	131.2	130.5	132.9	132.2	132.3	133.0
Appliances including TV and sound equipment	142.3	145.5	146.3	147.1	147.3	147.7	147.8	141.2	144.4	145.6	146.3	146.6	146.7	147.2
Television and sound equipment (12/77 = 100)	107.1	108.3	108.2	108.8	108.6	108.7	109.1	105.6	106.9	107.3	107.7	107.8	108.7	108.1
Television	104.7	105.4	105.3	105.6	105.0	104.6	105.0	103.2	104.4	104.3	104.5	104.2	103.6	103.8
Sound equipment (12/77 = 100)	110.3	112.1	111.9	112.7	112.8	113.4	113.8	108.7	110.1	110.9	111.4	111.9	112.4	112.8
Household appliances	166.0	171.3	173.2	174.2	174.9	175.7	175.3	165.3	170.6	172.6	173.6	174.1	174.4	175.1
Refrigerators and home freezers	165.8	170.9	172.4	174.2	175.8	177.5	177.0	169.4	175.8	177.1	178.1	178.9	180.6	181.6
Laundry equipment (12/77 = 100)	121.5	126.2	128.0	128.1	129.2	129.7	130.5	120.2	125.3	127.1	128.3	129.1	128.8	129.8
Other household appliances (12/77 = 100)	114.2	117.6	118.9	119.6	119.5	119.7	118.9	112.5	115.2	116.6	117.1	117.0	117.1	117.1
Stoves, dishwashers, vacuums, and sewing machines (12/77 = 100)	112.4	117.2	118.4	119.2	118.5	118.8	118.2	112.1	115.1	116.5	117.1	116.4	116.0	115.9
Office machines, small electric appliances, and air conditioners (12/77 = 100)	116.2	118.0	119.4	120.1	120.6	120.8	119.8	113.0	115.3	116.7	117.1	117.7	118.3	118.4
Other household equipment (12/77 = 100)	124.1	130.7	131.0	131.2	131.7	133.1	134.2	122.2	129.0	129.3	129.8	131.0	131.6	132.4
Floor and window coverings, infants', laundry, cleaning, and outdoor equipment (12/77 = 100)	123.3	132.2	132.1	132.4	133.4	134.8	135.4	118.2	125.1	125.3	127.1	129.3	129.6	129.6
Clocks, lamps, and decor items (12/77 = 100)	121.6	124.4	124.6	125.0	125.8	128.2	128.7	119.4	120.9	121.9	122.9	122.5	123.8	124.5
Tableware, serving pieces, and nonelectric kitchenware (12/77 = 100)	130.0	138.8	139.5	139.5	138.9	140.4	141.1	126.3	136.0	136.0	136.4	137.0	137.8	137.9
Lawn equipment, power tools, and other hardware (12/77 = 100)	117.9	122.5	122.6	122.7	124.0	124.5	127.2	120.9	127.0	127.1	126.7	128.8	129.2	131.2
Housekeeping supplies	253.6	269.0	269.8	271.5	272.0	273.3	274.3	251.2	265.5	266.9	267.9	268.6	270.4	271.2
Soaps and detergents	248.7	262.6	266.0	266.5	267.0	268.9	269.3	245.6	260.2	263.6	263.1	263.6	265.6	265.3
Other laundry and cleaning products (12/77 = 100)	125.7	132.8	133.4	134.8	134.8	135.7	136.7	125.1	131.5	132.3	133.6	134.7	135.8	136.6
Cleansing and toilet tissue, paper towels and napkins (12/77 = 100)	134.2	137.8	137.6	138.8	138.4	139.9	141.8	136.2	137.9	138.2	139.0	138.7	140.4	142.4
Stationery, stationery supplies, and gift wrap (12/77 = 100)	118.6	125.1	125.8	126.6	126.6	127.2	128.1	118.2	126.8	127.2	127.9	128.2	128.7	130.8
Miscellaneous household products (12/77 = 100)	129.5	138.4	139.5	140.5	141.7	142.8	142.8	126.7	135.0	136.1	136.6	136.9	138.1	137.8
Lawn and garden supplies (12/77 = 100)	126.9	140.6	138.4	138.8	139.2	137.8	136.6	121.0	132.4	131.3	131.7	131.8	131.1	129.0
Housekeeping services	274.5	291.6	292.9	295.3	296.9	298.3	300.5	271.0	289.9	291.7	293.4	295.1	296.9	298.9
Postage	257.3	308.0	308.0	308.0	308.0	308.0	308.0	257.3	308.1	308.1	308.1	308.1	308.1	308.1
Moving, storage, freight, household laundry, and drycleaning services (12/77 = 100)	133.3	141.6	141.9	143.1	143.9	144.7	145.5	130.2	140.7	141.8	142.8	143.8	144.9	145.2
Appliance and furniture repair (12/77 = 100)	120.3	125.9	126.3	127.8	128.5	129.0	131.3	119.2	124.6	125.4	126.4	127.2	128.3	130.5
APPAREL AND UPKEEP	183.9	186.4	185.8	184.7	187.4	190.7	191.5	182.8	186.2	185.8	185.5	187.9	190.5	190.6
Apparel commodities	176.4	177.2	176.4	175.1	178.0	181.4	182.1	175.6	177.6	177.0	176.6	179.0	181.6	181.5
Apparel commodities less footwear	173.1	173.3	172.5	171.2	174.3	178.0	178.4	172.2	173.8	173.0	172.8	175.2	178.1	177.7
Men's and boys'	173.9	176.8	176.6	175.6	177.6	181.1	183.6	173.8	177.3	177.2	176.9	178.4	181.4	182.9
Men's (12/77 = 100)	109.5	111.2	111.0	110.3	111.7	114.3	115.9	109.5	111.8	111.6	111.6	112.8	115.0	115.8
Suits, sport coats, and jackets (12/77 = 100)	104.3	104.7	104.3	102.5	105.6	108.8	109.8	99.7	99.3	98.4	97.4	99.7	102.1	102.0
Coats and jackets (12/77 = 100)	100.4	97.9	98.1	96.7	97.7	101.0	102.4	101.3	100.5	101.2	100.8	102.4	106.1	104.9
Furnishings and special clothing (12/77 = 100)	122.9	129.2	129.7	129.6	129.5	132.7	134.3	118.8	123.9	124.1	124.8	125.3	128.5	130.0
Shirts (12/77 = 100)	118.3	118.3	117.9	115.5	117.9	120.6	123.0	118.5	120.3	120.4	118.8	122.1	123.9	125.5
Dungarees, jeans, and trousers (12/77 = 100)	102.6	105.5	105.0	106.5	106.6	107.8	109.2	108.3	112.2	111.8	113.2	112.5	113.5	114.7
Boys' (12/77 = 100)	113.0	115.1	115.4	115.1	115.8	116.4	118.1	112.0	114.2	114.3	113.6	113.8	114.8	116.4
Coats, jackets, sweaters, and shirts (12/77 = 100)	109.2	108.8	108.7	107.0	109.2	111.3	111.9	111.2	111.8	109.8	107.6	109.5	112.3	113.5
Furnishings (12/77 = 100)	118.1	121.4	123.9	124.5	124.3	125.0	125.6	115.1	117.4	119.5	120.6	120.3	120.9	121.8
Suits, trousers, sport coats, and jackets (12/77 = 100)	113.9	117.5	117.3	117.7	117.5	117.0	119.9	111.5	114.8	115.9	115.6	114.7	114.4	116.6
Women's and girls'	159.7	157.2	155.4	153.5	157.8	162.9	161.2	160.3	160.0	158.1	157.9	161.2	164.9	162.7
Women's (12/77 = 100)	106.1	103.9	102.7	101.2	104.4	108.1	106.8	107.0	106.2	104.9	104.5	107.1	109.8	108.1
Coats and jackets	167.0	152.8	149.5	153.9	162.1	170.8	167.3	176.5	155.8	148.9	159.0	168.7	177.8	171.4
Dresses	170.0	164.8	163.7	162.2	166.2	170.8	166.9	157.5	159.7	156.6	154.1	153.4	155.5	151.5
Separates and sportswear (12/77 = 100)	101.6	99.0	98.0	95.1	97.4	101.1	100.4	103.6	101.5	101.0	99.1	101.1	103.3	102.3
Underwear, nightwear, and hosiery (12/77 = 100)	114.9	119.7	119.8	120.0	121.2	122.8	123.0	115.3	119.5	120.0	120.1	121.0	122.7	123.4
Suits (12/77 = 100)	98.2	90.7	86.3	78.6	87.0	95.4	92.4	106.8	106.9	103.6	100.6	109.8	115.0	110.2
Girls' (12/77 = 100)	107.0	107.9	106.4	106.5	107.9	109.7	109.2	105.1	107.1	106.2	106.9	107.6	108.8	108.4
Coats, jackets, dresses, and suits (12/77 = 100)	103.2	104.1	104.0	100.0	101.6	103.3	99.8	98.0	98.8	98.1	99.8	101.5	103.3	99.8
Separates and sportswear (12/77 = 100)	106.7	106.9	105.9	106.1	108.7	111.0	112.0	106.3	109.6	108.1	108.9	108.9	110.0	110.6
Underwear, nightwear, hosiery, and accessories (12/77 = 100)	113.8	116.1	117.2	117.6	117.0	117.9	119.6	112.8	115.9	116.2	116.3	115.1	115.5	118.5

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						
	Oct.	May	June	July	Aug.	Sept.	Oct.	Oct.	May	June	July	Aug.	Sept.	Oct.
APPAREL AND UPKEEP—Continued														
Apparel commodities—Continued														
Apparel commodities less footwear—Continued														
Infants' and toddlers'	244.1	256.9	260.0	259.8	263.6	266.4	268.5	249.2	269.9	273.0	272.9	279.3	279.8	281.6
Other apparel commodities	211.8	212.1	212.2	212.4	214.0	213.3	216.2	204.1	204.8	204.8	206.1	206.0	206.2	
Sewing materials and notions (12/77 = 100)	111.9	114.3	114.5	115.3	117.5	118.3	118.1	112.0	118.4	113.2	113.6	115.3	116.4	116.3
Jewelry and luggage (12/77 = 100)	147.5	146.8	146.8	146.6	147.2	146.2	149.0	141.1	140.5	141.2	141.0	141.4	140.9	141.1
Footwear	196.1	201.0	200.4	199.0	200.0	202.4	204.2	195.6	200.0	200.6	199.2	200.8	202.3	204.1
Men's (12/77 = 100)	124.7	127.8	127.7	128.0	128.3	128.8	129.3	125.8	128.7	129.5	129.5	129.8	129.7	130.3
Boys' and girls' (12/77 = 100)	125.8	129.3	129.1	130.1	129.1	129.7	131.1	126.9	127.7	128.6	128.7	130.4	130.7	132.2
Women's (12/77 = 100)	119.6	122.4	121.6	118.7	120.6	123.5	124.9	116.3	120.5	120.2	117.8	118.9	121.2	122.5
Apparel services	240.0	256.4	257.8	258.9	260.2	262.0	263.2	238.1	254.2	255.7	256.3	258.2	260.0	262.1
Laundry and drycleaning other than coin operated (12/77 = 100)	141.1	152.2	153.2	153.8	154.7	155.7	157.1	140.9	151.5	152.5	153.1	153.9	155.0	156.4
Other apparel services (12/77 = 100)	129.2	135.6	136.0	136.7	137.2	138.2	137.5	127.4	134.5	135.0	135.1	136.5	137.4	138.3
TRANSPORTATION														
Private	256.1	277.8	279.9	282.6	283.7	285.2	287.2	256.6	278.9	281.0	283.9	285.1	286.6	288.9
New cars	181.9	190.9	192.2	192.5	191.9	191.3	192.5	182.0	191.2	192.5	192.9	192.1	191.4	192.7
Used cars	222.7	245.2	252.9	260.3	266.9	272.8	278.2	222.7	245.2	252.9	260.3	266.9	272.8	278.2
Gasoline	370.5	416.5	414.4	412.9	411.7	411.2	409.9	371.7	417.7	415.6	414.0	412.9	412.4	411.3
Automobile maintenance and repair	276.0	290.8	291.9	293.5	295.5	298.7	301.3	276.6	291.3	292.6	293.4	296.1	299.3	301.8
Body work (12/77 = 100)	135.0	141.5	142.3	144.1	145.8	147.4	148.7	134.6	141.3	142.2	143.3	145.4	146.1	147.2
Automobile drive train, brake, and miscellaneous mechanical repair (12/77 = 100)	132.7	138.7	138.9	139.9	140.9	143.1	144.0	133.9	141.2	141.7	141.4	142.6	145.5	146.5
Maintenance and servicing (12/77 = 100)	130.0	136.5	137.1	137.4	137.8	138.9	140.3	130.2	136.4	136.9	137.3	138.2	139.2	140.3
Power plant repair (12/77 = 100)	129.8	138.6	139.2	139.9	141.2	142.6	144.0	129.6	137.7	138.3	139.1	140.5	141.9	143.5
Other private transportation	226.5	238.9	241.0	242.9	243.0	244.2	247.5	228.0	241.9	243.9	246.0	245.6	246.9	250.6
Other private transportation commodities	200.9	208.6	208.5	208.8	212.1	212.6	212.7	201.4	211.7	211.1	210.8	213.4	215.5	216.1
Motor oil, coolant, and other products (12/77 = 100)	136.5	143.1	144.5	144.8	146.8	147.7	148.0	135.4	141.4	142.7	143.4	144.1	145.3	144.8
Automobile parts and equipment (12/77 = 100)	128.9	133.6	133.4	133.6	135.7	136.0	136.0	129.4	136.1	135.5	135.2	137.0	138.4	138.9
Tires	179.2	186.4	186.1	185.6	189.3	189.7	189.4	180.8	191.1	189.9	188.4	191.5	194.1	194.6
Other parts and equipment (12/77 = 100)	126.9	130.4	130.2	131.7	132.4	132.8	133.4	125.7	130.7	130.7	132.2	132.9	133.2	134.3
Other private transportation services	235.6	249.4	252.0	254.3	253.6	255.0	259.1	237.3	252.4	255.0	257.7	256.6	257.7	262.2
Automobile insurance	251.5	256.8	257.4	258.8	260.3	262.0	264.6	251.2	256.3	256.9	259.6	260.1	261.8	264.3
Automobile finance charges (12/77 = 100)	149.9	172.9	178.5	180.9	177.3	178.0	184.4	148.3	172.5	177.2	179.9	176.3	176.5	183.1
Automobile rental, registration, and other fees (12/77 = 100)	114.6	117.7	117.8	118.0	119.5	120.1	120.2	116.3	118.1	118.2	118.4	119.5	119.8	120.0
State registration	146.5	147.5	148.0	147.9	147.9	147.9	147.9	146.5	147.7	148.1	147.9	148.0	148.0	148.0
Drivers' licenses (12/77 = 100)	104.9	105.5	105.8	105.9	106.2	109.6	109.9	104.7	105.2	105.6	105.6	105.9	105.9	108.8
Vehicle inspection (12/77 = 100)	122.9	125.8	125.7	128.6	(¹)	(¹)	(¹)	123.6	126.5	126.5	129.3	(¹)	(¹)	(¹)
Other vehicle-related fees (12/77 = 100)	130.0	136.3	136.3	136.6	140.0	140.9	141.2	139.1	142.8	142.6	143.1	145.8	145.9	146.5
Public	273.6	297.7	303.9	323.1	326.5	329.1	330.8	266.5	288.2	293.6	317.7	320.9	324.5	326.6
Airline fare	315.0	348.8	360.7	367.3	371.4	372.5	372.0	313.0	346.7	359.3	365.6	370.0	371.8	372.9
Intercity bus fare	307.1	333.4	337.6	343.5	347.5	351.4	361.3	306.9	333.0	336.8	343.6	347.3	351.7	362.1
Intra-city mass transit	235.6	251.9	253.5	290.7	294.0	298.6	301.7	235.2	249.9	251.5	291.0	293.9	299.2	301.3
Taxi fare	267.9	280.4	281.7	287.1	288.1	288.6	289.3	274.7	287.9	289.2	295.7	296.7	299.1	298.1
Intercity train fare	255.6	296.7	304.1	304.6	304.6	305.0	315.0	255.7	298.5	304.6	304.9	305.0	305.2	314.9
MEDICAL CARE														
Medical care commodities	172.5	184.7	186.3	187.7	189.4	190.8	192.1	173.0	185.9	187.3	189.2	190.6	191.9	192.9
Prescription drugs	158.5	170.4	172.3	173.7	175.4	176.5	178.6	159.5	171.6	173.5	175.0	176.5	178.0	179.4
Anti-infective drugs (12/77 = 100)	124.1	130.3	132.2	133.9	134.8	136.5	136.8	125.1	132.7	134.3	135.8	137.0	139.2	139.6
Tranquilizers and sedatives (12/77 = 100)	127.1	136.0	137.3	138.4	139.6	140.0	141.9	126.2	135.2	136.5	137.6	138.8	139.7	141.3
Circulatives and diuretics (12/77 = 100)	117.3	124.9	125.5	126.5	127.6	127.8	129.5	119.3	126.1	126.8	127.9	128.6	129.0	130.5
Hormones, diabetic drugs, biologicals, and prescription medical supplies (12/77 = 100)	139.6	154.6	157.2	158.1	160.4	160.6	161.9	138.8	154.5	158.1	158.2	160.3	161.4	162.8
Pain and symptom control drugs (12/77 = 100)	126.3	136.5	137.7	139.1	140.2	141.7	144.1	128.7	138.2	138.9	141.8	142.7	143.8	144.2
Supplements, cough and cold preparations, and respiratory agents (12/77 = 100)	120.4	130.2	131.1	131.8	133.1	134.1	136.8	122.1	131.2	132.0	132.5	133.9	134.6	136.1
Nonprescription drugs and medical supplies (12/77 = 100)	124.4	132.6	133.5	134.5	135.6	136.7	137.0	124.4	133.6	134.4	135.8	136.7	137.4	137.9
Eyeglasses (12/77 = 100)	121.0	125.3	125.3	125.8	126.3	126.9	127.4	119.6	124.1	124.7	125.0	125.3	126.0	126.0
Internal and respiratory over-the-counter drugs	193.5	209.1	211.5	213.1	215.5	217.8	217.3	194.0	211.0	212.6	215.4	217.5	218.9	219.5
Nonprescription medical equipment and supplies (12/77 = 100)	121.3	128.6	128.6	129.9	130.4	131.4	132.7	121.8	130.5	130.7	132.2	132.3	132.6	133.8
Medical care services	294.8	311.7	314.4	319.2	323.4	326.1	329.7	296.6	313.6	315.8	318.5	322.1	324.7	328.3
Professional services	259.0	273.8	275.8	280.4	282.9	284.3	286.4	261.9	278.0	279.4	280.8	282.7	284.5	286.2
Physicians' services	276.0	295.5	297.5	300.7	302.7	304.9	307.9	281.8	300.3	302.4	304.7	306.7	308.6	310.9
Dental services	247.5	257.7	260.2	266.5	269.9	270.8	271.6	249.0	263.3	264.0	264.6	266.6	268.4	269.5
Other professional services (12/77 = 100)	127.6	133.7	134.2	136.8	137.3	137.7	138.9	125.1	132.1	132.6	132.7	133.6	134.3	134.9
Other medical care services	338.0	357.6	361.1	366.1	372.5	376.5	382.1	339.2	357.1	360.3	364.6	370.6	374.1	380.3
Hospital and other medical services (12/77 = 100)	139.3	148.3	149.6	151.7	154.7	156.6	159.0	138.9	147.3	148.6	150.3	153.1	154.8	157.9
Hospital room	435.8	465.1	470.4	478.0	489.4	494.6	503.0	435.3	461.3	467.1	472.2	482.6	488.5	498.9
Other hospital and medical care services (12/77 = 100)	139.0	147.6	148.7	150.4	152.9	155.0	157.2	138.4	146.8	147.6	149.4	151.8	153.4	156.1

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					
	Oct.	May	June	July	Aug.	Sept.	Oct.	Oct.	May	June	July	Aug.	Sept.	Oct.
ENTERTAINMENT	210.9	220.3	220.8	221.1	222.3	224.0	225.5	209.2	217.7	218.3	218.7	219.9	221.5	223.4
Entertainment commodities	213.7	225.0	225.4	225.5	226.5	227.9	228.9	209.0	220.4	220.8	221.1	222.2	224.0	224.2
Reading materials (12/77 = 100)	127.0	135.6	136.2	136.0	136.0	138.1	138.7	126.6	135.6	136.1	135.9	135.9	137.8	138.3
Newspapers	245.3	264.1	264.9	265.0	265.5	266.3	267.1	244.6	264.0	264.8	265.0	265.4	266.2	266.9
Magazines, periodicals, and books (12/77 = 100)	129.6	137.1	137.9	137.3	137.2	141.1	141.9	129.6	137.3	138.2	137.4	137.1	141.2	141.9
Sporting goods and equipment (12/77 = 100)	121.8	127.2	126.8	127.0	127.2	127.3	128.3	116.3	120.8	120.4	120.6	120.8	121.3	121.4
Sport vehicles (12/77 = 100)	122.9	129.5	128.7	129.0	128.6	128.4	129.4	114.5	119.3	118.4	118.5	118.3	118.7	118.6
Indoor and warm weather sport equipment (12/77 = 100)	114.5	117.4	116.9	117.7	118.2	119.1	119.2	112.5	116.4	116.9	117.0	116.7	117.2	117.3
Bicycles	185.3	190.4	191.0	191.0	192.2	193.2	194.4	185.4	191.6	192.0	192.1	193.5	193.9	195.9
Other sporting goods and equipment (12/77 = 100)	118.2	122.4	122.7	122.7	124.1	125.0	126.6	117.8	121.5	122.2	122.9	124.9	125.8	126.2
Toys, hobbies, and other entertainment (12/77 = 100)	122.8	128.8	129.3	129.3	130.5	131.0	131.3	120.9	127.7	128.1	128.5	129.6	130.6	130.5
Toys, hobbies, and music equipment (12/77 = 100)	120.9	127.6	127.9	127.9	129.3	129.4	129.6	117.4	125.0	125.3	125.3	126.6	127.1	126.2
Photographic supplies and equipment (12/77 = 100)	123.1	125.8	126.2	125.7	126.0	126.4	126.0	122.3	126.1	126.5	127.0	127.1	127.7	127.8
Pet supplies and expenses (12/77 = 100)	125.8	133.3	134.2	134.5	136.2	137.2	138.3	126.4	133.6	134.3	135.1	136.6	138.8	139.9
Entertainment services	207.2	214.0	214.7	215.2	216.7	218.9	221.0	210.6	214.2	215.1	215.8	217.0	218.3	223.3
Fees for participant sports (12/77 = 100)	125.5	130.7	131.3	131.6	132.0	134.3	136.4	127.0	130.5	131.4	131.6	132.4	134.0	138.9
Admissions (12/77 = 100)	122.7	125.1	124.9	125.9	128.1	128.0	128.3	124.2	125.0	124.8	125.7	126.9	127.3	128.2
Other entertainment services (12/77 = 100)	119.0	121.7	122.2	121.7	121.7	122.5	123.1	121.6	122.5	123.4	123.2	123.1	122.7	124.2
OTHER GOODS AND SERVICES	221.5	232.2	233.4	234.4	235.6	243.0	245.2	219.9	230.4	231.4	232.4	233.5	239.3	241.4
Tobacco products	204.5	218.2	219.1	219.3	219.9	221.7	225.3	204.3	217.8	218.4	218.4	219.1	220.9	224.5
Cigarettes	206.8	220.8	221.4	221.6	222.2	224.2	228.1	206.7	220.3	220.8	220.7	221.4	223.4	227.2
Other tobacco products and smoking accessories (12/77 = 100)	123.2	130.4	132.3	132.5	132.9	133.1	134.0	123.1	131.3	132.7	133.4	133.9	134.4	134.7
Personal care	217.8	230.5	232.1	233.4	235.1	236.3	236.9	218.0	228.4	229.7	231.2	232.4	233.6	234.1
Toilet goods and personal care appliances	211.8	226.6	228.6	228.7	230.1	231.2	231.6	212.1	225.5	227.2	228.4	229.4	231.1	231.4
Products for the hair, hairpieces, and wigs (12/77 = 100)	124.5	132.4	132.8	133.9	134.1	134.1	134.9	123.6	130.1	130.4	131.7	132.5	133.3	131.8
Dental and shaving products (12/77 = 100)	126.0	138.6	139.4	139.0	140.0	140.0	139.8	125.3	136.1	136.6	137.1	137.6	138.0	138.0
Cosmetics, bath and nail preparations, manicure and eye makeup implements (12/77 = 100)	121.3	127.8	129.0	127.7	128.9	130.7	131.2	121.1	126.2	128.0	128.3	128.9	130.4	131.6
Other toilet goods and small personal care appliances (12/77 = 100)	120.8	129.8	132.0	133.0	133.9	134.2	133.7	123.6	134.0	135.4	135.9	136.4	137.4	138.2
Personal care services	223.8	234.7	236.0	238.4	240.3	241.5	242.3	224.0	231.5	232.5	234.4	235.7	236.3	237.1
Beauty parlor services for women	225.2	236.4	237.7	240.5	241.9	243.0	243.9	225.6	232.0	232.7	235.1	235.7	236.1	236.7
Haircuts and other barber shop services for men (12/77 = 100)	125.3	131.1	131.9	132.7	134.4	135.3	135.6	125.0	130.5	131.3	131.8	133.3	133.9	134.5
Personal and educational expenses	251.1	256.8	257.8	259.2	260.4	281.5	284.6	251.2	257.7	258.5	260.1	261.7	281.8	284.8
Schoolbooks and supplies	221.9	230.8	230.9	231.3	231.4	252.1	254.5	225.6	234.7	234.7	235.2	235.2	255.9	258.3
Personal and educational services	257.8	263.0	264.2	265.8	267.2	288.5	291.7	257.5	263.6	264.6	266.4	268.4	288.5	291.6
Tuition and other school fees	132.2	132.8	132.9	133.5	134.2	147.4	149.0	132.4	133.0	133.1	133.7	134.7	147.7	149.3
College tuition (12/77 = 100)	131.5	132.3	132.4	133.0	133.2	146.3	148.2	131.5	132.3	132.4	132.9	133.1	146.1	148.1
Elementary and high school tuition (12/77 = 100)	134.4	134.4	134.4	135.3	137.8	151.5	151.6	134.3	134.4	134.4	135.4	138.7	152.1	152.2
Personal expenses (12/77 = 100)	132.4	143.6	146.3	147.9	148.7	150.0	152.3	131.0	142.8	144.8	146.6	147.6	148.5	150.4
Special indexes:														
Gasoline, motor oil, coolant, and other products	365.5	410.4	408.4	407.1	405.9	405.4	404.3	366.6	411.5	409.5	408.0	406.9	406.5	405.4
Insurance and finance	346.4	386.6	393.4	402.7	408.1	417.6	419.0	346.7	386.1	393.1	402.4	407.3	416.4	417.6
Utilities and public transportation	254.9	272.4	278.5	286.5	289.7	293.3	292.7	253.5	270.6	276.7	285.6	288.5	292.4	291.6
Housekeeping and home maintenance services	304.7	326.2	328.6	332.3	334.0	335.7	335.9	302.4	323.8	325.1	322.8	333.0	335.5	337.3

1 Not available.

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)		
	1981			1981			1981			1981		
	June	Aug.	Oct.	June	Aug.	Oct.	June	Aug.	Oct.	June	Aug.	Oct.
Northeast												
EXPENDITURE CATEGORY												
All items	139.1	142.1	143.8	146.8	150.5	152.3	152.5	155.3	156.2	146.3	147.7	149.2
Food and beverages	137.5	139.4	139.7	139.2	139.9	139.9	141.1	142.3	142.6	136.1	137.6	137.4
Housing	142.1	146.2	147.8	153.2	160.4	161.4	166.0	170.4	170.1	154.0	155.2	156.6
Apparel and upkeep	116.2	117.6	118.9	118.9	118.3	124.8	123.1	123.5	124.8	122.9	125.7	126.5
Transportation	151.5	154.5	156.3	159.1	161.3	164.0	158.4	160.5	162.0	156.6	158.3	159.7
Medical care	134.8	137.6	140.0	134.0	139.2	143.6	137.8	140.8	146.5	137.2	138.9	142.3
Entertainment	127.9	129.3	131.8	129.6	129.1	129.6	129.9	127.8	129.5	130.2	131.7	133.2
Other goods and services	125.9	127.2	134.6	132.1	132.2	138.0	134.1	135.8	141.5	128.8	129.5	137.5
COMMODITY AND SERVICE GROUP												
Commodities	139.0	141.0	142.1	146.5	148.6	149.6	148.1	149.1	149.8	145.0	146.0	146.4
Commodities less food and beverages	139.9	142.0	143.7	150.0	152.7	154.3	151.4	152.3	153.1	149.3	150.0	150.7
Services	139.4	143.5	146.0	147.2	153.6	156.5	159.7	165.4	166.7	148.3	150.5	153.5
North Central region												
EXPENDITURE CATEGORY												
All items	150.0	152.3	152.6	146.6	148.1	148.8	142.3	145.4	145.9	143.1	145.3	146.7
Food and beverages	138.1	139.4	139.7	137.5	139.2	139.3	139.6	140.8	140.3	140.7	142.4	143.3
Housing	162.9	165.9	164.4	152.6	154.7	153.6	143.5	148.5	147.5	144.0	147.0	148.3
Apparel and upkeep	110.8	112.9	115.5	118.9	120.2	127.2	115.3	116.9	123.4	118.6	121.6	123.1
Transportation	156.4	158.9	161.2	157.3	158.4	159.5	157.0	159.3	161.2	155.9	157.6	158.6
Medical care	139.1	141.3	142.8	139.9	144.5	145.6	140.4	143.9	145.3	144.0	146.9	147.7
Entertainment	130.6	130.9	132.2	124.4	188.4	123.8	129.8	129.8	131.3	126.9	128.1	128.4
Other goods and services	130.1	131.2	136.0	136.0	136.5	142.4	129.3	131.5	135.1	134.3	133.6	140.4
COMMODITY AND SERVICE GROUP												
Commodities	144.4	145.7	145.7	142.5	142.9	142.9	139.9	141.7	141.4	138.0	139.4	140.7
Commodities less food and beverages	147.4	148.7	148.5	144.6	144.5	144.4	140.0	142.1	141.9	136.8	138.1	139.6
Services	158.3	162.1	162.9	153.2	156.4	158.3	146.2	151.6	153.3	151.1	154.8	156.2
South												
EXPENDITURE CATEGORY												
All items	146.2	148.2	150.9	148.7	151.6	153.4	145.9	148.5	149.2	144.8	147.2	149.4
Food and beverages	138.2	140.2	141.2	139.4	141.7	141.1	138.7	141.6	141.2	141.9	143.9	144.0
Housing	152.3	154.9	158.6	156.4	160.5	162.5	151.9	155.3	154.7	147.5	150.9	153.5
Apparel and upkeep	121.1	121.9	124.4	119.9	120.6	122.6	115.3	115.1	118.3	109.5	108.6	111.8
Transportation	158.1	158.9	160.6	158.3	160.3	162.3	156.6	158.6	160.2	157.7	159.1	160.6
Medical care	135.0	138.3	141.6	138.8	141.6	145.9	142.1	145.6	148.8	148.1	149.9	156.3
Entertainment	124.9	125.3	127.1	130.7	132.2	133.4	132.1	132.1	134.8	133.5	138.6	138.8
Other goods and services	133.1	135.3	139.2	134.1	134.6	139.5	131.5	132.7	138.5	134.1	134.8	139.5
COMMODITY AND SERVICE GROUP												
Commodities	142.1	143.5	145.0	143.2	144.7	145.7	141.3	143.1	143.6	142.1	143.2	144.1
Commodities less food and beverages	143.8	144.9	146.6	144.8	146.0	147.7	142.4	143.8	144.6	142.2	143.0	144.2
Services	152.1	154.9	159.3	157.0	161.9	164.9	153.1	156.9	157.9	149.0	153.1	157.4
West												
EXPENDITURE CATEGORY												
All items	147.5	152.4	156.3	149.1	151.2	155.0	143.9	146.4	149.2	146.9	147.7	152.1
Food and beverages	138.3	140.3	140.3	142.6	144.6	144.9	137.5	141.2	141.4	143.2	145.2	145.5
Housing	153.2	160.6	167.1	155.1	156.6	162.6	146.7	148.9	153.5	146.1	145.6	153.9
Apparel and upkeep	120.7	121.2	121.8	123.1	124.5	127.6	113.4	114.6	116.5	133.5	134.4	135.9
Transportation	157.4	159.3	161.8	157.5	161.1	163.5	158.7	160.8	162.1	159.3	161.0	162.5
Medical care	141.0	149.2	150.5	141.2	146.1	148.1	141.5	147.0	149.4	146.2	149.9	150.4
Entertainment	127.7	130.2	133.0	128.9	130.1	132.5	130.8	130.8	131.4	143.7	145.4	144.4
Other goods and services	134.8	136.4	140.1	134.7	137.3	141.4	130.2	131.3	136.1	137.8	141.0	145.5
COMMODITY AND SERVICE GROUP												
Commodities	140.5	143.4	145.1	143.4	145.2	147.0	140.2	142.6	144.4	144.7	144.5	146.2
Commodities less food and beverages	141.4	144.7	147.1	143.8	145.5	147.8	141.3	143.2	145.6	145.3	144.2	146.5
Services	156.8	164.3	171.2	156.8	159.4	166.0	149.2	151.7	156.1	150.1	152.5	160.9

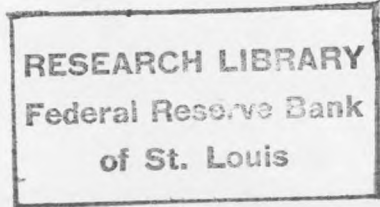
25. Consumer Price Index—U.S. city average, and selected areas

[1967=100 unless otherwise specified]

Area ¹	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1980	1981						1980	1981					
	Oct.	May	June	July	Aug.	Sept.	Oct.	Oct.	May	June	July	Aug.	Sept.	Oct.
U.S. city average ²	253.9	269.0	271.3	274.4	276.5	279.3	279.9	254.1	269.1	271.4	274.6	276.5	279.1	279.7
Anchorage, Alaska (10/67=100) .....	...	244.6	...	246.1	...	250.5	...	...	240.1	...	241.7	...	245.9	...
Atlanta, Ga.	250.2	...	269.2	...	276.1	...	281.5	252.4	...	272.8	...	278.1	...	283.0
Baltimore, Md. ....	...	269.3	...	272.5	...	279.9	...	...	268.6	...	273.7	...	281.6	...
Boston, Mass. ....	...	263.6	...	266.3	...	272.8	...	...	263.6	...	266.5	...	273.6	...
Buffalo, N.Y.	239.6	...	257.2	...	260.3	...	262.5	238.2	...	256.1	...	259.4	...	261.2
Chicago, Ill.-Northwestern Ind.	253.7	264.5	269.1	272.7	275.8	276.9	276.1	252.8	263.9	267.9	271.7	274.6	275.8	276.3
Cincinnati, Ohio-Ky.-Ind. ....	...	271.7	...	273.3	...	275.2	...	...	273.3	...	276.3	...	277.1	...
Cleveland, Ohio	264.6	...	285.3	...	284.4	...	282.8	264.2	...	283.8	...	283.0	...	282.3
Dallas-Ft. Worth, Tex.	264.9	...	286.0	...	288.2	...	292.5	262.9	...	284.0	...	285.1	...	288.8
Denver-Boulder, Colo. ....	...	288.2	...	294.2	...	298.9	...	...	293.4	...	299.9	...	304.2	...
Detroit, Mich.	264.3	275.2	280.5	283.1	283.5	284.2	281.5	261.4	271.3	275.9	278.9	279.1	280.2	278.2
Honolulu, Hawaii	234.6	...	252.8	...	256.6	...	259.3	233.5	...	253.8	...	256.6	...	259.1
Houston, Tex.	272.3	...	292.9	...	294.7	...	300.0	269.4	...	289.4	...	291.8	...	295.9
Kansas City, Mo.-Kansas	254.8	...	270.5	...	271.3	...	272.6	253.0	...	269.1	...	270.2	...	271.3
Los Angeles-Long Beach, Anaheim, Calif.	252.6	267.3	267.9	272.2	274.8	279.3	281.3	254.9	270.7	271.7	276.3	278.6	282.9	284.9
Miami, Fla. (11/77=100) ....	...	143.2	...	146.1	...	150.2	...	...	144.8	...	143.7	...	151.0	...
Milwaukee, Wis. ....	...	278.5	...	285.6	...	286.9	...	...	283.5	...	291.2	...	292.1	...
Minneapolis-St. Paul, Minn.-Wis.	255.5	...	276.1	...	286.6	...	291.6	256.6	...	276.6	...	287.0	...	291.6
New York, N.Y.-Northeastern N.J.	243.1	256.7	258.6	262.5	264.8	268.8	268.0	242.6	255.9	257.9	262.3	264.0	267.8	267.0
Northeast, Pa. (Scranton) ....	...	259.9	...	266.0	...	271.5	...	...	263.3	...	269.0	...	275.0	...
Philadelphia, Pa.-N.J.	247.9	261.9	265.4	267.8	270.5	274.4	274.7	249.5	262.9	265.6	268.5	271.6	274.5	275.2
Pittsburgh, Pa.	256.3	...	271.3	...	277.7	...	277.7	257.6	...	273.0	...	278.1	...	278.4
Portland, Oreg.-Wash. ....	...	278.5	...	280.8	...	291.1	...	...	276.1	...	279.2	...	288.8	...
St. Louis, Mo.-Ill. ....	...	268.0	...	269.4	...	273.4	...	...	268.4	...	269.2	...	273.0	...
San Diego, Calif. ....	...	297.5	...	305.4	...	313.9	...	...	292.5	...	300.5	...	308.0	...
San Francisco-Oakland, Calif.	251.9	...	274.0	...	287.9	...	297.0	252.6	...	274.3	...	287.2	...	295.6
Seattle-Everett, Wash. ....	...	274.7	...	282.3	...	288.6	...	...	271.5	...	277.8	...	284.3	...
Washington, D.C.-Md.-Va. ....	...	264.7	...	267.1	...	271.8	...	...	267.7	...	271.4	...	275.7	...

¹The areas listed include not only the central city but the entire portion of the Standard Metropolitan Statistical Area, as defined for the 1970 Census of Population, except that the Standard Consolidated

Area is used for New York and Chicago.
² Average of 85 cities.



26. Producer Price Indexes, by stage of processing

[1967 = 100]

Commodity grouping	Annual average 1980	1980		1981										
		Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July ¹	Aug.	Sept.	Oct.	Nov.
FINISHED GOODS														
Finished goods	247.0	256.2	257.2	260.9	263.3	266.0	268.5	269.6	270.5	271.8	271.2	271.1	274.0	274.5
Finished consumer goods	248.9	257.9	258.9	262.5	265.0	268.2	270.6	271.5	272.3	273.5	272.6	272.6	274.7	274.9
Finished consumer foods	239.5	248.9	249.3	251.0	251.3	252.6	251.9	252.8	253.8	257.6	255.5	255.5	253.7	252.7
Crude	237.2	250.5	254.8	257.9	265.6	279.7	279.3	263.1	258.9	262.7	256.5	253.0	253.3	259.5
Processed	237.8	246.7	246.7	248.4	247.9	248.1	247.4	249.8	251.3	255.0	253.4	253.7	251.7	250.0
Nondurable goods less foods	283.9	293.9	296.2	302.7	308.4	316.0	320.4	321.0	322.0	322.5	321.8	323.5	323.8	325.0
Durable goods	206.2	213.1	213.5	214.9	215.1	214.0	216.6	218.1	218.2	218.1	218.1	215.6	224.3	224.3
Consumer nondurable goods less food and energy	191.2	196.9	197.6	201.9	203.5	204.8	207.3	207.7	208.4	209.5	209.9	211.0	212.2	213.3
Capital equipment	239.8	250.2	250.9	254.6	256.7	258.1	260.8	262.5	263.8	265.4	265.9	265.6	271.4	272.9
INTERMEDIATE MATERIALS														
Intermediate materials, supplies, and components	280.3	289.1	291.9	296.1	298.3	302.0	305.8	306.7	307.2	308.5	309.9	309.6	309.3	309.0
Materials and components for manufacturing	265.7	273.9	275.7	279.6	280.3	281.6	284.1	285.1	285.8	287.9	289.6	290.2	290.3	289.6
Materials for food manufacturing	264.4	299.0	279.6	280.7	273.2	267.5	263.1	259.0	262.4	260.5	261.7	254.7	252.7	249.2
Materials for nondurable manufacturing	259.5	266.7	268.5	274.0	276.5	279.4	284.3	287.0	287.7	289.2	290.7	291.2	290.8	289.7
Materials for durable manufacturing	301.0	303.8	304.3	306.9	305.4	306.9	310.6	311.2	310.7	314.4	316.1	317.4	317.1	315.1
Components for manufacturing	231.8	238.3	246.3	250.3	253.0	254.2	255.4	256.3	257.3	259.5	261.5	263.4	264.7	266.3
Materials and components for construction	268.3	274.0	276.6	279.2	280.3	282.7	288.0	288.5	289.6	290.4	290.6	289.9	289.8	289.9
Processed fuels and lubricants	503.0	521.3	539.4	551.9	569.8	598.3	608.5	608.7	605.7	602.0	606.7	600.1	595.1	594.2
Manufacturing industries	425.7	445.2	457.9	469.5	482.8	503.9	509.0	510.7	505.4	500.3	507.4	499.3	495.6	495.4
Nonmanufacturing industries	570.9	589.3	611.4	624.7	646.7	681.6	696.2	695.2	694.3	692.0	694.3	689.3	683.1	681.5
Containers	254.5	259.5	260.6	264.6	268.2	270.9	274.3	276.4	277.2	278.8	280.3	280.8	281.1	280.7
Supplies	244.5	255.2	255.0	257.8	257.8	258.9	262.4	264.0	264.6	266.0	266.1	266.1	267.1	267.4
Manufacturing industries	231.9	238.7	239.5	242.5	244.8	246.8	250.6	252.3	253.4	255.0	256.0	256.7	258.9	259.5
Nonmanufacturing industries	251.1	263.8	263.0	265.7	264.6	265.2	268.7	270.2	270.5	272.0	271.5	271.1	271.5	271.7
Feeds	229.0	259.2	251.5	252.0	237.5	231.7	239.2	242.9	235.4	232.8	228.9	221.7	216.3	212.0
Other supplies	253.6	261.3	262.4	265.6	268.3	270.6	272.9	273.8	276.3	278.7	279.2	280.6	282.5	283.9
CRUDE MATERIALS														
Crude materials for further processing	304.6	324.6	323.5	328.0	336.5	334.2	336.3	334.4	335.4	337.3	333.2	327.7	320.3	314.1
Foodstuffs and feedstuffs	259.2	277.3	271.6	270.7	267.1	262.1	263.5	260.6	264.3	267.2	261.8	253.4	245.6	238.3
Nonfood materials	401.0	424.9	433.8	450.1	484.9	488.4	492.1	492.4	487.4	487.2	485.9	486.8	480.5	476.9
Nonfood materials except fuel	346.1	363.9	373.3	391.0	427.9	430.9	432.5	428.3	418.1	413.1	414.2	410.7	405.5	398.5
Manufacturing industries	357.4	376.1	386.5	405.1	445.5	448.6	450.2	445.5	434.2	428.7	429.7	425.8	420.0	412.2
Construction	237.6	246.5	247.4	254.8	257.2	259.2	261.5	261.7	262.6	262.6	265.2	265.7	266.7	266.7
Crude fuel	615.0	664.9	670.2	677.4	697.7	703.6	716.6	738.4	759.2	781.2	788.6	790.6	779.7	792.6
Manufacturing industries	690.5	755.8	762.9	771.9	798.1	805.8	821.9	850.6	877.2	902.6	885.4	913.8	899.1	915.8
Nonmanufacturing industries	567.0	605.2	608.9	614.9	630.6	635.0	645.8	662.2	678.5	698.1	689.3	706.3	698.4	708.4
SPECIAL GROUPINGS														
Finished goods excluding foods	247.8	257.0	258.2	262.4	265.5	268.7	272.1	273.3	274.1	274.7	274.5	274.4	278.7	279.7
Finished consumer goods excluding foods	250.8	259.5	260.9	265.1	268.5	272.5	276.1	277.0	277.7	277.9	277.5	277.4	281.3	282.0
Finished consumer goods less energy	218.0	225.5	226.0	233.8	229.6	230.2	231.8	232.8	233.4	235.0	234.5	234.2	236.8	237.0
Intermediate materials less foods and feeds	282.3	289.3	293.5	298.0	301.0	305.4	309.5	310.7	311.2	312.7	314.3	314.5	314.5	314.3
Intermediate materials less energy	265.3	273.3	274.9	278.3	279.1	280.5	283.7	284.7	285.5	287.2	288.4	288.7	288.9	288.6
Intermediate foods and feeds	252.6	285.7	270.0	270.9	261.3	255.6	254.9	253.1	253.2	251.1	250.7	243.7	240.6	236.9
Crude materials less agricultural products	446.4	473.8	482.8	504.0	547.6	551.8	556.0	557.5	551.3	550.6	549.9	552.4	544.3	540.9
Crude materials less energy	256.1	271.7	267.5	266.0	262.6	259.6	261.1	257.9	259.7	261.8	258.1	250.5	243.6	235.9

¹ Data for July 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.

27. Producer Price Indexes, by commodity groupings

[1967=100 unless otherwise specified]

Code	Commodity group and subgroup	Annual average 1980	1980		1981										
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July ¹	Aug.	Sept.	Oct.	Nov.
	All commodities	268.8	279.1	280.8	264.8	287.6	290.3	293.4	294.1	294.8	*296.2	296.2	295.5	296.0	295.5
	All commodities (1957-59 = 100)	285.2	296.1	297.9	302.2	305.1	308.0	311.3	312.0	312.8	*314.3	314.3	313.5	314.1	313.5
	Farm products and processed foods and feeds	244.7	260.5	257.0	257.9	255.1	253.5	253.8	252.9	254.3	*256.8	253.9	250.0	246.1	242.7
	Industrial commodities	274.8	283.4	286.6	291.5	295.7	299.6	303.5	304.7	305.1	*306.2	307.0	307.2	308.8	309.1
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS														
01	Farm products	249.4	264.9	265.3	264.5	262.4	260.7	263.3	259.6	260.7	*263.3	257.8	251.0	243.3	237.4
01-1	Fresh and dried fruits and vegetables	238.6	246.6	245.1	258.7	271.5	292.8	286.1	275.3	263.3	*265.6	257.3	251.9	247.9	253.2
01-2	Grains	239.0	270.9	265.2	277.7	267.5	261.8	264.7	257.7	257.1	*257.4	242.7	227.0	227.6	226.5
01-3	Livestock	252.7	254.8	251.4	244.3	244.6	239.3	246.6	251.8	263.0	*266.5	262.0	257.3	244.4	231.1
01-4	Live poultry	202.1	221.0	218.9	213.1	220.8	213.5	195.4	207.2	210.0	*215.3	210.3	196.7	185.7	175.0
01-5	Plant and animal fibers	271.1	287.2	294.1	284.1	268.4	270.1	274.2	258.3	259.6	*251.3	232.5	206.5	211.7	198.5
01-6	Fluid milk	271.2	284.7	290.5	288.4	289.5	289.5	287.2	283.6	285.0	*284.3	285.0	287.3	294.3	288.2
01-7	Eggs	171.0	194.0	217.5	185.7	184.8	180.4	196.2	165.0	174.6	*185.1	180.7	193.2	193.8	209.7
01-8	Hay, hayseeds, and oilseeds	247.1	298.3	310.2	311.8	295.0	289.5	296.3	299.0	285.3	*290.0	284.3	267.2	230.4	221.1
01-9	Other farm products	299.0	296.6	296.0	296.1	295.1	295.9	295.9	259.7	242.7	*250.2	263.9	268.9	267.8	275.8
02	Processed foods and feeds	241.2	257.2	251.5	253.3	250.2	248.5	247.6	248.2	249.9	*252.2	250.7	248.4	246.6	244.7
02-1	Cereal and bakery products	236.0	245.3	248.7	251.5	252.1	252.2	253.9	256.3	256.4	*258.3	256.6	258.0	256.6	257.5
02-2	Meats, poultry, and fish	243.1	250.9	248.1	248.1	243.6	242.0	239.1	245.2	248.6	*257.1	254.2	253.3	246.6	240.0
02-3	Dairy products	230.6	240.2	242.3	247.4	245.0	245.1	245.4	244.6	245.2	*245.1	245.6	246.0	247.4	246.9
02-4	Processed fruits and vegetables	228.7	234.7	236.6	238.4	243.7	255.2	258.0	259.4	262.5	*265.9	267.6	270.3	271.3	270.1
02-5	Sugar and confectionery	322.5	409.0	339.8	344.6	323.7	302.0	284.5	262.8	274.8	*266.0	269.1	246.8	250.0	249.0
02-6	Beverages and beverage materials	233.0	240.6	240.5	243.0	244.8	245.4	246.0	247.6	248.1	*249.0	246.3	245.6	248.3	250.8
02-7	Fats and oils	226.8	238.0	234.1	230.2	228.2	229.8	232.4	228.2	227.3	*234.8	228.4	224.6	223.6	221.7
02-8	Miscellaneous processed foods	227.2	235.0	240.5	244.2	248.0	249.2	249.9	251.1	251.5	*252.2	252.0	253.0	249.8	250.1
02-9	Manufactured animal feeds	226.8	254.5	247.1	248.9	235.9	231.1	237.7	241.0	234.3	*232.2	228.8	223.2	218.4	214.6
	INDUSTRIAL COMMODITIES														
03	Textile products and apparel	183.5	189.6	190.4	193.1	193.9	195.2	197.6	199.2	200.1	*201.3	201.4	202.5	203.0	203.2
03-1	Synthetic fibers (12/75 = 100)	134.7	140.7	140.8	146.5	147.1	148.9	151.5	156.4	157.9	*159.7	162.0	162.3	163.5	162.5
03-2	Processed yarns and threads (12/75 = 100)	122.5	125.8	128.2	129.8	130.3	134.6	135.0	138.6	139.3	*140.3	139.3	141.8	142.0	140.3
03-3	Gray fabrics (12/75 = 100)	138.1	145.0	144.0	143.6	144.0	144.7	146.6	145.8	147.4	*148.2	148.2	148.1	147.8	147.9
03-4	Finished fabrics (12/75 = 100)	115.7	119.1	120.1	122.2	122.9	123.2	124.9	125.7	125.6	*126.0	125.9	126.2	126.1	126.5
03-81	Apparel	172.4	176.8	177.5	179.9	180.7	181.4	184.3	185.2	186.2	*187.2	186.5	187.2	187.9	188.7
03-82	Textile housefurnishings	206.9	213.8	214.3	219.8	221.3	221.3	222.1	224.0	223.9	*227.1	231.6	236.6	237.4	237.9
04	Hides, skins, leather, and related products	248.9	255.4	256.9	258.2	257.7	261.2	263.5	263.7	261.6	*261.1	261.7	263.0	262.7	261.7
04-1	Hides and skins	370.9	409.1	392.8	377.5	367.4	(²)	(²)	(²)	(²)	*261.1	(²)	(²)	(²)	(²)
04-2	Leather	310.6	317.3	332.4	332.6	310.0	322.5	337.8	330.0	321.0	*319.0	312.2	311.7	312.1	311.3
04-3	Footwear	233.1	237.5	236.9	238.4	240.7	240.4	241.1	241.4	241.5	*242.4	242.3	242.0	241.6	241.1
04-4	Other leather and related products	218.3	222.6	225.3	230.1	236.9	238.4	238.5	244.2	244.3	*242.9	247.8	250.1	250.1	250.5
05	Fuels and related products and power	574.0	600.2	615.7	634.6	667.5	696.5	707.2	709.0	707.6	*704.9	704.1	703.2	697.2	697.5
05-1	Coal	467.3	475.4	475.3	477.8	480.8	481.1	486.1	487.3	491.7	*505.5	507.3	510.6	511.1	513.1
05-2	Coke	430.6	430.6	430.1	430.1	430.1	430.1	430.1	467.9	469.7	*469.7	470.3	470.3	470.3	470.3
05-3	Gas fuels ³	760.7	825.5	844.3	857.1	881.6	889.9	907.8	933.9	954.6	*969.4	952.4	979.7	964.7	981.4
05-4	Electric power	321.6	333.8	337.6	341.4	346.2	351.2	355.5	360.4	366.6	*374.6	383.6	382.0	375.9	377.6
05-61	Crude petroleum ⁴	556.4	600.6	632.8	704.4	842.7	842.8	842.5	839.9	815.9	*798.9	797.0	797.0	788.4	786.0
05-7	Petroleum products, refined ⁵	674.7	697.6	717.0	736.9	769.6	825.5	840.9	835.3	828.1	*816.3	813.4	805.7	802.0	797.9
06	Chemicals and allied products	260.3	266.7	268.1	274.3	277.6	280.4	286.0	288.6	290.5	*291.3	293.2	293.3	292.8	292.5
06-1	Industrial chemicals ⁶	324.0	332.7	334.6	344.5	352.1	354.5	362.4	368.5	369.7	*370.4	371.9	372.0	369.4	365.6
06-21	Prepared paint	235.3	241.4	241.4	242.9	246.6	246.6	248.1	250.0	250.0	*250.7	251.0	251.0	251.0	254.8
06-22	Paint materials	273.9	279.8	281.0	284.0	287.0	290.5	295.4	300.3	300.8	*304.5	308.4	307.8	308.0	307.4
06-3	Drugs and pharmaceuticals	174.5	181.1	182.6	184.7	187.3	189.3	191.0	192.4	193.2	*195.5	195.6	197.1	198.1	198.1
06-4	Fats and oils, inedible	298.0	308.2	317.1	310.7	289.7	295.7	312.7	312.1	303.1	*290.9	305.6	285.6	277.7	282.5
06-5	Agricultural chemicals and chemical products	257.1	261.1	263.3	267.6	271.6	275.8	277.8	279.1	288.9	*288.9	293.8	292.3	292.3	295.4
06-6	Plastic resins and materials	279.2	276.2	274.1	214.7	276.1	279.4	285.1	287.9	290.0	*295.9	295.6	298.5	297.6	290.9
06-7	Other chemicals and allied products	224.5	232.4	234.1	244.4	245.1	248.3	255.3	254.8	256.3	*254.8	256.7	257.0	258.0	260.9
07	Rubber and plastic products	217.4	223.4	223.3	224.8	226.4	228.4	230.8	231.8	233.4	*232.1	234.4	236.0	237.7	238.7
07-1	Rubber and rubber products	237.5	245.0	244.9	246.2	248.5	252.1	253.0	254.4	256.8	*254.7	258.4	261.3	264.3	266.2
07-11	Crude rubber	264.3	271.0	268.5	279.1	281.9	281.2	279.8	283.2	285.2	*284.2	282.0	280.0	280.5	278.9
07-12	Tires and tubes	236.9	245.2	245.2	240.9	243.5	248.6	250.7	251.2	251.2	*246.8	251.0	256.5	257.7	257.5
07-13	Miscellaneous rubber products	226.6	233.3	234.0	238.6	240.4	243.5	243.8	245.7	250.9	*251.4	256.4	257.1	263.4	269.5
07-2	Plastic products (6/78 = 100)	121.1	124.0	123.9	125.0	125.5	126.0	128.2	128.6	129.1	*128.7	129.3	129.6	130.0	130.1
08	Lumber and wood products	288.9	293.4	299.4	296.5	294.7	294.4	299.4	298.4	298.1	*296.5	294.3	289.1	284.4	283.0
08-1	Lumber	325.8	324.9	333.0	331.3	326.9	326.2	333.6	336.3	335.8	*332.4	329.2	319.7	312.0	308.8
08-2	Millwork	260.4	270.0	273.3	273.6	273.8	275.7	276.5	274.8	272.2	*273.6	272.4	271.3	271.2	272.0
08-3	Plywood	246.5	256.6	263.5	251.1	251.2	248.8	256.0	248.3	251.5	*247.8	245.9	241.2	234.4	233.0
08-4	Other wood products	239.1	236.6	236.2	238.5	238.1	236.9	238.3	238.2	239.8	*240.7	239.9	240.6	240.0	239.7

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							
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July ¹	Aug.	Sept.	Oct.	Nov.
INDUSTRIAL COMMODITIES—Continued															
09	Pulp, paper, and allied products	249.2	255.0	256.7	264.4	267.2	269.0	271.4	272.1	272.9	274.9	275.7	276.9	279.1	280.2
09-1	Pulp, paper, and products, excluding building paper and board	250.6	256.2	257.9	260.9	264.5	266.8	268.6	269.9	271.2	272.3	274.3	275.5	276.5	276.3
09-11	Woodpulp	380.3	390.2	390.2	390.2	390.2	390.2	394.1	394.2	394.2	394.2	396.6	396.6	404.7	417.0
09-12	Wastepaper	208.7	192.3	191.5	191.5	186.1	185.1	184.2	182.7	182.9	182.1	182.1	178.5	165.1	144.5
09-13	Paper	256.8	264.1	269.4	271.7	272.9	273.8	275.2	275.9	278.5	279.7	283.8	287.1	288.6	287.1
09-14	Paperboard	234.6	241.7	239.6	250.2	252.8	255.1	255.7	258.8	259.2	259.4	261.2	262.5	262.6	261.6
09-15	Converted paper and paperboard products	238.5	243.5	244.7	246.9	252.1	255.3	257.3	258.8	259.9	261.2	262.5	263.0	263.9	263.9
09-2	Building paper and board	206.2	216.5	219.7	219.7	225.7	227.9	232.5	237.3	237.4	235.5	233.8	233.7	232.5	231.5
10	Metals and metal products	286.4	291.1	290.6	294.0	294.0	296.4	298.8	299.1	298.4	302.0	304.3	305.1	305.5	303.9
10-1	Iron and steel	305.2	312.7	316.4	323.0	323.2	328.2	331.0	330.4	330.1	338.8	339.7	339.7	341.5	339.8
10-13	Steel mill products	302.7	309.4	313.7	322.6	322.9	328.7	331.8	331.8	332.2	344.9	344.9	345.3	348.7	348.6
10-2	Nonferrous metals	305.0	302.1	293.4	292.1	287.4	286.5	288.4	287.7	284.5	282.8	287.7	290.0	286.8	281.4
10-3	Metal containers	298.6	303.3	303.3	311.4	313.8	314.1	314.1	314.1	314.1	315.2	319.4	319.6	319.0	318.2
10-4	Hardware	240.5	249.6	251.7	254.5	258.0	258.6	258.5	259.4	259.7	263.8	263.2	265.7	267.5	268.9
10-5	Plumbing fixtures and brass fittings	246.7	252.3	254.9	257.7	259.2	259.5	265.3	266.2	268.9	270.9	271.0	271.4	272.8	273.0
10-6	Heating equipment	206.5	212.0	214.0	216.6	217.6	219.5	219.8	222.3	223.5	226.4	227.2	227.9	228.4	227.6
10-7	Fabricated structural metal products	270.5	278.0	279.3	283.1	285.4	289.4	293.1	294.0	295.0	297.9	300.0	300.5	302.2	302.2
10-8	Miscellaneous metal products	250.0	256.9	257.6	260.5	263.1	264.7	267.2	269.7	269.4	272.0	273.8	274.5	276.2	277.5
11	Machinery and equipment	239.8	248.3	249.8	253.3	255.3	257.5	259.6	260.7	262.1	264.8	266.0	267.8	268.8	270.0
11-1	Agricultural machinery and equipment	259.2	271.6	272.9	276.4	278.4	279.8	282.5	285.7	286.8	288.1	289.3	292.0	292.1	292.6
11-2	Construction machinery and equipment	289.4	300.1	301.4	305.9	310.0	312.8	317.0	318.4	320.1	323.8	324.9	326.6	329.0	329.7
11-3	Metalworking machinery and equipment	274.4	283.9	285.7	289.7	291.6	294.9	298.7	299.9	301.3	302.9	303.6	305.3	306.5	307.5
11-4	General purpose machinery and equipment	264.6	274.3	275.6	278.6	280.2	282.3	284.4	285.9	287.0	290.6	291.7	293.5	294.4	295.6
11-6	Special industry machinery and equipment	275.8	287.7	290.9	295.6	299.2	301.0	303.2	307.2	308.8	311.0	310.5	312.7	314.7	315.2
11-7	Electrical machinery and equipment	201.7	207.5	208.9	211.9	213.7	216.0	217.4	217.5	219.2	221.1	222.8	224.1	225.0	226.0
11-9	Miscellaneous machinery	229.9	238.5	239.6	243.3	245.2	247.0	248.5	248.8	250.1	252.1	255.3	257.8	258.3	259.1
12	Furniture and household durables	187.7	191.5	193.1	194.0	195.2	195.8	196.4	197.4	197.3	199.5	199.5	200.7	201.4	201.6
12-1	Household furniture	204.8	210.9	212.1	212.9	213.8	214.5	216.5	216.4	218.6	220.0	221.4	223.3	224.1	225.4
12-2	Commercial furniture	236.0	242.2	242.4	246.7	251.6	253.4	254.5	257.7	257.9	258.7	259.2	261.5	262.5	263.2
12-3	Floor coverings	163.0	165.5	170.7	172.3	171.9	174.1	175.3	179.5	180.7	182.8	182.3	181.5	181.5	180.8
12-4	Household appliances	174.2	178.5	179.5	182.2	183.5	184.2	185.1	185.5	186.1	188.8	187.7	188.3	189.5	189.7
12-5	Home electronic equipment	91.4	91.2	91.0	91.0	91.3	91.4	90.9	90.8	86.7	87.4	87.5	87.8	88.3	88.0
12-6	Other household durable goods	278.6	281.2	285.7	278.9	280.8	278.1	275.3	276.7	276.4	282.1	282.0	285.4	285.3	284.6
13	Nonmetallic mineral products	283.0	288.7	291.2	296.6	297.9	300.9	310.8	312.0	313.6	314.3	314.0	313.1	313.1	313.5
13-11	Flat glass	196.5	203.1	203.0	203.9	204.3	204.8	210.2	210.2	210.3	218.3	218.8	218.8	218.5	218.5
13-2	Concrete ingredients	274.0	279.1	279.7	290.0	291.4	292.6	297.4	297.5	297.5	297.7	298.4	298.4	298.3	298.3
13-3	Concrete products	273.9	277.7	277.6	286.1	286.6	286.9	289.9	291.2	293.5	293.4	293.0	292.9	293.3	293.2
13-4	Structural clay products excluding refractories	231.5	233.5	233.6	239.5	239.8	244.6	246.0	250.1	250.7	250.9	250.4	254.8	255.6	255.9
13-5	Refractories	264.6	273.2	273.2	282.6	293.5	296.1	296.4	304.0	307.1	307.1	308.0	308.0	308.8	309.8
13-6	Asphalt roofing	396.8	397.1	394.6	394.8	389.5	390.5	415.9	407.4	428.5	421.9	419.2	400.0	401.3	408.9
13-7	Gypsum products	256.3	253.3	252.7	259.6	257.3	257.6	256.8	261.1	260.7	259.7	255.3	252.9	252.4	251.3
13-8	Glass containers	292.7	306.2	311.4	311.4	311.4	311.4	326.7	335.3	335.3	335.5	334.8	334.8	334.8	334.8
13-9	Other nonmetallic minerals	394.6	403.3	418.9	418.7	424.7	441.7	479.1	477.6	476.8	476.2	475.2	474.2	473.2	473.5
14	Transportation equipment (12/68 = 100)	207.0	217.8	224.3	227.4	229.1	228.1	231.9	233.6	234.3	235.0	235.8	231.7	244.4	246.2
14-1	Motor vehicles and equipment	208.8	218.6	226.2	228.9	230.9	229.5	233.9	236.0	236.7	237.4	238.1	232.6	247.5	248.6
14-4	Railroad equipment	313.1	323.6	323.9	332.5	332.5	333.9	335.7	331.2	331.4	338.1	345.0	345.0	345.0	347.5
15	Miscellaneous products	258.8	263.6	265.3	264.3	264.9	264.0	266.0	266.9	266.3	263.2	262.6	266.7	268.0	267.2
15-1	Toys, sporting goods, small arms, ammunition	198.6	202.8	205.7	208.4	210.5	211.1	211.3	211.4	211.2	213.2	214.0	215.1	213.7	213.4
15-2	Tobacco products	245.7	254.4	254.8	254.8	256.1	256.3	268.7	268.7	268.7	268.8	268.6	274.2	278.0	278.0
15-3	Notions	217.2	224.1	225.0	227.2	247.3	247.3	248.4	267.8	268.0	267.5	267.7	267.8	267.3	269.7
15-4	Photographic equipment and supplies	202.9	206.7	206.6	207.4	209.6	211.2	212.4	212.5	212.5	211.4	207.4	209.0	209.1	209.1
15-5	Mobile homes (12/74 = 100)	150.2	152.7	153.0	153.0	153.1	155.0	(²)	(²)	(²)	158.1	157.7	158.1	158.6	158.8
15-9	Other miscellaneous products	363.4	367.0	370.5	363.3	358.1	351.3	349.0	349.4	346.9	333.1	333.9	343.4	346.7	343.4

¹ Data for July 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										
		Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July ¹	Aug.	Sept.	Oct.	Nov.
All commodities — less farm products	269.6	279.4	281.2	285.4	288.8	291.9	295.0	296.1	296.7	298.0	298.5	298.3	299.4	299.3
All foods	244.7	259.7	254.3	255.8	253.7	253.4	251.4	250.3	252.2	255.2	253.7	251.7	249.4	247.8
Processed foods	246.6	261.9	255.5	257.0	253.9	252.3	250.3	250.5	253.1	256.0	254.9	252.8	250.6	248.2
Industrial commodities less fuels	243.5	250.3	252.3	255.4	257.2	258.6	261.8	262.9	263.5	265.0	266.0	266.3	268.6	268.9
Selected textile mill products (Dec. 1975 = 100)	124.3	128.1	129.3	131.8	132.5	132.2	134.5	135.7	135.9	136.8	137.2	138.2	138.5	138.6
Hosiery	123.2	126.7	126.4	129.5	130.3	130.5	134.2	134.6	135.7	135.8	135.3	135.5	136.5	136.5
Underwear and nightwear	185.4	190.3	190.6	199.2	200.9	202.0	202.1	202.3	203.5	204.7	205.0	205.0	205.0	206.0
Chemicals and allied products, including synthetic rubber and manmade fibers and yarns	250.7	257.0	258.2	264.8	268.3	271.0	276.1	279.0	281.2	282.3	283.9	284.4	284.2	283.8
Pharmaceutical preparations	167.1	173.7	174.6	177.1	179.7	182.1	184.0	185.7	186.6	189.0	189.1	190.8	192.7	192.4
Lumber and wood products, excluding millwork and other wood products	304.0	306.5	314.2	309.2	306.0	304.8	312.3	311.5	312.2	308.7	305.9	297.9	290.3	287.7
Special metals and metal products	258.5	265.7	268.6	271.8	272.7	273.5	276.8	277.9	277.9	280.2	281.8	280.1	286.6	286.4
Fabricated metal products	258.2	265.2	266.3	269.9	272.5	274.7	277.0	278.5	279.0	281.7	283.4	284.2	285.6	286.2
Copper and copper products	222.0	215.7	210.8	207.4	205.0	204.8	207.7	206.6	203.7	202.5	206.3	204.2	203.8	199.3
Machinery and motive products	230.4	240.2	244.1	247.4	249.4	250.2	253.1	254.4	255.6	257.4	258.4	257.6	264.0	265.5
Machinery and equipment, except electrical	263.0	275.1	276.7	277.3	279.7	281.9	284.3	285.9	287.3	290.4	291.3	293.4	294.4	295.8
Agricultural machinery, including tractors	267.3	280.9	281.4	285.0	287.3	288.3	289.6	293.7	294.8	295.6	296.9	300.5	300.4	309.1
Metalworking machinery	299.4	311.2	314.1	318.9	320.5	323.5	325.9	327.1	328.3	330.1	330.8	333.7	335.6	338.1
Numerically controlled machine tools (Dec. 1971 = 100)	225.6	232.1	230.6	234.6	235.0	235.7	235.7	237.3	241.4	241.7	242.1	242.1	242.1	242.5
Total tractors	287.3	299.9	301.2	305.8	311.1	311.8	316.8	322.0	322.5	325.5	327.3	330.5	332.9	340.4
Agricultural machinery and equipment less parts	261.2	273.7	274.3	278.0	280.2	281.5	283.2	286.7	287.9	288.6	290.0	293.0	293.1	300.6
Farm and garden tractors less parts	268.8	282.4	282.4	284.4	287.2	287.6	289.3	297.7	298.0	298.0	300.6	305.0	305.0	316.5
Agricultural machinery excluding tractors less parts	266.5	279.9	280.9	285.7	287.7	289.1	290.2	290.8	292.5	293.9	294.1	297.1	297.0	303.3
Industrial valves	287.8	296.0	297.8	300.7	305.5	310.1	314.0	314.3	315.3	317.5	316.4	319.3	319.0	320.0
Industrial fittings	291.8	298.6	298.6	298.6	296.0	298.9	302.7	303.0	303.0	303.0	303.0	304.3	304.1	304.1
Abrasive grinding wheels	(²)	273.0	273.8	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Construction materials	266.4	271.9	274.1	276.7	277.2	279.0	283.9	284.2	285.0	285.7	285.6	284.4	284.5	284.1

¹ Data for July 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.

29. Producer Price Indexes, by durability of product

[1967=100]

Commodity grouping	Annual average 1980	1980		1981										
		Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July ¹	Aug.	Sept.	Oct.	Nov.
Total durable goods	251.5	258.6	261.0	262.7	263.8	264.9	267.8	268.6	269.1	270.8	271.8	271.7	274.9	275.2
Total nondurable goods	282.4	295.2	296.3	302.6	306.8	310.9	314.2	314.8	315.7	316.8	315.9	314.6	312.7	311.5
Total manufactures	261.5	270.5	272.0	277.3	279.3	282.3	285.3	286.2	286.9	288.0	288.4	288.1	289.7	289.6
Durable	250.8	257.9	260.4	262.3	263.4	264.4	267.2	268.2	268.9	270.6	271.6	271.6	274.9	275.5
Nondurable	273.0	284.0	284.3	293.5	296.4	301.7	304.9	305.7	306.4	306.9	306.6	305.9	305.4	304.6
Total raw or slightly processed goods	305.7	322.9	326.2	322.9	330.3	331.2	334.6	334.2	335.4	337.9	335.6	332.7	326.2	323.2
Durable	278.2	285.6	284.0	275.9	275.5	281.7	286.0	280.4	272.4	271.2	276.6	271.1	264.3	253.8
Nondurable	306.7	324.6	328.2	325.3	333.3	333.8	337.1	337.1	338.9	341.8	338.9	336.2	329.7	327.3

¹ Data for July 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.

r = revised.

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										
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July ¹	Aug.	Sept.	Oct.	Nov.
MINING															
1011	Iron ores (12/75 = 100)	152.9	155.8	155.8	155.8	168.1	168.1	168.1	168.1	168.1	168.1	168.1	168.1	168.1	
1092	Mercury ores (12/75 = 100)	331.2	343.7	325.0	297.9	324.5	335.4	354.1	347.9	352.0	358.3	365.4	364.5	354.1	
1211	Bituminous coal and lignite	466.7	474.2	473.9	476.1	478.1	478.5	483.5	484.5	488.4	502.1	503.8	506.3	508.2	
1311	Crude petroleum and natural gas	643.8	704.6	731.7	786.5	897.9	901.7	908.6	919.7	713.7	911.5	901.4	914.6	901.0	
1442	Construction sand and gravel	252.7	263.2	264.3	270.1	272.3	275.2	278.0	278.4	278.4	278.3	279.4	279.6	279.6	
1455	Kaolin and ball clay (6/76 = 100)	136.0	132.1	133.7	137.1	137.1	137.1	137.1	137.1	137.1	137.1	137.1	143.4	143.4	
MANUFACTURING															
2011	Meatpacking plants	244.0	251.4	249.0	244.7	237.2	236.1	237.8	243.6	245.9	252.6	250.7	252.9	244.3	
2013	Sausages and other prepared meats	220.1	249.5	247.4	235.3	232.9	230.4	227.5	230.4	238.1	246.0	252.7	253.7	248.6	
2016	Poultry dressing plants	191.9	205.9	201.8	201.9	208.3	203.9	186.7	196.2	198.3	203.6	201.2	188.8	175.5	
2021	Creamery butter	258.5	273.3	274.8	273.6	273.5	273.6	273.4	273.4	273.5	273.8	273.7	275.0	279.2	

See footnotes at end of table.

30. Continued — Producer Price Indexes for the output of selected SIC industries

[1967 = 100 unless otherwise specified]

1972 SIC code	Industry description	Annual average 1980	1980			1981										
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July ¹	Aug.	Sept.	Oct.	Nov.	
MANUFACTURING — Continued																
2022	Cheese, natural and processed (12/72 = 100)	204.4	214.9	216.1	215.9	215.6	215.7	216.2	216.2	216.2	216.1	213.8	216.0	217.0	215.6	215.9
2024	Ice cream and frozen desserts (12/72 = 100)	193.3	199.8	207.5	210.1	210.6	210.6	211.4	212.4	212.4	212.4	212.7	212.7	212.7	212.5	212.5
2033	Canned fruits and vegetables	221.4	231.1	232.0	233.3	237.4	241.5	244.0	245.9	248.9	251.6	253.8	255.6	256.1	255.6	255.6
2034	Dehydrated food products (12/73 = 100)	160.2	168.6	170.4	174.1	171.3	172.9	174.2	175.3	175.0	180.5	178.7	183.4	182.3	181.6	181.6
2041	Flour mills (12/71 = 100)	189.1	205.1	199.5	203.8	198.4	195.1	201.5	199.4	199.3	196.5	191.0	194.8	190.6	191.5	191.5
2044	Rice milling	243.4	265.8	287.2	289.6	289.6	298.0	300.9	300.3	300.3	297.4	284.3	268.2	247.3	235.4	235.4
2048	Prepared foods, n.e.c. (12/75 = 100)	124.2	133.3	133.9	132.6	129.3	126.6	128.5	129.8	127.5	125.9	124.9	120.0	117.5	116.4	116.4
2061	Raw cane sugar	414.1	563.8	402.9	418.0	367.1	318.8	275.7	224.8	263.3	272.2	254.6	212.3	219.9	224.3	224.3
2063	Beet sugar	358.0	512.2	423.3	414.5	398.1	370.7	350.5	334.4	339.7	274.1	299.3	271.0	272.2	262.1	262.1
2067	Chewing gum	290.7	322.9	322.9	323.0	323.0	323.1	323.1	303.1	303.1	303.1	303.2	303.2	303.2	303.2	303.2
2074	Cottonseed oil mills	192.9	231.8	228.0	221.2	193.7	204.4	218.4	216.6	212.3	212.0	206.0	182.3	172.0	167.2	167.2
2075	Soybean oil mills	244.3	290.5	270.5	272.0	252.5	253.2	259.1	258.1	248.4	253.7	245.6	234.6	230.1	221.1	221.1
2077	Animal and marine fats and oils	290.2	317.2	311.8	310.8	287.2	284.2	301.7	304.3	291.3	288.8	294.1	281.4	274.1	272.3	272.3
2083	Malt	249.9	267.4	267.4	286.1	286.1	286.1	286.1	286.1	286.1	286.1	286.1	286.1	275.4	275.4	275.4
2085	Distilled liquor, except brandy (12/75 = 100)	123.0	128.5	129.2	129.2	133.9	133.9	133.9	134.3	134.6	134.6	134.6	135.5	135.5	135.5	135.5
2091	Canned and cured seafoods (12/73 = 100)	174.0	183.1	183.4	187.3	187.1	187.6	187.7	187.3	187.5	187.4	188.5	188.8	188.2	188.3	188.3
2092	Fresh or frozen packaged fish	366.9	353.3	353.9	374.9	366.7	385.2	393.5	378.2	375.5	367.6	348.6	355.0	358.4	362.3	362.3
2095	Roasted coffee (12/72 = 100)	269.3	252.5	248.5	238.2	238.3	238.5	238.6	238.6	238.6	236.4	236.0	235.6	238.6	239.4	239.4
2098	Macaroni and spaghetti	233.8	243.6	243.6	243.6	243.6	243.6	243.6	243.6	246.6	259.5	259.5	259.5	259.5	259.5	259.5
2111	Cigarettes	254.6	263.5	263.6	263.6	264.1	264.2	278.3	278.3	278.3	278.3	278.3	284.2	288.4	288.4	288.4
2121	Cigars	158.6	164.0	165.1	165.1	165.3	167.0	168.5	168.5	168.5	169.7	166.8	171.6	171.6	171.6	171.6
2131	Chewing and smoking tobacco	279.8	295.0	298.8	298.7	320.7	320.7	320.8	320.8	320.8	321.0	321.1	325.2	327.6	327.6	327.6
2211	Weaving mills, cotton (12/72 = 100)	215.8	224.2	225.0	227.9	230.9	232.3	235.3	235.3	234.3	234.7	236.9	235.5	236.1	236.3	236.3
2221	Weaving mills, synthetic (12/77 = 100)	124.8	130.0	132.5	131.9	132.3	133.3	134.9	135.7	137.1	138.0	137.5	138.4	139.1	139.2	139.2
2251	Women's hosiery, except socks (12/75 = 100)	106.3	109.0	108.6	109.1	109.2	108.9	114.1	114.2	115.6	115.5	115.0	115.1	115.2	115.2	115.2
2254	Knit underwear mills	190.1	194.7	195.0	205.6	206.7	209.7	209.8	210.0	210.0	210.7	210.7	210.8	210.8	210.8	210.8
2257	Circular knit fabric mills (6/76 = 100)	104.6	107.1	107.5	109.3	109.6	109.1	110.8	110.5	110.4	111.0	110.5	111.0	112.3	112.1	112.1
2261	Finishing plants, cotton (6/76 = 100)	135.1	139.3	140.2	142.4	144.5	144.6	146.9	147.0	146.2	146.3	146.1	145.3	144.9	144.4	144.4
2262	Finishing plants, synthetics, silk (6/76 = 100)	113.6	117.9	120.5	121.7	123.1	124.3	125.2	126.6	126.6	127.1	127.7	129.0	129.0	129.1	129.1
2272	Tufted carpets and rugs	138.1	140.0	145.7	148.1	147.8	150.2	151.5	154.5	155.6	158.3	158.7	157.9	157.9	156.4	156.4
2281	Yarn mills, except wool (12/71 = 100)	203.5	209.9	215.1	216.9	218.1	220.7	220.9	224.1	225.8	225.1	225.3	223.9	222.3	220.1	220.1
2282	Throwing and winding mills (6/76 = 100)	115.5	118.4	120.1	123.2	123.2	131.3	131.5	139.1	139.3	142.7	139.5	146.7	148.0	145.5	145.5
2284	Thread mills (6/76 = 100)	139.1	143.9	143.9	144.1	144.3	148.4	150.8	150.9	151.1	151.1	151.1	154.8	157.0	156.9	156.9
2298	Cordage and twine (12/77 = 100)	123.6	129.2	129.3	129.3	129.3	130.9	132.7	134.3	134.3	134.3	134.3	139.3	139.3	139.3	139.3
2311	Men's and boys' suits and coats	212.6	216.3	216.1	218.2	219.7	220.1	220.3	220.4	224.6	225.9	224.1	226.1	227.0	227.1	227.1
2321	Men's and boys' shirts and nightwear	204.4	208.6	209.5	206.3	207.3	207.1	207.6	207.1	207.5	210.5	208.7	209.6	210.2	210.4	210.4
2322	Men's and boys' underwear	208.0	212.8	212.9	224.9	229.1	231.0	231.0	231.0	230.7	230.8	230.7	230.7	230.8	232.9	232.9
2323	Men's and boys' neckwear (12/75 = 100)	112.6	112.4	115.4	115.4	115.4	115.4	115.4	115.4	115.4	113.9	113.9	113.9	113.9	113.9	113.9
2327	Men's and boys' separate trousers	175.3	180.2	180.3	185.3	185.3	185.3	186.0	186.1	186.1	186.4	186.4	186.4	186.6	186.6	186.6
2328	Men's and boys' work clothing	240.5	244.3	244.4	242.2	242.2	242.3	247.0	248.2	248.3	250.8	251.3	251.4	252.4	252.5	252.5
2331	Women's and misses' blouses and waists (6/78 = 100)	110.3	114.0	115.4	116.3	116.3	116.3	118.3	118.4	118.5	121.0	119.8	120.1	123.6	123.8	123.8
2335	Women's and misses' dresses (12/77 = 100)	114.7	116.3	116.3	116.5	116.9	118.5	118.4	122.3	122.5	123.0	121.5	122.5	122.5	123.6	123.6
2341	Women's and children's underwear (12/72 = 100)	154.4	157.1	158.1	165.5	165.5	165.8	169.0	169.2	170.5	170.6	171.2	171.2	171.2	172.2	172.2
2342	Brassieres and allied garments (12/75 = 100)	126.5	129.1	129.1	131.7	132.8	134.9	135.0	135.0	136.9	138.8	139.2	139.2	139.2	139.3	139.3
2361	Children's dresses and blouses (12/77 = 100)	109.9	115.1	117.4	118.1	118.9	119.2	120.7	120.5	120.5	121.6	120.5	120.5	120.9	121.3	121.3
2381	Fabric dress and work gloves	268.6	272.1	272.1	284.9	289.1	289.1	289.1	292.1	292.1	292.1	289.2	289.2	289.2	289.2	289.2
2394	Canvas and related products (12/77 = 100)	123.8	125.1	126.1	126.8	126.8	127.8	129.3	130.0	130.1	130.1	133.7	135.2	138.1	138.1	138.1
2396	Automotive and apparel trimmings (12/77 = 100)	122.4	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0	131.0
2421	Sawmills and planing mills (12/71 = 100)	227.7	226.8	233.5	232.3	229.6	228.6	233.3	234.8	234.8	233.5	231.0	224.9	219.7	217.7	217.7
2436	Softwood veneer and plywood (12/75 = 100)	144.6	152.3	158.2	149.8	149.3	147.2	152.6	145.7	148.1	143.8	139.9	135.7	129.4	128.6	128.6
2439	Structural wood members, n.e.c. (12/75 = 100)	155.6	157.0	157.1	157.1	157.0	157.1	158.3	158.2	158.2	157.6	157.1	156.2	154.6	154.7	154.7
2448	Wood pallets and skids (12/75 = 100)	160.1	154.7	154.1	153.8	152.8	152.7	153.1	153.1	153.0	153.1	152.8	152.7	152.0	150.7	150.7
2451	Mobile homes (12/74 = 100)	150.3	152.7	153.1	153.1	153.2	155.0	155.8	155.9	156.1	158.1	157.7	158.1	159.1	159.0	159.0
2492	Particleboard (12/75 = 100)	161.5	163.6	165.9	163.9	170.3	172.3	180.9	184.5	182.3	179.6	172.3	169.3	166.8	165.7	165.7
2511	Wood household furniture (12/71 = 100)	183.8	189.1	190.0	210.1	192.1	193.3	195.4	196.2	197.5	198.6	199.1	200.8	201.6	200.9	200.9
2512	Upholstered household furniture (12/71 = 100)	163.6	168.6	170.5	169.9	170.1	170.1	171.8	169.7	173.9	175.1	176.4	177.7	178.3	182.3	182.3
2515	Mattresses and bedsprings	179.1	186.5	186.5	186.3	188.3	189.5	190.5	190.4	190.5	191.3	198.7	199.4	199.4	201.8	201.8
2521	Wood office furniture	235.2	239.7	240.9	244.1	250.4	253.5	254.5	255.4	254.6	254.7	255.7	258.1	258.1	258.0	258.0
2611	Pulp mills (12/73 = 100)	240.0	246.8	246.8	246.9	246.9	246.9	251.2	251.3	251.3	251.3	253.5	253.5	252.5	265.5	265.5
2621	Paper mills, except building (12/74 = 100)	145.5	149.2	150.7	152.0	152.6	153.3	153.9	154.3	155.7	157.0	158.3	159.6	159.8	159.6	159.6
2631	Paperboard mills (12/74 = 100)	139.0	1													

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										
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July ¹	Aug.	Sept.	Oct.	Nov.	
3021	Rubber and plastic footwear (12/71 = 100)	177.9	182.4	182.3	182.8	183.4	183.6	183.6	184.0	184.1	185.0	185.3	185.2	185.0	185.0	
3031	Reclaimed rubber (12/73 = 100)	184.7	184.1	186.7	190.4	190.4	187.6	187.7	187.7	187.7	192.9	198.1	198.1	198.1	198.1	
3079	Miscellaneous plastic products (6/78 = 100)	121.7	124.6	124.5	125.4	125.4	126.3	128.7	129.1	129.6	129.2	129.7	130.0	130.5	130.5	
3111	Leather tanning and finishing (12/77 = 100)	146.6	149.3	156.6	157.0	145.5	151.4	158.6	154.7	150.7	151.3	147.8	147.6	147.5	146.9	
3142	House slippers (12/75 = 100)	149.1	158.2	154.9	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	
3143	Men's footwear, except athletic (12/75 = 100)	159.8	162.4	162.4	164.8	166.5	167.6	168.7	168.9	169.6	170.7	170.4	169.8	169.6	170.6	
3144	Women's footwear, except athletic	213.5	217.1	217.1	217.8	220.2	218.7	218.7	219.3	218.5	218.9	219.2	217.8	217.0	214.5	
3171	Women's handbags and purses (12/75 = 100)	137.9	140.9	140.9	149.5	149.5	149.7	149.7	158.4	158.4	158.4	158.4	158.4	158.4	158.4	
3211	Flat glass (12/71 = 100)	161.3	166.4	166.3	167.1	167.5	168.1	174.5	174.5	174.6	180.0	180.2	180.2	180.1	180.1	
3221	Glass containers	292.6	306.1	311.4	311.4	311.4	311.4	326.6	335.2	335.2	335.4	334.7	334.7	334.7	334.7	
3241	Cement, hydraulic	310.8	310.5	310.5	324.3	324.3	324.4	332.4	332.4	331.0	331.6	329.5	328.9	327.2	327.2	
3251	Brick and structural clay tile	277.3	282.9	282.9	286.6	286.1	295.3	296.0	297.4	298.5	299.9	299.9	300.9	300.8	301.4	
3253	Ceramic wall and floor tile (12/75 = 100)	122.5	120.1	120.1	127.1	127.1	127.1	129.6	132.1	132.1	129.6	137.7	137.7	137.7	137.7	
3255	Clay refractories	273.6	280.7	280.7	291.5	305.2	308.1	308.6	311.0	312.2	312.3	314.0	314.2	315.7	317.0	
3259	Structural clay products, n.e.c.	202.7	205.0	205.1	209.5	212.8	213.0	212.7	223.9	223.9	223.9	224.4	227.9	232.2	232.2	
3261	Vitreous plumbing fixtures	234.8	242.6	245.0	244.7	248.9	249.4	252.0	252.5	255.8	258.7	259.5	258.9	258.9	259.3	
3262	Vitreous china food utensils	317.3	327.4	327.4	327.4	327.4	328.0	328.2	336.6	336.6	336.6	336.6	336.8	336.8	344.7	
3263	Fine earthenware food utensils	295.5	297.9	297.9	298.6	298.6	307.9	308.2	309.6	309.6	309.6	309.1	313.3	313.3	314.4	
3269	Pottery products, n.e.c. (12/75 = 100)	152.6	155.5	155.5	155.5	155.5	158.5	158.6	160.6	160.7	160.7	160.6	161.7	161.7	163.6	
3271	Concrete block and brick	257.3	259.4	259.4	264.1	265.0	263.2	267.4	271.2	271.2	271.2	274.0	274.2	274.0	274.5	
3273	Ready-mixed concrete	279.9	282.8	282.9	294.8	295.4	296.0	298.5	299.4	301.7	300.7	299.9	299.5	299.7	299.2	
3274	Lime (12/75 = 100)	157.7	160.8	161.8	165.7	171.7	172.6	172.6	172.6	173.0	173.1	174.2	173.9	173.9	173.8	
3275	Gypsum products	256.7	253.6	253.1	259.9	257.6	257.9	257.1	261.4	260.9	261.8	258.9	257.0	251.5	252.5	
3291	Abrasive products (12/71 = 100)	212.6	220.2	220.6	222.8	221.7	223.1	233.2	233.2	234.1	235.0	234.9	235.6	237.5	239.6	
3297	Nonclay refractories (12/74 = 100)	161.1	167.5	167.6	172.4	177.5	178.9	178.9	186.6	189.7	189.7	189.8	189.8	189.8	190.2	
3312	Blast furnaces and steel mills	310.5	316.6	320.7	328.7	328.9	334.0	336.7	338.2	339.2	350.1	349.5	350.3	353.1	352.9	
3313	Electrometallurgical products (12/75 = 100)	117.7	117.3	117.3	119.9	120.0	120.0	120.8	120.6	120.7	121.2	121.5	121.4	125.4	125.4	
3316	Cold finishing of steel shapes	284.0	288.8	293.3	302.8	303.1	306.1	308.2	308.2	309.5	325.0	325.7	326.2	326.4	326.4	
3317	Steel pipes and tubes	290.9	302.4	308.4	315.5	316.3	326.1	333.1	334.1	336.3	348.2	350.7	350.6	362.0	362.3	
3321	Gray iron foundries (12/68 = 100)	282.5	290.1	290.7	295.2	296.1	295.6	297.0	298.4	298.4	298.8	299.4	301.9	304.6	303.9	
3333	Primary zinc	270.5	282.0	288.7	300.3	300.0	299.7	311.9	332.7	335.1	335.4	349.5	351.5	332.9	337.5	
3334	Primary aluminum	297.9	328.5	328.0	331.7	332.3	332.2	332.8	334.2	332.5	334.2	336.5	336.4	335.8	332.5	
3351	Copper rolling and drawing	227.5	222.9	222.8	218.7	215.3	211.8	213.1	212.6	210.6	209.4	210.9	213.7	212.9	209.4	
3353	Aluminum sheet plate and foil (12/75 = 100)	158.2	163.3	165.1	169.3	170.7	172.1	173.8	174.4	176.1	177.3	178.2	178.7	180.7	179.9	
3354	Aluminum extruded products (12/75 = 100)	167.7	176.3	176.4	176.8	177.1	177.3	180.6	180.7	180.8	181.2	181.3	181.2	181.3	181.4	
3355	Aluminum rolling, drawing, n.e.c. (12/75 = 100)	146.2	151.2	151.1	155.3	157.1	157.2	157.3	157.4	157.3	157.2	157.6	158.1	163.3	166.2	
3411	Metal cans	291.6	297.2	297.3	302.1	303.0	304.7	304.7	304.7	304.7	305.5	306.9	307.4	307.2	306.6	
3425	Hand saws and saw blades (12/72 = 100)	182.1	187.2	190.5	195.4	196.3	198.0	198.1	200.2	200.2	204.1	203.8	204.2	204.5	204.6	
3431	Metal sanitary ware	248.3	252.2	253.8	256.0	256.4	258.5	262.8	264.8	265.2	269.2	267.1	267.5	267.6	270.6	
3465	Automotive stampings (12/75 = 100)	136.9	140.9	141.2	143.0	143.9	144.2	145.0	145.0	145.2	146.2	146.8	147.2	147.7	149.7	
3482	Small arms ammunition (12/75 = 100)	145.6	146.3	160.9	157.9	157.8	157.2	157.8	157.8	157.8	157.8	165.3	165.3	165.3	165.3	
3493	Steel springs, except wire	230.3	233.3	234.3	238.4	239.2	239.5	241.2	241.7	241.9	243.7	244.3	249.5	249.6	253.8	
3494	Valves and pipe fittings (12/71 = 100)	230.0	236.9	238.3	240.2	242.1	244.8	247.6	247.9	248.5	250.0	249.5	251.2	251.4	251.9	
3498	Fabricated pipe and fittings	315.5	329.9	329.9	335.7	335.7	338.5	358.8	359.9	361.6	364.6	371.3	374.7	379.1	378.8	
3519	Internal combustion engines, n.e.c.	275.4	289.1	289.9	298.2	299.4	302.6	306.2	306.2	307.2	312.0	313.6	320.9	321.6	322.4	
3531	Construction machinery (12/76 = 100)	141.1	146.6	147.5	150.0	151.4	152.6	154.4	155.3	156.9	159.0	159.5	160.0	161.5	161.6	
3532	Mining machinery (12/72 = 100)	258.2	268.0	270.0	272.5	273.5	276.2	279.5	280.0	280.8	282.7	283.5	286.0	288.7	290.3	
3533	Oilfield machinery and equipment	331.3	358.4	360.9	367.0	374.2	378.2	382.2	384.6	390.3	401.3	403.1	408.7	413.3	418.3	
3534	Elevators and moving stairways	239.3	248.8	249.5	250.3	250.3	250.3	251.2	251.2	251.2	252.1	252.9	254.6	257.1	259.9	
3542	Machine tools, metal forming types (12/71 = 100)	279.5	287.4	292.0	297.5	298.0	301.9	303.0	304.5	305.7	307.6	307.7	312.0	312.3	312.3	
3546	Power driven hand tools (12/76 = 100)	132.2	136.7	137.9	142.6	144.9	145.2	146.4	147.0	147.1	148.2	148.5	148.6	148.8	148.7	
3552	Textile machinery (12/69 = 100)	216.6	224.5	226.0	235.7	235.0	240.0	240.4	241.2	244.4	246.2	245.3	247.0	248.1	247.9	
3553	Woodworking machinery (12/72 = 100)	212.5	217.7	221.5	222.5	223.1	224.7	225.5	219.1	219.7	224.0	224.2	225.3	226.9	229.0	
3576	Scales and balances, excluding laboratory	215.0	226.9	217.9	220.5	221.1	224.2	230.2	230.2	230.3	226.6	226.8	226.1	226.1	226.1	
3592	Carburetors, pistons, rings, valves (6/76 = 100)	156.6	165.2	167.6	168.9	170.9	171.5	172.0	172.0	176.5	180.8	181.1	181.9	185.2	187.0	
3612	Transformers	184.9	193.0	193.3	194.9	197.1	204.3	206.0	207.8	209.6	210.7	215.3	215.9	216.2	221.5	
3623	Welding apparatus, electric (12/72 = 100)	209.9	214.9	215.8	218.9	220.9	222.1	224.3	225.9	227.2	228.3	228.8	230.8	231.8	232.4	
3631	Household cooking equipment (12/75 = 100)	133.1	135.8	137.5	140.1	141.0	141.1	140.5	140.7	141.0	140.5	141.1	141.2	141.6	142.0	
3632	Household refrigerators, freezers (6/76 = 100)	121.4	125.1	125.1	127.5	127.5	127.6	129.4	129.5	130.8	135.5	134.1	135.0	136.4	136.4	
3633	Household laundry equipment (12/73 = 100)	162.0	166.6	167.4	169.8	170.2	170.9	173.5	173.9	173.6	174.1	174.1	176.0	176.8	178.5	
3635	Household vacuum cleaners	154.4	158.8	159.1	159.1	156.3	158.5	158.4	158.5	158.6	158.6	152.2	152.2	154.5	154.2	
3636	Sewing machines (12/75 = 100)	129.1	130.3	130.3	130.3	131.9	131.8	153.8	153.8	153.8	153.8	153.1	153.1	155.4	155.4	
3641	Electric lamps	260.3	270.2	266.2	265.8	271.2	272.6	275.5	275.1	276.5	275.2	280.1	283.2	285.9	286.6	
3644	Noncurrent-carrying wiring devices (12/72 = 100)	219.7	223.7	229.2	233.1	236.3	240.6	242.8	251.5	253.3	256.2	261.0	261.2	264.6	264.6	
3646	Commercial lighting fixtures (12/75 = 100)	139.3	143.1	144.7	145.1	148.0	151.4	156.1	156.2	156.2	154.4	155.8	157.2	156.8	157.3	
3648	Lighting equipment, n.e.c. (12/75 = 100)	139.9	144.7	145.0	146.3	146.8	152.7	153.2	153.3	153.7	153.8	161.3	161.5	161.4	162.0	
3671	Electron tubes receiving type	251.8	264.8	272.8	284.3	284.4	285.0	285.1	312.5	312.5	327.4	327.5	327.5	327.6	327.8	
3674	Semiconductors and related devices	90.7	91.2	91.6	91.1	90.8	91.3	91.2	90.6	90.3	89.2	89.6	89.5	89.2	91.0	
3675	Electronic capacitors (12/75 = 100)	162.7	170.2	170.3	170.3	171.1	173.2	168.7	168.5	171.2	171.4	168.0	168.9	172.4	169.2	
3676	Electronic resistors (12/75 = 100)	134.2	137.8	137.8	139.0	139.9	139.9	140.0	140.8	141.2	142.1	142.2	142.6	142.6	142.8	
3678	Electronic connectors (12/75 = 100)	148.1	149.7	149.7	152.2	153.5	154.5	154.4	153.7							

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	99.5	99.3
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	119.3	131.5
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	99.6	96.7
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	132.4
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	118.3
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	99.1	98.8
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	119.0	130.8
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	99.3	96.2
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	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	100.4	101.0
Compensation per hour	(¹)	(¹)	36.3	43.0	58.3	70.8	77.6	85.5	92.5	100.0	108.2	118.7	130.7
Real compensation per hour	(¹)	(¹)	74.2	82.6	91.0	96.5	95.4	96.3	98.5	100.0	100.5	99.1	96.2
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	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	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	102.0	101.7
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	118.8	131.6
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	99.2	96.7
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	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	108.7
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	123.4

¹ Not available.

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	-0.3	-0.2	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	10.1	10.2	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	-1.1	-3.0	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	10.4	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	6.6	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	-0.7	-0.3	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	9.7	9.9	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	-1.4	-3.2	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	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	8.4	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	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	-0.0	0.6	(¹)	2.1
Compensation per hour	6.8	6.5	5.8	7.7	9.7	10.1	8.2	8.1	8.2	9.7	10.1	(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	-1.4	-3.0	(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	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	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	1.1	-0.3	2.6	2.7
Compensation per hour	6.8	6.1	5.4	7.2	10.6	11.9	8.0	8.3	8.2	9.8	10.7	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	-1.3	-2.5	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	2.9	3.8
Unit nonlabor payments	-2.5	11.2	0.8	-3.3	-1.8	25.9	7.4	5.2	4.7	0.9	2.9	2.1	2.7
Implicit price deflator	4.3	3.1	0.5	0.3	9.0	13.1	4.6	5.6	6.5	6.4	8.8	2.7	3.5

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										
			1979				1980				1981		
	1979	1980	I	II	III	IV	I	II	III	IV	I	II	III
Private business sector:													
Output per hour of all persons	99.5	99.3	99.7	99.7	99.4	99.1	99.5	99.1	99.4	99.1	100.3	101.1	^r 100.9
Compensation per hour	119.3	131.5	115.0	118.1	120.7	123.2	126.4	130.1	133.1	135.9	139.7	143.2	146.4
Real compensation per hour	99.6	96.7	100.6	100.3	99.2	98.0	96.7	96.5	96.9	96.0	96.1	96.8	^r 96.2
Unit labor cost	119.9	132.4	115.4	118.5	121.4	124.3	127.0	131.3	133.9	137.0	139.4	141.6	^r 145.1
Unit nonlabor payments	110.9	118.3	109.6	110.4	111.5	112.2	115.2	116.0	119.7	122.7	127.6	129.3	^r 132.2
Implicit price deflator	116.9	127.6	113.4	115.8	118.1	120.2	123.0	126.1	129.1	132.2	135.4	137.5	^r 140.8
Nonfarm business sector:													
Output per hour of all persons	99.1	98.8	99.5	99.1	98.9	98.8	98.9	98.2	99.0	99.0	100.0	100.4	^r 99.9
Compensation per hour	119.0	130.8	114.9	117.7	120.2	123.0	126.0	129.4	132.3	135.4	139.1	142.4	145.6
Real compensation per hour	99.3	96.2	100.4	100.0	98.8	97.8	96.4	96.0	96.3	95.6	95.7	96.3	95.7
Unit labor cost	120.0	132.4	115.4	118.7	121.5	124.4	127.4	131.8	133.6	136.8	139.1	141.9	^r 145.7
Unit nonlabor payments	108.5	117.6	107.1	107.7	109.2	110.1	113.9	115.1	119.2	122.0	127.8	128.7	^r 131.9
Implicit price deflator	116.2	127.4	112.6	115.1	117.4	119.7	122.9	126.3	128.8	131.9	135.3	^r 137.5	141.1
Nonfinancial corporations:													
Output per hour of all employees	100.4	101.0	100.6	100.7	100.5	99.9	100.2	100.1	101.8	101.8	103.3	103.9	^P 103.7
Compensation per hour	118.7	130.7	114.5	117.6	120.1	122.7	125.7	129.3	132.5	135.5	139.2	142.3	^P 145.4
Real compensation per hour	99.1	96.2	100.1	99.9	98.7	97.5	96.2	95.9	96.5	95.7	95.7	96.2	^P 95.6
Total unit costs	116.8	129.7	112.2	115.3	118.2	121.3	124.2	129.2	131.1	134.1	136.0	138.7	^P 142.2
Unit labor cost	118.2	129.4	113.8	116.8	119.5	122.8	125.4	129.1	130.2	133.1	134.7	137.0	^P 140.2
Unit nonlabor costs	112.7	130.2	107.8	111.2	114.6	117.2	120.9	129.3	133.8	136.9	139.5	143.6	^P 147.9
Unit profits	99.0	90.2	105.6	100.7	97.5	92.2	95.5	83.4	89.1	92.4	106.8	^r 102.8	^P 105.1
Implicit price deflator	114.8	125.2	111.5	113.7	115.9	118.1	121.0	124.1	126.4	129.5	132.7	134.7	^P 138.0
Manufacturing:													
Output per hour of all persons	102.0	101.7	101.5	102.3	102.0	102.1	102.0	100.7	100.7	103.2	104.1	105.1	105.5
Compensation per hour	118.8	131.6	114.5	118.6	119.8	122.3	125.4	130.0	133.9	137.3	140.9	144.6	^r 147.7
Real compensation per hour	99.2	96.7	100.2	100.7	98.5	97.2	95.9	96.4	97.5	97.0	96.9	97.8	^r 97.1
Unit labor cost	116.5	129.4	112.9	115.9	117.5	119.8	122.9	129.1	133.0	133.0	135.4	137.5	^r 140.1

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					
	I 1980 to II 1980	II 1980 to III 1980	III 1980 to IV 1980	IV 1980 to I 1981	I 1981 to II 1981	II 1981 to III 1981	II 1979 to II 1980	III 1979 to III 1980	IV 1979 to IV 1980	I 1980 to I 1981	II 1980 to II 1981	III 1980 to III 1981
Private business sector:												
Output per hour of all persons	-1.8	1.3	-1.1	4.6	3.5	r -1.0	-0.6	0.0	0.0	0.7	2.1	r 1.5
Compensation per hour	12.3	9.5	8.6	11.8	10.4	r 9.2	10.1	10.3	10.3	10.5	10.1	10.0
Real compensation per hour	-0.7	1.6	-3.8	0.4	3.2	r -2.4	-3.8	-2.3	-2.0	-0.7	0.3	-0.7
Unit labor costs	14.4	8.1	9.8	6.9	6.6	r 10.3	10.8	10.3	10.3	9.7	7.8	r 8.4
Unit nonlabor payments	2.6	13.7	10.2	17.2	5.3	r 9.3	5.1	7.4	9.3	10.8	11.5	r 10.4
Implicit price deflator	10.5	9.8	9.9	10.0	6.2	r 10.0	9.0	9.4	10.0	10.1	9.0	9.0
Nonfarm business sector:												
Output per hour of all persons	-2.9	3.6	-0.2	4.3	1.4	r -1.6	-1.0	0.1	0.1	1.1	2.2	0.9
Compensation per hour	11.3	9.0	9.8	11.6	9.6	r 9.3	9.9	10.1	10.1	10.4	10.0	10.1
Real compensation per hour	-1.6	1.2	-2.7	r 0.2	2.4	r -2.3	-4.0	-2.5	-2.2	-0.8	0.2	-0.6
Unit labor costs	14.6	5.3	10.1	7.0	8.1	r 11.1	11.0	9.9	9.9	9.2	7.6	r 9.1
Unit nonlabor payments	4.2	15.0	9.9	20.3	3.0	r 10.3	6.9	9.1	10.8	12.2	11.8	r 10.7
Implicit price deflator	11.3	8.2	10.0	11.0	6.5	r 10.9	9.7	9.6	10.2	10.1	8.9	9.6
Nonfinancial corporations:												
Output per hour of all employees	-0.5	6.7	0.0	6.3	2.2	r -0.6	-0.5	1.3	1.9	3.1	3.8	P 1.9
Compensation per hour	12.0	10.2	9.4	11.4	9.3	P 9.0	9.9	10.3	10.4	10.8	10.1	P 9.8
Real compensation per hour	-1.0	2.2	-3.1	0.0	2.1	P -2.6	-3.9	-2.2	-1.9	-0.5	0.3	P -0.9
Total unit costs	17.0	6.2	9.4	5.6	8.4	P 10.4	12.0	11.0	10.5	9.5	7.4	P 8.4
Unit labor costs	12.6	3.2	9.4	4.8	7.0	P 9.6	10.5	8.9	8.4	7.4	6.1	P 7.7
Unit nonlabor costs	30.6	14.7	9.5	7.9	12.3	P 12.3	16.3	16.8	16.8	15.4	11.1	P 10.5
Unit profits	-41.9	30.3	15.7	77.9	-13.9	P 8.9	-17.2	-8.6	0.3	11.8	23.3	P 17.9
Implicit price deflator	10.5	7.9	9.9	10.4	6.2	P 10.2	9.1	9.1	9.6	9.7	8.6	P 9.2
Manufacturing:												
Output per hour of all persons	-4.9	0.0	10.4	3.3	4.1	r 1.3	-1.6	-1.3	1.1	2.1	4.4	r 4.7
Compensation per hour	15.5	12.7	10.5	11.1	10.8	r 9.0	9.6	11.7	12.2	12.4	11.3	r 10.3
Real compensation per hour	2.1	4.5	-2.2	-0.3	3.5	r -2.7	-4.3	-1.0	-0.3	1.0	1.4	r -0.4
Unit labor costs	21.4	r 12.7	0.1	7.5	6.4	r 7.6	11.3	13.2	11.0	10.2	6.6	r 5.3

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]

Measures and industry	Annual average					Quarterly average								
	1976	1977	1978	1979	1980	1979		1980				1981 ^P		
						III	IV	I	II	III	IV	I	II	III
Wage and benefit settlements, all industries:														
First-year settlements	8.5	9.6	8.3	9.0	10.4	9.0	8.5	8.8	10.2	11.4	8.5	10.3	11.9	12.8
Annual rate over life of contract	6.6	6.2	6.3	6.6	7.1	6.1	6.0	6.7	7.4	7.2	6.1	7.6	10.9	9.3
Wage rate settlements, all industries:														
First-year settlements	8.4	7.8	7.6	7.4	9.5	6.8	6.3	8.2	9.1	10.5	8.3	9.2	11.9	12.1
Annual rate over life of contract	6.4	5.8	6.4	6.0	7.1	5.1	5.3	6.5	7.3	7.4	6.5	7.8	9.7	9.4
Manufacturing:														
First-year settlements	8.9	8.4	8.3	6.9	7.4	6.3	5.6	7.2	6.7	8.4	7.8	9.4	8.0	9.8
Annual rate over life of contract	6.0	5.5	6.6	5.4	5.4	4.7	4.2	5.7	5.1	5.6	5.8	7.0	6.5	7.6
Nonmanufacturing (excluding construction):														
First-year settlements	8.6	8.0	8.0	7.6	9.5	9.4	7.8	9.4	10.3	9.5	8.2	8.6	11.8	10.4
Annual rate over life of contract	7.2	5.9	6.5	6.2	6.6	6.5	7.4	7.6	8.5	5.9	6.8	7.8	9.1	8.5
Construction:														
First-year settlements	6.1	6.3	6.5	8.8	13.6	9.7	7.5	10.8	12.2	15.4	14.3	11.4	13.2	17.6
Annual rate over life of contract	6.2	6.3	6.2	8.3	11.5	8.5	7.6	9.1	10.4	13.0	12.0	10.3	11.1	12.8

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

[In percent]

Measures and industry	Average annual changes					Average quarterly changes								
	1976	1977	1978	1979	1980	1979		1980				1981 P		
						III	IV	I	II	III	IV	I	II	III
Total effective wage rate adjustment, all industries	8.1	8.0	8.2	9.1	9.9	3.3	1.6	1.6	3.3	3.5	1.3	1.2	2.8	3.0
Change resulting from—														
Current settlement	3.2	3.0	2.0	3.0	3.6	1.0	.5	.4	1.0	1.7	.5	.1	1.0	.5
Prior settlement	3.2	3.2	3.7	3.0	3.5	1.0	.4	.5	1.4	1.2	.3	.6	1.3	1.5
Cost-of-living adjustment clause	1.6	1.7	2.4	3.1	2.8	1.2	.7	.7	.8	.7	.6	.6	.6	1.0
Manufacturing	8.5	8.4	8.6	9.6	10.2	3.2	2.4	2.0	3.4	2.9	1.7	1.5	1.8	2.6
Nonmanufacturing	7.7	7.6	7.9	8.8	9.7	3.4	1.0	1.3	3.2	4.0	1.1	1.0	3.6	3.3

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: October	349	722	90	224	2,530	.12
November	205	532	53	126	1,440	.09
December	90	380	19	77	1,228	.06
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
May	473	688	152	383	5,857	.31
June	421	682	186	499	3,891	.19
July	391	659	127	190	2,015	.10
August	310	596	72	148	1,775	.09
September	358	565	47	109	1,468	.07
October	231	517	25	83	1,182	.06

How to order BLS publications

PERIODICALS

Order from (and make checks payable to) Superintendent of Documents, Washington, D.C. 20402. For foreign subscriptions, add 25 percent.

Monthly Labor Review. The oldest and most authoritative government research journal in economics and the social sciences. Current statistics, analysis, developments in industrial relations, court decisions, book reviews. \$23 a year, single copy \$3.50.

Employment and Earnings. A comprehensive monthly report on employment, hours, earnings, and labor turnover by industry, area, occupation, et cetera. \$31 a year, single copy \$3.75.

Occupational Outlook Quarterly. A popular periodical designed to help high school students and guidance counselors assess career opportunities. \$8 for four issues, single copy \$2.75.

Current Wage Developments. A monthly report about collective bargaining settlements and unilateral management decisions about wages and benefits; statistical summaries. \$14 a year, single copy \$2.50.

Producer Prices and Price Indexes. A comprehensive monthly report on price movements of both farm and industrial commodities, by industry and stage of processing. \$20 a year, single copy \$3.50.

CPI Detailed Report. A monthly periodical featuring detailed data and charts on the Consumer Price Index. \$20 a year, single copy \$3.50.

PRESS RELEASES

The Bureau's statistical series are made available to news media through press releases issued in Washington. Many of the releases also are available to the public upon request. Write: Bureau of Labor Statistics, Washington, D.C. 20212.

Regional. Each of the Bureau's eight regional offices publishes reports and press releases dealing with regional data. Single copies available free from the issuing regional office.

BULLETINS AND HANDBOOKS

About 140 bulletins and handbooks published each year are for sale by regional offices of the Bureau of Labor Statistics (see inside front cover) and by the Superintendent of Documents, Washington, D.C. 20402. Orders can be charged to a deposit account number-or checks can be made payable to the Superintendent of Documents. Visa and MasterCard are also accepted; include card number and expiration date. Among the bulletins and handbooks currently in print:

Occupational Outlook Handbook, 1980-81 Edition. Bulletin 2075. A useful resource supplying valuable assistance to all persons seeking satisfying and productive employment. \$9, paperback; \$12, cloth cover.

Employment Trends in Computer Occupations. Bulletin 2101, October 1981. Results of a BLS study of employment of workers in five computer-related occupations. \$3.50.

Handbook of Methods. Bulletin 1910. Brief technical account of each major statistical program of the Bureau of Labor Statistics. \$5.50.

Occupational Projections and Training Data. Bulletin 2052. Presents both general and detailed information on the relationship between occupational requirements and training needs. (Updates Bulletin 2020.) \$5.50.

Exploring Careers. Bulletin 2001. A new career guidance resource designed for junior high school students but useful for older students as well. Includes occupational narratives, evaluative questions, suggested activities, career games, and photographs. \$11.

Profile of the Teenage Worker. Bulletin 2039. Focuses on the labor market experience of 16- to 19-year-olds. Based on data from the Current Population Survey, the bulletin reviews past trends and explores the problems of youth unemployment and the transition from school to work. \$3.75.

Profiles of Occupational Pay: A Chartbook. Bulletin 2037. A graphic illustration of some of the factors that affect workers' earnings. This three-part presentation looks at wage variations among and within occupations and portrays characteristics of high- and low-paying urban areas and manufacturing industries. \$4.00.

Perspectives on Working Women: A Databook. Bulletin 2080. Presents comprehensive statistics on characteristics of working women. Topics covered in 100 tables and brief text include extent of work experience, marital and family status, earnings, occupations, and race and Hispanic ethnicity. (Updates Bulletin 1977.) \$5.00.

Productivity Measures for Selected Industries, 1954-79. Bulletin 2093. Indexes of output per employee-hour and output per employee for 96 industries are presented in charts and tables. (Updates Bulletin 2054.) \$7.50.

REPORTS AND PAMPHLETS

Single copies available free from the BLS regional offices or from the Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C. 20212.

Major Programs of the Bureau of Labor Statistics. Report 552. A summary of the Bureau's principal programs, including data available, sources, uses, and publications.

Employment in Perspective: Working Women. A quarterly report series presenting highlights of current data on women in the labor force.

Employment in Perspective: Minority Workers. A quarterly report series presenting highlights of current data on blacks and persons of Hispanic origin in the labor force.

Now available
from the
Bureau of
Labor Statistics

Wage Surveys

for the Following Industries:



• Appliance Repair

• Meat Products

• Millwork

• Wood Household Furniture

Surveys include:

- Results from the latest BLS survey of wages and supplemental benefits.
- Detailed occupational data for the nation, regions, and selected areas (where available).
- Data useful for wage and salary administration, union contract negotiation, arbitration, and Government policy considerations.

Where to send order

The BLS regional office nearest you will expedite your order.

1603 JFK Building
Boston, Mass. 02203

Suite 3400
1515 Broadway
New York, N.Y. 10036

P.O. Box 13309
Philadelphia, Pa. 19101

1371 Peachtree St., NE
Atlanta, Ga. 30367

9th Floor
Federal Office Building
230 South Dearborn St.
Chicago, Ill. 60604

2nd Floor
555 Griffin Square Bldg.
Dallas, Tex. 75202

911 Walnut Street
Kansas City, Mo. 64106

450 Golden Gate Ave.
Box 36017
San Francisco, Calif. 94102

You may send your order directly to:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

Note: GPO prices are subject to change without notice.

- Industry Wage Survey: Appliance Repair**, 1978, Bulletin 2067, GPO Stock No. 029-001-02537-8, price \$2.50.
- Industry Wage Survey: Meat Products**, 1979, Bulletin 2082, GPO Stock No. 029-001-02538-6, price \$5.00.
- Industry Wage Survey: Millwork**, 1979, Bulletin 2083, GPO Stock No. 029-001-02549-1, price \$3.75.
- Industry Wage Survey: Wood Household Furniture**, 1979, Bulletin 2087, GPO Stock No. 029-001-02560-2, price \$4.50.

How to pay

- Enclosed is a check or money order payable to Superintendent of Documents.
- Charge to my GPO account no. _____
- Charge to MasterCard*, Account no. _____ Expiration date _____
- Charge to VISA*, Account no. _____ Expiration date _____

*Available only on orders sent directly to Superintendent of Documents.

Name _____

Organization
(if applicable) _____

Street address _____

City, State
ZIP Code _____

U.S. Department of Labor
Bureau of Labor Statistics
Washington, D.C. 20212

Official Business
Penalty for private use, \$300
RETURN POSTAGE GUARANTEED

Postage and fees paid
U.S. Department of Labor
Lab-441

SECOND CLASS MAIL



MLR LIBRA442L ISSDUE003R 1
LIBRARY
FED RESERVE BANK OF ST LOUIS
PO BOX 442
SAINT LOUIS MO 63166