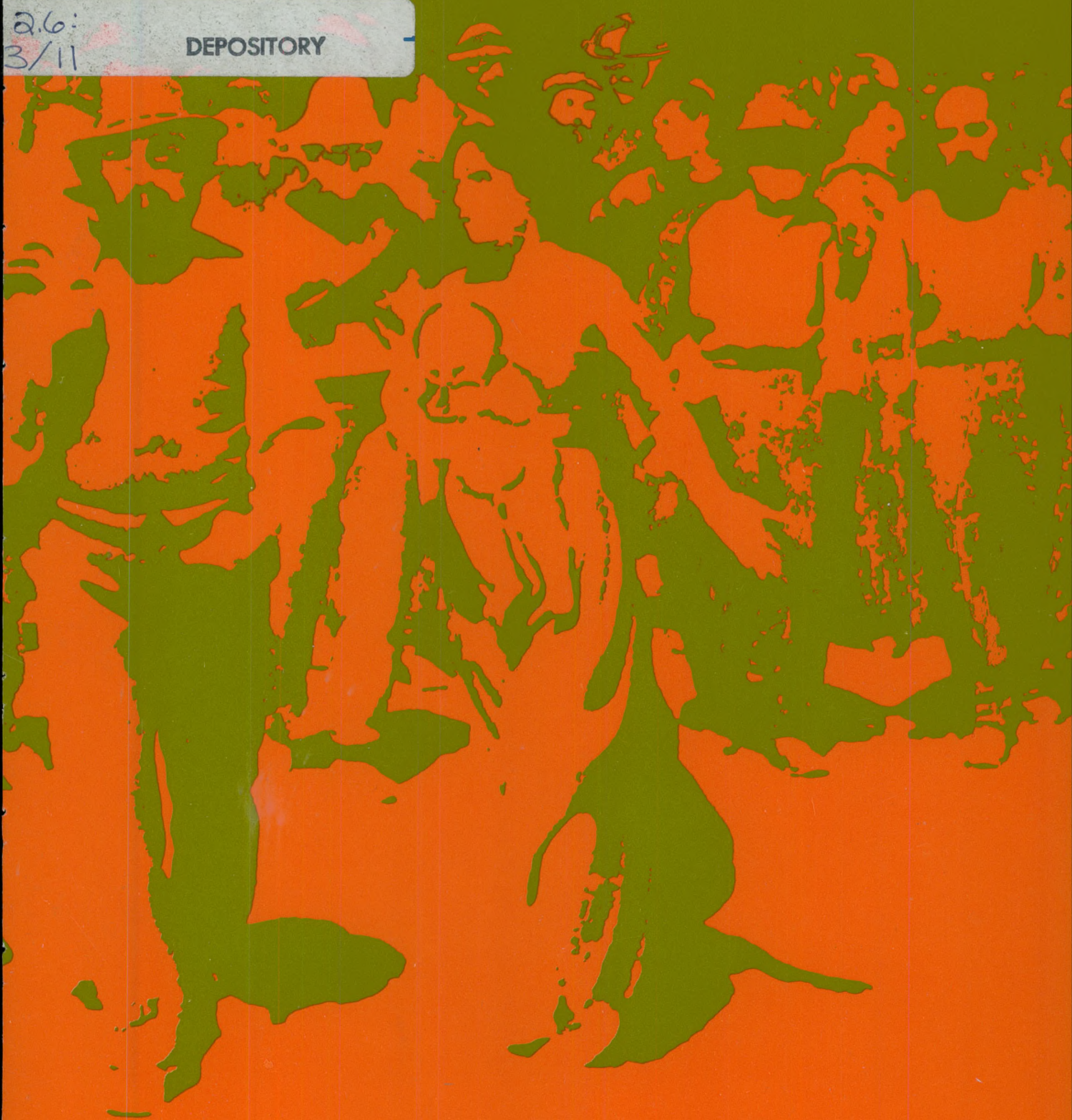




MONTHLY LABOR REVIEW

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November 1980

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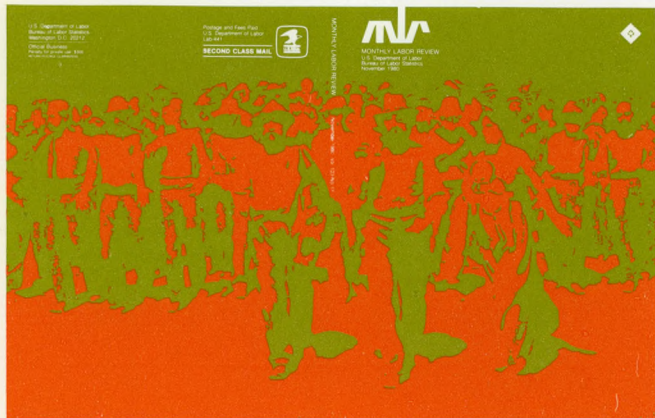
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Labor Month In Review



STATISTICS IN BUREAUCRACIES.

In her presidential address to the 141st meeting of the American Statistical Association, in Houston earlier this year, Margaret E. Martin focused on the role of government statistical bureaus whose principal function is to produce and summarize data for use by others. Highlights:

Concepts. A major activity of statistics bureaus is the definition of concepts, an activity that is both difficult and extremely important in much of Federal multipurpose data collection. A well-known example is the case of employment and unemployment . . . Should one measure the number of persons at work, or jobs held, or hours spent at work? There are uses for each of these measures. It took economists and statisticians working together nearly a decade during the 1930's to, first, agree on basic concepts, and second, develop reasonably satisfactory and mutually compatible definitions of employment and unemployment—definitions that were workable in household surveys and that, with only minor changes, are still being used today, although not without continued questioning.

Another, and as yet unsettled, example is the concept of ethnicity and the problem of its definition in censuses and surveys. Social theory suggests no easy answer, usually assuming self-identification. A variety of different definitions have been used in practice: place of parents' birth, mother tongue, language spoken in the home, origin, or descent. It is not sufficient for the statistician to say that such concepts and definitions are not his or her business, that these questions belong exclusively to the subject-matter specialist.

Differences. Because data produced by Federal statistics bureaus frequently are national in scope, and therefore refer to the same universe, differences in series that ostensibly measure the same or simi-

lar phenomena are glaringly obvious.

The existence of two ostensibly similar series can be a boon as well a bane to statistical enterprise. Differences in level and change can call attention to problems, especially to nonsampling errors, and, if taken seriously, can lead to improvements in one or both series. Efforts to reconcile the two employment series, for example, led to many improvements, extensions, and additional analyses—improvements that have provided a wealth of additional information on the labor force.

Pressures for more. Another characteristic circumstance of much Federal data collection is the insistent pressure for more. Once statistical information is produced, it is generally used. And once used, pressures start building for more—more detail, greater frequency, more prompt availability. If a series is issued quarterly, it is wanted monthly, if it is national in scope, it is wanted for regions, or States, or all standard metropolitan statistical areas, or even every county (3,000) or every political entity (39,000). . . .

The quality of such efforts is limited not only by resources—budgets, statistical talent, and other inputs to the statistical operation—but also by the burden imposed on respondents. Although much of the government's paperwork burden is not for statistical purposes—tax collection, regulatory activities, provision of benefits for which applications must be filed—large-scale statistical surveys must consider the burden imposed on suppliers of data and the mounting resistance to paperwork.

Analysis. Because statistics bureaus collect data primarily for the use of others, some believe it is unreasonable to expect them to engage in substantive analysis. They may fear that such analysis might distort data collecting priorities or delay public dissemination of the data. . . .

I believe that more analysis by

statistics bureaus, whether by their own staffs exclusively or in cooperation with others, would lead to improvements in the base data, to a better understanding of priorities, to better documentation of the data for use by others, and possibly to new knowledge as the result of the analysis. The close tie between analysis and data improvement is not generally understood and, indeed, is not clearly documented. Budget authorities and congressional appropriations committees are unaware of the importance of analysis in leading to improved data and also may fear that analysis would not be politically neutral. The research community is, I believe, more interested in obtaining the data for its own independent use than concerned about building up analytic strength in Federal statistics bureaus.

Dissemination. Statistics bureaus spend much time on methods of distributing their products effectively. The theoretical statistician writes a report for a research journal and typically leaves it up to others to seek out and use the results of his research. The statistical consultant has direct contact with the users of his advice. But the statistics bureau, at a greater distance from users and operating on public funds, should feel a responsibility for making data available in convenient forms and for explaining how the data are compiled, their weaknesses and strengths.

If statisticians as a profession seek wider application of statistical methods in data collection activities, in other scientific disciplines, and in management and administration, whether public or private, we may need to devote more effort to communicating with nonstatisticians in ways that are of interest and of benefit to them.

The text of Martin's address is scheduled for publication in March in the *Journal* of the American Statistical Association. □

Self-employed Americans: their number has increased

The self-employed began to more closely resemble wage and salary workers during 1972–79; their workweek was shortened, they tended to be younger, and were more likely to be women than in the past, but they continued to earn less than other workers

T. SCOTT FAIN

Between 1972 and 1979, the number of self-employed Americans rose by more than 1.1 million, reversing decades of steady decreases.¹ The most dramatic surge occurred in the post-recession years of 1976–79, when the percentage increase in the number of self-employed workers surpassed the comparable increase for wage and salary workers (12.4 versus 10.8 percent).

When agricultural self-employment is separated from nonagricultural, a more dramatic picture appears. While the number of agricultural self-employed workers continued to decline—dropping 210,000 between 1972 and 1979—nonagricultural self-employment increased by 1.3 million. The growth trend was especially strong in the last 4 years when nonagricultural self-employment rose by 17 percent, while wage and salary employment rose 11 percent. (See table 1.)

In addition to the self-employed as officially enumerated by the Census Bureau, there are three other groups closely related to this worker category. First, there are those who identify themselves as self-employed but whose businesses are incorporated. Their numbers are included with the wage and salary group. Therefore, the increase in these workers from around 850,000 in 1967 (when they were first reclassified out of the self-employed category) to more than 2 million in 1979 is not reflected in the official figures for the self-employed. A more detailed discussion of these persons comes at the end of this article after an examination of recent trends among proprietors and partners, who comprise the unincorporated self-employed.

Another type of self-employment that is not reflected in the data in table 1 involves the more than 1.5 million workers who are self-employed at their second jobs. Because these moonlighters are classified by the nature of their primary employment, they are officially wage and salary workers. Those persons who supplemented their earnings with self-employment accounted for more than

T. Scott Fain is an economist formerly with the Office of Current Employment Analysis, Bureau of Labor Statistics. Bernard Altschuler, a statistician in the same office, developed some of the tabulations used in this analysis.

one-third of all dual or multiple jobholders in 1979, and their number rose more than 28 percent since 1972.

On the other hand, the number of unpaid family workers, another group similar to the self-employed, continued its overall downturn. In 1979, there were 760,000 unpaid family workers, a drop of 225,000 since 1972, with the agricultural sector leading the decline. This group continues to be predominantly female, as they constituted 9 of 10 unpaid family workers in 1979.

The overall upward trend in the number of self-employed workers was interrupted during the 1974-75 recession; there were 50,000 fewer self-employed workers in 1976 than in 1974. But self-employment responded strongly to the post-recession economic surge. In this respect, self-employed workers appear to be reacting like their wage and salary counterparts, rather than continuing their past counter-cyclical employment trends.²

Demographic features

Age. While the demographic characteristics of the self-employed differ from other workers, these differences have grown less sharp in recent years. For instance, the median age of the self-employed has typically been

greater than that of wage and salary workers. Young workers are less likely to have acquired the capital and managerial skills needed to start a business; and many older workers who have withdrawn from wage and salary employment may wish to continue working via self-employment. But in recent years, the average age of the self-employed has dropped. The proportion of self-employed who are 16 to 44 years old rose by 10 percentage points, while those over age 45 decreased by the same amount. In part, this change is because of the nature of the population; with entry of the baby-boom generation, the median age of the labor force has fallen. But as can be seen in the following tabulation, the downward shift in age distribution (in percent) has been more dramatic for the self-employed:

| Age | Self-employed | | | Wage and salary | | |
|---------------------|---------------|------|--------|-----------------|------|--------|
| | 1972 | 1979 | Change | 1972 | 1979 | Change |
| 16-24 . . | 5.4 | 6.6 | +1.2 | 23.1 | 24.1 | +1.0 |
| 25-44 . . | 35.7 | 44.3 | +8.6 | 41.8 | 45.9 | +4.1 |
| 45 and over | 58.8 | 49.0 | -9.8 | 35.1 | 30.0 | -5.1 |

From 1972 to 1979, a comparatively large number of workers 25 to 44 years old entered self-employment.

Table 1. Employment by class of worker, 1948-79

| Year | Self-employed | | | Wage and salary | | | Unpaid family workers | | |
|--------------|---------------|--------------|-----------------|-----------------|--------------|-----------------|-----------------------|--------------|-----------------|
| | Total | Agricultural | Nonagricultural | Total | Agricultural | Nonagricultural | Total | Agricultural | Nonagricultural |
| 1948 | 10,773 | 4,664 | 6,109 | 44,221 | 1,645 | 45,866 | 1,703 | 1,318 | 385 |
| 1949 | 10,776 | 4,609 | 6,167 | 43,444 | 1,728 | 45,172 | 1,701 | 1,321 | 380 |
| 1950 | 10,358 | 4,340 | 6,018 | 45,354 | 1,630 | 46,984 | 1,573 | 1,190 | 383 |
| 1951 | 9,819 | 4,014 | 5,805 | 47,047 | 1,547 | 48,594 | 1,546 | 1,163 | 383 |
| 1952 | 9,546 | 3,933 | 5,613 | 47,719 | 1,437 | 49,156 | 1,546 | 1,129 | 417 |
| 1953 | 9,555 | 3,815 | 5,740 | 48,770 | 1,375 | 50,145 | 1,477 | 1,068 | 409 |
| 1954 | 9,655 | 3,816 | 5,839 | 47,633 | 1,343 | 48,976 | 1,474 | 1,043 | 431 |
| 1955 | 9,577 | 3,726 | 5,851 | 49,359 | 1,601 | 50,960 | 1,634 | 1,123 | 511 |
| 1956 | 9,459 | 3,563 | 5,896 | 51,057 | 1,580 | 52,658 | 1,700 | 1,142 | 558 |
| 1957 | 9,312 | 3,301 | 6,011 | 51,509 | 1,583 | 52,642 | 1,667 | 1,065 | 602 |
| 1958 | 9,183 | 3,081 | 6,102 | 50,761 | 1,564 | 52,325 | 1,529 | 941 | 588 |
| 1959 | 9,242 | 3,020 | 6,222 | 52,265 | 1,582 | 53,847 | 1,542 | 963 | 579 |
| 1960 | 9,098 | 2,795 | 6,303 | 53,417 | 1,762 | 55,179 | 1,499 | 901 | 598 |
| 1961 | 9,046 | 2,738 | 6,308 | 53,600 | 1,629 | 55,229 | 1,471 | 832 | 639 |
| 1962 | 8,802 | 2,609 | 6,193 | 54,963 | 1,561 | 56,524 | 1,376 | 773 | 603 |
| 1963 | 8,541 | 2,427 | 6,114 | 56,388 | 1,564 | 56,527 | 1,269 | 696 | 573 |
| 1964 | 8,538 | 2,358 | 6,180 | 58,027 | 1,469 | 59,496 | 1,272 | 696 | 576 |
| 1965 | 8,394 | 2,297 | 6,097 | 60,031 | 1,387 | 61,418 | 1,278 | 678 | 600 |
| 1966 | 8,126 | 2,136 | 5,990 | 62,361 | 1,266 | 63,627 | 1,142 | 578 | 564 |
| 1967 | 7,170 | 1,996 | 5,174 | 64,848 | 1,301 | 66,149 | 1,053 | 547 | 506 |
| 1968 | 7,087 | 1,985 | 5,102 | 66,517 | 1,281 | 67,798 | 1,035 | 550 | 485 |
| 1969 | 7,148 | 1,896 | 5,253 | 68,527 | 1,179 | 69,706 | 1,048 | 531 | 517 |
| 1970 | 7,027 | 1,810 | 5,217 | 69,446 | 1,153 | 70,599 | 1,001 | 499 | 502 |
| 1971 | 7,057 | 1,748 | 5,309 | 69,902 | 1,161 | 71,063 | 1,000 | 479 | 521 |
| 1972 | 7,121 | 1,789 | 5,332 | 72,381 | 1,216 | 73,597 | 984 | 467 | 517 |
| 1973 | 7,202 | 1,776 | 5,426 | 74,995 | 1,254 | 76,249 | 959 | 423 | 536 |
| 1974 | 7,386 | 1,752 | 5,634 | 76,325 | 1,349 | 77,674 | 876 | 391 | 485 |
| 1975 | 7,341 | 1,715 | 5,626 | 75,298 | 1,280 | 76,578 | 864 | 386 | 478 |
| 1976 | 7,326 | 1,637 | 5,689 | 78,041 | 1,318 | 79,359 | 800 | 342 | 458 |
| 1977 | 7,575 | 1,570 | 6,005 | 80,804 | 1,330 | 82,134 | 835 | 343 | 492 |
| 1978 | 7,912 | 1,607 | 6,305 | 84,253 | 1,418 | 85,671 | 788 | 316 | 472 |
| 1979 | 8,233 | 1,580 | 6,652 | 86,540 | 1,413 | 87,953 | 759 | 304 | 455 |

While many factors may have contributed to this development, apparently during the last decade younger workers placed a higher premium on being able to work for themselves than did prior generations.

Sex. Besides being disproportionately older, the self-employed have also been overrepresented by men. In 1979, 75 percent of self-employed workers were men, compared with less than 60 percent of wage and salary workers. Nevertheless, the number of self-employed women has been growing at a faster pace than either self-employed men or wage and salary women. Since 1972, female self-employment has increased by 43 percent or five times faster than male self-employment, and considerably faster than the 31 percent increase in the number of women employed as wage and salary workers. Thus, the female share of self-employment grew from about one-fifth in 1972 to one-quarter in 1979.

Race. Minorities have also been less likely to be self-employed, but, unlike younger persons and women, the proportion of self-employed who are members of minorities has not increased. Although the number of black self-employed has grown since 1972 by nearly 60,000 to 450,000, their proportion of all self-employed workers has remained constant at about 5.5 percent.³ The number of self-employed blacks grew by only 14 percent from 1972 to 1979, just half the rate of increase incurred among black wage and salary workers.

Not only have blacks continued to be underrepresented among the self-employed, but those who have managed to start their own enterprises are most likely to be in service and blue-collar occupations, while white self-employed workers are more likely to be in the relatively high paying white-collar occupations. The following tabulation shows the occupational distribution (in percent) for self-employed workers in 1979, by race:

| | <i>Whites</i> | <i>Blacks</i> |
|--------------------|---------------|---------------|
| White-collar | 48.7 | 40.7 |
| Blue-collar | 24.9 | 29.6 |
| Service | 8.7 | 21.2 |
| Farm | 17.6 | 8.4 |

Nonagricultural industry trends

From 1949 to 1972, the percent of workers in nonagricultural industries who were self-employed fell from 12.3 to 6.8. But since 1972, the trend reversed and in 1979 the proportion was 7.1 percent. During the entire 30-year period, however, the self-employed sector of agricultural employment has never stopped falling; it had been more than 60 percent in 1948 and was less than half in 1979.

Table 2. Self-employed and wage and salary workers, by occupation and industry, 1972-79, Annual averages

[In percent]

| Characteristics | Self-employed | | Wage and salary workers | |
|--|---------------|-------|-------------------------|-------|
| | 1972 | 1979 | 1972 | 1979 |
| Total employed | 100.0 | 100.0 | 100.0 | 100.0 |
| Occupation | | | | |
| White-collar | 46.8 | 48.3 | 48.1 | 51.2 |
| Professional and technical workers .. | 13.6 | 14.3 | 14.2 | 15.8 |
| Managers and administrators, except farm | 23.8 | 21.3 | 8.6 | 9.9 |
| Clerical workers | 7.8 | 9.9 | 6.4 | 6.0 |
| Sales workers | 1.6 | 2.8 | 18.9 | 19.5 |
| Blue-collar | 20.7 | 25.2 | 36.7 | 34.0 |
| Craft and kindred workers | 13.2 | 16.4 | 13.4 | 13.8 |
| Operatives, except transport | 2.6 | 3.0 | 13.8 | 12.1 |
| Transport equipment operatives | 2.6 | 3.1 | 4.1 | 3.8 |
| Nonfarm workers | 2.3 | 2.7 | 5.5 | 5.3 |
| Service workers | 9.1 | 9.3 | 13.9 | 13.7 |
| Farm workers | 23.4 | 17.2 | 1.3 | 1.2 |
| Industry | | | | |
| Goods-producing | 18.7 | 22.3 | 34.1 | 32.0 |
| Mining | 0.2 | 0.3 | 0.8 | 1.0 |
| Construction | 13.9 | 17.0 | 6.2 | 5.9 |
| Manufacturing | 4.5 | 5.0 | 27.1 | 25.2 |
| Service-producing | 81.3 | 77.7 | 65.9 | 68.0 |
| Transportation and public utilities | 3.8 | 4.1 | 7.3 | 7.1 |
| Trade | 31.5 | 27.3 | 20.0 | 20.4 |
| Wholesale | 4.0 | 4.1 | 3.9 | 4.0 |
| Retail | 27.5 | 23.2 | 16.1 | 16.4 |
| Finance, insurance, and real estate | 4.9 | 6.6 | 5.6 | 6.1 |
| Miscellaneous services | 41.2 | 39.8 | 29.0 | 28.5 |
| Public administration | 0 | 0 | 6.1 | 5.8 |

Traditionally, the self-employed in the nonagricultural sector have been concentrated in the service-producing industries. The creation of a business in goods-producing industries—mining, construction, or manufacturing—usually requires large amounts of capital. But between 1972 and 1979, the percentage of the self-employed in this sector grew faster, from 18.7 to 22.3. (See table 2.) The construction industry led the increase, as self-employment accounted for more than one-third of the total employment gain in this industry between 1972 and 1979. In manufacturing, although the numbers grew substantially, self-employment continued to be relatively uncommon; only 1 of 20 self-employed workers was in manufacturing, compared with 1 of 4 wage and salary workers. The service-producing industries also witnessed substantial increases in the numbers of self-employed, as finance, insurance, and real estate, and miscellaneous services registered the strongest gains. But the growth rate in the service-producing sector was less than half that of the goods-producing sector mainly because of the slow growth in the number of retailers.

The relatively slow growth of self-employment in the service sector is in sharp contrast to the situation in the economy as a whole, because among wage and salary workers the service-producing sector has grown twice as fast as the goods-producing sector. But, interestingly, these differential growth patterns have combined to

bring the industry employment patterns of self-employed workers closer to the patterns of all employed workers.

Occupational trends

Clearly some occupations lend themselves more easily to self-employment than others. For a small number of jobs, self-employment accounted (in 1979) for more than half of all workers. These categories included chiropractors, dentists, optometrists, podiatrists, authors, auctioneers, hucksters and peddlers, paperhangers, piano and organ tuners, shoe repairers, fishers, farmers, midwives, barbers, boarding and lodging housekeepers, and bootblacks.

During the period studied, the major development in occupational employment of the self-employed was the decrease in farm occupations. In 1972, 1 of 4 self-employed persons worked at a farm-related job; in 1979, 1 of 5. Partly as a result, the proportions of self-employed in white-collar, blue-collar, and service jobs all increased. Related to the more dramatic increase in the goods-producing industries was the sizable increase in blue-collar self-employment. The increase in the actual numbers of self-employed in the white-collar sector was of comparable size, but the percentage increase was less than half that of the blue-collar sector. The growth in the service occupations was even less marked. In the blue-collar occupations, craftworkers represented two-thirds of the increase. In particular, carpenters and other construction workers posted self-employment gains of about 120,000 and 130,000, respectively. The sales occupations led the increases in white-collar jobs, with a large jump in the number of self-employed persons in real estate sales and hucksters and peddlers. The growth in real estate and construction reflected the continued strength of the residential housing market, as the baby-boom generation added to the demand for homes. Self-employment has traditionally played an important role in residential construction.⁴

In general, these shifts in industry and occupational employment have caused self-employed workers to more closely parallel the patterns of their wage and salary counterparts. This tendency was especially true for self-employed men, as their employment shifts were much more dramatic than those of self-employed women in both industry and occupational categories. Though their numbers increased sharply, self-employed women continued to be concentrated in the trade and service industries and white-collar and service occupations.

Hours and earnings

Hours. Another distinguishing characteristic of self-employed workers was the many hours which they typi-

cally put into a workweek, but this dropped dramatically in recent years. In 1965, the average workweek for a self-employed worker in a nonagricultural industry was 46.8 hours; by 1979, that figure had fallen 4.9 hours to 41.9. Over the same period, the workweek of a nonagricultural wage and salary employee fell by only 1.1 hours to 38.4. This average weekly hours gap narrowed faster since 1972, as the self-employed workweek fell 5.2 percent, while the wage and salary workweek decreased by only 0.8 percent. Following are hours worked per week by self-employed and wage and salary nonagricultural workers:

| | 1965 | 1972 | 1979 |
|---------------------------|------|------|------|
| Self-employed | 46.8 | 44.2 | 41.9 |
| Wage and salary | 39.5 | 38.7 | 38.4 |

In part, this reduced workweek for the self-employed may reflect the influx of women and younger workers, both working relatively fewer hours as a general rule.

Earnings. But as their workweek has drawn nearer to that of wage and salary employees, the earnings of the self-employed continued to lose ground in comparison with the earnings of other workers. For example, between 1972 and 1978, the median annual earnings of both male self-employed workers and private wage and salary workers rose by about 50 percent to \$10,240 and \$12,016, respectively. Self-employed women on the other hand, actually lost ground as their earnings grew at a rate less than half that of other women employed in the private sector; in 1978, they earned \$1,878 compared with \$5,047 for their wage and salary counterparts. Meanwhile, mean earnings for self-employed men stayed well above that for wage and salary men, indicating that self-employed earnings are substantially skewed at the upper end of the earnings distribution. Apparently a number of self-employed really "strike it rich," while the majority continue to earn less than the average wage and salary worker.

Reflecting the differential impact of the recession, the earnings gap between self-employed and wage and salary workers grew during 1974-75. The self-employed do not experience the high unemployment rates of wage and salary workers, but their earnings are tied more closely to the success of their business. Rather than give up their businesses and join the ranks of the unemployed, the self-employed are more likely to continue working during a recession but take home less income.⁵

In general, self-employed men and women have more income flexibility than wage and salary workers. By adjusting their inventories, for example, they can use their business as a sort of personal savings account, by selling off or building up stock. Also, earnings of the self-

employed tend to be understated because they exclude: the income implicit to the farmer who feeds his family with his own crops, the store owner who consumes his own stock, the businessman who saves money and time by working at home or using the business car for personal travel, and other nonmonetary income.

Incorporated businesses

Because of a change in the Current Population Survey in 1967, it became possible to identify those workers who had reported themselves as self-employed but had incorporated their businesses. These individuals were reclassified as wage and salary workers because a corporation pays all of its employees a salary, including the owner. The resultant number of self-employed persons was down by 850,000 in January 1967. Since then, the "incorporated self-employed" have been officially tallied with the wage and salary workers; for the purpose of this article, however, separate counts for March 1976 and 1979 were made and analyzed. (Another group which cannot be separated and studied are those incorporated self-employed who report themselves initially as wage and salary employees. There is no way to determine how large this group might be or to know whether it has grown larger or smaller over time.)

From March 1976 to 1979, the number of persons who classified themselves as self-employed but who were incorporated rose from 1.5 million to 2.1 million, an increase of around 40 percent. This jump was about four times the comparable increase for the remaining wage and salary workers or the officially self-employed workers.

The move toward incorporation is a function of many complex factors. A worker will usually incorporate his business for traditional benefits of the corporate structure, including limited liability, tax considerations, and the increased opportunity to raise capital through the sale of stocks and bonds.⁶ But regardless of the underlying reasons, the overall increase in self-employment has been even greater than indicated by the basic statistics. And, for the purposes of labor force analysis, these workers are akin to the self-employed.

Demography. Even more so than most self-employed workers, the owners of incorporated businesses are likely to be older than the average worker. As the following tabulation shows, in March 1979, more than half of the incorporated self-employed were 45 years or older, compared with less than a third of all workers:

| | 16-24 years | 25-44 years | 45 years or older |
|--------------------------------------|----------------|----------------|----------------------|
| Incorporated self-employed | 2.0 | 44.9 | 53.2 |
| All workers | 21.9 | 45.8 | 32.2 |

These individuals are also more likely to be men: whereas 75 percent of the officially self-employed were men in March 1979, 84 percent of the incorporated self-employed were men. This figure is down from 90 percent in March 1976 but, nevertheless, indicates the degree to which men dominate the ranks of the incorporated self-employed. Therefore, in the areas of age and sex, the incorporated self-employed exhibit tendencies which differ from overall worker norms in the same way that other self-employed workers do—only more so.

Industrial and occupational employment. With respect to type of industry, these workers fall somewhere between their unincorporated counterparts and private wage and salary workers. Their employment distribution for March 1979 shows that they are more likely to be in the goods-producing industries than other self-employed workers. A low percentage in the miscellaneous services sector more than offsets a high percentage in the wholesale trade sector, and reduces the proportion in service-producing industries. Therefore, their employment distribution comes much closer to mirroring wage and salary patterns than does the distribution of all other self-employed workers.

But with regard to occupational employment, these incorporated entrepreneurs resemble no other class of worker. In March 1979, more than 80 percent were white-collar workers, compared with 50 percent of the other self-employed and 45 percent of private wage and salary employees. More than 50 percent were managers and administrators by occupation, which accounted for the sizable differentials between them and other workers. Given the nature of the corporation, this high percentage of managers and administrators is expected. By the time a single business is large enough to benefit from incorporation, the proprietors are usually devoting a great deal of their attention to managing it. For instance, these individuals might be spending most of their time running a construction firm rather than doing carpentry work, or managing a drugstore rather than performing pharmaceutical tasks. Although they account for only 2.3 percent of all workers, they represent almost 12 percent of all private managers and administrators; that proportion rises to 30 percent when the unincorporated self-employed managers and administrators are included.

Earnings. With regard to earnings, the incorporated self-employed are unique. Their median earnings of \$20,187 for March 1979 was more than double that for either private wage and salary or other self-employed workers. This is linked to the corporate tax shelter—it is advantageous only for self-employed persons in the highest income brackets to incorporate and thus their

total income—salary and dividends—was much higher.⁷ These earnings figures also help to explain the occupational mix of this group of workers, which is skewed towards the typically high earning, white-collar occupations such as doctors, lawyers, and managers. In turn, the earnings and occupational characteristics help explain the age and sex profile of these jobholders.

As noted, incorporation is a largely technical distinction; instead of working for themselves, these people work for their corporation. Therefore, their numbers, and especially their recent growth, must be considered when discussing the status of the self-employed. Their high earnings moderate the earnings gap between wage and salary earners and self-employed workers. This more inclusive view of self-employment might help to explain its recent strength.

Conclusion

Overall, the self-employed exhibited strong labor market growth during 1972–79. Not only have their numbers experienced sustained growth for the first time since World War II, but they are developing cyclical, industrial, and occupational patterns, as well as sex, age, and workweek characteristics that are much more similar to the rest of the work force. Only their racial and earnings distribution continue to diverge from those of wage and salary workers. But it is interesting to note that the two major developments in self-employment have apparently occurred simultaneously; as the appeal of self-employment has intensified, the differences between self-employed workers and the remainder of jobholders have waned. □

—FOOTNOTES—

¹ The data in this article were derived from the Current Population Survey. This is a monthly survey of 65,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics.

² The tendency for the self-employed sector to react counter-cyclically was discussed by John E. Bregger, "Self-Employment in the United States, 1948–62," *Monthly Labor Review*, January 1963, pp. 37–43, and his observation was updated by Robert Ray, "A report on self-employed Americans in 1973," *Monthly Labor Review*, January 1975. Data from the most recent recession support the theory that self-employment is now reacting cyclically. From a high of 8,550,000 in February 1980, their number fell to 8,260,000 by May.

³ The term "black" refers to all persons in the survey other than white. In addition to blacks, the group includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

⁴ Joseph D. Phillips, *The Self-employed in the United States* (Urbana, Illinois, University of Illinois, 1962), p. 29.

⁵ The unemployment rate for wage and salary workers was 8.5 percent in 1975 compared to only 2.0 percent for self-employed workers.

For a discussion of this type of "concealed unemployment" see Phillips, *Self-employed*, p. 53–6, or Srully Blotnick "Maintaining Appearances," *Forbes*, May 26, 1980, pp. 152–53.

⁶ Another advantage of the corporation is the increased allowance for pension fund tax shelters. Steven S. Anreder felt that "of the many desirable features of incorporation, the pension advantage is the most outstanding." For a general discussion of this topic, see Anreder, "Retirement Dollars for the Self-employed," (New York, The Dun & Bradstreet Business Library, 1972). The Keogh plan, which provides retirement deductions for the self-employed, was revised in 1974 to allow a yearly write-off of \$7,500 or 15 percent of earned yearly income, whichever is less. However, the corporation can establish a more comprehensive pension program.

⁷ For a comprehensive study of the often complicated tax status of self-employed workers, see *Tax Treatment of Employees and Self-employed persons by the Internal Revenue Service—Problems and Solutions: Report to the Joint Committee on Taxation, Congress of the United States by the Comptroller General of the United States* (Washington, U.S. General Accounting Office, 1977).

U.S. labor turnover: analysis of a new measure

New method of determining labor turnover, which includes firms from all sectors, shows much more hiring activity than is shown by the Bureau of Labor Statistics survey, which is derived mainly from manufacturing; however, the two series' separation rates are not as far apart

MALCOLM S. COHEN AND ARTHUR R. SCHWARTZ

Labor market analysts, employment counselors, and employment security administrators have long been handicapped by the lack of broad-based labor turnover data. Until recently, the only labor turnover data available have been those generated by the Bureau of Labor Statistics' Labor Turnover Survey, which provides monthly estimates of labor turnover for manufacturing and a few selected nonmanufacturing industries. Although useful as an economic indicator, the data show turnover primarily in only one sector of the economy—manufacturing.

Now, a new methodology obtains data from manufacturing and nonmanufacturing firms of all sizes without placing additional reporting requirements upon them.¹ This method generates, for the first time, information about the volume of accessions, new hires, and separations in both the manufacturing and nonmanufacturing sectors of the economy.

This article presents quarterly new-hire and separation rates derived from the new methodology. Surprisingly, these data suggest that the new-hire rate for

nonagricultural firms in the second quarter of 1974 was 25 percent. On an annual basis, this would mean that the average firm hired almost as many workers as its average employment that year. The estimates then are contrasted with BLS and other turnover data, and no major unexplained discrepancies were found. However, it was not possible to obtain accurate estimates of nonsampling errors. For this reason, the estimates contained in this article should be viewed as preliminary.

How data are obtained

This study uses employee earnings information submitted by employers to the Social Security Administration. Until 1978, employers were required to submit quarterly earnings information for each individual employee to the Social Security Administration.² To derive turnover data, a special tabulation of a 1-percent sample of these records was prepared in cooperation with the research and data processing divisions of the New York State Employment Service. At the time of preparation, the most current data available were for 1974. From this tabulation, new-hire rates were derived for all 50 States and the District of Columbia for the second quarter of 1974. Separation rates were computed for the first quarter of 1974.

Because there is an income ceiling (\$13,200 in 1974) for social security reporting, some employees may "dis-

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appear" from the payroll when in fact they are still working. Increasingly, in the latter quarters of the year, these workers may be inadvertently counted as separations and may be identified mistakenly as accessions in the following first quarter. Therefore, accession data were calculated for the second quarter and separation data, for the first quarter.

Turnover measures were computed by comparing the social security numbers of employees working for a given employer in a given quarter with the social security numbers reported by the same employer in prior quarters. Because these new measures cannot assign turnover to a particular month or distinguish as many types of turnover transactions as the BLS survey, their definitions differ from those used by BLS.³ Following are terms used in deriving turnover rates for this article, along with those used by the BLS:⁴

Social Security data

- Accession — The employee worked for an employer in a given quarter but did not work for that employer in the previous quarter.
- Separation — The employee worked for an employer in a given quarter but did not work for that employer in the previous quarter.
- New hires — The employee worked for an employer in a given quarter but did not work for that employer in any of the previous five quarters.

BLS data

- Accession — The total number of additions to the employment roll in a particular month.
- Separation — Terminations of employees in the calendar month.
- New hires — An addition to the employment roll resulting from (1) a person who has never worked in the establishment, or (2) a former employee who was not recalled by the employer.

An arbitrary cutoff of five quarters is used to separate a new hire from a recall. The longer the period used to define the new hire, the more costly the process of computing the series and the shorter the time series available. For example, if unemployment insurance wage data are available for 5 years and if a new hire is defined as "not working for that employer in any of the 20 previous quarters," no new hires could be derived until data from the 21st quarter became available. Then, only one quarter of new-hire data could be obtained. Using too few quarters will result in misclassification as new hires, persons who had worked for the same employer previously. Going back 5 quarters offers the advantage of eliminating as new hires seasonal employees who work for the same employer one season a year and

persons who worked at all in the previous year.⁵

The employer account numbers in the data sources permit association of the turnover measures with employer characteristics such as geographic location, industry, and size-of-firm class. New-hire data may also be analyzed by number of quarters of resulting employment and quarterly earnings levels.

Uses of the data. Some of the uses contemplated for these data are: (1) new hire data may be a potential factor in allocation of Federal funds to the U.S. Employment Service; (2) the data can be used by job developers to determine the firms with the greatest potential for applicant hires. Seasonal hiring patterns and trends projected from these data can assist Employment Service and Comprehensive Employment and Training Act prime sponsor planning efforts; (3) the data may assist in evaluation of social programs. The Employment Service, for example, has been criticized for placing most of its applicants in jobs lasting less than 180 days. However, preliminary data from the Employment Service suggest that 60 to 70 percent of all new hires' job tenure is of relatively short duration, that is, less than 9 months;⁶ (4) the data can provide information for the internal management of U.S. Department of Labor employment programs. It may assist in determining the location of Employment Service local offices, setting placement goals, measuring performance, and validating placement information; and (5) a number of hypotheses pertaining to theories such as segmentation of labor markets, the relationship between low wage levels and turnover, and turnover patterns over the business cycle can be tested with these data.

Turnover rates, by region and industry

Table 1 shows new-hire rates for the second quarter of 1974 by region for all major industry divisions, except agriculture.⁷ The quarterly new-hire rate for the entire nonagricultural private sector (25.0 percent) is much higher than that for manufacturing (16.2 percent). Across the Nation, the highest nonagricultural quarterly new-hire rates were in construction, a highly volatile sector subject to large seasonal and cyclical changes in employment and, therefore, to excessive labor turnover. Retail trade and services also had high turnover rates, which may be attributed to the preponderance of small firms and to the relative large numbers of easy-entry, low-skill jobs in these industries.⁸ The transportation and public utilities sector consistently showed the lowest new-hire rates.

The South, the Southwest, the Mountain States, and the Northwest (regions IV, VI, VIII and X) had the highest new-hire rates in the second quarter of 1974. The Midwest and New England (regions V and I), hardest hit by the Arab oil embargo and recession, had

Table 1. New-hire rates in selected industries by regions, second quarter 1974

[Rates per 100 employees]

| Region ¹ | Total nonagricultural | Mining | Construction | Manufacturing | Transportation, public utilities | Wholesale trade | Retail trade | Finance | Services |
|-----------------------|--------------------------|------------------|--------------|---------------|-------------------------------------|--------------------|-----------------|---------|----------|
| TOTAL | 25.0 | 22.8 | 50.5 | 16.2 | 15.3 | 18.8 | 33.8 | 18.5 | 27.7 |
| Region I | 20.4 | (²) | 36.4 | 14.9 | 10.5 | 15.2 | 29.8 | 12.8 | 23.5 |
| Region II | 22.4 | (²) | 42.5 | 14.5 | 12.4 | 15.3 | 28.3 | 22.5 | 24.4 |
| Region III | 21.3 | 13.1 | 44.8 | 13.1 | 14.5 | 16.6 | 28.9 | 18.9 | 22.7 |
| Region IV | 28.7 | 24.4 | 55.2 | 19.3 | 15.2 | 21.9 | 38.1 | 20.1 | 31.5 |
| Region V | 20.6 | 14.6 | 45.0 | 12.8 | 12.2 | 16.2 | 31.5 | 15.3 | 25.0 |
| Region VI | 33.5 | 30.8 | 64.5 | 23.7 | 23.6 | 25.5 | 39.6 | 20.7 | 34.3 |
| Region VII | 25.7 | (²) | 52.7 | 17.6 | 16.6 | 20.1 | 34.0 | 16.1 | 27.5 |
| Region VIII | 34.1 | (²) | 63.0 | 24.0 | 18.3 | 25.2 | 39.4 | 21.7 | 35.7 |
| Region IX | 27.7 | 18.3 | 47.2 | 19.9 | 15.1 | 20.5 | 36.8 | 17.7 | 32.3 |
| Region X | 30.4 | (²) | 63.0 | 21.7 | 20.7 | 18.1 | 40.6 | 18.5 | 32.6 |

¹ The regions are: Region I—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Region II—New Jersey, New York; Region III—Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia; Region IV—Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee; Region V—Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin; Region VI—Arkansas, Louisiana, New Mexico, Oklahoma, Texas; Region VII—Iowa, Kansas, Missouri, Nebraska; Region VIII—Colorado, Montana,

North Dakota, South Dakota, Utah, Wyoming; Region IX—Arizona, California, Hawaii, Nevada; Region X—Alaska, Idaho, Oregon, Washington.

² Employment represented less than 50,000.

SOURCE: Institute of Labor and Industrial Relations, University of Michigan, from 1-percent social security tabulation.

the lowest rates. The rapid growth of the population in the "sun belt" States (which include region VIII and IX) may also have contributed to the differences between their new-hire rates and those of the Midwest and East. Even manufacturing's new-hire rates were higher in the Western States because of the lighter nature of their industry and the development of Western energy reserves, which led to an expansion of the industry and, hence, more new hires.

Table 2 presents analogous first-quarter 1974 separation rates. Manufacturing rates were again below those for the entire nonagricultural private sector, but by a small margin. Construction, retail trade, and services continued to have the highest rates; transportation and public utilities, the lowest. Regional differences were less pronounced than for new hires. The South, Southwest and West (regions IV, VI and IX) had higher rates than the Midwest and New England (regions V and I).

Tables 3 and 4 present the industries with the highest

and lowest new-hire and separation rates nationally. Many of the industries with very high new-hire rates also have high separation rates. The same pattern is repeated among industries with particularly low new-hire rates. Electric, gas, and sanitary services, for example, had the lowest separation rate. The low turnover industries tend to be in the manufacturing, transportation, and public utility sectors, while the high turnover industries are in services, retail trade, and construction.

Standard errors low

The reliability of these results can be assessed in two ways, sampling errors and nonsampling errors. Sampling errors are illustrated by computation of standard errors. Nonsampling errors are assessed by comparison of the results with other data.

The standard errors of the data in tables 1 and 2 are quite small. Among the regional totals, region VIII has the highest standard error, 0.39, which gives a coeffi-

Table 2. Separation rates in selected industries, by regions, first quarter 1974

[Rates per 100 employees]

| Region ¹ | Total nonagricultural | Mining | Construction | Manufacturing | Transportation, public utilities | Wholesale trade | Retail trade | Finance | Services |
|-----------------------|--------------------------|------------------|--------------|---------------|-------------------------------------|--------------------|-----------------|---------|----------|
| TOTAL | 22.8 | 18.1 | 42.4 | 16.2 | 15.3 | 18.1 | 31.3 | 16.2 | 25.4 |
| Region I | 18.8 | (²) | 29.7 | 14.5 | 11.9 | 15.0 | 27.5 | 12.4 | 21.0 |
| Region II | 21.1 | (²) | 35.1 | 16.5 | 15.3 | 18.2 | 28.3 | 16.6 | 23.2 |
| Region III | 18.6 | 9.5 | 33.7 | 12.5 | 14.3 | 15.6 | 26.2 | 13.1 | 20.8 |
| Region IV | 27.3 | 18.2 | 53.2 | 20.0 | 16.4 | 22.9 | 36.0 | 19.7 | 28.7 |
| Region V | 18.9 | 9.7 | 33.4 | 13.4 | 12.2 | 14.8 | 28.4 | 14.3 | 22.8 |
| Region VI | 29.6 | 26.4 | 56.4 | 21.8 | 20.5 | 22.5 | 37.6 | 18.2 | 29.6 |
| Region VII | 21.3 | (²) | 32.6 | 16.0 | 15.5 | 15.1 | 28.8 | 15.2 | 23.8 |
| Region VIII | 26.1 | (²) | 37.7 | 18.8 | 14.5 | 20.4 | 32.8 | 19.8 | 26.5 |
| Region IX | 27.0 | 13.2 | 48.3 | 18.7 | 13.6 | 19.5 | 35.9 | 17.5 | 32.6 |
| Region X | 22.4 | (²) | 37.7 | 16.4 | 15.8 | 15.3 | 30.7 | 16.1 | 25.0 |

¹ The regions are: Region I—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Region II—New Jersey, New York; Region III—Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia; Region IV—Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee; Region V—Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin; Region VI—Arkansas, Louisiana, New Mexico, Oklahoma, Texas; Region VII—Iowa, Kansas, Missouri, Nebraska; Region VIII—Colorado, Montana,

North Dakota, South Dakota, Utah, Wyoming; Region IX—Arizona, California, Hawaii, Nevada; Region X—Alaska, Idaho, Oregon, Washington.

² Employment represented less than 50,000.

SOURCE: Institute of Labor and Industrial Relations, University of Michigan, from 1-percent social security tabulation.

cient of variation (standard error adjusted for a rate per 100 employees divided by the turnover rate) of 1.1 percent. No major division in any region has a standard error greater than 5.0 and most are below 1.0. The largest coefficients of variation are in mining (the only regional cells with employment below 100,000), with only region V mining having a coefficient greater than 10 percent. (The standard errors for the State totals are also relatively low.)

The standard errors for the data in tables 3 and 4 are again generally low. For eating and drinking places, the standard error is 0.3, so one can be 95 percent certain the actual new-hire rate falls between 58.0 and 59.2. The coefficient of variation is 0.5 percent.

Three comparisons are made to assess nonsampling errors: BLS turnover data, wage records data from specific States, and job tenure data from the Current Population Survey. Because the BLS turnover data is the most widely used, a comparison of BLS and social security new-hire rates helped in the analysis of the new series. This study's new-hire rates for manufacturing are approximately 40 percent higher than BLS' published estimates for the second quarter of 1974. A number of factors contribute to this differential.

The first factor is the difference in the denominators of the turnover rates. This study's employment measure, a beginning-of-quarter count of social security wage items minus accessions, is a stock. The BLS survey denominator, payroll period employment, is a stock plus partial flow. Thus, the nature of this study's denominator leads to a small overstatement of rates relative to those of the BLS survey.

The second source of difference is the tendency of this new methodology to register errors in input, such as keypunch errors, transposition or reporting errors, and recording of employers switching firm identification numbers as new hires.

The greatest source of the variance between the two series is the nature of the BLS survey sample. A voluntary sample directed at large establishments, it fails to provide an adequate reflection of small firms, whose turnover rates are considerably higher. BLS estimates that its sample contains only 1.8 percent of total employment in firms of nine employees or fewer, 7.5 percent of total employment in firms with fewer than 19 employees, but 72.5 percent of the total employment of firms with more than 1,000 employees.

Firm size is important as a determinant of the turnover rate. For example, for all firms in manufacturing, the social security new-hire rate was 5.4 percent a month (or 16.2 percent a quarter) in the second quarter of 1974. The rate for firms with more than 500 employees was 3.7 percent; for firms with more than 1,000 employees, 2.9 percent. Therefore, the BLS turnover rate of 3.8 percent appears to best reflect the employment

changes of firms with more than 500 employees.

Because there is less variability in separation rates by size of firm, the social security and BLS separation rates for 1974 were much closer together, 5.4 percent and 4.4 percent, respectively. Thus, the structure of the BLS sample results in less downward bias in its separation data.

Estimates of new-hire rates were made from unemployment insurance wage records for three States in the second quarter of 1974. Following are these rates, along with those estimated from social security records:

| | <i>Unemployment insurance</i> | <i>Social security</i> |
|------------------------|-----------------------------------|------------------------|
| California | 31.0 | 27.6 |
| Idaho | 38.5 | 33.3 |
| Pennsylvania | 20.8 | 17.4 |

The rates estimated from unemployment insurance are slightly higher because they are based on four quarters of data rather than five. (In California, there were only 1 percent more new hires recorded when four quarters of data were used.⁹) The major reason for differences can be attributed to coverage: the social security administrative records include only persons earning

Table 3. New-hire rates in selected industries with high and low turnover rates, second quarter 1974

| Industry | New-hire rate (per 100 employees) | Employment (in thousands) |
|---|--------------------------------------|------------------------------|
| Low turnover | | |
| Communication | 6.2 | 1,171 |
| Electric, gas, and sanitary services | 7.0 | 725 |
| Transportation by air | 8.0 | 313 |
| Transportation equipment | 10.0 | 1,883 |
| Banking | 10.0 | 1,176 |
| Security and commodity brokers | 10.2 | 151 |
| Insurance | 10.6 | 1,060 |
| Primary metal industries | 10.7 | 1,270 |
| Chemicals and allied products | 10.8 | 1,022 |
| Petroleum refining and related industries | 12.3 | 171 |
| Educational services | 12.3 | 877 |
| Paper and allied products | 12.6 | 639 |
| Electrical machinery and equipment | 13.1 | 1,873 |
| Private households | 13.4 | 593 |
| Measuring instruments | 13.5 | 525 |
| Insurance agents, brokers, and service | 13.7 | 297 |
| Bituminous and coal and lignite mining | 14.5 | 163 |
| Credit agencies other than banks | 14.5 | 401 |
| Machinery, except electrical | 14.8 | 2,156 |
| High turnover | | |
| Oil and gas extraction | 33.0 | 241 |
| Automotive dealers and service stations | 33.2 | 1,477 |
| Automotive repair, services, and garages | 34.0 | 346 |
| Water transportation | 35.4 | 232 |
| Real estate | 37.8 | 743 |
| Construction—special trade contractors | 45.3 | 1,956 |
| Business services | 45.6 | 1,864 |
| Motion pictures | 45.8 | 184 |
| Construction, not building construction | 55.7 | 764 |
| Hotels and other lodging places | 55.9 | 726 |
| Amusement and recreation services | 56.5 | 488 |
| Building construction—general contractors | 57.1 | 996 |
| Eating and drinking places | 58.6 | 2,538 |

NOTE: Data are for industries with employment greater than 100,000.

SOURCE: Institute of Labor and Industrial Relations, University of Michigan, from 1 percent social security tabulation.

Table 4. Separation rates in selected industries with high and low turnover rates, first quarter 1974

| Industry | Separation rate (per 100 employees) | Employment (in thousands) |
|---|--|------------------------------|
| Low turnover | | |
| Electric, gas, and sanitary services | 5.1 | 725 |
| Communication | 6.1 | 1,171 |
| Transportation by air | 7.8 | 313 |
| Petroleum refining and related industries | 7.9 | 171 |
| Bituminous coal and lignite mining | 8.7 | 163 |
| Banking | 9.0 | 1,176 |
| Primary metals industry | 9.8 | 1,270 |
| Insurance | 10.3 | 1,060 |
| Chemicals and allied products | 11.1 | 1,022 |
| Paper and allied products | 11.3 | 639 |
| Transportation equipment | 11.6 | 1,883 |
| Measuring instruments | 12.1 | 525 |
| Educational services | 12.7 | 877 |
| Machinery except electrical | 13.1 | 2,156 |
| Electrical machinery and equipment | 13.4 | 1,873 |
| Credit agencies other than banks | 14.4 | 401 |
| High turnover | | |
| General merchandise stores | 30.3 | 1,986 |
| Apparel and accessory stores | 30.3 | 786 |
| Real estate | 32.1 | 743 |
| Automotive repairs, services, and garages | 36.0 | 346 |
| Amusement and recreation services | 37.9 | 488 |
| Water transportation | 38.0 | 232 |
| Construction, not building construction | 39.9 | 764 |
| Construction—special trade contractors | 40.1 | 1,956 |
| Hotels and other lodging places | 40.5 | 726 |
| Eating and drinking places | 44.7 | 2,538 |
| Business services | 46.1 | 1,864 |
| Building construction | 48.5 | 996 |
| Motion pictures | 54.8 | 184 |

NOTE: Data are for industries with employment greater than 100,000.

SOURCE: Institute of Labor and Industrial Relations, University of Michigan, from 1 percent social security tabulation.

ance wage records include all wage earners.

These comparisons are for transaction-based turnover systems. Another way to view turnover is to examine the median job tenure of the working population, or a person-based system. For example, in January 1978, the median job tenure was 3.6 years;¹⁰ 28.2 percent of the working population had been at their current job 1 year or less. However, it is possible for an individual to account for many new hires. For example, if a person has several new jobs in a year, that person would be counted once as having his or her current job less than a year, in a person-based system, but each new job would be counted as a new hire in a transaction-based system.

Both systems can be useful in analyzing turnover. The transaction-based system measures the number of jobs that are new hires, while the person-based system measures an individual's time on a given job as well as the number of persons hired in a period.

THESE NEW MEASURES of labor turnover show more hiring activity than do BLS' manufacturing estimates. They also indicate that there is dramatic variation in new-hire rates across industries. Industries such as communications and public utilities have new-hire rates of less than 8 percent per quarter, while industries such as building construction and eating and drinking places have rates exceeding 57 percent per quarter. As more data are obtained from wage records and time series estimates can be made, additional analysis of labor turnover patterns will be possible. □

at least \$50 in a given quarter; the unemployment insur-

FOOTNOTES

¹ This methodology has been developed under the auspices of the Employment Service Potential project of the United States Employment Service and cooperating State Employment Security Agencies.

² Beginning in 1978, employers have submitted annual reports.

³ The BLS survey can register in-State, interestablishment transfers for multi-establishment firms, rehire and layoff of workers whose layoffs are of very short duration (less than one quarter), and the involuntary and voluntary components of separations—all turnover transactions which these new measures cannot distinguish.

⁴ For a complete listing of the measures which may be generated with this new methodology, see Malcolm S. Cohen, *ESP: A New Source of Labor Market Information* (Ann Arbor, Institute of Labor and Industrial Relations, University of Michigan, Wayne State University, 1978); and Glenn Siebert, *Employment Service Potential: Indicators of Labor Market Activity* (Sacramento, Calif., Employment Development Department, 1977).

⁵ The California Employment Development tests of its data indicated that the percentage of accessions classified as recalls increases only

marginally if seven quarters are used to define a recall rather than four. See Siebert, *Employment Service*, pp. 48–49.

⁶ See Cohen, *ESP*, p. 20, and Philip Hardiman and Marged Sugarman, *Employment Service Potential: The Dimensions of Labor Turnover* (Sacramento, Calif., Employment Development Department, 1979), p. 5.

⁷ Agriculture is omitted because of problems in social security coverage of this sector.

⁸ Firm size, along with industry and time period, has been suggested as a determinant of labor turnover. California's Employment Development tests demonstrated an inverse correlation between firm size and turnover rates, with small firms having higher rates than larger firms when industry is held constant. See Siebert, *Employment Service*, pp. 56–57.

⁹ Siebert, *Employment Service*, pp. 48–49.

¹⁰ "Average Job Tenure Declines," U.S. Bureau of Labor Statistics, *News*, Apr. 23, 1979.

The retirement decision: a question of opportunity?

Age discrimination laws now protect workers through age 70, but most choose to retire sooner; lack of acceptable job options keeps many out of the labor force who desire work

PHILIP L. RONES

The "graying of America" could have a more profound impact on our lives than any demographic phenomenon since the end of the great waves of immigration. Its influence will be felt in areas as diverse as politics and consumerism, health care and education, family structure and taxation. Researchers, policymakers, and planners interested in these and other fields have begun to study the potential impact of the aging population, to avoid a 21st century crisis when the "baby boom" generation reaches retirement age. The controversies concerning two key subjects, the future solvency of social security and pension funds, and the recent changes in Federal laws affecting mandatory retirement, have pushed labor force issues on aging into the forefront of debate.

Retirement trends are not easily identified as either positive or negative. Among some observers there is concern that older people in the job market frustrate career aspirations of younger workers or are too costly for employers. At the same time, however, there is concern about the long-term effects of too few older workers—that the number of retirees will drain the economy and place unfair burdens on the young. Because of the critical importance of the decision to retire, many organizations, both private and public, have begun to monitor closely the labor force characteristics of persons near, at, or beyond normal retirement age.

Three issues

This report attempts to clarify several retirement developments, focusing on three issues:

- The extent to which labor force participation rates, such as those available from the Current Population Survey (CPS), can be used to assess the impact of changes affecting the decision to retire;
- The anticipated impact on employment among the elderly, of the 1978 Amendments to the Age Discrimination in Employment Act (ADEA), which raised the allowable age for mandatory retirement, in most cases, from 65 to 70;
- The potential labor supply among current retirees, or to what extent does this group want to work?

From 1950 through the mid-1970's, labor force activity among older persons in the United States declined markedly. (See table 1.) Two recent events have led many observers to anticipate a reversal of this long-term trend: the passage of the 1978 ADEA Amendments, prohibiting forced retirement prior to age 70,¹ and the unusually high rate of inflation with its negative effect on the anticipated value of retirement income.

However, it is difficult to isolate the impact of these or other factors, because changes in labor force participation rates are the end result of complex interaction by various forces. Sometimes a single force dominates, leading to a clear trend. For example, the rapid growth of retirement income from private and public pensions and from disability benefits contributed to dramatic de-

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clines in the labor force activity of older men (age 65 and older) during the past 30 years.

For older women, during the same period, labor force participation rates moved little, remaining at about the same levels in the late 1970's as 30 years earlier. But it would be inaccurate to conclude that there were no powerful influences on the retirement decision of older women during this period. Rather, two strong forces were opposing each other: on one side, improving retirement income, by itself, would have lowered participation rates of older women; on the other, the rapid rise in participation among women in general, the dominant labor force trend since World War II, served to counter this income effect.

The labor force participation rate for older men has not changed markedly during 1976-79. Again, the lack of a clear trend belies the complexity of the forces influencing the retirement decision. Social security benefits have, by law, been tied to the Consumer Price Index and private pension coverage has provided income supplements to a growing number of retirees.² This, of course, allows more workers to retire. However, countering these income improvements have been the recent high rates of inflation and threats of recession (and, subsequently, its realization) which, undoubtedly led some older workers to postpone retirement. Although this description is an oversimplification, it does demonstrate that the impact of a single factor on the retirement decision can easily be hidden by countering factors.

ADEA—limited impact

Despite the intense debate for and against its passage, it is likely that the 1978 Amendments to the Age Discrimination in Employment Act will have little short-term impact on the retirement decision. This is because, even prior to its enactment, proportionately few workers were actually forced out of their jobs by mandatory retirement provisions. Many people retire before reaching mandatory retirement age, which typically has been age 65. The youngest retirees, those who leave the labor force before age 62, frequently do so for health reasons.³ After age 62, the earliest age of social security retirement eligibility, the decision becomes more economic; the marked improvements in public and private retirement eligibility and benefits has permitted many workers to retire prior to age 65.

Even among persons who leave the work force at age 65, mandatory retirement is not always evidence of forced retirement. Because of the strong correlation between mandatory retirement provisions and private pension coverage, most employees reaching age 65 under mandatory retirement policies can draw full pensions and full social security as well. Thus, many workers would have retired willingly at age 65, regardless of

Table 1. Labor force participation rates of older workers by sex, annual averages, selected years, 1950-79

| Years | Men | | Women | |
|------------|----------------|-------------------|----------------|-------------------|
| | 60 to 64 years | 65 years and over | 60 to 64 years | 65 years and over |
| 1950 | ... | 45.8 | ... | 9.7 |
| 1955 | 82.5 | 39.6 | 29.0 | 10.6 |
| 1960 | 81.1 | 33.1 | 31.4 | 10.8 |
| 1965 | 78.0 | 27.9 | 34.0 | 10.0 |
| 1970 | 75.0 | 26.8 | 36.1 | 9.7 |
| 1975 | 65.7 | 21.7 | 33.3 | 8.3 |
| 1976 | 63.7 | 20.3 | 33.1 | 8.2 |
| 1977 | 62.9 | 20.1 | 32.9 | 8.1 |
| 1978 | 62.0 | 20.5 | 33.1 | 8.4 |
| 1979 | 61.8 | 20.0 | 33.9 | 8.3 |

company requirements.

Studies using several data sources indicate that prior to the ADEA Amendments, only 5 to 10 percent of retired workers were forced to retire.⁴ The sources are the 1968 and 1969 Survey of Newly Entitled Beneficiaries (SNEB, from the Social Security Administration), The Retirement History Study, the National Longitudinal Survey, and the 1974 Louis Harris Survey (conducted for the National Council on the Aging). One technique they used was to reduce the population age 65 and over, step-by-step. For example, using percentages of the total for men from the 1968 SNEB: start with those covered by mandatory retirement provisions, 54 percent; reduce to those who actually worked until mandatory retirement age, leaving 24 percent; reduce that to those who were unwilling to retire, leaving 14 percent; and reduce that to those who were able to work, leaving 10 percent; finally, reduce to those who did not find other jobs, leaving 7 percent.⁵ The final figure is that of workers who were actually forced out of the labor force by mandatory retirement. This and similar estimates from the other surveys may overstate the recent effects of mandatory retirement; participation rates declined significantly since the time of the surveys. Thus, the true impact of the ADEA amendments would probably be felt by even fewer workers.

For some employees, the impact of the ADEA could actually be earlier labor force withdrawal. If a business thinks its interests are served by early retirement of its employees, how does it react to the law? One option would be to stiffen productivity requirements, leading to more firings. Before, if an employee's productivity had fallen at age 60, for example, because of declining physical skills or outdated job-related skills, the employer would only be faced with a few years of additional employment. The business might have been willing to retain the employee, and make adjustments to accommodate him. However, faced with a much longer period of potential employment, the firm might find the option of terminating the employee more attractive. Thus, ADEA might actually shorten the job tenure of some workers

whose value to employers might be declining. Another option, one that might be used more frequently, would be to improve the economic incentives of retirement to induce voluntary labor force withdrawal. This process might include retirement bonuses or early retirement options, for example. It is possible that the ADEA amendments will expand the practice among some employers of inducing voluntary retirement with generous retirement packages.

In summary, the recent legislation, in the absence of other mitigating factors, would be expected to affect the retirement behavior of only a small proportion of older workers and retirees. However, with a continuation of high rates of inflation, the ADEA protection may be used increasingly by employees who are faced with deteriorating retirement income prospects.

Desire to work

Among the most baffling issues related to retirement is that of the potential labor supply among the elderly who are outside the labor force. To what extent do people who are beyond "normal" retirement age want to work? There are two radically divergent views:

First view. The decision to retire, at least for those in good health, is largely economic—a person who can afford to retire generally will. In this argument, for the current generation of retirees, work is seen primarily as bad rather than good. Justification for this assumption comes from an analysis of the education and work histories of present retirees. Workers age 65 and over who are out of the labor force have a median educational attainment of only 9 years, and only 15 percent have attended college.⁶ As would be the case for any group with low levels of education, they have tended to work in jobs with comparatively little satisfaction and hence, little non-financial hold on them.⁷ As the baby boom generation, which is better educated and in better jobs, reaches retirement age, individuals may be more likely to postpone retirement than today's older workers to whom continued employment at the same job, beyond the age of full pension, probably has little allure.

Evidence of this preference for retirement is available from the CPS.⁸ Persons classified as not in the labor force (neither working nor seeking work) were asked whether they now want regular jobs either part or full time. If there were many involuntary retirees, a large "yes" response would be anticipated. However, only about 1 in 35 men (and an even smaller proportion of women) age 60 and over said they want work, only a third of whom cited job market factors as the reason for not seeking it.⁹

Second view. Many older retired persons want employment but are prevented from working by forced retire-

ment, age discrimination, or inhibiting job structure (few part-time, part-year, or job modification opportunities). Those who want to work do so not only for economic reasons, but also for feelings of usefulness and satisfaction.

Supporters of this view cite several data sources, the most impressive being a 1979 survey conducted by Louis Harris and Associates for the consulting firm of Johnson and Higgins.¹⁰ Nearly half of the retirees questioned said they would prefer to be working, and more than half would have preferred to keep working rather than retire.

Another possibility. A middle-ground explanation may evolve from these two vastly divergent views. Why do the 1979 Harris Survey results show that so many of the retired want to work? The best explanation may come from a question that was not asked. In the 1974 Louis Harris Survey, conducted for the National Council on Aging,¹¹ retirees age 65 and over were asked whether they would like to work; 31 percent said they would. But they were also asked "What's keeping you from working?" The responses showed that only 15 percent of the 31 percent, fewer than 5 percent of the retirees, cited the job market as their reason for not working. Most cited poor health, old age, or other interests. Thus, a far greater proportion of retirees indicated they wanted to work than could actually be considered able or available.

The 1979 Harris Survey did not ask the same "reason for not working" question. The nearly 20 percent difference in response to the "want to work" question between 1974 and 1979 has at least three possible explanations. First, the group of retirees was far younger in the later survey, having a median age of only 62 years. Although no median age is provided in the documentation to the 1974 study, the group of retirees was restricted to persons age 65 and older. One might expect the younger group, with a more recent labor force attachment, to be more likely to consider favorably the employment option. This may be particularly so if many of those in poor health indicated they want employment, as was clearly the case in the 1974 survey. The second explanation is that if the 1974 sample and survey were replicated exactly in 1979, inflation would probably have caused a higher degree of job interest in 1979. And third, as evidenced by the enactment of the ADEA and the 1975 Age Discrimination Act. The rights of older persons to equal access to jobs and to equal treatment in all Federal programs and activities, have been confirmed. Today's older workers may be less willing to "step aside" to provide younger persons a place in the labor force than were their predecessors.

Undoubtedly many more than 1 in 30 or 40 retirees (from the CPS results) would want to work under bet-

ter job market conditions. Some people responding to the CPS that they do not want a job now may mean they are not interested in the types of jobs that are available to them. In the Harris survey, on the other hand, the "want a job" questions were asked in the context of a list of hypothetical work options probably not available to most respondents. When older workers no longer wish, or are unable to work full time, few options short of total retirement are available. Part-time "phased retirement" is rarely offered, and those jobs that are open to retirees tend to be of the low-skill, low-pay variety. As Harold Sheppard and Sarah Rix point out,¹² older people may choose retirement not because they literally want to retire completely, but because they do not wish to remain in the same dissatisfying jobs. The difficulties that they have in obtaining more satisfying kinds of employment may mean that total retirement is their best option.

It may be true that few workers have actually been

forced to retire, particularly by mandatory retirement policies. However, institutional forces, including age discrimination and a lack of job opportunities which match the needs of the elderly, have probably contributed to the exit from the job market of many who otherwise would wish to remain. The many methods used to obtain labor market data from older people tend not to reveal the true causes of nonparticipation.

The U.S. Department of Labor, mandated by Congress to report the effects of the 1978 ADEA Amendments, has contracted to obtain additional longitudinal data from the Retirement History Study on the effects of mandatory retirement on older workers. The Department has also contracted a national survey of employees and employers in order to study the response of both groups to changes in the minimum mandatory retirement age. These and other research efforts, should dispel some of the confusion surrounding the retirement decision. □

—FOOTNOTES—

¹ For a detailed description of the 1978 Amendments to the Age Discrimination in Employment Act, see Julia E. Stone, "Age Discrimination in Employment Act: a review of recent changes," *Monthly Labor Review*, March 1980, pp. 32–36.

² The recent high rates of inflation have brought into question the private pension systems' ability to remain a viable and significant source of retirement income. See "Inflation is Wrecking the Private Pension System," *Business Week*, May 12, 1980, pp. 92–99. Even without these high rates of inflation, it is argued that the importance of private pensions has been declining and that this trend will probably continue. See Alicia H. Munnell, "Are Private Pensions Doomed?," *New England Economic Review*, March–April 1978, pp. 5–20.

³ Eric R. Kingson, "Men Who Leave Work Before Age 62: A Study of Advantaged and Disadvantaged Very Early Labor Force Withdrawal" (Brandeis University, Heller School for Advanced Studies in Social Welfare, Ph.D. Dissertation, 1979).

⁴ SNEB data in Virginia Reno, "Incidence of Compulsory Retirement Policies," *Reaching Retirement Age* (Social Security Administration, 1976) and James H. Schultz, "The economics of mandatory retirement," *Industrial Gerontology* (now *Aging and Work*), Winter 1974. For analysis of the Retirement History Study see Robert L. Clark, David L. Barker, R. Steven Cantrell, *Outlawing Age Discrimination: Economic and Institutional Responses to the Elimination of Mandatory Retirement* (unpublished report for Administration on Aging, contract #90-A-1738, 1979). The 1974 Harris Survey results are published in Louis Harris and Associates, *The Myth and Reality of Aging in America* (National Council on the Aging, Inc., Washington, D.C., July 1976). NLS results are in *The Pre-Retirement Years: A Longitudinal Study of the Labor Market Experience of Men* (U.S. De-

partment of Labor, Manpower Administration, Manpower Research Monograph no. 15) pp. 153–94.

⁵ James H. Schultz, "The economics of mandatory retirement," *Industrial Gerontology* (now *Aging and Work*), Winter 1974. While the labor force effect of mandatory retirement has been small, economic dislocations primarily due to decreased hours and wages, are also experienced by those who are forced out of their jobs and subsequently find other employment (and, thus avoided "not in labor force" status). This group represented about 3 percent of the sample in the survey results shown.

⁶ Scott Campbell Brown, *Educational attainment of workers—some trends from 1973 to 1978*, Special Labor Force Report 225, (Bureau of Labor Statistics).

⁷ For a discussion of job satisfaction and its relation to retirement preference see Harold L. Sheppard and Neal Q. Herrick, *Where Have All the Robots Gone? Worker Dissatisfaction in the 70's* (New York, Free Press, 1972).

⁸ Philip L. Rones, "Older men—the choice between work and retirement," *Monthly Labor Review*, November 1978, pp. 3–10.

⁹ *Employment and Earnings*, (Bureau of Labor Statistics, January 1980) p. 188. Data are 1979 annual averages.

¹⁰ Louis Harris and Associates, *1979 Study of American Attitudes Toward Pensions and Retirement* (Johnson and Higgins, New York) Summary Report, p. IX.

¹¹ Louis Harris and Associates, *The Myth and Reality of Aging in America* (National Council on the Aging, Inc., Washington, D.C., July 1976).

¹² Harold Sheppard and Sarah Rix, "The Graying of Working America," (The Free Press, New York, 1977) p. 6.

Productivity gains in the drugstore industry, 1958–79

Spurred by the expansion of chains and large independents benefiting from economies of scale, the rate of growth in output per hour exceeded that of the private sector until 1973, but has lagged during the last 7 years

BRIAN L. FRIEDMAN

Output per hour of all persons in the drug and proprietary store industry¹ increased at an average annual rate of 4.6 percent from 1958 through 1979,² as compared with an average of 2.0 percent for the nonfarm business sector of the economy during the same period. This gain in productivity over the 22-year period reflects an average annual increase of 4.7 percent in output with virtually no average change in hours of all persons in the industry. For the most recent 7-year period, 1973–79, productivity increased at a slower annual rate—averaging 1.0 percent. (See table 1.)

The strong growth in output per hour of all persons has been influenced by a trend toward fewer and larger stores. Large chainstore organizations³ and groups of stores known as cooperatives and voluntaries⁴ have grown to dominate industry sales, while the number of unaffiliated, independently owned, smaller drugstores have declined significantly. Chains have increased the number of stores in high-volume shopping centers and have expanded the number and type of products of-

fered. In contrast to independents, chains, cooperatives, and voluntaries could more easily take advantage of technological advances and use better management and marketing techniques.

In 1958, there were 56,232 drug and proprietary stores with employment of more than 405,000 persons. In 1979, this number fell to an estimated 46,000 stores employing more than 524,000 persons; sales in terms of constant dollars increased more than 140 percent from 1958–79. As the population grew, the average number of people served per store rose from 3,097 in 1958 to 4,785 in 1979.

Productivity rises

Output per hour of all persons engaged in the operation of drugstores grew more than 125 percent during 1958–79. While sales per store increased dramatically, employee-hours per store grew at a much lower rate, leading to the large productivity gains.

Although the average number of paid employees per store rose from 6.2 in 1958 to 10.7 in 1979, an increase of 73 percent, employee-hours per store rose only 44 percent because of increased use of part-time workers. These increases in employees and hours per store, how-

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ever, are far outweighed by the rise in real sales per store, which nearly doubled.

Productivity growth can be divided into three distinct subperiods, 1958-65, 1965-73, and 1973-79. In the first period, productivity grew at a rate of 3.8 percent per year. This period coincides with the growth in the number of large, more efficient drugstores, as well as a decline in the number of small, marginal stores. Output grew 4.6 percent per year from 1958-65. Hours of all persons, however, only increased at the rate of 0.9 percent annually during the same period, resulting in moderate productivity gains.

Productivity increased more sharply in the second period, 1965-73, gaining at an average annual rate of 6.2 percent per year. The growth in number of large stores and decline of small, marginal stores accelerated during this time. This period was also marked by the widespread use of technological innovations which aid operations in pharmacy departments, streamline inventory procedures, and increase efficiency in warehousing operations. Output grew at a rate of 5.5 percent per year, while hours of all persons declined at a rate of 0.6 percent, resulting in large productivity gains.

... then slows

In the third period, 1973-79, productivity slowed to an average annual rate of only 1.0 percent mostly because of a general slackening in the economy, which was marked by a decline in the growth of spending (in

terms of real dollars) in many retail industries. During this period, output growth slowed to a rate of 1.4 percent per year. In the recession year of 1975, both output and productivity declined. Output fell 0.1 percent, while hours of all persons had a relatively large increase of 3.1 percent, resulting in a 1975 productivity drop of 3.1 percent. The industry had productivity increases in 1976 and 1977, but productivity declined 2.7 percent in 1978. A increase of 0.8 percent was registered in 1979.

Developments in the prescription department may have added to the negative pressures on output and productivity during 1973-79. Restrictions on refills for controlled substances such as prescription pain relievers and tranquilizers became more stringent. Third-party payments for prescriptions grew strongly during this period; and medicaid and many private insurance plans required that long-term prescriptions be filled in larger orders. These influences led to a decline in the number of refill prescriptions.⁵ The paperwork involved in third-party payments and recordkeeping for controlled substances also added to unit labor requirements in the prescription department.

Drugstore industry output was further slowed in the 1973-79 period by increased competition from other retail industries. Food stores and variety merchandise stores increased the number of prescription drug, over-the-counter-drug, and health and beauty aid departments in their stores, which took sales away from the drugstore industry.⁶

During 1973-79, the number of drugstores declined slightly. However, chains continued to build new, larger stores, while many small chainstores and small independents went out of business. These new stores accounted for above average growth in hours of all persons during this period which, coupled with a sluggish output growth, brought productivity levels down. Hours of all persons increased 2.6 percent in 1978 and 1.1 percent in 1979, reaching its highest level since 1967.

Employment increases moderately

The industry's employment grew at an average annual rate of 1.2 percent during 1958-79. All-person-hours increased at an average annual rate of 0.9 percent during 1958-66, but actually declined slightly during 1966-79. This occurred because of a generally shorter workweek, which stemmed from the use of more part-time workers. Overall, all-person-hours showed no growth in 1958-79. There was a sharp drop in the average weekly hours of nonsupervisory workers, declining from 37.7 in 1958 to 30.9 in 1979.

Nonsupervisory workers make up more than 80 percent of all persons working in the industry. They include cashiers, floor assistants, fountain workers, and stock workers. There has been a substantial increase in the number of part-time workers, usually unskilled

Table 1. Productivity and related indexes for the drugstore industry, 1958-79

[1967=100]

| Year | Output per hour of all persons | Output per person | Output | Hours of all persons | All persons |
|---|--------------------------------|-------------------|--------|----------------------|-------------|
| 1958 | 68.0 | 73.7 | 63.1 | 92.8 | 85.6 |
| 1959 | 70.8 | 76.9 | 67.5 | 95.4 | 87.8 |
| 1960 | 73.1 | 78.7 | 71.1 | 97.2 | 90.3 |
| 1961 | 75.7 | 81.3 | 73.3 | 96.8 | 90.2 |
| 1962 | 77.3 | 84.7 | 77.5 | 100.2 | 91.5 |
| 1963 | 81.0 | 87.3 | 79.9 | 98.7 | 91.5 |
| 1964 | 84.0 | 89.0 | 83.0 | 98.8 | 93.3 |
| 1965 | 89.3 | 92.9 | 88.6 | 99.2 | 95.4 |
| 1966 | 93.0 | 95.3 | 94.2 | 101.3 | 98.8 |
| 1967 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1968 | 110.2 | 106.3 | 107.7 | 97.7 | 101.3 |
| 1969 | 114.4 | 108.8 | 112.1 | 98.0 | 103.0 |
| 1970 | 124.4 | 116.5 | 120.3 | 96.7 | 103.3 |
| 1971 | 126.9 | 119.1 | 121.8 | 96.0 | 102.3 |
| 1972 | 131.7 | 122.6 | 127.6 | 96.9 | 104.1 |
| 1973 | 146.2 | 133.2 | 139.5 | 95.4 | 104.7 |
| 1974 | 149.4 | 136.7 | 143.9 | 96.3 | 105.3 |
| 1975 | 144.8 | 136.3 | 143.8 | 99.3 | 105.5 |
| 1976 | 150.6 | 138.4 | 147.7 | 98.1 | 106.7 |
| 1977 | 156.7 | 139.0 | 150.1 | 95.8 | 108.0 |
| 1978 | 152.4 | 136.8 | 149.8 | 98.3 | 109.5 |
| 1979 | 153.6 | 137.9 | 152.7 | 99.4 | 110.7 |
| Average annual rates of change (in percent) | | | | | |
| 1958-79 .. | 4.6 | 3.4 | 4.7 | 0.0 | 1.2 |
| 1973-79 .. | 1.0 | 0.4 | 1.4 | 0.5 | 1.0 |

workers of school age—who work during the evenings and weekends.

Proprietors and partners accounted for 4.9 percent of all persons working in drugstores in 1979. Their proportion of employment declined from more than 13 percent in 1958 because the majority of stores going out of business were privately owned, smaller stores. Most self-employed workers are pharmacists who average more than 50 hours of work per week in fulfilling both their professional and business duties.

As corporate stores grew in importance, managers accounted for a higher percentage of employment. Some proprietors and partners also hired managers, especially those owning more than one store. The number of supervisory workers almost tripled during 1958–79.

Industry structure changes

The 1958–79 period showed marked change in industry structure. The number of chainstores as a proportion of all drugstores remained fairly constant from 1930 to 1960.⁷ In 1958, independents accounted for 78.5 percent of industry sales, and chainstores accounted for only 21.5 percent. During 1958–66, chains were opening from 700 to 1,000 new stores per year, primarily in shopping centers, and even more opened in the late 1960's and early 1970's.⁸ By 1967, the independents' share of industry sales had declined to 66.9 percent. By 1977, the growing domination of chains was quite clear as they rang up more than 53 percent of all drug and proprietary store sales, while accounting for only 23 percent of all stores.

There is evidence that the increase in the number of larger stores, including large independents, has spurred productivity growth. In 1967, drugstores having sales of more than \$500,000 sold \$32,600 worth of goods and services per paid employee, compared with only \$24,500 for stores doing less than \$500,000.

Small independents frequently cannot compete on price and variety of merchandise because their low sales and small space limit volume discounts. Some independents are able to overcome price problems by joining or forming a wholesale group (voluntary or cooperative) which can obtain volume discounts for its members. Drugstores joining such organizations have access to marketing conditions and technology similar to chains.⁹ In 1973, the unaffiliated independent drugstore had \$175,000 in sales on the average, whereas, an affiliated store had \$250,000. During the early 1970's, cooperatives and voluntaries grew rapidly. In 1972, there were 7,000 drugstores affiliated with this type of organization, nearly 14,000 by 1979.¹⁰

Technology and store operations improve

A number of technological innovations have been introduced into drugstore operations and became

widespread by the late 1960's. Tape recorders, calculators, and code-dating machines are being used to improve store inventory procedures.¹¹ There has also been increased use of electronic price-marking machines and electronic prescription-filling and logging machines.¹² Electronic cash registers now tabulate and keep accurate sales and inventory records.¹³

Computers have played a growing role in nearly all of the industry's operations. Their impact upon productivity has been uncertain since their use became extensive in the late 1970's, a period of slow productivity growth. Computers are used for bookkeeping operations, data processing, and inventory control. In addition, they are being used to forecast seasonal needs in both stores and warehouses.¹⁴ Computers have also been installed in prescription departments to handle the increased paperwork involved in third-party payment plans.¹⁵

Central purchasing and warehousing went hand in hand with the growth of chains, cooperatives, and voluntaries in the industry. Warehouses serving large numbers of retail outlets can afford advanced technological aids. Improved conveyor systems, elevators, mechanized waste disposal, and high capacity incinerators have been installed, and have cut labor requirements in warehousing operations.¹⁶ Labor requirements have also been reduced in warehouse operations by the introduction of computers, used for documentation of warehouse to store transfers and inventory control.¹⁷

Drugstores, especially chains and affiliated stores, emphasize marketing techniques designed to increase shopper traffic. Advertising is one of the more important marketing devices, particularly in newspapers. Displays in the stores are regularly revised and improved to attract more impulse buying. Increased advertising, along with trends toward expanding product mix, have probably increased sales per customer stop.

There has been a trend toward the use of clerical employees in the pharmacy department.¹⁸ This allows pharmacists to concentrate on their professional duties and may lead to output per hour gains. In 1961, the average chainstore filled 40 prescriptions a day, and by 1978, 135.¹⁹

Future trends

In the short run, future changes in drugstore industry productivity are uncertain and depend greatly upon changes in consumer purchasing power. The current productivity slowdown may continue because of the general falloff in economic activity in early 1980. However, in the long run, efforts to increase productivity will continue, with stores belonging to chains, cooperatives, and voluntaries continuing to grow to the detriment of small independent stores. Large independents will also probably continue to grow.²⁰ Efforts will be

made to develop the optimum-size store, in terms of physical volume and product mix for the location.

Chainstores are expanding the types of products offered for sale and are placing more emphasis on productivity.²¹ New product lines, such as in optical centers, are being added. There also appears to be a trend toward adding prescription departments to some proprietary stores.²²

The use of computers and other electronic equipment within the industry is expected to continue to grow.

Such equipment has proven to be highly useful in the pharmacy department and for inventory purposes. Electronic cash registers, which keep inventory records, have already made strong inroads into the industry and will continue to grow in use. However, computerized automatic checkout units, which have recently been introduced in the food store industry, are not expected to be used widely in drugstores in the near future. Drugstores do not have enough inventory turnover to justify the capital costs of this equipment. □

—FOOTNOTES—

¹ The drugstore and proprietary store industry consists of establishments which are included on the basis of their usual trade designation rather than the more strict interpretation of commodities handled or services offered. It is designated industry 5912 in the 1972 Standard Industrial Classification Manual. Proprietary stores are like small drugstores without a prescription department and sometimes are called health and beauty aid stores.

² All average rates of change are based on the linear least squares trends of the logarithms of the index numbers.

³ A chain comprises four retail stores or more and an independent, three stores or fewer. Most chains are owned by corporations and most independents by partnerships or proprietorships.

⁴ Cooperatives are groups of independent retailers combined to gain wholesale buying power similar to chains. Voluntaries are groups of independent retailers organized by a wholesaler, who not only offers bulk-rate buying but also helps organize advertising and promotional needs.

⁵ Based on statistics from *American Druggist*.

⁶ Conversation with Pat Donohue, National Association of Chain Drug Stores.

⁷ Glenn Sonnedecker, Ph.D. *History of Pharmacy*, Rev. ed. (Philadelphia, Pa., J.B. Lippincott Co., 1963), ch. 16.

⁸ "Introduction to Annual Report," *Chain Store Age—Drug Edition*, April 1967, p. 84. "1,125 opened, 890 more remodeled," *Chain Store Age—Drug Edition*, April 1970, p. 116. "Chains rev up growth pace; unveil 2,000 new units," *Chain Store Age—Drug Edition*, April 1978, p. 90.

⁹ "Affiliated Retailers' Ranks Swell," *Chain Store Age—Drug Edition*, May 1977, p. 70.

¹⁰ "Coops/Voluntaries: A Viable Market Factor," *Chain Store Age—Drug Edition*, May 1976, p. 111. "Affiliated Stores Push On," *Drug Store News*, Apr. 28, 1980, p. 47.

¹¹ "Chains Automate Inventory Control," *Chain Store Age—Drug Edition*, April 1965, p. 88.

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¹³ "Inventory Control at the Store Level," *Chain Store Age—Drug Edition*, December 1966, p. 42.

¹⁴ "How Computers Control R_x Department Productivity," *Chain Store Age—Drug Edition*, October 1968, p. 52.

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¹⁷ "A Small Chain Makes Computers Pay," *Chain Store Age—Drug Edition*, November 1965, p. 50.

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²⁰ "Who's the competition," *Chain Store Age—Drug Edition*, May 1978, p. 102.

²¹ "1977: Drug Chains Emerge as Big Business," *Chain Store Age—Drug Edition*, April 1978, p. 82.

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APPENDIX: Measurement techniques and limitations

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

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

Data on the quantities of goods sold usually are not available for trade industries, including drugstores.

Therefore, real output was estimated by removing the effects of changing price levels from the current dollar value of sales. Because an adjustment for changing price levels usually lowers the dollar value, such a series is usually referred to as a deflated value measure. Output measures based on deflated value have two major characteristics. First, shifts in sales can occur among products of different value which have the same unit labor requirements. (For example, if customers begin to purchase more store brands instead of "nationally advertised" brands, dollar sales will decrease if the store brand is priced lower.) Such a phenomenon can occur in times of economic recession, and the reverse may be true in times of economic prosperity. Thus, a change can occur in the output per hour index even if the labor required to sell the merchandise does not change.

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

In addition to the deflated value technique, weights relating to labor importance (that is, employee-hours) were used to combine segments of the output index into a total output measure. These procedures result in a final output index that is closer, conceptually, to the preferred output measure.

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

The indexes of output per hour relate total output to one input—labor time. The indexes do not measure the specific contribution of labor, capital, or any other sin-

gle factor. Rather, they reflect the joint effect of many interrelated influences such as changes in technology, capital investment, capacity utilization, store design and layout, skill and effort of the work force, managerial ability, and labor-management relations.

No explicit adjustments were made to the measure for drugstores to take into account increases or decreases in some services provided to the consumer. With the growth of large stores, there has been a continuation of the trend of self-service operations. This has shifted some of the hours in retailing from employee to consumer. However, data are not available to measure the impact of this change. Adjustments for changes in product quality are made to the extent that changes in quality have been accounted for in the price indexes used to deflate the current dollar value of sales.

The basic sources for the output series for this measure consist of the total sales data and sales by merchandise line data reported by the Department of Commerce. The deflators were developed using various Consumer Price Indexes published by BLS. The employee-hour weights were developed from data reported by BLS and the Department of Commerce.

The basic sources for the all-persons-hour series consist of data on employment and hours published by BLS, supplemented by data reported by the Internal Revenue Service and special tabulations compiled for BLS by the Bureau of the Census.

The profits regulation confers

Such economists as George Stigler have offered a theory to explain why, as a rule, "regulation is acquired by the industry and is designed and operated primarily for its benefit." All firms seek to maximize profits, and profits can be increased if competition is reduced or governmental subsidies are obtained. Though firms will not refuse subsidies if they are offered, subsidies have the disadvantage of increasing profitability without necessarily restricting entry into the industry. The prospect of these benefits will encourage new companies to form, increase competition, and thus reduce each firm's share of subsidies.

Far better are government regulations that restrict entry by requiring a firm or a member of an occupation to be licensed. By creating such political barriers to entry, the per-firm or per-person profits of truck operators, airline companies, dry cleaners, beauticians, doctors, lawyers, broadcasters, and other protected enterprises are increased . . .

—JAMES Q. WILSON, ED.

The Politics of Regulation

(New York, Basic Books, Inc., 1980), p. 358.

Child care and family benefits: policies of six industrialized countries

*Increasing numbers of mothers with very young children
continue to enter the labor force—
resulting in the emergence of a new family lifestyle
in the U.S. and five European countries;
expanded child-care services, cash benefits, and extended leave
are some of the options now available to working parents*

SHEILA B. KAMERMAN

The pattern of segregated roles of men and women in work and family life has changed dramatically over the past two decades throughout the industrialized world as many more women, especially married mothers, have entered the labor market.¹ At present, more than half the children under 18 years of age in the United States have mothers in the labor force. Our country's most prevalent family type is now the two-parent, two-wage-earner family. If we add to this group the many single-parent families in which the sole parent (overwhelmingly likely to be a woman) works, then the "typical" American family in the 1980's is one with working parents.

"Working families" have previously established themselves as the norm in many European countries and are becoming prevalent in others. (See table 1.) Governments and employers are now beginning to react to this change by initiating activities in response. This article discusses the nature of the resultant lifestyle and analyzes the different types of benefits that the United States and several European countries have provided to help working parents to cope.

Clearly, work and family life can no longer be viewed as separate domains. This is especially true because of

the high U.S. labor force participation rates of young women of childbearing age, 25 to 34 years. In 1978, the highest rate ever for this age group were in the labor force—62 percent—which was nearly the highest rate for women of any age. Included among these were close to 40 percent of those mothers with children under age 3 (41 percent in 1979). (See table 2.) Therefore, women are now working during the peak of their childbearing years, whereas in the past, it was common to stay at home once one married or had children.

Society places demands on the individual

As these changes occur, two issues emerge of central importance:

- How are adults, regardless of gender, likely to manage increasingly demanding daily routines involving home as well as job responsibilities?
- How will society respond to individual family lifestyles in which most adults are likely to be in the labor force during the same years that they are at the peak of their childbearing and child rearing responsibilities?

Given an earlier history of growth in female labor force participation rates, we studied several European countries to explore alternative public policy responses to the growing proportion of working families. We chose five countries with similar levels of industrializa-

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tion and the following characteristics: (1) about half of the adult women or more are in the labor force, (2) where women with school-age children are expected to be in the work force and a similar pattern is emerging for those with preschool-age children, and (3) where recent government attention has focused on the problems of working parents with children under age 3—when the demands of child-care responsibilities are the heaviest and the tension between work and family life is most severe, and most visible.² The countries were selected initially because each suggested a distinctive policy stance:

- supporting mothers at home (Hungary)
- supporting mothers in the labor force (German Democratic Republic)
- supporting parental choice in selecting how to allocate work and family roles (France)
- supporting the opportunity for all adults to manage work and family roles simultaneously (Sweden)
- assuming that adults make personal and private arrangements in adapting to this lifestyle (Federal Republic of Germany)

Over time, there has been some tendency towards convergence among these countries although the particular emphasis still varies.

Countries have similar problems

As we explore what is occurring in other countries, there is the emergence of a common list of problems needing attention. Although not all these needs arise simultaneously in every country, gradually the lists become very similar.

The concerns tend to be in 1 of 4 areas:

The need for some financial assistance to help with the costs of childrearing.

The need to care for children while parents are away from home at work.

The need to make possible a more equitable sharing between men and women of home and family tasks and responsibilities.

Table 2. Employment status, by parity and age of youngest child, for women age 18 to 34, living with their husbands, June 1978

| Age of youngest child | Total women [In thousands] | In labor force [In thousands] | Participation rate [In percent] |
|------------------------|-------------------------------|----------------------------------|------------------------------------|
| Less than 1 year | 2,460 | 713 | 29.0 |
| 1 year | 2,034 | 686 | 33.7 |
| 2 years | 1,711 | 701 | 41.0 |
| 3 years | 1,358 | 603 | 44.4 |

SOURCE: *Fertility of American Women, June 1978, Current Population Reports, Series P-20, No. 341* (Washington: Bureau of the Census, 1979), Tables A and 18.

The need to facilitate a better balance between work and home so that adults may fulfill their roles as parents without either gender suffering penalties in the labor market.

Emergence of family benefits

The European countries have a long history of acknowledging that children are a major societal resource and that the whole society should share in the costs of rearing them. The cash benefits provided families with children are increasingly being referred to as a "family benefit system", part of a country's social security system but distinguishable from traditional social insurance and assistance.

This principle was reflected first in family or child allowances, in the form of cash benefits provided monthly (or weekly) for every child (or second or subsequent children), usually regardless of family income and the labor force attachment of the parents. Family allowances began first in France in the 1930's; in Sweden, Finland, and several other countries by the 1940's. By now, 67 countries, including all the developed countries except the United States, provide such a supplement to the income of adults who are rearing children. The benefits, which are usually tax free, range in the western European countries from \$300 to \$600 or more per year. In both eastern and western Europe, these benefits represent a significant percentage of median wages, usually between 5 and 10 percent (where there is one child) and substantially higher for single mothers (whose wages are likely to be low), and families with several children.

Regardless of the specifics, these benefits provide a significant supplementary contribution to family income, particularly for low and median wage earners, for whom the cost of rearing even two children can be a financial burden. They reflect a recognition of the lack of correspondence between wages and family responsibilities—and of the societies' stakes in child rearing.

An alternative approach to providing income supplementation to families with children is the provision of a similar child benefit through the tax system. In contrast to the \$1,000 tax exemption for dependents in the Unit-

Table 1. Labor force participation rates of women by age of child, 1976

[In percent]

| Country | 0-3 years | 3-6 years | School age |
|-----------------------------------|-----------------|-----------|------------|
| France | 43 | 44 | 48 |
| Federal Republic of Germany | 32 | 34 | 41 |
| German Democratic Republic | 80 | 85 | 85 |
| Hungary | 82 ¹ | 75 | 75 |
| Sweden | 58 | 64 | 78 |
| United States | 35 | 48 | 56 |

¹ Thirty-three percent excluding women home on child-care leave; 82 percent if women home on child-care leave are included.

SOURCE: Sheila B. Kamerman and Alfred J. Kahn, *Child-Care, Family Benefits and Working Parents* (New York: Columbia University Press, forthcoming).

ed States (many countries have such exemptions), of value only to those who pay taxes and of more value to those with higher incomes, the child benefit tax credit is provided at a fixed amount and paid to families at all income levels. Furthermore, it is refundable to those whose incomes are so low as to preclude any tax obligations.

France provides an additional, income-tested special supplement to low- and middle-income families with children under age 3 or with three children or more. The assumption here is that very young or many children make it increasingly unlikely that a woman can be in the labor force and, therefore, such families may suffer an extra financial hardship in trying to manage, even briefly, on the wages of one adult.

If income supplementation for families with children is a longstanding policy in many European countries, defining childbirth as a social risk which may result in temporary unemployment, and providing a cash benefit as an earnings replacement under such circumstances, is a much more recent policy. Accordingly, there are two parallel policies in most European countries to protect family income at the time of childbirth in those families where mothers are employed.

First, there is a guarantee of a right, around the time of childbirth, to leave work for a minimum of 3 months (Denmark and several other countries), a maximum of 3 years (Hungary), and an average of 6 months to 1 year, with the assurance of full job protection, seniority, and pension entitlement. In Sweden, this right can be shared equally by both parents. Some countries have supplementary rights to extended leaves, but with more limited protection.

Social security covers maternity leave

The second, parallel policy is the provision (in connection with leave right before childbirth and after it) of a cash benefit through the social security system, replacing the full wage covered under social security (or a significant portion of it). These benefits are available to almost all employed women of childbearing age and under certain circumstances—or in certain countries, such as Sweden—to their husbands, too. The benefits may be tax free or considered as taxable income.

In effect, these two parallel policies comprise what is usually described as the statutory provision of maternity or parental benefits and leaves. The key portion of the policy is the leave from work which is covered by a cash benefit replacing earnings forgone at the time of childbirth. In France, this covers 16 weeks, including 6 weeks before childbirth, and is equal to full wage replacement. In West Germany, 7½ months are covered, the first 14 weeks with a statutory flat rate benefit equal to the wage of about 70 percent of the working women, but supplemented to full wage by the employer for

those women earning more, and the remainder of the time at the statutory benefit level only. The German Democratic Republic provides full wage replacement for 26 weeks (and for an additional 26 weeks at the birth of second and subsequent children). Sweden is unique in providing a benefit covering 9 months, available to either parent, and capable of being prorated so that parents can use the benefits to cover full-time work, half-time work, or three-quarter time, while the children are young. This enables parents to share all child-care responsibilities between them for the child's first year to year and a half of life.

The Hungarians provide an unusual benefit from the end of maternity leave until the child is 3 years old. Here, the mother is entitled to a cash allowance equal to about 40 percent of an average female wage, as long as she remains at home to care for her child. During this time, she continues to be defined as a member of the labor force and therefore maintains her seniority and pension entitlements, while assured of job protection.

These benefits are all contingent on prior labor force attachment and represent some attempt by the larger society to replace all or a significant portion of earnings at the time of childbirth and for some limited period of child-caring time thereafter. Although not yet widely implemented, one growing trend in Europe seems to be to extend these rights to both parents and to parents of adopted children.

The benefits thus far discussed *supplement* incomes of parents rearing children or *replace* income in connection with the period right after childbirth. Very few countries provide a *substitute* for earned income beyond the time a child is age 3, and the scale and scope of Aid to Families with Dependent Children in the United States is rare, even though Britain, West Germany, Canada, Israel, and Sweden do give some cash benefits to single mothers with low incomes. Canada and Britain have the closest equivalent of the U.S. system.

Meeting child-care needs

The paid leaves from work following childbirth range from 3 months to 3 years. In most countries, 6 months is typical, with growing discussions about extending the leave to 9 months or a maximum of 1 year. All European countries permit additional unpaid but job-protected leaves of somewhere between 6 months and 2 years, although few women avail themselves of this benefit. This means that most working families in Europe need some form of out-of-home child-care service beginning when a child is about 6 months old, except where one adult works part time. Compulsory school usually begins at age 6, as it does in the United States; but in Britain 5 years is the age of entry, and in Sweden, Poland, and several other countries it is age 7, although all 6 year-

olds in these countries already attend a preschool.

For the typical working family in Europe, all day, out-of-home child-care services are needed for children who are about 6 months to 6 years old. What is provided for these children now?

Most children age 3 to 6 years are already attending a free public preschool program, based in the educational system, covering the normal school day and attend it on a voluntary basis regardless of whether or not they have "working mothers."

France has the most extensive such provision in any European country—serving 95 percent of the 3 to 6 year-old age group. Moreover, 32 percent of the 2 year-olds (largely those age 2½ are now attending and the programs are expected to serve close to half this age group within the next 2 years. (Hungary and West Germany also recently have opened kindergarten to the 2 year-olds as space has become available.)

Belgium has a similar program serving about 95 percent of its 3 to 6 year-olds. West Germany serves about 75 percent of this age group in such a program, although it is still largely for half a day (8:00–1:00), as in all primary schools in Germany. (But a "long school day" is becoming more prevalent, especially in schools located in working class neighborhoods.) Italy has place for about 70 percent of the age group, but most of the eastern European countries serve between 75 and 90 percent of this group in full-day preschool programs, with the highest coverage in East Germany. Sweden has only a little more than half this age group in their child-care programs which, in contrast to the others, are part of an independent, free-standing program, not part of the public education system.

Preschools viewed as healthy

Most of Europe assumes that children from age 3 (and increasingly from age 2½ or 2) will attend a preschool program, because these programs are viewed as being good for children, whether or not mothers work. Incidentally, as does primary school, preschools fulfill important child-care needs of working parents. Thus, for most working families in Europe, child care is available from the age of 2, 2½, or 3 on, at least to cover the normal school day.

Only the United States, Britain, Canada, and Israel continue to maintain an artificial distinction between child care under social welfare auspices and that under education auspices; and only these countries continue to support two parallel systems for all children under compulsory school age. In Israel about 90 percent of the 3 to 5 year-olds already attend a preschool in any case, although these are largely under private auspices as they are in the United States, where more than half of this age group now attend such schools.

Except for Sweden and Finland, which have a sepa-

rate but integrated special child-care program for children up to age 7, day care is viewed largely as the care of children under age 3 in Europe, and in most countries is administrated under health ministry or department auspices. Infant and toddler care for children of working families is not nearly as extensive as care for children from about the age of 2 or 3 and older.

East Germany has by far the most extensive group provision for infants and toddlers—with 60 percent between the ages of 6 months and 3 years in care (48 percent of children from birth to age 3), and plans to expand provision to include space for 70 percent. France leads among the western countries, with about one-third of the under 3's in some kind of out-of-home care. The public preschool program serves a significant number of 2 year-olds and another small percentage are served in publicly-subsidized day-care centers, subject to income-related fees. The largest group is cared for by licensed family day-care mothers; France has the most extensive provision of this type of care. Hungary has only a limited amount of group care, because its primary policy focus for the under 3's is to subsidize the mothers' own care. In contrast, Sweden has an official policy of expanding such coverage to meet most existing needs. However, only about 14 percent of the children under age 3 can be served in publicly subsidized care today, while an equivalent amount are still cared for in private, informal, family day-care arrangements. (See table 3 for more details.)

Family day care versus group care

Thus, most countries still have a long way to go before there are enough out-of-home places to care for children aged 6 months to 3 years, while their mothers are at work, but the policy is clear for the 2 year-olds already and emerging, too, for younger children. (See table 3.) While family day care dominates currently, es-

Table 3. Type of care provided for young children in six countries, 1975

[In percent]

| Country | Under age 3 | | | Ages 3 to 6 in pre-school ¹ |
|---------------------------------------|-------------------------|------------------------------|-----------------|--|
| | Total [In thousands] | Type of care [In percent] | | |
| | | Center care | Family day care | |
| Sweden | 323,463 | 7 | 16 | 28 |
| France | 2,400,000 | 11 | 20 | 95+ |
| German Democratic Republic | 532,048 | 46 | 0 | 85 |
| Hungary | 519,000 | 12 | 0 | 78 |
| Federal Republic of Germany | 1,800,000 | 4 ² | 5 ² | 75+ |
| United States | 9,700,000 | 3-4 | 7 | 64 |

¹ The 3 to 6 year-old coverage for the U.S. includes preschool, kindergarten, and day care, much of it part-day.

² Children of working mothers only.

SOURCE: Sheila B. Kamerman and Alfred J. Kahn, *Child-Care, Family Benefits and Working Parents* (New York: Columbia University Press, forthcoming).

pecially given the unlicensed, unregulated provision, many experts now assume group care will ultimately predominate as more and more women are working and the potential labor force for family day care disappears and the costs increase (as standards are raised). If and when this occurs, family day care may be available, but is likely to be viewed as a high-priced therapeutic program intended for children with special needs.

Before- and after-school care, for the pre- and primary school age children of working parents when school hours and days do not coincide with work schedules, is recognized as a universal need. No country provides adequate coverage or even has systematic data indicating where children of this age are cared for now. Several of the eastern European countries do provide extensive after-school programs or a long school day. French schools, especially those in large metropolitan areas and in working class districts, often provide children with supervised care before and after school hours and on holidays. The Swedes are encouraging the establishment of separate after-school programs called leisure-time

centers, often located adjacent to the preschool programs where children of different ages have an opportunity for interchange in "sibling groups." Similar provision is expected to grow in Germany. Such programs are important and their scarcity represents a significant weakness of child-care services.

None of the research reported here covered intra-familial adaptations or workplace response to the new realities of work and family life.³ We would note, however, that for some years policies in many countries have supported, or been predicated on, traditional role assignments within the family. Modifications will be necessary if intrafamilial equity is to increase.

Most adaptation in the home will reflect the values and behavioral changes of the adults living there, but there is evidence (particularly among the younger cohorts) that as women have entered the labor market, men do participate more actively in home and family responsibilities. We assume that such changes also would affect children: they may begin to get more attention from their fathers than they have previously.

Table 4. Child-care benefits and services package (major components) by country

| Benefits and services | Hungary | France | German Democratic Republic | Sweden | Federal Republic of Germany | United States |
|---|--|--|--|---|--|--|
| BENEFITS | | | | | | |
| Cash: | | | | | | |
| Income replacement | Maternity | Maternity | Maternity Supplementary maternity | Parental | Maternity | ..... ..... |
| | To care for an ill child at home | ..... | To care for an ill child at home | To care for an ill child at home | To care for an ill child at home | ..... |
| Income substitution | Child-care allowance | ..... | ..... | ..... | ..... | Aid to Families with Dependent Children |
| Income supplementation | Family allowance Housing allowance Child health services | Family allowance Housing allowance Child health services Complementary family allowance Single parent allowance Family-based tax system | Family allowance Housing allowance Child health services | Child allowance Housing allowance Child health services Tax allowance for dependents | Child allowance Housing allowance Child health services Child-care tax credit | Tax allowances for dependents Earned income tax credit Child-care tax credit |
| Employment: Right to leave work and job security | Maternity (20 weeks) Child care up to child's 3rd birthday | Maternity (16 weeks) Parental education (unpaid) 2 years | Maternity (26 weeks) Supplementary (26 weeks) | Parental (9 months) Unpaid 18 months; 6-hour day up to child's 8th birthday | Maternity (7½ months) | ..... |
| SERVICES (1975) | | | | | | |
| Percentage of cohort 0-3 in out-of-home-care | 12 percent (Mainly 1/2 to 3 year-olds) | 31 percent | 50 percent (80% of 1 to 2 year-olds) | 23 percent | 3 percent | 10-11 percent |
| Major care mode | Center care (almost completely) | Co-equal in policy but family day care predominates | Center care (completely) | Policy favors center care but present reality is family day care primarily | Family day care primarily in policy but co-equal in provision | Family day care predominates |

Employers provide important rights

The workplace itself remains an essential arena for change; here we refer both to marketplace and statutory benefits and to the organization of work. Special attention is currently being directed in a number of countries to the social security status of women (for example, in the work force, homemakers, and widows). We already have described Swedish parent insurance as a major innovation. Among countries making provisions for supplementary but unpaid post-childbirth leaves, France offers a 2-year leave for either parent under certain circumstances. Norway provides a parental leave of up to 1 year. Sweden permits an unpaid leave after the conclusion of the parent insurance benefit until a child is 18 months old, and guarantees parents the right to work part time (a 6-hour day) until their child is age 8. Assuring workers a right to take a specified number of days off from work to care for an ill child at home, or to visit a child in school, while receiving the same wages they would receive if they were ill themselves, is receiving attention in Europe, too.

There are also efforts by industry to modify employment practices or to provide selected benefits through labor contracts or as part of private fringe benefit systems. Similarly, there is growing experience with flexi-time and other alternative work schedules such as part-time and shared work.

IF ADULTS ARE to manage work and family life simultaneously, attention will have to be paid to all four arenas we have discussed.

Government policies have been the major focus of what we have studied in Europe; and one major finding, apart from the specifics mentioned above, is the trend towards the development of family or child policy "packages" that go far beyond any single policy strategy. The European experience clearly suggests the need for a policy strategy that includes income transfers, child-care services, and employment policies as central elements even if the specifics may vary as they are modified to fit the ideology, demography, and needs of each country. (See table 4 for the components of these policy "packages" in six countries.)

This discussion is predicated on the recognition that employment and labor market policies are a cornerstone of social policy in industrialized countries. Work remains the primary role for all adults and a central ethic. It seems likely that unless it becomes possible for adults to manage work and family life without undue strain for themselves and their children, society will suffer a significant productivity loss in the labor market and economy, and perhaps an even more important loss in the quantity and quality of future generations. The developments now occurring in other countries can provide the basis for discussion in the United States. □

— FOOTNOTES —

¹ For U.S. data, see Janet L. Norwood and Elizabeth Waldman, *Women in the Labor Force: Some New Data Series*, Report 575 (Bureau of Labor Statistics, 1979); Elizabeth Waldman and others, "Working mothers in the 1970's: a look at the statistics," *Monthly Labor Review*, October 1979, pp. 39-49; and Beverly L. Johnson, "Marital and family characteristics of the labor force, March 1979," *Monthly Labor Review*, April 1980, pp. 48-52.

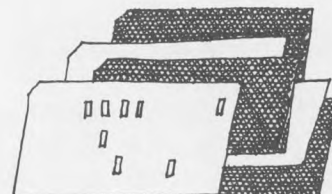
For comparative data, see *Equal Opportunities for Women* (Paris, Organization for Economic Cooperation and Development, 1979).

² A full report of this study will be forthcoming by Columbia University Press, as Sheila B. Kamerman and Alfred J. Kahn, *Child Care,*

Family Benefits and Working Parents. We acknowledge the support of this research by the U.S. German Marshall Fund.

Additional data are included here as relevant from an eight country study now in process of "Income Maintenance Policies From a Family Policy Perspective," and a report by Sheila B. Kamerman, *Maternity and Parental Benefits and Leaves: An International Review* (New York: Columbia University Center for the Social Sciences, 1980).

³ The report of a U.S. study of how a sample of suburban working families manage this family lifestyle is: Sheila B. Kamerman, *Parenting in an Unresponsive Society: Managing Work and Family Life* (New York: The Free Press, 1980).



Results of experimental study on flexitime and family life

RICHARD A. WINETT AND MICHAEL S. NEALE

Federal workers with young children, when given the prerogative of changing their work schedule, choose to arrive at and depart from work earlier, according to two small experimental studies of flexible workhours at two Government agencies. The change in work schedules allowed the workers to increase the time spent with their families in the evening and led to less perceived difficulty in engaging in familial, recreational, and educational activities and household chores.¹

Time spent with the family in the morning was reduced for workers who changed their schedule, but this time was never extensive (about 35 minutes) and rarely was it rated as an "enjoyable" time. When scored on a 5-point scale (where "dislike a great deal" equals 1 point and "enjoy a great deal" equals 5), morning-time activities had a mean of 2.9, while evening activities were rated 3.8.

Overall, the flexitime program received positive ratings (about 4.5 out of a possible 5.0) and few managerial problems were reported. Workers who remained on regular hours were either limited to these hours by commuter arrangements, spouse hours, or simply preferred the regular hours. The altered schedules did not change workers' weekend activities or the division of labor at home (childcare and home chores).

Two experimental, longitudinal studies in two large Federal agencies addressed the issue of the effects of flexitime on families with young children. This report briefly describes several methodological aspects of the studies and the main results.

Advantages of experimental methods

Experimental research methods generally follow several strategies including carefully defining, recording,

and monitoring behavior over a relatively long period of time; collecting reasonable baseline data for comparison purposes; and using a true experimental or quasi-experimental design (suitable comparison group) to evaluate effects. For true experimental flexitime studies, workers or departments are randomly assigned to flexitime or usual work schedules. Completely random assignment often is not feasible, necessitating that the test become a quasi-experiment, with results that still are interpretable.² Experimental strategies often involve a series of relatively small-scale studies designed to replicate and expand upon previous findings.³

What are the advantages of the experimental approach, compared with other methods (for example, surveying thousands of people at one time)? Basically, the advantage is that cause and effect relationships are the product of the research. Cross-sectional surveys (for example, surveying those on flexitime and those not on flexitime) obviously serve important functions by describing events and attitudes, but such research cannot be used to infer causality. This is true of any correlational research.

The best experimental evaluations are often designed so that the same individuals are observed under several conditions. For example, the same people may be studied as they systematically are shifted to different kinds of flexible work schedules. With this design, it is possible to identify critical elements of a program that are beneficial or detrimental to employees, management, and the overall agency. When properly conducted, the experimental approach also yields important feedback on a program's effects, providing a mechanism to change a program for maximum benefits.

Although our studies were exploratory, two hypotheses were tested. We predicted that change in the work schedule would result in (a) more time spent with the worker's family, and (b) less difficulty in performing home chores and other activities. In other words, we believed that even in limited flexitime programs, altering the work schedule would not simply lead to a change in time when activities were performed, but would result in the reportioning of time, thus, facilitating some family functions. Organizational and political constraints did not permit us to conduct true-experiments; a quasi-experimental, nonequivalent control group design was used—an evaluation strategy that is becoming more popular among social scientists.⁴

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The experiments and its participants

The experiments included secretarial and administrative personnel at the Washington, D.C., headquarters of the two Federal agencies. Thirty-two of Agency A's 600 employees participated and 65 of Agency B's 2,200 employees participated. Participants had at least one child under 13 years. The participants represented a cross-section of job levels, had an average annual salary in 1978 of approximately \$20,000 and had been in their jobs an average of 5.7 years. They were allowed to complete the research forms during work hours and received \$75 for home interviews which generally focused on the division of childcare and household chores.

At Agency A, the original work schedule set arrival time at 8:45 a.m., a half-hour lunch between 11:30 a.m. and 12:30 p.m., and departure at 5:15 p.m. Under the flexitime system, workers could arrive any time between 7:30 and 9:30 in the morning and leave (depending on arrival time) between 4 and 6 in the evening. The 30-minute lunch could be taken between 11:30 a.m. and 2 p.m., and "core" times were 9:30–11:30 a.m. and 2–4 p.m. An 8-hour day was required with no carryover of hours between days or weeks. Potentially, on flexitime, a worker could adopt a schedule that was 75 minutes earlier or 45 minutes later than the regular working hours. Workers were required to stay with a new schedule for at least one pay period. A sign-in, sign-out system was used, rather than a time clock or other equipment. Data were collected for 5 weeks before the flexitime program started and were collected for 14 weeks during the program.

A similar flexitime system was adopted at Agency B. However, the regular work hours at this agency were 8:15 a.m. to 4:45 p.m.; therefore, the maximum potential change under flexitime was 45 minutes earlier or later. Data were collected for 7 weeks prior to the start of flexitime and for 28 weeks during the program.

In each agency, alteration of work schedule followed three distinct patterns: (1) employees altered their schedule by a designated criterion and remained on this fixed flexible schedule for the duration of the study, (2) employees retained their original schedule, and (3) employees varied their schedule—sometimes arriving and departing work early, sometimes late, and sometimes working regular work hours—true flexitime. Because the true flexitime group only varied their schedule minimally and showed no significant changes on time or rating measures at Agency A and showed only minimal changes at Agency B, only data for those working fixed flexible hours and those keeping the original work schedules are presented in this report.

The main measures of the two studies were time-activity logs and a 15-item questionnaire. The time-activity log was completed about twice per week and

required participants to indicate on a standard form for every activity the time it began and ended; the setting in which the activity took place; the people who were present during the activity, and secondary activities (for example, watching television while eating dinner). Each activity was rated on a 5-point scale from 1 ("dislike a great deal") to 5 ("enjoy a great deal").

Participants at Agency A received only minimal training on the use of the log, and no reliability checks were made on the data. At Agency B, participants received training and more than 2,000 checks of the reliability of the data were made using four techniques: random phone calls to participants; correspondence of log data to a known event; log reports of spouse collected at a later date; and correspondence of office archival data to log data. Reliability of log information was 80 percent.

At Agency A, log data were reduced to eight standard categories (morning or evening time with spouse, children, spouse and children, or alone). At Agency B, "time at work" was added to these eight categories and log data were reduced to nine main categories, plus 37 subcategories (for example, dinner, exercise, watching television).

Once a week at Agency A, or semimonthly at Agency B, participants completed a questionnaire on which they rated (on a 7-point scale) the ease or difficulty involved in coordinating aspects of work and family life, particularly with respect to hours of work (for example, "The hours I work make spending time in the evening with my child(ren) _____"). Additional questions were asked to ascertain any change in status at work or conditions at home that could interact with work schedule and home-life relationships. The purpose of the scale was to pinpoint situations affected by the flexitime program, as perceived by the participant. The scale could also be used to confirm the importance of time allocation changes derived from the logs.

Several additional research methods were used. Sample participants and their spouses (or single parents alone) were interviewed together (once at Agency A and three times at Agency B), following a standard interview schedule that focused on the division of childcare and household chores. The purposes of the interviews were to ascertain if specific divisions of childcare and household chores were predictive of adopting flexitime and, if at Agency B, changes occurred as a result of adopting flexitime.

A checklist was used to examine changes in weekend activities alone and with family members and another measure focused on particular problems experienced by two-earner, single-parent, or one-earner families. Finally, surveys were conducted with a random sample of employees not included in the sample to gain an impression of the effects of flexitime at the work site. The

results of these additional measures are not presented formally here, but are discussed as they pertain to the log or interview data.

Experience at Agency A

Workers who opted for fixed flexible hours at Agency A were younger, with fewer and younger children, and fewer years on the job than those who kept the regular hours (see table 1). Sample participants were at a mean mid-level for their jobs and about one-third were men.

Log data. Log data was categorized by coders as engaged in with spouse, with children, with spouse and children, or alone. An average time per activity was then calculated (see table 2). The group on fixed flexible hours arose about 38 minutes earlier and arrived at work about 56 minutes earlier. However, bedtime for them was only 13 minutes earlier. There was almost no change for those who remained on regular hours.

Evening time with spouse and children and with spouse alone differed significantly between the two groups. Such differences may have resulted because of the difference in age of the groups' children, with the presence of older children reducing the necessity of both parents spending time with children. However, the analysis indicates that time with children increased for the workers on fixed flexible hours, and decreased for those who remained on regular hours. Both work groups

Table 2. Time data for participants of flexitime experiment at Agency A

[In means]

| Item | Fixed flexible hours group | | Regular hours group | |
|--------------------------------|----------------------------|-------------------|---------------------|------------------|
| | Before flexitime | During flexitime | Before flexitime | During flexitime |
| Time arise | 6.48 | ¹ 5.83 | 6.51 | 6.57 |
| Time to sleep | 10.87 | 10.65 | 11.01 | 11.00 |
| Start work | 8.68 | ¹ 7.75 | 8.58 | 8.57 |
| Time spent (in minutes): | | | | |
| With children | 58 | ¹ 82 | 88 | 68 |
| With spouse | 31 | ² 37 | 84 | 71 |
| With spouse and children | 88 | 130 | 40 | 64 |
| With family, overall | 177 | ¹ 249 | 212 | 203 |

¹ Significant at 0.01.

² Significant at 0.05.

showed an increase in time spent with spouse and children, and time with spouse increased for those on fixed flexible hours and decreased for those on regular hours. Overall, family time increased by more than an hour for workers on fixed flexible hours and remained about the same for those on regular hours. Seven of ten workers on fixed flexible hours increased the time they spent with their families by more than 35 percent, compared with only 2 of 11 workers who remained on regular hours. There was no significant difference between the two groups in change in time for the evening alone category and morning categories.

Questionnaire data. A mean score for each item in the questionnaire was obtained for each participant before and during flexitime periods. The pre-flexitime scores of the two groups did not differ significantly. However, during the flexitime period, significant differences were found for eight items for workers on fixed flexible hours. They perceived that it was easier to spend afternoon time with their child(ren), and spend time with their spouse during the week; see friends during the week; and in the evening spend time with their child(ren), pursue additional education, engage in recreation and hobbies, complete shopping and chores, or just relax.

Experience at Agency B

Those who chose flexible hours at Agency B and those who remained on regular hours had similar family characteristics (see table 1). However, those who worked regular hours had more years on the job. Also, this group included five supervisory personnel, whereas the fixed flexitime group had no supervisors. Participants were at a mean mid-job level and more than half of them were men.

Log data. Mean time for each participant was calculated before flexitime and for three periods during flexitime: spring, summer, and fall. The phases allowed for

Table 1. Profile of study participants

[In means]

| Characteristic | Flexitime | Regular time |
|----------------------------------|-----------|--------------|
| Agency A: | | |
| Men | 3.0 | 4.0 |
| Women | 7.0 | 7.0 |
| Age | 28.1 | 32.4 |
| Age of spouse | 29.0 | 33.2 |
| Number of children | 1.3 | 1.8 |
| Age of children | 4.1 | 6.8 |
| Years on job | 3.7 | 5.2 |
| Families of male participants: | | |
| Two earner | 2.0 | 2.0 |
| Single earner (male) | 1.0 | 1.0 |
| Part-time working wife | .0 | 1.0 |
| Families of female participants: | | |
| Two earner | 6.0 | 4.0 |
| Single parent | 1.0 | 3.0 |
| Agency B: | | |
| Men | 13.0 | 14.0 |
| Women | 11.0 | 12.0 |
| Age | 33.4 | 34.4 |
| Age of spouse | 31.1 | 32.6 |
| Number of children | 1.8 | 1.8 |
| Age of children | 5.7 | 5.9 |
| Years on job | 5.3 | 7.4 |
| Families of male participants: | | |
| Two earner | 4.0 | 2.0 |
| Single earner (male) | 7.0 | 10.0 |
| Part-time working wife | 2.0 | 2.0 |
| Families of female participants: | | |
| Two earner | 5.0 | 5.0 |
| Single parent | 6.0 | 7.0 |

Table 3. Time data for participants of flexitime experiment at Agency B

[In means]

| Item | Fixed flexible hours group | | | | Regular hours group | | | |
|--------------------------------|----------------------------|-------------------|-------------------|-------------------|---------------------|------------------|-----------------|-------|
| | Before flexitime | During flexitime | | | Before flexitime | During flexitime | | |
| | | Spring | Summer | Fall | | Spring | Summer | Fall |
| Time arise | 5.92 | ¹ 5.74 | ¹ 5.74 | ¹ 5.67 | 6.09 | 6.08 | 6.18 | 6.16 |
| Time to sleep | 10.97 | 10.74 | 10.90 | 10.85 | 10.86 | 10.92 | 10.96 | 11.05 |
| Start work | 8.23 | ¹ 7.62 | ¹ 7.63 | ¹ 7.68 | 8.13 | 8.01 | 8.05 | 8.09 |
| End work | 4.75 | ² 4.16 | ¹ 4.16 | ¹ 4.21 | 4.85 | 4.84 | 4.81 | 4.84 |
| Time spent (in minutes): | | | | | | | | |
| With children | 76 | ³ 89 | ² 91 | 90 | 79 | 77 | 67 | 90 |
| With spouse | 72 | 64 | 58 | 62 | 66 | 71 | ¹ 82 | 75 |
| With spouse and children | 103 | ³ 134 | 147 | ² 130 | 96 | 90 | 110 | 75 |
| With family, overall | 251 | ² 287 | ³ 296 | 282 | 241 | 238 | 259 | 240 |
| Commuting home | 63 | ³ 60 | ³ 57 | ² 55 | 54 | 55 | 55 | 57 |

¹ Significant at 0.01.² Significant at 0.05.³ Significant at 0.10.

examination of seasonal effects and corresponded to the school attendance of children.

During flexitime the 24 participants on fixed flexible hours altered their mean time of starting work from 8:15 a.m. to 7:37 a.m. and departed from work at 4:11 p.m. instead of 4:45. The mean arising time became earlier for the workers on fixed flexible hours (by about 12 minutes), while those keeping regular hours arose about 5 minutes later. Workers on fixed flexible hours went to bed 8 minutes earlier; the other group went to bed 7 minutes later (see table 3).

Time with spouse increased during the summer for those on regular hours. Time spent with children increased significantly for workers on fixed flexible hours during the spring and summer. The time they spent with their spouse and children increased during the spring, summer, and fall.

Overall time spent with family increased about 37 minutes for those on fixed flexible hours, compared with an increase of only about 5 minutes for those on regular hours. Both groups tended to increase family-related time during the summer. Generally, differences between groups somewhat dissipated by the fall. The increase in time spent with spouse during the summer for workers on regular hours may be attributed to the presence of supervisors in this group. During the summer, supervisors were involved in labor negotiations and tended to arrive home later than usual. Their later arrival at home also may have contributed to the large reduction in time with children during the summer for the group who kept regular hours. When supervisors were removed from the sample, there was no difference in time with spouse during the summer.

Workers on fixed flexitime showed a greater mean percentage of participants increasing their time spent with children and spouse and with the family in the evening, than workers on regular hours. Time spent with family differed by type of family; for example, men

from single-earner families spent less evening time with their children than women from two-earner families. There were no differences between the two groups on other items involving work time. Generally, the group on regular hours worked about 13 minutes longer each day.

Although the workers on fixed flexible hours took longer to commute to work before flexitime, the difference was not significant and can be attributed to the slightly longer distance traveled to and from work. During flexitime, time spent commuting decreased for this group—commuting home time decreased by about 5 minutes, while for those on regular hours, commuting home time increased by about 2 minutes.

An examination of the modes of commuting (for example, car, carpool, bus) indicated that those on regular hours decreased their use of carpools by about 10 percent and increased their use of other methods. However, carpool use did not decrease for those on fixed flexible hours, suggesting that their decrease in time commuting home was not accomplished by changing transportation mode (for example, increased use of private cars).

Questionnaire data. Workers on fixed flexible hours at Agency B rated the same items on the questionnaire as "easier" during flexitime as at Agency A. Ratings of commuting time showed minimal change, possibly indicating that the "real" time saved in commuting was not perceived as meaningful, or was not noticeable. □

FOOTNOTES

¹ Similarly, Federal workers on flexible schedules in 1977 reported that such schedules allowed them to spend more time with their families. See "Concept wins converts at Federal agency," *Monthly Labor Review*, February 1977, pp. 71–74.

² See D. T. Campbell, "Reforms as Experiments," *American Psychologist*, 1969, pp. 409–29.

³ See M. Herson and D. Barlow, *Single Case Experimental Designs: Strategies for Studying Behavior Change* (New York, Pergamon Press, 1976).

⁴ Campbell, "Reforms as Experiments."

Record white-collar pay increase closes decade but trails inflation

FELICE PORTER

White-collar salaries, as reported by the Bureau of Labor Statistics' survey of professional, administrative, technical, and clerical pay rose a record 9.1 percent during the year ended March 1980.¹ This was the second time that increases hit 9 percent in a decade that saw white-collar salaries double, while prices slightly exceeded that rate—up 106 percent. (See table 1.) These movements contrasted to those of the preceding decade when white-collar salaries went up roughly 46 percent and prices, approximately 30 percent.

Not all white-collar salaries increased at the same rate. During the first half of the 1970's, for example, clerical salaries outpaced those of professional, administrative, and technical personnel; in the last half the reverse was true. The key salary increase periods for clerical workers outpacing professional, administrative, and technical workers were 1971–72 and 1974–75. For the latter group, the key periods were 1976–77, 1977–78, and 1979–80, and in this last year their salaries rose an unprecedented 9.3 percent.

From March 1979 to March 1980, 7 of the 13 survey occupations comprising the professional, administrative, and technical support group (see below) had the largest annual increases for their respective occupations since the survey began in 1960. These occupations were auditors, chief accountants, attorneys, directors of personnel, engineers, engineering technicians, and drafters. During the same period, only two clerical jobs—accounting clerks and secretaries (not surveyed in 1975)—registered the highest salary gains in two decades. For the clerical group as a whole, average salaries rose 8.8 percent in the 1979–80 period. Increases for occupations within both groups are listed in the following tabulation:

Professional, administrative, and technical support occupations

| | |
|------------------------|------|
| Accountants | 9.2 |
| Public accountants . . | 4.2 |
| Auditors | 8.8 |
| Chief accountants . . | 11.3 |
| Attorneys | 9.3 |
| Buyers | 8.1 |
| Job analysts | 8.1 |
| Directors of personnel | 11.2 |
| Chemists | 9.8 |

Clerical occupations

| | |
|--------------------------|------|
| Accounting clerks . . . | 8.9 |
| File clerks | 9.3 |
| Key entry operators . . | 9.1 |
| Messengers | 5.5 |
| Personnel clerks | 8.6 |
| Secretaries | 9.6 |
| Stenographers | 10.1 |
| Typists | 8.9 |

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Table 1. Percent increases of average salaries, 1970–80

| Survey periods ¹ | All survey occupations | Professional, administrative, and technical occupations | Clerical occupations | Consumer Price Index ³ |
|-----------------------------|------------------------|---|----------------------|-----------------------------------|
| 1970–1980 | 100.1 | 99.0 | 100.1 | 106.2 ⁴ |
| 1970–1971 | 6.6 | 6.7 | 6.5 | 4.5 |
| 1971–1972 ² | 5.8 | 5.5 | 6.1 | 2.9 |
| 1972–1973 | 5.4 | 5.4 | 5.4 | 4.7 |
| 1973–1974 | 6.4 | 6.3 | 6.4 | 10.2 |
| 1974–1975 | 9.0 | 8.3 | 9.6 | 10.3 |
| 1975–1976 | 7.0 | 6.7 | 7.3 | 6.1 |
| 1976–1977 | 6.9 | 7.1 | 6.6 | 6.4 |
| 1977–1978 | 7.9 | 8.3 | 7.4 | 6.5 |
| 1978–1979 | 7.8 | 7.7 | 7.8 | 10.2 |
| 1979–1980 | 9.1 | 9.3 | 8.8 | 14.7 |
| 1970–1975 | 37.9 | 36.6 | 38.9 | 35.7 |
| 1975–1980 | 45.2 | 45.7 | 44.1 | 52.0 |

¹ A March payroll period has been used since the 1972 survey. The 1970 and 1971 surveys had a June reference period for all occupations.

² The wage survey data did not represent a 12-month period due to a change in survey timing. Data have been prorated to represent a 12-month interval.

³ Changes in the Consumer Price Index represent a June to June period for 1970–71 and 1971–72 and a March to March period for all subsequent years shown.

⁴ This period is June 1970 to March 1980.

NOTE: Mandatory wage and price controls were in effect for most industries from August 31, 1971 to April 30, 1974.

| | |
|-----------------------------|------|
| Engineers | 9.8 |
| Computer operators | 8.3 |
| Engineering technicians . . | 11.0 |
| Drafters | 11.8 |

The 91 occupational work levels covered by the March 1980 survey represented a wide range of duties and responsibilities. Salaries for professional and administrative occupations averaged from \$1,238 per month for buyers I and auditors I (the lowest levels of these two job series) to \$5,053 per month for attorneys VI (the top of the attorney series). (See table 2.) At the other end of the salary spectrum, clericals averaged from \$657 per month for file clerks performing routine filing, to \$1,653 for level V personnel clerks. The latter, generally found in large manufacturing establishments, function more as staff assistants or technicians than as clerical workers.

Despite wide differences in the occupational pay levels reported by the survey, the findings show that salary averages for jobs of equivalent levels of work fall within relatively narrow bands. For example, monthly averages for the following work-level equivalents barely spanned \$300 in March 1980, with the exception of public accountant III.³

| | |
|-----------------------------------|---------|
| Accountant IV | \$2,180 |
| Auditor IV | 2,232 |
| Attorney II | 2,129 |
| Buyer IV | 2,315 |
| Chemist IV | 2,307 |
| Chief accountant I | 2,362 |
| Director of personnel I | 2,060 |
| Engineer IV | 2,374 |
| Job analyst IV | 2,193 |
| Public accountant III | 1,650 |

Table 2. Average salaries of employees in selected white-collar occupations in private establishments, March 1980

| Occupation and level | Number of employees ¹ | Mean | Monthly salaries ² | | | Occupation and level | Number of employees ¹ | Mean | Monthly salaries ² | | |
|----------------------------------|----------------------------------|---------|-------------------------------|---------------------------|--------------|-----------------------------------|----------------------------------|---------|-------------------------------|---------------------------|--------------|
| | | | Median | Middle range ³ | | | | | Median | Middle range ³ | |
| | | | | 1st quartile | 3rd quartile | | | | | 1st quartile | 3rd quartile |
| ACCOUNTANTS AND AUDITORS | | | | | | Chemists VI | 4,532 | \$3,178 | \$3,066 | \$2,850 | \$3,440 |
| | | | | | | Chemists VII | 1,695 | 3,824 | 3,565 | 3,418 | 4,200 |
| Accountants I | 12,142 | \$1,262 | \$1,245 | \$1,130 | \$1,374 | Engineers I | 20,813 | 1,618 | 1,624 | 1,500 | 1,739 |
| Accountants II | 19,560 | 1,536 | 1,475 | 1,333 | 1,699 | Engineers II | 41,742 | 1,774 | 1,750 | 1,624 | 1,910 |
| Accountants III | 32,903 | 1,775 | 1,733 | 1,558 | 1,962 | Engineers III | 95,382 | 2,013 | 1,985 | 1,820 | 2,188 |
| Accountants IV | 20,312 | 2,180 | 2,144 | 1,958 | 2,388 | Engineers IV | 123,829 | 2,374 | 2,350 | 2,142 | 2,593 |
| Accountants V | 7,452 | 2,661 | 2,624 | 2,405 | 2,899 | Engineers V | 92,315 | 2,762 | 2,737 | 2,503 | 3,000 |
| Accountants VI | 1,100 | 3,358 | 3,290 | 3,043 | 3,665 | Engineers VI | 42,719 | 3,188 | 3,160 | 2,909 | 3,441 |
| Auditors I | 1,770 | 1,238 | 1,255 | 1,090 | 1,333 | Engineers VII | 14,297 | 3,604 | 3,590 | 3,291 | 3,909 |
| Auditors II | 3,521 | 1,500 | 1,480 | 1,299 | 1,665 | Engineers VIII | 3,027 | 4,173 | 4,082 | 3,825 | 4,451 |
| Auditors III | 4,437 | 1,836 | 1,805 | 1,616 | 2,028 | TECHNICAL SUPPORT | | | | | |
| Auditors IV | 3,076 | 2,232 | 2,229 | 2,000 | 2,415 | Engineering technicians I | 4,782 | 1,019 | 984 | 878 | 1,112 |
| Public accountants I | 7,960 | 1,247 | 1,250 | 1,200 | 1,299 | Engineering technicians II | 17,441 | 1,184 | 1,156 | 1,050 | 1,280 |
| Public accountants II | 7,649 | 1,391 | 1,374 | 1,308 | 1,458 | Engineering technicians III | 29,527 | 1,396 | 1,364 | 1,226 | 1,534 |
| Public accountants III | 6,799 | 1,650 | 1,616 | 1,500 | 1,766 | Engineering technicians IV | 34,128 | 1,629 | 1,614 | 1,460 | 1,773 |
| Public accountants IV | 2,972 | 1,992 | 1,942 | 1,774 | 2,149 | Engineering technicians V | 18,054 | 1,860 | 1,840 | 1,686 | 2,022 |
| Chief accountants I | 559 | 2,362 | 2,430 | 2,235 | 2,500 | Drafters I | 2,581 | 851 | 821 | 750 | 930 |
| Chief accountants II | 891 | 2,722 | 2,782 | 2,500 | 2,924 | Drafters II | 11,764 | 974 | 946 | 850 | 1,072 |
| Chief accountants III | 656 | 3,424 | 3,333 | 3,120 | 3,677 | Drafters III | 22,813 | 1,192 | 1,150 | 1,040 | 1,304 |
| Chief accountants IV | 100 | 4,173 | 4,057 | 3,750 | 4,628 | Drafters IV | 26,622 | 1,435 | 1,400 | 1,251 | 1,580 |
| ATTORNEYS | | | | | | Drafters V | 20,485 | 1,807 | 1,751 | 1,556 | 1,999 |
| Attorneys I | 1,629 | 1,743 | 1,700 | 1,460 | 2,000 | Computer operators I | 6,837 | 847 | 819 | 725 | 946 |
| Attorneys II | 2,776 | 2,129 | 2,124 | 1,900 | 2,356 | Computer operators II | 6,285 | 1,001 | 956 | 851 | 1,158 |
| Attorneys III | 3,174 | 2,753 | 2,717 | 2,450 | 3,035 | Computer operators III | 29,710 | 1,080 | 1,050 | 916 | 1,186 |
| Attorneys IV | 2,753 | 3,405 | 3,332 | 3,000 | 3,770 | Computer operators IV | 16,430 | 1,337 | 1,294 | 1,142 | 1,479 |
| Attorneys V | 1,802 | 4,155 | 4,115 | 3,583 | 4,623 | Computer operators V | 3,729 | 1,538 | 1,477 | 1,297 | 1,747 |
| Attorneys VI | 622 | 5,053 | 4,833 | 4,417 | 5,750 | Computer operators VI | 734 | 1,626 | 1,609 | 1,535 | 1,758 |
| BUYERS | | | | | | CLERICAL | | | | | |
| Buyers I | 6,520 | 1,238 | 1,207 | 1,080 | 1,350 | Accounting clerks I | 31,935 | 734 | 702 | 626 | 802 |
| Buyers II | 18,432 | 1,539 | 1,515 | 1,360 | 1,675 | Accounting clerks II | 88,878 | 865 | 820 | 728 | 947 |
| Buyers III | 16,479 | 1,909 | 1,874 | 1,674 | 2,086 | Accounting clerks III | 62,378 | 1,027 | 983 | 869 | 1,150 |
| Buyers IV | 5,187 | 2,315 | 2,249 | 2,025 | 2,583 | Accounting clerks IV | 21,803 | 1,280 | 1,250 | 1,060 | 1,469 |
| PERSONNEL MANAGEMENT | | | | | | File clerks I | 27,876 | 657 | 630 | 569 | 706 |
| Job analysts I | 130 | 1,338 | 1,294 | 1,100 | 1,510 | File clerks II | 14,721 | 736 | 687 | 616 | 789 |
| Job analysts II | 436 | 1,400 | 1,325 | 1,205 | 1,562 | File clerks III | 4,040 | 919 | 868 | 756 | 1,000 |
| Job analysts III | 648 | 1,790 | 1,711 | 1,575 | 1,949 | Key entry operators I | 66,771 | 832 | 782 | 695 | 905 |
| Job analysts IV | 546 | 2,193 | 2,165 | 1,916 | 2,457 | Key entry operators II | 44,532 | 977 | 937 | 808 | 1,085 |
| Directors of personnel I | 1,200 | 2,060 | 1,999 | 1,816 | 2,282 | Messengers | 18,360 | 713 | 663 | 600 | 760 |
| Directors of personnel II | 1,459 | 2,653 | 2,582 | 2,312 | 2,966 | Personnel clerks I | 2,273 | 799 | 760 | 700 | 850 |
| Directors of personnel III | 921 | 3,151 | 3,100 | 2,750 | 3,511 | Personnel clerks II | 5,343 | 961 | 904 | 805 | 1,047 |
| Directors of personnel IV | 326 | 4,144 | 4,068 | 3,685 | 4,632 | Personnel clerks III | 3,930 | 1,075 | 1,043 | 915 | 1,187 |
| CHEMISTS AND ENGINEERS | | | | | | Personnel clerks IV | 1,942 | 1,311 | 1,243 | 1,108 | 1,480 |
| Chemists I | 2,824 | 1,350 | 1,333 | 1,208 | 1,454 | Personnel clerks V | 584 | 1,653 | 1,530 | 1,380 | 1,965 |
| Chemists II | 5,299 | 1,631 | 1,585 | 1,438 | 1,785 | Secretaries I | 42,766 | 941 | 920 | 823 | 1,040 |
| Chemists III | 10,192 | 1,948 | 1,929 | 1,716 | 2,141 | Secretaries II | 83,137 | 1,051 | 1,019 | 894 | 1,183 |
| Chemists IV | 10,519 | 2,307 | 2,285 | 2,074 | 2,526 | Secretaries III | 90,534 | 1,168 | 1,133 | 980 | 1,308 |
| Chemists V | 8,135 | 2,816 | 2,795 | 2,500 | 3,074 | Secretaries IV | 50,005 | 1,282 | 1,245 | 1,066 | 1,460 |
| | | | | | | Secretaries V | 16,200 | 1,428 | 1,398 | 1,177 | 1,642 |
| | | | | | | Stenographers, general | 20,980 | 992 | 925 | 791 | 1,147 |
| | | | | | | Stenographers, senior | 19,333 | 1,156 | 1,152 | 963 | 1,313 |
| | | | | | | Typists I | 43,586 | 763 | 720 | 650 | 817 |
| | | | | | | Typists II | 27,621 | 918 | 866 | 750 | 1,021 |

¹ Occupational employment estimates relate to the total of all establishments within the survey and not to the number actually surveyed.

² Salaries reported relate to the standard salaries that were paid for standard work schedules, that is, the straight-time salary corresponding to the employee's normal work schedule excluding overtime hours. Nonproduction bonuses are excluded, but cost-of-living bonuses and incentive payments are included.

³ The middle range (interquartile) is the central part of the array excluding the upper and lower fourths of the employee distribution.

NOTE: The following occupational levels were surveyed but data did not meet publication criteria: Chief accountant V, director of personnel V, and chemist VIII.

Other job groupings by work level showed similar results. Such salary structures produced by the survey do not necessarily correspond to those found within individual firms. They do not take into account the effect of industry mix on the averages or the disproportionate contribution of employment to any of the job categories by high-paying or low-paying firms. What the survey structures do show is that companies, on the average,

pay in relation to the level of duties and responsibilities and recognize the equivalencies that exist among a wide range of occupations within broad categories, such as professional and administrative workers.

A more detailed analysis of white-collar salaries and complete survey results are contained in a bulletin, *National Survey of Professional, Administrative, Technical, and Clerical Pay, March 1980*. □

¹The survey is conducted annually with a March reference period in metropolitan areas and nonmetropolitan counties in the United States, except Alaska and Hawaii. It currently covers establishments employing a minimum of either 50, 100, or 250 employees, depending upon the private-sector industry.

²For a complete grouping of equivalent job levels covered by the survey, see *National Survey of Professional, Administrative, Technical, and Clerical Pay, March 1980*, (BLS Bulletin 2081), table D-1.

³The survey's public accountant job is unique on several counts. The job is found in only one industry classification, that of accounting, auditing, and bookkeeping services. The public accountant job as defined by the survey is often used as a career path for workers gaining experience for a public accounting certification or those working towards partnerships in public accounting firms. The salaries reported by the survey do not reflect nonproduction bonuses which are commonly provided to public accountants. (It should be noted that in the survey coding structure, the level designations among various accounting jobs are not synonymous, for example, public accountants I-IV equate to accountants II-V.)

The sounds of silence: little aid awarded for job-related hearing loss

The Environmental Protection Agency has examined a health problem that, until now, has not received much attention or financial compensation—permanent hearing loss resulting from continual exposure to noise at the workplace. The report, which looks at the compensation practices of the States and the Federal Government, claims the lack of compensation can be attributed to unrealistic medical standards for determining hearing loss, and gross inequities in the present system which leaves questions of compensation to the discretion of the States, many of which do not award compensation for hearing loss or set up prohibitive restrictions on worker eligibility and award only small sums.

According to the report, occupational hearing loss affects a surprisingly large number of workers. Results of two studies¹ show 30 percent of the workers interviewed were exposed to what they considered excessive noise on the job, and that hearing loss made up 28 percent of the probable occupational disease cases of the workers sampled. Ten percent of the workers participating in the studies had suffered some hearing loss. Thus, the report concluded it is not just a few, but a rather substantial number of workers who are potentially affected by arbitrary medical and legal criteria for compensation.

The inadequacies of current programs are partially a result of the nature of the disease itself. Noise-induced hearing loss (caused by the swelling and distortion of the nerves in the inner ear) takes place gradually over a working life; consequently, medical data are more difficult to obtain and once obtained, more difficult to analyze. An equally thorny problem is that of relating the findings of audiometric tests to everyday problems of

communication. What does so esoteric a problem as impaired pure tone hearing mean for a worker's social activities, family life, and career opportunities? The elusiveness of hearing impairment has severely hampered efforts to set up a more equitable compensation system.

The medical thresholds used to measure hearing loss have been controversial since the end of the Second World War, when workers in war-related industries began to file hearing loss claims. In 1959, the American Academy of Ophthalmology and Otolaryngology established a widely accepted hearing loss formula which stated "hearing impairment should be evaluated in terms of ability to hear everyday speech under everyday conditions," everyday conditions being "the ability to hear sentences and repeat them correctly in a quiet environment." This definition made uncompensable a number of noise-induced hearing disorders such as high frequency hearing loss (which damages the ability to hear speech above background noise) and tinnitus (ringing in the ears). Most importantly, it did not consider thresholds for measuring impairment to the functions of discriminating and understanding speech. The academy formula only measured pure tone and hearing speech; and such measurements drastically understate the difficulties encountered by the hearing impaired in their daily lives, where background noise, accents, and other distractions create obstacles not found in laboratory tests. Despite these shortcomings, the 1959 formula became the medical standard of the compensation laws of a majority of the States.

As audiometrics became more sophisticated, the 1959 formula came under increasing attack, and in 1978, the academy revised the old formula to include impairments to high frequency hearing. Nevertheless, the 1959 version remains law in 18 States, and its restrictive criteria severely constrain worker eligibility for compensation benefits. Yet, according to the study even the new standard has serious weaknesses, including inadequate research of several key hearing problems (for instance, the formula makes no attempt to establish a realistic assessment of the rate of growth of hearing impairment). Environmental Protection Agency researchers recommend that both the 1959 and the 1978 academy formulas be replaced by that of the National Institute for Occupational Safety and Health which has lower thresholds, thus assessing hearing loss more realistically, and furthermore, that the upper threshold used to mark total hearing loss be lowered to reflect the point where practical hearing ability is irrevocably damaged.

Compensation barriers under State programs

Medical ambiguities are not the only obstacles a worker encounters when trying to claim hearing loss compensation. Laws and application procedures in many States have kept the number of eligible claimants

low. Data on claims paid showed only nine States (with New Jersey and California heading the list) award a fairly substantial number of claims. At the other end of the spectrum, nine States with a third of all industrial workers (among them Pennsylvania, Ohio, Michigan, and Indiana) have legal restrictions that for all practical purposes make hearing loss uncompensable. The other 32 States fall somewhere in the middle with their statutory restrictions, but in reality, they compensate only a few cases. According to this breakdown, 70 percent of all the Nation's industrial workers live in States that pay few or no claims.

The most prohibitive barrier to compensation is the waiting period instituted by most States to allow for recovery of any temporary hearing loss. While otologists and compensation authorities agree that a waiting period is necessary for an accurate appraisal of hearing impairment, none recommend a period of more than 2 weeks. Most States have waiting periods of 2 to 6 months after removal from the noisy employment. Many employees die, move away, or change companies before qualifying for a claim. Also, because most hearing loss occurs during the first ten years of noise exposure, a waiting period that postpones compensation maximizes the damage done to a worker's ears.

Several States also place an excessive burden of proof on the claimant. While most compensation laws do require a claimant to demonstrate exposure to hazardous conditions, too strong a burden could defeat an otherwise justified claim. Utah, which requires a "professional" noise test showing noise levels exceeding 95 dBA, is cited as an example of a State with an oppressively strong burden of proof. Problems arise when changes in the workplace have brought about reductions in the noise level and made it impossible for the worker to show previous exposure to higher, harmful levels. To resolve these problems, the study suggests a claim be considered in light of a reasonable presumption based on a worker's career history and the testimony of the claimant's doctor, rather than compelling the worker to prove prolonged exposure to a set threshold ceiling.

The filing time limits, which give the worker a specific period in which to file his claim after his last exposure, are still another obstacle to compensation. States with more liberal compensation policies have "discovery" rules which mean statutory filing time limits do not begin until the worker has become aware of his impairment. In other States, filing limits extend from 6 months to 2 years after the date of injury (in the case of hearing impairment, some States define date of injury as the last day of employment with a particular employer). These filing limits can disqualify an otherwise eligible claimant if he is unaware of his compensation rights or the work-relatedness of his hearing loss. To assure maximum worker eligibility, the study urges that the statute

of limitations for hearing loss (as well as all occupational diseases) be removed.

Federal workers fare better

The author takes a much kinder view of Federal hearing loss compensation programs. The Federal program covers all employees and blue-collar workers in Federal installations. Compensation is paid for physical impairment without consideration of loss of earnings. The Bureau of Federal Employees Compensation in the Department of Labor examines each claim and decides whether or not the claim is justified. The employing agency plays no part in the proceedings, it can only present related facts to the Bureau. In awarding compensation, the Bureau looks to see if work exposure to noise exceeds 85 dBA, and if a claimant's average hearing level falls outside normal hearing thresholds. Funding comes out of general revenue. The lack of outside scrutiny and the rising number of hearing loss claims by Federal employees have created a number of administrative problems for the Bureau, and changes in current procedures are being contemplated.

This study finds that workers are being denied adequate compensation for hearing loss as a result of unrealistic and severe medical formulas and State compensation laws, while Federal workers fare better, thanks to more realistic hearing thresholds and a nonadversary approach to compensation. Its final recommendations are made in the hope that by liberalizing compensation practices so that the true extent of occupational hearing loss is realized, steps will be taken to prevent as well as compensate it.

Occupational Hearing Loss: Workers Compensation Under State and Federal Programs prepared by Richard E. Ginnold for the Environmental Protection Agency, is available from the agency's Office of Noise Abatement and Control, Washington, D.C., 20460. □

FOOTNOTE

¹ David P. Discher and others, *National Occupational Hazard Survey: Pilot Study for Development of an Occupational Disease Surveillance Method*, (Cincinnati, Ohio, National Institute for Occupational Safety and Health, 1975); and, Robert P. Quinn and Graham L. Staines, *The 1977 Quality of Employment Survey*, (Ann Arbor, Mich., University of Michigan, Survey Research Center, 1978).

Occupational wage trends in the printing industry

Wage rates for members of printing trades unions, in cities with populations of 100,000 or more, increased by an average of 7.0 percent between July 1, 1977 and September 1, 1978, or 6.0 percent if prorated to cover a 12-month period, according to a Bureau of Labor Sta-

tistics survey. The prorated increase was the smallest in 9 years and follows 2 years of moderate gains. (See table 1.) Increases for union members averaged 4.8 percent in newspaper plants, 6.2 percent in book and job shops, and 7.3 percent in lithography shops.

Variations in average wage increases for the three printing trades studied separately reflect, in part, differences in the proportion of workers receiving increases between July 1, 1977 and September 1, 1978, 92 percent in book and job, 72 percent in newspapers, and 99 percent in lithography. For workers receiving rate increases, however, gains fell within a similar range, regardless of printing branch. Excluding the upper and lower fourths of the wage rate arrays, increases for the middle half of the workers ranged from 6.1 to 10.1 percent in book and job shops, 5.4 to 10.3 percent in newspaper plants, and 7.4 to 9.8 percent in lithography shops.

Among regions, the Pacific reported the largest average wage rate increase, 9.6 percent. The smallest regional increases were reported for New England, 5.5 percent, and the Middle Atlantic, 5.2 percent, largely reflecting the relatively small gains in Boston and New York City, the predominant cities in the two regions. For the Great Lakes, the region with the largest printing trades membership outside the Middle Atlantic states, the increase was 7.9 percent.

On September 1, 1978, union printing trades workers averaged \$9.07 an hour. Day-shift rates in lithography shops averaged \$10.03 an hour compared with \$8.97 for those in newspaper plants (\$9.23 including night-shift rates) and \$8.51 for those in book and job shops.

Occupational rates in book and job shops ranged from an average of \$5.90 for bindery workers to \$10.51 for photoengravers. The range of average daywork rates in newspaper plants was from \$8.55 for mailers to \$9.84 for photoengravers. In commercial lithography shops, the average for press assistants and feeders was lowest, \$8.96, while that for scanner operators was the highest, \$12.13; the latter also was the highest day-shift average for the survey as a whole.

Average pay levels in the Pacific region were \$9.62, in the Middle Atlantic, \$9.51, and in the Great Lakes, \$9.11. In contrast, they were \$7.29 in the Southwest and \$7.13 in the Southeast. Although less important than location, city population size also seemed to be related to wage levels. For example, on September 1, 1978, wage rates in cities of at least 1 million inhabitants averaged \$9.86, about 10 percent more than the \$8.97 rate in cities of 500,000 to 1 million; 14 percent more than the \$8.67 rate in cities of 250,000 to 500,000; and 22 percent more than the \$8.06 rate in cities of 100,000 to 250,000.

On request, the Bureau or any of its regional offices will provide listings of union wage rates and employer payments for selected employee benefit funds in each of

Table 1. Average annual wage gains for printing trades, by year and trade branch, 1968-78

| Year | Total | Book and job | Newspaper | Lithography |
|----------------------------|-------|--------------|-----------|-------------|
| 1968-69 | 6.6 | 6.3 | 6.6 | 7.6 |
| 1969-70 | 8.3 | 8.2 | 7.9 | 9.7 |
| 1970-71 | 10.2 | 10.5 | 10.2 | 9.5 |
| 1971-72 | 8.0 | 8.0 | 8.3 | 6.9 |
| 1972-73 | 6.3 | 7.4 | 5.6 | 5.5 |
| 1973-74 | 8.1 | 7.1 | 8.6 | 9.1 |
| 1974-75 | 8.5 | 8.8 | 8.2 | 8.4 |
| 1975-76 | 6.9 | 6.9 | 7.1 | 6.5 |
| 1976-77 | 6.6 | 7.0 | 6.2 | 6.6 |
| 1977-78 ¹ | 6.0 | 6.2 | 4.8 | 7.3 |

¹ Increases were prorated to a 12-month period to account for the change in the survey reference month.

the 66 cities studied. A more detailed bulletin, providing national, regional, and city averages, and wage trends dating back to 1907, is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. □

Communications industry record slow wage gains

During 1978, wage levels for principal telephone carriers rose 6.2 percent; for international telegraph carriers, 5.2 percent; and for the Western Union Telegraph Co., 7.0 percent, according to an annual wage survey by the Bureau of Labor Statistics. The late 1977-78 increases for telephone carriers and for Western Union were their smallest annual gains of the 1970's. Yearly increases between 1970 and 1977 averaged 10.7 percent for telephone carriers and 9.5 percent for each type of telegraph carrier.

The 1978 survey of the communications industry covered 870,100 workers of major telephone carriers and nearly 16,000 telegraph workers. Combined, they accounted for approximately nine-tenths of the almost 1 million workers in telephone and wire-telegraph communications.

In December 1978, straight-time hourly earnings of workers employed by the principal telephone carriers averaged \$8.43. Employees of Bell System carriers, slightly over nine-tenths of the surveyed telephone workers, averaged 22 percent more than those of other carriers—\$8.55 compared with \$7.02. Individual earnings of just over four-fifths of the workers fell within a range of \$3.50 to \$11.50 an hour; about one-eighth earned over \$11.50. Hourly earnings for the middle 50 percent of the work force ranged between \$6.47 and \$9.44 an hour. Some factors contributing to the wide dispersion of earnings were the numerous types of skills

required by the telephone industry, differences in pay by carrier and locality, and varying lengths of employee service.

Average hourly earnings among the major occupational categories in telephone communications ranged from \$12.97 for professional and semiprofessional employees to \$6.26 for telephone operators at the time of the survey. Construction, installation, and maintenance employees were the largest employment group, with just over 316,000 workers; hourly earnings for these workers averaged \$8.79. Some other numerically important job classifications and their hourly averages were: business office and sales employees (\$8.27); building, supplies, and motor vehicle employees (\$7.79), and clerical employees (\$7.10).

Wage rates for the nonmessenger work force of five international telegraph carriers averaged \$9.70 an hour compared with \$7.84 for similiar employees of the Western Union Telegraph Company in October 1978. Mes-

sengers averaged \$5.02 an hour at Western Union and \$3.59 for the international carriers. At the time of the survey, hourly pay levels for construction, installation, and maintenance employees—a heavily populated group—were \$8.72 at Western Union and \$9.76 for the international carriers.

Annual BLS studies of communications, which cover the full spectrum of activities performed by employees in the telephone and telegraph industries, are based on data submitted to the Federal Communications Commission. The data are provided by telephone carriers subject to the full jurisdiction of the Commission and with annual operating revenues exceeding \$1 million, the Western Union Telegraph Co., and five international telegraph carriers with annual revenues of more than \$50,000.

A comprehensive report, *Industry Wage Survey: Communications, October–December 1978* (BLS Bulletin 2071) is available. □

The age of specialization (B.C.)

I am reminded that we are not all alike; there are diversities of natures among us which are adapted to different occupations.

Very true.

And will you have a work better done when the workman has many occupations, or when he has only one?

When he has only one.

—PLATO,
The Republic, Book II

Foreign Labor Developments



ILO meeting supported older workers, improved standards supervision

PETER ACCOLLA

The 1980 Conference of the International Labor Organization, the first major ILO gathering since the United States formally rejoined the tripartite organization,¹ dealt constructively with a number of crucial labor issues. The 66th Session, held in Geneva during June 4–25, addressed, among other topics, the needs of older workers, workplace safety and health, and the application of all ILO standards. Although discussion of political issues consumed much of its 3-week session, the conference nevertheless completed its technical work in good order and produced a comprehensive report on the observance of ILO human rights standards.

Government, employer, and worker delegates from 138 countries participated in this year's conference, including those representing the new member states of Saint Lucia, Grenada, Vietnam, Zimbabwe and Lesotho. Gerhard Weissenberg, Austria's minister for social affairs, was elected conference president.

Conference actions

A new standard on the employment of older workers was adopted unanimously. It promotes antidiscrimination laws and better working conditions for millions of older workers throughout the world. The conference also endorsed a number of proposals which, after further committee review in 1981, may lead to the adoption of new standards on collective bargaining, equality of treatment for workers with family responsibilities, and safety and health in the workplace.

The conference adopted the report submitted by the committee that supervises the implementation of ILO standards. Serious violations of human rights in Czechoslovakia were highlighted, the first time in 4

years that an Eastern bloc country has been cited by the conference as a whole for noncompliance with ILO standards. The report also criticized the human rights policies of Argentina, Guatemala, Zaire, and a number of other countries. In addition, the Committee on the Application of Conventions and Recommendations reported the adoption of new measures to improve the presentation of conclusions to the conference. Countries that achieve greater compliance will be cited, and more detailed explanation of compliance problems will be provided when available. The adoption of this new approach followed extensive debate on a Soviet bloc proposal to eliminate the so-called "special list" and "special paragraphs" used to elicit compliance with standards. Rejection of the proposal allows the ILO to continue to highlight flagrant violations of workers' human and social rights.

The conference endorsed specific recommendations for action by governments, employers, and workers and by the ILO against apartheid labor practices in the Republic of South Africa. The recommendations, proposed by the Committee on Apartheid, included a request to update the 1964 Declaration Concerning the Policy of Apartheid and to organize within 1 year an international tripartite meeting in one of the "front-line" African states to plan a joint international program of action.

A resolution criticizing Israeli settlements in Palestine and other occupied Arab territories was adopted in the first use of secret-ballot voting. Under the ILO's unique rules, abstentions are not counted towards a quorum. The resolution achieved the necessary quorum (257) for adoption in plenary when 15 delegates voted against the resolution, 249 in favor, and 156 abstained. Many states charged that the resolution violated existing due process machinery of the ILO and that it diverted the attention of the resolutions committee from consideration of issues more germane to the work of the ILO.

A resolution concerning newly independent Zimbabwe was unanimously adopted by the conference. The resolution requires the ILO to develop a program designed to address critical issues of resettlement, training, and worker education. A third resolution, also

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adopted unanimously, outlines the need for a rural development program, including agrarian reform to eradicate poverty and provide adequate nutrition, full employment, and useful education under conditions of freedom of association and equal treatment.

Finally, the conference responded favorably to a number of U.S. initiatives committing the ILO to study the need for minimum international labor standards and to examine the relationship between energy and employment.

Supervising ILO standards

This year, the Committee on the Application of Conventions and Recommendations examined closely its working methods and its manner of informing the conference of its conclusions in individual cases. As before, its 1980 report highlighted the shortcomings on the part of governments in ensuring the implementation of ratified conventions or otherwise complying with their constitutional obligations. Cases of continued failure over several years to eliminate serious deficiencies were, as usual, given great attention. For the first time, however, emphasis was also given to cases of government progress in ensuring the application of conventions and recommendations. A further innovation was that the committee will now report on the nature of the difficulties which governments—particularly in developing countries—may face in the discharge of their obligations. Such explanations were provided by nine governments, while the committee noted the absence of reports or requested information in 30 cases concerning 17 countries. Direct contacts between representatives of the ILO and governments, technical cooperation, seminars, study courses, and fellowships were cited by the committee as means of assisting governments in overcoming reported difficulties.

Satisfactory progress toward standards compliance, resulting from changes made in law and practice, was noted for four countries (Gabon, Honduras, Kuwait, and the Philippines). Seven countries were reported in "special cases" paragraphs (notices of major violations); Argentina, Czechoslovakia, Guatemala, Tanzania, and Zaire were cited for severe violations of important ILO human rights conventions.

After examining member states' compliance with standards, the Committee of Experts on the Application of Standards provides an initial report outlining deficiencies. This analysis serves as the basis for discussion by the Committee on the Application of Conventions and Recommendations. Explanations given by government representatives and comments of employer and worker members in committee sessions permit a frank and constructive dialogue. These discussions are the final and most crucial phase of ILO supervision of ratified conventions. It is also the only forum in international

organizations where national workers' and employers' organizations have the opportunity to question their own or another government's labor policies as they relate to specific issues or cases under discussion. This year, the committee discussed in depth a number of cases dealing with the key human rights conventions on forced labor, discrimination, and freedom of association.

Noting the constructive spirit that prevailed in the work of the Committee on the Application of Conventions and Recommendations, the conference unanimously adopted the committee's report. In addition, the conference noted changes made by countries during the past year (more than 70 cases) to comply with their international obligations.

Progress also was noted in the implementation of standards concerning migrant workers, and the conference expressed hope that a general survey made by the committee of experts would help overcome obstacles to their ratification and difficulties in their application.

Far-reaching resolutions finally emerge

This year, the Committee on Resolutions focused almost exclusively on the merits and objectives of a resolution presented by the government delegation of Jordan "deploring" Israeli settlements in Palestine and other occupied Arab territories. The resolution was one of five resolutions selected for priority consideration by the committee from a group of 17 resolutions submitted to the conference earlier.

Many committee members considered the resolution to be an extraneous political issue; nevertheless, it occupied the complete attention of the committee delegates for 2 weeks. As a result, other labor-related resolutions concerning rural aid, job training, migrant workers, and programs to eliminate child labor failed to receive adequate consideration. Representatives of governments, employers, and workers argued that the Arab charges of possible harmful impacts on employment and conditions of work in Israeli-occupied areas should be investigated through existing ILO due process procedures before a preemptory judgment was reached.

After committee approval, the resolution on Israeli settlements was further discussed in the plenary of the conference, where it was ultimately adopted by a secret-ballot vote.

A proposed resolution concerning technical and other forms of assistance for the newly created State of Zimbabwe emerged with a degree of unanimity which was in sharp contrast to the divisive atmosphere provoked by the debate on the resolution concerning Israeli settlements. Similarly, a proposed resolution providing for ILO program activities emphasizing rural development also won the endorsement of the full committee. Two other proposed resolutions selected for priority consideration dealt with the ILO contribution to the training

and retraining of managers, with special reference to developing countries. Neither was considered by the committee, but both may be reintroduced in following meetings.

The fifth proposed resolution accorded priority status—but also not considered—applied to the overall issue of training, a theme treated extensively by Francis Blanchard, the Director General, in his annual report to the conference.

Technical committees

Older workers. The extensive debate in the Committee on Older Workers reflected the general desire for actions both at the national and international levels to ensure the most equitable treatment and all necessary protection for these workers. The committee recommendation, which was adopted by the conference, encourages governments to solve the unique problems of older workers through full-employment strategies and social policies that consider all population groups and ensure that employment problems are not shifted from one group to another.

The major protective labor standards emphasized in the recommendation include the following: special laws and regulations to prevent employment-related discrimination against older workers; measures which enable continuation of employment despite age; and policies that enhance preparation for and access to retirement, ensuring a gradual transition between work and voluntary retirement with a pension. Specific measures suggested to achieve these objectives include a review of mandatory retirement provisions; special benefit compensation for reduced hours of work; special benefits in cases of extended unemployment or early cessation of work in arduous or unhealthy occupations; flexible eligibility age for old-age benefits; and retirement preparation programs.

Governments are particularly urged to formulate measures in cooperation with employers and workers to prevent discrimination against older workers in areas such as choice of employment, job security, pay and benefits, working conditions, and vocational training. The instrument also recommends special efforts to provide retraining for displaced older workers and assistance in securing new employment. These measures might also apply to older persons returning to the labor force following a commitment to family responsibilities.

Work organization and working time could be modified to reduce stress or excessive work pace, and the job and its content could be adopted to the older worker. These suggestions might involve part-time employment, flexible working hours, and transitional retirement programs.

The recommendation may be implemented through

laws or regulations, collective agreements, or as appropriate and consistent with national practice taking into account national economic and social conditions. The instrument adds that older workers, employers, and unions should be kept informed as to rights, opportunities, and measures designed to assist older workers.

The United States fully supported the adoption of the recommendation after successfully introducing provisions that encouraged access for older workers, trade union organizations, and employers to agencies responsible for investigating complaints regarding discrimination and that suggested changes in national measures specifying a mandatory retirement age to conform with the principle of equal employment opportunity. Progressive U.S. laws in this area could be used as examples for other nations.²

Safety and health. Issues relating to workplace safety and health were among the most important discussed by a technical committee at the 66th Session. The ILO has considerable experience in this area with some 50 instruments adopted to date.

This year, the Committee on Safety and Health was concerned with the prevention of occupational hazards, improving the working environment, as well as ways of promoting the progressive application of new and far-reaching safety and health measures at the national level. Numerous committee delegates, while pointing to achievements made in many countries, also stressed the importance of a comprehensive instrument, a "framework of principles" to guide efforts to protect workers.

The committee adopted a draft convention together with a recommendation setting overall standards applicable to all branches of economic activity, including the public sector. The two draft instruments will be the subject of a second discussion at the 1981 conference.

The draft convention outlines broad principles for a national policy on workplace safety and health, including the responsibilities of public authorities, employers, workers, and others. The draft recommendation covers the technical areas of such a policy.

Among the responsibilities outlined for the state are the formulation, implementation, and periodic review of a coherent national policy designed to prevent accidents and injuries related to employment. Employers are expected to ensure that workplaces, machinery, equipment, and processes under their control are safe and without risks to health. Additionally, employers shall provide for measures to deal appropriately with emergencies and accidents.

Workers are expected to cooperate in the fulfillment of the obligations and responsibilities by their employers and should have the right to cease work if, in their view, there is an immediate and serious threat of injury or death. Such work stoppage must be reported imme-

diately to the employer or the workers' safety delegate. The right to cease work on the basis of serious threat of injury or death will be discussed further next year when workers and employers will seek to define the issue more clearly, including delineation of responsibilities and conditions of work.

The draft convention also proposes the inclusion of safety, health, and working environment questions at all levels of education and training, including those of higher technical, medical, and professional institutes.

In accepting the report of the committee, the conference also decided to amend the list of occupational diseases appended to Convention No. 121 dealing with employment injury benefits. The newly revised list covers 29 diseases, 14 more than in 1964 when the convention was originally adopted.

Added to the list are hearing impairment caused by noise, disease caused by vibration and work with compressed air devices, certain skin diseases, lung cancer caused by asbestos, broncho-pulmonary diseases caused by cotton dust or flax, by hemp or dust, and by hard-metal dust, occupational asthma, diseases caused by various substances or their components (cadmium, fluorine, nitroglycerin, carbon monoxide, hydrogen cyanide, hydrogen sulfide, alcohols, cyclools, and ketones), and extrinsic allergic alveolitis caused by the inhalation of organic dusts. Medical care and income maintenance are some of the benefits that ratifying countries (17 in January 1980) must provide for all listed illnesses and injuries.

Collective bargaining. A new standard to promote collective bargaining was examined in committee in the first stage of a 2-year review. The Committee on Collective Bargaining endorsed the shared decisionmaking process obtained through collective bargaining. It noted that in addition to improving the lot of workers, free bargaining also has increased productivity and permitted important economic and social changes in numerous countries. However, a number of government delegates as well as employer and worker delegates on the committee noted that the weak character of employers' and workers' organizations in some areas represented a "serious obstacle" to effective bargaining, particularly in many developing countries.

The recommendation proposed by the committee, if adopted by the 1981 conference, will emphasize not only the need for negotiation between workers and employers but will also suggest ways of making collective bargaining more effective in all levels of economic activity.

Existing ILO instruments promoting collective bargaining³ would be reaffirmed under the proposed recommendation. Complementing the earlier standards, the proposed instrument would encourage collective bar-

gaining in all negotiations for the purpose of determining working conditions and terms of employment and regulating labor-management relations. As suggested, bargaining should be possible at all levels, including that of the establishment, the undertaking, the branch of activity, or the regional and national levels.

The proposed recommendation cites the need for independent and representative employers' and workers' organizations, with access to appropriate training and the ability to select their own bargaining representatives. Access to information is required for meaningful negotiations, and the proposal envisions that employers would make available, within limits, information on the economic and social situation of the negotiating unit. Public authorities, likewise, should provide information regarding the economic and social situation of the country and industry concerned, without jeopardizing the national interest.

The report of the committee was adopted by the conference without objection on June 25. Prior to its adoption, however, both worker and employer representatives expressed certain reservations with respect to its content. The workers emphasized that the scope of the instrument "cannot be left to governments to determine" and indicated they would seek instead to strengthen the effect of such standards through a proposed convention in 1981. The employers, on the other hand, expressed concern that a large part of the committee's work was consumed in considering "... novel and far-reaching concepts for collective bargaining that are not already accepted in most developed countries..." In their view, it would be impossible to impose uniform collective bargaining regulations throughout the world.

Workers with family responsibilities. The Committee on Workers with Family Responsibilities examined measures which would ensure equal opportunities and equal treatment for workers—both men and women—with family responsibilities. Conditions of employment, child-care services and facilities, and social security programs were identified as areas of special concern for such workers.

Proposals for both a convention and a recommendation, to be considered for possible adoption during the 1981 conference, provide for training measures to facilitate the integration of workers into the labor force for the first time and after an absence from employment for family responsibilities. The instruments specifically provide for safeguards against job loss because of family or marital commitments.

The proposed recommendation addresses hours of work, protection of part-time and temporary workers and homeworkers, and parental leave.

Previous instruments adopted by the ILO⁴ contributed

to the employment of women in certain countries, but many difficulties prevent the attainment of full equality of opportunity and treatment. Obstacles cited by the committee were social attitudes, preconceived ideas as to the capabilities and aptitudes of women, their lesser access to educational and job training programs, and limited employment experience.

Noting the progress achieved by the committee with regard to employment rights and privileges of women with family responsibilities, the U.S. Government and Labor delegates supported committee efforts to balance family responsibilities with demands of the workplace.

1980 achievements reflect potential

An objective review of the 1980 conference proceedings confirms that progress was achieved in a number of significant areas. The machinery for overseeing the implementation of ILO conventions in member states was strengthened. As a consequence, efforts to promote compliance with ILO standards should be more effective, particularly in such areas as freedom of association, forced labor, and discrimination in employment.

Moreover, in supporting a sound recommendation on older workers as well as proposals of new standards in such areas as workplace safety and health, collective bargaining, and workers with family responsibilities, the conference reaffirmed the ability of the ILO to tackle serious technical issues for which it has a unique competence.

These achievements, along with the adoption of resolutions providing for training and technical assistance, demonstrate the ability of the ILO to deal with labor issues concerning member states. In the future, the attention given this work should far exceed that devoted to extraneous political issues. Although political questions are inevitably related to issues discussed by the labor conference, member states should exercise restraint so as not to lose sight of the principles and purposes of the tripartite organization. □

—FOOTNOTES—

¹ In November 1977, the United States withdrew from active membership in the ILO.

For a discussion of the decision to withdraw and the subsequent decision to rejoin, see Tadd Linsenmayer, "U.S. rejoins ILO: agenda for 1980's stresses human rights," *Monthly Labor Review*, May 1980, pp. 50-51.

² The United States is one of the few countries in the world with substantial legal protection against age discrimination in employment through the Age Discrimination in Employment Act which protects workers age 40 to 70.

³ Current ILO standards covering the right to collective bargaining include Convention No. 98 (1949), ratified by 109 member states, and Recommendation No. 91 (1951).

⁴ Notably, the Employment (Women with Family Responsibilities) Recommendation No. 123, 1965.

Exploitation of children widespread, ILO reports

TANYA KUCHEROV

Nearly 55 million children not yet 15 years old are working in violation of the minimum age set by a 1973 International Labor Organization convention. Realistically, the number of children involved is probably even higher because they usually work illegally and along with their employers are reluctant to provide data.

This information is found in the ILO study "Children at Work," which investigates the use of child labor in 10 ILO members of Asia, Latin America, Africa, and southern Europe—none is among the 20 countries that have ratified the ILO agreement. Almost 53 million of these children are working in underdeveloped regions and 1.5 million in industrialized regions. Furthermore, the ILO suggests that in some areas the number of employed children may even be rising, but this increase could be counterbalanced by more children attending school.

Child labor in practice

Agricultural work is by far the most important sector for child labor. Argentine children, for example, are employed intensively in harvesting cotton, tobacco, mate, tea, and sugar cane, as well as growing paprika. In one province the ILO reports that 88 percent of the 10- to 13 year-olds are working on cotton plantations, and in another region 75 percent of this age group were already working on tobacco plantations. In both areas, virtually all children over age 14 were at work. Similarly, Mexican children usually begin working in agriculture at the age of 6 by sowing and harvesting crops such as cotton, tomatoes, and sugar cane. In Peru, Greece, and India, well over half the child labor force is involved in some form of agricultural work. One particular crop, the coffee bean is harvested mainly by women and their children in almost all regions of the world.

Another common form of child labor according to this study is the tradition of handing children over to families or future employers who will "adopt" or hire them as a subordinate member of the household. Young girls are usually "adopted" as domestic servants while boys are laborers or shepherd boys in return for a small loan or payment to their parents. These children then become dependent on their adopted parents who usually exercise total control over their working conditions, leaving the child vulnerable to abuse.

Thirty-seven percent of all female domestic servants

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in Peru are 14 to 19 years old. In addition, 88 percent of the domestic servants have immigrated from rural areas to the big cities such as Lima. Few of these women are members of trade unions, leaving the majority unprotected by, or ignorant of the possibility of, legal defense against abuses. Italian girls in the domestic service, however, have been replaced to a large extent by other nationalities. In Nigeria, the number of girls performing this service is also declining.

Other children may continue living at home while serving as so-called apprentices to employers or artisans for no pay. Usually these children are performing menial tasks rather than learning a job or trade that will be useful in the future. However, in some cases, when the child is working directly for an adult worker he may actually serve an apprenticeship and receive a share of the adult's earnings. This practice is common in Greece, where in certain trades such as shoemaking and tailoring a worker will hire an assistant. The Pakistani shoe industry reveals many children working alongside their parents for informal on-the-job training; this kind of apprenticeship may last from 2 to 4 years.

Commonly witnessed is the child who is forced to survive by taking to the streets, where he will peddle goods, run errands, beg, or collect junk. In some countries parents have even been known to deliberately maim their children, leaving them to beg on the streets to supplement the family income. Other outgrowths of child labor on the streets are drug-running and prostitution. City children in Peru enter street life as soon as they can leave home (around 7 years old) and can be seen working "in the markets, cinema entrances, bus and railway terminals, [parking lots], and the main squares."

In the manufacturing sector children usually work in smaller enterprises or cottage industries. Some of the most commonly performed tasks are packing, gluing, and labeling, as well as actual production-line jobs in the textile industries, tailoring and leather industries, leather and woodwork shops, pottery shops, cigarette factories, and the construction industries. In India, for example, the children are still commonly employed in the manufacturing of watches and carpet, and the processing of cashew nuts, with hours of work as long as those of adults. The Anti-Slavery Society of London has reported that over 20,000 children are employed in match factories for 16 hours a day beginning at 3 a.m. Indonesian girls, under an ostensibly voluntary arrangement, usually work in the cigarette industry from 5 a.m. until 5 p.m. with one hour for lunch.

Many children in Pakistan still work in the handwoven carpet industry, a traditional family occupation in which children with manual dexterity excel. Exploitation of child labor in Pakistan is most severe in the building industry and quarrying. According to the ILO,

children are "in effect abducted from their homes and confined in camps, where they are closely watched and severely punished and humiliated if they try to escape."

In Thailand, child labor is prevalent among glass industries, cold storage services and canned food industries. Working 6 days a week, 8 to 9 hours a day, a child in the glass factory is exposed for long periods to high temperatures and inevitably suffers from the heat. In cold storage factories, with similar hours, children often have to stand on floors flooded with water used for cleaning the seafood.

Safety and health at stake

Illegal and subject to exploitation, the child labor force has little or no influence over the working environment even with its numerous safety and health hazards. A child's body is extremely vulnerable to such hazards, more so than an adult because of soft bone tissue, shorter attention span, lower resistance to disease, and less endurance under strenuous and long working hours.

According to the ILO, street children generally feel freer than children who work in other sectors, but are still exposed to harmful weather conditions, often until late at night, to traffic hazards, street diseases, and detention by the police for vagrancy. Peddlers of petrol have been known to receive entire body burns during their work; while rubbish collectors, bent from the weight of the load, often permanently damage their spinal cord growth.

Perhaps the most harmful child labor sector is agriculture, which also includes the largest number of children. Dangerous machinery and pesticides, as well as prolonged exposure to heat, sun, dust, wind, and insects (disease carriers), all contribute to a particularly unsafe and unhealthy environment.

Employment in the manufacturing industry may be equally dangerous. Not only are the hours long, but children are more prone to accidents involving machinery because of their shorter attention span. Also, they are more susceptible to the harmful effects of toxic substances such as glues which can produce paralysis, or the absorption of wool dust into the lungs which causes tuberculosis and possibly cancer. Anemia and chronic bronchitis are common among children in the cigarette industry in India.

An unbalanced diet or malnutrition only compounds the child's predicament. Lack of proteins combined with fatigue from work can seriously damage the central nervous system. In Nigeria the working child's problem is finding the time during the workday, and supply, for food. This improper diet too often results in malnutrition and contraction of the disease kwashiorkor (which causes edema, anemia, potbelly, and loss of hair). Similarly, in India 25 percent of the children

working on plantations were in an advanced stage of vitamin A deficiency.

Violations of labor standards

Twenty members have ratified ILO Convention No. 138 on minimum age, but child labor is a long way from being eliminated. Convention No. 138 generally sets the minimum age for employment at 15 years and specifies that no person under age 18 should be exposed to hazardous working conditions. The corresponding Recommendation No. 146 states that young workers should enjoy equal pay for equal work, should be allowed 12 hours off at night for rest, customary weekly rest days, annual paid holidays, social security, medical care and benefit schemes, and satisfactory standards of safety and health.

However, most working children are now between 13 and 15 years old and many begin even younger. Domestic servants, for example, usually start between ages 9 and 10, whereas apprentices may begin as early as the age of 6 or 7. Depending on the sector and regional traditions, children may begin agricultural labor at very early ages; the rural child in Peru and in Mexico begins at about 6 years; children in India usually set out at the age of 8 or 9; and in Argentina at 6 or 7 years old.

Equal remuneration is clearly an anomaly, when applied to working children, who are either unpaid or receive negligible wages—about half the normal adult salary for the same work. Similarly, children's medical care and social security are rare. Also, children often conceal injuries from employers for fear of losing their job, and employers will let injuries go untreated for fear of drawing the attention of authorities to their illicit employment practices.

A good example of the lack of job security for children is given by the Anti-Slavery Society of London. In the Moroccan carpet industry, female apprentices under age 13 may work for no pay because of the skills they are learning. Once 13 years old, however, they are usually fired because Moroccan law stipulates that any worker 13 or over must be salaried as an adult.

Social and economic roots

The overriding cause of child labor, reports the ILO, is poverty. Parents who do not have the means to support the child or themselves, may have no choice but to send the child to work illegally or to have the child help them in their own work. A second contributing factor is the conflict between education and work, in terms of both availability and parental attitudes.

Economic need was seen in Nigeria as the major cause for urban child labor. Urbanization and modernization have tempted rural families with prospects for

better jobs, causing a great influx of rural dwellers to the cities. When faced with the problem of paying for food and shelter, however, these families are forced to send their children to work.

In addition to economic need, the traditional attitudes of parents toward work, as opposed to education, may encourage the child to seek work rather than pursue an education. In some cases there may not even be a choice between work and school because of the severe shortage of educational facilities in rural areas. But the ILO suggests that usually where such a choice exists, the parents' traditional objections to education may cause the child to drop out at an early age or to not attend school at all.

A survey among children in Bangkok, for example, showed that the main reasons for working were: poverty; need to assist parents in household economic activity; parents want them to work; need to earn their own living; and better than doing nothing. In Italy where access to education is much better but the number of children working is high, the reasons given were: little desire to study; prefer to work; slow progress at school; illness; difficult family situation; and poor relationship with teachers.

Striving for improvement

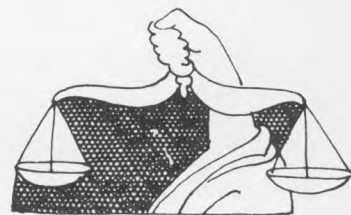
The ILO's program for future action on child labor sets forth both short- and long-term goals. In the short term, efforts must be made to improve the working conditions of children, while the long-term goal is to eliminate child labor. To meet these goals the ILO recommends the following:

- launch a major information campaign on the physical and mental needs of children and the detrimental affects of arduous work
- better enforcement of existing legislation
- extension of compulsory schooling to all children
- encouraging trade unions to fight for the eradication of child labor, and thus for increased employment opportunities and higher wages for adults

It is interesting that the latter recommendation has been successfully tried in one country. According to the ILO some Pakistan trade unions proposed in 1969 that children be paid the same rate as adults for the same work in textile industries; since then the number of children employed in the textile industry in Karachi has dropped significantly.

Whatever measures are taken against child labor, ending it will involve modifying the economic and social organization and traditional attitudes of the societies concerned—which will require worldwide efforts and cooperation. □

Significant Decisions In Labor Cases



Innovative work preservation

Technological innovation increases worker productivity, thus usually reducing the number of workers required for specific jobs. At the docks, for example, the introduction of large containers offered great economic advantage to the shipping industry but threatened the jobs of longshoremen by dramatically increasing their productivity. To mitigate the full impact of this innovation on longshore employment, the International Longshoremen's Association negotiated an agreement with the shipping industry to pack and unpack only certain types of containers crossing the piers in New York, Baltimore, and Hampton Roads. According to the agreement, longshoremen would pack and unpack goods from containers that would otherwise be handled by non-ILA workers within 50 miles of the pier. As a result, 80 percent of the containers typically pass through the piers intact, while the remaining 20 percent are packed or unpacked despite any duplication of work done by non-ILA members away from the pier. Violations of the agreement called for fines imposed on the shipping companies.

Under the National Labor Relations Act, unions may enter into labor contracts that preserve work traditionally done by their members. But such agreements must be carefully constructed: not only must the work be traditionally part of the union members' work, but the contracting employer must have the power to give the employees such work.¹ When the ILA's container-handling agreements were challenged by non-ILA cargo handlers and transporters, the National Labor Relations Board ruled that the agreements did not attempt to preserve traditional longshoring work but illegally sought to obtain work traditionally performed by others. The Board reasoned that the packing and unpacking of containers away from the pier had never been performed by longshoremen. Rather, such work had always been done by employees of transportation or consolidation companies.

The Federal appeals court for the District of Columbia refused to enforce the Board's decision because it felt that the Board had incorrectly examined the nature

of the work involved.² The Supreme Court agreed,³ resolving a conflict among the Circuit courts.⁴

Writing for a 5-4 majority, Justice Thurgood Marshall found that container technology replaced the entire method of handling goods between ocean and motor transportation and was therefore unlike technologies at issue in earlier work preservation cases. In the past, unions completely rejected innovations that would have altered their work procedures, so that courts applied the law to circumstances where the "traditional work" could be easily and narrowly defined. But Marshall reasoned that Congress intended the work preservation doctrine to be more flexible: the law also must protect union actions that "attempt to accommodate change while preserving as much of their traditional work patterns as possible." After clarifying the scope of permissible work preservation, Marshall examined the basis for the Board's application of the law to the container-handling rules:

The Board's approach reflects a fundamental misconception of the work preservation doctrine as it has been applied in our previous cases. Identification of the work at issue in a complex case of technological displacement requires a careful analysis of the traditional work patterns that the parties are allegedly seeking to preserve, and of how the agreement seeks to accomplish that result under the changed circumstances created by the technological advance.

... [T]o determine whether an agreement seeks no more than to preserve the work of bargaining unit members, the Board must focus on the work of the bargaining unit employees, not on the work of other employees who may be doing the same or similar work, and examine the relationship between the work as it existed before the innovation and as the agreement proposes to preserve it.

The Board, by contrast, focused on the work done by the employees of ... the truckers and consolidators after the introduction of containerized shipping. It found that work similar to work those employees had done before the innovation and concluded that ILA was trying to acquire the traditional work of those employees ...

By focusing on the work as performed after the innovation took place, by the employees who allegedly have displaced the longshoremen's work, the Board foreclosed—by definition—any possibility that the longshoremen could negotiate an agreement to permit them to continue to play any part in the loading or unloading of containerized cargo. For the very reason the rules were negotiated was that longshoremen do not perform that work away from the pier, and never have. Thus, it is apparent that under the Board's approach, in the words of the Court of Appeals, the 'work preservation doctrine is sapped of all life.'

"Significant Decisions in Labor Cases" is written by Gregory J. Mounts of the *Monthly Labor Review* staff.

The Board must now reconsider whether the ILA contract preserves traditional longshoring work—or its functional equivalent; if so, it must determine whether the shipping companies have the right to control the packing and unpacking of containers. Despite the Court's claim that both questions remain unresolved, the Board's decision on the agreement's work preservation objective could be constrained by the Court's characterization of the rules as "a thoroughly bargained and apparently reasonable accommodation to technological change." The Court also required the Board to consider the congressional preference for collectively bargained solutions to such disputes. The "right to control" test, however, presents far more difficult questions involving possible government regulatory constraints and the ability of shipping companies to enforce the contract rules after containers have been released to motor carriers. The Court suggested that the shippers' right to control work on containers they own or lease and in their "possession and control" might be the most appropriate focus for the Board's analysis of this issue.

Chief Justice Warren Burger wrote in dissent that the Board had correctly found that the work at issue has been traditionally performed by inland workers. Joined by Justices Potter Stewart, William Rehnquist, and John Paul Stevens, Burger charged that the ILA container-handling rules represented classic "featherbedding" and that the Court's action excessively widened the work preservation doctrine.

Secondary picketing of products limited

On the same day it clarified the scope of the work preservation doctrine, the Supreme Court also resolved a conflict between Circuit courts on the dimensions of permissible secondary boycotts under the National Labor Relations Act. The standard established by the Court's 1964 *Tree Fruits* ruling⁵ permitted secondary picketing against a struck product (apples in a retail food store). In its recent decision in *NLRB v. Retail Store Employees*,⁶ however, a 6–3 Court majority agreed with the Board that unions cannot follow a struck product to a secondary location and picket a neutral employer if the product accounts for substantially all of that employer's business.

In this case, the primary employer, Safeco Title Insurance Co., underwrites real estate title insurance in Washington State. Five local title companies, partially owned by Safeco, sell Safeco insurance; revenues from these sales make up more than 90 percent of the companies' gross income. At an impasse in contract talks with Safeco, the retail employees union picketed the five title companies and asked consumers to cancel existing policies. On charges filed by Safeco and one of the companies, the National Labor Relations Board ruled that

the union had violated the prohibition against secondary boycotts. Even though the union had directed its efforts against Safeco insurance policies, the Board found that because the product represented nearly all of the firms' business, the union's action was "reasonably calculated to induce customers not to patronize the neutral parties at all." The appeals court for the District of Columbia refused to enforce a Board order against the union, reasoning that *Tree Fruits* permitted such picketing despite the relationship of the product to the secondary employer's revenues.

Writing for the Supreme Court, Justice Lewis Powell found that the economic impact of a union's primary-product picketing on a neutral employer is the critical factor in deciding whether such activity is lawful.

... Product picketing that reasonably can be expected to threaten neutral parties with ruin or substantial loss simply does not square with the language or the purpose of [the NLRA's limitation on secondary boycotts]. Since successful secondary picketing would put the title companies to a choice between their survival and the severance of their ties with Safeco, the picketing plainly violates the statutory ban on the coercion of neutrals with the object of 'forcing or requiring them to cease . . . dealing in the primary product . . . or to cease doing business with' the primary employer.

Only four Justices could agree on the First Amendment implications of the decision. The Chief Justice and Justices Potter Stewart and William Rehnquist joined Powell in reasoning that Congress may prohibit, within the bounds of the First Amendment, specified secondary picketing that "spreads labor discord by coercing a neutral party to join the fray." Justices Blackmun and Stevens refused to take such a simple view of the constitutional issue; both wrote separate opinions troubled by the Powell's content-based ban on picketing. However, both agreed that barring the union's secondary picketing in this case was constitutionally permissible.

Justice William Brennan, joined by Justices Byron White and Thurgood Marshall, argued in dissent that the NLRA's prohibition against the coercion of secondary employers to join union interests should not be based on that employer's potential economic loss. Rather, the legality of secondary picketing, as established in *Tree Fruits*, should be based only on the union's focus on the primary product.

... *Tree Fruits* expressly rejected the notion that the coerciveness of picketing should depend on the extent of loss suffered by the secondary firm through diminished purchases of the primary product. Nevertheless, the Court has now apparently abandoned the *Tree Fruits* approach, choosing instead to identify coerciveness with the percentage of the secondary firm's business made up by the primary product.

Brennan also charged that the Court's new standard would create great uncertainty among unions and the

lower courts as to when secondary picketing is permissible.

By shifting its focus from the nature of the product boycotted to the composition of the secondary firm's business, today's decision substitutes a confusing and unsteady standard for *Tree Fruits'* clear approach to secondary site picketing. Labor unions will no longer be able to assure that their secondary site picketing is lawful by restricting advocacy of a boycott to the primary product, as ordained by *Tree Fruits*. Instead, picketers will be compelled to guess whether the primary product makes up a sufficient proportion of the retailer's business to trigger the displeasure of the courts or the Labor Relations Board. Indeed, the Court's general disapproval of "[p]roduct picketing that reasonably can be expected to threaten neutral parties with ruin or substantial loss. . . ." leaves one wondering whether unions will also have to inspect balance sheets to determine whether the primary product they wish to picket is too profitable for the secondary firm.

Veterans' service added to SUB formula

Veterans whose employment is interrupted by their military service are entitled to seniority benefits calculated as if they had been continuously employed. The Supreme Court has ruled that such seniority benefits include severance pay⁷ and pension benefits⁸ but not vacation benefits.⁹ Recently, a unanimous Court ruled that union-negotiated supplemental unemployment benefits also are perquisites of seniority and military service must be included in the determination of SUB payments. (*Coffey v. Republic Steel Corp.*¹⁰)

In its 1977 *Alabama Power* ruling,¹¹ the Court included pension benefits as seniority perquisites and established a two-pronged test for determining the benefits of seniority that Congress sought to preserve for returning veterans under the Vietnam Era Veterans' Readjustment Assistance Act of 1974. First, there must be a reasonable certainty that the benefit would have accrued if the employee had not gone into the military service. Second, the nature of the benefit must be "a reward for length of service," rather than a form of "short-term compensation for services rendered."

Writing for the Court, Justice Thurgood Marshall an-

alyzed the steel industry's SUB plan under the *Alabama Power* criteria. A steel industry employee accrues a one-half SUB credit for each week in which he worked any hours, or was paid for any hours not worked, or lost any hours because he was disabled or was performing certain union duties. To receive any SUB payments, an employee must have completed 2 years continuous service. Marshall concluded that Thomas Coffey, a Republic Steel employee laid off after a period of nearly 3 years (including 2 years of military service), would have accumulated the maximum 52 SUB credits if he had been continuously employed by Republic. Turning to the nature of supplemental unemployment benefits, Marshall concluded that they are not "a form of deferred short-term compensation, but are a reward for length of service closely analogous to traditional forms of seniority."

Marshall traced the origin of the SUB plan concept as an alternative to the unmet demand by organized labor for a guaranteed annual wage.

. . . From the beginning . . . the purpose of SUB plans was to provide employment security regardless of the hours worked rather than to afford additional compensation for work actually performed. From the employer's standpoint, SUBs, like pension benefits, help to assure a stable work force through periods of short-term layoffs and, like severance payments, may increase management flexibility in implementing technological advances.

The essential function of SUB plans is to provide economic security for regular employees in the event that they are laid off. Protection against layoff is, of course, one of the traditional attributes of seniority. SUB payments provide a second-level protection against layoff. If an employee does not have sufficient seniority to avoid being laid off, he may still have achieved the minimum level of seniority necessary to receive SUB payments during his layoff.

Although steel industry SUB payments are partly based on hours worked, Marshall emphasized that the nature of the benefits rather than the formula used to calculate them is the "crucial factor." The 2-year work requirement for benefit eligibility is a "significant period of service" for which laid-off employees are rewarded, and the fact that benefits do not continue to increase as seniority increases is unimportant, he concluded. □

FOOTNOTES

¹ See *NLRB v. Enterprise Assn. of Pipefitters*, 429 U.S. 507 (1977), establishing the so called "right to control" test for work preservation agreements; see *Monthly Labor Review*, June 1977, pp. 57-58.

² *International Longshoremen's Assn. v. NLRB*, 613 F. 2d 890 (D.C. Cir., 1979).

³ *NLRB v. International Longshoremen's Assn.*, 48 U.S.L.W. 4765 (U.S., June 20, 1980).

⁴ Results contrary to that reached by the D.C. Circuit were in *International Longshoremen's Assn. Local 1575 v. NLRB*, 560 F. 2d 439 (1st Cir. 1977), and in *International Longshoremen's Assn. v. NLRB*, 537 F. 2d 706 (2d Cir. 1976).

⁵ *NLRB v. Fruit Packers (Tree Fruits)*, 377 U.S. 58 (1964); see

Monthly Labor Review, June 1964, pp. 687-88.

⁶ *NLRB v. Retail Store Employees Union, Local 1001*, 48 U.S.L.W. 4796 (U.S., June 20, 1980).

⁷ *Accardi v. Pennsylvania R. Co.*, 383 U.S. 225 (1966), see *Monthly Labor Review*, April 1966, pp. 417-18.

⁸ *Alabama Power Co. v. Davis*, 431 U.S. 581 (1977), see *Monthly Labor Review*, October 1977, p. 71.

⁹ *Foster v. Dravo Corp.*, 420 U.S. 92 (1975), see *Monthly Labor Review*, May 1975, p. 65.

¹⁰ *Coffey v. Republic Steel Corp.*, 48 U.S.L.W. 4683 (U.S., June 10, 1980).

¹¹ 431 U.S. 581 (1977).

Major Agreements Expiring Next Month



This list of collective bargaining agreements expiring in December 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 |
|---|------------------------------------|--|-------------------|
| Associated Press (Interstate) | Services | Newspaper Guild | 1,200 |
| Boeing Co. (Interstate) | Transportation equipment | Seattle Professional Engineering Employees Association (Ind.) | 10,300 |
| Boeing Co., and Boeing Computer Services, Inc. (Washington) | Transportation equipment | Seattle Professional Engineering Employees Association (Ind.) | 6,500 |
| Braniff Airways, Flight Attendants (Interstate) ² | Air transportation | Airline Pilots | 1,400 |
| Construction Association of Western Pennsylvania (Pennsylvania) | Construction | Operating Engineers | 7,800 |
| Construction Association of Western Pennsylvania (Pennsylvania) | Construction | Teamsters (Ind.) | 2,000 |
| Federals, Inc. (Detroit, Mich.) | Retail trade | Clothing and Textile Workers | 1,000 |
| Frontier Airlines, Inc., Agents (Interstate) ² | Air transportation | Airline Pilots | 1,800 |
| Heavy Engineering, Railroad Contracting, Highway and Utilities Construction Agreement (Pennsylvania) ³ | Construction | Laborers | 2,000 |
| International Nickel Co., Inc., Huntington Alloys, Inc. (West Virginia) | Primary metals | Steelworkers | 1,550 |
| Lykes Pasco Packing Co. (Dade County, Fla.) | Food products | Retail, Wholesale, and Department Store | 1,100 |
| Marriott Corp., Bob's Big Boy Restaurants (California) | Restaurants | Bob's Employees' Association (Ind.) | 4,700 |
| Plastic Soft Materials Manufacturers Association, Inc. (New York, N.Y.) | Apparel | Ladies' Garment Workers | 3,500 |
| Realty Advisory Board on Labor Relations, Inc. (New York, N.Y.) | Real estate | Service Employees | 15,000 |
| Tanners Association of Fulton County, Inc. (New York, N.Y.) | Leather | Clothing and Textile Workers | 1,000 |
| Tenneco, Inc., Monroe Auto Equipment Division (Hartwell, Ga.) | Transportation equipment | Auto Workers (Ind.) | 1,000 |
| Government activity | | Employee organization ¹ | |
| Maryland: Baltimore Mass Transit Administration | Transportation | American Federation of State, County and Municipal Employees | 1,850 |
| Massachusetts: Massachusetts Bay Transportation Authority | Transportation | Amalgamated Transit Union | 4,000 |
| New Jersey: Morris County Board of Chosen Freeholders | Multidepartments | Civil Service Employees Association (Ind.) | 1,500 |
| Trenton Municipal Employees | Multidepartments | American Federation of State, County and Municipal Employees | 1,050 |
| New York: Chautauqua County Municipal Employees | Multidepartments | American Federation of State, County and Municipal Employees | 1,300 |
| Erie County Blue Collar Employees | Multidepartments | American Federation of State, County and Municipal Employees | 2,400 |
| Orange County Municipal Employees | Multidepartments | American Federation of State, County and Municipal Employees | 1,800 |
| Saratoga County Municipal Employees | Multidepartments | American Federation of State, County and Municipal Employees | 2,600 |
| Suffolk County Blue Collar Unit | Multidepartments | American Federation of State, County and Municipal Employees | 1,700 |
| Suffolk County Police Department | Law enforcement | Suffolk County Patrolmen's Benevolent Association, Inc. (Ind.) | 2,100 |
| Westchester County Municipal Employees | Multidepartments | American Federation of State, County and Municipal Employees | 6,000 |

See footnotes at end of table.

Continued—Major Agreements Expiring Next Month

| Employer and location | Industry | Union ¹ | Number of workers |
|--|----------------------------|--|-------------------|
| Ohio: Cleveland Municipal Employees | Multidepartments | American Federation of State, County and Municipal Employees | 2,300 |
| Wisconsin: Milwaukee Municipal Employees | Multidepartments | American Federation of State, County and Municipal Employees | 7,300 |
| Milwaukee Municipal Employees | Multidepartments | American Federation of State, County and Municipal Employees | 3,000 |
| Milwaukee Police Department | Law enforcement | Milwaukee Police Association (Ind.) | 1,750 |

¹ Affiliated with AFL-CIO except where noted as independent (Ind.).² Information is from newspaper reports.³ Industry area (group of companies signing same contract).

ERRATA

The work reported on by Paul F. Gerhart and John E. Drotning in their September 1980 communication, "Do uncertain cost/benefit estimates prolong public-sector disputes?" was sponsored by the Labor Management Services Administration, U.S. Department of Labor.

Tables 1, 2, and 3, appearing below, were inadvertently omitted from David E. Bloom's September 1980 communication, "Customized 'final offer': New Jersey's arbitration law."

Table 1. Arbitrator, mediator, and factfinder appointments in public-sector cases in New Jersey, November 1, 1977 to June 30, 1978

| Prior settlement steps | Arbitrator appointed | Arbitrator not appointed |
|---|----------------------|--------------------------|
| Total | 180 | 79 |
| Mediator appointed | 26 | 42 |
| Factfinder appointed | 0 | 3 |
| Both mediator and factfinder appointed | 3 | 6 |
| Neither mediator nor factfinder appointed | 151 | 28 |

SOURCE: New Jersey Public Employment Relations Commission.

Table 2. Arbitrator appointments in public-sector cases by type of union and employer, under New Jersey law, November 1, 1977 to June 30, 1978

| Bargaining parties | Arbitrator appointments |
|--|-------------------------|
| Employer type | |
| Total | 180 |
| Municipality | 159 |
| County | 19 |
| State | 2 |
| Union type | |
| Total | 180 |
| Patrolmen's Benevolent Association | 128 |
| Fraternal Order of Police | 4 |
| Independent police | 13 |
| Firemen's Mutual Benevolent Association | 18 |
| International Association of Fire Fighters | 7 |
| Independent fire | 7 |
| Independent—other law | 3 |

SOURCE: New Jersey Public Employment Relations Commission.

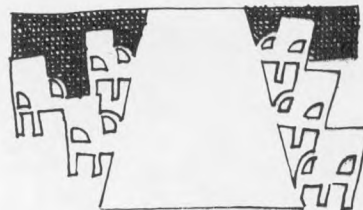
Table 3. Final public-sector case actions under the New Jersey arbitration law, November 1, 1977 to June 30, 1978

| Stage of settlement | Number of cases | Percent of cases ¹ |
|--|-----------------|-------------------------------|
| Total | 259 | 100.0 |
| 1. Voluntary settlement with no appointments | 22 | 9.4 |
| 2. Voluntary settlement with appointment of 'mediator' | 43 | 18.4 |
| 3. Voluntary settlement after issuance of factfinder's report | 0 | .0 |
| 4. Voluntary settlement after appointment of arbitrator but before commencement of arbitration proceedings | 24 | 10.3 |
| 5. Voluntary settlement with arbitrator acting as mediator or issuing a 'consent award' | 50 | 21.3 |
| 6. Settlement with issuance of final-offer or conventional arbitration award | 95 | 40.6 |
| Unknown | 25 | |

¹ The percentages were calculated excluding the cases with unknown stage of settlement from the denominator.

SOURCE: New Jersey Public Employment Relations Commission.

Developments in Industrial Relations



Pattern contract in copper industry

The first break in a 2-month strike against 10 major copper companies in 9 States occurred when the Steelworkers and 12 other unions settled with Kennecott Corp. Overall, the bargaining involved 40,000 workers and 23 unions. The strike began when contracts expired on June 30 and July 31.

A Steelworkers' official called the wage and benefit improvements of the copper agreement "somewhere between the package won by the union in steel and what was achieved in negotiations with aluminum, the costlier of the two agreements." (See *Monthly Labor Review*, August 1980, pp. 49-50 and June 1980, pp. 55-56.)

The major variation in the Steelworkers settlements in the three industries appeared to be in the wage escalator provisions. At Kennecott, the workers received the quarterly adjustment that was due under the prior contract, and the new contract provided for continuation of the quarterly escalator formula at the rate of 1 cent an hour for each 0.3-point movement in the Consumer Price Index for Urban Wage Earners and Clerical Workers (1967=100). This settlement also provided for an immediate lump-sum payment of \$25 to each worker, a result of a "calculation change." In the steel settlement, the 1-cent-for-0.3-point formula was retained, but the last adjustment under the prior contract was used to help meet the cost of pension improvements. In aluminum, the employees received the last cost-of-living increase under the prior contract, and the formula in the new agreement was liberalized, providing for 1-cent adjustments for each 0.26-point movement in the index, beginning in the third year.

The "set" wage rises at Kennecott included 25-cent-an-hour general increases, plus a half-cent increase in the increment between each of the job grades, effective immediately; a 20-cent increase plus a half-cent increment increase on the first anniversary; and a 15-cent increase plus a 1-cent increment increase on the second anniversary. The afternoon, evening, and night shift premiums were increased to 30, 37.5, and 45 cents an hour, from 20, 25, and 30 cents.

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

Pensions for current retirees were increased by \$33 to \$70 a month, in steps, over the term of the agreement. For future retirees, the benefit rates were increased, in steps, up to a total of \$4 a month for each year of credited service. This will bring the pension rate to a maximum of \$20 for employees in the top pay grades.

Sickness and accident benefits were increased by a total of \$25, bringing the average benefit to \$194 a week in 1983. There also were improvements in hospital, medical, surgical, and dental insurance, and a vision care plan was established.

Teamsters unwilling to reopen contract

After brief, informal discussions, the Teamsters turned down the trucking industry's request for a reopening of their labor contract. Trucking Management, Inc., the companies' major bargaining arm, contended that a reopening of negotiations was necessary to obtain labor cost concessions from union members to permit the carriers to compete with nonunion firms. The firms were particularly interested in eliminating or delaying automatic cost-of-living increases scheduled for October of 1980 and 1981, lowering some wage scales, and changing work rules that would result in the loss of jobs. The companies contended that much of their problems stemmed from the Motor Carrier Act of 1980, which deregulated the industry, making it difficult to pass along labor cost increases through shipping prices.

The union rejected the request for negotiations because of "insufficient proof that there has been injury to the companies caused by conditions of the contract." However, the union indicated that its study of the impact of deregulation and current recession on the industry could lead to further discussions on reopening the agreement. According to an official, one eventual result could be that regional units would be advised to negotiate wage and work rules concessions for locals in depressed areas. Reportedly, about 60,000 of the 300,000 Teamsters in the industry are on layoff.

Some concessions were already being granted in a few areas. For example, locals in Omaha, Neb., and Louisville, Ky., adopted a 7-day workweek. This means that normal schedules include weekend work at straight-time pay rates. Management officials said this move would also save money for shippers because freight could be moved faster and storage costs reduced.

Molders and Allied Workers resume merger talks

At the Molders convention, President Carl W. Studenrodt announced that merger talks with the Allied Industrial Workers will probably resume in several months. Allied Industrial Workers President Dominic D'Ambrosio, a guest speaker, also called for a resumption of the talks.

In other business, the union's executive board was reduced to 13 members by merging the elected editor's position into the president's position and by combining the secretary's and treasurer's positions. Also, monthly dues were raised to \$12 (from \$10.50) in January 1981 and to the equivalent of 2 hours of work (average of \$13-\$15) in 1982.

Firefighters elect new president in close vote

The biennial convention of the Fire Fighters union elected John A. Gannon, age 56, as its president. He succeeds William H. McClennan, who retired after six 2-year terms. Gannon, who had been vice president of the union for 6 years, defeated incumbent secretary-treasurer Frank Palumbo by a vote of 73,668 to 73,448, with each of the 1,400 delegates given a vote proportional to the number of members in their local union.

McClennan, who had served as a vice president from New England for 20 years prior to ascending to the leadership of the 180,000-member union, was unanimously named president emeritus.

Pregnancy discrimination suits settled

A recent settlement ended a 1974 suit which alleged that Westinghouse Electric Corp. violated the Civil Rights Act of 1964 by discriminating against pregnant employees. The suit was filed by the International Union of Electrical Workers, two of its locals, and 22 IUE members. It claimed that Westinghouse did not credit seniority to employees when they were on maternity leave; denied certain health benefits to pregnant employees; and forced them to take unpaid maternity leave after a certain time, regardless of the employee's desire and physical capacity to work.

The Pregnancy Discrimination Act of 1978 prohibits pregnancy-related discrimination; this settlement corrected certain previous practices found to be discriminatory. Provisions included a total of \$305,000 in payments to women who suffered pay losses from 1971 to 1978; seniority credit for absences for reasons related to pregnancy since the July 1, 1965, effective date of the equal employment opportunity provisions of the Civil Rights Act; and specific assurances of equal treatment for pregnant women. Also involved in the suit was the

White-Westinghouse Corp., which purchased five Westinghouse appliance plants in 1975 and the Equal Employment Opportunity Commission, which joined the union side in 1978 after passage of the Pregnancy Discrimination Act.

In another suit, the Fourth U.S. Circuit Court of Appeals in Richmond, Va., agreed with a U.S. District Judge that Eastern Airlines could not ground flight attendants during the first 13 weeks of pregnancy. However, three of the nine judges dissented, contending that even during the first 13 weeks of pregnancy, attendants are subject to physical problems that could hinder their ability in emergencies. In another aspect of the ruling, five of the judges held that only the carrier should determine if attendants could work during the 13th through 20th weeks of pregnancy. This overturned the decision of U.S. District Judge Robert R. Merhige, Jr., who had ruled that pregnant attendants could work during these weeks, with their doctor's permission. The appeals court unanimously concurred with Merhige that Eastern could ground attendants after the 20th week of pregnancy and that the company could not strip attendants of their seniority after they are transferred to ground duty because of pregnancy.

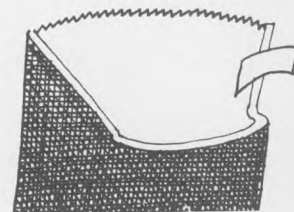
Eastern indicated that it was satisfied with the decision. There was no immediate comment from the Transport Workers Union, which represents the attendants and which had initiated the suit.

Work-sharing urged by job bias panel

In a move to minimize the effect of the current recession on women and minorities, the Equal Employment Opportunity Commission asked employers to consider "work sharing" and other alternatives to layoffs. The Commission said this was necessary to protect women and members of minority groups from layoff under the prevailing "last-hired, first-fired" system, which is "beginning to eradicate" the recent gains in employment they have achieved. The Commission also suggested that layoffs be based on plantwide seniority, rather than departmental seniority, saying this may reduce the adverse impact on minorities and women.

In another development involving equal employment opportunity, United States Steel Corp. agreed to hire women for 25 percent of job openings over a 2-year period at its coal mine No. 20 near Thacker, W. Va. The company's settlement with the West Virginia Human Rights Commission resolved a complaint by three women that U.S. Steel had refused to hire them because of their sex. The settlement provided that each of the three women will receive \$20,000. However, the hiring of women will not begin until all employees currently on layoff at the mine are recalled. □

Book Reviews



Job creation program for researchers

CETA: Assessment of Public Service Employment Programs. By William Mirengoff, Lester Rindler, Harry Greenspan, Scott Seablom. Washington, National Academy of Sciences, National Research Council, Committee on Evaluation of Employment and Training Programs, 1980. 197 pp.

Involving Private Employers in CETA Programs. By Leonard A. Lecht and Marc A. Matland. New York, The Conference Board, 1979. 18 pp. (Information Bulletin 63.)

Areawide Planning in CETA. By Randall B. Ripley, Donald Baumer, and Carl Van Horn. Washington, U.S. Department of Labor, Employment and Training Administration, 1979, 128 pp. (R&D Monograph, 74.) Stock No. 029-000-00388-4. \$4.50, Superintendent of Documents, Washington 20402.

Each year, the Employment and Training Administration provides hundreds of thousands of dollars for research on manpower programs. To persons in consulting firms and universities involved in the research, there is a real sense of professionalism in the work. The researchers usually visit a number of program sites, talk with program officials and local businessmen, collect data, and write reports, including recommendations for program improvement.

However, to persons outside the research world, the reports often are of little value. The site visits, interviews, and data collection usually only capture the program surfaces, and further, only those surfaces that the program operators want to be seen. The recommendations usually are statements of the obvious, or excessive praise for the programs, or highly impractical (or misdirected) schemes.

In the following review, I'd like to discuss three recent reports which illustrate these criticisms.

CETA: Assessment of Public Service Employment Programs is the most recent in a series of works on CETA by the National Research Council. Its authors, William Mirengoff, Lester Rindler, Harry Greenspan, and Scott Seablom, focus on the public service employ-

ment component of CETA.

Established in 1973 as an appendage of the main training programs, public service employment was increased sharply as a measure to combat unemployment during the recession of the 1970's, and had up to 725,000 workers by 1978. In 1978, it was cut, but still had over 400,000 workers by the end of 1979.

Public service employment had many reasons to be successful: it promised work rather than welfare, it promised to move participants steadily into permanent jobs, and it promised to accomplish socially-valuable work. But it has not come off as was hoped and has encountered criticism from many quarters. Unions have complained that public service jobs have been used to substitute for regularly funded jobs. Community groups have complained that jobs have not gone to the lower-skilled and less-directed among the unemployed. Newspapers have complained about the make-work nature of the jobs. Nearly everyone has complained that participants have not moved into unsubsidized jobs.

Mirengoff and his coauthors considered these complaints. They collected information (through field associates) from 28 programs throughout the country. There is much of value in the report. For example, the authors point out some of the reasons why even with the greater targeting brought by the amendments of 1976, the "structurally unemployed" have not been hired in proportion to their numbers among the eligible unemployed. They also point out that the 1976 amendments have not fully succeeded in preventing the use of public service employment jobs in the place of regularly funded jobs.

However, the report also suffers in many sections from its reliance on field associates and interviews and data collection, and distance from the subtleties and complexities of local operations. For example, commenting on the work done by participants, the authors state firmly that "as the law required, projects did provide public services that were useful," that were not make-work; and further that "project enrollees were found to perform their duties as well as regular employees in similar positions."

But there is little focus on local programs to convince readers that this is so, or give readers a feel for the actual accomplishments of public service employment.

What we do get is a survey of local officials showing that 95 percent support public service employment projects as "very useful," not surprising given that at least 95 percent of local officials prefer Federal to local funding of services; and the view of most field associates that make-work was "negligible." It would have been more useful to have a more detailed picture of a few programs, a connecting of the statistics with the tasks performed and the faces behind the statistics. Further, we get no feel for the personnel problems connected with public service employment. In the programs I've observed, public service employment has performed many valuable tasks, but also has been limited in effectiveness by the resentment and hostility of some regular employees.

On the transition of these workers into unsubsidized employment, the authors urge that public service employment projects "combine training with public service jobs that furnish marketable skills and experience" and that "greater stress should be placed on transition of public service employment enrollees to unsubsidized jobs."

But there is little discussion of the practical tradeoffs connected with this recommendation: tradeoffs between training and other goals of hiring the structurally unemployed and of performing useful work. To illustrate: jobs such as child-care worker, librarian, or dance instructor may have considerable social value, but have little demand in the private sector. By contrast, clerical jobs which are in demand in the private sector, may contribute less to public service.

In *Involving Private Employers in CETA Programs*, Leonard A. Lecht and Marc A. Matland examine strategies for increasing participation of private sector employers in local CETA programs. Again, the subject is interesting and important. Training by private employers consistently has been the most successful. Yet, only a small proportion of employers in any city gets involved.

In order to find out reasons for the low participation (and what might be done to increase participation), the authors survey nine programs across the Nation. They spend time at each site interviewing CETA staff, planning council members, and employers—in all an impressive total of 275 interviews.

They begin the report by identifying four factors as influencing business participation: "community socioeconomic environment," "CETA enrollee characteristics," "prime sponsor-employer linkages," and "prime sponsor's organization and program orientation." Of these, they describe the latter two as most important and go on to note recommendations for greater business involvement. These include representation of business on planning councils, ties with the National Alliance of Businessmen and the local chamber of commerce, un-

derstanding by program staff of the needs of local business, less paperwork, and greater use of tax credits rather than subsidies.

How valuable are these recommendations?

Most are well-known to local officials. A personal recollection: my first job in the manpower field was with the CETA program in Alameda County, Calif. Soon after I began working, I approached the program director and suggested that our program look into ways that additional businesses could be brought into the program. The director took out paper and wrote a list of the reasons for limited business involvement. They included nearly all of the findings of this report.

The director also spoke of the general strategies for business involvement. What might have been of value to him and other local officials were specific studies of programs that did and did not succeed with businesses. But such studies require more than merely conducting interviews with local officials or even with employers.

Further, the limited detail which the authors bring to their recommendations indicates little recognition of the practicalities of local operations. One example is the authors' suggestion that program officials be required to include in their annual plans detailed information about business involvement. The authors state that the plan should indicate "placements in unsubsidized employment by class of employer; placements in private for profit firms for individual programs such as on-the-job training; makeup of the council membership; and linkages with the local business community."

This sounds good in theory, but from a local perspective, annual plans take up considerable time, do not appear to me to be read seriously by Department of Labor officials, and rarely spark reflection among local planning staffs who generally put together the required information as a "going through the motions."

Another of the authors' suggestions is that additional funds be spent for public relations. Again this sounds good in theory, as there is limited understanding of CETA by businesses and the general public. However, in practice the money spent by local programs on public relations has not, in my opinion, been well spent. It has been spent on films and pamphlets (such as *CETA Works* by the National Association of Counties) that have been uncritical whitewashes which convince no one.

The third and poorest of the reports is *Areawide Planning in CETA* prepared by Randall B. Ripley, Donald Baumer, and Carl Van Horn. Again, we have a study based on site visits. The authors visited 12 sites around the country, selected "because they were reputed to take planning seriously."

The authors then test the models against a number of performance indicators (positive terminations, cost per placement) to come to the wholly predictable conclu-

sion that the "future-oriented" programs perform best, followed by the "operations management," and then the "crises management" programs. The authors conclude that programs work well that have key staff of the highest quality who are encouraged to remain with the program, a monitoring system that yields accurate and complete information, control of service deliverer participation in key decisions which affect who the program services, involvement of the business community in more than token activities, and political officials who support decisions made by staff. More of the obvious.

The authors begin by setting three models of planning: a *crises management* model characterized by "unstable relations among actors," "unmanaged conflict," "lack of routing," and "malfunctioning feedback system"; an *operations management* model characterized by "stable relations among actors," "well-managed conflict," "many routine procedures," and "feedback mechanism in place and utilized"; and the *future-oriented* model, characterized by the four characteristics of the "operations management" model as well as by "deliberate attention to long-range decisions."

Of the 12 programs surveyed, only one is categorized as "crises management." Eight are "operations management" and three are "future-oriented."

But do these models have practical value?

The authors first test them against a number of local labor market and economic growth characteristics, and against characteristics of the size and structure of programs. They come to the predictable conclusion that none of the factors determines the type of planning operation, that a good planning operation can exist in a program of any size or structure or local economy.

Other conclusions are embarrassingly uncritical. The authors praise a number of programs, which would be better served by a more balanced, harder look. For example, the authors praise the evaluation system of a large program in the East, which traces participants for 6 months or more. In fact, the system is of little value. Its reports tell little more than that a participant is working or not working. These reports do not go beyond the statistics, do not probe into why the training might have been sufficient or insufficient, or why some participants decided to return to the netherworld of welfare and hustle.

Uncriticalness, generality, distance from programs, especially from participants, characterize not only the three reports considered here, but also most research reports today. The persons who put together these reports usually are bright, with fine educational backgrounds. However, their evaluation of site visits, interviews, and reliance on statistical data usually yields little of value to national or local officials.

What is needed is for these researchers to get out of their offices; to spend months, not days, studying local

programs; and most of all to be far more questioning of the claims of program officials.

—MICHAEL S. BERNICK

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Big is beautiful

World Economic Development: 1979 and Beyond. By Herman Kahn. Boulder, Colo., Westview Press, 1979, 510 pp.

In distinct contrast to what is rapidly appearing to be the mainstream of the literature on development, Herman Kahn argues that policies promoting high economic growth in a basically market-economy are physically practicable, socially desirable, and perhaps even morally necessary. To make this argument, Kahn faces off against ideas that are currently enjoying great power in the imaginations of the scholarly, opinionmaking, and policymaking elites of the advanced, market-oriented countries. Among these ideas are the (physical) limits-to-growth school, the small-is-beautiful movement, the concern for protection of an ecology at almost any economic cost, the approach of something close to a "health and safety authoritarianism," and increasing favor for social control and overall planning of the economy.

All of these ideas, and more, are parts of, or extensions of, what Kahn has termed the "Fourteen New Emphases" in the socioeconomic and political cultures of the advanced industrial nations in general, and their upper-middle and intellectual classes in particular. His development and elaboration of these emphases in the third chapter is the keynote of his section on "Framework, Concepts, Perspectives." This section is the more provocative in the book, the second bogging itself down in case study and admitted progrowth polemic and proselytism. The whole spirit, however, is one of vigorous and open opposition to what Kahn feels is an unfair and unwise overpublicization of the antigrowth position.

World Economic Development is an exercise in macro-history and futurology that can (perhaps should) be taken with a grain of salt, or what its author would call the "agnostic use of information and concepts." I did, however, find it refreshing to read an optimistic scenario of the long-run economic future.

—RICHARD M. DEVENS, Jr.

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The service sector in perspective

Understanding the Service Economy: Employment, Productivity, Location. By Thomas M. Stanback, Jr. Baltimore, The Johns Hopkins University Press, 1979. 122 pp. \$9.50.

This concise and enlightening book analyzes several aspects of the service sector of our economy: the demand for services, productivity in services, and the nature and location of service employment. Thomas M. Stanback defines "services" to include wholesale and retail trade, government, finance, insurance, and real estate, and professional, personal, business and repair services; he excludes the capital-intensive transportation, communication, and public utility industries.

Stanback begins by refuting the common belief that consumption in the United States is rapidly becoming more service-oriented. He shows that consumption of services did increase faster than disposable income during the 1950's, but that from 1960 to 1977 the portion of consumption expenditures (adjusted for price changes) devoted to services increased only from 42 to 45 percent. As a brake on the growth of service consumption relative to that of goods, Stanback cites the high degree of "complementarity" between many goods and services. For example, the increased use of the automobile generates an increased demand for maintenance services, and the increased demand for recreation services raises the demand for goods such as skis and tennis rackets.

Stanback notes that productivity gains in services have not matched those in nonservices. However, he cites several factors—such as the application of new managerial approaches to service firms, and the use of computerized checkout systems in retailing—that may herald significant productivity advances in services.

In his analysis of service employment, Stanback shows that compared to nonservices, service work is characterized by lower earnings, higher proportions of women, minority, and part-time workers, and fewer institutional arrangements to enhance job security. Probably the most useful part of the book is the analysis of the location of service employment. The author shows that while the location of jobs in consumer services is related to that of population, jobs in business services are more concentrated geographically. Stanback, the co-author of two previous books on urban economics, presents many interesting findings, such as: metropolitan areas that were centers of business services in 1960 experienced the greatest growth in business services during the following decade, while areas that were manufacturing centers in 1960 made little progress during the following decade in attracting business service employment.

Stanback concludes with a discussion of the spatial labor market adjustments required for future service employment growth. Under conditions of rapid growth in aggregate demand, "Employment levels remain relatively high in areas least favored, while in areas where shortages develop demand is met by upgrading, by migration, and by utilizing personnel who might otherwise have left or never entered the labor market." However, if aggregate demand grows slowly, labor market maladjustments will result that "are likely to take their toll disproportionately on those who are least skilled, least experienced, and least able to make difficult adjustments through migration. . . ." Citing the slow growth of the economy in recent years, Stanback promises little immediate relief for these sufferers of migration headaches.

By combining skillful data analysis and penetrating observations on the nature of the service sector, Stanback has produced a readable and incisive book that will be of great value to economists and non-economists alike.

—EDWARD STEINBERG
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U.S. Department of Commerce

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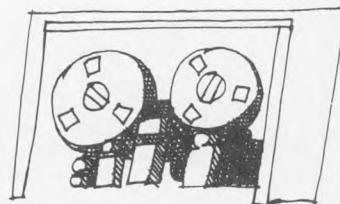
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I certify that the statements made by me above are correct and complete.

(Signed) Henry Lowenstern, Editor-in-Chief

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NOTES ON CURRENT LABOR STATISTICS

This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics. A brief introduction to each group of tables provides definitions, notes on the data, sources, and other material usually found in footnotes.

Readers who need additional information are invited to consult the BLS regional offices listed on the inside front cover of this issue of the *Review*. Some general notes applicable to several series are given below.

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might otherwise mask short-term movements of the statistical series. Tables containing these data are identified as "seasonally adjusted." Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years. For a technical discussion of the method used to make seasonal adjustments, see *X-11 Variant of the Census Method II Seasonal Adjustment Program*, Technical Paper No. 15 (Bureau of the Census, 1967).

Seasonally adjusted labor force data in tables 2-7 were last revised in the February 1980 issue of the *Review* to reflect the preceding year's experience. Beginning in January 1980, the BLS introduced two major modifications in the seasonal adjustment methodology for labor force data. First, the data are being seasonally adjusted with a new procedure called X-11/ARIMA, which was developed at Statistics Canada as an extension of the standard X-11 method. A detailed description of the procedure appears in *The X-11 ARIMA Seasonal Adjustment Method* by Estela Bee Dagum (Statistics Canada Catalogue No. 12-564E, September 1979). The second change is that seasonal factors are now being calculated for use during the first 6 months of the year, rather than for the entire year, and then are calculated at mid-year for the July-December period. Revisions of historical data continue to be made only at the end of each calendar year.

Annual revision of the seasonally adjusted payroll data in tables 11, 13, 16, and 18 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 intro-

duced 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 *Handbook of Labor Statistics 1978*, Bulletin 2000, provides more detailed data and greater historical coverage for most of the statistical series presented in the *Monthly Labor Review*. More information from the household and establishment surveys is provided in *Employment and Earnings*, a monthly publication of the Bureau, and in two comprehensive data books issued annually—*Employment and Earnings, United States* and *Employment and Earnings, States and Areas*. More detailed information on wages and other aspects of collective bargaining appears in the monthly periodical, *Current Wage Developments*. More detailed price information is published each month in the periodicals, the *CPI Detailed Report* and *Producer Prices and Price Indexes*.

Symbols

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

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

n.e.c. = not elsewhere classified.

Schedule of release dates for major BLS statistical series

| Title and frequency (monthly except where indicated) | Release date | Period covered | Release date | Period covered | MLR table number |
|---|-----------------|-------------------|-----------------|-------------------|---------------------|
| Employment situation | November 7 | October | December 5 | November | 1-11 |
| Producer Price Index | November 7 | October | December 5 | November | 26-30 |
| Consumer Price Index | November 25 | October | December 23 | November | 22-25 |
| Real earnings | November 25 | October | December 23 | November | 14-20 |
| Productivity and costs (quarterly): | | | | | |
| Nonfinancial corporations | November 26 | 3d quarter | ..... | ..... | 31-34 |
| Work stoppages | November 28 | October | December 30 | November | 37 |
| Labor turnover in manufacturing | November 28 | October | December 31 | November | 12-13 |

EMPLOYMENT DATA FROM THE HOUSEHOLD SURVEY

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 65,000 households beginning in January 1980, selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

Definitions

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

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

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population; the **total labor force** includes military personnel. Persons **not in the labor force** are

those not classified as employed or unemployed; this group includes persons retired, those engaged in their own housework, those not working while attending school, those unable to work because of longterm illness, those discouraged from seeking work because of personal or job market factors, and those who are voluntarily idle. The **noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy.

Full-time workers are those employed at least 35 hours a week; **part-time workers** are those who work fewer hours. Workers on part-time schedules for economic reasons (such as slack work, terminating or starting a job during the week, material shortages, or inability to find full-time work) are among those counted as being on full-time status, under the assumption that they would be working full time if conditions permitted. The survey classifies unemployed persons in full-time or part-time status by their reported preferences for full-time or part-time work.

Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the preceding years. These adjustments affect the comparability of historical data presented in table 1. A description of these adjustments and their effect on the various data series appear in the Explanatory Notes of *Employment and Earnings*.

Data in tables 2-7 are seasonally adjusted, based on the seasonal experience through December 1979.

1. Employment status of the noninstitutional population, 16 years and over, selected years, 1950-79

[Numbers in thousands]

[Numbers in thousands]

| Year | Total non-institutional population | Total labor force | | Total | Civilian labor force | | | | | Not in labor force |
|------|------------------------------------|-------------------|-----------------------|---------|----------------------|-------------|-----------------------------|------------|------------------------|--------------------|
| | | Number | Percent of population | | Employed | | | Unemployed | | |
| | | | | | Total | Agriculture | Nonagri-cultural 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 | 3,482 | 82,443 | 5,076 | 5.6 | 57,587 |
| 1975 | 153,449 | 94,793 | 61.8 | 92,613 | 84,783 | 3,380 | 81,403 | 7,830 | 8.5 | 58,655 |
| 1976 | 156,048 | 96,917 | 62.1 | 94,773 | 87,485 | 3,297 | 84,188 | 7,288 | 7.7 | 59,130 |
| 1977 | 158,559 | 99,534 | 62.8 | 97,401 | 90,546 | 3,244 | 87,302 | 6,855 | 7.0 | 59,025 |
| 1978 | 161,058 | 102,537 | 63.7 | 100,420 | 94,373 | 3,342 | 91,031 | 6,047 | 6.0 | 58,521 |
| 1979 | 163,620 | 104,996 | 64.2 | 102,908 | 96,945 | 3,297 | 93,648 | 5,963 | 5.8 | 58,623 |

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

[Numbers in thousands]

| Employment status | Annual average | | 1979 | | | | 1980 | | | | | | | | |
|---|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 1978 | 1979 | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
| TOTAL | | | | | | | | | | | | | | | |
| Total noninstitutional population ¹ | 161,058 | 163,620 | 164,106 | 164,468 | 164,682 | 164,898 | 165,101 | 165,298 | 165,506 | 165,693 | 165,886 | 166,105 | 166,391 | 166,578 | 166,789 |
| Total labor force | 102,537 | 104,996 | 105,586 | 105,688 | 105,744 | 106,088 | 106,310 | 106,346 | 106,184 | 106,511 | 107,230 | 106,634 | 107,302 | 107,139 | 107,155 |
| Civilian noninstitutional population ¹ | 158,941 | 161,532 | 162,013 | 162,375 | 162,589 | 162,809 | 163,020 | 163,211 | 163,416 | 163,601 | 163,799 | 164,013 | 164,293 | 164,464 | 164,667 |
| Civilian labor force | 100,420 | 102,908 | 103,494 | 103,595 | 103,652 | 103,999 | 104,229 | 104,260 | 104,094 | 104,419 | 105,142 | 104,542 | 105,203 | 105,025 | 105,034 |
| Employed | 94,373 | 96,945 | 97,504 | 97,474 | 97,608 | 97,912 | 97,804 | 97,953 | 97,656 | 97,154 | 96,988 | 96,537 | 96,996 | 97,006 | 97,207 |
| Agriculture | 3,342 | 3,297 | 3,364 | 3,294 | 3,385 | 3,359 | 3,270 | 3,326 | 3,358 | 3,242 | 3,379 | 3,191 | 3,257 | 3,180 | 3,442 |
| Nonagricultural industries | 91,031 | 93,648 | 94,140 | 94,180 | 94,223 | 94,553 | 94,534 | 94,626 | 94,298 | 93,912 | 93,609 | 93,346 | 93,739 | 93,826 | 93,765 |
| Unemployed | 6,047 | 5,963 | 5,990 | 6,121 | 6,044 | 6,087 | 6,425 | 6,307 | 6,438 | 7,265 | 8,154 | 8,006 | 8,207 | 8,019 | 7,827 |
| Unemployment rate | 6.0 | 5.8 | 5.8 | 5.9 | 5.8 | 5.9 | 6.2 | 6.0 | 6.2 | 7.0 | 7.8 | 7.7 | 7.8 | 7.6 | 7.5 |
| Not in labor force | 58,521 | 58,623 | 58,519 | 58,780 | 58,937 | 58,810 | 58,791 | 58,951 | 59,322 | 59,182 | 58,657 | 59,471 | 59,091 | 59,439 | 59,633 |
| Men, 20 years and over | | | | | | | | | | | | | | | |
| Civilian noninstitutional population ¹ | 67,006 | 68,293 | 68,522 | 68,697 | 68,804 | 68,940 | 69,047 | 69,140 | 69,238 | 69,329 | 69,428 | 69,532 | 69,664 | 69,756 | 69,864 |
| Civilian labor force | 53,464 | 54,486 | 54,735 | 54,760 | 54,709 | 54,781 | 54,855 | 55,038 | 54,996 | 55,114 | 55,467 | 55,220 | 55,398 | 55,474 | 55,547 |
| Employed | 51,212 | 52,264 | 52,453 | 52,443 | 52,374 | 52,478 | 52,279 | 52,531 | 52,300 | 51,868 | 51,796 | 51,510 | 51,668 | 51,792 | 51,803 |
| Agriculture | 2,361 | 2,350 | 2,377 | 2,371 | 2,438 | 2,427 | 2,387 | 2,435 | 2,394 | 2,320 | 2,384 | 2,270 | 2,292 | 2,286 | 2,398 |
| Nonagricultural industries | 48,852 | 49,913 | 50,076 | 50,072 | 49,936 | 50,051 | 49,892 | 50,096 | 49,906 | 49,548 | 49,412 | 49,240 | 49,376 | 49,506 | 49,405 |
| Unemployed | 2,252 | 2,223 | 2,282 | 2,317 | 2,335 | 2,303 | 2,577 | 2,507 | 2,696 | 3,246 | 3,671 | 3,710 | 3,730 | 3,682 | 3,744 |
| Unemployment rate | 4.2 | 4.1 | 4.2 | 4.2 | 4.3 | 4.2 | 4.7 | 4.6 | 4.9 | 5.9 | 6.6 | 6.7 | 6.7 | 6.6 | 6.7 |
| Not in labor force | 13,541 | 13,807 | 13,787 | 13,937 | 14,095 | 14,159 | 14,192 | 14,102 | 14,242 | 14,215 | 13,961 | 14,312 | 14,266 | 14,282 | 14,317 |
| Women, 20 years and over | | | | | | | | | | | | | | | |
| Civilian noninstitutional population ¹ | 75,489 | 76,860 | 77,124 | 77,308 | 77,426 | 77,542 | 77,656 | 77,766 | 77,876 | 77,981 | 78,090 | 78,211 | 78,360 | 78,473 | 78,598 |
| Civilian labor force | 37,416 | 38,910 | 39,239 | 39,362 | 39,445 | 39,659 | 39,878 | 39,857 | 39,751 | 40,137 | 40,246 | 40,125 | 40,471 | 40,589 | 40,297 |
| Employed | 35,180 | 36,698 | 37,075 | 37,112 | 37,248 | 37,402 | 37,574 | 37,604 | 37,496 | 37,602 | 37,576 | 37,530 | 37,769 | 37,961 | 37,824 |
| Agriculture | 586 | 591 | 628 | 572 | 612 | 582 | 540 | 567 | 582 | 552 | 616 | 541 | 565 | 548 | 607 |
| Nonagricultural industries | 34,593 | 36,107 | 36,447 | 36,540 | 36,636 | 36,820 | 37,034 | 37,037 | 36,914 | 37,051 | 36,960 | 36,989 | 37,204 | 37,413 | 37,216 |
| Unemployed | 2,236 | 2,213 | 2,164 | 2,250 | 2,197 | 2,257 | 2,304 | 2,254 | 2,255 | 2,534 | 2,670 | 2,596 | 2,702 | 2,628 | 2,473 |
| Unemployment rate | 6.0 | 5.7 | 5.5 | 5.7 | 5.6 | 5.7 | 5.8 | 5.7 | 5.7 | 6.3 | 6.6 | 6.5 | 6.7 | 6.5 | 6.1 |
| Not in labor force | 38,073 | 37,949 | 37,885 | 37,946 | 37,981 | 37,883 | 37,778 | 37,909 | 38,125 | 37,844 | 37,844 | 38,086 | 37,889 | 37,884 | 38,301 |
| Both sexes, 16-19 years | | | | | | | | | | | | | | | |
| Civilian noninstitutional population ¹ | 16,447 | 16,379 | 16,367 | 16,370 | 16,360 | 16,326 | 16,317 | 16,305 | 16,302 | 16,291 | 16,281 | 16,271 | 16,268 | 16,235 | 16,205 |
| Civilian labor force | 9,540 | 9,512 | 9,520 | 9,473 | 9,498 | 9,559 | 9,497 | 9,365 | 9,346 | 9,168 | 9,429 | 9,197 | 9,334 | 8,962 | 9,190 |
| Employed | 7,981 | 7,984 | 7,976 | 7,919 | 7,986 | 8,032 | 7,952 | 7,818 | 7,859 | 7,683 | 7,616 | 7,497 | 7,560 | 7,253 | 7,580 |
| Agriculture | 395 | 356 | 359 | 351 | 335 | 350 | 344 | 325 | 381 | 370 | 379 | 380 | 401 | 346 | 437 |
| Nonagricultural industries | 7,586 | 7,628 | 7,617 | 7,568 | 7,651 | 7,682 | 7,608 | 7,493 | 7,478 | 7,313 | 7,237 | 7,117 | 7,159 | 6,907 | 7,143 |
| Unemployed | 1,559 | 1,528 | 1,544 | 1,554 | 1,512 | 1,527 | 1,545 | 1,547 | 1,487 | 1,485 | 1,813 | 1,700 | 1,774 | 1,709 | 1,610 |
| Unemployment rate | 16.3 | 16.1 | 16.2 | 16.4 | 15.9 | 16.0 | 16.3 | 16.5 | 15.9 | 16.2 | 19.2 | 18.5 | 19.0 | 19.1 | 17.5 |
| Not in labor force | 6,907 | 6,867 | 6,847 | 6,897 | 6,862 | 6,767 | 6,820 | 6,940 | 6,956 | 7,123 | 6,852 | 7,074 | 6,934 | 7,273 | 7,015 |
| White | | | | | | | | | | | | | | | |
| Civilian noninstitutional population ¹ | 139,580 | 141,614 | 141,981 | 142,296 | 142,461 | 142,645 | 142,806 | 142,951 | 143,115 | 143,254 | 143,403 | 143,565 | 143,770 | 143,900 | 144,051 |
| Civilian labor force | 88,456 | 90,602 | 91,082 | 91,147 | 91,242 | 91,579 | 91,852 | 91,977 | 91,821 | 92,083 | 92,535 | 92,096 | 92,456 | 92,294 | 92,337 |
| Employed | 83,836 | 86,025 | 86,425 | 86,454 | 86,571 | 86,894 | 86,895 | 87,081 | 86,822 | 86,385 | 86,148 | 85,792 | 86,063 | 85,981 | 86,315 |
| Unemployed | 4,620 | 4,577 | 4,657 | 4,693 | 4,671 | 4,685 | 4,957 | 4,896 | 4,999 | 5,698 | 6,386 | 6,303 | 6,392 | 6,313 | 6,021 |
| Unemployment rate | 5.2 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.4 | 5.3 | 5.4 | 6.2 | 6.9 | 6.8 | 6.9 | 6.8 | 6.5 |
| Not in labor force | 51,124 | 51,011 | 50,900 | 51,149 | 51,219 | 51,066 | 50,954 | 50,975 | 51,294 | 51,171 | 50,868 | 51,469 | 51,314 | 51,606 | 51,714 |
| Black and other | | | | | | | | | | | | | | | |
| Civilian noninstitutional population ¹ | 19,361 | 19,918 | 20,032 | 20,079 | 20,128 | 20,163 | 20,214 | 20,261 | 20,301 | 20,346 | 20,395 | 20,448 | 20,523 | 20,564 | 20,617 |
| Civilian labor force | 11,964 | 12,306 | 12,404 | 12,512 | 12,391 | 12,432 | 12,453 | 12,362 | 12,266 | 12,319 | 12,559 | 12,446 | 12,739 | 12,650 | 12,680 |
| Employed | 10,537 | 10,920 | 11,063 | 11,076 | 11,044 | 11,024 | 10,979 | 10,937 | 10,823 | 10,771 | 10,813 | 10,751 | 10,932 | 10,930 | 10,882 |
| Unemployed | 1,427 | 1,386 | 1,341 | 1,436 | 1,347 | 1,408 | 1,474 | 1,424 | 1,443 | 1,549 | 1,746 | 1,695 | 1,807 | 1,719 | 1,798 |
| Unemployment rate | 11.9 | 11.3 | 10.8 | 11.5 | 10.9 | 11.3 | 11.8 | 11.5 | 11.8 | 12.6 | 13.9 | 13.6 | 14.2 | 13.6 | 14.2 |
| Not in labor force | 7,397 | 7,612 | 7,264 | 7,567 | 7,737 | 7,731 | 7,761 | 7,899 | 8,035 | 8,027 | 7,836 | 8,002 | 7,784 | 7,914 | 7,937 |

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

NOTE: The monthly data in this table have been revised to reflect seasonal experience through 1979.

3. Selected employment indicators, seasonally adjusted

[In thousands]

| Selected categories | Annual average | | 1979 | | | | 1980 | | | | | | | | |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1978 | 1979 | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
| CHARACTERISTIC | | | | | | | | | | | | | | | |
| Total employed, 16 years and over | 94,373 | 96,945 | 97,504 | 97,474 | 97,608 | 97,912 | 97,804 | 97,953 | 97,656 | 97,154 | 96,988 | 96,537 | 96,996 | 97,006 | 97,207 |
| Men | 55,491 | 56,499 | 56,714 | 56,629 | 56,580 | 56,734 | 56,486 | 56,732 | 56,601 | 55,998 | 55,823 | 55,457 | 55,629 | 55,551 | 55,738 |
| Women | 38,882 | 40,446 | 40,790 | 40,845 | 41,028 | 41,178 | 41,318 | 41,221 | 41,051 | 41,156 | 41,165 | 41,079 | 41,367 | 41,455 | 41,469 |
| Married men, spouse present | 38,688 | 39,090 | 39,198 | 39,124 | 38,845 | 38,924 | 38,749 | 38,955 | 38,745 | 38,342 | 38,147 | 38,193 | 37,999 | 37,910 | 37,969 |
| Married women, spouse present | 21,881 | 22,724 | 22,937 | 22,919 | 22,940 | 23,027 | 23,111 | 23,178 | 23,202 | 23,080 | 23,155 | 23,144 | 23,097 | 23,162 | 23,017 |
| OCCUPATION | | | | | | | | | | | | | | | |
| White-collar workers | 47,205 | 49,342 | 49,816 | 49,738 | 49,912 | 49,911 | 50,313 | 50,448 | 50,302 | 50,405 | 50,606 | 50,861 | 51,114 | 51,413 | 51,149 |
| Professional and technical | 14,245 | 15,050 | 15,141 | 15,057 | 15,131 | 15,272 | 15,337 | 15,444 | 15,397 | 15,542 | 15,551 | 15,712 | 15,741 | 15,761 | 15,501 |
| Managers and administrators, except farm | 10,105 | 10,516 | 10,659 | 10,639 | 10,617 | 10,535 | 10,608 | 10,971 | 10,755 | 10,745 | 10,882 | 10,911 | 11,046 | 11,153 | 11,018 |
| Salesworkers | 5,951 | 6,163 | 6,181 | 6,261 | 6,362 | 6,346 | 6,452 | 6,185 | 6,113 | 5,988 | 6,022 | 5,981 | 6,128 | 6,124 | 6,347 |
| Clerical workers | 16,904 | 17,613 | 17,835 | 17,781 | 17,802 | 17,758 | 17,915 | 17,848 | 18,037 | 18,129 | 18,152 | 18,256 | 18,199 | 18,375 | 18,284 |
| Blue-collar workers | 31,531 | 32,066 | 32,209 | 32,205 | 32,110 | 32,302 | 31,882 | 31,754 | 31,670 | 31,127 | 30,681 | 30,243 | 30,149 | 29,983 | 30,444 |
| Craft and kindred workers | 12,386 | 12,880 | 12,993 | 13,001 | 12,925 | 13,041 | 12,814 | 12,728 | 12,767 | 12,773 | 12,523 | 12,301 | 12,382 | 12,233 | 12,546 |
| Operatives, except transport | 10,875 | 10,909 | 10,964 | 10,967 | 10,963 | 11,042 | 10,678 | 10,661 | 10,579 | 10,408 | 10,336 | 10,131 | 10,134 | 10,066 | 10,196 |
| Transport equipment operatives | 3,541 | 3,612 | 3,617 | 3,593 | 3,628 | 3,635 | 3,616 | 3,571 | 3,558 | 3,483 | 3,421 | 3,395 | 3,335 | 3,474 | 3,434 |
| Nonfarm laborers | 4,729 | 4,665 | 4,635 | 4,644 | 4,594 | 4,584 | 4,774 | 4,795 | 4,767 | 4,463 | 4,402 | 4,416 | 4,299 | 4,209 | 4,268 |
| Service workers | 12,839 | 12,834 | 12,859 | 12,937 | 12,899 | 12,970 | 12,979 | 13,080 | 12,981 | 13,034 | 13,932 | 12,930 | 13,045 | 12,917 | 12,917 |
| Farmworkers | 2,798 | 2,703 | 2,722 | 2,695 | 2,718 | 2,694 | 2,660 | 2,764 | 2,733 | 2,658 | 2,745 | 2,606 | 2,689 | 2,601 | 2,779 |
| MAJOR INDUSTRY AND CLASS OF WORKER | | | | | | | | | | | | | | | |
| Agriculture: | | | | | | | | | | | | | | | |
| Wage and salary workers | 1,419 | 1,413 | 1,399 | 1,381 | 1,475 | 1,451 | 1,428 | 1,417 | 1,449 | 1,370 | 1,405 | 1,365 | 1,352 | 1,263 | 1,418 |
| Self-employed workers | 1,607 | 1,580 | 1,642 | 1,602 | 1,622 | 1,596 | 1,554 | 1,648 | 1,600 | 1,591 | 1,662 | 1,590 | 1,631 | 1,648 | 1,706 |
| Unpaid family workers | 316 | 304 | 325 | 313 | 310 | 310 | 293 | 283 | 300 | 281 | 289 | 269 | 292 | 273 | 315 |
| Nonagricultural industries: | | | | | | | | | | | | | | | |
| Wage and salary workers | 84,253 | 86,540 | 86,912 | 86,982 | 87,020 | 87,384 | 87,578 | 87,419 | 87,221 | 86,741 | 86,631 | 86,257 | 86,407 | 86,508 | 86,331 |
| Government | 15,289 | 15,369 | 15,407 | 15,423 | 15,358 | 15,397 | 15,414 | 15,540 | 15,622 | 15,668 | 15,799 | 15,891 | 15,760 | 15,495 | 15,538 |
| Private industries | 68,966 | 71,171 | 71,505 | 71,559 | 71,662 | 71,987 | 72,163 | 71,879 | 71,599 | 71,072 | 70,832 | 70,365 | 70,647 | 71,014 | 70,793 |
| Private households | 1,363 | 1,240 | 1,313 | 1,261 | 1,211 | 1,228 | 1,132 | 1,178 | 1,115 | 1,123 | 1,206 | 1,219 | 1,245 | 1,209 | 1,113 |
| Other industries | 67,603 | 69,931 | 70,192 | 70,298 | 70,451 | 70,759 | 71,031 | 70,702 | 70,484 | 69,949 | 69,625 | 69,147 | 69,402 | 69,805 | 69,679 |
| Self-employed workers | 6,305 | 6,652 | 6,731 | 6,812 | 6,781 | 6,737 | 6,752 | 6,899 | 6,825 | 6,813 | 6,648 | 6,666 | 6,765 | 6,879 | 7,014 |
| Unpaid family workers | 472 | 455 | 449 | 430 | 417 | 409 | 379 | 397 | 376 | 363 | 411 | 445 | 441 | 399 | 423 |
| PERSONS AT WORK ¹ | | | | | | | | | | | | | | | |
| Nonagricultural industries | 85,693 | 88,133 | 88,723 | 88,638 | 88,617 | 89,180 | 89,454 | 88,985 | 88,585 | 87,660 | 87,680 | 87,910 | 87,454 | 88,270 | 88,243 |
| Full-time schedules | 70,543 | 72,647 | 73,159 | 73,204 | 72,997 | 73,137 | 73,223 | 73,110 | 72,749 | 71,807 | 71,224 | 71,206 | 70,649 | 71,478 | 71,969 |
| Part time for economic reasons | 3,216 | 3,281 | 3,167 | 3,315 | 3,392 | 3,519 | 3,513 | 3,406 | 3,418 | 3,816 | 4,349 | 3,999 | 4,113 | 4,148 | 4,204 |
| Usually work full time | 1,249 | 1,325 | 1,273 | 1,354 | 1,413 | 1,491 | 1,549 | 1,380 | 1,463 | 1,709 | 2,064 | 1,781 | 1,847 | 1,692 | 1,695 |
| Usually work part time | 1,967 | 1,956 | 1,894 | 1,961 | 1,979 | 2,028 | 1,964 | 2,026 | 1,955 | 2,107 | 2,285 | 2,217 | 2,266 | 2,456 | 2,509 |
| Part time for noneconomic reasons | 11,934 | 12,205 | 12,397 | 12,119 | 12,228 | 12,524 | 12,718 | 12,469 | 12,418 | 12,037 | 12,106 | 12,706 | 12,692 | 12,644 | 12,069 |

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

NOTE: The monthly data in this table have been revised to reflect seasonal experience through 1979.

4. Selected unemployment indicators, seasonally adjusted

[Unemployment rates]

| Selected categories | Annual average | | 1979 | | | | 1980 | | | | | | | | |
|--|----------------|------|-------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | 1978 | 1979 | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
| CHARACTERISTIC | | | | | | | | | | | | | | | |
| Total, 16 years and over | 6.0 | 5.8 | 5.8 | 5.9 | 5.8 | 5.9 | 6.2 | 6.0 | 6.2 | 7.0 | 7.8 | 7.7 | 7.8 | 7.6 | 7.5 |
| Men, 20 years and over | 4.2 | 4.1 | 4.2 | 4.2 | 4.3 | 4.2 | 4.7 | 4.6 | 4.9 | 5.9 | 6.6 | 6.7 | 6.7 | 6.6 | 6.7 |
| Women, 20 years and over | 6.0 | 5.7 | 5.5 | 5.7 | 5.6 | 5.7 | 5.8 | 5.7 | 5.7 | 6.3 | 6.6 | 6.5 | 6.7 | 6.5 | 6.1 |
| Both sexes, 16-19 years | 16.3 | 16.1 | 16.2 | 16.4 | 15.9 | 16.0 | 16.3 | 16.5 | 15.9 | 16.2 | 19.2 | 18.5 | 19.0 | 19.1 | 17.5 |
| White, total | 5.2 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.4 | 5.3 | 5.4 | 6.2 | 6.9 | 6.8 | 6.9 | 6.8 | 6.5 |
| Men, 20 years and over | 3.7 | 3.6 | 3.7 | 3.7 | 3.7 | 3.7 | 4.1 | 4.0 | 4.4 | 5.3 | 5.9 | 6.0 | 6.0 | 5.9 | 5.9 |
| Women, 20 years and over | 5.2 | 5.0 | 4.8 | 5.0 | 4.9 | 5.0 | 5.1 | 5.2 | 4.9 | 5.5 | 5.8 | 5.8 | 5.9 | 5.8 | 5.5 |
| Both sexes, 16-19 years | 13.9 | 13.9 | 14.3 | 14.1 | 13.9 | 13.9 | 14.0 | 13.8 | 13.8 | 14.6 | 17.4 | 16.4 | 16.7 | 17.0 | 14.8 |
| Black and other, total | 11.9 | 11.3 | 10.8 | 11.5 | 10.9 | 11.3 | 11.8 | 11.5 | 11.8 | 12.6 | 13.9 | 13.6 | 14.2 | 13.6 | 14.2 |
| Men, 20 years and over | 8.6 | 8.4 | 8.0 | 8.6 | 8.4 | 8.6 | 9.6 | 9.2 | 9.3 | 10.9 | 12.0 | 12.6 | 12.7 | 12.7 | 13.5 |
| Women, 20 years and over | 10.6 | 10.1 | 9.8 | 10.2 | 9.5 | 10.0 | 10.0 | 9.0 | 10.5 | 11.4 | 11.9 | 10.9 | 11.5 | 10.6 | 10.4 |
| Both sexes, 16-19 years | 36.3 | 33.5 | 32.3 | 35.1 | 32.8 | 34.3 | 34.6 | 37.9 | 33.0 | 29.8 | 35.2 | 34.4 | 36.6 | 37.4 | 38.2 |
| Married men, spouse present | 2.8 | 2.7 | 2.9 | 2.9 | 2.9 | 2.8 | 3.4 | 3.1 | 3.4 | 4.1 | 4.7 | 4.9 | 5.1 | 4.9 | 4.8 |
| Married women, spouse present | 5.5 | 5.1 | 4.8 | 5.2 | 4.8 | 5.0 | 5.2 | 5.4 | 5.3 | 5.7 | 6.3 | 6.1 | 6.2 | 6.1 | 5.6 |
| Women who head families | 8.5 | 8.3 | 7.7 | 8.4 | 8.4 | 8.4 | 9.2 | 8.5 | 8.7 | 9.3 | 8.3 | 8.4 | 8.9 | 8.9 | 8.5 |
| Full-time workers | 5.5 | 5.3 | 5.3 | 5.4 | 5.4 | 5.4 | 5.7 | 5.6 | 5.8 | 6.6 | 7.5 | 7.4 | 7.6 | 7.4 | 7.3 |
| Part-time workers | 9.0 | 8.7 | 8.4 | 8.9 | 8.3 | 8.5 | 8.7 | 8.9 | 8.3 | 8.9 | 9.3 | 8.8 | 8.7 | 8.6 | 8.6 |
| Unemployed 15 weeks and over | 1.4 | 1.2 | 1.1 | 1.2 | 1.1 | 1.2 | 1.3 | 1.2 | 1.3 | 1.6 | 1.6 | 1.7 | 1.8 | 2.1 | 2.2 |
| Labor force time lost ¹ | 6.5 | 6.3 | 6.2 | 6.4 | 6.4 | 6.4 | 6.7 | 6.6 | 6.8 | 7.5 | 8.8 | 8.3 | 8.5 | 8.3 | 8.2 |
| OCCUPATION | | | | | | | | | | | | | | | |
| White-collar workers | 3.5 | 3.3 | 3.3 | 3.4 | 3.2 | 3.3 | 3.4 | 3.4 | 3.3 | 3.7 | 3.9 | 3.7 | 3.7 | 3.7 | 3.7 |
| Professional and technical | 2.6 | 2.4 | 2.4 | 2.7 | 2.4 | 2.3 | 2.2 | 2.3 | 2.3 | 2.4 | 2.7 | 2.6 | 2.4 | 2.3 | 2.4 |
| Managers and administrators, except farm | 2.1 | 2.1 | 2.2 | 2.2 | 1.9 | 2.0 | 1.9 | 2.2 | 2.4 | 2.6 | 2.7 | 2.4 | 2.5 | 2.4 | 2.4 |
| Salesworkers | 4.1 | 3.9 | 3.8 | 3.8 | 3.7 | 3.8 | 4.4 | 4.5 | 4.0 | 4.7 | 4.5 | 4.4 | 4.2 | 4.1 | 4.2 |
| Clerical workers | 4.9 | 4.6 | 4.5 | 4.7 | 4.4 | 4.6 | 4.8 | 4.7 | 4.5 | 5.1 | 5.4 | 5.3 | 5.4 | 5.4 | 5.4 |
| Blue-collar workers | 6.9 | 6.9 | 7.1 | 7.2 | 7.5 | 7.2 | 8.0 | 7.7 | 8.0 | 9.7 | 11.3 | 11.5 | 11.5 | 11.4 | 10.9 |
| Craft and kindred workers | 4.6 | 4.5 | 4.3 | 4.6 | 4.9 | 4.4 | 4.9 | 4.8 | 5.4 | 6.7 | 8.1 | 8.0 | 7.4 | 8.1 | 7.7 |
| Operatives, except transport | 8.1 | 8.4 | 9.0 | 9.1 | 9.0 | 9.0 | 9.9 | 9.2 | 9.3 | 11.6 | 14.0 | 13.8 | 14.6 | 13.6 | 13.0 |
| Transport equipment operatives | 5.2 | 5.4 | 6.1 | 5.6 | 5.2 | 5.0 | 6.9 | 6.7 | 6.6 | 8.9 | 9.0 | 10.5 | 10.5 | 10.0 | 10.6 |
| Nonfarm laborers | 10.7 | 10.8 | 11.0 | 10.7 | 12.2 | 12.2 | 12.3 | 12.0 | 13.0 | 14.1 | 15.4 | 16.2 | 16.1 | 16.5 | 15.1 |
| Service workers | 7.4 | 7.1 | 6.7 | 6.8 | 6.6 | 6.6 | 6.9 | 6.9 | 7.1 | 8.0 | 8.5 | 8.1 | 8.4 | 8.6 | 8.1 |
| Farmworkers | 3.8 | 3.8 | 4.1 | 4.3 | 4.5 | 4.3 | 4.4 | 3.9 | 4.0 | 5.0 | 4.8 | 4.2 | 4.8 | 5.6 | 4.3 |
| INDUSTRY | | | | | | | | | | | | | | | |
| Nonagricultural private wage and salary workers ² | 5.9 | 5.7 | 5.8 | 5.9 | 5.8 | 5.8 | 6.2 | 6.0 | 6.2 | 7.1 | 8.2 | 8.3 | 8.2 | 8.0 | 7.8 |
| Construction | 10.6 | 10.2 | 9.6 | 9.9 | 10.2 | 10.3 | 10.8 | 10.5 | 13.0 | 15.1 | 17.5 | 16.5 | 16.1 | 18.3 | 16.5 |
| Manufacturing | 5.5 | 5.5 | 6.0 | 6.0 | 5.9 | 5.9 | 6.7 | 6.4 | 6.5 | 7.9 | 9.9 | 9.9 | 10.3 | 9.3 | 9.1 |
| Durable goods | 4.9 | 5.0 | 5.3 | 5.5 | 5.6 | 5.5 | 6.7 | 6.3 | 6.4 | 8.3 | 10.5 | 11.2 | 11.2 | 10.2 | 10.1 |
| Nondurable goods | 6.3 | 6.4 | 7.1 | 6.8 | 6.3 | 6.4 | 6.8 | 6.7 | 6.7 | 7.4 | 8.8 | 8.0 | 8.8 | 7.9 | 7.7 |
| Transportation and public utilities | 3.7 | 3.7 | 4.0 | 3.8 | 4.2 | 4.1 | 4.4 | 4.4 | 3.8 | 4.6 | 5.1 | 5.2 | 5.8 | 5.7 | 5.4 |
| Wholesale and retail trade | 6.9 | 6.5 | 6.4 | 6.4 | 6.5 | 6.4 | 6.6 | 6.4 | 6.3 | 7.0 | 7.6 | 8.0 | 7.5 | 7.6 | 7.6 |
| Finance and service industries | 5.1 | 4.9 | 4.7 | 4.9 | 4.6 | 4.7 | 4.6 | 4.6 | 4.9 | 5.1 | 5.7 | 5.7 | 5.7 | 5.6 | 5.3 |
| Government workers | 3.9 | 3.7 | 3.3 | 4.0 | 3.6 | 3.6 | 3.8 | 4.0 | 4.2 | 4.4 | 4.2 | 3.5 | 4.1 | 4.0 | 4.1 |
| Agricultural wage and salary workers | 8.8 | 9.1 | 10.0 | 9.9 | 10.1 | 9.4 | 10.3 | 9.2 | 10.2 | 11.9 | 11.7 | 9.7 | 10.8 | 13.8 | 10.9 |

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

² Includes mining, not shown separately.

NOTE: The monthly data in this table have been revised to reflect seasonal experience through 1979.

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

| Sex and age | Annual average | | 1979 | | | | 1980 | | | | | | | | |
|--------------------------------|----------------|------|-------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | 1978 | 1979 | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
| Total, 16 years and over | 6.0 | 5.8 | 5.8 | 5.9 | 5.8 | 5.9 | 6.2 | 6.0 | 6.2 | 7.0 | 7.8 | 7.7 | 7.8 | 7.6 | 7.5 |
| 16 to 19 years | 16.3 | 16.1 | 16.2 | 16.4 | 15.9 | 16.0 | 16.3 | 16.5 | 15.9 | 16.2 | 19.2 | 18.5 | 19.0 | 19.1 | 17.5 |
| 16 to 17 years | 19.3 | 18.1 | 16.9 | 18.4 | 17.3 | 18.0 | 19.0 | 18.7 | 17.4 | 18.7 | 21.7 | 19.8 | 20.9 | 22.8 | 19.9 |
| 18 to 19 years | 14.2 | 14.6 | 15.6 | 15.0 | 14.7 | 14.5 | 14.0 | 15.1 | 14.7 | 14.4 | 17.7 | 18.0 | 17.7 | 16.6 | 15.8 |
| 20 to 24 years | 9.5 | 9.0 | 9.2 | 9.6 | 8.8 | 9.8 | 10.1 | 9.5 | 9.7 | 11.4 | 12.7 | 12.4 | 12.3 | 11.9 | 11.9 |
| 25 years and over | 4.0 | 3.9 | 3.9 | 4.0 | 4.0 | 3.8 | 4.2 | 4.1 | 4.4 | 5.0 | 5.5 | 5.5 | 5.7 | 5.5 | 5.4 |
| 25 to 54 years | 4.2 | 4.1 | 4.1 | 4.2 | 4.3 | 4.1 | 4.4 | 4.5 | 4.7 | 5.4 | 5.9 | 6.0 | 6.1 | 5.9 | 6.0 |
| 55 years and over | 3.2 | 3.0 | 2.9 | 3.0 | 2.7 | 2.7 | 3.5 | 2.8 | 2.8 | 3.4 | 3.6 | 3.4 | 3.5 | 3.6 | 3.4 |
| Men, 16 years and over | 5.2 | 5.1 | 5.2 | 5.2 | 5.2 | 5.2 | 5.7 | 5.5 | 5.7 | 6.7 | 7.7 | 7.8 | 7.8 | 7.7 | 7.7 |
| 16 to 19 years | 15.7 | 15.8 | 16.1 | 15.7 | 15.8 | 15.6 | 16.2 | 15.6 | 14.8 | 16.1 | 19.7 | 19.5 | 19.7 | 20.2 | 18.6 |
| 16 to 17 years | 19.2 | 17.9 | 16.7 | 17.1 | 17.8 | 17.9 | 19.0 | 18.0 | 15.9 | 18.3 | 22.0 | 21.8 | 20.8 | 24.6 | 21.3 |
| 18 to 19 years | 13.2 | 14.2 | 15.3 | 14.4 | 14.0 | 13.6 | 13.9 | 14.1 | 14.0 | 14.2 | 17.9 | 19.3 | 18.7 | 17.0 | 16.6 |
| 20 to 24 years | 9.1 | 8.6 | 8.8 | 9.5 | 8.4 | 9.4 | 10.4 | 9.9 | 10.4 | 12.3 | 13.7 | 13.8 | 13.4 | 13.9 | 13.5 |
| 25 years and over | 3.3 | 3.3 | 3.3 | 3.4 | 3.5 | 3.2 | 3.7 | 3.6 | 3.9 | 4.7 | 5.3 | 5.5 | 5.6 | 5.4 | 5.6 |
| 25 to 54 years | 3.4 | 3.4 | 3.6 | 3.5 | 3.8 | 3.4 | 3.8 | 3.8 | 4.2 | 5.0 | 5.7 | 5.8 | 6.1 | 5.7 | 6.2 |
| 55 years and over | 3.1 | 2.9 | 2.8 | 2.8 | 2.6 | 2.6 | 3.5 | 2.6 | 2.7 | 3.4 | 3.5 | 3.8 | 3.9 | 4.0 | 3.5 |
| Women, 16 years and over | 7.2 | 6.8 | 6.6 | 6.9 | 6.6 | 6.8 | 6.8 | 6.8 | 6.8 | 7.3 | 7.8 | 7.5 | 7.8 | 7.6 | 7.1 |
| 16 to 19 years | 17.0 | 16.4 | 16.4 | 17.2 | 16.1 | 16.4 | 16.3 | 17.6 | 17.3 | 16.3 | 18.7 | 17.3 | 18.2 | 17.8 | 16.3 |
| 16 to 17 years | 19.5 | 18.3 | 17.2 | 19.8 | 16.7 | 18.0 | 19.1 | 19.5 | 19.2 | 19.1 | 21.4 | 17.6 | 20.9 | 20.7 | 18.3 |
| 18 to 19 years | 15.3 | 15.0 | 15.9 | 15.6 | 15.5 | 15.5 | 14.2 | 16.2 | 15.6 | 14.6 | 17.5 | 16.6 | 16.6 | 16.1 | 15.0 |
| 20 to 24 years | 10.1 | 9.6 | 9.6 | 9.7 | 9.3 | 10.2 | 9.8 | 9.1 | 9.0 | 10.2 | 11.6 | 10.8 | 11.1 | 9.7 | 10.1 |
| 25 years and over | 5.1 | 4.8 | 4.6 | 4.9 | 4.7 | 4.7 | 4.9 | 4.9 | 5.0 | 5.5 | 5.7 | 5.6 | 5.7 | 5.7 | 5.3 |
| 25 to 54 years | 5.4 | 5.2 | 5.0 | 5.2 | 5.0 | 5.1 | 5.2 | 5.4 | 5.5 | 6.0 | 6.1 | 6.1 | 6.2 | 6.2 | 5.8 |
| 55 years and over | 3.3 | 3.2 | 2.9 | 3.4 | 2.9 | 2.9 | 3.4 | 3.0 | 2.9 | 3.4 | 3.6 | 2.8 | 3.0 | 3.0 | 3.2 |

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

[Numbers in thousands]

| Reason for unemployment | 1979 | | | | 1980 | | | | | | | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
| NUMBER OF UNEMPLOYED | | | | | | | | | | | | | |
| Lost last job | 2,632 | 2,731 | 2,729 | 2,728 | 2,988 | 2,907 | 3,047 | 3,611 | 4,301 | 4,625 | 4,558 | 4,360 | 4,473 |
| On layoff | 855 | 929 | 987 | 944 | 1,019 | 1,031 | 1,129 | 1,424 | 1,944 | 2,117 | 1,975 | 1,692 | 1,809 |
| Other job losers | 1,777 | 1,802 | 1,742 | 1,784 | 1,969 | 1,876 | 1,918 | 2,188 | 2,357 | 2,508 | 2,583 | 2,668 | 2,664 |
| Left last job | 825 | 835 | 845 | 800 | 779 | 813 | 788 | 926 | 992 | 898 | 857 | 897 | 842 |
| Reentered labor force | 1,760 | 1,762 | 1,698 | 1,771 | 1,797 | 1,784 | 1,803 | 1,967 | 2,015 | 1,822 | 1,868 | 1,895 | 1,817 |
| Seeking first job | 801 | 804 | 736 | 858 | 811 | 827 | 805 | 743 | 884 | 863 | 930 | 867 | 858 |
| PERCENT DISTRIBUTION | | | | | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Job losers | 43.7 | 44.5 | 45.4 | 44.3 | 46.9 | 45.9 | 47.3 | 49.8 | 52.5 | 56.3 | 55.5 | 54.4 | 56.0 |
| On layoff | 14.2 | 15.2 | 16.4 | 15.3 | 16.0 | 16.3 | 17.5 | 19.6 | 23.7 | 25.8 | 24.0 | 21.1 | 22.6 |
| Other job losers | 29.5 | 29.4 | 29.0 | 29.0 | 30.9 | 29.6 | 29.8 | 30.2 | 28.8 | 30.6 | 31.5 | 33.3 | 33.3 |
| Job leavers | 13.7 | 13.6 | 14.1 | 13.0 | 12.2 | 12.8 | 12.2 | 12.8 | 12.1 | 10.9 | 10.4 | 11.2 | 10.5 |
| Reentrants | 29.2 | 28.7 | 28.3 | 28.8 | 28.2 | 28.2 | 28.0 | 27.1 | 24.6 | 22.2 | 22.7 | 23.6 | 22.7 |
| New entrants | 13.3 | 13.1 | 12.3 | 13.9 | 12.7 | 13.1 | 12.5 | 10.3 | 10.8 | 10.5 | 11.3 | 10.8 | 10.7 |
| UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE | | | | | | | | | | | | | |
| Job losers | 2.5 | 2.6 | 2.6 | 2.6 | 2.9 | 2.8 | 2.9 | 3.5 | 4.1 | 4.4 | 4.3 | 4.2 | 4.3 |
| Job leavers | .8 | .8 | .8 | .8 | .7 | .8 | .8 | .9 | .9 | .9 | .8 | .9 | .8 |
| Reentrants | 1.7 | 1.7 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.9 | 1.9 | 1.7 | 1.8 | 1.8 | 1.7 |
| New entrants | .8 | .8 | .7 | .8 | .8 | .8 | .8 | .7 | .8 | .8 | .9 | .8 | .8 |

7. Duration of unemployment, seasonally adjusted

[Numbers in thousands]

| Weeks of unemployment | Annual average | | 1979 | | | | 1980 | | | | | | | | |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1978 | 1979 | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
| Less than 5 weeks | 2,793 | 2,869 | 2,778 | 2,955 | 2,919 | 2,916 | 3,184 | 2,995 | 2,995 | 3,309 | 3,872 | 3,333 | 3,363 | 3,268 | 2,957 |
| 5 to 14 weeks | 1,875 | 1,892 | 2,035 | 1,963 | 1,869 | 1,966 | 1,907 | 2,081 | 2,169 | 2,391 | 2,697 | 2,922 | 2,700 | 2,490 | 2,613 |
| 15 weeks and over | 1,379 | 1,202 | 1,152 | 1,195 | 1,191 | 1,230 | 1,334 | 1,286 | 1,363 | 1,629 | 1,722 | 1,766 | 1,915 | 2,184 | 2,326 |
| 15 to 26 weeks | 746 | 684 | 644 | 678 | 660 | 711 | 795 | 790 | 776 | 953 | 1,014 | 1,027 | 1,057 | 1,259 | 1,397 |
| 27 weeks and over | 633 | 518 | 508 | 517 | 531 | 519 | 539 | 496 | 587 | 676 | 709 | 739 | 858 | 925 | 930 |
| Average (mean) duration, in weeks | 11.9 | 10.8 | 10.7 | 10.5 | 10.6 | 10.5 | 10.5 | 10.7 | 11.0 | 11.3 | 10.5 | 11.7 | 11.6 | 12.6 | 13.1 |

NOTE: The monthly data in these tables have been revised to reflect seasonal experience through 1979.

EMPLOYMENT, HOURS, AND EARNINGS DATA FROM ESTABLISHMENT SURVEYS

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by 166,000 establishments representing all industries except agriculture. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

LABOR TURNOVER DATA in this section are compiled from personnel records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies. A sample of 40,000 establishments represents all industries in the manufacturing and mining sectors of the economy.

Definitions

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

Production workers in manufacturing include blue-collar worker supervisors and all nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 14-20 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in transportation and public utilities, in wholesale and retail trade, in finance, insurance, and real estate, and in services industries. These groups account for about four-fifths of the total employment on private nonagricultural payrolls.

Earnings are the payments production or nonsupervisory workers receive during the survey period, including premium pay for overtime or late-shift work but excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to eliminate the effects of price change. The **Hourly Earnings Index** is calculated from average hourly earnings data adjusted to exclude the effects of two types of changes that are unrelated to underlying wage-rate developments: fluctuations in overtime premiums in manufacturing (the only sector for which overtime data are available) and the effects of changes and seasonal factors in the proportion of workers in high-wage and low-wage industries. **Spendable earnings** are earnings from which estimated social security and Federal income taxes have been deducted. The

Bureau of Labor Statistics computes spendable earnings from gross weekly earnings for only two illustrative cases: (1) a worker with no dependents and (2) a married worker with three dependents.

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

Labor turnover is the movement of all wage and salary workers from one employment status to another. **Accession rates** indicate the average number of persons added to a payroll in a given period per 100 employees; **separation rates** indicate the average number dropped from a payroll per 100 employees. Although month-to-month changes in employment can be calculated from the labor turnover data, the results are not comparable with employment data from the employment and payroll survey. The labor turnover survey measures changes during the calendar month while the employment and payroll survey measures changes from midmonth to midmonth.

Notes on the data

Establishment data collected by the Bureau of Labor Statistics are periodically adjusted to comprehensive counts of employment (called "benchmarks"). The latest complete adjustment was made with the release of June 1980 data, published in the August 1980 issue of the *Review*. Consequently, data published in the *Review* prior to that issue are not necessarily comparable to current data. Complete comparable historical unadjusted and seasonally adjusted data are published in a Supplement to Employment and Earnings (unadjusted data from April 1977 through March 1980 and seasonally adjusted data from January 1974 through March 1980) and in *Employment and Earnings, United States, 1909-78*, BLS Bulletin 1312-11 (for prior periods).

Data on recalls were shown for the first time in tables 12 and 13 in the January 1978 issue of the *Review*. For a detailed discussion of the recalls series, along with historical data, see "New Series on Recalls from the Labor Turnover Survey," *Employment and Earnings*, December 1977, pp. 10-19.

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9-20. See also *BLS Handbook of Methods for Surveys and Studies*, Bulletin 1910 (Bureau of Labor Statistics, 1976).

The formulas used to construct the spendable average weekly earnings series reflect the latest provisions of the Federal income tax and social security tax laws. For the spendable average weekly earnings formulas for the years 1978-80, see *Employment and Earnings*, March 1980, pp. 10-11. Real earnings data are adjusted using the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

8. Employment by industry, 1950-79

[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 |
| 1950 | 45,197 | 901 | 2,364 | 15,241 | 4,034 | 9,386 | 2,635 | 6,751 | 1,888 | 5,357 | 6,026 | 1,928 | 4,098 |
| 1951 | 47,819 | 929 | 2,637 | 16,393 | 4,226 | 9,742 | 2,727 | 7,015 | 1,956 | 5,547 | 6,389 | 2,302 | 4,087 |
| 1952 | 48,793 | 898 | 2,668 | 16,632 | 4,248 | 10,004 | 2,812 | 7,192 | 2,035 | 5,699 | 6,609 | 2,420 | 4,188 |
| 1953 | 50,202 | 866 | 2,659 | 17,549 | 4,290 | 10,247 | 2,854 | 7,393 | 2,111 | 5,835 | 6,645 | 2,305 | 4,340 |
| 1954 | 48,990 | 791 | 2,646 | 16,314 | 4,084 | 10,235 | 2,867 | 7,368 | 2,200 | 5,969 | 6,751 | 2,188 | 4,563 |
| 1955 | 50,841 | 792 | 2,839 | 16,882 | 4,141 | 10,535 | 2,926 | 7,610 | 2,298 | 6,240 | 6,914 | 2,187 | 4,727 |
| 1956 | 52,369 | 822 | 3,039 | 17,243 | 4,244 | 10,858 | 3,018 | 7,840 | 2,389 | 6,497 | 7,278 | 2,209 | 5,069 |
| 1957 | 52,853 | 828 | 2,962 | 17,174 | 4,241 | 10,886 | 3,028 | 7,858 | 2,438 | 6,708 | 7,616 | 2,217 | 5,399 |
| 1958 | 51,324 | 751 | 2,817 | 15,945 | 3,976 | 10,750 | 2,980 | 7,770 | 2,481 | 6,765 | 7,839 | 2,191 | 5,648 |
| 1959 ¹ | 53,268 | 732 | 3,004 | 16,675 | 4,011 | 11,127 | 3,082 | 8,045 | 2,549 | 7,087 | 8,083 | 2,233 | 5,850 |
| 1960 | 54,189 | 712 | 2,926 | 16,796 | 4,004 | 11,391 | 3,143 | 8,248 | 2,629 | 7,378 | 8,353 | 2,270 | 6,083 |
| 1961 | 53,999 | 672 | 2,859 | 16,326 | 3,903 | 11,337 | 3,133 | 8,204 | 2,688 | 7,620 | 8,594 | 2,279 | 6,315 |
| 1962 | 55,549 | 650 | 2,948 | 16,853 | 3,906 | 11,566 | 3,198 | 8,368 | 2,754 | 7,982 | 8,890 | 2,340 | 6,550 |
| 1963 | 56,653 | 635 | 3,010 | 16,995 | 3,903 | 11,778 | 3,248 | 8,530 | 2,830 | 8,277 | 9,225 | 2,358 | 6,868 |
| 1964 | 58,283 | 634 | 3,097 | 17,274 | 3,951 | 12,160 | 3,337 | 8,823 | 2,911 | 8,660 | 9,596 | 2,348 | 7,248 |
| 1965 | 60,765 | 632 | 3,232 | 18,062 | 4,036 | 12,716 | 3,466 | 9,250 | 2,977 | 9,036 | 10,074 | 2,378 | 7,696 |
| 1966 | 63,901 | 627 | 3,317 | 19,214 | 4,158 | 13,245 | 3,597 | 9,648 | 3,058 | 9,498 | 10,784 | 2,564 | 8,220 |
| 1967 | 65,803 | 613 | 3,248 | 19,447 | 4,268 | 13,606 | 3,689 | 9,917 | 3,185 | 10,045 | 11,391 | 2,719 | 8,672 |
| 1968 | 67,897 | 606 | 3,350 | 19,781 | 4,318 | 14,099 | 3,779 | 10,320 | 3,337 | 10,567 | 11,839 | 2,737 | 9,102 |
| 1969 | 70,384 | 619 | 3,575 | 20,167 | 4,442 | 14,705 | 3,907 | 10,798 | 3,512 | 11,169 | 12,195 | 2,758 | 9,437 |
| 1970 | 70,880 | 623 | 3,588 | 19,367 | 4,515 | 15,040 | 3,993 | 11,047 | 3,645 | 11,548 | 12,554 | 2,731 | 9,823 |
| 1971 | 71,214 | 609 | 3,704 | 18,623 | 4,476 | 15,352 | 4,001 | 11,351 | 3,772 | 11,797 | 12,881 | 2,696 | 10,185 |
| 1972 | 73,675 | 628 | 3,889 | 19,151 | 4,541 | 15,949 | 4,113 | 11,836 | 3,908 | 12,276 | 13,334 | 2,684 | 10,649 |
| 1973 | 76,790 | 642 | 4,097 | 20,154 | 4,656 | 16,607 | 4,277 | 12,329 | 4,046 | 12,857 | 13,732 | 2,663 | 11,068 |
| 1974 | 78,265 | 697 | 4,020 | 20,077 | 4,725 | 16,987 | 4,433 | 12,554 | 4,148 | 13,441 | 14,170 | 2,724 | 11,446 |
| 1975 | 76,945 | 752 | 3,525 | 18,323 | 4,542 | 17,060 | 4,415 | 12,645 | 4,165 | 13,892 | 14,686 | 2,748 | 11,937 |
| 1976 | 79,382 | 779 | 3,576 | 18,997 | 4,582 | 17,755 | 4,546 | 13,209 | 4,271 | 14,551 | 14,871 | 2,733 | 12,138 |
| 1977 | 82,471 | 813 | 3,851 | 19,682 | 4,713 | 18,516 | 4,708 | 13,808 | 4,467 | 15,303 | 15,127 | 2,727 | 12,399 |
| 1978 | 86,697 | 851 | 4,229 | 20,505 | 4,923 | 19,542 | 4,969 | 14,573 | 4,724 | 16,252 | 15,672 | 2,753 | 12,919 |
| 1979 | 89,886 | 960 | 4,483 | 21,062 | 5,141 | 20,269 | 5,204 | 15,066 | 4,974 | 17,078 | 15,920 | 2,773 | 13,147 |

¹Data include Alaska and Hawaii beginning in 1959.

9. Employment by State

[Nonagricultural payroll data, in thousands]

| State | Aug. 1979 | July 1980 | Aug. 1980 ^P | State | Aug. 1979 | July 1980 | Aug. 1980 ^P |
|----------------------|-----------|-----------|------------------------|----------------|-----------|-----------|------------------------|
| Alabama | 1,363.8 | 1,326.7 | 1,329.1 | Montana | 293.8 | 282.2 | 285.9 |
| Alaska | 181.4 | 182.7 | 184.6 | Nebraska | 632.5 | 624.8 | 625.6 |
| Arizona | 950.4 | 964.8 | 958.0 | Nevada | 391.2 | 400.8 | 402.9 |
| Arkansas | 750.2 | 742.1 | 748.0 | New Hampshire | 388.4 | 385.6 | 388.2 |
| California | 9,637.0 | 9,673.0 | 9,684.8 | New Jersey | 3,082.4 | 3,077.2 | 3,081.5 |
| Colorado | 1,226.0 | 1,250.3 | 1,253.9 | New Mexico | 465.8 | 474.3 | 477.0 |
| Connecticut | 1,398.9 | 1,395.8 | 1,386.5 | New York | 7,235.1 | 7,183.8 | 7,197.6 |
| Delaware | 257.1 | 257.3 | 256.9 | North Carolina | 2,370.3 | 2,364.4 | 2,385.5 |
| District of Columbia | 634.2 | 636.4 | 633.2 | North Dakota | 249.9 | 248.0 | 248.6 |
| Florida | 3,342.7 | 3,473.6 | 3,471.8 | Ohio | 4,485.0 | 4,365.2 | 4,362.3 |
| Georgia | 2,111.8 | 2,121.3 | 2,127.7 | Oklahoma | 1,099.9 | 1,129.6 | 1,133.9 |
| Hawaii | 403.1 | 415.9 | 413.2 | Oregon | 1,063.0 | 1,018.6 | 1,024.0 |
| Idaho | 341.0 | 327.0 | 327.7 | Pennsylvania | 4,845.7 | 4,741.5 | 4,738.8 |
| Illinois | 4,935.8 | 4,821.6 | 4,832.3 | Rhode Island | 405.1 | 386.5 | 391.9 |
| Indiana | 2,274.7 | 2,195.7 | 2,199.5 | South Carolina | 1,171.8 | 1,165.3 | 1,173.1 |
| Iowa | 1,119.5 | 1,089.7 | 1,074.2 | South Dakota | 245.5 | 240.0 | 239.9 |
| Kansas | 941.4 | 937.8 | 933.9 | Tennessee | 1,794.7 | 1,742.6 | 1,750.7 |
| Kentucky | 1,242.8 | 1,189.5 | 1,192.3 | Texas | 5,627.1 | 5,797.8 | 5,783.7 |
| Louisiana | 1,495.3 | 1,540.3 | 1,543.2 | Utah | 555.5 | 554.7 | 557.1 |
| Maine | 433.7 | 414.3 | 427.5 | Vermont | 198.9 | 196.4 | 198.2 |
| Maryland | 1,610.1 | 1,640.7 | 1,625.9 | Virginia | 2,115.1 | 2,113.4 | 2,122.6 |
| Massachusetts | 2,622.2 | 2,669.3 | 2,687.8 | Washington | 1,593.8 | 1,598.9 | 1,604.5 |
| Michigan | 3,547.9 | 3,355.5 | 3,381.1 | West Virginia | 650.2 | 636.2 | 625.7 |
| Minnesota | 1,793.1 | 1,785.2 | 1,789.8 | Wisconsin | 1,988.0 | 1,972.5 | 1,983.3 |
| Mississippi | 832.6 | 812.4 | 811.9 | Wyoming | 210.3 | 222.2 | 223.1 |
| Missouri | 2,010.2 | 1,967.7 | 1,970.8 | Virgin Islands | 35.9 | 36.3 | 36.5 |

10. Employment by industry division and major manufacturing group

[Nonagricultural payroll data, in thousands]

| Industry division and group | Annual average | | 1979 | | | | | 1980 | | | | | | | |
|--|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------------|--------------------|
| | 1978 | 1979 | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. ^P | Sept. ^P |
| TOTAL | 86,697 | 89,886 | 90,629 | 91,062 | 91,288 | 91,394 | 89,630 | 89,781 | 90,316 | 90,761 | 90,849 | 91,049 | 89,820 | 90,046 | 90,664 |
| MINING | 851 | 960 | 983 | 984 | 986 | 985 | 982 | 987 | 996 | 1,006 | 1,024 | 1,049 | 1,030 | 1,030 | 1,027 |
| CONSTRUCTION | 4,229 | 4,483 | 4,801 | 4,792 | 4,698 | 4,536 | 4,194 | 4,109 | 4,150 | 4,311 | 4,471 | 4,611 | 4,633 | 4,707 | 4,685 |
| MANUFACTURING | 20,505 | 21,062 | 21,295 | 21,193 | 21,055 | 20,987 | 20,777 | 20,730 | 20,793 | 20,533 | 20,250 | 20,201 | 19,754 | 20,057 | 20,250 |
| Production workers | 14,734 | 15,085 | 15,265 | 15,170 | 15,034 | 14,964 | 14,738 | 14,678 | 14,727 | 14,466 | 14,172 | 14,093 | 13,657 | 13,950 | 14,191 |
| Durable goods | 12,274 | 12,772 | 12,891 | 12,824 | 12,744 | 12,733 | 12,600 | 12,599 | 12,647 | 12,414 | 12,150 | 12,065 | 11,774 | 11,832 | 12,011 |
| Production workers | 8,805 | 9,120 | 9,190 | 9,131 | 9,054 | 9,040 | 8,885 | 8,869 | 8,909 | 8,672 | 8,409 | 8,307 | 8,025 | 8,070 | 8,284 |
| Lumber and wood products | 754.7 | 766.1 | 785.0 | 780.0 | 757.2 | 737.4 | 717.4 | 718.9 | 716.9 | 678.4 | 654.8 | 668.0 | 666.8 | 683.2 | 685.5 |
| Furniture and fixtures | 494.1 | 499.3 | 499.6 | 502.5 | 503.1 | 501.8 | 498.0 | 494.6 | 494.1 | 488.7 | 469.1 | 460.8 | 438.1 | 447.0 | 455.4 |
| Stone, clay, and glass products | 698.2 | 709.7 | 721.6 | 718.6 | 710.3 | 697.4 | 678.2 | 674.7 | 679.0 | 675.5 | 668.1 | 666.2 | 656.0 | 661.3 | 663.8 |
| Primary metal industries | 1,214.9 | 1,250.2 | 1,250.6 | 1,231.4 | 1,222.6 | 1,209.9 | 1,207.2 | 1,205.1 | 1,203.7 | 1,193.8 | 1,149.8 | 1,112.9 | 1,055.5 | 1,060.1 | 1,081.2 |
| Fabricated metal products | 1,672.6 | 1,723.7 | 1,731.4 | 1,733.8 | 1,733.3 | 1,725.2 | 1,696.8 | 1,699.4 | 1,703.8 | 1,671.4 | 1,619.8 | 1,598.6 | 1,538.4 | 1,568.5 | 1,591.5 |
| Machinery, except electrical | 2,325.5 | 2,481.6 | 2,513.8 | 2,465.1 | 2,458.7 | 2,471.6 | 2,538.5 | 2,536.5 | 2,539.9 | 2,523.5 | 2,509.3 | 2,486.1 | 2,440.2 | 2,420.9 | 2,427.2 |
| Electric and electronic equipment | 2,006.1 | 2,124.3 | 2,152.8 | 2,162.0 | 2,164.0 | 2,171.9 | 2,162.9 | 2,157.7 | 2,167.7 | 2,156.2 | 2,120.2 | 2,102.2 | 2,066.5 | 2,082.6 | 2,101.3 |
| Transportation equipment | 2,002.8 | 2,082.8 | 2,087.4 | 2,076.5 | 2,044.2 | 2,079.3 | 1,975.8 | 1,983.1 | 2,005.6 | 1,891.1 | 1,835.1 | 1,847.0 | 1,810.2 | 1,790.4 | 1,880.8 |
| Instruments and related products | 653.1 | 688.9 | 691.6 | 694.6 | 694.9 | 698.8 | 697.7 | 700.5 | 703.6 | 702.2 | 699.4 | 702.9 | 698.3 | 698.5 | 700.4 |
| Miscellaneous manufacturing | 451.5 | 445.6 | 457.1 | 459.7 | 455.5 | 439.4 | 427.7 | 428.8 | 432.9 | 433.0 | 424.6 | 420.1 | 404.0 | 419.8 | 423.6 |
| Non durable goods | 8,231 | 8,290 | 8,404 | 8,369 | 8,311 | 8,254 | 8,177 | 8,131 | 8,146 | 8,119 | 8,100 | 8,136 | 7,980 | 8,225 | 8,239 |
| Production workers | 5,929 | 5,965 | 6,075 | 6,039 | 5,980 | 5,924 | 5,853 | 5,809 | 5,818 | 5,794 | 5,763 | 5,786 | 5,632 | 5,880 | 5,907 |
| Food and kindred products | 1,724.1 | 1,728.1 | 1,834.5 | 1,781.8 | 1,736.3 | 1,706.2 | 1,659.9 | 1,644.1 | 1,641.1 | 1,626.2 | 1,638.5 | 1,676.8 | 1,709.5 | 1,798.9 | 1,782.4 |
| Tobacco manufactures | 70.6 | 69.9 | 77.5 | 77.4 | 68.6 | 70.8 | 69.1 | 67.1 | 64.4 | 62.9 | 62.7 | 64.6 | 63.9 | 71.0 | 74.1 |
| Textile mill products | 899.1 | 888.5 | 885.0 | 886.1 | 890.4 | 889.7 | 884.0 | 884.6 | 886.9 | 882.1 | 870.6 | 853.2 | 820.6 | 851.6 | 854.5 |
| Apparel and other textile products | 1,332.3 | 1,312.5 | 1,308.8 | 1,317.3 | 1,305.8 | 1,287.1 | 1,282.0 | 1,305.8 | 1,318.4 | 1,304.2 | 1,299.0 | 1,310.5 | 1,236.9 | 1,302.8 | 1,315.1 |
| Paper and allied products | 698.7 | 706.7 | 710.5 | 709.3 | 707.8 | 705.9 | 703.5 | 701.9 | 701.8 | 698.8 | 692.4 | 695.0 | 682.3 | 689.2 | 688.9 |
| Printing and publishing | 1,192.0 | 1,239.5 | 1,243.0 | 1,251.4 | 1,262.0 | 1,268.5 | 1,266.3 | 1,270.4 | 1,272.1 | 1,270.4 | 1,267.8 | 1,271.3 | 1,264.5 | 1,264.7 | 1,265.2 |
| Chemicals and allied products | 1,095.5 | 1,110.7 | 1,112.7 | 1,113.7 | 1,113.9 | 1,114.2 | 1,113.1 | 1,112.1 | 1,118.1 | 1,120.6 | 1,119.5 | 1,122.2 | 1,112.0 | 1,108.6 | 1,107.1 |
| Petroleum and coal products | 207.7 | 210.0 | 213.7 | 213.5 | 212.6 | 210.6 | 208.6 | 155.9 | 153.1 | 173.6 | 203.4 | 209.1 | 212.0 | 212.4 | 209.4 |
| Rubber and miscellaneous plastics products | 754.5 | 775.6 | 770.2 | 770.8 | 765.9 | 755.6 | 750.3 | 746.3 | 746.5 | 737.2 | 702.4 | 688.5 | 659.3 | 680.3 | 696.2 |
| Leather and leather products | 256.8 | 248.0 | 247.9 | 247.9 | 247.6 | 245.2 | 240.3 | 242.6 | 243.4 | 243.3 | 243.2 | 244.7 | 218.9 | 245.0 | 246.4 |
| TRANSPORTATION AND PUBLIC UTILITIES | 4,923 | 5,141 | 5,229 | 5,233 | 5,243 | 5,240 | 5,136 | 5,130 | 5,143 | 5,147 | 5,167 | 5,185 | 5,145 | 5,139 | 5,163 |
| WHOLESALE AND RETAIL TRADE | 19,542 | 20,269 | 20,425 | 20,474 | 20,756 | 21,114 | 20,325 | 20,155 | 20,226 | 20,373 | 20,497 | 20,562 | 20,506 | 20,561 | 20,695 |
| WHOLESALE TRADE | 4,969 | 5,204 | 5,239 | 5,266 | 5,282 | 5,264 | 5,241 | 5,250 | 5,269 | 5,265 | 5,263 | 5,287 | 5,278 | 5,288 | 5,286 |
| RETAIL TRADE | 14,573 | 15,066 | 15,186 | 15,208 | 15,474 | 15,850 | 15,084 | 14,905 | 14,957 | 15,108 | 15,234 | 15,275 | 15,228 | 15,273 | 15,409 |
| FINANCE, INSURANCE, AND REAL ESTATE | 4,724 | 4,974 | 5,015 | 5,025 | 5,039 | 5,047 | 5,052 | 5,061 | 5,085 | 5,104 | 5,137 | 5,201 | 5,229 | 5,231 | 5,173 |
| SERVICES | 16,252 | 17,078 | 17,238 | 17,297 | 17,284 | 17,271 | 17,135 | 17,317 | 17,478 | 17,636 | 17,747 | 17,846 | 17,973 | 17,945 | 17,899 |
| GOVERNMENT | 15,672 | 15,920 | 15,643 | 16,064 | 16,227 | 16,214 | 16,029 | 16,292 | 16,445 | 16,651 | 16,556 | 16,394 | 15,550 | 15,376 | 15,772 |
| Federal | 2,753 | 2,773 | 2,751 | 2,756 | 2,760 | 2,770 | 2,763 | 2,803 | 2,869 | 3,103 | 2,963 | 2,995 | 2,949 | 2,872 | 2,780 |
| State and local | 12,919 | 13,147 | 12,892 | 13,308 | 13,467 | 13,444 | 13,266 | 13,489 | 13,576 | 13,548 | 13,593 | 13,399 | 12,601 | 12,504 | 12,992 |

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

[Nonagricultural payroll data, in thousands]

| Industry division and group | 1979 | | | | 1980 | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------|-------------------|--------------------|
| | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July ^P | Aug. ^P | Sept. ^P |
| TOTAL | 90,283 | 90,441 | 90,552 | 90,678 | 91,031 | 91,186 | 91,144 | 90,951 | 90,468 | 90,047 | 89,867 | 90,109 | 90,296 |
| MINING | 976 | 982 | 985 | 992 | 999 | 1,007 | 1,009 | 1,012 | 1,023 | 1,029 | 1,013 | 1,014 | 1,020 |
| CONSTRUCTION | 4,507 | 4,529 | 4,553 | 4,615 | 4,745 | 4,659 | 4,529 | 4,467 | 4,436 | 4,379 | 4,322 | 4,354 | 4,399 |
| MANUFACTURING | 21,071 | 21,043 | 20,966 | 20,983 | 20,971 | 20,957 | 20,938 | 20,642 | 20,286 | 20,014 | 19,828 | 19,946 | 20,003 |
| Production workers | 15,058 | 15,025 | 14,948 | 14,956 | 14,911 | 14,871 | 14,850 | 14,550 | 14,186 | 13,931 | 13,759 | 13,872 | 13,958 |
| Durable goods | 12,822 | 12,764 | 12,693 | 12,706 | 12,681 | 12,715 | 12,707 | 12,442 | 12,140 | 11,947 | 11,819 | 11,860 | 11,914 |
| Production workers | 9,129 | 9,069 | 9,001 | 9,009 | 8,953 | 8,967 | 8,961 | 8,686 | 8,386 | 8,205 | 8,084 | 8,114 | 8,192 |
| Lumber and wood products | 767 | 768 | 757 | 746 | 743 | 745 | 737 | 689 | 654 | 648 | 650 | 662 | 670 |
| Furniture and fixtures | 497 | 498 | 498 | 497 | 497 | 495 | 494 | 491 | 472 | 461 | 449 | 448 | 453 |
| Stone, clay, and glass products | 708 | 709 | 704 | 704 | 705 | 705 | 700 | 680 | 663 | 647 | 641 | 646 | 651 |
| Primary metal industries | 1,242 | 1,236 | 1,230 | 1,219 | 1,215 | 1,214 | 1,209 | 1,193 | 1,144 | 1,096 | 1,049 | 1,059 | 1,074 |
| Fabricated metal products | 1,723 | 1,723 | 1,722 | 1,718 | 1,707 | 1,711 | 1,711 | 1,678 | 1,620 | 1,584 | 1,551 | 1,570 | 1,584 |
| Machinery, except electrical | 2,518 | 2,478 | 2,460 | 2,459 | 2,532 | 2,529 | 2,530 | 2,518 | 2,517 | 2,476 | 2,448 | 2,440 | 2,430 |
| Electric and electronic equipment | 2,140 | 2,149 | 2,150 | 2,163 | 2,169 | 2,168 | 2,176 | 2,167 | 2,127 | 2,094 | 2,079 | 2,085 | 2,089 |
| Transportation equipment | 2,090 | 2,063 | 2,033 | 2,057 | 1,970 | 2,006 | 2,006 | 1,885 | 1,819 | 1,831 | 1,839 | 1,840 | 1,850 |
| Instruments and related products | 693 | 696 | 695 | 698 | 699 | 702 | 705 | 703 | 700 | 696 | 698 | 698 | 702 |
| Miscellaneous manufacturing | 444 | 444 | 444 | 445 | 444 | 440 | 439 | 438 | 424 | 414 | 415 | 412 | 411 |
| Nondurable goods | 8,249 | 8,279 | 8,273 | 8,277 | 8,290 | 8,242 | 8,231 | 8,200 | 8,146 | 8,067 | 8,009 | 8,086 | 8,089 |
| Production workers | 5,929 | 5,956 | 5,947 | 5,947 | 5,958 | 5,904 | 5,889 | 5,864 | 5,800 | 5,726 | 5,675 | 5,758 | 5,766 |
| Food and kindred products | 1,712 | 1,723 | 1,725 | 1,724 | 1,716 | 1,713 | 1,704 | 1,690 | 1,691 | 1,677 | 1,683 | 1,694 | 1,664 |
| Tobacco manufactures | 70 | 70 | 64 | 66 | 67 | 68 | 68 | 69 | 70 | 71 | 69 | 67 | 67 |
| Textile mill products | 881 | 885 | 887 | 889 | 888 | 888 | 888 | 884 | 869 | 843 | 833 | 848 | 851 |
| Apparel and other textile products | 1,298 | 1,302 | 1,294 | 1,296 | 1,305 | 1,313 | 1,316 | 1,302 | 1,291 | 1,287 | 1,276 | 1,299 | 1,305 |
| Paper and allied products | 708 | 709 | 708 | 708 | 710 | 709 | 708 | 702 | 692 | 685 | 680 | 682 | 686 |
| Printing and publishing | 1,245 | 1,251 | 1,259 | 1,261 | 1,269 | 1,273 | 1,274 | 1,272 | 1,268 | 1,269 | 1,266 | 1,266 | 1,266 |
| Chemicals and allied products | 1,110 | 1,114 | 1,116 | 1,118 | 1,121 | 1,121 | 1,123 | 1,123 | 1,120 | 1,112 | 1,103 | 1,100 | 1,105 |
| Petroleum and coal products | 211 | 212 | 212 | 213 | 214 | 161 | 157 | 175 | 203 | 205 | 207 | 208 | 207 |
| Rubber and miscellaneous plastics products | 767 | 766 | 762 | 756 | 755 | 751 | 749 | 740 | 703 | 681 | 663 | 680 | 693 |
| Leather and leather products | 247 | 247 | 246 | 246 | 245 | 245 | 244 | 243 | 239 | 237 | 229 | 242 | 245 |
| TRANSPORTATION AND PUBLIC UTILITIES | 5,185 | 5,203 | 5,216 | 5,212 | 5,202 | 5,198 | 5,202 | 5,178 | 5,167 | 5,134 | 5,114 | 5,124 | 5,117 |
| WHOLESALE AND RETAIL TRADE | 20,352 | 20,414 | 20,479 | 20,448 | 20,529 | 20,637 | 20,610 | 20,531 | 20,487 | 20,459 | 20,506 | 20,571 | 20,623 |
| WHOLESALE TRADE | 5,228 | 5,246 | 5,269 | 5,251 | 5,278 | 5,302 | 5,301 | 5,286 | 5,268 | 5,245 | 5,247 | 5,267 | 5,275 |
| RETAIL TRADE | 15,124 | 15,168 | 15,210 | 15,197 | 15,251 | 15,335 | 15,309 | 15,245 | 15,219 | 15,214 | 15,259 | 15,304 | 15,348 |
| FINANCE, INSURANCE, AND REAL ESTATE | 5,017 | 5,033 | 5,049 | 5,064 | 5,091 | 5,101 | 5,115 | 5,119 | 5,137 | 5,150 | 5,167 | 5,179 | 5,173 |
| SERVICES | 17,192 | 17,264 | 17,308 | 17,362 | 17,462 | 17,540 | 17,580 | 17,618 | 17,659 | 17,652 | 17,760 | 17,767 | 17,845 |
| GOVERNMENT | 15,983 | 15,973 | 15,996 | 16,002 | 16,032 | 16,087 | 16,161 | 16,384 | 16,273 | 16,230 | 16,157 | 16,154 | 16,116 |
| Federal | 2,762 | 2,769 | 2,773 | 2,773 | 2,791 | 2,826 | 2,886 | 3,115 | 2,960 | 2,951 | 2,893 | 2,838 | 2,791 |
| State and local | 13,221 | 13,204 | 13,223 | 13,229 | 13,241 | 13,261 | 13,275 | 13,269 | 13,313 | 13,279 | 13,264 | 13,316 | 13,325 |

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 | ... | 3.8 | 3.3 | 3.5 | 3.1 | 3.4 | 3.9 | 3.8 | P 4.6 | ... | ... | ... | ... |
| 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 | ... | 2.4 | 2.2 | 2.3 | 2.1 | 2.1 | 2.4 | 2.1 | P 2.5 | ... | ... | ... | ... |
| Recalls | | | | | | | | | | | | | |
| 1977 | .9 | 1.2 | 1.3 | 1.1 | .9 | .8 | .8 | .9 | 1.0 | .8 | .6 | .6 | .6 |
| 1978 | .7 | 1.0 | .7 | .8 | .8 | .8 | .7 | .8 | .9 | .7 | .6 | .5 | .5 |
| 1979 | .7 | .9 | .7 | .7 | .7 | .8 | .7 | .9 | .9 | .8 | .7 | .5 | .5 |
| 1980 | ... | 1.1 | .9 | .9 | .8 | 1.0 | 1.2 | 1.4 | P 1.7 | ... | ... | ... | ... |
| 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 | ... | 4.1 | 3.5 | 3.7 | 4.7 | 4.8 | 4.4 | 4.2 | P 4.9 | ... | ... | ... | ... |
| 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 | ... | 1.6 | 1.5 | 1.6 | 1.5 | 1.5 | 1.4 | 1.4 | P 2.2 | ... | ... | ... | ... |
| 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 | ... | 1.6 | 1.2 | 1.3 | 2.3 | 2.5 | 2.2 | 2.0 | P 1.8 | ... | ... | ... | ... |

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 | | |
| | Aug. 1979 | July 1980 | Aug. 1980 ^P | Aug. 1979 | July 1980 | Aug. 1980 ^P | Aug. 1979 | July 1980 | Aug. 1980 ^P | Aug. 1979 | July 1980 | Aug. 1980 ^P | Aug. 1979 | July 1980 | Aug. 1980 ^P | Aug. 1979 | July 1980 | Aug. 1980 ^P |
| MANUFACTURING | 5.0 | 3.8 | 4.6 | 3.7 | 2.1 | 2.5 | 0.9 | 1.4 | 1.7 | 5.7 | 4.2 | 4.9 | 3.3 | 1.4 | 2.2 | 1.3 | 2.0 | 1.8 |
| Seasonally adjusted | 3.9 | 3.4 | 3.7 | 2.8 | 1.9 | 1.9 | ... | ... | ... | 4.3 | 3.8 | 4.0 | 2.0 | 1.3 | 1.3 | 1.4 | 1.7 | 2.0 |
| Durable goods | 4.2 | 3.2 | 4.1 | 3.1 | 1.6 | 1.9 | .8 | 1.3 | 1.8 | 5.2 | 4.0 | 4.7 | 2.8 | 1.1 | 1.7 | 1.3 | 2.1 | 2.0 |
| Lumber and wood products | 6.7 | 5.9 | 6.8 | 5.8 | 3.2 | 4.3 | .6 | 2.5 | 2.3 | 7.8 | 5.2 | 6.3 | 5.5 | 2.2 | 3.3 | .8 | 2.1 | 1.8 |
| Furniture and fixtures | 6.9 | 3.8 | 5.0 | 5.7 | 2.2 | 3.3 | 1.0 | 1.5 | 1.6 | 7.3 | 5.6 | 5.5 | 4.9 | 1.8 | 2.9 | .9 | 2.9 | 1.6 |
| Stone, clay, and glass products | 4.5 | 4.0 | 4.7 | 3.7 | 2.0 | 2.5 | .6 | 1.8 | 2.0 | 5.8 | 4.0 | 5.1 | 3.5 | 1.2 | 2.1 | 1.1 | 1.9 | 2.0 |
| Primary metal industries | 2.7 | 3.5 | 4.4 | 1.7 | .7 | .9 | .6 | 2.6 | 3.3 | 4.4 | 5.3 | 4.8 | 1.9 | .6 | .9 | 1.4 | 3.8 | 2.8 |
| Fabricated metal products | 4.8 | 4.0 | 4.7 | 3.8 | 1.9 | 2.2 | .7 | 1.9 | 2.2 | 5.9 | 4.4 | 4.6 | 3.3 | 1.3 | 1.9 | 1.6 | 2.3 | 1.8 |
| Machinery, except electrical | 3.1 | 2.2 | 2.7 | 2.4 | 1.3 | 1.5 | .3 | .6 | .9 | 3.8 | 3.2 | 3.7 | 2.2 | .9 | 1.5 | .6 | 1.6 | 1.4 |
| Electric and electronic equipment | 3.8 | 2.5 | 3.3 | 2.8 | 1.4 | 1.5 | .6 | .8 | 1.1 | 4.7 | 3.4 | 3.7 | 2.8 | 1.0 | 1.6 | .8 | 1.5 | 1.1 |
| Transportation equipment | 4.6 | 3.0 | ... | 2.2 | 1.4 | ... | 1.8 | 1.2 | ... | 6.0 | 4.1 | ... | 1.7 | .8 | ... | 3.2 | 2.6 | ... |
| Instruments and related products | 3.0 | 2.3 | 2.7 | 2.4 | 1.8 | 1.8 | .3 | .4 | .7 | 3.7 | 2.4 | 3.3 | 2.5 | 1.1 | 1.9 | .5 | .7 | .7 |
| Miscellaneous manufacturing | 6.9 | 5.1 | 5.4 | 5.7 | 2.8 | 3.8 | 1.0 | 2.1 | 1.4 | 7.2 | 5.6 | 5.8 | 4.8 | 1.8 | 3.4 | 1.0 | 2.7 | 1.4 |
| Nondurable goods | 6.1 | 4.7 | 5.2 | 4.6 | 2.9 | ... | 1.2 | 1.6 | 1.6 | 6.3 | 4.6 | 5.3 | 4.1 | 1.8 | 3.0 | 1.2 | 1.9 | 1.4 |
| Food and kindred products | 10.5 | 8.3 | 9.0 | 7.9 | 5.2 | 5.9 | 2.2 | 2.9 | 2.8 | 8.3 | 5.8 | 7.2 | 5.6 | 2.4 | 4.1 | 1.7 | 2.5 | 1.9 |
| Tobacco manufacturers | 11.3 | 5.1 | ... | 4.8 | 1.2 | ... | 5.2 | 2.1 | ... | 3.3 | 2.2 | ... | 1.8 | .5 | ... | .5 | .9 | ... |
| Textile mill products | 5.8 | 4.1 | 3.9 | 4.6 | 2.5 | 2.8 | .8 | 1.3 | .8 | 6.5 | 5.1 | 4.8 | 4.4 | 2.1 | 2.8 | .9 | 2.0 | 1.0 |
| Apparel and other products | 7.0 | 5.8 | 6.5 | 4.9 | 3.4 | 3.9 | 1.8 | 2.2 | 2.1 | 8.0 | 6.6 | 6.7 | 4.8 | 2.7 | 3.8 | 2.1 | 2.9 | 2.1 |
| Paper and allied products | 3.3 | 2.9 | 2.9 | 2.6 | 1.4 | 1.7 | .4 | 1.4 | 1.0 | 4.6 | 3.1 | 3.9 | 2.8 | .9 | 1.8 | .8 | 1.5 | 1.2 |
| Printing and publishing | 4.0 | 2.9 | 3.3 | 3.4 | 2.3 | 2.7 | .4 | .5 | .5 | 4.9 | 3.1 | 4.3 | 3.5 | 1.7 | 2.8 | .6 | .8 | .8 |
| Chemicals and allied products | 1.9 | 1.5 | 1.6 | 1.6 | 1.1 | 1.0 | .2 | .3 | .5 | 2.9 | 1.9 | 2.7 | 1.9 | .6 | 1.4 | .4 | .8 | .7 |
| Petroleum and coal products | 2.0 | 2.5 | 2.4 | 1.8 | 2.0 | 1.9 | .1 | .4 | .3 | 3.1 | 1.9 | 3.3 | 1.7 | .7 | 1.5 | .5 | .5 | .9 |
| Rubber and miscellaneous plastics products | 5.4 | 4.7 | 5.7 | 4.5 | 2.1 | 3.0 | .7 | 2.2 | 2.4 | 7.5 | 5.5 | 5.5 | 4.5 | 1.7 | 2.7 | 1.6 | 2.7 | 1.8 |
| Leather and leather products | 10.8 | 7.7 | 8.6 | 6.6 | 4.4 | 5.2 | 3.7 | 3.0 | 3.2 | 10.7 | 8.8 | 7.3 | 6.8 | 3.3 | 4.5 | 2.5 | 4.5 | 1.8 |

14. Hours and earnings, by industry division, 1949-79

[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 | | |
| | | | | | | | | | | | | |
| 1949 | \$50.24 | 39.4 | \$1.275 | \$62.33 | 36.3 | \$1.717 | \$67.56 | 37.7 | \$1.792 | \$53.88 | 39.1 | \$1.378 |
| 1950 | 53.13 | 39.8 | 1.335 | 67.16 | 37.9 | 1.772 | 69.68 | 37.4 | 1.863 | 58.32 | 40.5 | 1.440 |
| 1951 | 57.86 | 39.9 | 1.45 | 74.11 | 38.4 | 1.93 | 76.96 | 38.1 | 2.02 | 63.34 | 40.6 | 1.56 |
| 1952 | 60.65 | 39.9 | 1.52 | 77.59 | 38.6 | 2.01 | 82.86 | 38.9 | 2.13 | 66.75 | 40.7 | 1.64 |
| 1953 | 63.76 | 39.6 | 1.61 | 83.03 | 38.8 | 2.14 | 86.41 | 37.9 | 2.28 | 70.47 | 40.5 | 1.74 |
| 1954 | 64.52 | 39.1 | 1.65 | 82.60 | 38.6 | 2.14 | 88.91 | 37.2 | 2.39 | 70.49 | 39.6 | 1.78 |
| 1955 | 67.72 | 39.6 | 1.71 | 89.54 | 40.7 | 2.20 | 90.90 | 37.1 | 2.45 | 75.30 | 40.7 | 1.85 |
| 1956 | 70.74 | 39.3 | 1.80 | 95.06 | 40.8 | 2.33 | 96.38 | 37.5 | 2.57 | 78.78 | 40.4 | 1.95 |
| 1957 | 73.33 | 38.8 | 1.89 | 98.25 | 40.1 | 2.45 | 100.27 | 37.0 | 2.71 | 81.19 | 39.8 | 2.04 |
| 1958 | 75.08 | 38.5 | 1.95 | 96.08 | 38.9 | 2.47 | 103.78 | 36.8 | 2.82 | 82.32 | 39.2 | 2.10 |
| 1959 ¹ | 78.78 | 39.0 | 2.02 | 103.68 | 40.5 | 2.56 | 108.41 | 37.0 | 2.93 | 88.26 | 40.3 | 2.19 |
| 1960 | 80.67 | 38.6 | 2.09 | 105.04 | 40.4 | 2.60 | 112.67 | 36.7 | 3.07 | 89.72 | 39.7 | 2.26 |
| 1961 | 82.60 | 38.6 | 2.14 | 106.92 | 40.5 | 2.64 | 118.08 | 36.9 | 3.20 | 92.34 | 39.8 | 2.32 |
| 1962 | 85.91 | 38.7 | 2.22 | 110.70 | 41.0 | 2.70 | 122.47 | 37.0 | 3.31 | 96.56 | 40.4 | 2.39 |
| 1963 | 88.46 | 38.8 | 2.28 | 114.40 | 41.6 | 2.75 | 127.19 | 37.3 | 3.41 | 99.23 | 40.5 | 2.45 |
| 1964 | 91.33 | 38.7 | 2.36 | 117.74 | 41.9 | 2.81 | 132.06 | 37.2 | 3.55 | 102.97 | 40.7 | 2.53 |
| 1965 | 95.45 | 38.8 | 2.46 | 123.52 | 42.3 | 2.92 | 138.38 | 37.4 | 3.70 | 107.53 | 41.2 | 2.61 |
| 1966 | 98.82 | 38.6 | 2.56 | 130.24 | 42.7 | 3.05 | 146.26 | 37.6 | 3.89 | 112.19 | 41.4 | 2.71 |
| 1967 | 101.84 | 38.0 | 2.68 | 135.89 | 42.6 | 3.19 | 154.95 | 37.7 | 4.11 | 114.49 | 40.6 | 2.82 |
| 1968 | 107.73 | 37.8 | 2.85 | 142.71 | 42.6 | 3.35 | 164.49 | 37.3 | 4.41 | 122.51 | 40.7 | 3.01 |
| 1969 | 114.61 | 37.7 | 3.04 | 154.80 | 43.0 | 3.60 | 181.54 | 37.9 | 4.79 | 129.51 | 40.6 | 3.19 |
| 1970 | 119.83 | 37.1 | 3.23 | 164.40 | 42.7 | 3.85 | 195.45 | 37.3 | 5.24 | 133.33 | 39.8 | 3.35 |
| 1971 | 127.31 | 36.9 | 3.45 | 172.14 | 42.4 | 4.06 | 211.67 | 37.2 | 5.69 | 142.44 | 39.9 | 3.57 |
| 1972 | 136.90 | 37.0 | 3.70 | 189.14 | 42.6 | 4.44 | 221.19 | 36.5 | 6.06 | 154.71 | 40.5 | 3.82 |
| 1973 | 145.39 | 36.9 | 3.94 | 201.40 | 42.4 | 4.75 | 235.89 | 36.8 | 6.41 | 166.46 | 40.7 | 4.09 |
| 1974 | 154.76 | 36.5 | 4.24 | 219.14 | 41.9 | 5.23 | 249.25 | 36.6 | 6.81 | 176.80 | 40.0 | 4.42 |
| 1975 | 163.53 | 36.1 | 4.53 | 249.31 | 41.9 | 5.95 | 266.08 | 36.4 | 7.31 | 190.79 | 39.5 | 4.83 |
| 1976 | 175.45 | 36.1 | 4.86 | 273.90 | 42.4 | 6.46 | 283.73 | 36.8 | 7.71 | 209.32 | 40.1 | 5.22 |
| 1977 | 189.00 | 36.0 | 5.25 | 301.20 | 43.4 | 6.94 | 295.65 | 36.5 | 8.10 | 228.90 | 40.3 | 5.68 |
| 1978 | 203.70 | 35.8 | 5.69 | 332.88 | 43.4 | 7.67 | 318.69 | 36.8 | 8.66 | 249.27 | 40.4 | 6.17 |
| 1979 | 219.30 | 35.6 | 6.16 | 365.50 | 43.0 | 8.50 | 342.99 | 37.0 | 9.27 | 268.94 | 40.2 | 6.69 |
| | Transportation and public utilities | | | Wholesale and retail trade | | | Finance, insurance, and real estate | | | Services | | |
| | | | | | | | | | | | | |
| 1949 | | | | \$42.93 | 40.5 | \$1.060 | \$47.63 | 37.8 | \$1.260 | | | |
| 1950 | | | | 44.55 | 40.5 | 1.100 | 50.52 | 37.7 | 1.340 | | | |
| 1951 | | | | 47.79 | 40.5 | 1.18 | 54.67 | 37.7 | 1.45 | | | |
| 1952 | | | | 49.20 | 40.0 | 1.23 | 57.08 | 37.8 | 1.51 | | | |
| 1953 | | | | 51.35 | 39.5 | 1.30 | 59.57 | 37.7 | 1.58 | | | |
| 1954 | | | | 53.33 | 39.5 | 1.35 | 62.04 | 37.6 | 1.65 | | | |
| 1955 | | | | 55.16 | 39.4 | 1.40 | 63.92 | 37.6 | 1.70 | | | |
| 1956 | | | | 57.48 | 39.1 | 1.47 | 65.68 | 36.9 | 1.78 | | | |
| 1957 | | | | 59.60 | 38.7 | 1.54 | 67.53 | 36.7 | 1.84 | | | |
| 1958 | | | | 61.76 | 38.6 | 1.60 | 70.12 | 37.1 | 1.89 | | | |
| 1959 ¹ | | | | 64.41 | 38.8 | 1.66 | 72.74 | 37.3 | 1.95 | | | |
| 1960 | | | | 66.01 | 38.6 | 1.71 | 75.14 | 37.2 | 2.02 | | | |
| 1961 | | | | 67.41 | 38.3 | 1.76 | 77.12 | 36.9 | 2.09 | | | |
| 1962 | | | | 69.91 | 38.2 | 1.83 | 80.94 | 37.3 | 2.17 | | | |
| 1963 | | | | 72.01 | 38.1 | 1.89 | 84.38 | 37.5 | 2.25 | | | |
| 1964 | \$118.78 | 41.1 | \$2.89 | 74.66 | 37.9 | 1.97 | 85.79 | 37.3 | 2.30 | \$70.03 | 36.1 | \$1.94 |
| 1965 | 125.14 | 41.3 | 3.03 | 76.91 | 37.7 | 2.04 | 88.91 | 37.2 | 2.39 | 73.60 | 35.9 | 2.05 |
| 1966 | 128.13 | 41.2 | 3.11 | 79.39 | 37.1 | 2.14 | 92.13 | 37.3 | 2.47 | 77.04 | 35.5 | 2.17 |
| 1967 | 130.82 | 40.5 | 3.23 | 82.35 | 36.6 | 2.25 | 95.72 | 37.1 | 2.58 | 80.38 | 35.1 | 2.29 |
| 1968 | 138.85 | 40.6 | 3.42 | 87.00 | 36.1 | 2.41 | 101.75 | 37.0 | 2.75 | 83.97 | 34.7 | 2.42 |
| 1969 | 147.74 | 40.7 | 3.63 | 91.39 | 35.7 | 2.56 | 108.70 | 37.1 | 2.93 | 90.57 | 34.7 | 2.61 |
| 1970 | 155.93 | 40.5 | 3.85 | 96.02 | 35.3 | 2.72 | 112.67 | 36.7 | 3.07 | 96.66 | 34.4 | 2.81 |
| 1971 | 168.82 | 40.1 | 4.21 | 101.09 | 35.1 | 2.88 | 117.85 | 36.6 | 3.22 | 103.06 | 33.9 | 3.04 |
| 1972 | 187.86 | 40.4 | 4.65 | 106.45 | 34.9 | 3.05 | 122.98 | 36.6 | 3.36 | 110.85 | 33.9 | 3.27 |
| 1973 | 203.31 | 40.5 | 5.02 | 111.76 | 34.6 | 3.23 | 129.20 | 36.6 | 3.53 | 117.29 | 33.8 | 3.47 |
| 1974 | 217.48 | 40.2 | 5.41 | 119.02 | 34.2 | 3.48 | 137.61 | 36.5 | 3.77 | 126.00 | 33.6 | 3.75 |
| 1975 | 233.44 | 39.7 | 5.88 | 126.45 | 33.9 | 3.73 | 148.19 | 36.5 | 4.06 | 134.67 | 33.5 | 4.02 |
| 1976 | 256.71 | 39.8 | 6.45 | 133.79 | 33.7 | 3.97 | 155.43 | 36.4 | 4.27 | 143.52 | 33.3 | 4.31 |
| 1977 | 278.90 | 39.9 | 6.99 | 142.52 | 33.3 | 4.28 | 165.26 | 36.4 | 4.54 | 153.45 | 33.0 | 4.65 |
| 1978 | 302.80 | 40.0 | 7.57 | 153.64 | 32.9 | 4.67 | 178.00 | 36.4 | 4.89 | 163.67 | 32.8 | 4.99 |
| 1979 | 325.98 | 39.9 | 8.17 | 164.96 | 32.6 | 5.06 | 190.77 | 36.2 | 5.27 | 175.27 | 32.7 | 5.36 |

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 | | 1979 | | | | 1980 | | | | | | | | |
|--|----------------|------|-------|------|------|------|------|------|------|------|------|------|------|-------------------|--------------------|
| | 1978 | 1979 | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. ^P | Sept. ^P |
| TOTAL PRIVATE | 35.8 | 35.6 | 35.8 | 35.7 | 35.6 | 35.9 | 35.1 | 35.1 | 35.2 | 35.0 | 35.0 | 35.3 | 35.3 | 35.5 | 35.3 |
| MINING | 43.4 | 43.0 | 43.4 | 43.7 | 43.6 | 43.9 | 43.4 | 43.2 | 43.4 | 42.8 | 42.7 | 43.2 | 41.9 | 42.9 | 43.1 |
| CONSTRUCTION | 36.8 | 37.0 | 38.0 | 37.7 | 36.6 | 37.2 | 35.3 | 35.7 | 36.2 | 36.7 | 36.9 | 37.9 | 37.7 | 37.3 | 37.9 |
| MANUFACTURING | 40.4 | 40.2 | 40.3 | 40.2 | 40.3 | 40.9 | 39.8 | 39.8 | 39.8 | 39.4 | 39.3 | 39.4 | 38.8 | 39.3 | 39.7 |
| Overtime hours | 3.6 | 3.3 | 3.6 | 3.4 | 3.4 | 3.4 | 3.0 | 2.9 | 3.0 | 2.7 | 2.5 | 2.5 | 2.4 | 2.7 | 3.0 |
| Durable goods | 41.1 | 40.8 | 40.8 | 40.8 | 40.8 | 41.6 | 40.3 | 40.3 | 40.3 | 39.9 | 39.7 | 39.8 | 39.1 | 39.6 | 40.1 |
| Overtime hours | 3.8 | 3.5 | 3.6 | 3.5 | 3.4 | 3.5 | 3.1 | 3.0 | 3.1 | 2.7 | 2.5 | 2.4 | 2.3 | 2.6 | 2.9 |
| Lumber and wood products | 39.8 | 39.4 | 40.1 | 39.8 | 38.8 | 39.2 | 38.1 | 38.5 | 38.3 | 37.1 | 37.6 | 38.4 | 38.2 | 39.1 | 39.3 |
| Furniture and fixtures | 39.3 | 38.7 | 39.0 | 39.3 | 39.3 | 39.9 | 38.4 | 38.4 | 38.5 | 37.9 | 37.3 | 37.3 | 36.2 | 37.7 | 38.5 |
| Stone, clay, and glass products | 41.6 | 41.5 | 41.7 | 41.7 | 41.7 | 41.8 | 40.1 | 40.1 | 40.7 | 40.4 | 40.6 | 41.0 | 40.3 | 40.7 | 41.1 |
| Primary metal industries | 41.8 | 41.4 | 41.3 | 40.9 | 40.7 | 40.9 | 40.7 | 40.7 | 40.7 | 40.6 | 39.3 | 39.1 | 38.6 | 38.9 | 39.6 |
| Fabricated metal products | 41.0 | 40.7 | 40.8 | 40.9 | 41.0 | 41.9 | 40.6 | 40.4 | 40.6 | 40.2 | 39.9 | 40.1 | 39.2 | 39.9 | 40.3 |
| Machinery except electrical | 42.1 | 41.8 | 41.8 | 41.5 | 41.8 | 42.7 | 41.5 | 41.5 | 41.5 | 41.1 | 40.8 | 40.8 | 40.0 | 40.3 | 40.9 |
| Electric and electronic equipment | 40.3 | 40.3 | 40.5 | 40.3 | 40.8 | 41.3 | 40.2 | 40.2 | 40.0 | 39.6 | 39.3 | 39.4 | 38.5 | 39.1 | 39.6 |
| Transportation equipment | 42.2 | 41.1 | 40.7 | 41.3 | 40.8 | 42.7 | 40.0 | 40.4 | 40.4 | 39.8 | 39.9 | 39.9 | 39.5 | 40.0 | 40.5 |
| Instruments and related products | 40.9 | 40.8 | 40.7 | 40.8 | 41.4 | 41.7 | 41.0 | 40.8 | 40.6 | 40.4 | 40.3 | 40.5 | 39.6 | 40.1 | 40.2 |
| Miscellaneous manufacturing | 38.8 | 38.8 | 39.2 | 39.1 | 39.4 | 39.5 | 38.8 | 38.6 | 38.8 | 38.4 | 38.2 | 38.3 | 37.8 | 38.3 | 38.7 |
| Nondurable goods | 39.4 | 39.3 | 39.6 | 39.4 | 39.6 | 39.9 | 39.0 | 38.9 | 38.9 | 38.7 | 38.7 | 38.8 | 38.5 | 38.9 | 39.1 |
| Overtime hours | 3.2 | 3.1 | 3.5 | 3.2 | 3.3 | 3.2 | 2.9 | 2.8 | 2.9 | 2.7 | 2.5 | 2.5 | 2.6 | 2.9 | 3.0 |
| Food and kindred products | 39.7 | 39.9 | 40.6 | 40.0 | 40.2 | 40.4 | 39.5 | 39.1 | 39.0 | 38.9 | 39.7 | 39.6 | 39.9 | 40.4 | 40.2 |
| Tobacco manufactures | 38.1 | 38.0 | 39.2 | 38.9 | 38.8 | 39.4 | 37.3 | 36.9 | 37.7 | 38.2 | 38.7 | 38.3 | 36.5 | 37.0 | 37.9 |
| Textile mill products | 40.4 | 40.4 | 40.8 | 40.8 | 41.3 | 41.5 | 40.9 | 40.8 | 40.9 | 39.9 | 39.8 | 39.6 | 38.5 | 39.0 | 39.8 |
| Apparel and other textile products | 35.6 | 35.3 | 35.3 | 35.5 | 35.6 | 35.9 | 35.2 | 35.4 | 35.4 | 35.3 | 35.3 | 35.6 | 35.3 | 35.3 | 35.2 |
| Paper and allied products | 42.9 | 42.6 | 42.7 | 42.7 | 42.9 | 43.5 | 42.7 | 42.4 | 42.4 | 42.2 | 41.6 | 41.7 | 41.4 | 41.8 | 41.8 |
| Printing and publishing | 37.6 | 37.5 | 37.9 | 37.5 | 37.9 | 38.1 | 37.2 | 37.0 | 37.2 | 36.8 | 36.9 | 36.7 | 36.8 | 37.2 | 37.3 |
| Chemicals and allied products | 41.9 | 41.9 | 41.8 | 41.7 | 42.2 | 42.2 | 41.7 | 41.6 | 41.7 | 41.6 | 41.3 | 41.2 | 40.7 | 40.9 | 41.6 |
| Petroleum and coal products | 43.6 | 43.8 | 44.7 | 44.1 | 44.8 | 43.5 | 36.2 | 39.7 | 39.4 | 41.1 | 42.3 | 42.3 | 42.7 | 42.0 | 43.2 |
| Rubber and miscellaneous plastics products | 40.9 | 40.5 | 40.5 | 40.5 | 40.3 | 40.7 | 40.3 | 39.9 | 40.0 | 39.7 | 39.0 | 39.3 | 38.6 | 40.1 | 40.3 |
| Leather and leather products | 37.1 | 36.5 | 36.8 | 36.5 | 36.8 | 37.3 | 36.7 | 36.8 | 36.4 | 36.7 | 37.0 | 37.4 | 36.4 | 36.9 | 36.3 |
| TRANSPORTATION AND PUBLIC UTILITIES | 40.0 | 39.9 | 39.9 | 40.0 | 40.2 | 40.0 | 39.5 | 39.4 | 39.5 | 39.5 | 39.3 | 39.6 | 39.9 | 40.1 | 39.9 |
| WHOLESALE AND RETAIL TRADE | 32.9 | 32.6 | 32.6 | 32.4 | 32.4 | 32.9 | 31.9 | 31.9 | 32.0 | 31.8 | 31.9 | 32.3 | 32.5 | 32.7 | 32.0 |
| WHOLESALE TRADE | 38.8 | 38.8 | 38.8 | 38.9 | 38.9 | 39.1 | 38.5 | 38.4 | 38.4 | 38.4 | 38.5 | 38.2 | 38.2 | 38.3 | 38.3 |
| RETAIL TRADE | 31.0 | 30.6 | 30.6 | 30.4 | 30.4 | 31.0 | 29.8 | 29.8 | 29.9 | 29.7 | 29.9 | 30.4 | 30.7 | 31.0 | 30.1 |
| FINANCE, INSURANCE, AND REAL ESTATE | 36.4 | 36.2 | 36.1 | 36.2 | 36.3 | 36.4 | 36.2 | 36.3 | 36.3 | 36.2 | 36.1 | 36.4 | 36.2 | 36.3 | 36.2 |
| SERVICES | 32.8 | 32.7 | 32.7 | 32.6 | 32.6 | 32.8 | 32.5 | 32.5 | 32.5 | 32.4 | 32.3 | 32.8 | 33.1 | 33.0 | 32.6 |

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 | 1979 | | | | 1980 | | | | | | | | |
|--|-------|------|------|------|------|------|------|------|------|------|------|-------------------|--------------------|
| | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. ^P | Sept. ^P |
| TOTAL PRIVATE | 35.6 | 35.6 | 35.6 | 35.7 | 35.6 | 35.5 | 35.4 | 35.3 | 35.1 | 35.0 | 34.9 | 35.1 | 35.2 |
| MINING | 43.4 | 43.7 | 43.6 | 43.9 | 43.4 | 43.2 | 43.4 | 42.8 | 42.7 | 43.2 | 41.9 | 42.9 | 43.1 |
| CONSTRUCTION | 37.5 | 36.8 | 37.0 | 37.2 | 37.3 | 37.1 | 36.6 | 36.7 | 36.8 | 37.1 | 36.8 | 36.5 | 37.4 |
| MANUFACTURING | 40.1 | 40.1 | 40.1 | 40.2 | 40.3 | 40.1 | 39.8 | 39.8 | 39.3 | 39.1 | 39.0 | 39.4 | 39.5 |
| Overtime hours | 3.2 | 3.2 | 3.3 | 3.2 | 3.2 | 3.0 | 3.1 | 3.0 | 2.6 | 2.4 | 2.5 | 2.7 | 2.7 |
| Durable goods | 40.7 | 40.7 | 40.6 | 40.7 | 40.8 | 40.6 | 40.3 | 40.3 | 39.7 | 39.5 | 39.4 | 39.8 | 39.9 |
| Overtime hours | 3.3 | 3.3 | 3.3 | 3.2 | 3.3 | 3.1 | 3.2 | 3.0 | 2.5 | 2.4 | 2.4 | 2.6 | 2.7 |
| Lumber and wood products | 39.6 | 39.2 | 38.9 | 39.0 | 39.4 | 39.1 | 38.7 | 37.3 | 37.5 | 37.6 | 38.1 | 38.8 | 38.8 |
| Furniture and fixtures | 38.7 | 38.8 | 38.9 | 38.9 | 39.2 | 39.0 | 38.5 | 38.5 | 37.6 | 37.0 | 36.6 | 37.5 | 38.2 |
| Stone, clay, and glass products | 41.5 | 41.3 | 41.4 | 41.5 | 41.4 | 41.2 | 40.9 | 40.6 | 40.3 | 40.4 | 40.2 | 40.3 | 40.9 |
| Primary metal industries | 41.1 | 41.1 | 40.8 | 40.7 | 40.8 | 40.8 | 40.7 | 40.6 | 39.2 | 38.8 | 38.6 | 39.1 | 39.4 |
| Fabricated metal products | 40.7 | 40.8 | 40.7 | 40.9 | 40.9 | 40.8 | 40.7 | 40.8 | 39.9 | 39.7 | 39.6 | 40.0 | 40.2 |
| Machinery, except electrical | 41.7 | 41.5 | 41.5 | 41.5 | 41.6 | 41.5 | 41.3 | 41.5 | 41.0 | 40.7 | 40.6 | 40.7 | 40.8 |
| Electric and electronic equipment | 40.3 | 40.3 | 40.4 | 40.5 | 40.5 | 40.3 | 40.0 | 39.9 | 39.5 | 39.2 | 39.0 | 39.3 | 39.4 |
| Transportation equipment | 40.6 | 41.0 | 40.5 | 40.9 | 40.9 | 40.8 | 40.4 | 40.5 | 39.7 | 39.5 | 39.6 | 40.9 | 40.4 |
| Instruments and related products | 40.7 | 40.7 | 41.0 | 41.0 | 41.4 | 40.9 | 40.4 | 40.7 | 40.3 | 40.4 | 40.1 | 40.3 | 40.2 |
| Miscellaneous manufacturing | 39.0 | 38.9 | 38.9 | 39.0 | 39.2 | 39.1 | 38.6 | 38.5 | 38.3 | 38.2 | 38.3 | 38.4 | 38.5 |
| Nondurable goods | 39.3 | 39.3 | 39.4 | 39.4 | 39.5 | 39.4 | 39.0 | 39.1 | 38.9 | 38.6 | 38.5 | 38.7 | 38.8 |
| Overtime hours | 3.1 | 3.1 | 3.2 | 3.1 | 3.1 | 2.9 | 3.0 | 3.0 | 2.6 | 2.5 | 2.6 | 2.8 | 2.7 |
| Food and kindred products | 40.0 | 39.9 | 39.9 | 39.9 | 39.8 | 39.7 | 39.3 | 39.6 | 39.9 | 39.6 | 39.7 | 39.9 | 39.6 |
| Tobacco manufactures | 38.4 | 38.3 | 37.8 | 38.5 | 38.5 | 37.9 | 37.7 | 38.2 | 38.2 | 37.3 | 38.5 | 37.5 | 37.2 |
| Textile mill products | 40.7 | 40.8 | 41.0 | 41.0 | 41.5 | 41.1 | 40.8 | 40.3 | 39.7 | 39.1 | 38.8 | 39.0 | 39.7 |
| Apparel and other textile products | 35.2 | 35.4 | 35.3 | 35.6 | 36.0 | 35.9 | 35.3 | 35.8 | 35.3 | 35.2 | 35.1 | 35.0 | 35.1 |
| Paper and allied products | 42.5 | 42.6 | 42.7 | 42.8 | 43.0 | 42.9 | 42.6 | 42.5 | 41.7 | 41.4 | 41.4 | 41.8 | 41.6 |
| Printing and publishing | 37.5 | 37.4 | 37.5 | 37.4 | 37.8 | 37.4 | 37.2 | 37.2 | 37.1 | 36.8 | 36.9 | 37.1 | 36.9 |
| Chemicals and allied products | 41.8 | 41.7 | 42.0 | 41.8 | 42.0 | 41.9 | 41.8 | 41.5 | 41.3 | 41.1 | 40.8 | 41.0 | 41.6 |
| Petroleum and coal products | 44.0 | 43.5 | 44.4 | 43.4 | 36.9 | 40.7 | 39.7 | 41.1 | 42.5 | 42.3 | 42.2 | 42.0 | 42.5 |
| Rubber and miscellaneous plastics products | 40.3 | 40.2 | 40.0 | 40.0 | 40.7 | 40.0 | 39.9 | 40.1 | 39.3 | 39.2 | 39.0 | 40.3 | 40.1 |
| Leather and leather products | 36.8 | 36.5 | 36.6 | 37.0 | 37.2 | 37.2 | 36.9 | 37.3 | 36.7 | 36.7 | 36.1 | 36.8 | 36.3 |
| TRANSPORTATION AND PUBLIC UTILITIES | 39.9 | 40.0 | 40.2 | 40.0 | 39.5 | 39.4 | 39.5 | 39.5 | 39.3 | 39.6 | 39.9 | 40.1 | 39.9 |
| WHOLESALE AND RETAIL TRADE | 32.6 | 32.6 | 32.6 | 32.6 | 32.6 | 32.4 | 32.3 | 32.0 | 32.1 | 31.9 | 31.8 | 32.1 | 32.1 |
| WHOLESALE TRADE | 38.8 | 38.8 | 38.9 | 38.9 | 38.9 | 38.8 | 38.5 | 38.5 | 38.6 | 38.0 | 38.0 | 38.1 | 38.3 |
| RETAIL TRADE | 30.6 | 30.6 | 30.6 | 30.6 | 30.6 | 30.4 | 30.3 | 30.0 | 30.1 | 30.0 | 29.8 | 30.2 | 30.1 |
| FINANCE, INSURANCE, AND REAL ESTATE | 36.1 | 36.2 | 36.3 | 36.4 | 36.2 | 36.3 | 36.3 | 36.2 | 36.1 | 36.4 | 36.2 | 36.3 | 36.2 |
| SERVICES | 32.7 | 32.6 | 32.7 | 32.8 | 32.7 | 32.7 | 32.7 | 32.6 | 32.5 | 32.6 | 32.6 | 32.5 | 32.6 |

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 | | 1979 | | | | 1980 | | | | | | | | |
|---|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------|--------------------|
| | 1978 | 1979 | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. ^P | Sept. ^P |
| TOTAL PRIVATE | \$5.69 | \$6.16 | \$6.30 | \$6.31 | \$6.34 | \$6.38 | \$6.42 | \$6.46 | \$6.51 | \$6.53 | \$6.57 | \$6.61 | \$6.64 | \$6.67 | \$6.77 |
| MINING | 7.67 | 8.50 | 8.59 | 8.59 | 8.73 | 8.75 | 8.88 | 8.90 | 8.95 | 9.10 | 9.08 | 9.16 | 9.08 | 9.19 | 9.26 |
| CONSTRUCTION | 8.66 | 9.27 | 9.52 | 9.50 | 9.52 | 9.58 | 9.49 | 9.61 | 9.68 | 9.69 | 9.77 | 9.81 | 9.91 | 10.04 | 10.17 |
| MANUFACTURING | 6.17 | 6.69 | 6.80 | 6.82 | 6.87 | 6.97 | 6.96 | 7.00 | 7.06 | 7.09 | 7.13 | 7.20 | 7.29 | 7.30 | 7.41 |
| Durable goods | 6.58 | 7.13 | 7.24 | 7.25 | 7.29 | 7.42 | 7.39 | 7.46 | 7.54 | 7.56 | 7.60 | 7.69 | 7.77 | 7.78 | 7.91 |
| Lumber and wood products | 5.60 | 6.08 | 6.30 | 6.23 | 6.22 | 6.24 | 6.21 | 6.33 | 6.35 | 6.28 | 6.40 | 6.56 | 6.72 | 6.73 | 6.71 |
| Furniture and fixtures | 4.68 | 5.06 | 5.18 | 5.19 | 5.21 | 5.26 | 5.27 | 5.32 | 5.37 | 5.39 | 5.42 | 5.49 | 5.52 | 5.56 | 5.58 |
| Stone, clay, and glass products | 6.33 | 6.85 | 6.99 | 7.01 | 7.08 | 7.11 | 7.06 | 7.14 | 7.27 | 7.34 | 7.45 | 7.53 | 7.60 | 7.62 | 7.68 |
| Primary metal industries | 8.20 | 8.97 | 9.16 | 9.11 | 9.26 | 9.28 | 9.30 | 9.44 | 9.45 | 9.53 | 9.61 | 9.65 | 9.82 | 9.88 | 9.98 |
| Fabricated metal products | 6.35 | 6.84 | 6.95 | 6.98 | 7.01 | 7.14 | 7.09 | 7.14 | 7.24 | 7.27 | 7.32 | 7.42 | 7.42 | 7.48 | 7.61 |
| Machinery, except electrical | 6.78 | 7.32 | 7.48 | 7.44 | 7.50 | 7.63 | 7.66 | 7.69 | 7.76 | 7.81 | 7.91 | 7.97 | 8.05 | 8.05 | 8.15 |
| Electric and electronic equipment | 5.82 | 6.32 | 6.47 | 6.49 | 6.52 | 6.64 | 6.67 | 6.71 | 6.78 | 6.79 | 6.78 | 6.87 | 6.96 | 7.02 | 7.18 |
| Transportation equipment | 7.91 | 8.54 | 8.59 | 8.70 | 8.72 | 8.93 | 8.81 | 8.86 | 9.04 | 9.04 | 9.06 | 9.24 | 9.34 | 9.34 | 9.53 |
| Instruments and related products | 5.71 | 6.17 | 6.21 | 6.32 | 6.39 | 6.50 | 6.57 | 6.59 | 6.63 | 6.63 | 6.72 | 6.80 | 6.86 | 6.86 | 6.91 |
| Miscellaneous manufacturing | 4.69 | 5.03 | 5.06 | 5.10 | 5.13 | 5.20 | 5.28 | 5.30 | 5.34 | 5.37 | 5.40 | 5.42 | 5.46 | 5.46 | 5.53 |
| Nondurable goods | 5.53 | 6.00 | 6.11 | 6.14 | 6.21 | 6.26 | 6.28 | 6.27 | 6.30 | 6.36 | 6.42 | 6.48 | 6.60 | 6.62 | 6.70 |
| Food and kindred products | 5.80 | 6.27 | 6.32 | 6.35 | 6.50 | 6.55 | 6.61 | 6.64 | 6.68 | 6.75 | 6.82 | 6.84 | 6.89 | 6.90 | 6.97 |
| Tobacco manufactures | 6.13 | 6.65 | 6.43 | 6.33 | 6.97 | 6.98 | 7.08 | 7.36 | 7.57 | 7.79 | 7.64 | 7.97 | 8.06 | 7.72 | 7.46 |
| Textile mill products | 4.30 | 4.66 | 4.82 | 4.83 | 4.86 | 4.87 | 4.90 | 4.90 | 4.92 | 4.91 | 4.90 | 4.93 | 5.06 | 5.18 | 5.24 |
| Apparel and other textile products | 3.94 | 4.23 | 4.27 | 4.31 | 4.32 | 4.38 | 4.44 | 4.45 | 4.49 | 4.46 | 4.45 | 4.51 | 4.50 | 4.60 | 4.69 |
| Paper and allied products | 6.52 | 7.13 | 7.33 | 7.36 | 7.43 | 7.50 | 7.49 | 7.52 | 7.55 | 7.63 | 7.65 | 7.79 | 7.97 | 7.99 | 8.02 |
| Printing and publishing | 6.51 | 6.95 | 7.08 | 7.10 | 7.13 | 7.21 | 7.24 | 7.29 | 7.34 | 7.34 | 7.44 | 7.46 | 7.53 | 7.63 | 7.74 |
| Chemicals and allied products | 7.02 | 7.60 | 7.74 | 7.83 | 7.88 | 7.92 | 7.97 | 8.01 | 8.05 | 8.12 | 8.17 | 8.24 | 8.35 | 8.38 | 8.48 |
| Petroleum and coal products | 8.63 | 9.36 | 9.50 | 9.48 | 9.56 | 9.48 | 9.46 | 9.37 | 9.29 | 9.83 | 10.07 | 10.22 | 10.25 | 10.17 | 10.25 |
| Rubber and miscellaneous plastics products | 5.52 | 5.96 | 6.03 | 6.12 | 6.14 | 6.21 | 6.25 | 6.25 | 6.27 | 6.30 | 6.34 | 6.39 | 6.48 | 6.57 | 6.65 |
| Leather and leather products | 3.89 | 4.22 | 4.29 | 4.31 | 4.33 | 4.35 | 4.45 | 4.47 | 4.51 | 4.52 | 4.53 | 4.54 | 4.54 | 4.61 | 4.63 |
| TRANSPORTATION AND PUBLIC UTILITIES | 7.57 | 8.17 | 8.44 | 8.43 | 8.51 | 8.54 | 8.55 | 8.58 | 8.62 | 8.71 | 8.72 | 8.75 | 8.90 | 8.93 | 8.96 |
| WHOLESALE AND RETAIL TRADE | 4.67 | 5.06 | 5.13 | 5.15 | 5.18 | 5.18 | 5.34 | 5.36 | 5.40 | 5.40 | 5.42 | 5.43 | 5.48 | 5.47 | 5.53 |
| WHOLESALE TRADE | 5.88 | 6.39 | 6.52 | 6.52 | 6.58 | 6.69 | 6.72 | 6.77 | 6.83 | 6.87 | 6.89 | 6.95 | 6.99 | 7.00 | 7.06 |
| RETAIL TRADE | 4.20 | 4.53 | 4.57 | 4.59 | 4.62 | 4.61 | 4.78 | 4.78 | 4.81 | 4.80 | 4.82 | 4.83 | 4.88 | 4.88 | 4.92 |
| FINANCE, INSURANCE, AND REAL ESTATE | 4.89 | 5.27 | 5.37 | 5.35 | 5.41 | 5.48 | 5.53 | 5.60 | 5.68 | 5.68 | 5.70 | 5.77 | 5.77 | 5.81 | 5.84 |
| SERVICES | 4.99 | 5.36 | 5.45 | 5.48 | 5.55 | 5.61 | 5.65 | 5.70 | 5.75 | 5.75 | 5.79 | 5.81 | 5.79 | 5.80 | 5.92 |

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

[Seasonally adjusted data: 1967=100]

| Industry | 1979 | | | | 1980 | | | | | | | | | Aug. 1980 to Sept. 1980 | Sept. 1979 to Sept. 1980 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------|--------------------|-------------------------------|--------------------------------|
| | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. ^P | Sept. ^P | | |
| TOTAL PRIVATE (in current dollars) .. | 234.3 | 235.0 | 237.3 | 239.4 | 240.3 | 242.4 | 245.2 | 246.2 | 248.3 | 250.9 | 252.1 | 253.6 | 254.6 | 0.4 | 8.7 |
| Mining | 265.6 | 267.7 | 272.0 | 274.6 | 277.0 | 278.5 | 280.9 | 283.7 | 284.2 | 286.3 | 285.3 | 289.0 | 288.6 | -.1 | 8.7 |
| Construction | 224.5 | 224.7 | 226.5 | 228.1 | 225.8 | 229.8 | 232.2 | 233.0 | 234.2 | 235.3 | 236.7 | 238.8 | 238.7 | (¹) | 6.3 |
| Manufacturing | 238.6 | 239.9 | 241.9 | 244.1 | 245.2 | 247.8 | 250.2 | 252.4 | 255.0 | 258.3 | 260.6 | 262.3 | 264.0 | .6 | 10.6 |
| Transportation and public utilities .. | 255.1 | 255.8 | 258.7 | 260.1 | 260.8 | 262.4 | 265.9 | 267.2 | 268.7 | 270.6 | 272.8 | 272.2 | 271.9 | -.1 | 6.6 |
| Wholesale and retail trade | 227.2 | 227.6 | 229.7 | 231.4 | 234.2 | 235.2 | 237.8 | 238.0 | 239.8 | 241.8 | 243.5 | 244.8 | 245.3 | .2 | 8.0 |
| Finance, insurance, and real estate .. | 214.0 | 212.9 | 215.7 | 217.9 | 218.4 | 221.1 | 225.7 | 224.9 | 226.3 | 230.2 | 229.0 | 232.0 | 232.2 | .1 | 8.5 |
| Services | 231.6 | 232.3 | 234.9 | 237.8 | 237.7 | 239.7 | 242.7 | 243.0 | 245.7 | 248.4 | 247.6 | 249.5 | 251.2 | .7 | 8.5 |
| TOTAL PRIVATE (in constant dollars) .. | 104.9 | 104.1 | 104.1 | 103.8 | 102.7 | 102.2 | 102.0 | 101.4 | 101.4 | 101.5 | 102.0 | 101.9 | (²) | (²) | (²) |

¹ Less than 0.05.² 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 | | 1979 | | | | 1980 | | | | | | | | |
|---|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------------|--------------------|
| | 1978 | 1979 | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. ^P | Sept. ^P |
| TOTAL PRIVATE | \$203.70 | \$219.30 | \$225.54 | \$225.27 | \$225.70 | \$229.04 | \$225.34 | \$226.75 | \$229.15 | \$228.55 | \$229.95 | \$233.33 | \$234.39 | \$236.79 | \$238.98 |
| MINING | 332.88 | 365.50 | 372.81 | 375.38 | 380.63 | 384.13 | 385.39 | 384.48 | 388.43 | 389.48 | 387.72 | 395.71 | 380.45 | 394.25 | 399.11 |
| CONSTRUCTION | 318.69 | 342.99 | 361.76 | 358.15 | 348.43 | 356.38 | 335.00 | 343.08 | 350.42 | 355.62 | 360.51 | 371.80 | 373.61 | 374.49 | 385.44 |
| MANUFACTURING | 249.27 | 268.94 | 274.04 | 274.16 | 276.86 | 285.07 | 277.01 | 278.60 | 280.99 | 279.35 | 280.21 | 283.68 | 282.85 | 286.89 | 294.18 |
| Durable goods | 270.44 | 290.90 | 295.39 | 295.80 | 297.43 | 308.67 | 297.82 | 300.64 | 303.86 | 301.64 | 301.72 | 306.06 | 303.81 | 308.09 | 317.19 |
| Lumber and wood products | 222.88 | 239.55 | 252.63 | 247.95 | 241.34 | 244.61 | 236.60 | 243.71 | 243.21 | 232.99 | 240.64 | 251.90 | 256.70 | 263.14 | 263.70 |
| Furniture and fixtures | 183.92 | 195.82 | 202.02 | 203.97 | 204.75 | 209.87 | 202.37 | 204.29 | 206.75 | 204.28 | 202.17 | 204.78 | 199.82 | 209.61 | 214.83 |
| Stone, clay, and glass products | 263.33 | 284.28 | 291.48 | 292.32 | 295.24 | 297.20 | 283.11 | 286.31 | 295.89 | 296.54 | 302.47 | 308.73 | 306.28 | 310.13 | 315.65 |
| Primary metal industries | 342.76 | 371.36 | 378.31 | 372.60 | 376.88 | 379.55 | 378.51 | 384.21 | 384.62 | 386.92 | 377.67 | 377.32 | 379.05 | 384.33 | 395.21 |
| Fabricated metal products | 260.35 | 278.39 | 283.56 | 285.48 | 287.41 | 299.17 | 287.85 | 288.46 | 293.94 | 292.25 | 292.07 | 297.54 | 290.86 | 298.45 | 306.68 |
| Machinery except electrical | 285.44 | 305.98 | 312.66 | 308.76 | 313.50 | 325.80 | 317.89 | 319.14 | 322.04 | 320.21 | 322.73 | 325.18 | 322.00 | 324.42 | 333.34 |
| Electric and electronic equipment | 234.55 | 254.70 | 262.04 | 261.55 | 266.02 | 274.23 | 268.13 | 269.74 | 271.20 | 268.88 | 266.45 | 270.68 | 267.96 | 274.48 | 284.33 |
| Transportation equipment | 333.80 | 350.99 | 349.61 | 359.31 | 355.78 | 381.31 | 352.40 | 357.94 | 365.22 | 359.79 | 361.49 | 368.68 | 368.93 | 373.60 | 385.97 |
| Instruments and related products | 233.54 | 251.74 | 252.75 | 257.86 | 264.55 | 271.05 | 269.37 | 268.87 | 269.18 | 267.85 | 270.82 | 275.40 | 271.66 | 275.09 | 277.78 |
| Miscellaneous manufacturing | 181.97 | 195.16 | 198.35 | 199.41 | 202.12 | 205.40 | 204.86 | 204.58 | 207.19 | 206.21 | 206.28 | 207.59 | 206.39 | 209.12 | 214.01 |
| Nondurable goods | 217.88 | 235.80 | 241.96 | 241.92 | 245.92 | 249.77 | 244.92 | 243.90 | 245.07 | 246.13 | 248.45 | 251.42 | 254.10 | 257.52 | 261.97 |
| Food and kindred products | 230.26 | 250.17 | 256.59 | 254.00 | 261.30 | 264.62 | 261.10 | 259.62 | 260.52 | 262.58 | 270.75 | 270.86 | 274.91 | 278.76 | 280.19 |
| Tobacco manufactures | 233.55 | 252.70 | 252.06 | 246.24 | 270.44 | 275.01 | 264.08 | 271.58 | 285.39 | 297.58 | 295.67 | 305.25 | 294.19 | 285.64 | 282.73 |
| Textile mill products | 173.72 | 188.26 | 196.66 | 197.06 | 200.72 | 202.11 | 200.41 | 199.92 | 201.23 | 195.91 | 195.02 | 195.23 | 194.81 | 202.02 | 208.55 |
| Apparel and other textile products | 140.26 | 149.32 | 150.73 | 153.01 | 153.79 | 157.24 | 156.29 | 157.53 | 158.95 | 157.44 | 157.09 | 160.56 | 158.85 | 162.38 | 165.09 |
| Paper and allied products | 279.71 | 303.74 | 312.99 | 314.27 | 318.75 | 326.25 | 319.82 | 318.85 | 320.12 | 321.99 | 318.24 | 324.84 | 329.96 | 333.98 | 335.24 |
| Printing and publishing | 244.78 | 260.63 | 268.33 | 266.25 | 270.23 | 274.70 | 269.33 | 269.73 | 273.05 | 270.11 | 274.54 | 273.78 | 277.10 | 283.84 | 288.70 |
| Chemicals and allied products | 294.14 | 318.44 | 323.53 | 326.51 | 332.54 | 334.22 | 332.35 | 333.22 | 335.69 | 337.79 | 337.42 | 339.49 | 339.85 | 342.74 | 352.77 |
| Petroleum and coal products | 376.27 | 409.97 | 424.65 | 418.07 | 428.29 | 412.38 | 342.45 | 371.99 | 366.03 | 404.01 | 425.96 | 432.31 | 437.68 | 427.14 | 442.80 |
| Rubber and miscellaneous plastics products | 225.77 | 241.38 | 244.22 | 247.86 | 247.44 | 252.75 | 251.88 | 249.38 | 250.80 | 250.11 | 247.26 | 251.13 | 250.13 | 263.46 | 268.00 |
| Leather and leather products | 144.32 | 154.03 | 157.87 | 157.32 | 159.34 | 162.26 | 163.32 | 164.50 | 164.16 | 165.88 | 167.61 | 169.80 | 165.26 | 170.11 | 168.07 |
| TRANSPORTATION AND PUBLIC UTILITIES | 302.80 | 325.98 | 336.76 | 337.20 | 342.10 | 341.60 | 337.73 | 338.05 | 340.49 | 344.05 | 342.70 | 346.50 | 355.11 | 358.09 | 357.50 |
| WHOLESALE AND RETAIL TRADE | 153.64 | 164.96 | 167.24 | 166.86 | 167.83 | 170.42 | 170.35 | 170.98 | 172.80 | 171.72 | 172.90 | 175.39 | 178.10 | 178.87 | 176.96 |
| WHOLESALE TRADE | 228.14 | 247.93 | 252.98 | 253.63 | 255.96 | 261.58 | 258.72 | 259.97 | 262.27 | 263.81 | 265.27 | 265.49 | 267.02 | 268.10 | 270.40 |
| RETAIL TRADE | 130.20 | 138.62 | 139.84 | 139.54 | 140.45 | 142.91 | 142.44 | 142.44 | 143.82 | 142.56 | 144.12 | 146.83 | 149.82 | 151.28 | 148.09 |
| FINANCE, INSURANCE, AND REAL ESTATE | 178.00 | 190.77 | 193.86 | 193.67 | 196.38 | 199.47 | 200.19 | 203.28 | 206.18 | 205.62 | 205.77 | 210.03 | 208.87 | 210.90 | 211.41 |
| SERVICES | 163.67 | 175.27 | 178.22 | 178.65 | 180.93 | 184.01 | 183.63 | 185.25 | 186.88 | 186.30 | 187.02 | 190.57 | 191.65 | 191.40 | 192.99 |

20. Gross and spendable weekly earnings, in current and 1967 dollars, 1960 to date

[Averages for production or nonsupervisory workers on private nonagricultural payrolls]

| Year and month | Private nonagricultural workers | | | | | | Manufacturing workers | | | | | |
|------------------------------|---------------------------------|------------------|-----------------------------------|------------------|----------------------------------|------------------|-------------------------------|------------------|-----------------------------------|------------------|----------------------------------|------------------|
| | Gross average weekly earnings | | Spendable average weekly earnings | | | | Gross average weekly earnings | | Spendable average weekly earnings | | | |
| | | | Worker with no dependents | | Married worker with 3 dependents | | | | Worker with no dependents | | Married worker with 3 dependents | |
| | Current dollars | 1967 dollars | Current dollars | 1967 dollars | Current dollars | 1967 dollars | Current dollars | 1967 dollars | Current dollars | 1967 dollars | Current dollars | 1967 dollars |
| 1960 | \$80.67 | \$90.95 | \$65.59 | \$73.95 | \$72.96 | \$82.25 | \$89.72 | \$101.15 | \$72.57 | \$81.82 | \$80.11 | \$90.32 |
| 1961 | 82.60 | 92.19 | 67.08 | 74.87 | 74.48 | 83.13 | 92.34 | 103.06 | 74.60 | 83.26 | 82.18 | 91.72 |
| 1962 | 85.91 | 94.82 | 69.56 | 76.78 | 76.99 | 84.98 | 96.56 | 106.58 | 77.86 | 85.94 | 85.53 | 94.40 |
| 1963 | 88.46 | 96.47 | 71.05 | 77.48 | 78.56 | 85.67 | 99.23 | 108.21 | 79.51 | 86.71 | 87.25 | 95.15 |
| 1964 | 91.33 | 98.31 | 75.04 | 80.78 | 82.57 | 88.88 | 102.97 | 110.84 | 84.40 | 90.85 | 92.18 | 99.22 |
| 1965 | 95.45 | 101.01 | 79.32 | 83.94 | 86.63 | 91.67 | 107.53 | 113.79 | 89.08 | 94.26 | 96.78 | 102.41 |
| 1966 | 98.82 | 101.67 | 81.29 | 83.63 | 88.66 | 91.21 | 112.19 | 115.42 | 91.45 | 94.08 | 99.33 | 102.19 |
| 1967 | 101.84 | 101.84 | 83.38 | 83.38 | 90.86 | 90.86 | 114.49 | 114.49 | 92.97 | 92.97 | 100.93 | 100.93 |
| 1968 | 107.73 | 103.39 | 86.71 | 83.21 | 95.28 | 91.44 | 122.51 | 117.57 | 97.70 | 93.76 | 106.75 | 102.45 |
| 1969 | 114.61 | 104.38 | 90.96 | 82.84 | 99.99 | 91.07 | 129.51 | 117.95 | 101.90 | 92.81 | 111.44 | 101.49 |
| 1970 | 119.83 | 103.04 | 96.21 | 82.73 | 104.90 | 90.20 | 133.33 | 114.64 | 106.32 | 91.42 | 115.58 | 99.38 |
| 1971 | 127.31 | 104.95 | 103.80 | 85.57 | 112.43 | 92.69 | 142.44 | 117.43 | 114.97 | 94.78 | 124.24 | 102.42 |
| 1972 | 136.90 | 109.26 | 112.19 | 89.54 | 121.68 | 97.11 | 154.71 | 123.47 | 125.34 | 100.03 | 135.57 | 108.20 |
| 1973 | 145.39 | 109.23 | 117.51 | 88.29 | 127.38 | 95.70 | 166.46 | 125.06 | 132.57 | 99.60 | 143.50 | 107.81 |
| 1974 | 154.76 | 104.78 | 124.37 | 84.20 | 134.61 | 91.14 | 176.80 | 119.70 | 140.19 | 94.92 | 151.56 | 102.61 |
| 1975 | 163.53 | 101.45 | 132.49 | 82.19 | 145.65 | 90.35 | 190.79 | 118.36 | 151.61 | 94.05 | 166.29 | 103.16 |
| 1976 | 175.45 | 102.90 | 143.30 | 84.05 | 155.87 | 91.42 | 209.32 | 122.77 | 167.83 | 98.43 | 181.32 | 106.35 |
| 1977 | 189.00 | 104.13 | 155.19 | 85.50 | 169.93 | 93.63 | 228.90 | 126.12 | 183.80 | 101.27 | 200.06 | 110.23 |
| 1978 | 203.70 | 104.30 | 165.39 | 84.69 | 180.71 | 92.53 | 249.27 | 127.63 | 197.40 | 101.08 | 214.87 | 110.02 |
| 1979 | 219.30 | 100.73 | 177.55 | 81.56 | 194.35 | 89.27 | 268.94 | 123.54 | 212.43 | 97.58 | 232.07 | 106.60 |
| 1979: September | 225.54 | 100.82 | 182.10 | 81.40 | 199.15 | 89.03 | 274.04 | 122.50 | 215.89 | 96.51 | 235.94 | 105.47 |
| October | 225.27 | 99.85 | 181.90 | 80.63 | 198.94 | 88.18 | 274.16 | 121.52 | 215.97 | 95.73 | 236.04 | 104.63 |
| November | 225.70 | 99.17 | 182.22 | 80.06 | 199.27 | 87.55 | 276.86 | 121.64 | 217.80 | 95.69 | 238.08 | 104.60 |
| December | 229.04 | 9.58 | 184.59 | 80.26 | 201.80 | 87.74 | 285.07 | 123.94 | 223.38 | 97.12 | 244.31 | 106.22 |
| 1980: January | 225.34 | 96.59 | 181.96 | 77.99 | 199.00 | 85.30 | 277.01 | 118.74 | 217.91 | 93.40 | 238.20 | 102.10 |
| February | 226.75 | 95.88 | 182.98 | 77.37 | 200.07 | 84.60 | 278.60 | 117.80 | 218.99 | 92.60 | 239.40 | 101.23 |
| March | 229.15 | 95.52 | 184.67 | 76.98 | 201.89 | 84.16 | 280.99 | 117.13 | 220.61 | 91.96 | 241.22 | 100.55 |
| April | 228.55 | 94.21 | 184.25 | 75.95 | 201.43 | 83.03 | 279.35 | 115.15 | 219.49 | 90.47 | 239.97 | 98.92 |
| May | 229.95 | 93.82 | 185.23 | 75.57 | 202.49 | 82.62 | 280.21 | 114.32 | 220.08 | 89.79 | 240.63 | 98.18 |
| June | 233.33 | 94.16 | 187.59 | 75.70 | 205.06 | 82.75 | 283.68 | 114.48 | 222.43 | 89.76 | 243.26 | 98.17 |
| July | 234.39 | 94.51 | 188.33 | 75.94 | 205.86 | 83.01 | 282.85 | 114.05 | 221.87 | 89.46 | 242.63 | 97.83 |
| August ^P | 236.79 | 94.87 | 190.01 | 76.13 | 207.68 | 83.21 | 286.89 | 114.94 | 224.61 | 89.99 | 245.69 | 98.43 |
| September ^P | 238.98 | (¹) | 191.54 | (¹) | 209.34 | (¹) | 294.18 | (¹) | 229.56 | (¹) | 251.22 | (¹) |

¹Not available.

NOTE: The earnings expressed in 1967 dollars have been adjusted for changes in price level as measured by the Bureau's Consumer Price Index for Urban Wage Earners and Clerical Workers. These series are described in "The Spendable Earnings Series: A Technical Note on its Calculation,"

Employment and Earnings and Monthly Report on the Labor Force, February 1969, pp. 6-13. See also "Spendable Earnings Formulas, 1978-80," Employment and Earnings, March 1980, pp. 10-11.

UNEMPLOYMENT INSURANCE DATA

UNEMPLOYMENT INSURANCE DATA are compiled monthly by the Employment and Training Administration of the U.S. Department of Labor from records of State and Federal unemployment insurance claims filed and benefits paid. Railroad unemployment insurance data are prepared by the U.S. Railroad Retirement Board.

Definitions

Data for **all programs** represent an unduplicated count of insured unemployment under State programs, Unemployment Compensation for Ex-Servicemen, and Unemployment Compensation for Federal Employees, and the Railroad Insurance Act.

Under both State and Federal unemployment insurance programs for civilian employees, insured workers must report the completion of at least 1 week of unemployment before they are defined as unem-

ployed. Persons not covered by unemployment insurance (about one-third of the labor force) and those who have exhausted or not yet earned benefit rights are excluded from the scope of the survey. **Initial claims** are notices filed by persons in unemployment insurance programs to indicate they are out of work and wish to begin receiving compensation. A claimant who continued to be unemployed a full week is then counted in the insured unemployment figure. The **rate of insured unemployment** expresses the number of insured unemployed as a percent of the average insured employment in a 12-month period.

An **application** for benefits is filed by a railroad worker at the beginning of his first period of unemployment in a benefit year; no application is required for subsequent periods in the same year. **Number of payments** are payments made in 14-day registration periods. The **average amount of benefit payment** is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments. However, **total benefits** paid have been adjusted.

21. Unemployment Insurance and employment service operations

[All items except average benefits amounts are in thousands]

| Item | 1979 | | | | | 1980 | | | | | | | |
|--|-----------|-----------|-----------|-----------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------|-------|
| | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. |
| All programs: | | | | | | | | | | | | | |
| Insured unemployment | 2,377 | 2,164 | 2,236 | 2,559 | 3,047 | 3,740 | 3,730 | 3,652 | 3,629 | 3,680 | 3,790 | 4,140 | 3,908 |
| State unemployment insurance program: ¹ | | | | | | | | | | | | | |
| Initial claims ² | 1,545 | 1,219 | 1,641 | 1,827 | 2,263 | 2,837 | 1,818 | 1,705 | 2,190 | P 2,248 | 2,319 | .... | .... |
| Insured unemployment (average weekly volume) | 2,245 | 2,024 | 2,057 | 2,384 | 2,864 | 3,537 | 3,518 | 3,356 | 3,278 | 3,343 | 3,455 | 3,692 | 3,407 |
| Rate of insured unemployment | 2.7 | 2.4 | 2.4 | 2.8 | 3.4 | 4.1 | 4.1 | 3.9 | 3.8 | 3.9 | 4.0 | 4.3 | 3.9 |
| Weeks of unemployment compensated | 8,830 | 6,993 | 7,638 | 8,107 | 9,171 | 13,792 | 12,801 | 13,170 | 12,689 | P 12,302 | 12,441 | .... | .... |
| Average weekly benefit amount for total unemployment | \$88.56 | \$89.07 | \$90.59 | \$92.39 | \$94.54 | \$96.41 | \$98.39 | \$99.15 | \$99.52 | P \$99.55 | \$99.88 | .... | .... |
| Total benefits paid | \$767,025 | \$606,095 | \$673,965 | \$728,370 | \$843,869 | \$1,283,946 | \$1,229,877 | \$1,218,231 | \$1,232,173 | \$1,196,836 | \$1,213,595 | .... | .... |
| Unemployment compensation for ex-servicemen: ³ | | | | | | | | | | | | | |
| Initial claims ¹ | 28 | 23 | 26 | 24 | 24 | 25 | 21 | 21 | 21 | P 20 | 23 | .... | .... |
| Insured unemployment (average weekly volume) | 52 | 52 | 52 | 54 | 56 | 60 | 58 | 63 | 52 | 50 | 45 | 58 | 55 |
| Weeks of unemployment compensated | 234 | 211 | 236 | 232 | 233 | 299 | 255 | 249 | 246 | P 220 | 122 | .... | .... |
| Total benefits paid | \$23,861 | \$19,634 | \$23,325 | \$23,093 | \$23,093 | \$29,635 | \$25,308 | \$24,928 | \$24,518 | \$22,025 | \$11,761 | .... | .... |
| Unemployment compensation for Federal civilian employees: ⁴ | | | | | | | | | | | | | |
| Initial claims | 13 | 13 | 18 | 15 | 15 | 19 | 11 | 12 | 11 | P 12 | 14 | .... | .... |
| Insured unemployment (average weekly volume) | 25 | 25 | 28 | 29 | 31 | 34 | 32 | 30 | 25 | 22 | 20 | 26 | 25 |
| Weeks of unemployment compensated | 107 | 91 | 109 | 118 | 118 | 150 | 129 | 123 | 108 | P 88 | 50 | .... | .... |
| Total benefits paid | \$9,829 | \$8,453 | \$10,093 | \$11,063 | \$11,047 | \$14,118 | \$12,226 | \$11,901 | \$10,323 | \$8,280 | \$4,665 | .... | .... |
| Railroad unemployment insurance: | | | | | | | | | | | | | |
| Applications | 8 | 13 | 11 | 10 | 11 | 22 | 7 | 5 | 4 | 6 | 24 | .... | .... |
| Insured unemployment (average weekly volume) | 12 | 21 | 18 | 20 | 19 | 40 | 39 | 30 | 27 | 23 | 27 | .... | .... |
| Number of payments | 26 | 32 | 51 | 36 | 41 | 80 | 71 | 68 | 62 | 54 | 55 | .... | .... |
| Average amount of benefit payment | \$195.61 | \$189.08 | \$189.61 | \$183.38 | \$197.22 | \$199.01 | \$208.73 | \$210.79 | \$201.87 | \$193.44 | \$199.06 | .... | .... |
| Total benefits paid | \$3,767 | \$5,747 | \$8,003 | \$6,462 | \$8,065 | \$14,967 | \$14,573 | \$13,884 | \$13,002 | \$9,953 | \$10,140 | .... | .... |
| Employment service: ⁵ | | | | | | | | | | | | | |
| New applications and renewals | 14,479 | 15,525 | 1,855 | 3,183 | 4,378 | 5,980 | 7,285 | 8,708 | 10,021 | 11,446 | 12,864 | .... | .... |
| Nonfarm placements | 3,935 | 4,349 | 458 | 768 | 1,044 | 1,314 | 1,561 | 1,853 | 2,143 | 2,413 | 2,730 | .... | .... |

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).

NOTE: Date for Puerto Rico included. Dashes indicate data not available.

PRICE DATA

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

Definitions

The **Consumer Price Index** is a monthly statistical measure of the average change in prices in a fixed market basket of goods and services. Effective with the January 1978 index, the Bureau of Labor Statistics began publishing CPI's for two groups of the population. One index, a new CPI for All Urban Consumers, covers 80 percent of the total noninstitutional population; and the other index, a revised CPI for Urban Wage Earners and Clerical Workers, covers about half the new index population. The All Urban Consumers index includes, in addition to wage earners and clerical workers, professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctor's and dentist's fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items is kept essentially unchanged between major revisions so that only price changes will be measured. Prices are collected from over 18,000 tenants, 24,000 retail establishments, and 18,000 housing units for property taxes in 85 urban areas across the country. All taxes directly associated with the purchase and use of items are included in the index. Because the CPI's are based on the expenditures of two population groups in 1972-73, they may not accurately reflect the experience of individual families and single persons with different buying habits.

Though the CPI is often called the "Cost-of-Living Index," it measures only price change, which is just one of several important factors affecting living costs. Area indexes do not measure differences in the level of prices among cities. They only measure the average change in prices for each area since the base period.

Producer Price Indexes measure average changes in prices received in primary markets of the United States by producers of commodities in all stages of processing. The sample used for calculating these indexes contains about 2,800 commodities and about 10,000 quotations per month selected to represent the movement of prices of all commodities produced in the manufacturing, agriculture, forestry, fishing, mining, gas and electricity, and public utilities sectors. The universe includes all commodities produced or imported for sale in commercial transactions in primary markets in the United States.

Producer Price Indexes can be organized by stage of processing or by commodity. The stage of processing structure organizes products by degree of fabrication (that is, finished goods, intermediate or semifinished goods, and crude materials). The commodity structure organizes products by similarity of end-use or material composition.

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States, from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire.

Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

In calculating Producer Price Indexes, price changes for the various commodities are averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1972. The detailed data are aggregated to obtain indexes for stage of processing groupings, commodity groupings, durability of product groupings, and a number of special composite groupings.

Price indexes for the output of selected SIC industries measure average price changes in commodities produced by particular industries, as defined in the *Standard Industrial Classification Manual 1972* (Washington, U.S. Office of Management and Budget, 1972). These indexes are derived from several price series, combined to match the economic activity of the specified industry and weighted by the value of shipments in the industry. They use data from comprehensive industrial censuses conducted by the U.S. Bureau of the Census and the U.S. Department of Agriculture.

Notes on the data

Beginning with the May 1978 issue of the *Review*, regional CPI's cross classified by population size, were introduced. These indexes will enable users in local areas for which an index is not published to get a better approximation of the CPI for their area by using the appropriate population size class measure for their region. The cross-classified indexes will be published bimonthly. (See table 24.)

For further details about the new and the revised indexes and a comparison of various aspects of these indexes with the old unrevised CPI, see *Facts About the Revised Consumer Price Index*, a pamphlet in the Consumer Price Index Revision 1978 series. See also *The Consumer Price Index: Concepts and Content Over the Years*. Report 517, revised edition (Bureau of Labor Statistics, May 1978).

For interarea comparisons of living costs at three hypothetical standards of living, see the family budget data published in the *Handbook of Labor Statistics, 1977*, Bulletin 1966 (Bureau of Labor Statistics, 1977), tables 122-133. Additional data and analysis on price changes are provided in the *CPI Detailed Report and Producer Prices and Price Indexes*, both monthly publications of the Bureau.

As of January 1976, the Wholesale Price Index (as it was then called) incorporated a revised weighting structure reflecting 1972 values of shipments. From January 1967 through December 1975, 1963 values of shipments were used as weights.

For a discussion of the general method of computing consumer, producer, and industry price indexes, see *BLS Handbook of Methods for Surveys and Studies*, Bulletin 1910 (Bureau of Labor Statistics, 1976), chapters 13-15. See also John F. Early, "Improving the measurement of producer price change," *Monthly Labor Review*, April 1978, pp. 7-15. For industry prices, see also Bennett R. Moss, "Industry and Sector Price Indexes," *Monthly Labor Review*, August 1965, pp. 974-82.

22. Consumer Price Index for Urban Wage Earners and Clerical Workers, annual averages and changes, 1967-79

[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 |

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) | | | | | | | |
|---|---------------------|---------|---------|---------|---------|---------|---------|---------|---|---------|---------|---------|---------|---------|------|------|
| | 1979 | | 1980 | | | | | | 1979 | | 1980 | | | | | |
| | Aug. | Mar. | Apr. | May | June | July | Aug. | Aug. | Mar. | Apr. | May | June | July | Aug. | Aug. | Aug. |
| All items | 221.1 | 239.8 | 242.5 | 244.9 | 247.6 | 247.8 | 249.4 | 221.5 | 239.9 | 242.6 | 245.1 | 247.8 | 248.0 | 249.6 | | |
| Food and beverages | 230.2 | 241.0 | 242.8 | 244.1 | 245.7 | 248.3 | 252.0 | 230.4 | 241.2 | 243.2 | 244.7 | 246.4 | 249.1 | 252.5 | | |
| Housing | 231.5 | 254.5 | 257.9 | 261.7 | 266.7 | 265.1 | 265.8 | 231.5 | 254.4 | 257.8 | 261.7 | 266.9 | 265.1 | 265.8 | | |
| Apparel and upkeep | 166.3 | 176.0 | 177.3 | 177.5 | 177.2 | 176.2 | 178.6 | 166.2 | 175.1 | 176.1 | 176.8 | 176.0 | 175.4 | 177.9 | | |
| Transportation | 219.6 | 243.7 | 246.8 | 249.0 | 249.7 | 251.0 | 252.7 | 220.7 | 244.3 | 247.7 | 249.9 | 250.6 | 251.9 | 253.5 | | |
| Medical care | 241.8 | 260.2 | 262.0 | 263.4 | 264.7 | 266.6 | 268.4 | 242.6 | 260.9 | 263.1 | 264.9 | 265.9 | 267.8 | 270.0 | | |
| Entertainment | 190.2 | 200.6 | 202.5 | 204.0 | 205.3 | 206.6 | 208.0 | 188.9 | 199.5 | 201.3 | 202.4 | 204.0 | 204.4 | 205.6 | | |
| Other goods and services | 197.0 | 208.9 | 209.8 | 211.2 | 212.5 | 213.5 | 214.5 | 197.2 | 208.3 | 209.2 | 210.6 | 212.1 | 212.9 | 214.0 | | |
| Commodities | 212.2 | 228.0 | 229.9 | 231.4 | 232.8 | 234.1 | 236.7 | 212.6 | 228.1 | 230.1 | 231.7 | 233.0 | 234.4 | 236.9 | | |
| Commodities less food and beverages | 200.9 | 218.4 | 220.4 | 222.0 | 223.2 | 224.0 | 226.0 | 201.3 | 218.7 | 220.6 | 222.3 | 223.4 | 224.2 | 226.2 | | |
| Nondurables less food and beverages | 208.8 | 237.5 | 239.5 | 240.3 | 241.1 | 241.4 | 242.6 | 210.5 | 239.8 | 241.7 | 242.6 | 243.2 | 243.5 | 244.8 | | |
| Durables | 193.6 | 203.0 | 204.9 | 207.1 | 208.6 | 209.8 | 212.4 | 192.9 | 201.2 | 203.3 | 205.4 | 206.8 | 208.0 | 210.5 | | |
| Services | 237.6 | 261.3 | 265.3 | 269.2 | 274.2 | 272.4 | 272.5 | 237.9 | 261.7 | 265.8 | 269.9 | 275.1 | 273.1 | 273.3 | | |
| Rent, residential | 177.5 | 186.6 | 187.0 | 188.9 | 191.1 | 192.1 | 193.2 | 177.3 | 186.4 | 186.9 | 188.7 | 190.8 | 191.8 | 193.0 | | |
| Household services less rent | 272.8 | 307.3 | 313.4 | 319.6 | 328.8 | 323.3 | 321.5 | 274.1 | 309.6 | 315.8 | 322.2 | 331.9 | 325.9 | 324.2 | | |
| Transportation services | 214.9 | 233.4 | 238.1 | 241.5 | 242.6 | 243.8 | 246.4 | 215.3 | 232.7 | 238.0 | 241.5 | 242.7 | 243.9 | 246.3 | | |
| Medical care services | 260.6 | 281.5 | 283.4 | 284.7 | 285.9 | 288.0 | 289.8 | 261.2 | 282.2 | 284.5 | 286.3 | 287.3 | 289.3 | 291.7 | | |
| Other services | 200.5 | 212.9 | 214.5 | 215.9 | 216.9 | 218.1 | 219.2 | 201.2 | 213.5 | 214.6 | 216.5 | 217.9 | 218.6 | 219.5 | | |
| Special indexes: | | | | | | | | | | | | | | | | |
| All items less food | 216.9 | 237.1 | 239.9 | 242.6 | 245.5 | 245.1 | 246.3 | 217.3 | 237.3 | 240.2 | 242.9 | 245.7 | 245.3 | 246.6 | | |
| All items less mortgage interest costs | 214.7 | 229.8 | 231.8 | 233.7 | 235.4 | 236.8 | 239.0 | 215.3 | 230.2 | 232.4 | 234.2 | 235.7 | 237.4 | 239.6 | | |
| Commodities less food | 199.5 | 216.7 | 218.6 | 220.2 | 221.4 | 222.2 | 224.2 | 199.9 | 216.9 | 218.9 | 220.5 | 221.6 | 222.4 | 224.4 | | |
| Nondurables less food | 205.4 | 232.6 | 234.6 | 235.5 | 236.3 | 236.6 | 237.8 | 207.0 | 234.8 | 236.7 | 237.7 | 238.3 | 238.7 | 239.9 | | |
| Nondurables less food and apparel | 228.3 | 264.1 | 266.5 | 267.9 | 269.3 | 270.3 | 270.9 | 229.7 | 266.3 | 268.7 | 270.0 | 271.4 | 272.2 | 272.9 | | |
| Nondurables | 220.4 | 240.3 | 242.2 | 243.2 | 244.5 | 245.9 | 248.3 | 221.3 | 241.4 | 243.3 | 244.6 | 245.7 | 247.2 | 249.6 | | |
| Services less rent | 248.8 | 275.4 | 280.0 | 284.4 | 290.0 | 287.6 | 287.4 | 249.2 | 275.9 | 280.8 | 285.4 | 291.2 | 288.6 | 288.6 | | |
| Services less medical care | 233.6 | 257.4 | 261.5 | 265.7 | 271.0 | 268.9 | 268.7 | 233.9 | 257.7 | 261.9 | 266.3 | 271.8 | 269.4 | 269.4 | | |
| Domestically produced farm foods | 223.5 | 231.2 | 232.7 | 233.6 | 234.8 | 238.5 | 243.5 | 223.4 | 231.0 | 232.4 | 233.4 | 234.7 | 238.4 | 242.9 | | |
| Selected beef cuts | 253.0 | 270.2 | 268.0 | 265.6 | 264.8 | 269.2 | 274.5 | 255.5 | 272.3 | 269.5 | 267.5 | 267.1 | 271.2 | 275.9 | | |
| Energy | 296.3 | 355.0 | 358.8 | 363.2 | 367.8 | 370.4 | 370.7 | 298.8 | 359.6 | 363.3 | 367.3 | 371.8 | 373.9 | 374.2 | | |
| All items less energy | 215.4 | 230.8 | 233.4 | 235.7 | 238.3 | 238.3 | 240.0 | 215.3 | 230.0 | 232.7 | 235.1 | 237.6 | 237.6 | 239.4 | | |
| All items less food and energy | 209.4 | 225.7 | 228.5 | 231.0 | 233.7 | 233.1 | 234.3 | 209.0 | 224.6 | 227.5 | 230.0 | 232.7 | 232.1 | 233.4 | | |
| Commodities less food and energy | 186.8 | 196.5 | 198.2 | 199.9 | 201.2 | 202.0 | 204.3 | 186.4 | 195.1 | 196.9 | 198.6 | 199.8 | 200.6 | 202.9 | | |
| Energy commodities | 314.5 | 398.5 | 402.3 | 403.0 | 404.1 | 404.8 | 404.2 | 315.8 | 400.3 | 404.0 | 404.7 | 405.6 | 406.1 | 405.5 | | |
| Services less energy | 235.4 | 259.6 | 263.5 | 267.0 | 271.5 | 269.1 | 269.0 | 235.7 | 260.0 | 264.2 | 267.8 | 272.5 | 269.8 | 269.9 | | |
| Purchasing power of the consumer dollar, 1967 = \$1 | \$0.452 | \$0.417 | \$0.412 | \$0.408 | \$0.404 | \$0.404 | \$0.401 | \$0.451 | \$0.417 | \$0.412 | \$0.408 | \$0.404 | \$0.403 | \$0.401 | | |

c = corrected.

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) | | | | | | |
|--|---------------------|-------|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|-------|
| | 1979 | 1980 | | | | | | 1979 | 1980 | | | | | |
| | Aug. | Mar. | Apr. | May | June | July | Aug. | Aug. | Mar. | Apr. | May | June | July | Aug. |
| FOOD AND BEVERAGES | 230.2 | 241.0 | 242.8 | 244.1 | 245.7 | 248.3 | 252.0 | 230.4 | 241.2 | 243.2 | 244.7 | 246.4 | 249.1 | 252.5 |
| Food | 236.3 | 247.3 | 249.1 | 250.4 | 252.0 | 254.8 | 258.7 | 236.5 | 247.5 | 249.5 | 251.0 | 252.7 | 255.5 | 259.2 |
| Food at home | 233.9 | 243.6 | 245.3 | 246.5 | 248.0 | 251.5 | 256.3 | 233.5 | 243.1 | 245.0 | 246.1 | 247.7 | 251.1 | 255.6 |
| Cereals and bakery products | 223.7 | 238.6 | 242.0 | 244.5 | 245.9 | 247.8 | 249.2 | 224.1 | 239.3 | 242.2 | 244.4 | 245.7 | 248.0 | 249.6 |
| Cereals and cereal products (12/77 = 100) | 118.5 | 126.6 | 129.4 | 131.5 | 133.1 | 135.0 | 136.3 | 119.0 | 127.7 | 130.1 | 132.4 | 133.9 | 135.5 | 136.8 |
| Flour and prepared flour mixes (12/77 = 100) | 122.5 | 126.6 | 127.8 | 129.0 | 131.1 | 132.9 | 133.6 | 123.3 | 127.5 | 128.9 | 129.9 | 131.4 | 132.8 | 133.9 |
| Cereal (12/77 = 100) | 118.0 | 126.0 | 129.4 | 131.5 | 133.0 | 135.5 | 137.6 | 118.5 | 126.6 | 129.7 | 132.0 | 133.3 | 135.5 | 137.7 |
| Rice, pasta, and cornmeal (12/77 = 100) | 115.7 | 127.6 | 130.8 | 133.8 | 135.2 | 136.2 | 136.8 | 115.8 | 129.4 | 131.9 | 135.2 | 137.0 | 137.9 | 138.4 |
| Bakery products (12/77 = 100) | 118.3 | 126.1 | 127.6 | 128.7 | 129.1 | 129.8 | 130.4 | 118.5 | 126.2 | 127.5 | 128.3 | 128.8 | 129.8 | 130.5 |
| White bread | 198.4 | 212.0 | 215.1 | 216.7 | 216.9 | 218.4 | 217.9 | 198.0 | 212.1 | 215.1 | 216.0 | 215.4 | 217.5 | 217.2 |
| Other breads (12/77 = 100) | 118.6 | 125.6 | 127.0 | 128.3 | 128.1 | 129.4 | 129.7 | 120.8 | 129.3 | 129.3 | 130.6 | 130.8 | 132.3 | 133.3 |
| Fresh biscuits, rolls, and muffins (12/77 = 100) | 118.1 | 127.0 | 126.9 | 127.8 | 129.5 | 129.2 | 130.0 | 117.7 | 124.9 | 125.3 | 126.4 | 127.9 | 128.1 | 128.9 |
| Fresh cakes and cupcakes (12/77 = 100) | 116.6 | 124.4 | 126.5 | 127.4 | 127.6 | 127.9 | 129.8 | 116.3 | 123.2 | 125.4 | 126.5 | 126.9 | 127.3 | 129.4 |
| Cookies (12/77 = 100) | 115.6 | 124.4 | 125.3 | 126.1 | 126.3 | 127.1 | 128.7 | 117.2 | 125.6 | 126.3 | 126.8 | 126.9 | 128.3 | 130.1 |
| Crackers and bread and cracker products (12/77 = 100) | 114.7 | 120.2 | 122.0 | 122.2 | 123.6 | 125.5 | 124.6 | 114.9 | 121.8 | 122.2 | 123.0 | 124.5 | 125.7 | 124.7 |
| Fresh sweetrolls, coffee cake, and donuts (12/77 = 100) | 117.5 | 125.0 | 126.6 | 128.4 | 129.1 | 129.5 | 131.4 | 119.3 | 126.2 | 128.0 | 129.2 | 130.0 | 130.0 | 131.6 |
| Frozen and refrigerated bakery products and fresh pies, tarts, and turnovers (12/77 = 100) | 120.8 | 127.9 | 129.7 | 131.0 | 131.2 | 131.5 | 131.4 | 117.1 | 124.0 | 125.3 | 126.0 | 127.2 | 129.6 | 129.2 |
| Meats, poultry, fish, and eggs | 230.2 | 237.8 | 235.1 | 231.5 | 231.2 | 236.7 | 245.4 | 229.6 | 237.1 | 234.3 | 230.7 | 230.4 | 236.1 | 244.3 |
| Meats, poultry, and fish | 235.8 | 243.8 | 241.1 | 238.2 | 237.9 | 243.4 | 251.0 | 235.3 | 243.0 | 240.2 | 237.2 | 237.1 | 242.8 | 249.8 |
| Meats | 237.8 | 245.7 | 242.6 | 239.2 | 238.1 | 243.3 | 251.1 | 237.6 | 245.0 | 241.3 | 238.1 | 237.5 | 242.8 | 250.0 |
| Beef and veal | 251.9 | 269.1 | 267.0 | 264.8 | 263.8 | 267.9 | 273.1 | 254.1 | 270.8 | 268.2 | 266.3 | 265.6 | 269.6 | 274.1 |
| Ground beef other than canned | 260.3 | 275.3 | 272.9 | 269.4 | 266.9 | 266.6 | 272.9 | 261.9 | 278.7 | 274.7 | 270.6 | 269.0 | 268.7 | 275.6 |
| Chuck roast | 257.5 | 286.2 | 277.9 | 273.0 | 268.6 | 277.7 | 279.8 | 264.0 | 293.4 | 286.1 | 280.0 | 275.0 | 285.3 | 287.9 |
| Round roast | 222.2 | 244.2 | 242.7 | 243.4 | 240.9 | 243.2 | 248.8 | 225.9 | 244.5 | 242.1 | 245.5 | 243.8 | 246.2 | 248.2 |
| Round steak | 238.1 | 254.2 | 253.5 | 250.6 | 247.4 | 253.2 | 258.0 | 235.4 | 251.1 | 249.6 | 250.2 | 247.3 | 253.6 | 256.4 |
| Sirloin steak | 247.5 | 254.3 | 256.1 | 256.2 | 264.8 | 270.2 | 274.1 | 247.3 | 256.0 | 257.8 | 257.5 | 268.3 | 274.2 | 278.8 |
| Other beef and veal (12/77 = 100) | 145.0 | 153.8 | 153.3 | 152.4 | 155.9 | 155.9 | 159.0 | 146.0 | 153.7 | 153.1 | 152.2 | 152.4 | 155.2 | 157.6 |
| Pork | 207.4 | 202.6 | 197.1 | 191.8 | 190.4 | 200.3 | 212.0 | 207.6 | 203.0 | 196.7 | 191.8 | 190.5 | 200.7 | 212.0 |
| Bacon | 192.5 | 187.6 | 182.1 | 177.4 | 173.1 | 186.3 | 201.5 | 195.0 | 189.4 | 183.9 | 177.7 | 175.6 | 189.1 | 205.6 |
| Pork chops | 195.3 | 190.7 | 187.0 | 182.4 | 182.7 | 193.1 | 199.9 | 196.2 | 190.5 | 184.7 | 180.9 | 180.6 | 193.3 | 198.5 |
| Ham other than canned (12/77 = 100) | 96.4 | 95.8 | 90.6 | 87.4 | 87.8 | 92.1 | 98.4 | 94.9 | 87.7 | 88.7 | 85.4 | 86.1 | 90.5 | 96.3 |
| Sausage | 263.8 | 257.6 | 255.1 | 250.2 | 246.2 | 249.2 | 262.5 | 263.2 | 259.8 | 258.0 | 253.9 | 249.6 | 252.0 | 263.6 |
| Canned ham | 221.1 | 219.3 | 213.5 | 210.0 | 208.1 | 208.6 | 217.0 | 218.9 | 217.4 | 214.5 | 213.0 | 210.1 | 207.6 | 219.1 |
| Other pork (12/77 = 100) | 118.3 | 113.6 | 110.7 | 107.1 | 106.3 | 115.1 | 123.1 | 118.4 | 113.7 | 110.0 | 106.5 | 105.9 | 114.9 | 122.7 |
| Other meats | 243.5 | 245.8 | 243.9 | 240.2 | 239.4 | 239.1 | 247.8 | 239.9 | 241.5 | 239.0 | 235.6 | 235.9 | 236.5 | 244.1 |
| Frankfurters | 241.9 | 244.6 | 240.6 | 234.8 | 230.9 | 229.1 | 245.8 | 242.6 | 242.8 | 239.3 | 234.0 | 231.0 | 231.5 | 245.9 |
| Bologna, liverwurst, and salami (12/77 = 100) | 134.3 | 135.5 | 134.9 | 133.5 | 133.4 | 135.1 | 138.5 | 129.7 | 132.2 | 131.1 | 129.5 | 130.7 | 131.4 | 134.5 |
| Other luncheon meats (12/77 = 100) | 122.7 | 121.8 | 121.9 | 121.4 | 121.0 | 120.6 | 123.7 | 120.8 | 118.8 | 118.4 | 117.6 | 118.1 | 118.8 | 121.5 |
| Lamb and organ meats (12/77 = 100) | 137.6 | 142.3 | 140.1 | 136.3 | 137.6 | 137.2 | 140.4 | 137.9 | 144.3 | 141.3 | 138.4 | 139.3 | 138.2 | 140.8 |
| Poultry | 177.1 | 180.7 | 177.2 | 176.5 | 177.9 | 187.9 | 197.5 | 174.3 | 177.4 | 176.0 | 173.8 | 175.7 | 186.0 | 195.1 |
| Fresh whole chicken | 171.3 | 179.5 | 174.7 | 172.9 | 176.3 | 193.6 | 205.3 | 166.7 | 172.5 | 170.6 | 168.0 | 170.7 | 189.1 | 199.9 |
| Fresh and frozen chicken parts (12/77 = 100) | 112.1 | 116.8 | 114.5 | 114.4 | 115.7 | 120.9 | 127.8 | 111.1 | 116.3 | 114.7 | 112.7 | 115.6 | 120.8 | 128.1 |
| Other poultry (12/77 = 100) | 123.0 | 118.2 | 117.3 | 117.4 | 115.9 | 117.0 | 120.3 | 122.1 | 117.7 | 118.1 | 117.7 | 116.1 | 116.6 | 119.1 |
| Fish and seafood | 306.5 | 322.6 | 325.3 | 324.5 | 329.1 | 330.1 | 331.8 | 301.4 | 320.2 | 325.1 | 323.0 | 324.9 | 326.4 | 327.3 |
| Canned fish and seafood (12/77 = 100) | 112.7 | 120.4 | 122.9 | 125.4 | 127.3 | 129.2 | 131.2 | 111.5 | 119.5 | 121.8 | 124.0 | 125.7 | 127.3 | 129.3 |
| Fresh and frozen fish and seafood (12/77 = 100) | 119.2 | 124.3 | 124.5 | 122.5 | 124.2 | 123.7 | 123.6 | 116.9 | 123.5 | 125.1 | 122.4 | 122.6 | 122.5 | 121.8 |
| Eggs | 161.8 | 164.5 | 161.2 | 148.4 | 147.9 | 154.2 | 178.3 | 160.5 | 164.3 | 161.5 | 148.9 | 147.2 | 153.5 | 177.1 |
| Dairy products | 208.6 | 220.3 | 222.4 | 226.2 | 227.2 | 228.6 | 229.7 | 208.9 | 221.1 | 223.1 | 226.9 | 227.8 | 229.2 | 229.9 |
| Fresh milk and cream (12/77 = 100) | 117.7 | 124.1 | 124.7 | 127.0 | 127.1 | 127.7 | 127.9 | 117.9 | 124.2 | 124.9 | 127.2 | 127.4 | 128.0 | 128.0 |
| Fresh whole milk | 192.8 | 204.0 | 204.9 | 208.5 | 208.6 | 209.4 | 209.8 | 193.0 | 203.8 | 204.8 | 208.4 | 208.7 | 209.8 | 209.7 |
| Other fresh milk and cream (12/77 = 100) | 117.4 | 122.7 | 123.5 | 125.9 | 126.0 | 126.9 | 127.1 | 117.7 | 123.1 | 124.1 | 126.8 | 127.2 | 127.5 | 127.6 |
| Processed dairy products (12/77 = 100) | 118.2 | 125.1 | 127.0 | 129.1 | 130.4 | 131.4 | 132.5 | 118.4 | 126.2 | 128.0 | 129.9 | 130.7 | 131.9 | 132.9 |
| Butter | 203.0 | 218.3 | 219.9 | 222.2 | 225.0 | 226.9 | 231.2 | 205.7 | 220.9 | 222.7 | 225.3 | 227.2 | 229.7 | 233.7 |
| Cheese (12/77 = 100) | 118.4 | 124.9 | 126.2 | 127.8 | 128.8 | 130.0 | 130.4 | 118.4 | 125.5 | 126.8 | 128.5 | 129.0 | 130.1 | 130.9 |
| Ice cream and related products (12/77 = 100) | 117.8 | 125.1 | 128.6 | 131.9 | 133.7 | 134.6 | 137.0 | 118.1 | 127.2 | 130.4 | 132.9 | 133.8 | 135.5 | 136.1 |
| Other dairy products (12/77 = 100) | 115.4 | 121.6 | 124.0 | 126.1 | 127.3 | 127.5 | 128.3 | 115.4 | 121.9 | 123.6 | 125.7 | 127.4 | 127.7 | 128.8 |
| Fruits and vegetables | 237.8 | 232.4 | 240.9 | 246.6 | 250.1 | 253.9 | 258.4 | 237.0 | 230.1 | 239.8 | 245.5 | 250.2 | 253.0 | 256.6 |
| Fresh fruits and vegetables | 247.5 | 229.9 | 245.2 | 255.1 | 260.0 | 265.8 | 273.0 | 247.9 | 227.4 | 244.8 | 254.4 | 261.4 | 265.2 | 270.8 |
| Fresh fruits | 286.9 | 245.4 | 257.0 | 264.7 | 273.9 | 282.7 | 302.3 | 288.9 | 245.4 | 255.6 | 263.8 | 274.9 | 282.3 | 300.1 |
| Apples | 275.2 | 250.2 | 265.5 | 276.3 | 293.3 | 316.6 | 340.8 | 275.9 | 249.0 | 264.4 | 277.3 | 297.4 | 318.7 | 342.2 |
| Bananas | 202.3 | 243.9 | 242.8 | 249.7 | 242.6 | 232.6 | 234.0 | 202.5 | 240.8 | 243.5 | 244.5 | 237.7 | 228.7 | 228.0 |
| Oranges | 316.2 | 238.1 | 240.6 | 243.9 | 264.4 | 273.9 | 297.1 | 298.6 | 240.9 | 234.3 | 237.6 | 251.0 | 261.5 | 285.5 |
| Other fresh fruits (12/77 = 100) | 157.5 | 127.4 | 136.5 | 140.8 | 143.7 | 147.5 | 158.5 | 163.5 | 126.9 | 135.7 | 140.9 | 146.5 | 148.7 | 157.9 |
| Fresh vegetables | 210.7 | 215.5 | 234.2 | 246.2 | 247.0 | 250.1 | 245.6 | 211.0 | 211.3 | 235.2 | 246.0 | | | |

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 | | | | | | | 1980 | | | | | | |
| | Aug. | Mar. | Apr. | May | June | July | Aug. | Aug. | Mar. | Apr. | May | June | July | Aug. |
| FOOD AND BEVERAGES—Continued | | | | | | | | | | | | | | |
| Food—Continued | | | | | | | | | | | | | | |
| Food at home—Continued | | | | | | | | | | | | | | |
| Fruits and vegetables—Continued | | | | | | | | | | | | | | |
| Cut corn and canned beans except lima (12/77=100) | 113.9 | 116.0 | 115.6 | 116.0 | 116.6 | 118.1 | 119.4 | 112.0 | 115.4 | 114.3 | 114.2 | 115.2 | 117.0 | 118.1 |
| Other canned and dried vegetables (12/77=100) | 109.7 | 114.8 | 114.7 | 115.1 | 115.9 | 117.0 | 118.0 | 108.1 | 112.3 | 112.7 | 113.3 | 114.2 | 115.6 | 116.4 |
| Other foods at home | 272.8 | 292.0 | 295.1 | 298.1 | 301.8 | 304.3 | 307.8 | 271.8 | 290.9 | 294.6 | 298.0 | 301.4 | 303.7 | 307.4 |
| Sugar and sweets | 281.0 | 313.5 | 319.5 | 326.8 | 342.0 | 353.1 | 355.1 | 279.9 | 314.1 | 320.8 | 328.0 | 342.9 | 354.6 | 356.6 |
| Candy and chewing gum (12/77=100) | 119.4 | 123.8 | 126.3 | 128.9 | 130.5 | 131.6 | 132.6 | 119.0 | 123.9 | 126.5 | 129.0 | 130.8 | 132.0 | 133.2 |
| Sugar and artificial sweeteners (12/77=100) | 115.6 | 153.0 | 156.9 | 161.4 | 180.3 | 194.2 | 194.6 | 115.5 | 153.8 | 158.6 | 163.3 | 180.7 | 194.5 | 195.1 |
| Other sweets (12/77=100) | 114.6 | 120.4 | 121.3 | 123.6 | 125.8 | 127.2 | 128.3 | 113.6 | 119.3 | 120.0 | 122.2 | 124.6 | 126.5 | 126.9 |
| Fats and oils (12/77=100) | 228.9 | 236.8 | 238.3 | 239.5 | 240.0 | 239.3 | 242.0 | 228.9 | 236.8 | 238.3 | 240.1 | 240.5 | 240.6 | 242.4 |
| Margarine | 240.3 | 248.8 | 247.9 | 246.1 | 249.0 | 247.0 | 249.3 | 239.8 | 248.3 | 248.3 | 248.4 | 249.4 | 248.6 | 251.5 |
| Nondairy substitutes and peanut butter (12/77=100) | 114.0 | 117.9 | 119.8 | 121.4 | 123.1 | 123.6 | 124.7 | 114.0 | 118.5 | 120.0 | 121.6 | 123.5 | 124.0 | 124.8 |
| Other fats, oils, and salad dressings (12/77=100) | 119.7 | 123.7 | 124.8 | 125.8 | 124.9 | 124.6 | 126.2 | 119.6 | 123.4 | 124.4 | 125.5 | 124.9 | 125.0 | 125.7 |
| Nonalcoholic beverages | 361.8 | 387.1 | 390.3 | 393.0 | 395.9 | 397.4 | 402.8 | 360.0 | 384.4 | 389.2 | 392.3 | 395.1 | 396.2 | 403.0 |
| Cola drinks, excluding diet cola | 239.2 | 259.3 | 261.7 | 265.4 | 267.8 | 268.4 | 275.2 | 236.9 | 255.4 | 260.1 | 263.2 | 267.1 | 265.6 | 274.7 |
| Carbonated drinks, including diet cola (12/77=100) | 116.2 | 123.5 | 125.6 | 126.2 | 128.3 | 129.2 | 131.3 | 114.2 | 121.1 | 123.4 | 124.8 | 125.2 | 127.4 | 128.8 |
| Roasted coffee | 411.7 | 437.6 | 434.0 | 433.5 | 432.4 | 435.3 | 433.9 | 406.1 | 432.3 | 430.4 | 430.0 | 429.2 | 432.3 | 430.4 |
| Freeze dried and instant coffee | 349.5 | 381.7 | 380.2 | 381.9 | 380.2 | 381.0 | 380.3 | 349.4 | 380.3 | 379.2 | 380.4 | 378.7 | 379.2 | 379.7 |
| Other noncarbonated drinks (12/77=100) | 114.2 | 118.6 | 120.7 | 120.7 | 121.8 | 122.1 | 123.1 | 113.0 | 118.1 | 119.6 | 120.0 | 120.8 | 121.1 | 122.3 |
| Other prepared foods | 210.5 | 224.1 | 226.6 | 229.1 | 230.9 | 232.3 | 234.9 | 210.4 | 224.0 | 226.6 | 229.6 | 230.8 | 232.1 | 234.2 |
| Canned and packaged soup (12/77=100) | 113.2 | 118.0 | 120.5 | 122.0 | 122.9 | 123.3 | 123.7 | 113.3 | 117.6 | 120.6 | 122.5 | 123.7 | 123.5 | 124.2 |
| Frozen prepared foods (12/77=100) | 120.7 | 128.2 | 130.4 | 131.3 | 132.0 | 132.4 | 134.6 | 118.7 | 127.1 | 128.8 | 131.0 | 130.8 | 131.3 | 131.7 |
| Snacks (12/77=100) | 115.7 | 124.1 | 124.8 | 126.1 | 127.2 | 128.3 | 129.3 | 116.4 | 125.3 | 126.0 | 127.3 | 127.9 | 128.5 | 129.9 |
| Seasonings, olives, pickles, and relish (12/77=100) | 115.9 | 124.9 | 125.2 | 125.4 | 127.5 | 128.0 | 129.4 | 115.4 | 124.0 | 124.5 | 125.5 | 127.3 | 127.3 | 127.8 |
| Other condiments (12/77=100) | 115.2 | 126.0 | 127.1 | 127.9 | 128.8 | 130.2 | 131.8 | 116.2 | 126.6 | 128.1 | 129.2 | 129.9 | 131.6 | 133.4 |
| Miscellaneous prepared foods (12/77=100) | 116.3 | 122.2 | 124.4 | 127.6 | 128.6 | 129.3 | 130.9 | 116.3 | 122.2 | 123.7 | 127.0 | 128.3 | 128.9 | 130.2 |
| Other canned and packaged prepared foods (12/77=100) | 116.8 | 122.2 | 123.1 | 124.6 | 125.2 | 126.0 | 127.5 | 116.7 | 122.0 | 123.3 | 124.3 | 124.1 | 125.4 | 126.8 |
| Food away from home | 246.5 | 260.9 | 263.0 | 264.6 | 266.6 | 267.8 | 269.5 | 248.3 | 262.7 | 265.3 | 267.6 | 269.9 | 271.2 | 272.8 |
| Lunch (12/77=100) | 120.3 | 127.0 | 127.9 | 128.5 | 129.3 | 130.0 | 131.2 | 121.3 | 127.6 | 128.9 | 129.9 | 130.7 | 131.1 | 131.8 |
| Dinner (12/77=100) | 119.8 | 127.0 | 127.9 | 128.7 | 129.5 | 130.1 | 130.7 | 120.5 | 128.1 | 129.1 | 130.5 | 131.0 | 132.0 | 132.8 |
| Other meals and snacks (12/77=100) | 117.8 | 124.9 | 126.4 | 127.4 | 129.0 | 129.3 | 130.0 | 119.1 | 126.2 | 127.7 | 128.6 | 131.1 | 131.6 | 132.3 |
| Alcoholic beverages | 173.3 | 181.7 | 183.9 | 185.4 | 186.4 | 187.2 | 188.7 | 173.6 | 182.8 | 185.0 | 186.9 | 188.0 | 189.2 | 190.6 |
| Alcoholic beverages at home (12/77=100) | 112.7 | 118.2 | 119.9 | 120.9 | 121.4 | 122.1 | 123.1 | 113.4 | 119.3 | 120.8 | 122.0 | 122.7 | 123.6 | 124.6 |
| Beer and ale | 170.6 | 182.0 | 185.9 | 187.7 | 188.2 | 189.2 | 190.1 | 170.3 | 181.7 | 185.1 | 187.5 | 188.8 | 189.7 | 191.1 |
| Whiskey | 128.4 | 132.8 | 133.4 | 133.9 | 134.7 | 135.2 | 136.9 | 129.9 | 134.4 | 134.6 | 135.1 | 135.4 | 136.6 | 137.8 |
| Wine | 196.0 | 204.1 | 206.6 | 208.5 | 211.5 | 212.6 | 213.9 | 199.4 | 208.4 | 209.8 | 212.0 | 213.7 | 217.4 | 218.1 |
| Other alcoholic beverages (12/77=100) | 105.4 | 107.4 | 108.2 | 109.0 | 108.7 | 109.6 | 111.2 | 105.1 | 107.2 | 107.8 | 108.7 | 108.9 | 109.6 | 111.1 |
| Alcoholic beverages away from home (12/77=100) | 114.6 | 120.0 | 120.5 | 121.5 | 122.3 | 122.5 | 123.5 | 112.8 | 119.1 | 120.5 | 121.7 | 122.5 | 122.9 | 123.6 |
| HOUSING | 231.5 | 254.5 | 257.9 | 261.7 | 266.7 | 265.1 | 265.8 | 231.5 | 254.4 | 257.8 | 261.7 | 266.9 | 265.1 | 265.8 |
| Shelter | 243.9 | 271.6 | 276.0 | 280.2 | 286.3 | 282.9 | 283.3 | 244.5 | 272.7 | 277.2 | 281.6 | 288.0 | 284.3 | 284.8 |
| Rent, residential | 177.5 | 186.6 | 187.0 | 188.9 | 191.1 | 192.1 | 193.2 | 177.3 | 186.4 | 186.9 | 188.7 | 190.8 | 191.8 | 193.0 |
| Other rental costs | 238.2 | 258.6 | 260.7 | 261.9 | 264.2 | 265.7 | 267.5 | 237.6 | 258.6 | 260.5 | 261.7 | 263.9 | 265.5 | 267.3 |
| Lodging while out of town | 251.2 | 276.8 | 279.3 | 279.9 | 282.1 | 283.8 | 286.4 | 249.5 | 275.7 | 278.0 | 278.6 | 280.8 | 282.3 | 285.1 |
| Tenants' insurance (12/77=100) | 112.0 | 118.6 | 119.9 | 121.2 | 122.6 | 123.1 | 122.2 | 112.6 | 119.3 | 120.1 | 121.4 | 122.7 | 123.3 | 122.7 |
| Homeownership | 267.6 | 302.0 | 307.7 | 312.9 | 320.4 | 315.4 | 315.4 | 268.9 | 304.0 | 310.0 | 315.4 | 323.4 | 317.9 | 318.1 |
| Home purchase | 226.9 | 244.0 | 246.5 | 249.7 | 252.6 | 253.9 | 258.1 | 227.0 | 243.8 | 246.5 | 249.8 | 253.0 | 254.3 | 258.6 |
| Financing, taxes, and insurance | 316.4 | 379.9 | 390.6 | 399.7 | 416.1 | 399.6 | 393.6 | 318.7 | 384.1 | 395.3 | 404.9 | 422.0 | 405.0 | 398.8 |
| Property insurance | 314.6 | 335.7 | 338.9 | 344.9 | 351.8 | 355.5 | 355.9 | 314.2 | 337.4 | 340.4 | 346.4 | 352.7 | 357.2 | 357.9 |
| Property taxes | 183.1 | 188.2 | 188.4 | 187.6 | 187.7 | 188.3 | 190.3 | 184.6 | 189.9 | 190.1 | 189.3 | 189.4 | 190.0 | 192.0 |
| Contracted mortgage interest cost | 387.2 | 483.0 | 499.4 | 513.6 | 538.9 | 512.2 | 501.8 | 387.4 | 484.1 | 500.9 | 515.6 | 541.5 | 514.6 | 504.2 |
| Mortgage interest rates | 167.7 | 194.4 | 199.4 | 202.4 | 210.3 | 199.0 | 192.0 | 167.8 | 194.8 | 199.8 | 202.8 | 210.8 | 199.6 | 192.5 |
| Maintenance and repairs | 259.7 | 278.8 | 282.9 | 284.9 | 285.9 | 287.6 | 288.5 | 260.8 | 278.2 | 281.7 | 283.4 | 283.8 | 285.1 | 287.7 |
| Maintenance and repair services | 281.8 | 303.2 | 307.9 | 310.1 | 310.6 | 312.1 | 312.4 | 284.2 | 303.5 | 307.7 | 309.1 | 308.5 | 309.0 | 312.1 |
| Maintenance and repair commodities | 208.1 | 221.4 | 224.3 | 225.8 | 228.0 | 230.3 | 232.7 | 209.0 | 222.3 | 224.3 | 226.5 | 228.8 | 231.3 | 233.2 |
| Paint and wallpaper, supplies, tools, and equipment (12/77=100) | 114.3 | 125.0 | 126.6 | 128.7 | 131.3 | 133.4 | 134.4 | 115.0 | 123.6 | 126.0 | 128.7 | 130.9 | 132.2 | 133.1 |
| Lumber, awnings, glass, and masonry (12/77=100) | 113.7 | 117.6 | 118.8 | 118.0 | 118.9 | 119.1 | 120.1 | 114.8 | 119.9 | 119.7 | 118.4 | 118.5 | 119.3 | 120.4 |
| Plumbing, electrical, heating, and cooling supplies (12/77=100) | 110.8 | 116.4 | 119.1 | 119.3 | 119.9 | 121.1 | 122.7 | 111.5 | 119.3 | 120.0 | 122.0 | 123.8 | 125.9 | 126.6 |
| Miscellaneous supplies and equipment (12/77=100) | 111.1 | 117.0 | 118.2 | 118.7 | 119.1 | 120.1 | 122.1 | 110.3 | 118.2 | 119.4 | 120.1 | 120.7 | 122.5 | 123.9 |
| Fuel and other utilities | 247.2 | 268.0 | 270.5 | 275.9 | 282.2 | 285.5 | 286.8 | 247.7 | 268.7 | 271.0 | 276.4 | 283.0 | 286.1 | 287.4 |
| Fuels | 299.7 | 333.9 | 337.8 | 346.4 | 355.8 | 360.8 | 362.5 | 299.8 | 333.9 | 337.6 | 346.0 | 355.8 | 360.3 | 362.1 |
| Fuel oil, coal, and bottled gas | 438.6 | 553.4 | 556.4 | 556.0 | 558.7 | 560.4 | 561.5 | 439.0 | 554.1 | 557.1 | 557.1 | 559.8 | 561.9 | 562.7 |
| Fuel oil | 458.2 | 577.9 | 580.7 | 580.4 | 583.2 | 585.1 | 586.1 | 458.5 | 577.9 | 580.7 | 580.5 | 583.3 | 585.6 | 586.4 |
| Other fuels (6/78=100) | 109.3 | 138.3 | 139.6 | 139.4 | 140.1 | 140.4 | 140.8 | 109.4 | 139.5 | 140.8 | 141.3 | 141.9 | 142.1 | 142.5 |
| Gas (piped) and electricity | 266.5 | 284.0 | 288.0 | 298.2 | 308.8 | 314.3 | 316.1 | 266.5 | 283.9 | 287.6 | 297.5 | 308.5 | 313.5 | 315.4 |
| Electricity | 229.2 | 237.9 | 241.5 | 248.1 | 261.9 | 267.4 | 268.3 | 229.7 | 238.1 | 241.5 | 248.0 | 262.3 | 267.6 | 268.6 |
| Utility (piped) gas | 309.7 | 343.9 | 347.9 | 364.6 | 366.7 | 371.8 | 375.2 | 308.5 | 342.6 | 346.4 | 362.3 | 364.9 | 368.6 | 372.0 |

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) | | | | | | |
|---|---------------------|-------|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|-------|
| | 1979 | 1980 | | | | | | 1979 | 1980 | | | | | |
| | Aug. | Mar. | Apr. | May | June | July | Aug. | Aug. | Mar. | Apr. | May | June | July | Aug. |
| HOUSING—Continued | | | | | | | | | | | | | | |
| Fuel and other utilities—Continued | | | | | | | | | | | | | | |
| Other utilities and public services | 159.8 | 161.9 | 162.3 | 163.1 | 164.9 | 165.9 | 166.5 | 159.8 | 161.9 | 162.3 | 163.1 | 164.9 | 165.9 | 166.4 |
| Telephone services | 132.5 | 133.2 | 133.4 | 134.0 | 135.5 | 136.3 | 136.5 | 132.5 | 133.1 | 133.2 | 133.9 | 135.4 | 136.1 | 136.4 |
| Local charges (12/77 = 100) | 100.5 | 103.3 | 103.5 | 104.3 | 105.3 | 105.4 | 105.4 | 100.6 | 103.2 | 103.3 | 104.0 | 105.1 | 105.2 | 105.2 |
| Interstate toll calls (12/77 = 100) | 98.5 | 97.4 | 97.3 | 97.3 | 99.5 | 101.6 | 101.9 | 98.5 | 97.5 | 97.4 | 97.4 | 99.5 | 101.6 | 101.9 |
| Intrastate toll calls (12/77 = 100) | 101.5 | 98.7 | 99.0 | 99.4 | 99.6 | 99.5 | 99.9 | 101.4 | 98.6 | 98.9 | 99.3 | 99.5 | 99.3 | 99.7 |
| Water and sewerage maintenance | 244.6 | 253.9 | 255.2 | 256.5 | 259.3 | 261.3 | 263.5 | 244.6 | 254.7 | 256.2 | 257.6 | 260.5 | 262.4 | 264.5 |
| Household furnishings and operations | 191.2 | 201.3 | 203.0 | 204.2 | 205.5 | 206.2 | 207.2 | 189.8 | 199.2 | 200.7 | 201.9 | 202.9 | 203.5 | 204.5 |
| Housefurnishings | 163.2 | 171.5 | 172.7 | 173.4 | 174.6 | 174.7 | 175.2 | 163.0 | 170.4 | 171.5 | 172.2 | 172.9 | 172.9 | 173.5 |
| Textile housefurnishings | 172.8 | 187.2 | 188.2 | 187.3 | 189.4 | 188.2 | 189.1 | 173.0 | 185.3 | 186.3 | 186.1 | 189.6 | 188.7 | 189.6 |
| Household linens (12/77 = 100) | 103.6 | 113.9 | 114.8 | 114.4 | 116.0 | 114.6 | 114.1 | 103.7 | 113.2 | 113.8 | 113.4 | 116.2 | 114.8 | 114.7 |
| Curtains, drapes, slipcovers, and sewing materials (12/77 = 100) | 112.0 | 119.7 | 119.9 | 119.3 | 120.1 | 120.2 | 121.9 | 112.7 | 118.2 | 118.9 | 119.0 | 120.5 | 121.0 | 122.4 |
| Furniture and bedding | 177.1 | 189.2 | 190.9 | 191.9 | 193.6 | 192.8 | 192.6 | 177.3 | 187.9 | 189.4 | 190.1 | 190.8 | 189.7 | 189.9 |
| Bedroom furniture (12/77 = 100) | 114.0 | 122.5 | 124.3 | 125.0 | 126.2 | 125.4 | 125.8 | 112.7 | 119.2 | 120.9 | 121.7 | 123.1 | 122.6 | 123.6 |
| Sofas (12/77 = 100) | 106.3 | 110.9 | 111.6 | 111.4 | 113.0 | 112.2 | 111.3 | 108.2 | 112.7 | 111.8 | 112.0 | 112.7 | 111.7 | 110.4 |
| Living room chairs and tables (12/77 = 100) | 104.9 | 110.8 | 110.9 | 110.8 | 110.6 | 110.7 | 111.6 | 106.1 | 111.9 | 112.6 | 112.6 | 111.7 | 111.3 | 112.3 |
| Other furniture (12/77 = 100) | 112.7 | 122.6 | 124.0 | 125.6 | 127.1 | 126.6 | 125.7 | 112.5 | 121.3 | 123.1 | 123.5 | 123.9 | 123.0 | 122.5 |
| Appliances including TV and sound equipment | 135.8 | 138.8 | 139.3 | 139.9 | 140.2 | 140.5 | 141.4 | 135.5 | 139.0 | 139.7 | 140.2 | 140.1 | 140.1 | 140.6 |
| Television and sound equipment (12/77 = 100) | 104.3 | 105.7 | 105.7 | 105.7 | 105.6 | 105.8 | 106.6 | 104.0 | 105.5 | 105.4 | 105.4 | 105.2 | 105.0 | 105.2 |
| Television | 102.8 | 104.0 | 104.0 | 104.1 | 104.2 | 104.4 | 105.0 | 101.9 | 102.9 | 102.8 | 102.8 | 103.1 | 102.7 | 103.3 |
| Sound equipment (12/77 = 100) | 106.8 | 108.3 | 108.3 | 108.3 | 107.9 | 108.2 | 109.1 | 106.7 | 108.7 | 108.6 | 108.7 | 108.0 | 108.0 | 107.9 |
| Household appliances | 155.5 | 160.2 | 161.4 | 162.6 | 163.4 | 163.7 | 164.6 | 155.1 | 160.7 | 162.3 | 163.4 | 163.6 | 163.8 | 164.5 |
| Refrigerators and home freezer | 154.6 | 157.9 | 160.6 | 162.7 | 163.2 | 163.6 | 164.4 | 157.9 | 161.4 | 163.5 | 166.0 | 166.8 | 166.4 | 168.0 |
| Laundry equipment (12/77 = 100) | 110.7 | 116.8 | 117.5 | 118.2 | 119.1 | 119.6 | 120.2 | 110.2 | 116.6 | 117.8 | 118.5 | 118.9 | 118.7 | 120.1 |
| Other household appliances (12/77 = 100) | 108.6 | 111.2 | 111.5 | 112.1 | 112.7 | 112.6 | 113.3 | 107.1 | 110.7 | 111.6 | 111.8 | 111.7 | 112.1 | 112.0 |
| Stoves, dishwashers, vacuums, and sewing machines (12/77 = 100) | 108.5 | 110.9 | 110.0 | 110.3 | 111.2 | 111.6 | 111.8 | 107.7 | 111.1 | 111.6 | 111.9 | 111.4 | 112.8 | 111.4 |
| Office machines, small electric appliances, and air conditioners (12/77 = 100) | 108.8 | 111.6 | 113.1 | 114.2 | 114.4 | 113.8 | 115.1 | 106.4 | 110.2 | 111.6 | 111.7 | 112.0 | 111.3 | 112.6 |
| Other household equipment (12/77 = 100) | 110.7 | 117.3 | 118.4 | 119.0 | 120.2 | 121.3 | 121.7 | 110.6 | 116.0 | 117.0 | 117.8 | 118.5 | 119.7 | 120.5 |
| Floor and window coverings, infants' laundry cleaning and outdoor equipment (12/77 = 100) | 109.5 | 116.4 | 118.2 | 117.6 | 120.2 | 120.8 | 121.7 | 105.9 | 110.8 | 113.1 | 113.2 | 114.3 | 114.7 | 115.3 |
| Clocks, lamps, and decor items (12/77 = 100) | 107.1 | 114.9 | 115.6 | 117.6 | 118.8 | 119.0 | 119.8 | 106.7 | 112.3 | 112.6 | 114.4 | 115.9 | 116.6 | 117.1 |
| Tableware, serving pieces, and nonelectric kitchenware (12/77 = 100) | 115.1 | 122.6 | 123.4 | 124.1 | 125.4 | 126.4 | 125.8 | 113.9 | 120.8 | 121.4 | 121.7 | 122.2 | 124.0 | 125.1 |
| Lawn equipment, power tools, and other hardware (12/77 = 100) | 108.5 | 112.2 | 113.5 | 114.0 | 113.7 | 115.9 | 117.1 | 111.5 | 115.0 | 115.9 | 117.4 | 117.6 | 118.7 | 119.6 |
| Housekeeping supplies | 223.4 | 238.0 | 240.7 | 243.6 | 245.4 | 247.3 | 249.9 | 221.6 | 235.5 | 238.1 | 241.2 | 243.0 | 245.2 | 247.8 |
| Soaps and detergents | 212.5 | 232.1 | 233.2 | 235.0 | 234.9 | 237.2 | 240.1 | 210.9 | 230.0 | 231.1 | 232.1 | 232.3 | 234.4 | 236.8 |
| Other laundry and cleaning products (12/77 = 100) | 112.0 | 117.0 | 117.6 | 119.8 | 121.1 | 122.3 | 124.4 | 111.9 | 116.9 | 118.1 | 119.5 | 120.8 | 122.3 | 123.9 |
| Cleaning and toilet tissue, paper towels and napkins (12/77 = 100) | 116.2 | 123.9 | 126.2 | 128.6 | 129.4 | 130.2 | 132.2 | 116.3 | 125.8 | 128.1 | 130.8 | 131.5 | 132.7 | 135.1 |
| Stationery, stationery supplies, and gift wrap (12/77 = 100) | 109.5 | 113.8 | 115.6 | 116.3 | 116.9 | 117.6 | 117.4 | 108.5 | 113.6 | 114.9 | 116.0 | 116.5 | 117.9 | 117.4 |
| Miscellaneous household products (12/77 = 100) | 112.9 | 120.9 | 122.0 | 123.0 | 124.4 | 125.4 | 127.7 | 111.3 | 118.3 | 119.2 | 120.9 | 122.1 | 123.5 | 125.5 |
| Lawn and garden supplies (12/77 = 100) | 113.8 | 121.4 | 123.8 | 125.2 | 126.8 | 127.6 | 127.5 | 111.3 | 114.0 | 116.5 | 118.9 | 121.0 | 120.7 | 121.4 |
| Housekeeping services | 251.6 | 263.6 | 266.0 | 267.6 | 269.1 | 270.4 | 271.6 | 250.4 | 262.7 | 264.3 | 265.6 | 267.0 | 268.1 | 269.0 |
| Postage | 257.3 | 257.3 | 257.3 | 257.3 | 257.3 | 257.3 | 257.3 | 257.2 | 257.2 | 257.3 | 257.3 | 257.3 | 257.3 | 257.3 |
| Moving, storage, freight, household laundry, and drycleaning services (12/77 = 100) | 117.3 | 125.4 | 128.3 | 129.4 | 130.5 | 131.0 | 131.3 | 117.7 | 126.1 | 127.8 | 128.5 | 129.2 | 129.7 | 129.7 |
| Appliance and furniture repair (12/77 = 100) | 110.7 | 115.8 | 116.5 | 117.2 | 117.7 | 118.7 | 119.4 | 110.3 | 116.0 | 116.2 | 116.7 | 117.4 | 117.8 | 118.3 |
| APPAREL AND UPKEEP | 166.3 | 176.0 | 177.3 | 177.5 | 177.2 | 176.2 | 178.6 | 166.2 | 175.1 | 176.1 | 176.8 | 176.0 | 175.4 | 177.9 |
| Apparel commodities | 160.6 | 169.2 | 170.2 | 170.1 | 169.7 | 168.5 | 171.0 | 160.7 | 168.7 | 169.5 | 169.8 | 168.8 | 168.0 | 170.7 |
| Apparel commodities less footwear | 157.7 | 166.2 | 167.2 | 166.9 | 166.4 | 165.0 | 167.8 | 157.9 | 165.7 | 166.3 | 166.4 | 165.3 | 164.4 | 167.3 |
| Men's and boys' | 159.6 | 165.6 | 166.9 | 168.0 | 166.8 | 165.9 | 167.9 | 161.1 | 166.0 | 167.3 | 168.9 | 168.1 | 167.2 | 168.4 |
| Men's (12/77 = 100) | 100.6 | 104.3 | 105.0 | 105.7 | 104.8 | 103.9 | 105.6 | 101.9 | 104.4 | 105.2 | 106.3 | 105.5 | 104.7 | 106.1 |
| Suits, sport coats, and jackets (12/77 = 100) | 97.1 | 99.9 | 101.1 | 101.2 | 99.7 | 97.1 | 99.2 | 96.2 | 96.4 | 97.3 | 97.1 | 95.4 | 93.2 | 95.2 |
| Coats and jackets (12/77 = 100) | 95.5 | 96.9 | 96.5 | 97.3 | 96.3 | 96.0 | 96.7 | 99.2 | 96.9 | 97.0 | 97.2 | 97.1 | 97.1 | 98.0 |
| Furnishings and special clothing (12/77 = 100) | 109.3 | 115.0 | 116.6 | 117.9 | 118.2 | 118.4 | 119.3 | 107.0 | 113.2 | 114.2 | 116.4 | 115.4 | 115.7 | 116.3 |
| Shirts (12/77 = 100) | 103.2 | 111.9 | 111.5 | 112.2 | 110.8 | 110.7 | 114.9 | 104.9 | 112.0 | 111.7 | 113.7 | 112.9 | 111.2 | 115.1 |
| Dungarees, jeans, and trousers (12/77 = 100) | 98.1 | 98.7 | 99.4 | 100.2 | 99.5 | 99.2 | 99.5 | 101.9 | 102.7 | 104.2 | 105.2 | 105.0 | 104.8 | 105.0 |
| Boys' (12/77 = 100) | 103.3 | 107.5 | 108.9 | 109.7 | 109.5 | 110.0 | 109.5 | 102.7 | 107.5 | 108.7 | 109.6 | 109.8 | 110.0 | 108.6 |
| Coats, jackets, sweaters, and shirts (12/77 = 100) | 101.1 | 102.5 | 104.4 | 105.2 | 104.6 | 104.4 | 106.0 | 100.3 | 105.0 | 107.2 | 107.7 | 107.8 | 107.4 | 107.1 |
| Furnishings (12/77 = 100) | 107.9 | 112.0 | 113.3 | 114.3 | 114.6 | 114.7 | 114.6 | 107.0 | 110.7 | 111.6 | 112.7 | 113.3 | 113.3 | 112.9 |
| Suits, trousers, sport coats, and jackets (12/77 = 100) | 103.1 | 109.8 | 110.7 | 111.3 | 111.3 | 112.6 | 110.3 | 102.9 | 108.2 | 108.8 | 109.9 | 110.1 | 110.9 | 108.2 |
| Women's and girls' | 151.3 | 155.5 | 155.9 | 154.1 | 153.0 | 150.6 | 153.7 | 150.5 | 154.9 | 154.7 | 154.1 | 151.2 | 149.9 | 154.1 |
| Women's (12/77 = 100) | 100.7 | 103.8 | 103.9 | 102.4 | 101.7 | 99.8 | 101.7 | 100.4 | 103.7 | 103.3 | 103.0 | 100.8 | 99.6 | 102.5 |
| Coats and jackets | 170.4 | 167.6 | 168.3 | 162.0 | 158.1 | 158.8 | 164.0 | 173.1 | 167.0 | 167.8 | 162.4 | 155.2 | 157.5 | 170.2 |
| Dresses | 162.8 | 169.3 | 167.8 | 163.9 | 163.3 | 153.9 | 158.3 | 152.8 | 157.5 | 154.1 | 154.5 | 152.5 | 146.2 | 151.1 |
| Separates and sportswear (12/77 = 100) | 96.3 | 99.8 | 101.1 | 100.3 | 99.5 | 96.8 | 98.5 | 97.7 | 101.0 | 101.6 | 101.2 | 99.2 | 97.1 | 99.7 |
| Underwear, nightwear, and hosiery (12/77 = 100) | 106.2 | 111.0 | 111.5 | 111.8 | 112.1 | 113.2 | 114.2 | 107.0 | 111.5 | 111.7 | 112.2 | 112.3 | 112.8 | 114.3 |
| Suits (12/77 = 100) | 89.8 | 91.6 | 90.4 | 88.0 | 86.5 | 85.5 | 86.5 | 91.0 | 100.2 | 98.2 | 98.2 | 91.7 | 90.1 | 91.3 |
| Girls' (12/77 = 100) | 100.5 | 101.8 | 102.6 | 102.7 | 102.1 | 102.0 | 104.5 | 98.8 | 100.1 | 101.1 | 100.5 | 99.6 | 100.0 | 102.3 |
| Coats, jackets, dresses, and suits (12/77 = 100) | 100.8 | 98.9 | 99.8 | 99.4 | 98.1 | 98.9 | 103.4 | 95.9 | 95.7 | 96.8 | 95.3 | 93.8 | 95.6 | 99.5 |
| Separates and sportswear (12/77 = 100) | 98.3 | 100.8 | 101.4 | | | | | | | | | | | |

23. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

| General summary | All Urban Consumers | | | | | | | Urban Wage Earners and Clerical Workers (revised) | | | | | | | |
|--|---------------------|-------|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|-------|------|
| | 1979 | 1980 | | | | | | 1979 | 1980 | | | | | | |
| | | Aug. | Mar. | Apr. | May | June | July | | Aug. | Mar. | Apr. | May | June | July | Aug. |
| APPAREL AND UPKEEP—Continued | | | | | | | | | | | | | | | |
| Apparel commodities—Continued | | | | | | | | | | | | | | | |
| Apparel commodities less footwear—Continued | | | | | | | | | | | | | | | |
| Infants' and toddlers' | 221.2 | 231.4 | 234.3 | 237.4 | 240.9 | 243.0 | 243.9 | 224.2 | 237.3 | 241.1 | 242.8 | 246.8 | 249.2 | 252.6 | |
| Other apparel commodities | 169.8 | 199.9 | 201.9 | 202.7 | 205.3 | 205.5 | 209.9 | 170.2 | 197.8 | 198.5 | 197.4 | 201.0 | 200.8 | 204.1 | |
| Sewing materials and notions (12/77 = 100) | 102.3 | 107.1 | 107.9 | 109.1 | 110.2 | 109.3 | 110.2 | 96.8 | 107.2 | 106.9 | 108.6 | 110.9 | 108.8 | 110.0 | |
| Jewelry and luggage (12/77 = 100) | 113.0 | 138.6 | 140.1 | 140.4 | 142.2 | 142.8 | 146.5 | 116.1 | 137.3 | 138.1 | 136.3 | 138.6 | 139.4 | 142.0 | |
| Footwear | 177.5 | 187.0 | 188.3 | 189.3 | 189.0 | 189.5 | 190.3 | 176.9 | 186.3 | 188.1 | 189.3 | 188.9 | 189.3 | 190.0 | |
| Men's (12/77 = 100) | 114.5 | 119.0 | 119.7 | 120.0 | 121.3 | 121.1 | 121.3 | 115.2 | 120.9 | 122.4 | 122.7 | 123.6 | 123.2 | 123.4 | |
| Boys' and girls' (12/77 = 100) | 112.0 | 119.5 | 119.5 | 121.3 | 121.0 | 123.5 | 122.8 | 111.4 | 119.5 | 119.5 | 121.5 | 121.3 | 123.1 | 123.9 | |
| Womens' (12/77 = 100) | 108.1 | 114.2 | 115.6 | 115.8 | 114.6 | 113.8 | 115.4 | 106.5 | 110.9 | 112.6 | 112.9 | 111.7 | 111.3 | 111.7 | |
| Apparel services | 207.7 | 225.9 | 230.0 | 232.2 | 233.6 | 234.4 | 235.4 | 206.7 | 223.5 | 226.0 | 230.8 | 231.8 | 232.6 | 233.7 | |
| Laundry and drycleaning other than coin operated (12/77 = 100) | 122.1 | 132.5 | 135.5 | 136.9 | 137.5 | 137.7 | 138.3 | 121.8 | 132.3 | 134.1 | 135.6 | 137.3 | 137.5 | 138.4 | |
| Other apparel services (12/77 = 100) | 111.9 | 122.1 | 123.3 | 124.5 | 125.5 | 126.3 | 126.9 | 111.5 | 119.6 | 120.4 | 125.0 | 123.9 | 124.7 | 125.0 | |
| TRANSPORTATION | 219.6 | 243.7 | 246.8 | 249.0 | 249.7 | 251.0 | 252.7 | 220.7 | 244.3 | 247.7 | 249.9 | 250.6 | 251.9 | 253.5 | |
| Private | 220.4 | 244.0 | 247.0 | 249.2 | 249.7 | 250.5 | 251.6 | 221.2 | 244.6 | 248.0 | 250.1 | 250.8 | 251.5 | 252.7 | |
| New cars | 166.6 | 175.0 | 177.0 | 178.9 | 178.5 | 179.2 | 181.1 | 166.3 | 175.4 | 177.7 | 179.6 | 179.4 | 180.0 | 181.9 | |
| Used cars | 207.0 | 195.2 | 196.7 | 199.3 | 200.7 | 203.4 | 206.4 | 207.0 | 195.2 | 196.8 | 199.3 | 200.8 | 203.4 | 206.4 | |
| Gasoline | 292.0 | 370.9 | 374.7 | 375.4 | 376.2 | 376.7 | 375.9 | 293.3 | 372.7 | 376.3 | 377.1 | 377.6 | 377.8 | 377.1 | |
| Automobile maintenance and repair | 245.7 | 260.9 | 264.1 | 266.1 | 267.3 | 269.0 | 271.1 | 246.0 | 261.7 | 264.3 | 266.1 | 268.0 | 269.7 | 272.2 | |
| Body work (12/77 = 100) | 118.6 | 127.3 | 129.1 | 130.6 | 131.4 | 131.8 | 133.0 | 118.6 | 127.2 | 128.4 | 129.7 | 130.8 | 131.3 | 132.4 | |
| Automobile drive train, brake, and miscellaneous mechanical repair (12/77 = 100) | 117.4 | 124.1 | 126.1 | 126.6 | 127.5 | 128.1 | 129.0 | 118.2 | 126.1 | 127.4 | 127.8 | 128.8 | 129.9 | 131.5 | |
| Maintenance and servicing (12/77 = 100) | 116.3 | 123.1 | 124.7 | 125.9 | 126.1 | 127.3 | 128.4 | 116.0 | 122.8 | 124.2 | 125.4 | 126.2 | 127.2 | 128.4 | |
| Power plant repair (12/77 = 100) | 116.0 | 123.5 | 124.4 | 125.1 | 125.9 | 126.4 | 127.3 | 116.3 | 124.0 | 124.6 | 125.4 | 126.2 | 126.6 | 127.5 | |
| Other private transportation | 200.5 | 216.5 | 221.3 | 224.5 | 225.0 | 224.5 | 224.7 | 201.0 | 217.1 | 223.1 | 226.7 | 227.3 | 226.7 | 226.8 | |
| Other private transportation commodities | 175.1 | 192.7 | 194.1 | 195.3 | 195.5 | 197.7 | 198.3 | 176.1 | 193.2 | 195.8 | 196.7 | 196.8 | 200.1 | 200.6 | |
| Motor oil, coolant, and other products (12/77 = 100) | 112.2 | 126.4 | 129.8 | 132.2 | 134.1 | 136.3 | 136.3 | 112.0 | 126.1 | 129.1 | 131.5 | 133.6 | 135.5 | 136.1 | |
| Automobile parts and equipment (12/77 = 100) | 113.4 | 124.3 | 124.8 | 125.4 | 125.3 | 126.6 | 127.0 | 114.1 | 124.7 | 126.2 | 126.5 | 126.3 | 128.4 | 128.7 | |
| Tires | 154.7 | 170.1 | 171.2 | 172.6 | 172.3 | 174.9 | 175.9 | 156.1 | 172.5 | 174.9 | 175.6 | 174.9 | 178.9 | 179.9 | |
| Other parts and equipment (12/77 = 100) | 116.7 | 127.2 | 127.1 | 126.5 | 126.8 | 126.6 | 126.2 | 116.8 | 124.4 | 125.1 | 125.0 | 125.4 | 125.7 | 125.2 | |
| Other private transportation services | 209.1 | 225.0 | 230.6 | 234.5 | 235.0 | 233.8 | 233.9 | 209.6 | 225.7 | 232.6 | 236.8 | 237.6 | 236.0 | 236.0 | |
| Automobile insurance | 232.3 | 244.0 | 245.2 | 247.1 | 248.5 | 249.1 | 250.2 | 232.3 | 243.8 | 244.9 | 246.9 | 248.2 | 248.7 | 249.9 | |
| Automobile finance charges (12/77 = 100) | 117.2 | 137.4 | 148.6 | 155.0 | 153.7 | 149.7 | 148.2 | 116.4 | 135.2 | 147.8 | 153.8 | 153.5 | 149.1 | 147.5 | |
| Automobile rental, registration, and other fees (12/77 = 100) | 107.5 | 110.8 | 111.5 | 112.1 | 112.9 | 113.3 | 114.0 | 108.1 | 111.6 | 112.7 | 113.1 | 114.0 | 114.7 | 115.4 | |
| State registration | 144.0 | 145.3 | 146.4 | 146.4 | 146.4 | 146.4 | 146.5 | 143.9 | 145.5 | 146.5 | 146.5 | 146.5 | 146.5 | 146.5 | |
| Drivers' license (12/77 = 100) | 104.5 | 104.7 | 104.7 | 104.7 | 104.7 | 104.9 | 104.9 | 104.3 | 104.4 | 104.4 | 104.4 | 104.4 | 104.6 | 104.6 | |
| Vehicle inspection (12/77 = 100) | 114.6 | 119.7 | 119.7 | 120.4 | 121.5 | 122.6 | 122.8 | 115.5 | 120.2 | 120.3 | 121.0 | 122.1 | 123.3 | 123.5 | |
| Other vehicle related fees (12/77 = 100) | 115.5 | 122.0 | 122.7 | 124.0 | 126.1 | 126.8 | 128.3 | 119.3 | 127.0 | 127.8 | 130.0 | 132.7 | 134.6 | 136.6 | |
| Public | 200.8 | 232.1 | 235.9 | 239.5 | 242.2 | 250.5 | 261.5 | 200.6 | 226.1 | 229.7 | 232.9 | 234.9 | 245.8 | 256.9 | |
| Airline fare | 205.2 | 259.9 | 264.3 | 270.0 | 275.5 | 276.9 | 289.8 | 205.2 | 259.3 | 263.9 | 270.0 | 275.4 | 275.5 | 287.9 | |
| Inter-city bus fare | 263.2 | 290.7 | 291.5 | 293.6 | 293.8 | 294.2 | 297.9 | 263.0 | 290.2 | 291.0 | 293.4 | 293.6 | 293.9 | 298.0 | |
| Intracity mass transit | 190.5 | 200.8 | 203.0 | 204.6 | 204.4 | 222.6 | 234.1 | 190.2 | 198.6 | 200.8 | 202.0 | 201.9 | 221.8 | 233.8 | |
| Taxi fare | 224.7 | 245.6 | 256.4 | 259.9 | 262.0 | 263.3 | 266.2 | 230.3 | 251.2 | 261.6 | 265.7 | 267.6 | 269.2 | 273.0 | |
| Inter-city train fare | 220.6 | 237.2 | 237.3 | 250.0 | 255.2 | 255.3 | 255.4 | 220.8 | 237.1 | 237.2 | 251.1 | 255.5 | 255.4 | 255.6 | |
| MEDICAL CARE | 241.8 | 260.2 | 262.0 | 263.4 | 264.7 | 266.6 | 268.4 | 242.6 | 260.9 | 263.1 | 264.9 | 265.9 | 267.8 | 270.0 | |
| Medical care commodities | 155.0 | 163.5 | 164.9 | 166.4 | 167.9 | 169.1 | 170.2 | 156.2 | 164.4 | 166.0 | 167.2 | 168.5 | 169.7 | 170.8 | |
| Prescription drugs | 142.8 | 150.9 | 152.2 | 153.5 | 154.8 | 155.6 | 156.4 | 143.7 | 152.0 | 153.5 | 154.6 | 155.8 | 156.6 | 157.4 | |
| Anti-infective drugs (12/77 = 100) | 112.5 | 117.9 | 118.5 | 118.7 | 120.5 | 121.2 | 120.5 | 113.2 | 120.1 | 120.4 | 120.7 | 122.0 | 122.3 | 121.6 | |
| Tranquillizers and sedatives (12/77 = 100) | 114.6 | 122.2 | 122.9 | 124.1 | 124.9 | 125.5 | 126.1 | 114.8 | 122.2 | 122.7 | 123.5 | 124.2 | 124.7 | 125.4 | |
| Circulatories and diuretics (12/77 = 100) | 109.3 | 113.3 | 114.2 | 114.6 | 115.1 | 115.4 | 116.0 | 109.7 | 114.7 | 115.9 | 116.8 | 117.3 | 117.6 | 118.2 | |
| Hormones, diabetic drugs, biologicals, and prescription and supplies (12/77 = 100) | 120.3 | 130.0 | 131.3 | 133.2 | 134.3 | 135.5 | 138.2 | 120.4 | 129.6 | 131.3 | 132.4 | 133.7 | 134.8 | 137.0 | |
| Pain and symptom control drugs (12/77 = 100) | 113.7 | 120.5 | 121.4 | 122.9 | 124.2 | 124.5 | 125.2 | 115.2 | 121.3 | 122.6 | 124.2 | 125.5 | 126.1 | 127.6 | |
| Supplements, cough and cold preparations, and respiratory agents (12/77 = 100) | 110.3 | 115.5 | 117.1 | 118.2 | 118.6 | 119.3 | 119.9 | 111.7 | 116.5 | 118.5 | 119.5 | 120.2 | 120.9 | 121.2 | |
| Nonprescription drugs and medical supplies (12/77 = 100) | 111.4 | 117.3 | 118.4 | 119.5 | 120.6 | 121.7 | 122.6 | 112.5 | 118.0 | 119.2 | 120.1 | 121.0 | 122.0 | 122.9 | |
| Eyeglasses (12/77 = 100) | 108.7 | 114.1 | 115.0 | 116.5 | 118.2 | 118.7 | 119.9 | 108.9 | 114.5 | 115.3 | 116.3 | 117.3 | 117.8 | 118.4 | |
| Internal and respiratory over-the-counter drugs | 172.2 | 182.2 | 184.4 | 186.0 | 187.3 | 189.1 | 190.4 | 174.3 | 183.0 | 185.4 | 186.9 | 188.4 | 190.1 | 191.6 | |
| Nonprescription medical equipment and supplies (12/77 = 100) | 110.4 | 115.1 | 115.3 | 116.5 | 117.5 | 119.1 | 119.9 | 111.3 | 116.1 | 116.3 | 117.1 | 117.5 | 119.0 | 119.9 | |
| Medical care services | 260.6 | 281.5 | 283.4 | 284.7 | 285.9 | 288.0 | 289.8 | 261.2 | 282.2 | 284.5 | 286.3 | 287.3 | 289.3 | 291.7 | |
| Professional services | 228.9 | 245.3 | 248.2 | 250.3 | 251.8 | 253.5 | 254.7 | 231.1 | 247.8 | 251.2 | 253.5 | 255.1 | 256.1 | 257.8 | |
| Physicians' services | 246.6 | 262.3 | 264.8 | 267.5 | 269.2 | 270.9 | 272.2 | 248.7 | 266.2 | 269.7 | 272.3 | 273.9 | 275.4 | 277.6 | |
| Dental services | 216.0 | 234.1 | 237.2 | 238.8 | 240.3 | 241.1 | 242.2 | 219.0 | 235.7 | 238.9 | 241.2 | 243.1 | 243.0 | 244.5 | |
| Other professional services (12/77 = 100) | 111.9 | 119.5 | 121.7 | 122.2 | 122.9 | 125.0 | 126.0 | 111.5 | 119.3 | 121.1 | 121.6 | 122.2 | 123.6 | 123.9 | |
| Other medical care services | 299.0 | 325.3 | 325.8 | 326.3 | 327.2 | 329.7 | 332.3 | 298.1 | 324.4 | 325.3 | 326.5 | 326.5 | 329.8 | 333.3 | |
| Hospital and other medical services (12/77 = 100) | 118.6 | 128.8 | 129.7 | 130.4 | 131.4 | 133.4 | 135.4 | 117.8 | 127.7 | 128.6 | 129.7 | 130.3 | 132.6 | 134.9 | |
| Hospital room | 374.2 | 405.8 | 408.0 | 410.1 | 412.6 | 418.2 | 424.0 | 371.7 | 401.2 | 403.6 | 406.7 | 408.5 | 414.9 | 422.4 | |
| Other hospital and medical care services | 117.4 | 127.8 | 128.8 | 129.5 | 130.6 | 132.8 | 135.1 | 116.7 | 126.9 | 128.0 | 129.1 | 129.7 | 132.3 | 134.4 | |

23. Continued—Consumer Price Index—U.S. city average

[1967=100 unless otherwise specified]

| General summary | All Urban Consumers | | | | | | | Urban Wage Earners and Clerical Workers (revised) | | | | | | |
|--|---------------------|-------|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|-------|
| | 1979 | 1980 | | | | | | 1979 | 1980 | | | | | |
| | Aug. | Mar. | Apr. | May | June | July | Aug. | Aug. | Mar. | Apr. | May | June | July | Aug. |
| ENTERTAINMENT | 190.2 | 200.6 | 202.5 | 204.0 | 205.3 | 206.6 | 208.0 | 188.9 | 199.5 | 201.3 | 202.4 | 204.0 | 204.4 | 205.6 |
| Entertainment commodities | 191.0 | 203.4 | 205.7 | 207.0 | 208.3 | 209.3 | 210.8 | 188.4 | 200.3 | 202.8 | 203.4 | 204.5 | 204.8 | 206.4 |
| Reading materials (12/77 = 100) | 111.1 | 119.4 | 120.1 | 121.5 | 122.3 | 123.0 | 123.2 | 110.7 | 119.1 | 119.7 | 121.1 | 121.8 | 122.5 | 122.7 |
| Newspapers | 214.0 | 232.4 | 234.8 | 237.2 | 239.0 | 240.0 | 240.7 | 213.7 | 232.0 | 234.3 | 236.4 | 238.2 | 239.3 | 239.9 |
| Magazines, periodicals, and books (12/77 = 100) | 113.7 | 120.8 | 120.8 | 122.4 | 123.1 | 124.1 | 124.0 | 113.5 | 120.7 | 120.6 | 122.3 | 122.8 | 123.7 | 123.7 |
| Sporting goods and equipment (12/77 = 100) | 110.4 | 117.2 | 118.7 | 118.5 | 118.6 | 119.5 | 120.9 | 105.4 | 112.4 | 114.1 | 114.0 | 114.2 | 114.2 | 115.3 |
| Sport vehicles (12/77 = 100) | 111.3 | 118.7 | 120.6 | 119.9 | 119.8 | 120.7 | 122.2 | 103.9 | 110.8 | 113.0 | 112.5 | 112.6 | 112.5 | 113.5 |
| Indoor and warm weather sport equipment (12/77 = 100) | 105.9 | 109.5 | 111.3 | 112.0 | 111.1 | 112.4 | 113.5 | 104.7 | 109.3 | 110.5 | 110.3 | 110.2 | 110.6 | 111.7 |
| Bicycles | 163.8 | 177.2 | 178.6 | 179.7 | 180.6 | 181.6 | 183.6 | 162.9 | 177.8 | 179.8 | 180.9 | 181.4 | 181.4 | 183.2 |
| Other sporting goods and equipment (12/77 = 100) | 108.6 | 112.9 | 113.1 | 113.7 | 114.6 | 115.0 | 116.5 | 107.2 | 113.4 | 114.0 | 114.6 | 115.3 | 116.1 | 116.9 |
| Toys, hobbies, and other entertainment (12/77 = 100) | 110.2 | 116.9 | 118.4 | 119.4 | 120.6 | 121.0 | 121.8 | 110.2 | 116.4 | 118.0 | 118.1 | 119.0 | 119.1 | 120.3 |
| Toys, hobbies, and music equipment (12/77 = 100) | 110.0 | 115.7 | 117.3 | 118.5 | 119.6 | 119.0 | 120.4 | 109.8 | 114.9 | 116.5 | 115.8 | 117.0 | 115.9 | 117.8 |
| Photographic supplies and equipment (12/77 = 100) | 108.2 | 118.2 | 120.1 | 120.8 | 121.8 | 122.8 | 122.5 | 107.6 | 116.9 | 118.9 | 120.5 | 121.1 | 122.4 | 121.7 |
| Pet supplies and expense (12/77 = 100) | 111.8 | 118.2 | 119.2 | 120.1 | 121.7 | 123.2 | 123.9 | 112.6 | 119.0 | 120.0 | 120.9 | 121.4 | 122.9 | 123.8 |
| Entertainment services | 189.4 | 197.0 | 198.5 | 200.1 | 201.4 | 203.1 | 204.3 | 190.7 | 199.1 | 199.9 | 201.8 | 204.3 | 204.8 | 205.2 |
| Fees for participant sports (12/77 = 100) | 112.3 | 117.5 | 119.0 | 120.2 | 120.9 | 122.1 | 123.2 | 112.3 | 118.8 | 119.3 | 120.5 | 121.5 | 121.9 | 121.8 |
| Admissions (12/77 = 100) | 114.7 | 119.1 | 118.7 | 118.8 | 120.4 | 121.3 | 122.1 | 115.9 | 120.0 | 120.1 | 121.0 | 123.2 | 123.2 | 124.2 |
| Other entertainment services (12/77 = 100) | 109.7 | 113.2 | 114.8 | 116.4 | 116.6 | 117.4 | 117.4 | 110.9 | 113.9 | 115.1 | 116.5 | 118.2 | 118.8 | 119.1 |
| OTHER GOODS AND SERVICES | 197.0 | 208.9 | 209.8 | 211.2 | 212.5 | 213.5 | 214.5 | 197.2 | 208.3 | 209.2 | 210.6 | 212.1 | 212.9 | 214.0 |
| Tobacco products | 189.9 | 198.4 | 198.8 | 200.4 | 203.4 | 203.8 | 204.5 | 190.1 | 198.6 | 198.9 | 200.5 | 203.6 | 204.0 | 204.4 |
| Cigarettes | 192.6 | 201.2 | 201.4 | 202.9 | 206.0 | 206.4 | 207.0 | 193.1 | 201.6 | 201.6 | 203.2 | 206.4 | 206.8 | 207.0 |
| Other tobacco products and smoking accessories (12/77 = 100) | 111.1 | 116.3 | 117.6 | 119.0 | 120.2 | 120.7 | 122.0 | 110.0 | 115.7 | 117.2 | 118.5 | 119.5 | 120.3 | 121.7 |
| Personal care | 197.5 | 208.1 | 209.7 | 211.6 | 212.4 | 214.4 | 215.4 | 197.6 | 207.7 | 209.5 | 210.9 | 211.8 | 213.1 | 214.7 |
| Toilet goods and personal care appliances | 189.7 | 200.2 | 201.8 | 204.1 | 205.1 | 207.9 | 209.0 | 190.2 | 199.6 | 201.8 | 203.9 | 204.5 | 206.6 | 208.8 |
| Products for the hair, hairpieces and wigs (12/77 = 100) | 111.1 | 116.6 | 117.9 | 120.0 | 120.7 | 121.4 | 121.7 | 110.5 | 114.9 | 117.9 | 120.0 | 119.7 | 120.5 | 122.5 |
| Dental and shaving products (12/77 = 100) | 113.6 | 119.2 | 120.5 | 121.0 | 122.3 | 124.0 | 125.2 | 112.1 | 118.4 | 119.3 | 118.8 | 120.4 | 122.0 | 123.6 |
| Cosmetics, bath and nail preparations, manicure and eye makeup implements (12/77 = 100) | 108.9 | 115.1 | 115.7 | 116.5 | 116.7 | 119.1 | 119.6 | 110.0 | 114.8 | 115.2 | 116.2 | 116.6 | 117.9 | 118.5 |
| Other toilet goods and small personal care appliances (12/77 = 100) | 107.6 | 114.7 | 115.4 | 117.4 | 117.6 | 119.4 | 119.9 | 109.7 | 116.6 | 117.2 | 119.0 | 119.1 | 120.4 | 121.5 |
| Personal care services | 205.0 | 215.7 | 217.2 | 218.8 | 219.6 | 220.9 | 221.7 | 205.0 | 215.8 | 217.2 | 218.1 | 219.1 | 219.8 | 220.7 |
| Beauty parlor services for women | 206.1 | 217.9 | 218.6 | 220.4 | 220.6 | 222.1 | 222.5 | 206.7 | 217.8 | 218.6 | 219.4 | 220.2 | 221.0 | 222.0 |
| Haircuts and other barber shop services for men (12/77 = 100) | 115.1 | 119.7 | 121.7 | 122.2 | 123.4 | 123.9 | 124.8 | 114.2 | 120.1 | 121.5 | 122.0 | 122.8 | 123.0 | 123.4 |
| Personal and educational expenses | 210.8 | 228.3 | 228.7 | 229.2 | 229.5 | 229.9 | 231.4 | 211.2 | 228.2 | 228.7 | 229.4 | 229.8 | 230.3 | 231.8 |
| School books and supplies | 192.6 | 206.9 | 207.1 | 207.1 | 207.1 | 207.2 | 207.7 | 195.2 | 210.7 | 210.9 | 210.9 | 210.9 | 210.9 | 211.5 |
| Personal and educational services | 215.4 | 233.6 | 234.0 | 234.7 | 235.0 | 235.5 | 237.1 | 215.5 | 232.9 | 233.4 | 234.2 | 234.8 | 235.4 | 237.1 |
| Tuition and other school fees | 109.4 | 118.6 | 118.6 | 118.6 | 118.6 | 118.7 | 119.4 | 109.4 | 118.7 | 118.7 | 118.7 | 118.7 | 118.8 | 119.5 |
| College tuition (12/77 = 100) | 109.7 | 117.9 | 117.9 | 117.9 | 117.9 | 118.0 | 118.7 | 109.7 | 117.9 | 117.9 | 117.9 | 117.9 | 118.0 | 118.7 |
| Elementary and high school tuition (12/77 = 100) | 108.3 | 120.9 | 120.9 | 120.9 | 120.9 | 120.9 | 122.0 | 108.4 | 120.7 | 120.7 | 120.7 | 120.7 | 120.7 | 121.8 |
| Personal expenses (12/77 = 100) | 114.8 | 125.0 | 126.1 | 127.8 | 128.7 | 129.5 | 130.7 | 114.4 | 122.1 | 123.3 | 125.1 | 126.4 | 127.4 | 128.5 |
| Special indexes: | | | | | | | | | | | | | | |
| Gasoline, motor oil, coolant, and other products | 288.2 | 365.5 | 369.3 | 370.1 | 370.9 | 371.5 | 370.7 | 289.5 | 367.2 | 370.8 | 371.6 | 372.2 | 372.5 | 371.8 |
| Insurance and finance | 278.7 | 326.3 | 335.2 | 342.6 | 353.8 | 342.3 | 338.3 | 278.3 | 325.6 | 335.2 | 342.8 | 354.0 | 342.6 | 338.7 |
| Utilities and public transportation | 217.0 | 230.9 | 233.4 | 238.9 | 244.8 | 249.1 | 251.9 | 217.4 | 230.2 | 232.6 | 237.9 | 244.0 | 248.4 | 251.2 |
| Housekeeping and home maintenance services | 274.4 | 292.0 | 295.7 | 297.6 | 298.6 | 300.1 | 300.8 | 275.3 | 292.0 | 295.1 | 296.5 | 296.7 | 297.5 | 299.7 |

24. Consumer Price Index for All Urban Consumers: Cross classification of region and population size class by expenditure category and commodity and service group

[December 1977 = 100]

| Category and group | Size class A (1.25 million or more) | | | Size class B (385,000 - 1,250 million) | | | Size class C (75,000 - 385,000) | | | Size class D (75,000 or less) | | |
|-------------------------------------|--|-------|-------|---|-------|-------|------------------------------------|-------|-------|----------------------------------|-------|-------|
| | 1980 | | | 1980 | | | 1980 | | | 1980 | | |
| | Apr. | June | Aug. | Apr. | June | Aug. | Apr. | June | Aug. | Apr. | June | Aug. |
| Northeast | | | | | | | | | | | | |
| EXPENDITURE CATEGORY | | | | | | | | | | | | |
| All items | 125.0 | 127.1 | 129.1 | 129.0 | 131.0 | 134.8 | 132.7 | 135.6 | 138.3 | 127.4 | 131.0 | 134.1 |
| Food and beverages | 124.5 | 126.2 | 129.5 | 127.1 | 128.6 | 131.0 | 128.8 | 130.5 | 133.4 | 125.2 | 127.6 | 130.4 |
| Housing | 126.1 | 129.6 | 131.2 | 130.0 | 133.1 | 139.7 | 140.2 | 144.9 | 148.4 | 127.9 | 133.5 | 138.7 |
| Apparel and upkeep | 112.5 | 111.5 | 112.0 | 111.1 | 111.3 | 113.1 | 112.7 | 113.2 | 113.9 | 113.0 | 115.0 | 115.0 |
| Transportation | 133.8 | 135.3 | 138.0 | 140.8 | 141.7 | 143.5 | 136.2 | 138.2 | 140.3 | 138.1 | 140.2 | 141.4 |
| Medical care | 122.4 | 123.0 | 125.1 | 122.4 | 123.2 | 124.4 | 122.5 | 123.5 | 125.0 | 122.7 | 124.4 | 125.2 |
| Entertainment | 116.7 | 117.7 | 118.3 | 117.9 | 120.2 | 121.1 | 115.7 | 116.5 | 118.9 | 121.5 | 123.8 | 124.4 |
| Other goods and services | 114.7 | 116.1 | 117.2 | 117.5 | 119.0 | 120.0 | 119.6 | 121.9 | 123.3 | 116.0 | 116.8 | 118.3 |
| COMMODITY AND SERVICE GROUP | | | | | | | | | | | | |
| Commodities | 126.5 | 128.4 | 130.4 | 130.8 | 132.1 | 136.1 | 131.6 | 133.8 | 136.9 | 128.0 | 131.5 | 135.1 |
| Commodities less food and beverages | 127.8 | 129.7 | 131.0 | 132.5 | 133.8 | 138.5 | 132.9 | 135.4 | 138.6 | 129.3 | 133.3 | 137.3 |
| Services | 122.9 | 125.4 | 127.4 | 126.3 | 129.2 | 132.8 | 134.5 | 138.5 | 140.4 | 126.5 | 130.2 | 132.5 |
| North Central | | | | | | | | | | | | |
| EXPENDITURE CATEGORY | | | | | | | | | | | | |
| All items | 133.2 | 136.7 | 136.8 | 130.9 | 134.4 | 134.7 | 128.9 | 131.9 | 132.9 | 128.7 | 131.9 | 131.7 |
| Food and beverages | 126.8 | 128.1 | 131.5 | 124.9 | 126.7 | 129.8 | 127.0 | 128.7 | 131.8 | 128.9 | 129.6 | 133.9 |
| Housing | 141.1 | 147.5 | 145.4 | 135.8 | 141.2 | 139.4 | 130.4 | 135.6 | 135.3 | 129.1 | 134.5 | 131.5 |
| Apparel and upkeep | 109.2 | 108.5 | 109.0 | 111.2 | 111.0 | 112.9 | 110.7 | 111.0 | 112.0 | 113.6 | 114.6 | 113.6 |
| Transportation | 138.1 | 140.1 | 141.0 | 137.6 | 140.7 | 141.3 | 139.3 | 140.4 | 141.6 | 137.4 | 139.8 | 140.4 |
| Medical care | 125.3 | 126.1 | 127.8 | 125.0 | 125.8 | 128.8 | 125.7 | 126.6 | 129.1 | 127.4 | 128.9 | 133.7 |
| Entertainment | 118.9 | 120.1 | 122.4 | 114.0 | 117.1 | 118.6 | 118.7 | 121.3 | 122.7 | 116.1 | 117.3 | 116.9 |
| Other goods and services | 116.2 | 117.9 | 118.6 | 121.5 | 123.2 | 124.4 | 116.7 | 117.5 | 118.8 | 119.8 | 121.6 | 122.9 |
| COMMODITY AND SERVICE GROUP | | | | | | | | | | | | |
| Commodities | 130.9 | 132.9 | 134.5 | 127.9 | 129.9 | 132.4 | 128.1 | 129.7 | 131.9 | 126.0 | 128.0 | 129.8 |
| Commodities less food and beverages | 132.8 | 135.2 | 135.9 | 129.2 | 131.2 | 133.4 | 128.5 | 130.1 | 131.9 | 124.8 | 127.3 | 128.0 |
| Services | 136.6 | 142.3 | 140.3 | 135.6 | 141.7 | 138.4 | 130.3 | 135.5 | 134.5 | 132.9 | 138.1 | 134.8 |
| South | | | | | | | | | | | | |
| EXPENDITURE CATEGORY | | | | | | | | | | | | |
| All items | 130.7 | 133.5 | 134.8 | 131.7 | 134.7 | 135.4 | 131.3 | 133.1 | 133.7 | 128.3 | 131.4 | 131.9 |
| Food and beverages | 126.4 | 128.5 | 132.3 | 127.0 | 127.9 | 131.3 | 127.8 | 129.1 | 132.8 | 126.2 | 128.1 | 132.4 |
| Housing | 133.9 | 138.5 | 138.2 | 136.7 | 141.4 | 140.5 | 136.6 | 138.9 | 137.1 | 129.7 | 134.0 | 132.4 |
| Apparel and upkeep | 116.4 | 116.4 | 116.7 | 112.9 | 112.6 | 114.1 | 108.2 | 107.3 | 109.4 | 104.7 | 107.2 | 105.6 |
| Transportation | 139.7 | 140.9 | 143.5 | 138.4 | 140.6 | 142.0 | 137.2 | 139.7 | 141.1 | 136.5 | 138.7 | 140.4 |
| Medical care | 121.9 | 124.1 | 125.4 | 123.3 | 125.8 | 127.5 | 126.4 | 127.5 | 128.8 | 131.2 | 133.9 | 133.9 |
| Entertainment | 115.7 | 116.3 | 119.5 | 119.8 | 122.5 | 124.0 | 118.3 | 120.3 | 122.0 | 124.4 | 128.0 | 130.5 |
| Other goods and services | 119.3 | 120.9 | 122.3 | 118.1 | 119.5 | 121.3 | 118.8 | 120.2 | 121.6 | 121.9 | 123.9 | 125.1 |
| COMMODITY AND SERVICE GROUP | | | | | | | | | | | | |
| Commodities | 129.3 | 130.9 | 133.1 | 129.0 | 130.6 | 132.7 | 128.7 | 129.7 | 131.9 | 127.2 | 129.0 | 131.3 |
| Commodities less food and beverages | 130.6 | 132.0 | 133.5 | 129.8 | 131.7 | 133.3 | 129.1 | 130.0 | 131.5 | 127.7 | 129.3 | 130.9 |
| Services | 132.6 | 137.2 | 137.1 | 135.8 | 140.9 | 139.5 | 135.3 | 138.4 | 136.4 | 129.8 | 135.1 | 132.7 |
| West | | | | | | | | | | | | |
| EXPENDITURE CATEGORY | | | | | | | | | | | | |
| All items | 132.8 | 136.1 | 135.5 | 134.1 | 136.0 | 136.8 | 131.4 | 133.6 | 134.2 | 130.4 | 134.3 | 135.4 |
| Food and beverages | 126.5 | 127.7 | 130.5 | 128.8 | 130.2 | 133.1 | 125.7 | 127.6 | 129.5 | 128.0 | 129.6 | 132.9 |
| Housing | 136.3 | 142.5 | 139.2 | 139.1 | 141.4 | 140.9 | 134.8 | 137.9 | 137.2 | 129.7 | 135.9 | 135.6 |
| Apparel and upkeep | 115.7 | 114.5 | 116.4 | 115.8 | 118.4 | 119.5 | 107.7 | 107.4 | 108.5 | 121.8 | 123.6 | 126.3 |
| Transportation | 141.2 | 141.1 | 142.8 | 139.2 | 140.7 | 142.4 | 141.2 | 142.1 | 143.6 | 139.6 | 141.7 | 143.5 |
| Medical care | 128.8 | 129.5 | 130.6 | 126.9 | 127.9 | 129.0 | 126.7 | 129.4 | 132.2 | 128.9 | 132.5 | 134.1 |
| Entertainment | 117.8 | 119.5 | 120.8 | 123.1 | 123.9 | 125.9 | 121.0 | 122.4 | 125.2 | 127.5 | 130.3 | 131.5 |
| Other goods and services | 121.2 | 121.7 | 122.8 | 121.5 | 124.3 | 125.7 | 117.7 | 119.0 | 120.2 | 122.5 | 124.4 | 124.5 |
| COMMODITY AND SERVICE GROUP | | | | | | | | | | | | |
| Commodities | 129.5 | 130.4 | 132.3 | 131.5 | 132.5 | 134.6 | 129.0 | 130.1 | 132.2 | 129.8 | 131.7 | 134.1 |
| Commodities less food and beverage | 130.8 | 131.6 | 133.1 | 132.7 | 133.5 | 135.2 | 130.4 | 131.1 | 133.3 | 130.6 | 132.6 | 134.6 |
| Services | 137.2 | 143.6 | 139.7 | 137.7 | 140.8 | 140.0 | 134.8 | 138.5 | 137.1 | 131.2 | 138.2 | 137.3 |

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) | | | | | | |
|--|---------------------|-------|-------|-------|-------|-------|-------|---|-------|-------|-------|-------|-------|-------|
| | 1979 | 1980 | | | | | | 1979 | 1980 | | | | | |
| | Aug. | Mar. | Apr. | May | June | July | Aug. | Aug. | Mar. | Apr. | May | June | July | Aug. |
| U.S. city average ² | 221.1 | 239.8 | 242.5 | 244.9 | 247.6 | 247.8 | 249.4 | 221.5 | 239.9 | 242.6 | 245.1 | 247.8 | 248.0 | 249.6 |
| Anchorage, Alaska (10/67=100) | ... | 223.5 | ... | 226.5 | ... | 228.4 | ... | ... | 220.2 | ... | 223.1 | ... | 224.8 | ... |
| Atlanta, Ga. | 216.9 | ... | 235.3 | ... | 242.2 | ... | 246.5 | 219.0 | ... | 239.3 | ... | 244.7 | ... | 249.7 |
| Baltimore, Md. | ... | 245.0 | ... | 249.1 | ... | 252.4 | ... | ... | 243.9 | ... | 247.8 | ... | 250.8 | ... |
| Boston, Mass. | ... | 234.2 | ... | 236.9 | ... | 240.9 | ... | ... | 234.2 | ... | 236.8 | ... | 240.9 | ... |
| Buffalo, N.Y. | 214.6 | ... | 233.7 | ... | 235.4 | ... | 236.8 | 215.3 | ... | 233.3 | ... | 234.6 | ... | 235.5 |
| Chicago, Ill.-Northwestern Ind. | 218.6 | 235.5 | 240.1 | 243.1 | 248.2 | 246.8 | 245.2 | 218.2 | 235.2 | 239.8 | 243.0 | 248.0 | 247.0 | 245.4 |
| Cincinnati, Ohio-Ky.-Ind. | 247.8 | ... | ... | 251.6 | ... | 256.7 | ... | ... | 249.7 | ... | 252.9 | ... | 259.1 | ... |
| Cleveland, Ohio | 221.4 | ... | 247.3 | ... | 250.1 | ... | 253.9 | 222.6 | ... | 248.4 | ... | 250.5 | ... | 254.4 |
| Dallas-Ft. Worth, Tex. | 222.9 | ... | 251.4 | ... | 256.4 | ... | 258.5 | 223.0 | ... | 249.6 | ... | 254.5 | ... | 257.4 |
| Denver-Boulder, Colo. | ... | 255.2 | ... | 258.0 | ... | 261.6 | ... | ... | 259.4 | ... | 262.4 | ... | 265.8 | ... |
| Detroit, Mich. | 222.2 | 242.9 | 248.2 | 248.4 | 256.7 | 253.7 | 255.1 | 222.6 | 242.4 | 248.0 | 248.9 | 255.8 | 252.1 | 253.8 |
| Honolulu, Hawaii | 207.2 | ... | 227.4 | ... | 227.5 | ... | 230.1 | 207.2 | ... | 228.4 | ... | 228.0 | ... | 229.5 |
| Houston, Tex. | 240.6 | ... | 260.8 | ... | 266.5 | ... | 268.6 | 239.0 | ... | 257.3 | ... | 262.8 | ... | 265.6 |
| Kansas City, Mo.-Kansas | 224.6 | ... | 243.8 | ... | 247.8 | ... | 250.8 | 223.1 | ... | 242.2 | ... | 246.3 | ... | 249.3 |
| Los Angeles-Long Beach, Anaheim, Calif. | 217.5 | 241.3 | 244.6 | 249.1 | 250.1 | 248.7 | 247.3 | 219.6 | 243.9 | 247.8 | 252.6 | 253.4 | 251.5 | 250.1 |
| Miami, Fla. (11/77=100) | ... | 127.7 | ... | 129.7 | ... | 133.6 | ... | ... | 128.8 | ... | 130.9 | ... | 134.7 | ... |
| Milwaukee, Wis. | ... | 242.7 | ... | 250.3 | ... | 251.6 | ... | ... | 247.8 | ... | 255.2 | ... | 255.9 | ... |
| Minneapolis-St. Paul, Minn.-Wis. | 227.0 | ... | 244.3 | ... | 246.4 | ... | 250.1 | 228.5 | ... | 245.7 | ... | 248.4 | ... | 250.6 |
| New York, N.Y.-Northeastern N.J. | 215.4 | 231.2 | 233.1 | 234.5 | 237.2 | 238.9 | 240.8 | 215.3 | 230.8 | 232.4 | 234.1 | 236.7 | 238.4 | 240.7 |
| Northeast, Pa. (Scranton) | ... | 229.0 | ... | 232.5 | ... | 239.8 | ... | ... | 231.3 | ... | 235.8 | ... | 243.2 | ... |
| Philadelphia, Pa.-N.J. | 217.7 | 234.6 | 237.4 | 239.4 | 242.5 | 244.1 | 246.0 | 218.1 | 235.1 | 237.9 | 239.9 | 243.8 | 245.3 | 247.3 |
| Pittsburgh, Pa. | 219.1 | ... | 240.9 | ... | 246.1 | ... | 250.7 | 220.0 | ... | 242.2 | ... | 246.8 | ... | 251.2 |
| Portland, Oreg.-Wash. | ... | 253.6 | ... | 257.3 | ... | 252.7 | ... | ... | 251.7 | ... | 255.9 | ... | 252.2 | ... |
| St. Louis, Mo.-Ill. | ... | 238.1 | ... | 241.8 | ... | 245.0 | ... | ... | 238.5 | ... | 242.6 | ... | 245.9 | ... |
| San Diego, Calif. | ... | 258.3 | ... | 269.7 | ... | 269.9 | ... | ... | 255.6 | ... | 264.8 | ... | 265.7 | ... |
| San Francisco-Oakland, Calif. | 218.3 | ... | 243.5 | ... | 248.0 | ... | 251.0 | 218.6 | ... | 242.8 | ... | 247.7 | ... | 251.4 |
| Seattle-Everett, Wash. | ... | 243.8 | ... | 249.6 | ... | 255.1 | ... | ... | 241.3 | ... | 246.8 | ... | 251.6 | ... |
| Washington, D.C.-Md.-Va. | ... | 238.8 | ... | 241.2 | ... | 247.2 | ... | ... | 239.2 | ... | 242.0 | ... | 248.7 | ... |

¹The areas listed include not only the central city but the entire portion of the Standard Metropolitan Statistical Area, as defined for the 1970 Census of Population, except that the Standard Consolidated Area is used for New York and Chicago.

²Average of 85 cities.

26. Producer Price Indexes, by stage of processing

[1967 = 100]

| Commodity grouping | Annual average 1979 | 1979 | | | | 1980 | | | | | | | | | |
|--|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------------------|------------------|-------|-------|-------|-------|--|
| | | Sept. | Oct. | Nov. | Dec. | Jan. | Feb | Mar. | Apr. ¹ | May ¹ | June | July | Aug. | Sept. | |
| FINISHED GOODS | | | | | | | | | | | | | | | |
| Finished goods | 216.1 | 220.7 | 224.2 | 226.3 | 228.1 | 232.4 | 235.7 | 238.5 | '240.5 | '241.6 | 242.6 | 246.6 | 249.0 | 248.9 | |
| Finished consumer goods | 215.7 | 221.7 | 224.7 | 227.1 | 229.1 | 233.5 | 237.6 | 240.8 | '242.1 | '243.4 | 244.5 | 249.1 | 251.8 | 251.8 | |
| Finished consumer foods | 226.3 | 228.1 | 226.7 | 230.5 | 232.1 | 231.4 | 231.6 | 233.1 | '228.9 | 230.0 | 231.0 | 239.5 | 249.9 | 245.8 | |
| Crude | 231.4 | 214.0 | 215.5 | 228.1 | 227.9 | 226.0 | 220.1 | 230.9 | '222.3 | '226.1 | 223.4 | 230.7 | 240.7 | 253.2 | |
| Processed | 223.8 | 227.0 | 225.5 | 228.6 | 230.3 | 229.7 | 230.4 | 231.1 | '227.2 | 228.1 | 229.4 | 238.0 | 243.0 | 242.9 | |
| Nondurable goods less foods | 225.9 | 239.0 | 243.3 | 245.5 | 247.9 | 254.7 | 262.7 | 270.9 | '276.9 | '279.6 | 280.3 | 282.8 | 284.3 | 284.7 | |
| Durable goods | 181.9 | 182.9 | 189.0 | 190.0 | 191.8 | 199.1 | 202.1 | 200.3 | '201.2 | '201.0 | 202.7 | 205.3 | 206.3 | 204.9 | |
| Consumer nondurable goods less food and energy | (²) | 176.4 | 177.6 | 178.3 | 179.1 | 182.9 | 185.1 | 187.0 | '189.3 | '190.6 | 191.3 | 193.4 | 194.6 | 195.5 | |
| Capital equipment | 216.7 | 217.8 | 222.8 | 223.9 | 225.3 | 229.3 | 230.5 | 232.2 | '236.2 | '236.6 | 237.5 | 240.2 | 241.9 | 241.3 | |
| INTERMEDIATE MATERIALS | | | | | | | | | | | | | | | |
| Intermediate materials, supplies, and components | 242.8 | 251.0 | 255.0 | 256.3 | 258.7 | 265.9 | 271.6 | 273.7 | '275.1 | '276.4 | 277.7 | 280.3 | 282.6 | 284.1 | |
| Materials and components for manufacturing | 234.1 | 240.7 | 244.3 | 245.5 | 247.8 | 255.5 | 259.8 | 259.5 | '260.3 | '262.2 | 263.9 | 264.7 | 267.2 | 268.4 | |
| Materials for food manufacturing | 223.6 | 228.9 | 225.5 | 227.8 | 230.4 | 226.0 | 245.6 | 240.1 | '238.7 | '255.5 | 260.2 | 262.6 | 277.5 | 275.9 | |
| Materials for nondurable manufacturing | 220.1 | 227.6 | 231.4 | 233.4 | 235.3 | 241.1 | 244.0 | 247.4 | '253.0 | '255.5 | 256.0 | 256.9 | 258.8 | 258.3 | |
| Materials for durable manufacturing | 271.3 | 278.8 | 284.7 | 284.6 | 287.8 | 303.7 | 306.5 | 301.4 | '296.6 | '295.5 | 298.3 | 297.9 | 298.1 | 301.4 | |
| Components for manufacturing | 206.8 | 211.3 | 213.2 | 214.8 | 216.3 | 219.2 | 223.2 | 225.3 | '227.7 | '228.6 | 229.6 | 231.2 | 234.5 | 236.2 | |
| Materials and components for construction | 246.9 | 252.5 | 254.7 | 254.0 | 253.7 | 257.7 | 262.1 | 265.5 | '265.6 | '265.7 | 267.3 | 269.2 | 271.1 | 271.5 | |
| Processed fuels and lubricants | 360.9 | 399.4 | 410.6 | 416.5 | 424.6 | 444.0 | 464.0 | 481.0 | '486.9 | '488.8 | 489.6 | 504.9 | 508.1 | 510.2 | |
| Manufacturing industries | 298.9 | 317.2 | 322.5 | 325.2 | 332.2 | 340.5 | 351.4 | 356.6 | '358.3 | '364.3 | 368.2 | 378.4 | 381.3 | 385.9 | |
| Nonmanufacturing industries | 422.9 | 483.0 | 500.6 | 510.0 | 519.1 | 550.3 | 579.9 | 609.5 | '620.0 | '617.2 | 614.7 | 635.3 | 638.9 | 638.2 | |
| Containers | 235.3 | 237.9 | 242.6 | 243.8 | 247.1 | 250.9 | 251.6 | 253.8 | '262.6 | '263.8 | 265.3 | 267.1 | 266.5 | 266.8 | |
| Supplies | 217.6 | 221.2 | 224.9 | 226.4 | 229.2 | 232.5 | 239.0 | 240.8 | '241.7 | '241.8 | 242.3 | 246.2 | 248.2 | 251.7 | |
| Manufacturing industries | 204.4 | 209.4 | 212.2 | 213.7 | 216.3 | 220.9 | 222.5 | 223.7 | '227.1 | '228.5 | 230.2 | 232.3 | 232.2 | 233.1 | |
| Nonmanufacturing industries | 224.7 | 227.5 | 231.7 | 233.3 | 236.1 | 238.7 | 247.8 | 249.8 | '249.5 | '248.9 | 248.8 | 253.6 | 256.7 | 261.5 | |
| Feeds | 224.1 | 224.0 | 228.9 | 226.9 | 230.4 | 224.4 | 223.3 | 218.9 | '206.6 | '210.5 | 208.1 | 223.0 | 235.4 | 251.9 | |
| Other supplies | 221.5 | 224.9 | 228.9 | 231.2 | 233.9 | 238.3 | 249.6 | 252.9 | '255.2 | '253.7 | 254.1 | 256.6 | 257.6 | 259.8 | |
| CRUDE MATERIALS | | | | | | | | | | | | | | | |
| Crude materials for further processing | 282.2 | 288.3 | 289.5 | 290.8 | 296.2 | 296.8 | 308.4 | 303.5 | '297.0 | 300.7 | 299.5 | 316.3 | 327.7 | 331.8 | |
| Foodstuffs and feedstuffs | 247.2 | 248.7 | 247.5 | 246.4 | 249.7 | 243.0 | 252.6 | 245.9 | 235.5 | '242.9 | 242.5 | 263.3 | 276.6 | 276.7 | |
| Nonfood materials | (²) | 363.1 | 368.9 | 374.9 | 384.2 | 398.9 | 414.3 | 412.7 | '413.9 | '410.5 | 407.9 | 416.8 | 424.3 | 436.3 | |
| Nonfood materials except fuel | 284.5 | 293.3 | 298.1 | 304.6 | 311.6 | 330.1 | 341.7 | 339.8 | '337.0 | '329.3 | 324.4 | 331.3 | 340.5 | 348.1 | |
| Manufacturing industries | 293.3 | 302.8 | 307.8 | 314.9 | 322.5 | 342.1 | 354.9 | 352.5 | '349.1 | '340.3 | 334.6 | 342.3 | 352.6 | 360.6 | |
| Construction | 207.0 | 209.9 | 212.6 | 214.8 | 216.6 | 226.0 | 228.7 | 229.9 | 232.4 | '232.8 | 234.2 | 235.3 | 235.8 | 239.6 | |
| Crude fuel | 568.2 | 604.0 | 612.9 | 617.4 | 634.5 | 636.3 | 664.8 | 664.1 | '678.9 | '690.3 | 695.5 | 711.0 | 713.2 | 740.5 | |
| Manufacturing industries | 607.6 | 651.8 | 662.5 | 667.8 | 688.3 | 690.3 | 725.7 | 724.5 | '742.2 | '756.1 | 762.6 | 781.9 | 784.5 | 818.0 | |
| Nonmanufacturing industries | 548.3 | 577.8 | 585.5 | 589.3 | 603.9 | 605.7 | 628.8 | 628.8 | '641.3 | '650.8 | 655.1 | 667.8 | 669.8 | 692.3 | |
| SPECIAL GROUPINGS | | | | | | | | | | | | | | | |
| Finished goods excluding foods | (²) | 216.2 | 221.3 | 222.8 | 224.6 | 230.5 | 234.6 | 237.8 | '241.7 | '242.8 | 243.8 | 246.4 | 247.9 | 247.4 | |
| Finished consumer goods excluding foods | 208.2 | 216.3 | 220.6 | 223.1 | 225.3 | 232.3 | 238.3 | 242.3 | 246.2 | '247.6 | 248.8 | 251.4 | 252.7 | 252.3 | |
| Finished consumer goods less energy | (²) | 200.9 | 202.8 | 204.7 | 206.1 | 209.4 | 211.2 | 211.9 | 211.5 | '212.4 | 213.5 | 218.0 | 220.7 | 220.9 | |
| Intermediate materials less foods and feeds | 244.0 | 252.5 | 256.8 | 258.1 | 260.5 | 268.4 | 273.7 | 276.2 | '278.0 | '278.6 | 279.9 | 282.3 | 283.9 | 285.2 | |
| Intermediate materials less energy | (²) | 242.9 | 246.4 | 247.1 | 249.1 | 255.3 | 259.8 | 260.5 | 261.4 | '262.6 | 264.0 | 265.5 | 267.8 | 269.3 | |
| Intermediate foods and feeds | 223.2 | 226.6 | 226.0 | 226.9 | 229.8 | 224.8 | 237.5 | 232.4 | '227.3 | 239.7 | 242.1 | 248.7 | 262.7 | 267.1 | |
| Crude materials less agricultural products | 390.5 | 408.6 | 417.0 | 424.1 | 435.0 | 452.9 | 469.3 | 469.0 | '469.9 | '464.7 | 463.7 | 470.5 | 479.3 | 491.5 | |
| Crude materials less energy | (²) | 244.3 | 243.7 | 243.8 | 246.9 | 244.0 | 254.8 | 248.4 | '238.7 | 241.5 | 238.9 | 237.0 | 268.7 | 270.7 | |

¹ Data for April and May 1980 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.

27. Producer Price Indexes, by commodity groupings

[1967 = 100 unless otherwise specified]

| Code | Commodity group and subgroup | Annual average 1979 | 1979 | | | | 1980 | | | | | | | | |
|-------|--|---------------------|-------|-------|-------|-------|-------|-------|-------|-------------------|------------------|-------|-------|--------|-------|
| | | | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. ¹ | May ¹ | June | July | Aug. | Sept. |
| | All commodities | 235.6 | 242.0 | 245.6 | 247.2 | 249.7 | 254.9 | 260.2 | 261.9 | '262.8 | '264.2 | 265.2 | 269.8 | 273.1 | 274.1 |
| | All commodities (1957-59 = 100) | 250.0 | 256.7 | 260.6 | 262.3 | 267.3 | 270.2 | 275.6 | 277.4 | '278.8 | '280.3 | 282.5 | 286.3 | 289.8 | 290.8 |
| | Farm products and processed foods and feeds | 229.8 | 231.8 | 230.6 | 232.3 | 234.6 | 231.9 | 237.0 | 234.9 | '229.3 | '233.8 | 234.2 | 246.1 | 254.8 | 256.3 |
| | Industrial commodities | 236.5 | 244.2 | 249.0 | 250.6 | 253.1 | 260.6 | 265.9 | 268.6 | '271.3 | '271.9 | 273.0 | 275.6 | 277.3 | 278.2 |
| | FARM PRODUCTS AND PROCESSED FOODS AND FEEDS | | | | | | | | | | | | | | |
| 01 | Farm products | 241.4 | 241.0 | 239.6 | 240.2 | 242.5 | 236.4 | 242.3 | 239.3 | 228.9 | '233.5 | 233.4 | 253.9 | '263.6 | 266.6 |
| 01-1 | Fresh and dried fruits and vegetables | 229.0 | 208.3 | 218.0 | 216.5 | 210.7 | 219.0 | 220.6 | 218.5 | '223.2 | '244.0 | 233.4 | 247.5 | 253.8 | 266.0 |
| 01-2 | Grains | 214.8 | 224.4 | 229.0 | 226.6 | 227.9 | 214.6 | 223.3 | 217.9 | 210.8 | 219.0 | 215.3 | 244.8 | 256.5 | 260.6 |
| 01-3 | Livestock | 260.3 | 256.4 | 251.7 | 248.3 | 252.5 | 247.8 | 257.2 | 251.8 | 230.5 | 233.3 | 240.0 | 260.5 | 275.7 | 266.8 |
| 01-4 | Live poultry | 194.3 | 173.5 | 162.0 | 195.5 | 194.7 | 195.2 | 184.6 | 180.1 | 171.9 | 171.3 | 166.6 | 227.2 | 224.5 | 241.0 |
| 01-5 | Plant and animal fibers | 209.9 | 211.3 | 212.9 | 215.4 | 222.0 | 239.0 | 269.5 | 254.9 | 266.9 | 272.7 | 247.0 | 267.0 | 274.6 | 295.2 |
| 01-6 | Fluid milk | 250.1 | 258.5 | 260.8 | 262.5 | 264.0 | 262.3 | 263.8 | 263.1 | 265.4 | 265.4 | 265.5 | 265.8 | 271.6 | 275.5 |
| 01-7 | Eggs | 176.5 | 175.4 | 155.9 | 178.7 | 198.4 | 165.6 | 150.4 | 184.2 | 153.3 | '140.5 | 146.8 | 159.3 | 176.9 | 188.4 |
| 01-8 | Hay, hayseeds, and oilseeds | 244.3 | 240.9 | 235.6 | 229.8 | 230.3 | 218.1 | 224.7 | 215.9 | 205.1 | '206.9 | 207.4 | 251.4 | 261.5 | 280.7 |
| 01-9 | Other farm products | 289.0 | 315.9 | 313.6 | 318.3 | 319.4 | 301.1 | 304.7 | 311.5 | 304.8 | 311.0 | 309.4 | 292.4 | 282.7 | 283.9 |
| 02 | Processed foods and feeds | 222.5 | 225.8 | 224.8 | 227.1 | 229.3 | 228.5 | 233.1 | 231.6 | '228.6 | 233.1 | 233.8 | 241.1 | 249.1 | 249.8 |
| 02-1 | Cereal and bakery products | 210.3 | 218.7 | 219.8 | 222.5 | 223.6 | 225.4 | 229.9 | 231.8 | '232.4 | '234.7 | 233.1 | 234.6 | 235.5 | 238.0 |
| 02-2 | Meats, poultry, and fish | 242.0 | 239.9 | 234.2 | 239.3 | 242.8 | 239.6 | 239.6 | 239.2 | 226.0 | '224.5 | 226.6 | 248.5 | 259.9 | 257.7 |
| 02-3 | Dairy products | 211.2 | 218.3 | 218.1 | 219.3 | 219.9 | 221.0 | 220.8 | 223.0 | '227.5 | '228.5 | 229.9 | 230.5 | 233.0 | 234.1 |
| 02-4 | Processed fruits and vegetables | 221.9 | 225.1 | 223.4 | 222.4 | 222.6 | 222.9 | 223.3 | 223.7 | '224.6 | '225.4 | 227.3 | 229.5 | 230.6 | 231.9 |
| 02-5 | Sugar and confectionery | 214.7 | 217.2 | 218.9 | 222.9 | 234.4 | 235.0 | 287.5 | 264.1 | '275.0 | '327.8 | 324.7 | 313.7 | 347.1 | 341.4 |
| 02-6 | Beverages and beverage materials | 210.7 | 217.9 | 218.9 | 221.2 | 221.6 | 224.0 | 224.8 | 225.9 | '227.9 | '231.2 | 233.6 | 234.4 | 237.3 | 236.2 |
| 02-7 | Fats and oils | 243.3 | 253.3 | 246.0 | 241.9 | 235.6 | 225.1 | 226.4 | 222.6 | '214.5 | '212.0 | 213.0 | 221.7 | 236.8 | 237.8 |
| 02-8 | Miscellaneous processed foods | 216.5 | 219.0 | 220.8 | 222.2 | 223.1 | 225.4 | 223.5 | 224.7 | 225.1 | '223.7 | 223.0 | 223.6 | 224.0 | 226.9 |
| 02-9 | Manufactured animal feeds | 219.4 | 219.2 | 224.0 | 222.4 | 224.9 | 219.7 | 219.8 | 216.6 | '205.0 | '207.2 | 205.4 | 220.6 | 230.1 | 243.8 |
| | INDUSTRIAL COMMODITIES | | | | | | | | | | | | | | |
| 03 | Textile products and apparel | 168.7 | 171.3 | 172.0 | 172.8 | 173.1 | 175.2 | 176.5 | 179.3 | '181.2 | '182.0 | 182.4 | 184.3 | 185.2 | 186.2 |
| 03-1 | Synthetic fibers (12/75 = 100) | 119.0 | 123.6 | 124.7 | 124.2 | 124.7 | 127.0 | 127.2 | 129.1 | '130.4 | '133.2 | 134.8 | 136.3 | 137.8 | 139.3 |
| 03-2 | Processed yarns and threads (12/75 = 100) | 109.2 | 111.7 | 112.1 | 112.5 | 112.7 | 114.6 | 118.0 | 119.3 | 122.1 | '124.2 | 122.4 | 121.9 | 122.6 | 123.4 |
| 03-3 | Gray fabrics (12/75 = 100) | 127.1 | 128.7 | 129.7 | 130.7 | 132.3 | 132.7 | 136.8 | 137.0 | '137.0 | '136.5 | 133.7 | 134.8 | 136.6 | 139.2 |
| 03-4 | Finished fabrics (12/75 = 100) | 107.4 | 109.1 | 108.9 | 109.7 | 109.9 | 110.5 | 111.1 | 113.2 | 114.5 | '115.3 | 115.5 | 116.5 | 116.7 | 116.8 |
| 03-81 | Apparel | 160.4 | 161.6 | 162.2 | 163.1 | 162.6 | 165.5 | 166.8 | 168.0 | '170.0 | '170.2 | 172.0 | 174.1 | 174.8 | 174.7 |
| 03-82 | Textile housefurnishings | 190.4 | 193.9 | 196.3 | 196.5 | 197.1 | 199.0 | 199.7 | 201.3 | 201.6 | 202.6 | 202.7 | 210.7 | 211.0 | 217.1 |
| 04 | Hides, skins, leather, and related products | 252.4 | 251.1 | 253.9 | 248.9 | 249.2 | 255.7 | 250.9 | 246.8 | '243.5 | 240.7 | 241.0 | 244.9 | 251.1 | 247.8 |
| 04-1 | Hides and skins | 535.4 | 465.3 | 478.8 | 447.6 | 443.9 | 468.8 | 404.8 | 348.7 | 328.6 | 289.7 | 315.7 | 356.6 | 398.4 | 356.1 |
| 04-2 | Leather | 356.7 | 330.0 | 343.6 | 319.8 | 324.8 | 347.6 | 340.3 | 311.0 | 297.6 | 290.4 | 284.4 | 292.2 | 314.2 | 300.2 |
| 04-3 | Footwear | 218.0 | 226.9 | 227.5 | 227.9 | 227.9 | 229.1 | 228.0 | 231.8 | 231.9 | 231.9 | 232.1 | 232.9 | 233.9 | 235.7 |
| 04-4 | Other leather and related products | 205.0 | 210.1 | 209.7 | 208.4 | 208.0 | 213.1 | 214.8 | 217.8 | '216.2 | '217.4 | 216.0 | 216.3 | 217.4 | 217.6 |
| 05 | Fuels and related products and power | 408.1 | 454.8 | 468.5 | 476.9 | 487.9 | 508.0 | 532.7 | 553.5 | '566.6 | '572.1 | 574.8 | 585.4 | 589.5 | 593.0 |
| 05-1 | Coal | 450.9 | 452.5 | 454.6 | 455.1 | 458.6 | 459.3 | 459.6 | 461.7 | '465.2 | '466.5 | 466.9 | 467.8 | 469.0 | 472.1 |
| 05-2 | Coke | 429.2 | 430.6 | 431.2 | 431.2 | 431.2 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 | 430.6 |
| 05-3 | Gas fuels | 544.1 | 603.4 | 619.9 | 637.0 | 662.4 | 677.5 | 716.6 | 716.6 | '730.1 | '745.1 | 750.1 | 763.3 | 762.3 | 785.3 |
| 05-4 | Electric power | 270.2 | 280.5 | 283.5 | 281.9 | 287.0 | 290.5 | 299.3 | 305.5 | '310.1 | '316.5 | 320.5 | 331.4 | 333.8 | 338.6 |
| 05-61 | Crude petroleum ² | 376.5 | 422.1 | 436.7 | 450.4 | 470.8 | 513.6 | 515.1 | 522.8 | 533.9 | 540.1 | 549.0 | 550.9 | 566.3 | 570.8 |
| 05-7 | Petroleum products, refined ³ | 444.8 | 513.7 | 533.7 | 545.4 | 555.2 | 583.3 | 620.4 | 659.0 | '678.0 | '680.9 | 681.1 | 693.3 | 697.5 | 695.5 |
| 06 | Chemicals and allied products | 222.3 | 230.8 | 234.2 | 236.0 | 238.2 | 246.0 | 248.7 | 252.8 | '259.8 | '262.5 | 261.7 | 262.7 | 264.3 | 263.2 |
| 06-1 | Industrial chemicals ⁴ | 264.0 | 280.0 | 285.7 | 288.4 | 292.3 | 302.9 | 307.9 | 313.3 | '322.1 | '328.5 | 327.3 | 327.8 | 329.0 | 326.2 |
| 06-21 | Prepared paint | 204.4 | 206.0 | 206.7 | 209.4 | 210.7 | 223.3 | 223.3 | 228.7 | 231.5 | '238.8 | 236.8 | 236.8 | 239.1 | 239.6 |
| 06-22 | Paint materials | 241.2 | 252.0 | 253.6 | 256.6 | 256.8 | 259.9 | 263.4 | 267.5 | '272.1 | '273.9 | 274.0 | 277.0 | 278.2 | 278.9 |
| 06-3 | Drugs and pharmaceuticals | 159.4 | 161.0 | 162.8 | 163.0 | 164.4 | 166.5 | 167.6 | 168.9 | '172.6 | '172.8 | 173.0 | 175.4 | 175.7 | 176.7 |
| 06-4 | Fats and oils, inedible | 376.7 | 379.9 | 366.9 | 344.3 | 327.1 | 325.6 | 302.2 | 299.9 | 298.2 | 294.7 | 255.8 | 260.0 | 307.6 | 304.5 |
| 06-5 | Agricultural chemicals and chemical products | 214.4 | 219.4 | 224.3 | 229.5 | 232.9 | 241.9 | 248.0 | 256.1 | '258.5 | '258.5 | 257.7 | 258.2 | 259.6 | 260.4 |
| 06-6 | Plastic resins and materials | 235.9 | 252.0 | 260.0 | 261.4 | 262.5 | 270.4 | 272.1 | 274.5 | '287.6 | '288.4 | 287.9 | 286.2 | 282.0 | 277.1 |
| 06-7 | Other chemicals and allied products | 191.8 | 195.8 | 197.0 | 198.8 | 201.4 | 209.4 | 211.3 | 215.0 | '223.1 | '224.8 | 226.3 | 228.0 | 229.9 | 229.4 |
| 07 | Rubber and plastic products | 194.3 | 200.7 | 203.0 | 204.9 | 205.9 | 207.8 | 210.7 | 212.7 | '214.1 | '215.0 | 217.1 | 218.3 | 219.9 | 221.2 |
| 07-1 | Rubber and rubber products | 209.2 | 217.1 | 220.3 | 223.7 | 224.3 | 226.1 | 231.5 | 231.5 | '233.4 | '234.7 | 237.6 | 239.4 | 240.7 | 242.5 |
| 07-11 | Crude rubber | 221.4 | 232.2 | 236.5 | 237.2 | 240.2 | 252.7 | 263.9 | 255.8 | '264.7 | '263.9 | 263.2 | 262.5 | 263.4 | 266.3 |
| 07-12 | Tires and tubes | 205.9 | 215.0 | 218.3 | 223.1 | 223.1 | 225.1 | 231.6 | 231.6 | '231.8 | '233.2 | 234.6 | 237.0 | 237.0 | 239.9 |
| 07-13 | Miscellaneous rubber products | 206.4 | 211.9 | 214.7 | 217.1 | 217.7 | 215.9 | 217.8 | 220.6 | '222.1 | '224.0 | 229.7 | 231.8 | 234.6 | 234.8 |
| 07-2 | Plastic products (6/78 = 100) | 110.0 | 113.0 | 114.0 | 114.3 | 115.2 | 116.3 | 116.7 | 119.0 | '119.7 | '119.9 | 120.8 | 121.1 | 122.4 | 122.8 |
| 08 | Lumber and wood products | 300.4 | 309.7 | 308.8 | 298.9 | 290.1 | 290.0 | 294.7 | 294.9 | '275.6 | '272.1 | 279.8 | 288.9 | 295.3 | 291.8 |
| 08-1 | Lumber | 354.3 | 373.9 | 370.3 | 355.6 | 339.5 | 336.3 | 341.4 | 340.6 | 310.1 | '301.4 | 313.0 | 327.3 | 333.5 | 326.6 |
| 08-2 | Millwork | 254.3 | 250.9 | 255.6 | 252.3 | 250.3 | 254.1 | 258.0 | 262.2 | '257.5 | '251.8 | 253.0 | 255.9 | 260.3 | 264.5 |
| 08-3 | Plywood | 250.5 | 257.9 | 254.0 | 242.2 | 237.9 | 238.2 | 243.4 | 240.0 | '219.8 | '230.6 | 241.6 | 251.1 | 262.3 | 253.6 |
| 08-4 | Other wood products | 235.4 | 238.0 | 237.7 | 239.9 | 240.5 | 242.2 | 243.4 | 243.1 | 241.7 | 240.7 | 238.7 | 236.9 | 236.2 | 236.8 |

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 1979 | 1979 | | | | 1980 | | | | | | | | |
|----------------------------------|--|---|---------------------|-------|-------|-------|-------|-------|-------|-------|-------------------|------------------|-------|-------|-------|-------|
| | | | | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. ¹ | May ¹ | June | July | Aug. | Sept. |
| INDUSTRIAL COMMODITIES—Continued | | | | | | | | | | | | | | | | |
| 09 | | Pulp, paper, and allied products | 219.0 | 223.0 | 227.5 | 229.5 | 231.7 | 237.4 | 239.2 | 242.6 | '247.8 | '249.2 | 251.3 | 252.4 | 252.2 | 252.7 |
| 09-1 | | Pulp, paper, and products, excluding building paper and board | 220.7 | 224.3 | 229.0 | 231.1 | 233.4 | 239.2 | 240.8 | 244.1 | '249.4 | '250.6 | 252.7 | 253.7 | 253.6 | 254.1 |
| 09-11 | | Woodpulp | 314.3 | 320.6 | 337.5 | 338.0 | 338.0 | 356.6 | 356.4 | 356.8 | '385.6 | '385.6 | 388.0 | 388.6 | 388.6 | 390.6 |
| 09-12 | | Wastepaper | 206.6 | 206.7 | 206.7 | 220.0 | 221.2 | 222.9 | 223.4 | 224.9 | '242.5 | '226.1 | 206.6 | 194.0 | 193.8 | 192.5 |
| 09-13 | | Paper | 229.6 | 230.3 | 238.7 | 241.8 | 242.7 | 245.5 | 247.2 | 250.3 | '253.5 | '256.1 | 258.3 | 258.5 | 258.8 | 258.9 |
| 09-14 | | Paperboard | 202.1 | 209.6 | 211.3 | 212.8 | 215.4 | 221.8 | 223.7 | 227.4 | '232.1 | '235.5 | 242.7 | 237.5 | 238.1 | 239.2 |
| 09-15 | | Converted paper and paperboard products | 209.9 | 214.6 | 217.3 | 219.0 | 221.9 | 227.7 | 229.5 | 233.0 | '236.7 | '237.6 | 239.3 | 242.4 | 242.0 | 242.5 |
| 09-2 | | Building paper and board | 182.4 | 182.6 | 183.5 | 183.6 | 184.6 | 186.2 | 191.7 | 198.7 | 201.3 | 206.8 | 208.9 | 211.8 | 209.2 | 209.6 |
| 10 | | Metals and metal products | 259.3 | 263.7 | 269.6 | 271.1 | 273.6 | 284.6 | 288.9 | 286.8 | '284.4 | '281.8 | 282.4 | 281.5 | 282.7 | 286.2 |
| 10-1 | | Iron and steel | 283.5 | 285.5 | 289.2 | 292.0 | 292.8 | 297.4 | 300.3 | 301.8 | '307.2 | '304.8 | 303.1 | 300.4 | 302.3 | 304.3 |
| 10-13 | | Steel mill products | 280.4 | 284.8 | 288.3 | 288.8 | 289.3 | 293.6 | 294.2 | 295.5 | '304.1 | '305.5 | 305.8 | 301.0 | 301.0 | 301.0 |
| 10-2 | | Nonferrous metals | 261.7 | 269.3 | 283.1 | 284.1 | 291.9 | 326.3 | 337.7 | 321.4 | '298.3 | '289.7 | 290.6 | 289.0 | 288.9 | 297.9 |
| 10-3 | | Metal containers | 269.2 | 268.7 | 279.9 | 280.9 | 280.9 | 283.3 | 284.4 | 288.5 | '304.1 | '302.7 | 302.7 | 303.0 | 303.2 | 303.2 |
| 10-4 | | Hardware | 218.7 | 221.5 | 224.0 | 225.5 | 226.2 | 228.2 | 230.4 | 231.5 | '237.3 | '238.4 | 239.7 | 241.9 | 242.6 | 245.1 |
| 10-5 | | Plumbing fixtures and brass fittings | 217.1 | 223.0 | 223.5 | 225.4 | 226.5 | 232.8 | 236.7 | 242.4 | '243.8 | '247.5 | 248.5 | 249.6 | 250.4 | 250.5 |
| 10-6 | | Heating equipment | 187.1 | 191.3 | 192.2 | 193.1 | 195.6 | 199.5 | 202.6 | 202.6 | '204.2 | '204.0 | 205.1 | 206.1 | 208.0 | 208.8 |
| 10-7 | | Fabricated structural metal products | 248.9 | 253.7 | 256.3 | 256.7 | 257.7 | 258.9 | 259.7 | 265.1 | '269.1 | '269.9 | 270.0 | 271.9 | 272.6 | 273.8 |
| 10-8 | | Miscellaneous metal products | 231.4 | 236.7 | 238.5 | 238.6 | 239.1 | 240.6 | 241.6 | 244.2 | '246.1 | '246.7 | 251.4 | 251.8 | 254.1 | 255.8 |
| 11 | | Machinery and equipment | 213.9 | 217.7 | 220.0 | 221.3 | 223.4 | 227.6 | 230.2 | 232.5 | '236.4 | '237.6 | 238.8 | 241.3 | 242.2 | 244.3 |
| 11-1 | | Agricultural machinery and equipment | 232.1 | 237.4 | 240.0 | 243.4 | 244.2 | 248.4 | 249.9 | 252.0 | '254.4 | '256.4 | 255.7 | 257.3 | 258.9 | 262.5 |
| 11-2 | | Construction machinery and equipment | 256.2 | 258.9 | 263.9 | 265.4 | 268.8 | 276.0 | 278.3 | 279.5 | '284.2 | '285.9 | 286.8 | 290.9 | 292.8 | 295.0 |
| 11-3 | | Metalworking machinery and equipment | 241.3 | 246.4 | 249.6 | 252.2 | 254.6 | 258.9 | 261.8 | 264.1 | '270.2 | '272.9 | 275.4 | 278.0 | 278.9 | 280.2 |
| 11-4 | | General purpose machinery and equipment | 236.4 | 240.2 | 242.8 | 244.2 | 247.6 | 251.0 | 253.3 | 256.7 | '261.1 | '262.8 | 264.3 | 265.8 | 266.6 | 268.9 |
| 11-6 | | Special industry machinery and equipment | 247.0 | 251.2 | 253.8 | 254.9 | 256.1 | 260.6 | 263.2 | 265.5 | '271.9 | '273.0 | 274.5 | 277.2 | 277.3 | 283.2 |
| 11-7 | | Electrical machinery and equipment | 178.9 | 182.5 | 184.3 | 184.9 | 186.6 | 190.6 | 194.3 | 196.5 | '198.9 | '199.9 | 201.2 | 203.5 | 204.7 | 206.0 |
| 11-9 | | Miscellaneous machinery | 208.9 | 212.0 | 213.6 | 214.9 | 216.3 | 220.3 | 221.1 | 223.2 | '227.2 | '227.3 | 227.8 | 230.7 | 231.5 | 233.1 |
| 12 | | Furniture and household durables | 171.3 | 172.7 | 175.1 | 176.4 | 177.9 | 183.4 | 185.6 | 185.7 | '184.4 | '185.4 | 185.3 | 186.7 | 187.3 | 187.8 |
| 12-1 | | Household furniture | 186.3 | 188.5 | 190.1 | 193.0 | 194.8 | 197.4 | 198.5 | 198.9 | '200.3 | '203.0 | 202.0 | 204.3 | 206.3 | 206.6 |
| 12-2 | | Commercial furniture | 221.8 | 222.7 | 223.3 | 223.3 | 225.1 | 226.9 | 231.4 | 232.8 | '233.6 | '233.9 | 235.5 | 237.1 | 237.1 | 237.4 |
| 12-3 | | Floor coverings | 147.9 | 150.4 | 152.1 | 152.8 | 152.9 | 159.0 | 158.5 | 160.8 | '162.2 | '161.9 | 162.2 | 163.2 | 163.5 | 163.9 |
| 12-4 | | Household appliances | 160.9 | 162.7 | 163.2 | 164.5 | 165.3 | 166.5 | 168.9 | 169.9 | '171.1 | '173.2 | 174.7 | 174.8 | 175.0 | 176.2 |
| 12-5 | | Home electronic equipment | 91.3 | 90.3 | 90.3 | 90.3 | 90.5 | 91.0 | 91.2 | 91.3 | '91.4 | '92.0 | 89.3 | 89.3 | 88.9 | 89.1 |
| 12-6 | | Other household durable goods | 228.2 | 231.0 | 245.6 | 248.2 | 254.4 | 287.4 | 295.3 | 288.3 | '267.3 | '265.6 | 266.1 | 271.1 | 273.0 | 273.2 |
| 13 | | Nonmetallic mineral products | 248.6 | 254.6 | 256.2 | 257.4 | 259.6 | 268.4 | 274.0 | 276.5 | '283.7 | '284.0 | 283.2 | 284.0 | 284.8 | 286.0 |
| 13-11 | | Flat glass | 183.9 | 184.5 | 184.7 | 185.4 | 186.4 | 191.0 | 191.0 | 191.4 | '195.3 | '195.3 | 193.6 | 194.3 | 199.5 | 199.7 |
| 13-2 | | Concrete ingredients | 244.0 | 246.7 | 248.3 | 249.6 | 251.0 | 265.0 | 266.6 | 267.5 | '271.7 | '272.4 | 271.9 | 272.5 | 272.7 | 274.6 |
| 13-3 | | Concrete products | 244.1 | 248.7 | 250.1 | 250.6 | 253.2 | 265.4 | 266.7 | 269.1 | '272.9 | '275.2 | 275.9 | 275.9 | 275.9 | 277.5 |
| 13-4 | | Structural clay products excluding refractories | 217.9 | 223.7 | 221.1 | 221.8 | 226.7 | 229.6 | 231.0 | 231.4 | '235.0 | '230.0 | 230.2 | 230.2 | 229.8 | 230.2 |
| 13-5 | | Refractories | 236.5 | 242.4 | 244.6 | 247.4 | 248.0 | 248.5 | 251.1 | 253.9 | '261.7 | '264.4 | 266.7 | 269.6 | 271.4 | 271.4 |
| 13-6 | | Asphalt roofing | 325.3 | 333.0 | 337.5 | 347.4 | 346.5 | 356.6 | 372.5 | 388.8 | '408.9 | '401.1 | 400.7 | 412.0 | 409.4 | 406.2 |
| 13-7 | | Gypsum products | 252.3 | 254.9 | 255.3 | 256.2 | 255.0 | 255.4 | 262.2 | 267.6 | '264.0 | '256.5 | 257.1 | 253.1 | 251.8 | 251.8 |
| 13-8 | | Glass containers | 261.1 | 265.2 | 265.2 | 265.2 | 274.2 | 274.3 | 274.3 | 274.3 | '294.3 | '294.3 | 294.6 | 294.6 | 294.6 | 294.6 |
| 13-9 | | Other nonmetallic minerals | 313.7 | 336.0 | 341.2 | 342.2 | 342.2 | 351.8 | 381.7 | 387.0 | '399.6 | '400.7 | 394.5 | 396.1 | 397.1 | 400.7 |
| 14 | | Transportation equipment (12/68 = 100) | 188.1 | 186.6 | 194.2 | 194.8 | 195.6 | 198.7 | 198.2 | 198.8 | '203.2 | '202.5 | 202.2 | 204.9 | 208.6 | 204.2 |
| 14-1 | | Motor vehicles and equipment | 190.5 | 188.6 | 197.1 | 197.4 | 198.2 | 200.7 | 200.1 | 200.7 | '205.4 | '204.5 | 204.4 | 207.1 | 211.4 | 205.3 |
| 14-4 | | Railroad equipment | 277.3 | 281.6 | 286.3 | 288.2 | 289.0 | 297.5 | 299.3 | 302.1 | '309.9 | '310.5 | 306.2 | 316.4 | 316.4 | 320.4 |
| 15 | | Miscellaneous products | 208.7 | 213.1 | 218.9 | 221.4 | 227.4 | 242.9 | 262.9 | 256.1 | '252.8 | '251.7 | 257.4 | 261.3 | 259.9 | 264.4 |
| 15-1 | | Toys, sporting goods, small arms, ammunition | 176.2 | 179.8 | 181.1 | 181.2 | 183.0 | 190.9 | 193.5 | 194.5 | '195.4 | '196.0 | 197.2 | 200.3 | 201.0 | 201.6 |
| 15-2 | | Tobacco products | 217.8 | 221.9 | 222.1 | 222.2 | 226.6 | 236.6 | 237.2 | 237.3 | '238.1 | '247.7 | 245.1 | 247.6 | 247.6 | 247.6 |
| 15-3 | | Notions | 191.8 | 191.9 | 195.7 | 195.8 | 196.8 | 203.1 | 203.2 | 207.2 | '216.8 | '217.0 | 217.0 | 221.7 | 223.8 | 223.9 |
| 15-4 | | Photographic equipment and supplies | 153.7 | 154.3 | 157.4 | 161.2 | 164.3 | 165.9 | 218.6 | 219.1 | '212.3 | '199.6 | 203.4 | 202.0 | 202.3 | 201.3 |
| 15-51 | | Mobile homes (12/74 = 100) | 138.1 | 140.7 | 142.9 | 144.0 | 144.1 | 144.7 | 146.8 | 147.1 | '149.4 | '150.4 | 150.6 | 151.2 | 151.4 | 151.0 |
| 15-9 | | Other miscellaneous products | 263.7 | 272.5 | 288.3 | 293.3 | 308.8 | 351.6 | 378.3 | 351.3 | '340.9 | '340.2 | 358.8 | 369.4 | 363.3 | 380.5 |

¹ Data for April and May 1980 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 Prices for natural gas are lagged 1 month.

³ Includes only domestic production.

⁴ Most prices for refined petroleum products are lagged 1 month.

⁵ Some prices for industrial chemicals are lagged 1 month.

28. Producer Price Indexes, for special commodity groupings

[1967=100 unless otherwise specified]

| Commodity grouping | Annual average 1979 | 1979 | | | | 1980 | | | | | | | | |
|---|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------------------|------------------|-------|-------|-------|-------|
| | | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. ¹ | May ¹ | June | July | Aug. | Sept. |
| All commodities — less farm products | 234.4 | 241.4 | 245.3 | 247.0 | 249.5 | 255.7 | 260.9 | 262.9 | '264.8 | '265.9 | 267.0 | 270.3 | 273.0 | 273.9 |
| All foods | 226.4 | 228.5 | 226.9 | 230.0 | 232.2 | 231.2 | 235.8 | 234.8 | '231.9 | '237.3 | 237.7 | 245.4 | 253.9 | 254.2 |
| Processed foods | 227.2 | 230.8 | 228.9 | 231.8 | 234.2 | 233.3 | 238.6 | 236.9 | '234.1 | '239.0 | 239.9 | 247.1 | 255.5 | 254.8 |
| Industrial commodities less fuels | 218.3 | 222.0 | 225.9 | 226.9 | 228.5 | 234.7 | 238.0 | 238.9 | '240.5 | '240.6 | 241.6 | 243.3 | 244.8 | 245.4 |
| Selected textile mill products (Dec. 1975 = 100) | 113.9 | 115.8 | 116.4 | 117.0 | 117.2 | 118.9 | 119.3 | 121.3 | '122.2 | '122.9 | 123.5 | 125.4 | 125.8 | 126.9 |
| Hosiery | 112.6 | 112.7 | 113.3 | 114.6 | 115.3 | 119.2 | 119.4 | 120.3 | '121.1 | '121.5 | 122.2 | 123.1 | 125.5 | 126.1 |
| Underwear and nightwear | 168.9 | 170.8 | 171.2 | 171.6 | 172.9 | 175.3 | 177.4 | 182.1 | '182.4 | '182.8 | 187.4 | 188.5 | 189.4 | 189.7 |
| Chemicals and allied products, including synthetic rubber and manmade fibers and yarns | 212.4 | 220.9 | 224.3 | 226.3 | 228.7 | 236.3 | 239.2 | 243.2 | '250.0 | '252.8 | 252.8 | 253.8 | 254.7 | 253.8 |
| Pharmaceutical preparations | 152.0 | 153.6 | 155.6 | 155.4 | 156.9 | 159.2 | 160.3 | 161.7 | '165.6 | '165.9 | 166.1 | 167.8 | 168.2 | 168.8 |
| Lumber and wood products, excluding millwork and other wood products | 325.0 | 341.0 | 337.3 | 323.3 | 310.8 | 308.6 | 313.9 | 312.2 | '284.7 | '282.0 | 293.5 | 306.4 | 314.3 | 306.7 |
| Special metals and metal products | 234.6 | 236.4 | 243.4 | 244.5 | 246.3 | 253.7 | 256.0 | 255.1 | '255.8 | '254.0 | 254.2 | 254.9 | 257.5 | 257.0 |
| Fabricated metal products | 236.8 | 241.1 | 244.0 | 244.6 | 245.3 | 247.2 | 248.4 | 252.0 | '255.9 | '256.8 | 258.9 | 260.0 | 261.3 | 262.7 |
| Copper and copper products | 299.3 | 200.5 | 212.2 | 213.8 | 217.1 | 227.7 | 260.7 | 240.9 | '222.0 | '212.2 | 208.7 | 211.7 | 209.0 | 214.1 |
| Machinery and motive products | 207.0 | 208.5 | 213.4 | 214.3 | 215.9 | 219.7 | 220.9 | 222.5 | '226.7 | '227.1 | 227.7 | 230.2 | 232.5 | 231.7 |
| Machinery and equipment, except electrical | 234.2 | 238.2 | 240.8 | 242.5 | 244.8 | 249.1 | 251.1 | 253.5 | '258.2 | '259.6 | 260.8 | 263.2 | 264.1 | 266.7 |
| Agricultural machinery, including tractors | 237.4 | 243.6 | 246.3 | 250.8 | 251.5 | 256.1 | 257.2 | 260.0 | '261.9 | '263.9 | 262.5 | 264.1 | 266.4 | 270.8 |
| Metalworking machinery | 259.1 | 265.6 | 269.5 | 272.7 | 276.0 | 281.9 | 284.4 | 287.5 | '293.6 | '296.8 | 299.9 | 303.6 | 304.7 | 306.5 |
| Numerically controlled machine tools (Dec. 1971 = 100) | 199.8 | 206.5 | 208.5 | 208.8 | 211.2 | 213.1 | 215.4 | 216.7 | '223.8 | '226.9 | 228.7 | 228.7 | 229.3 | 230.0 |
| Total tractors | 251.6 | 256.0 | 261.2 | 262.5 | 266.2 | 273.0 | 275.1 | 276.6 | '280.8 | '282.9 | 281.8 | 286.1 | 289.3 | 294.0 |
| Agricultural machinery and equipment less parts | 232.7 | 238.4 | 241.0 | 244.9 | 245.8 | 250.0 | 251.5 | 254.1 | '256.2 | '258.0 | 256.8 | 258.9 | 260.8 | 264.6 |
| Farm and garden tractors less parts | 236.1 | 244.1 | 247.6 | 250.5 | 251.1 | 256.0 | 257.5 | 261.5 | '263.7 | '264.7 | 262.7 | 264.9 | 269.3 | 276.3 |
| Agricultural machinery excluding tractors less parts | 238.7 | 243.5 | 245.4 | 251.3 | 252.0 | 256.4 | 257.3 | 258.9 | '260.7 | '263.6 | 262.6 | 263.7 | 264.3 | 266.6 |
| Industrial valves | 256.0 | 260.1 | 261.8 | 263.1 | 266.1 | 271.0 | 273.5 | 280.0 | '287.8 | '288.4 | 288.6 | 289.5 | 289.6 | 290.1 |
| Industrial fittings | 261.7 | 264.3 | 272.6 | 276.8 | 276.8 | 276.8 | 280.4 | 282.8 | '289.9 | '291.5 | 295.9 | 295.9 | 295.9 | 295.9 |
| Abrasive grinding wheels | 226.2 | 224.6 | 239.0 | 239.0 | 239.0 | 239.0 | 244.0 | 244.0 | '261.4 | '261.3 | 261.3 | 261.3 | 261.3 | 261.3 |
| Construction materials | 251.4 | 256.6 | 258.5 | 256.7 | 255.4 | 259.3 | 262.6 | 265.1 | '262.3 | '261.8 | 264.1 | 266.5 | 268.9 | 268.8 |

¹ Data for April and May 1980 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

29. Producer Price Indexes, by durability of product

[1967=100]

| Commodity grouping | Annual average 1979 | 1979 | | | | 1980 | | | | | | | | |
|---|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------------------|------------------|-------|-------|-------|-------|
| | | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. ¹ | May ¹ | June | July | Aug. | Sept. |
| Total durable goods | 226.9 | 230.1 | 234.6 | 235.3 | 237.0 | 243.8 | 247.1 | 247.0 | ' 247.7 | ' 247.1 | 248.3 | 250.3 | 252.1 | 252.9 |
| Total nondurable goods | 241.7 | 251.1 | 253.7 | 256.2 | 259.3 | 263.2 | 270.2 | 273.4 | ' 274.4 | ' 277.6 | 278.4 | 285.3 | 289.9 | 291.1 |
| Total manufactures | 228.8 | 235.2 | 239.0 | 240.6 | 242.6 | 248.4 | 253.2 | 255.2 | ' 257.0 | ' 258.3 | 259.4 | 262.5 | 265.0 | 265.4 |
| Durable | 226.1 | 229.4 | 234.0 | 234.6 | 236.2 | 242.9 | 245.7 | 245.6 | ' 246.7 | ' 246.7 | 248.2 | 250.1 | 251.7 | 252.3 |
| Nondurable | 231.1 | 241.0 | 244.0 | 246.6 | 249.0 | 253.9 | 260.8 | 265.2 | ' 267.9 | ' 270.7 | 271.3 | 275.6 | 279.3 | 279.4 |
| Total raw or slightly processed goods | 270.4 | 276.9 | 278.7 | 281.0 | 285.9 | 287.6 | 295.9 | 295.4 | ' 290.4 | 292.7 | 293.0 | 307.5 | 314.8 | 319.5 |
| Durable | 262.1 | 255.7 | 259.2 | 265.8 | 267.8 | 282.8 | 305.3 | 303.4 | ' 286.0 | 262.2 | 249.9 | 253.9 | 263.1 | 273.1 |
| Nondurable | 270.1 | 277.5 | 279.2 | 281.2 | 286.3 | 286.9 | 294.2 | 293.8 | ' 289.8 | 294.0 | 295.3 | 310.4 | 317.6 | 321.9 |

¹ Data for April and May 1980 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

30. Producer Price Indexes for the output of selected SIC industries

[1967=100 unless otherwise specified]

| 1972 SIC code | Industry description | Annual average 1979 | 1979 | | | | 1980 | | | | | | | | |
|---------------------|---|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------------------|------------------|-------|-------|-------|-------|
| | | | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. ¹ | May ¹ | June | July | Aug. | Sept. |
| MINING | | | | | | | | | | | | | | | |
| 1011 | Iron ores (12/75 = 100) | 134.8 | 138.1 | 140.2 | 140.2 | 142.0 | 142.0 | 147.3 | 152.6 | 152.6 | 152.6 | 152.6 | 155.8 | 155.8 | 155.8 |
| 1092 | Mercury ores (12/75 = 100) | 234.4 | 252.1 | 275.0 | 252.1 | 300.0 | 308.3 | 335.4 | 330.0 | 337.5 | 337.5 | 332.9 | 331.2 | 329.1 | 335.4 |
| 1211 | Bituminous coal and lignite | 451.3 | 452.9 | 455.1 | 455.5 | 458.9 | 459.2 | 459.6 | 461.7 | '464.6 | '466.0 | 463.3 | 467.2 | 468.2 | 471.2 |
| 1311 | Crude petroleum and natural gas | 459.8 | 508.4 | 522.1 | 533.9 | 551.3 | 582.7 | 598.0 | 600.6 | '612.5 | '619.6 | 631.3 | 637.8 | 650.0 | 666.4 |
| 1442 | Construction sand and gravel | 217.6 | 221.0 | 224.0 | 224.7 | 225.6 | 238.8 | 243.2 | 243.9 | '248.6 | '249.3 | 250.1 | 249.6 | 250.6 | 251.9 |
| 1455 | Kaolin and ball clay (6/76 = 100) | 125.8 | 125.5 | 126.7 | 124.2 | 129.3 | 136.6 | 136.6 | 136.6 | 136.6 | 136.6 | 136.6 | 136.6 | 136.6 | 136.6 |
| MANUFACTURING | | | | | | | | | | | | | | | |
| 2011 | Meat packing plants | 247.4 | 247.2 | 238.9 | 241.5 | 243.9 | 240.8 | 240.1 | 238.9 | 225.6 | '227.2 | 229.9 | 249.1 | 265.2 | 257.1 |
| 2013 | Sausages and other prepared meats | 219.6 | 211.7 | 211.9 | 213.4 | 220.0 | 211.9 | 207.8 | 208.4 | '197.9 | '193.3 | 190.6 | 213.4 | 232.8 | 239.3 |
| 2016 | Poultry dressing plants | 187.1 | 171.2 | 163.1 | 188.3 | 188.5 | 186.1 | 178.2 | 179.5 | 164.5 | 164.7 | 164.2 | 214.2 | 212.1 | 226.0 |
| 2021 | Creamery butter | 228.8 | 240.6 | 240.1 | 241.7 | 243.1 | 241.8 | 242.8 | 243.4 | '252.7 | '253.7 | 255.7 | 256.3 | 268.6 | 265.8 |

See footnote at end of table.

30. Continued—Producer Price Indexes for the output of selected SIC industries

[1967 = 100 unless otherwise specified]

| 1972 SIC code | Industry description | Annual average 1979 | 1979 | | | | | 1980 | | | | | | | | |
|-------------------------|---|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------------------|------------------|-------|-------|-------|-------|--|
| | | | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. ¹ | May ¹ | June | July | Aug. | Sept. | |
| MANUFACTURING—Continued | | | | | | | | | | | | | | | | |
| 2022 | Cheese natural and processed (12/72 = 100) | 189.2 | 200.8 | 196.8 | 193.6 | 193.9 | 195.4 | 192.9 | 195.7 | '201.9 | '201.9 | 204.2 | 205.1 | 208.6 | 209.8 | |
| 2024 | Ice cream and frozen desserts (12/72 = 100) | 172.5 | 176.1 | 177.5 | 179.9 | 180.1 | 180.9 | 181.5 | 185.0 | '191.3 | '192.1 | 195.2 | 195.2 | 195.5 | 196.1 | |
| 2033 | Canned fruits and vegetables | 208.6 | 212.0 | 212.9 | 212.2 | 212.2 | 213.4 | 213.6 | 214.7 | '216.3 | '217.3 | 220.1 | 222.6 | 223.5 | 225.4 | |
| 2034 | Dehydrated food products (12/73 = 100) | 174.2 | 170.0 | 158.2 | 156.2 | 157.3 | 157.6 | 159.0 | 156.4 | '157.5 | '156.4 | 156.3 | 157.7 | 159.6 | 159.9 | |
| 2041 | Flour mills (12/71 = 100) | 173.1 | 183.5 | 184.2 | 184.4 | 184.1 | 181.7 | 183.6 | 181.6 | '175.0 | '182.3 | 181.8 | 189.6 | 193.1 | 196.1 | |
| 2044 | Rice milling | 204.0 | 223.5 | 227.3 | 231.8 | 218.1 | 217.5 | 233.0 | 258.0 | '260.4 | '254.5 | 236.0 | 225.3 | 219.9 | 225.9 | |
| 2048 | Prepared foods, n.e.c. (12/75 = 100) | 120.4 | 120.9 | 123.6 | 124.3 | 125.0 | 122.0 | 122.6 | 121.5 | '116.5 | '116.9 | 116.6 | 122.6 | 127.0 | 130.0 | |
| 2061 | Raw cane sugar | 210.3 | 216.7 | 224.3 | 223.3 | 248.4 | 260.5 | 374.9 | 276.0 | '320.2 | '456.1 | 402.4 | 381.8 | 484.0 | 458.9 | |
| 2063 | Beet sugar | 202.6 | 200.0 | 204.7 | 210.6 | 223.2 | 224.6 | 293.2 | 305.7 | '296.6 | '339.9 | 343.9 | 343.5 | 366.3 | 384.7 | |
| 2067 | Chewing gum | 245.8 | 242.9 | 242.9 | 262.3 | 262.3 | 262.3 | 262.3 | 281.9 | '282.0 | '282.0 | 282.0 | 282.4 | 282.4 | 302.4 | |
| | | | | | | | | | | | | | | | | |
| 2074 | Cottonseed oil mills | 207.4 | 217.9 | 214.9 | 204.7 | 205.6 | 182.4 | 184.4 | 170.4 | '154.7 | '150.4 | 155.1 | 190.1 | 213.5 | 232.9 | |
| 2075 | Soybean oil mills | 245.0 | 248.6 | 244.7 | 242.4 | 241.9 | 235.1 | 230.4 | 222.3 | '211.9 | '212.9 | 209.1 | 224.6 | 242.9 | 274.9 | |
| 2077 | Animal and marine fats and oils | 338.4 | 333.8 | 333.7 | 315.2 | 300.7 | 298.1 | 292.6 | 297.4 | '274.0 | '262.9 | 238.3 | 274.4 | 297.1 | 307.0 | |
| 2083 | Malt | 203.7 | 214.9 | 214.9 | 228.2 | 228.2 | 244.1 | 244.1 | 244.1 | '244.1 | '244.1 | 244.1 | 244.1 | 244.1 | 244.1 | |
| 2085 | Distilled liquor, except brandy (12/75 = 100) | 113.7 | 117.1 | 117.1 | 118.1 | 118.1 | 118.6 | 118.7 | 118.7 | '118.7 | '118.9 | 118.9 | 118.9 | 127.7 | 127.7 | |
| 2091 | Canned and cured seafoods (12/73 = 100) | 146.4 | 154.0 | 154.3 | 155.6 | 159.8 | 160.9 | 164.0 | 165.7 | '170.2 | '173.1 | 175.3 | 175.9 | 177.5 | 178.6 | |
| 2092 | Fresh or frozen packaged fish | 381.6 | 389.2 | 400.1 | 391.4 | 388.4 | 389.7 | 385.5 | 391.6 | '370.5 | '360.0 | 362.8 | 365.2 | 365.7 | 355.5 | |
| 2095 | Roasted coffee (12/72 = 100) | 254.5 | 279.2 | 280.0 | 287.5 | 287.5 | 281.3 | 273.9 | 274.0 | '273.9 | '273.9 | 283.1 | 274.5 | 274.7 | 263.9 | |
| 2098 | Macaroni and spaghetti | 199.7 | 210.4 | 210.4 | 221.5 | 227.7 | 227.7 | 227.7 | 227.7 | '230.5 | '230.5 | 230.5 | 230.5 | 230.5 | 239.3 | |
| 2111 | Cigarettes | 225.0 | 229.1 | 229.2 | 229.2 | 234.3 | 245.8 | 245.9 | 246.0 | '246.3 | '257.3 | 254.3 | 257.2 | 257.2 | 257.2 | |
| | | | | | | | | | | | | | | | | |
| 2121 | Cigars | 147.3 | 150.1 | 149.8 | 150.4 | 150.4 | 151.2 | 154.2 | 154.4 | '155.3 | '155.3 | 157.1 | 157.2 | 157.2 | 157.2 | |
| 2131 | Chewing and smoking tobacco | 248.4 | 255.8 | 260.4 | 260.8 | 260.8 | 260.9 | 265.1 | 267.3 | '279.2 | '278.6 | 274.7 | 274.7 | 274.9 | 274.9 | |
| 2211 | Weaving mills, cotton (12/72 = 100) | 195.3 | 198.7 | 201.1 | 201.6 | 201.9 | 204.4 | 206.9 | 209.5 | '211.3 | '212.9 | 211.9 | 217.4 | 218.7 | 221.4 | |
| 2221 | Weaving mills, synthetic (12/77 = 100) | 115.0 | 116.2 | 116.8 | 117.3 | 117.2 | 118.1 | 118.3 | 122.7 | '123.0 | '122.4 | 120.4 | 122.3 | 124.2 | 126.1 | |
| 2251 | Women's hosiery, except socks (12/75 = 100) | 97.5 | 97.5 | 98.2 | 100.3 | 100.2 | 103.3 | 103.3 | 104.3 | '105.0 | '105.4 | 105.4 | 105.4 | 108.8 | 108.8 | |
| 2254 | Knit underwear mills | 173.3 | 174.0 | 174.3 | 174.6 | 178.3 | 182.5 | 184.1 | 186.5 | '186.8 | '187.1 | 190.5 | 192.5 | 192.8 | 194.0 | |
| 2257 | Circular knit fabric mills (6/76 = 100) | 95.2 | 96.2 | 96.9 | 98.4 | 98.6 | 99.3 | 100.4 | 103.4 | '104.0 | '104.4 | 104.7 | 105.1 | 105.4 | 105.5 | |
| 2261 | Finishing plants, cotton (6/76 = 100) | 121.8 | 124.0 | 126.1 | 126.3 | 126.6 | 128.7 | 129.6 | 131.9 | '132.4 | '134.5 | 133.7 | 137.2 | 137.2 | 136.8 | |
| 2262 | Finishing plants, synthetics, silk (6/76 = 100) | 107.2 | 108.3 | 109.3 | 109.7 | 109.8 | 110.3 | 109.4 | 110.4 | '110.7 | '111.8 | 111.5 | 173.7 | 114.1 | 115.1 | |
| | | | | | | | | | | | | | | | | |
| 2272 | Tufted carpets and rugs | 128.0 | 129.0 | 129.8 | 130.1 | 130.1 | 134.7 | 134.5 | 137.0 | '137.3 | '137.1 | 137.5 | 137.6 | 137.9 | 138.3 | |
| 2281 | Yarn mills, except wool (12/71 = 100) | 176.7 | 179.4 | 181.2 | 183.0 | 183.7 | 188.0 | 197.8 | 199.5 | '203.7 | '204.5 | 202.9 | 203.0 | 204.3 | 205.7 | |
| 2282 | Throwing and winding mills (6/76 = 100) | 107.4 | 111.2 | 110.4 | 109.6 | 109.2 | 110.1 | 110.6 | 112.0 | '114.8 | '118.1 | 114.8 | 113.4 | 114.2 | 115.3 | |
| 2284 | Thread mills (6/76 = 100) | 123.7 | 128.1 | 128.4 | 128.4 | 128.6 | 128.7 | 129.2 | 130.0 | '134.6 | '143.0 | 142.1 | 143.0 | 143.1 | 143.1 | |
| 2298 | Cordage and twine (12/77 = 100) | 107.0 | 115.1 | 114.9 | 114.9 | 114.9 | 115.0 | 117.2 | 118.5 | '123.6 | '123.8 | 125.0 | 125.0 | 125.0 | 125.0 | |
| 2311 | Men's and boys' suits and coats | 204.2 | 206.5 | 206.6 | 206.8 | 206.7 | 209.0 | 208.1 | 208.3 | '209.7 | '210.9 | 207.4 | 214.9 | 214.9 | 214.9 | |
| 2321 | Men's and boys' shirts and nightwear | 194.0 | 196.0 | 196.1 | 196.6 | 196.3 | 197.7 | 196.2 | 199.3 | '204.0 | '203.7 | 204.9 | 205.4 | 205.7 | 206.7 | |
| 2322 | Men's and boys' underwear | 188.9 | 190.0 | 190.0 | 190.0 | 194.0 | 199.8 | 202.0 | 204.0 | '204.2 | '204.3 | 208.5 | 211.1 | 211.1 | 212.8 | |
| 2323 | Men's and boys' neckwear (12/75 = 100) | 106.5 | 110.9 | 110.9 | 110.9 | 110.9 | 112.4 | 112.4 | 112.4 | '112.4 | '112.4 | 106.3 | 106.3 | 112.4 | 112.4 | |
| 2327 | Men's and boys' separate trousers | 161.5 | 162.7 | 162.9 | 163.4 | 163.5 | 164.2 | 174.2 | 174.3 | '174.9 | '174.9 | 175.1 | 175.3 | 175.3 | 175.3 | |
| | | | | | | | | | | | | | | | | |
| 2328 | Men's and boys' work clothing | 208.6 | 210.9 | 213.4 | 219.1 | 219.6 | 225.1 | 233.6 | 235.4 | '241.2 | '241.8 | 242.5 | 244.8 | 244.1 | 243.8 | |
| 2331 | Women's and misses' blouses and waists (6/78 = 100) | 102.0 | 102.8 | 103.0 | 105.9 | 106.8 | 107.1 | 106.6 | 106.7 | '107.6 | '107.6 | 107.8 | 111.4 | 112.6 | 112.6 | |
| 2335 | Women's and misses' dresses (12/77 = 100) | 107.0 | 108.3 | 108.7 | 108.8 | 108.8 | 112.9 | 113.8 | 113.8 | '113.9 | '113.9 | 114.0 | 114.0 | 115.4 | 115.4 | |
| 2341 | Women's and children's underwear (12/72 = 100) | 144.3 | 145.3 | 146.7 | 147.4 | 147.7 | 149.4 | 150.0 | 153.1 | '153.1 | '153.2 | 155.2 | 155.4 | 156.8 | 155.7 | |
| 2342 | Brassieres and allied garments (12/75 = 100) | 116.9 | 117.8 | 117.8 | 117.8 | 118.8 | 119.7 | 122.9 | 124.9 | '125.4 | '125.4 | 127.0 | 128.2 | 129.4 | 129.4 | |
| 2361 | Children's dresses and blouses (12/77 = 100) | 104.8 | 103.7 | 105.7 | 105.7 | 105.6 | 105.3 | 105.3 | 105.5 | '106.3 | '105.6 | 106.7 | 112.4 | 112.4 | 111.9 | |
| 2381 | Fabric dress and work gloves | 241.4 | 245.4 | 245.4 | 246.9 | 246.9 | 257.7 | 261.7 | 265.0 | '267.5 | '271.1 | 271.1 | 271.1 | 271.1 | 271.1 | |
| 2394 | Canvas and related products (12/77 = 100) | 109.3 | 111.4 | 112.3 | 112.1 | 120.1 | 122.1 | 122.8 | 123.4 | '123.4 | '123.4 | 123.4 | 123.4 | 123.4 | 124.5 | |
| 2396 | Automotive and apparel trimmings (12/77 = 100) | 111.3 | 114.3 | 114.3 | 114.3 | 114.3 | 114.3 | 114.3 | 122.3 | '122.3 | '122.3 | 122.3 | 122.3 | 122.3 | 122.3 | |
| 2421 | Sawmills and planing mills (12/71 = 100) | 251.0 | 265.6 | 262.2 | 250.2 | 237.9 | 234.8 | 239.5 | 239.1 | '215.8 | '209.4 | 218.1 | 228.8 | 233.9 | 228.0 | |
| | | | | | | | | | | | | | | | | |
| 2436 | Softwood veneer and plywood (12/75 = 100) | 152.3 | 156.0 | 153.1 | 142.9 | 138.9 | 138.5 | 143.7 | 139.8 | '121.9 | '130.3 | 140.5 | 148.7 | 157.2 | 150.3 | |
| 2439 | Structural wood members, n.e.c. (12/75 = 100) | 151.2 | 150.8 | 158.2 | 158.2 | 158.2 | 158.2 | 158.2 | 158.3 | '158.2 | '152.1 | 152.1 | 152.1 | 152.2 | 155.5 | |
| 2448 | Wood pallets and skids (12/75 = 100) | 166.5 | 167.9 | 167.9 | 171.0 | 170.5 | 169.8 | 167.0 | 166.3 | '164.6 | '162.8 | 159.7 | 157.1 | 156.0 | 154.9 | |
| 2451 | Mobile homes (12/74 = 100) | 138.2 | 140.7 | 143.0 | 144.0 | 144.1 | 144.8 | 146.9 | 147.2 | '149.5 | '150.5 | 150.6 | 151.2 | 151.4 | 151.1 | |
| 2492 | Particleboard (12/75 = 100) | 139.1 | 138.5 | 139.5 | 136.8 | 134.5 | 136.9 | 150.7 | 158.9 | '161.9 | '167.3 | 171.7 | 168.7 | 167.4 | 162.5 | |
| 2511 | Wood household furniture (12/71 = 100) | 165.5 | 168.0 | 169.3 | 172.3 | 174.5 | 177.5 | 178.2 | 178.9 | '180.0 | '182.2 | 182.4 | 183.8 | 185.7 | 186.0 | |
| 2512 | Upholstered household furniture (12/71 = 100) | 150.0 | 151.6 | 151.8 | 153.8 | 155.7 | 155.9 | 158.7 | 158.7 | '160.9 | '161.1 | 160.3 | 163.3 | 163.4 | 163.4 | |
| 2515 | Mattresses and bedsprings | 165.7 | 165.8 | 168.9 | 172.3 | 172.3 | 169.9 | 170.5 | 170.5 | '172.8 | '176.0 | 174.8 | 180.7 | 186.3 | 186.3 | |
| 2521 | Wood office furniture | 215.3 | 216.8 | 217.6 | 217.6 | 221.9 | 226.2 | 233.8 | 233.8 | '233.9 | '233.9 | 233.9 | 236.1 | 236.1 | 236.2 | |
| 2611 | Pulp mills (12/73 = 100) | 200.6 | 205.8 | 213.5 | 213.9 | 213.9 | 225.2 | 225.1 | 225.5 | '243.8 | '243.9 | 246.0 | 246.6 | 246.6 | 246.6 | |
| | | | | | | | | | | | | | | | | |
| 2621 | Paper mills, except building (12/74 = 100) | 130.2 | 131.4 | 135.1 | 136.5 | 136.8 | 139.0 | 139.8 | 142.5 | '145.0 | '145.8 | 146.6 | 146.7 | 146.9 | 146.9 | |
| 2631 | Paperboard mills (12/74 = 100) | 119.8 | 123.4 | | | | | | | | | | | | | |

30. Continued—Producer Price Indexes for the output of selected SIC industries

[1967=100 unless otherwise specified]

| 1972 SIC code | Industry description | Annual average 1979 | 1979 | | | | 1980 | | | | | | | | |
|---------------------|--|---------------------------|-------|-------|-------|-------|-------|-------|--------|-------------------|------------------|-------|-------|-------|-------|
| | | | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. ¹ | May ¹ | June | July | Aug. | Sept. |
| 3021 | Rubber and plastic footwear (12/71 = 100) | 171.1 | 173.4 | 173.5 | 173.5 | 173.5 | 173.6 | 173.6 | '173.7 | '173.7 | 173.9 | 181.9 | 182.1 | 182.1 | |
| 3031 | Reclaimed rubber (12/73 = 100) | 170.0 | 177.7 | 178.8 | 179.2 | 179.5 | 179.7 | 180.0 | 184.9 | '185.9 | '186.5 | 184.3 | 184.4 | 183.7 | |
| 3079 | Miscellaneous plastic products (6/78 = 100) | 109.9 | 113.1 | 114.3 | 114.6 | 115.6 | 116.6 | 117.0 | 119.1 | '120.3 | '120.5 | 121.6 | 121.9 | 123.1 | |
| 3111 | Leather tanning and finishing (12/77 = 100) | 167.5 | 155.2 | 161.9 | 150.8 | 153.5 | 164.3 | 160.8 | 146.7 | 140.8 | 137.9 | 134.6 | 137.7 | 147.9 | |
| 3142 | House slippers (12/75 = 100) | 135.8 | 135.0 | 135.8 | 135.9 | 135.9 | 143.5 | 145.4 | 145.4 | '145.4 | '145.4 | 146.8 | 152.5 | 152.5 | |
| 3143 | Men's footwear, except athletic (12/75 = 100) | 152.7 | 160.1 | 160.4 | 160.3 | 160.3 | 160.3 | 157.9 | 158.5 | '158.5 | '158.5 | 158.6 | 158.6 | 159.5 | |
| 3144 | Women's footwear, except athletic | 194.5 | 201.6 | 202.3 | 204.0 | 204.0 | 205.6 | 206.3 | 213.5 | 213.8 | 213.8 | 213.8 | 214.3 | 214.3 | |
| 3171 | Women's handbags and purses (12/75 = 100) | 128.9 | 131.8 | 131.8 | 131.8 | 131.8 | 131.9 | 131.9 | 132.1 | 132.1 | 140.8 | 140.9 | 140.9 | 140.9 | |
| 3211 | Flat glass (12/71 = 100) | 151.7 | 152.3 | 152.6 | 153.3 | 153.9 | 157.6 | 157.6 | 157.9 | '160.8 | '160.8 | 158.9 | 159.5 | 162.6 | |
| 3221 | Glass containers | 261.1 | 265.2 | 265.2 | 265.2 | 274.2 | 274.3 | 274.3 | 274.3 | '294.2 | '294.2 | 294.5 | 294.5 | 294.5 | |
| 3241 | Cement, hydraulic | 283.1 | 285.4 | 285.4 | 285.5 | 286.2 | 305.7 | 305.9 | 306.3 | '312.6 | '313.8 | 310.8 | 310.5 | 310.3 | |
| 3251 | Brick and structural clay tile | 258.6 | 265.9 | 261.3 | 261.3 | 262.7 | 268.3 | 270.4 | 271.9 | 276.4 | 278.5 | 278.5 | 278.5 | 277.6 | |
| 3253 | Ceramic wall and floor tile (12/75 = 100) | 117.2 | 120.2 | 120.2 | 120.2 | 130.3 | 130.4 | 130.4 | 130.4 | 130.4 | 117.6 | 117.6 | 117.6 | 117.6 | |
| 3255 | Clay refractories | 242.1 | 247.1 | 251.0 | 252.9 | 254.0 | 255.1 | 259.4 | 263.7 | '273.9 | '275.6 | 277.5 | 280.7 | 281.1 | |
| 3259 | Structural clay products, n.e.c. | 189.2 | 192.1 | 192.8 | 192.3 | 196.5 | 196.3 | 198.1 | 196.4 | '203.1 | '204.1 | 204.9 | 205.1 | 205.4 | |
| 3261 | Vitreous plumbing fixtures | 207.4 | 213.1 | 214.5 | 215.7 | 217.3 | 219.2 | 224.6 | 226.7 | '227.6 | '236.1 | 235.8 | 237.2 | 240.4 | |
| 3262 | Vitreous china food utensils | 295.2 | 298.0 | 298.0 | 305.4 | 308.2 | 308.2 | 308.2 | 308.2 | 313.4 | 313.4 | 318.6 | 318.2 | 318.2 | |
| 3263 | Fine earthenware food utensils | 244.9 | 246.0 | 246.0 | 248.4 | 294.3 | 294.3 | 294.3 | 294.3 | '295.1 | '293.9 | 294.4 | 294.3 | 294.3 | |
| 3269 | Pottery products, n.e.c. (12/75 = 100) | 132.5 | 133.3 | 133.3 | 135.5 | 150.1 | 150.1 | 150.1 | 150.1 | '151.4 | '151.5 | 152.6 | 152.6 | 152.6 | |
| 3271 | Concrete block and brick | 233.0 | 237.8 | 240.0 | 240.0 | 240.2 | 249.5 | 250.6 | 252.3 | 259.3 | 259.4 | 259.4 | 259.4 | 259.5 | |
| 3273 | Ready-mixed concrete | 248.2 | 252.4 | 254.0 | 254.6 | 257.0 | 270.8 | 272.6 | 275.5 | '278.8 | '281.5 | 282.5 | 282.5 | 282.6 | |
| 3274 | Lime (12/75 = 100) | 141.0 | 144.2 | 144.6 | 144.3 | 144.6 | 149.5 | 153.5 | 155.6 | '157.1 | '157.3 | 157.4 | 159.6 | 159.9 | |
| 3275 | Gypsum products | 252.8 | 255.4 | 255.9 | 256.8 | 255.6 | 255.9 | 262.8 | 268.1 | 264.6 | 257.0 | 257.5 | 253.5 | 252.3 | |
| 3291 | Abrasive products (12/71 = 100) | 187.8 | 190.4 | 195.1 | 195.3 | 196.5 | 199.4 | 203.3 | 203.9 | '212.0 | '211.8 | 213.5 | 215.2 | 215.7 | |
| 3297 | Nonclay refractories (12/74 = 100) | 145.6 | 149.7 | 150.1 | 152.3 | 152.3 | 152.6 | 153.3 | 154.2 | '157.4 | '159.7 | 161.2 | 162.8 | 164.9 | |
| 3312 | Blast furnaces and steel mills | 288.8 | 293.2 | 296.4 | 297.1 | 297.7 | 302.4 | 302.9 | 304.1 | '312.0 | '313.3 | 313.4 | 308.5 | 308.4 | |
| 3313 | Electrometallurgical products (12/75 = 100) | 111.9 | 116.0 | 116.2 | 117.5 | 117.6 | 117.8 | 117.8 | 118.0 | 118.7 | '118.6 | 118.7 | 117.0 | 117.1 | |
| 3316 | Cold finishing of steel shapes | 265.5 | 270.9 | 271.7 | 273.4 | 273.9 | 274.1 | 277.1 | 277.2 | 285.9 | 288.1 | 288.2 | 282.2 | 282.3 | |
| 3317 | Steel pipes and tubes | 268.6 | 271.3 | 272.7 | 273.1 | 273.2 | 280.5 | 281.0 | 283.2 | '286.8 | '286.9 | 290.5 | 292.5 | 292.6 | |
| 3321 | Gray iron foundries (12/68 = 100) | 255.8 | 254.8 | 267.1 | 269.6 | 269.7 | 273.7 | 276.9 | 277.2 | '279.8 | '280.5 | 279.9 | 280.4 | 280.6 | |
| 3333 | Primary zinc | 265.7 | 264.2 | 265.2 | 257.8 | 265.7 | 266.1 | 272.4 | 279.6 | '274.3 | '268.2 | 268.6 | 255.8 | 255.8 | |
| 3334 | Primary aluminum | 243.1 | 248.2 | 256.0 | 263.2 | 266.6 | 267.0 | 267.0 | 267.8 | '276.0 | '287.0 | 288.6 | 293.3 | 310.7 | |
| 3351 | Copper rolling and drawing | 213.2 | 216.7 | 226.3 | 222.6 | 225.0 | 231.0 | 253.1 | 238.6 | '227.4 | '222.8 | 220.4 | 223.3 | 224.1 | |
| 3353 | Aluminum sheet plate and foil (12/75 = 100) | 148.9 | 150.0 | 150.7 | 151.3 | 151.7 | 153.2 | 153.5 | 155.5 | '157.8 | '157.6 | 157.7 | 158.2 | 157.6 | |
| 3354 | Aluminum extruded products (12/75 = 100) | 149.3 | 151.9 | 155.2 | 157.4 | 158.0 | 158.8 | 158.9 | 160.9 | '167.7 | '167.7 | 167.7 | 168.3 | 168.3 | |
| 3355 | Aluminum rolling, drawing, n.e.c. (12/75 = 100) | 132.4 | 133.5 | 136.9 | 139.9 | 140.5 | 140.7 | 141.0 | 141.1 | 143.8 | 145.2 | 146.5 | 147.2 | 147.6 | |
| 3411 | Metal cans | 264.1 | 263.5 | 273.8 | 274.6 | 274.7 | 276.6 | 277.3 | 279.9 | '295.1 | '295.2 | 294.9 | 295.6 | 295.9 | |
| 3425 | Hand saws and saw blades (12/72 = 100) | 163.3 | 166.4 | 167.1 | 169.5 | 169.8 | 173.1 | 174.6 | 176.4 | '178.0 | '181.5 | 181.7 | 183.3 | 185.2 | |
| 3431 | Metal sanitary ware | 224.8 | 229.2 | 230.1 | 231.7 | 232.9 | 237.8 | 242.1 | 243.1 | '245.5 | '249.7 | 249.9 | 250.9 | 251.4 | |
| 3465 | Automotive stampings (12/75 = 100) | 128.5 | 131.6 | 132.4 | 132.4 | 132.4 | 132.4 | 132.4 | 132.7 | '133.5 | '133.8 | 138.1 | 138.1 | 140.1 | |
| 3482 | Small arms ammunition (12/75 = 100) | 132.2 | 134.0 | 133.2 | 133.6 | 143.2 | 143.2 | 143.2 | 142.6 | '141.7 | '141.4 | 150.2 | 149.8 | 152.1 | |
| 3493 | Steel springs, except wire | 219.8 | 222.8 | 223.7 | 224.1 | 225.6 | 226.1 | 226.6 | 228.6 | '229.2 | '229.2 | 230.1 | 230.1 | 230.6 | |
| 3494 | Valves and pipe fittings (12/71 = 100) | 204.8 | 207.5 | 210.4 | 212.5 | 214.3 | 216.9 | 219.6 | 223.1 | '229.4 | '229.9 | 231.2 | 231.8 | 232.0 | |
| 3498 | Fabricated pipe and fittings | 289.2 | 294.9 | 297.3 | 297.4 | 297.4 | 301.7 | 301.8 | 303.5 | '313.0 | '313.1 | 313.8 | 317.2 | 317.2 | |
| 3519 | Internal combustion engines, n.e.c. | 243.3 | 251.8 | 254.2 | 254.9 | 254.9 | 260.5 | 261.8 | 266.1 | '270.6 | '271.6 | 270.3 | 275.1 | 276.3 | |
| 3531 | Construction machinery (12/76 = 100) | 125.1 | 126.5 | 128.9 | 129.4 | 130.9 | 134.6 | 135.7 | 136.3 | '138.6 | '139.5 | 140.0 | 141.5 | 142.5 | |
| 3532 | Mining machinery (12/72 = 100) | 229.4 | 232.7 | 233.1 | 235.4 | 236.4 | 245.8 | 247.1 | 247.8 | '256.0 | '257.3 | 257.1 | 259.4 | 262.0 | |
| 3533 | Oilfield machinery and equipment | 291.6 | 296.8 | 300.5 | 302.8 | 309.1 | 314.2 | 316.2 | 318.9 | '329.8 | '333.1 | 337.4 | 342.6 | 343.8 | |
| 3534 | Elevators and moving stairways | 215.9 | 219.1 | 219.4 | 220.6 | 220.9 | 225.6 | 226.1 | 229.1 | '232.6 | '234.1 | 242.5 | 244.2 | 243.8 | |
| 3542 | Machine tools, metal forming types (12/71 = 100) | 242.8 | 247.9 | 249.8 | 253.7 | 256.7 | 266.1 | 268.1 | 269.4 | '274.3 | '275.1 | 279.8 | 284.9 | 285.9 | |
| 3546 | Power driven hand tools (12/76 = 100) | 119.3 | 120.4 | 122.0 | 122.8 | 124.4 | 126.3 | 126.6 | 127.4 | '129.0 | '131.2 | 130.6 | 133.5 | 134.4 | |
| 3552 | Textile machinery (12/69 = 100) | 194.7 | 198.2 | 199.3 | 200.6 | 200.6 | 202.6 | 205.2 | 207.0 | '213.4 | '213.6 | 217.0 | 222.1 | 222.1 | |
| 3553 | Woodworking machinery (12/72 = 100) | 185.4 | 190.0 | 192.6 | 192.7 | 192.9 | 201.2 | 201.6 | 205.1 | '212.3 | '212.1 | 214.0 | 216.3 | 216.4 | |
| 3576 | Scales and balances, excluding laboratory | 194.2 | 195.4 | 195.7 | 199.5 | 201.0 | 204.2 | 205.8 | 206.6 | '207.5 | '208.2 | 208.6 | 208.8 | 210.0 | |
| 3592 | Carburetors, pistons, rings, valves (6/76 = 100) | 139.6 | 140.7 | 142.8 | 145.1 | 145.3 | 147.5 | 147.8 | 148.6 | '152.6 | '153.0 | 153.2 | 158.3 | 158.9 | |
| 3612 | Transformers | 168.1 | 168.4 | 171.2 | 170.4 | 171.6 | 172.9 | 176.6 | 177.5 | '180.5 | '181.5 | 183.2 | 186.2 | 189.5 | |
| 3623 | Welding apparatus, electric (12/72 = 100) | 192.2 | 195.1 | 196.9 | 198.6 | 200.3 | 201.3 | 203.3 | 206.0 | '207.0 | '209.2 | 211.0 | 212.3 | 212.3 | |
| 3631 | Household cooking equipment (12/75 = 100) | 122.2 | 124.3 | 124.4 | 125.9 | 126.3 | 128.7 | 129.3 | 129.4 | '129.7 | '133.1 | 133.4 | 134.7 | 134.1 | |
| 3632 | Household refrigerators, freezers (6/76 = 100) | 113.6 | 115.1 | 115.1 | 115.7 | 116.3 | 117.0 | 118.5 | 118.6 | '119.3 | '119.4 | 121.5 | 121.7 | 121.7 | |
| 3633 | Household laundry equipment (12/73 = 100) | 148.8 | 150.6 | 150.9 | 152.3 | 153.5 | 154.0 | 156.6 | 158.3 | '160.3 | '161.7 | 162.8 | 160.1 | 161.5 | |
| 3635 | Household vacuum cleaners | 141.7 | 141.9 | 144.5 | 144.7 | 145.8 | 146.1 | 149.7 | 151.3 | '148.6 | '149.3 | 149.6 | 151.9 | 151.9 | |
| 3636 | Sewing machines (12/75 = 100) | 121.4 | 122.2 | 122.6 | 122.6 | 122.6 | 122.6 | 129.2 | 129.2 | '129.2 | '129.2 | 128.6 | 129.4 | 129.4 | |
| 3641 | Electric lamps | 235.2 | 244.2 | 244.8 | 238.7 | 240.8 | 248.5 | 252.4 | 251.8 | '252.3 | '251.3 | 260.0 | 266.4 | 268.0 | |
| 3644 | Noncurrent-carrying wiring devices (12/72 = 100) | 204.6 | 209.1 | 210.5 | 211.9 | 215.0 | 212.9 | 215.2 | 215.3 | '217.4 | '218.2 | 222.5 | 222.3 | 222.8 | |
| 3646 | Commercial lighting fixtures (12/75 = 100) | 126.5 | 130.5 | 131 | | | | | | | | | | | |

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, 1950-79

[1967=100]

| Item | 1950 | 1955 | 1960 | 1965 | 1970 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|-----------------------------------|------------------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Private business sector: | | | | | | | | | | | | | |
| Output per hour of all persons | 61.2 | 70.6 | 79.0 | 95.1 | 104.4 | 111.5 | 113.6 | 110.2 | 112.6 | 116.6 | 118.7 | 119.3 | 118.3 |
| Compensation per hour | 42.6 | 56.1 | 72.2 | 88.7 | 123.3 | 139.8 | 151.3 | 165.2 | 181.7 | 197.6 | 213.3 | 231.4 | 253.1 |
| Real compensation per hour | 59.2 | 69.9 | 81.4 | 93.9 | 106.0 | 111.6 | 113.6 | 111.8 | 112.7 | 115.9 | 117.5 | 118.4 | 116.4 |
| Unit labor cost | 69.6 | 79.4 | 91.4 | 93.3 | 118.2 | 125.4 | 133.2 | 149.8 | 161.3 | 169.5 | 179.7 | 194.0 | 214.0 |
| Unit nonlabor payments | 73.1 | 80.4 | 85.4 | 95.9 | 105.8 | 118.9 | 124.9 | 130.3 | 150.3 | 157.9 | 165.5 | 174.3 | 184.4 |
| Implicit price deflator | 70.8 | 79.8 | 89.3 | 94.2 | 113.9 | 123.2 | 130.3 | 143.1 | 157.5 | 165.5 | 174.8 | 187.2 | 203.8 |
| Nonfarm business sector: | | | | | | | | | | | | | |
| Output per hour of all persons | 67.2 | 74.6 | 81.2 | 96.0 | 103.2 | 110.1 | 112.0 | 108.6 | 110.7 | 114.6 | 116.4 | 116.9 | 115.7 |
| Compensation per hour | 45.6 | 59.0 | 74.5 | 89.4 | 121.9 | 138.4 | 149.2 | 163.0 | 179.3 | 194.2 | 209.6 | 227.5 | 247.9 |
| Real compensation per hour | 63.3 | 73.6 | 84.1 | 94.6 | 104.8 | 110.5 | 112.1 | 110.4 | 111.2 | 113.9 | 115.5 | 116.4 | 114.0 |
| Unit labor cost | 68.0 | 79.1 | 91.7 | 93.2 | 118.1 | 125.7 | 133.2 | 150.1 | 161.9 | 169.5 | 180.1 | 194.6 | 214.4 |
| Unit nonlabor payments | 71.4 | 80.1 | 84.4 | 95.8 | 106.0 | 117.4 | 117.8 | 124.7 | 145.9 | 156.0 | 163.8 | 169.9 | 178.6 |
| Implicit price deflator | 69.1 | 79.4 | 89.2 | 94.1 | 114.0 | 122.9 | 127.9 | 141.4 | 156.4 | 164.8 | 174.5 | 186.1 | 202.1 |
| Nonfinancial corporations: | | | | | | | | | | | | | |
| Output per hour of all employees | (¹) | (¹) | 80.6 | 96.9 | 103.7 | 110.6 | 112.9 | 108.7 | 112.2 | 115.8 | 117.0 | 118.0 | 117.5 |
| Compensation per hour | (¹) | (¹) | 76.0 | 90.1 | 121.8 | 136.7 | 147.6 | 161.7 | 177.9 | 192.7 | 208.0 | 225.0 | 244.9 |
| Real compensation per hour | (¹) | (¹) | 85.7 | 95.3 | 104.7 | 109.1 | 110.9 | 109.5 | 110.4 | 113.0 | 114.6 | 115.2 | 112.7 |
| Unit labor cost | (¹) | (¹) | 94.3 | 93.0 | 117.4 | 123.7 | 130.7 | 148.8 | 158.6 | 166.4 | 177.7 | 190.6 | 208.4 |
| Unit nonlabor payments | (¹) | (¹) | 90.8 | 100.1 | 103.5 | 114.8 | 116.8 | 124.8 | 148.1 | 156.8 | 164.4 | 170.6 | 179.5 |
| Implicit price deflator | (¹) | (¹) | 93.1 | 95.5 | 112.5 | 120.5 | 125.8 | 140.2 | 154.9 | 163.0 | 173.0 | 183.5 | 198.1 |
| Manufacturing: | | | | | | | | | | | | | |
| Output per hour of all persons | 65.8 | 75.0 | 79.8 | 98.4 | 105.0 | 115.7 | 118.9 | 113.0 | 118.8 | 124.0 | 127.7 | 128.2 | 129.2 |
| Compensation per hour | 45.6 | 61.2 | 78.0 | 91.1 | 122.3 | 136.6 | 146.5 | 161.7 | 181.1 | 196.1 | 212.7 | 229.9 | 250.8 |
| Real compensation per hour | 63.3 | 76.3 | 88.0 | 96.4 | 105.1 | 109.0 | 110.1 | 109.5 | 112.3 | 115.0 | 117.2 | 117.6 | 115.3 |
| Unit labor cost | 69.4 | 81.6 | 97.7 | 92.6 | 116.5 | 118.1 | 123.2 | 143.1 | 152.4 | 158.2 | 166.6 | 179.4 | 194.1 |
| Unit nonlabor payments | 82.3 | 88.6 | 92.3 | 103.3 | 96.2 | 107.4 | 106.4 | 105.6 | 128.4 | 139.6 | 147.4 | 152.4 | 154.4 |
| Implicit price deflator | 73.3 | 83.8 | 96.1 | 95.9 | 110.3 | 114.8 | 118.0 | 131.6 | 145.1 | 152.5 | 160.7 | 171.1 | 181.9 |

¹ Not available.

32. Annual changes in productivity, hourly compensation, unit costs, and prices, 1969-79

| Item | Year | | | | | | | | | | | Annual rate of change | |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|-----------------------|---------|
| | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1950-79 | 1960-79 |
| Private business sector: | | | | | | | | | | | | | |
| Output per hour of all persons | 0.2 | 0.7 | 3.3 | 3.4 | 1.9 | -3.0 | 2.1 | 3.5 | 1.8 | 0.5 | -0.8 | 2.5 | 2.1 |
| Compensation per hour | 6.9 | 7.2 | 6.7 | 6.2 | 8.2 | 9.2 | 10.0 | 8.8 | 8.0 | 8.5 | 9.4 | 5.9 | 6.9 |
| Real compensation per hour | 1.4 | 1.2 | 2.3 | 2.8 | 1.9 | -1.6 | .8 | 2.8 | 1.4 | 0.8 | -1.7 | 2.5 | 2.0 |
| Unit labor cost | 6.6 | 6.4 | 3.3 | 2.8 | 6.2 | 12.5 | 7.7 | 5.0 | 6.0 | 8.0 | 10.3 | 3.3 | 4.7 |
| Unit nonlabor payments | 1.0 | 1.2 | 6.8 | 5.3 | 5.0 | 4.4 | 15.3 | 5.1 | 4.8 | 5.3 | 5.8 | 3.0 | 4.2 |
| Implicit price deflator | 4.7 | 4.7 | 4.4 | 3.6 | 5.8 | 9.8 | 10.1 | 5.0 | 5.6 | 7.1 | 8.9 | 3.2 | 4.5 |
| Nonfarm business sector: | | | | | | | | | | | | | |
| Output per hour of all persons | .2 | .2 | 3.0 | 3.6 | 1.7 | -3.1 | 2.0 | 3.5 | 1.5 | .5 | -1.1 | 2.1 | 1.9 |
| Compensation per hour | 6.4 | 6.8 | 6.7 | 6.4 | 7.8 | 9.2 | 10.0 | 8.3 | 7.9 | 8.6 | 9.0 | 5.6 | 6.7 |
| Real compensation per hour | 1.0 | .8 | 2.3 | 3.0 | 1.5 | -1.6 | .8 | 2.4 | 1.4 | .8 | -2.1 | 2.2 | 1.7 |
| Unit labor cost | 6.7 | 6.5 | 3.5 | 2.7 | 6.0 | 12.7 | 7.9 | 4.7 | 6.3 | 8.0 | 10.2 | 3.4 | 4.7 |
| Unit nonlabor payments | .4 | 1.6 | 6.7 | 3.8 | .3 | 5.9 | 17.0 | 6.9 | 5.0 | 3.7 | 5.1 | 2.9 | 4.0 |
| Implicit price deflator | 4.5 | 4.9 | 4.5 | 3.1 | 4.1 | 10.5 | 10.6 | 5.4 | 5.9 | 6.6 | 8.6 | 3.3 | 4.5 |
| Nonfinancial corporations: | | | | | | | | | | | | | |
| Output per hour of all employees | .4 | .0 | 3.3 | 3.1 | 2.1 | -3.7 | 3.2 | 3.2 | 1.1 | .9 | -.4 | (¹) | 1.9 |
| Compensation per hour | 6.8 | 6.8 | 6.2 | 5.7 | 7.9 | 9.6 | 10.0 | 8.3 | 7.9 | 8.2 | 8.9 | (¹) | 6.5 |
| Real compensation per hour | 1.3 | .8 | 1.8 | 2.4 | 1.6 | -1.3 | .8 | 2.4 | 1.4 | .5 | -2.2 | (¹) | 1.6 |
| Unit labor cost | 6.3 | 6.8 | 2.7 | 2.5 | 5.7 | 13.8 | 6.6 | 4.9 | 6.8 | 7.3 | 9.3 | (¹) | 4.5 |
| Unit nonlabor payments | 0 | .5 | 7.3 | 3.3 | 1.8 | 6.8 | 18.7 | 5.8 | 4.9 | 3.8 | 5.2 | (¹) | 3.6 |
| Implicit price deflator | 4.1 | 4.6 | 4.2 | 2.8 | 4.4 | 11.5 | 10.5 | 5.2 | 6.1 | 6.1 | 7.9 | (¹) | 4.2 |
| Manufacturing: | | | | | | | | | | | | | |
| Output per hour of all persons | 1.3 | -.1 | 5.2 | 4.8 | 2.8 | -5.0 | 5.1 | 4.4 | 3.0 | .4 | 0.8 | 2.5 | 2.5 |
| Compensation per hour | 6.6 | 7.1 | 6.2 | 5.2 | 7.2 | 10.4 | 12.0 | 8.3 | 8.4 | 8.1 | 9.1 | 5.5 | 6.5 |
| Real compensation per hour | 1.2 | 1.1 | 1.9 | 1.8 | .9 | -.5 | 2.6 | 2.4 | 1.9 | .4 | -2.0 | 2.1 | 1.5 |
| Unit labor cost | 5.2 | 7.2 | .9 | .4 | 4.3 | 16.1 | 6.6 | 3.8 | 5.3 | 7.7 | 8.2 | 2.9 | 3.9 |
| Unit nonlabor payments | -4.4 | -3.2 | 9.2 | 2.3 | -1.0 | -7 | 21.6 | 8.8 | 5.5 | 3.4 | 1.3 | 1.9 | 2.5 |
| Implicit price deflator | 2.3 | 4.2 | 3.1 | 1.0 | 2.8 | 11.5 | 10.2 | 5.1 | 5.4 | 6.5 | 6.3 | 2.6 | 3.5 |

¹ Not available.

r = revised.

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

[1967=100]

| Item | Annual average | | Quarterly indexes | | | | | | | | | | |
|----------------------------------|----------------|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | 1977 | 1978 | | | | 1979 | | | | 1980 | |
| | 1978 | 1979 | IV | I | II | III | IV | I | II | III | IV | I | II |
| Private business sector: | | | | | | | | | | | | | |
| Output per hour of all persons | 119.3 | 118.3 | 119.0 | 118.5 | 119.1 | 119.7 | 119.8 | 118.9 | 118.3 | 117.8 | 117.7 | 117.7 | 117.1 |
| Compensation per hour | 231.4 | 253.1 | 218.8 | 224.6 | 228.8 | 233.7 | 238.4 | 244.8 | 250.4 | 255.7 | 260.3 | 267.6 | 275.3 |
| Real compensation per hour | 118.4 | 116.4 | 117.9 | 118.8 | 118.3 | 118.2 | 117.9 | 117.9 | 117.0 | 115.8 | 114.2 | 112.9 | 112.4 |
| Unit labor cost | 194.0 | 214.0 | 183.9 | 189.4 | 192.1 | 195.2 | 199.0 | 205.9 | 211.7 | 217.0 | 221.1 | 227.5 | 235.1 |
| Unit nonlabor payments | 174.3 | 184.4 | 168.5 | 164.8 | 173.9 | 177.0 | 181.3 | 180.8 | 183.7 | 185.6 | 188.3 | 190.0 | 193.1 |
| Implicit price deflator | 187.2 | 203.8 | 178.6 | 180.9 | 185.8 | 188.9 | 192.9 | 197.2 | 202.0 | 206.1 | 209.7 | 214.5 | 220.6 |
| Nonfarm business sector: | | | | | | | | | | | | | |
| Output per hour of all persons | 116.9 | 115.7 | 116.4 | 116.2 | 116.7 | 117.4 | 117.6 | 116.6 | 115.4 | 115.0 | 115.2 | 114.9 | 114.1 |
| Compensation per hour | 227.5 | 247.9 | 215.1 | 221.0 | 224.9 | 229.5 | 234.4 | 240.2 | 244.9 | 249.9 | 255.6 | 262.2 | 269.0 |
| Real compensation per hour | 116.4 | 114.0 | 115.9 | 116.9 | 116.3 | 116.1 | 115.9 | 115.7 | 114.4 | 113.2 | 112.1 | 110.6 | 109.9 |
| Unit labor cost | 194.6 | 214.4 | 184.8 | 190.2 | 192.8 | 195.6 | 199.3 | 206.0 | 212.1 | 217.3 | 221.8 | 228.2 | 235.8 |
| Unit nonlabor payments | 169.9 | 178.6 | 165.9 | 161.1 | 169.1 | 173.0 | 176.1 | 174.3 | 177.6 | 180.5 | 182.5 | 185.9 | 191.1 |
| Implicit price deflator | 186.1 | 202.1 | 178.3 | 180.2 | 184.7 | 187.8 | 191.4 | 195.1 | 200.3 | 204.7 | 208.4 | 213.7 | 220.5 |
| Nonfinancial corporations: | | | | | | | | | | | | | |
| Output per hour of all employees | 118.0 | 117.5 | 116.9 | 116.9 | 118.0 | 118.5 | 118.8 | 118.1 | 117.3 | 117.2 | 117.1 | 117.1 | 116.7 |
| Compensation per hour | 225.0 | 244.9 | 213.2 | 219.0 | 222.6 | 226.9 | 231.3 | 237.3 | 242.1 | 247.1 | 252.1 | 258.8 | 265.7 |
| Real compensation per hour | 115.2 | 112.7 | 114.9 | 115.8 | 115.1 | 114.8 | 114.4 | 114.3 | 113.1 | 111.9 | 110.6 | 109.2 | 108.5 |
| Total unit costs | 193.3 | 210.4 | 186.3 | 190.8 | 191.6 | 194.0 | 196.8 | 202.3 | 208.0 | 213.2 | 218.0 | 224.3 | 233.2 |
| Unit labor cost | 190.6 | 208.4 | 182.3 | 187.3 | 188.7 | 191.5 | 194.8 | 201.0 | 206.4 | 210.8 | 215.3 | 221.1 | 227.6 |
| Unit nonlabor costs | 201.8 | 216.6 | 198.7 | 201.5 | 200.8 | 201.6 | 203.1 | 206.5 | 213.2 | 220.5 | 226.1 | 234.4 | 250.7 |
| Unit profits | 127.2 | 127.8 | 122.2 | 107.1 | 129.2 | 132.7 | 138.7 | 130.3 | 129.2 | 127.5 | 124.0 | 120.5 | 110.9 |
| Implicit price deflator | 183.5 | 198.1 | 176.8 | 178.3 | 182.3 | 184.9 | 188.2 | 191.6 | 196.3 | 200.4 | 204.0 | 208.9 | 215.0 |
| Manufacturing: | | | | | | | | | | | | | |
| Output per hour for all persons | 128.2 | 129.2 | 128.3 | 126.3 | 127.7 | 129.3 | 129.5 | 128.3 | 128.8 | 129.6 | 129.1 | 128.4 | 127.0 |
| Compensation per hour | 229.9 | 250.8 | 218.3 | 223.9 | 227.1 | 231.7 | 236.6 | 242.3 | 248.0 | 252.7 | 258.0 | 264.6 | 274.1 |
| Real compensation per hour | 117.6 | 115.3 | 117.6 | 118.4 | 117.5 | 117.2 | 117.0 | 116.7 | 115.9 | 114.4 | 113.2 | 111.6 | 112.0 |
| Unit labor cost | 179.4 | 194.1 | 170.1 | 177.2 | 177.9 | 179.1 | 182.7 | 189.0 | 192.6 | 195.0 | 199.8 | 206.0 | 215.9 |

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

[1967=100]

| Item | Quarterly percent change at annual rate | | | | | | Percent change from same quarter a year ago | | | | | |
|----------------------------------|---|-------------------------|---------------------------|---------------------------|-------------------------|-------------------------|---|--------------------------|----------------------------|--------------------------|------------------------|--------------------------|
| | IV 1978 to I 1979 | I 1979 to II 1979 | II 1979 to III 1979 | III 1979 to IV 1979 | IV 1979 to I 1980 | I 1980 to II 1980 | I 1978 to I 1979 | II 1978 to II 1979 | III 1978 to III 1979 | IV 1978 to IV 1979 | I 1979 to I 1980 | II 1979 to II 1980 |
| Private business sector: | | | | | | | | | | | | |
| Output per hour of all persons | -3.1 | -2.0 | -1.4 | -0.3 | -0.3 | -1.9 | 0.3 | -0.7 | -1.6 | -1.7 | -1.0 | -1.0 |
| Compensation per hour | 11.0 | 9.5 | 8.7 | 7.5 | 11.7 | 11.9 | 9.0 | 9.4 | 9.4 | 9.2 | 9.3 | 9.9 |
| Real compensation per hour | -2 | -2.9 | -4.1 | -5.4 | -4.5 | -1.6 | -0.8 | -1.1 | -2.1 | -3.2 | -4.2 | -3.9 |
| Unit labor cost | 14.6 | 11.8 | 10.3 | 7.8 | 12.1 | 14.1 | 8.7 | 10.2 | 11.2 | 11.1 | 10.5 | 11.0 |
| Unit nonlabor payments | -1.0 | 6.5 | 4.2 | 5.9 | 3.8 | 6.6 | 9.7 | 5.7 | 4.8 | 3.9 | 5.1 | 5.1 |
| Implicit price deflator | 9.3 | 10.1 | 8.3 | 7.2 | 9.4 | 11.8 | 9.0 | 8.7 | 9.1 | 8.7 | 8.8 | 9.2 |
| Nonfarm business sector: | | | | | | | | | | | | |
| Output per hour of all persons | -3.3 | -3.9 | -1.5 | 0.8 | -1.1 | -2.9 | 4 | -1.1 | -2.0 | -2.0 | -1.4 | -1.2 |
| Compensation per hour | 10.2 | 8.1 | 8.5 | 9.5 | 10.7 | 10.7 | 8.7 | 8.9 | 8.9 | 9.1 | 9.2 | 9.8 |
| Real compensation per hour | -9 | -4.2 | -4.4 | -3.6 | -5.3 | -2.6 | -1.0 | -1.6 | -2.5 | -3.3 | -4.4 | -4.0 |
| Unit labor cost | 14.0 | 12.5 | 10.1 | 8.6 | 12.0 | 14.1 | 8.3 | 10.1 | 11.1 | 11.3 | 10.8 | 11.2 |
| Unit nonlabor payments | -3.9 | 7.7 | 6.6 | 4.6 | 7.5 | 11.7 | 8.2 | 5.0 | 4.3 | 3.7 | 6.6 | 7.6 |
| Implicit price deflator | 8.1 | 11.0 | 9.0 | 7.4 | 10.6 | 13.3 | 8.3 | 8.5 | 9.0 | 8.9 | 9.5 | 10.1 |
| Nonfinancial corporations: | | | | | | | | | | | | |
| Output per hour of all employees | -2.3 | -2.7 | -0.3 | -0.4 | -0.1 | -1.1 | 1.0 | -6 | -1.1 | -1.4 | -0.9 | -0.5 |
| Compensation per hour | 10.8 | 8.3 | 8.5 | 8.4 | 11.0 | 11.1 | 8.4 | 8.7 | 8.9 | 9.0 | 9.0 | 9.7 |
| Real compensation per hour | -4 | -4.1 | -4.3 | -4.5 | -5.1 | -2.3 | -1.3 | -1.8 | -2.6 | -3.3 | -4.5 | -4.1 |
| Total unit costs | 11.7 | 11.8 | 10.2 | 9.3 | 12.2 | 16.8 | 6.1 | 8.6 | 9.9 | 10.8 | 10.9 | 12.1 |
| Unit labor costs | 13.4 | 11.2 | 8.8 | 8.9 | 11.1 | 12.3 | 7.3 | 9.4 | 10.1 | 10.6 | 10.0 | 10.3 |
| Unit nonlabor costs | 6.8 | 13.5 | 14.6 | 10.6 | 15.4 | 31.0 | 2.5 | 6.2 | 9.4 | 11.3 | 13.5 | 17.6 |
| Unit profits | -22.1 | -3.4 | -5.3 | -10.4 | -10.9 | -28.2 | 21.7 | 0 | -3.9 | -10.6 | -7.6 | 14.2 |
| Implicit price deflator | 7.6 | 10.2 | 8.6 | 7.3 | 9.9 | 12.3 | 7.5 | 7.7 | 8.4 | 8.4 | 9.0 | 9.5 |
| Manufacturing: | | | | | | | | | | | | |
| Output per hour of all persons | -3.8 | 1.7 | 2.5 | -1.4 | -2.2 | -4.5 | 1.5 | .9 | 0.2 | -0.3 | 0.1 | -1.4 |
| Compensation per hour | 10.1 | 9.6 | 7.8 | 8.8 | 10.5 | 15.2 | 8.2 | 9.2 | 9.1 | 9.1 | 9.2 | 10.5 |
| Real compensation per hour | -9 | -2.8 | -4.9 | -4.2 | -5.5 | 1.3 | -1.5 | -1.3 | -2.4 | -3.3 | -4.4 | -3.4 |
| Unit labor cost | 14.5 | 7.9 | 5.2 | 10.3 | 13.0 | 20.7 | 6.6 | 8.2 | 8.9 | 9.4 | 9.0 | 12.1 |

c=corrected

LABOR-MANAGEMENT DATA

MAJOR COLLECTIVE BARGAINING DATA are obtained from contracts on file at the Bureau of Labor Statistics, direct contact with the parties, and from secondary sources. Additional detail is published in *Current Wage Developments*, a monthly periodical of the Bureau. Data on work stoppages are based on confidential responses to questionnaires mailed by the Bureau of Labor Statistics to parties involved in work stoppages. Stoppages initially come to the attention of the Bureau from reports of Federal and State mediation agencies, newspapers, and union and industry publications.

Definitions

Data on wage changes apply to private nonfarm industry agreements covering 1,000 workers or more. Data on wage and benefit changes *combined* apply only to those agreements covering 5,000 workers or more. **First-year wage settlements** refer to pay changes going into effect within the first 12 months after the effective date of

the agreement. **Changes over the life of the agreement** refer to total agreed upon settlements (exclusive of potential cost-of-living escalator adjustments) expressed at an average annual rate. **Wage-rate changes** are expressed as a percent of straight-time hourly earnings, while **wage and benefit changes** are expressed as a percent of total compensation.

Effective wage-rate adjustments going into effect in major bargaining units measure changes actually placed into effect during the reference period, whether the result of a newly negotiated increase, a deferred increase negotiated in an earlier year, or as a result of a cost-of-living escalator adjustment. Average adjustments are affected by workers receiving no adjustment, as well as by those receiving increases or decreases.

Work stoppages include all known strikes or lockouts involving six workers or more and lasting a full shift or longer. Data cover all workers idle one shift or more in establishments directly involved in a stoppage. They do not measure the indirect or secondary effect on other establishments whose employees are idle owing to material or service shortages.

35. Wage and benefit settlements in major collective bargaining units, 1975 to date

[In percent]

| Sector and measure | Annual average | | | | | Quarterly average | | | | | | | |
|---|----------------|------|------|------|------|-------------------|-----|------|------|-----|-----|-------------------|------|
| | 1975 | 1976 | 1977 | 1978 | 1979 | 1978 | | 1979 | | | | 1980 ^P | |
| | | | | | | III | IV | I | II | III | IV | I | II |
| | | | | | | | | | | | | | |
| Wage and benefit settlements, all industries: | | | | | | | | | | | | | |
| First-year settlements | 11.4 | 8.5 | 9.6 | 8.3 | 9.0 | 7.2 | 6.1 | 2.8 | 10.5 | 9.0 | 8.5 | 8.6 | 10.1 |
| Annual rate over life of contract | 8.1 | 6.6 | 6.2 | 6.3 | 6.6 | 5.9 | 5.2 | 5.3 | 7.8 | 6.1 | 6.0 | 6.4 | 6.8 |
| Wage rate settlements, all industries: | | | | | | | | | | | | | |
| First-year settlements | 10.2 | 8.4 | 7.8 | 7.6 | 7.4 | 7.5 | 7.4 | 5.7 | 8.9 | 6.8 | 6.3 | 7.8 | 8.7 |
| Annual rate over life of contract | 7.8 | 6.4 | 5.8 | 6.4 | 6.0 | 6.4 | 5.9 | 6.6 | 7.2 | 5.1 | 5.3 | 6.3 | 6.8 |
| Manufacturing: | | | | | | | | | | | | | |
| First-year settlements | 9.8 | 8.9 | 8.4 | 8.3 | 6.9 | 8.4 | 9.5 | 8.7 | 9.7 | 6.3 | 5.6 | 7.0 | 6.6 |
| Annual rate over life of contract | 8.0 | 6.0 | 5.5 | 6.6 | 5.4 | 7.2 | 7.4 | 7.7 | 8.1 | 4.7 | 4.2 | 5.6 | 4.9 |
| Nonmanufacturing (excluding construction): | | | | | | | | | | | | | |
| First-year settlements | 11.9 | 8.6 | 8.0 | 8.0 | 7.6 | 7.4 | 6.4 | 3.2 | 8.5 | 9.4 | 7.8 | 9.1 | 10.4 |
| Annual rate over life of contract | 8.0 | 7.2 | 5.9 | 6.5 | 6.2 | 5.9 | 5.1 | 5.6 | 5.8 | 6.5 | 7.4 | 7.1 | 8.6 |
| Construction: | | | | | | | | | | | | | |
| First-year settlements | 8.0 | 6.1 | 6.3 | 6.5 | 8.8 | 7.0 | 8.4 | 9.7 | 8.7 | 9.7 | 7.5 | 9.6 | 12.7 |
| Annual rate over life of contract | 7.5 | 6.2 | 6.3 | 6.2 | 8.3 | 7.2 | 7.1 | 8.2 | 8.3 | 8.5 | 7.6 | 9.3 | 10.3 |

36. Effective wage adjustments going into effect in major collective bargaining units, 1975 to date

[In percent]

| Sector and measure | Average annual changes | | | | | Average quarterly changes | | | | | | | | |
|--|------------------------|------|------|------|------|---------------------------|-----|-----|------|-----|-----|-----|-------------------|-----|
| | 1975 | 1976 | 1977 | 1978 | 1979 | 1978 | | | 1979 | | | | 1980 ^P | |
| | | | | | | II | III | IV | I | II | III | IV | I | II |
| Total effective wage rate adjustment, all industries | 8.7 | 8.1 | 8.0 | 8.2 | 9.1 | 2.6 | 2.7 | 1.4 | 1.4 | 2.6 | 3.3 | 1.6 | 1.4 | 2.6 |
| Change resulting from— | | | | | | | | | | | | | | |
| Current settlement | 2.8 | 3.2 | 3.0 | 2.0 | 3.0 | .6 | .5 | .4 | .2 | 1.1 | 1.0 | .5 | .4 | .7 |
| Prior settlement | 3.7 | 3.2 | 3.2 | 3.7 | 3.0 | 1.4 | 1.2 | .5 | .6 | 1.0 | 1.0 | .4 | .5 | 1.2 |
| Escalator provision | 2.2 | 1.6 | 1.7 | 2.4 | 3.1 | .6 | 1.0 | .5 | .6 | .5 | 1.2 | .7 | .6 | .6 |
| Manufacturing | 8.5 | 8.5 | 8.4 | 8.6 | 9.6 | 2.2 | 2.9 | 1.9 | 1.5 | 2.3 | 3.2 | 2.4 | 1.7 | 2.9 |
| Nonmanufacturing | 8.9 | 7.7 | 7.6 | 7.9 | 8.8 | 2.9 | 2.5 | 1.1 | 1.4 | 2.8 | 3.4 | 1.0 | 1.2 | 2.2 |

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: August | 463 | ..... | 119 | ..... | 3,152 | .15 |
| September | 464 | ..... | 135 | ..... | 2,319 | .13 |
| October | 443 | ..... | 230 | ..... | 2,968 | .15 |
| November | 257 | ..... | 91 | ..... | 2,720 | .15 |
| December | 134 | ..... | 42 | ..... | 1,976 | .11 |
| 1980: January ^P | 352 | 441 | 207 | 292 | 3,142 | .16 |
| February ^P | 354 | 590 | 114 | 332 | 3,025 | .17 |
| March ^P | 396 | 631 | 123 | 310 | 2,705 | .14 |
| April | 425 | 663 | 116 | 231 | 2,786 | .14 |
| May | 505 | 752 | 139 | 214 | 2,464 | .13 |
| June | 435 | 714 | 164 | 201 | 2,553 | .13 |
| July | 491 | 768 | 270 | 394 | 4,030 | .21 |
| August | 409 | 768 | 64 | 238 | 3,363 | .17 |

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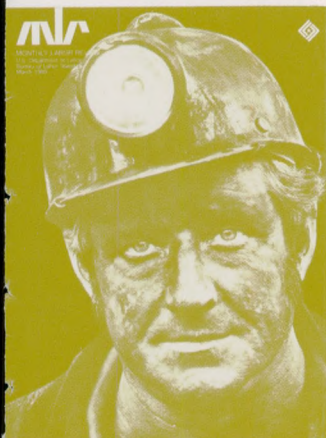
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