



**MONTHLY LABOR REVIEW**

**December 1970**

U.S. DEPARTMENT OF LABOR

Bureau of Labor Statistics



*In this issue:*

The economic status  
of families headed by women





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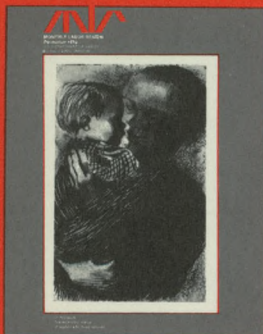
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## Labor Month in Review



**Industrial accidents.** The U.S. Department of Labor has released copies of a wide-ranging study on work injury statistics, prepared by Jerome B. Gordon and Associates of Delphic Systems and Research Corp. The study, commissioned by the Department in 1969 to explore the shortcomings of the present system, does not necessarily reflect Government views. It evaluates the "Bureau of Labor Statistics-Cooperative States Annual Survey of Work Injury Program" and compares it with industrial injury reporting in California, a nonparticipant in the survey. California was selected because the State classifies injuries reported under Workmen's Compensation in a way which permits comparison with the BLS statistics.

The Gordon report shows that the BLS survey is the only major source of information covering both industrial and employment detail on industrial injuries nationwide. While calling it "the least 'biased' national work injury survey of establishments," the report says that the survey is hampered by: A shortage of funds and manpower; inability to enforce quality control standards on survey sampling and data collection at the State level; definitions that fail to count all serious work injuries; lack of training for survey reporters in recording and reporting work-injury data; absence of incentives for establishments to provide employees with instruction on job safety and reporting work injuries; and absence of information on the economic costs of work injury.

**The yearly toll.** Estimates of the National Safety Council show that 14,500 persons are killed at work each year and 2.2 million workers suffer "disabling" injuries—those involving loss of 1 day or more of work. Gordon recommends as more meaningful the broader concept of "serious" injuries, including disabling injuries plus other injuries not involving the loss of a day's work.

According to the Gordon report, information compiled for 63 California firms revealed a ratio of 9 or 10 "serious" injuries for every "disabling" injury reported. "Extrapolated to the national

level, this means that the current annual level of 2.5 million disabling injuries reported could rise to over 25 million 'serious injuries'."

The BLS survey, in which 17 States participate, covers 148,000 establishments employing 14 million workers, almost a fifth of the Nation's labor force. Overrepresented in the survey are large employers (of over 250 workers) in manufacturing, and firms in the New England, Middle Atlantic, and East North Central States. Outside the participating States, BLS directly solicits 20,000 establishments nationally. Of the 1,200 California firms reporting, Gordon and his associates selected a sample of 400; about 200 agreed to release data for their review.

Comparison of injury reporting to the BLS and the State of California revealed that some of the firms actually had disabling injuries, while reporting no such injuries to the BLS. The Gordon report says, "The effect is something in the order of an absolute error of 8 percent in the total number of injuries reported. On a national basis this means that approximately 200,000 disabling work injuries beyond the approximately 2.2 million recorded annually are missed."

**Alternatives.** Proposals for strengthening the work injury statistics program already were before Congress when Gordon's report appeared. His "ultimate solution," a uniform national system of workmen's compensation industrial accident reporting, is, in Gordon's view, not feasible for at least 5 or 10 years because there is no national standard of accident accounting and reporting compatible with an accepted system of employer identification.

The report suggests alternative expansions of the annual BLS work-injury survey by adding States, expanding the national sample, or using Workmen's Compensation data. It recommends establishing a Serious Work Injury Index and conducting response analysis studies, establishing a program to develop statistical estimates of National Work Injury Experience, and conducting a Cost of Work Injury survey annually. □



# The economic status of families headed by women

Nearly 5.6 million families in the United States are headed by women; despite employment growth of the 1960's about 2 million of these families remain in poverty

ROBERT L. STEIN

ONE OF THE IMPORTANT domestic problems facing the Nation in the 1970's is how to improve the economic status of families headed by women. According to the latest estimates—for March 1970—5.6 million families in the United States are headed by women, or more than 1 family in 10.

The number has been increasing more rapidly than the total of all families. Between 1960 and 1970, for example, it rose by 24 percent, whereas total families increased by 14 percent.

Historically the employment and income situation of such families has generally been bleak. Most of the women are ill-equipped to earn an adequate living. Many suffer from one handicap or more to successful competition in the labor market—lack of sufficient education or training, irregular and unstable work histories, sex or racial discrimination in hiring, ill health, and the difficulty of arranging for satisfactory child care. As a result, these women have not been able to share fully in the Nation's economic growth, with its associated expansion in jobs and advances in earnings. During the 1960's, the income of families headed by men remained more than double the income of families headed by women. While the number of families headed by men with incomes below the poverty line (\$3,700 for a family of four in 1969) was reduced by one-half between 1959 and 1969, the number of poor families headed by women remained virtually unchanged at about 1.8 million. Employment growth, the most powerful weapon in the antipoverty arsenal, has not significantly reduced the number of poor families headed by women.

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Public assistance, a primary source of income for many of the families headed by women, has been expanding in coverage and in benefit levels, but payments are still generally very low—in most States below the poverty line.

The welfare system has been caught in a cross-fire of public criticism. The target for most of the hostility is the AFDC program—Aid to Families with Dependent Children—designed to provide income assistance to the families of children whose fathers have died or deserted or are absent for a variety of other reasons. On the one hand, welfare programs are criticized because their payment levels are considered too low to provide economic security to families in need. On the other hand, the programs are criticized on the grounds that work, as well as need, should be a requirement for eligibility. The welfare system has also been faulted because of the widely disparate State benefit levels, because it may discourage some women from seeking employment, and because it may induce some families to break up.

The attacks have become sharper in recent years because of steady growth in the welfare population during a period of rapid economic growth and very low unemployment. By March 1970, about three-fifths of the 3.4 million families with children headed by women were already on welfare and the rolls were still rising. These developments were placing a growing burden on the already hardpressed taxpayer. One result of the resistance to the rising welfare bill has been a heightened interest in the possibility of employment for welfare mothers. One important aspect of welfare reform involves the development of training and job placement programs for able-bodied adult welfare recipients. The manpower provisions of the Administration's proposed Family Assistance Act of 1970 include a training and work requirement for mothers of school-age children.



## Scope of the problem

In March 1970, 5.6 million women were heads of families (table 1); 2.4 million of these women (43 percent) were widows and 2.6 million (46 percent) were divorced or separated from their husbands. The remaining 600,000 had never been married. About a third of these single women had children under 18.

From the standpoint of society, foremost concern is centered on the status of those families with dependent children. The environment in which these children are growing up is inevitably affected by the stresses and strains on the mother who must take over the responsibility for the discipline, training, and guidance of the young as well as their financial support. In March 1970, there were 3.4 million such families, comprising 8 million children under 18 years of age (an average of 2.4 per family) and 13 million persons altogether.

The remaining 2.2 million—women without children under 18—were nearly all past the age of 45. Two-thirds were widows, and all but a few were heads of small families consisting of only two or three persons. These older family heads were not without employment and income problems. By and large, however, their situation was

less serious than that of younger families with children since they had more freedom to accept employment, they had more income from other sources, and they had fewer dependents. Half had fully grown children in the household who could contribute to the family's income. In 1969, the median income of families headed by women 45 to 64 years of age who had no children under 18 in the household was \$7,000, whereas the income of families headed by women 24 to 44 years of age who did have children was only \$4,000.

Between 1960 and 1970, the number of women heading families with children rose by 800,000. Roughly one-third of this increase could be attributed to general population growth. There has been considerable speculation that rising welfare benefits in the large industrial States of the North have contributed to the breaking up of poor families. However, it would be extremely difficult to isolate this factor from the entire complex of forces that leads to family disorganization. (One-third lived in the South where welfare payments are still comparatively low.)

The proportion of families headed by women is highest among poorly educated and low income groups, among minority groups, and among city residents. On the other hand, the group is also more heterogeneous than might be supposed. Among women 25 and over, most of whom have completed their formal schooling, one-third of the family heads have no more than an elementary school education (compared with one-fourth of other women), but 13 percent have some college education. Although one-third have incomes below the poverty line, a small minority (nearly 300,000) have incomes of \$15,000 or more. These are mainly older white families without children.

Among the black urban poor, the proportion of families headed by women was 66 percent in March 1970. Here, as in the Nation as a whole, the proportion has been increasing; the trend is much more pronounced among the urban poor.

Even among the 3.4 million families with children, the situation is uneven. About 65 percent have only one or two children and their incomes are somewhat higher than the incomes of larger families. However, those with few or no children tend to be at the extremes of the age scale. Among women family heads age 25 to 44, presumably the prime candidates for training and employment, nearly half had three children or more. The prob-

**Table 1. Selected characteristics of families headed by women**

| Characteristic                               | Thousands of families |            | Percent of families in each category |            |
|--|-----------------------|------------|--------------------------------------|------------|
|  | March 1970            | March 1960 | March 1970                           | March 1960 |
| <b>ALL RACES</b>                             |                       |            |                                      |            |
| Total, all families.....                     | 5,580                 | 4,494      | 11                                   | 10         |
| With children.....                           | 3,363                 | 2,542      | 11                                   | 9          |
| Below the poverty line.....                  | 1,803                 | 1,916      | 36                                   | 23         |
| With children.....                           | 1,488                 | 1,525      | 47                                   | 28         |
| In central cities of metropolitan areas..... | 2,269                 | 1,764      | 15                                   | 12         |
| Below the poverty level.....                 | 738                   | 585        | 50                                   | 29         |
| <b>WHITE</b>                                 |                       |            |                                      |            |
| Total, all families.....                     | 4,185                 | 3,545      | 9                                    | 9          |
| With children.....                           | 2,255                 | 1,834      | 9                                    | 8          |
| Below the poverty line.....                  | 1,063                 | 1,233      | 30                                   | 20         |
| With children.....                           | 831                   | 948        | 40                                   | 25         |
| In central cities of metropolitan areas..... | 1,418                 | 1,240      | 12                                   | 10         |
| Below the poverty line.....                  | 337                   | 303        | 39                                   | 24         |
| <b>NEGRO AND OTHER RACES</b>                 |                       |            |                                      |            |
| Total, all families.....                     | 1,395                 | 949        | 27                                   | 22         |
| With children.....                           | 1,108                 | 708        | 31                                   | 25         |
| Below the poverty line.....                  | 739                   | 683        | 53                                   | 32         |
| With children.....                           | 657                   | 577        | 59                                   | 35         |
| In central cities of metropolitan areas..... | 851                   | 524        | 29                                   | 23         |
| Below the poverty line.....                  | 402                   | 282        | 66                                   | 28         |



lems confronting women with many children are compounded by the fact that they are also the least educated and therefore the least equipped to find employment.

### Family income

The relationship between income and family stability is complex. When a breadwinner dies or leaves his family, the loss or reduction of financial support may be only partly offset by the wife's earnings and Social Security, private pensions or insurance, welfare payments or other benefits. Poverty or low income may itself create tensions leading to family breakup. Or the fact that a man does not have a steady job at good pay may induce him to leave so that his family can obtain public assistance. These situations are not easily quantified. In any case, the data show a very strong correlation between income and the presence or absence of fathers.

As table 2 shows, the percentage of families headed by women moves down steadily as family income rises. The proportion starts out at 63 per 100 families with incomes under \$2,000, and then moves down progressively to reach 2 per 100 families with incomes of \$10,000 and over.

Negro families with children are much more likely than white families to be headed by a woman—1 in every 3 Negro families is in this category, compared with 1 in every 10 white families. The difference in family structure is one reason for the lower average income of Negro families. Although the proportion of black families without husbands and fathers is higher than for whites at every income level, it moves down sharply and continuously from about 3 in 4 among the lowest income families to about 1 in 20 among the higher income families.

The median income of the families of 8 million children who were being brought up by their mothers—or other female relatives—was \$4,000 in 1969. This contrasts with a median family income of \$11,600 for the 61 million children living with both parents.

Only 38 percent of the families headed by women had incomes over \$5,000 and only 9 percent had incomes over \$10,000. By contrast, 55 percent of the husband-wife-children families had incomes over \$10,000. Although husband-wife families tend to be larger than families headed by women, the

**Table 2. Income in 1969 of families with children, headed by women**

| Family income  | All races | White   | Negro and other races |
|--|-----------|---------|-----------------------|
| Total: Number (in thousands).....                                      | 3,363     | 2,255   | 1,108                 |
| Percent.....   | 100       | 100     | 100                   |
| Under \$2,000.....   | 21        | 18      | 26                    |
| \$2,000 to \$2,999.....  | 15        | 13      | 18                    |
| \$3,000 to \$3,999.....  | 14        | 12      | 18                    |
| \$4,000 to \$4,999.....  | 12        | 12      | 11                    |
| \$5,000 and over.....  | 38        | 45      | 27                    |
| \$5,000 to \$5,999.....  | 10        | 10      | 10                    |
| \$6,000 to \$6,999.....  | 8         | 9       | 6                     |
| \$7,000 to \$7,999.....  | 5         | 6       | 3                     |
| \$8,000 to \$8,999.....  | 3         | 4       | 3                     |
| \$9,000 to \$9,999.....  | 3         | 5       | 1                     |
| \$10,000 and over.....   | 9         | 11      | 4                     |
| Median income.....   | \$4,008   | \$4,523 | \$3,327               |
| Families headed by women as percent of all families with children..... | 11        | 9       | 31                    |
| Under \$2,000.....   | 63        | 57      | 74                    |
| \$2,000 to \$2,999.....  | 54        | 48      | 67                    |
| \$3,000 to \$3,999.....  | 40        | 33      | 56                    |
| \$4,000 to \$4,999.....  | 28        | 26      | 36                    |
| \$5,000 to \$5,999.....  | 20        | 17      | 31                    |
| \$6,000 to \$6,999.....  | 14        | 12      | 22                    |
| \$7,000 to \$7,999.....  | 8         | 7       | 12                    |
| \$8,000 to \$8,999.....  | 5         | 4       | 14                    |
| \$9,000 to \$9,999.....  | 5         | 5       | 6                     |
| \$10,000 and over.....   | 2         | 2       | 5                     |

differences in income between the two types of families far exceed any differences in need.

Families headed by women account for a large and growing proportion of the remaining poverty in the United States. In 1969, 47 of every 100 poor families with children were headed by women. In 1959, the proportion was 28 out of 100.

The poverty line takes account of both family income and family size. In 1969, the line was set at \$3,700 for a nonfarm family of four headed by a woman. It goes up (or down) by roughly \$700 for each additional person (or each person less) in the family.

The poverty thresholds as used in this discussion<sup>1</sup> are not intended to provide a measure of income adequacy; that is, it should not be inferred that those with incomes above the poverty line have necessarily achieved a minimally adequate level of living. The cutoffs do provide a useful device for measuring the prevalence of, and trends in, very low income levels among various family-type and family-size groups, and are more realistic than are fixed dollar amounts of income (for example, families with incomes under \$3,000) because they are graduated by family size. They are varied over time to reflect annual changes in the average price level as measured by the Consumer Price Index.



The poverty statistics point up the importance of family size. If a family headed by a woman has only one or two children, it has about a 2 out of 3 chance of staying above the poverty line. However, as the number of children increases, the probability that the family's income is under the poverty line rises sharply. Among those families with four children or more, over two-thirds are poor.

Additional children might have been economically helpful to poor families in an earlier era. But in modern urban society with its complex technology and its unrelenting emphasis on education and skill, each additional child diminishes the woman's prospects for economic independence and security through employment. The bearing and rearing of children may interfere with the completion of her education, and most certainly will interfere with the continuity of her employment. Unless a woman can acquire at least a high school education or can acquire meaningful job training and job experience, and unless she can work full time most of the year, it is unlikely that her annual

earnings alone would be sufficient to lift the income of a family of four above the poverty line. Additional children tend to reduce her earning power, while raising family expenses. The extra welfare allowance for each additional family member is too small to prevent the gap from widening. The situation is illustrated statistically in table 3. On the average, poor families headed by women had total incomes in 1969 which were \$1,200 below the poverty threshold, but this income deficit increased with each child added to the family. The median difference between income level and the poverty line (the "poverty gap") was \$1,100 for those with one child, \$1,500 for those with three children, and \$2,400 for those with five children or more.

One-quarter of all families headed by a woman are black. For these families, the rate of poverty is greater than for white families irrespective of the number of children. Moreover, large families are more common among blacks; one-third of the Negro families headed by women has four children or more compared with only one-eighth of the white families.

Among families with children, nearly two-thirds had only one child or two children. But when the children themselves are considered by family size, a different picture emerges—three-fifths lived in families with three children or more. These are the families where the poverty rate ranged from 51 to 76 percent and the poverty gap averaged from \$1,500 to \$2,400.

**Table 3. Extent of poverty in 1969 among families headed by women, by number of children**

[Numbers in thousands]

| Race and number of children under 18 <sup>1</sup> | Total number of families | Poor families |                  |   |
|---|--------------------------|---------------|------------------|---|
|   |                          | Number        | Percent of total | Median deficit between total income and poverty line <sup>2</sup> |
| <b>ALL RACES</b>                                  |                          |               |                  |   |
| Total.....  | 5,580                    | 1,803         | 32               | \$1,200   |
| No children under 18.....                         | 2,218                    | 315           | 14               | 700   |
| One child.....                                    | 1,211                    | 360           | 30               | 1,100   |
| Two children.....                                 | 960                      | 386           | 40               | 1,200   |
| Three children.....                               | 545                      | 279           | 51               | 1,500   |
| Four children.....                                | 303                      | 202           | 67               | 1,700   |
| Five children or more.....                        | 344                      | 262           | 76               | 2,400   |
| <b>WHITE</b>                                      |                          |               |                  |   |
| Total.....  | 4,185                    | 1,063         | 25               | 1,200   |
| No children under 18.....                         | 1,931                    | 232           | 12               | 700   |
| One child.....                                    | 906                      | 227           | 25               | 1,100   |
| Two children.....                                 | 702                      | 258           | 37               | 1,300   |
| Three children.....                               | 353                      | 163           | 46               | 1,700   |
| Four children.....                                | 163                      | 97            | 60               | 1,700   |
| Five children or more.....                        | 130                      | 86            | 66               | 2,400   |
| <b>NEGRO AND OTHER RACES</b>                      |                          |               |                  |   |
| Total.....  | 1,395                    | 739           | 53               | 1,400   |
| No children under 18.....                         | 286                      | 83            | 29               | 700   |
| One child.....                                    | 306                      | 133           | 43               | 1,100   |
| Two children.....                                 | 258                      | 128           | 50               | 1,100   |
| Three children.....                               | 191                      | 116           | 61               | 1,500   |
| Four children.....                                | 140                      | 105           | 75               | 1,600   |
| Five children or more.....                        | 214                      | 174           | 81               | 2,400   |

<sup>1</sup> Own or related.

<sup>2</sup> Based on data for 1968.

### Extent of employment

The proportion of women holding paid jobs outside the home has been climbing steadily for 25 years and by March 1970, 43 of every 100 women 16 years of age and over were in the labor force (that is, either employed or seeking work).

The typical pattern has been for a woman to enter the labor force after completion of her education and prior to marriage, to leave after starting a family, and to reenter the labor force as family responsibilities diminish. During the last 10 years, however, there has been some modification of this pattern with the increasing entry into the labor force of mothers with young children. Their participation rate, although still comparatively low, has increased much faster

than the rate for other mothers. From 1960 to 1969, the rate for mothers with children under 6 years of age increased from 20 percent to 30 percent, while for mothers with children 6 to 17 years of age it increased from 43 to 51 percent.

The data indicate that the labor force participation of mothers responds to economic need. In March 1969, divorced, separated, or widowed women with young children under 6 had a participation rate of 47 percent, compared with 29 percent for married women with children under 6. The higher rate for women without husbands reflects in part an insufficiency of income from sources other than employment (alimony, child support, welfare, and Social Security).

From the standpoint of developing programs geared to assist women to earn their way off welfare, these labor force trends appear somewhat encouraging. However, the statistics on labor force participation of women can be misleading because they reveal nothing about the duration of employment. It is readily apparent that there is a high rate of turnover in the female work force. During 1968, an average of 28 million were employed, but 37 million different women were employed at some time during the year. For insight into the duration of employment, it is necessary to turn to data on work experience during the entire calendar year rather than in an average survey week. Because of concern with the capacity of women not merely to hold jobs but to support their families on the basis of their earnings, it is particularly important to examine the extent of full-time and part-time labor force activity, and the extent of year-round work compared with seasonal or temporary work.

Special tabulations of data on work experience in 1967, compiled for the Manpower Administration of the U.S. Department of Labor, were summarized for female heads of families age 16 to 44 years. These are women who still have many years of potential working life remaining and for whom job training is a realistic possibility. They are also the ones, however, who are most likely to be prevented from working steadily by the presence of children. Altogether, 70 percent worked at some time during the year, but only 38 percent worked throughout the year at full-time jobs.

As table 4 shows, working only part of the year is not enough to enable many female family heads

**Table 4. Work experience of women<sup>1</sup> heading families and extent of poverty among these families in 1967**

[Numbers in thousands]

| Work experience and race     | Total number of families | Poor families |                  | Percent distribution |      |
|------------------------------|--------------------------|---------------|------------------|----------------------|------|
|                              |                          | Number        | Percent of total | Total                | Poor |
| <b>ALL RACES</b>             |                          |               |                  |                      |      |
| Total.....                   | 2,263                    | 1,029         | 45               | 100                  | 100  |
| Year round full time.....    | 862                      | 135           | 16               | 38                   | 13   |
| All other workers.....       | 728                      | 373           | 51               | 32                   | 36   |
| Part year full time.....     | 439                      | 217           | 49               | 19                   | 21   |
| Part time.....               | 289                      | 156           | 54               | 13                   | 15   |
| No work at all.....          | 673                      | 521           | 77               | 30                   | 51   |
| <b>WHITE</b>                 |                          |               |                  |                      |      |
| Total.....                   | 1,509                    | 557           | 37               | 100                  | 100  |
| Year round full time.....    | 599                      | 53            | 9                | 40                   | 10   |
| All other workers.....       | 498                      | 215           | 43               | 33                   | 39   |
| Part year full time.....     | 305                      | 131           | 43               | 20                   | 24   |
| Part time.....               | 193                      | 84            | 44               | 13                   | 15   |
| No work at all.....          | 413                      | 289           | 70               | 27                   | 52   |
| <b>NEGRO AND OTHER RACES</b> |                          |               |                  |                      |      |
| Total.....                   | 752                      | 470           | 63               | 100                  | 100  |
| Year round full time.....    | 262                      | 82            | 31               | 35                   | 17   |
| All other workers.....       | 231                      | 157           | 68               | 31                   | 33   |
| Part year full time.....     | 134                      | 85            | 63               | 18                   | 18   |
| Part time.....               | 97                       | 72            | 74               | 13                   | 15   |
| No work at all.....          | 260                      | 232           | 89               | 35                   | 49   |

<sup>1</sup> 16 to 44 years of age.

to support their families at a level of living above the poverty line. Of the families headed by women who were employed only part time or part year, about half were poor. On the one hand, where the mother was employed year round full time, only 16 percent were poor. Of course, supplementary income was a factor in some cases, but the mother's earnings were clearly the most decisive factor. On the other hand, three-fourths of the families headed by nonworkers were poor.

If a woman can hold a professional, managerial, or clerical job, her chances of keeping her family above the poverty line are very good (table 5); only 16 percent of these families were poor. Over two-fifths of the mothers who worked at all had a job in one of these white-collar occupations.

Half of all female heads of poor families did not work at all during the year so that any skills or experience they might have were not being used. Of those who did work, nearly half had low-paid service jobs such as kitchen helpers, maids, hospital attendants and aides, and laundry workers. A fifth held semiskilled factory jobs. Only one-fifth of those with any employment experience (one-tenth of the overall total) worked



at some time during the year in the better-paid white-collar occupations.

### Weekly earnings of women

Data on the usual weekly earnings of wage and salary workers in full-time jobs reveal that in general the median earnings of women full-time workers are not very high. (See table 6.) The overall median weekly earnings for all women full-time workers in May 1969 were \$87. Even among white women with high school diplomas, who were employed mainly in clerical jobs, usual weekly earnings were only \$88.

The data by educational attainment (years of formal schooling completed) and occupation from the May 1969 earnings survey are instructive. They reveal that only among the college-educated professional and managerial groups did a majority of women working full time earn over \$100 a week. Among those with no college attendance (three-fourths of the total), only 3 out of every 10 white women and 2 out of every 10 black women

**Table 5. Occupation of women heads<sup>1</sup> of families, by poverty status in 1967**

[Numbers in thousands]

| Occupation, according to longest job held | Total number of family heads | Poor family heads |                  | Percent distribution |      |
|---|------------------------------|-------------------|------------------|----------------------|------|
|   |                              | Number            | Percent of total | Total                | Poor |
| <b>ALL RACES</b>                          |                              |                   |                  |                      |      |
| Total with work experience.....           | 1,584                        | 504               | 32               | 100                  | 100  |
| Professional and managerial.....          | 185                          | 21                | 11               | 12                   | 5    |
| Clerical.....                             | 483                          | 84                | 17               | 30                   | 17   |
| Sales.....                                | 77                           | 32                | 42               | 5                    | 6    |
| Operatives and other blue collar.....     | 354                          | 106               | 30               | 22                   | 21   |
| Private household.....                    | 109                          | 73                | 67               | 7                    | 14   |
| Other service workers.....                | 331                          | 159               | 48               | 21                   | 32   |
| Farm workers.....                         | 45                           | 29                | (?)              | 3                    | 6    |
| <b>WHITE</b>                              |                              |                   |                  |                      |      |
| Total with work experience.....           | 1,091                        | 268               | 25               | 100                  | 100  |
| Professional and managerial.....          | 145                          | 17                | 12               | 13                   | 6    |
| Clerical and sales.....                   | 470                          | 83                | 18               | 43                   | 31   |
| Operatives and other blue collar.....     | 231                          | 53                | 23               | 21                   | 20   |
| Private household and other services..... | 217                          | 101               | 47               | 20                   | 38   |
| Farm workers.....                         | 28                           | 14                | (?)              | 3                    | 5    |
| <b>NEGRO AND OTHER RACES</b>              |                              |                   |                  |                      |      |
| Total with work experience.....           | 490                          | 234               | 48               | 100                  | 100  |
| Professional and managerial.....          | 39                           | 5                 | (?)              | 8                    | 2    |
| Clerical and sales.....                   | 89                           | 33                | 37               | 18                   | 14   |
| Operatives and other blue collar.....     | 123                          | 52                | 42               | 25                   | 22   |
| Private household and other services..... | 222                          | 130               | 59               | 45                   | 56   |
| Farm workers.....                         | 17                           | 14                | (?)              | 3                    | 6    |

<sup>1</sup> 16 to 44 years of age.

<sup>2</sup> Percent not shown where base is less than 75,000.

**Table 6. Educational attainment of women heads<sup>1</sup> of poor families and usual weekly earnings of full-time women workers in May 1969**

[Numbers in thousands]

| Educational attainment by race | Heads of poor families <sup>2</sup> |         | Usual weekly earnings of full-time workers (median) |
|--------------------------------|-------------------------------------|---------|---|
|                                | Number                              | Percent |   |
| Total.....                     | 1,025                               | 100     | \$87  |
| White.....                     | 556                                 | 54      | 88  |
| 8 years or less.....           | 140                                 | 14      | 70  |
| 9-11 years.....                | 188                                 | 18      | 76  |
| 12 years.....                  | 163                                 | 16      | 88  |
| 13-15 years.....               | 53                                  | 5       | 100   |
| 16 years or more.....          | 12                                  | 1       | 138   |
| Negro and other races.....     | 469                                 | 46      | 74  |
| 8 years or less.....           | 147                                 | 14      | 54  |
| 9-11 years.....                | 212                                 | 21      | 66  |
| 12 years.....                  | 97                                  | 9       | 80  |
| 13 years or more.....          | 13                                  | 1       | 115   |

<sup>1</sup> 16 to 44 years of age.

<sup>2</sup> Poverty status as of 1967.

earned \$100 a week or more.

The earnings potential of women heading poor families is even more restricted because of limited formal education. Nearly 70 percent of the 1 million in the 16- to 44-year age bracket never completed high school; 300,000 never went beyond elementary school. More than half of the least educated are black. Negro women with less than a high school education were earning only \$60 a week in the spring of 1969, even working at full-time jobs. Many were working in domestic and other service activities not covered by minimum wage legislation and where hourly pay scales are still comparatively low.

If all women heading poor families were to become employed at jobs with weekly earnings commensurate with their education levels, and assuming that they would be subject to prevailing practices of racial and sex discrimination in hiring and pay scales, they would earn an average of about \$74 per week (as of the spring of 1969). Data from the Work Incentive Program show that the average WIN graduate in a followup sample was earning about \$2 an hour or roughly \$80 a week. A woman who earned that much, and who worked every week of the year, would make enough to support herself and her family above the poverty standard if she had no more than three children.

Women who can be trained to fill clerical, technical, and lower grade professional jobs, and who stay on those jobs on a regular year-round basis, could expect to earn between \$5,000 and

\$7,500 a year, on the average. On the other hand, average earnings are much lower in semiskilled manual occupation and in service (excluding domestic) occupations, where about two-fifths of the female heads age 16 to 44 who work at all are clustered. Year-round work in these occupations would yield annual earnings of about \$4,500 and \$3,500, respectively.

### Programs to upgrade employability

Paid work would appear to be a logical solution to the income problems of many welfare mothers. However, the data point up several constraints operating against any employment strategy. If employment is to be effective in raising family standards, it must be full time and year round. Even for the mother of a small or average-sized family, the cost and difficulty of finding adequate child care, and the lack of sufficient education and job training, are formidable barriers to steady work at good wages.<sup>2</sup> For mothers of large families, these problems are compounded because their family responsibilities are greater, and their income needs are larger.

In an effort to overcome these barriers to employment, Federal programs such as the Work Incentive Program (WIN) and the proposed Family Assistance Act (FAP) have been developed in recent years.<sup>3</sup> Both of these programs have training, job placement, and child care provisions which are designed to enable employable adult members of poor families to find jobs and gain economic independence.

The benefit and tax rate schedules under FAP provide some idea of how much a mother would have to earn to get off welfare completely. If a four-person family received \$3,920 or more in earned income, its Federal income supplement would be eliminated entirely. The earnings equivalent of that annual income would be roughly \$2 an hour for 2,000 hours of work, or \$80 a week for at least 50 weeks. The head of a six-person family would have to earn more than \$2.50 an hour or over \$100 a week all year long before the income supplement would phase out completely. In many northern States (Connecticut, Massachusetts, New Jersey, New York, Pennsylvania, Minnesota, in particular), where AFDC payments are relatively

high, the woman's earnings would have to be considerably higher to equal welfare payments, since State welfare benefits would not be reduced under the proposal.

Of course, any increase in a woman's earning power would at least reduce her welfare subsidy. It would be important, therefore, to take account of trends in the average payment per family, in addition to the total number of beneficiaries, if an integrated income support and employability program were to go into effect.

The main issue in any employment strategy is whether the incentives can be made strong enough to induce welfare recipients to accept training and jobs. In the recent controversy over the Family Assistance Program, proponents of the bill pointed to the provisions for child care, training, job counseling, and job placement, and to the flexibility in program design to meet the individual needs of each beneficiary. They stressed that the poor in this country are imbued with a strong work ethic, needing only the opportunity to exercise it. They emphasized that the act was so designed that the tax and benefit provisions would always make it more profitable for a recipient to work than not to work. For the small minority who might otherwise reject the opportunity, the act includes a provision requiring adults to register with the U.S. Employment Service unless exempted because of illness, age, or in the case of female family heads, the presence of children under 6. Opponents of the act raised a number of questions about the appropriateness and effectiveness of the work requirement in the case of mothers. Skepticism was voiced about the availability of jobs; about the cost-effectiveness of child care and training; and, above all, as to whether the monetary incentives would be strong enough to offset the loss of welfare payments and in-kind benefits (food stamps, medicaid, etc.) associated with increased earnings.

Perhaps some answers will be forthcoming from experimentation with income maintenance programs which is now under way in several communities. In the meantime, the data available on the work experience, occupational and educational backgrounds, and, particularly, the earnings of women family heads do give some useful perspective on the feasibility of providing employment as a substitute for welfare. □



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—FOOTNOTES—

The data in the tables and much of the data underlying the text for this article were obtained from the Current Population Survey (cps) which is conducted by the Bureau of the Census, in part for the Bureau of Labor Statistics. The three principal sources of information were the supplementary inquiries on family income, on work experience, and on weekly earnings. Detailed tabulations on these subjects were made available by the Population Division, Bureau of the Census; the Office of Manpower and Employment Statistics, Bureau of Labor Statistics; and the Office of Research, Manpower Administration, Department of Labor. For a description of the Current Population Survey, see BLS Report 313, "Concepts and Methods used in Manpower Statistics from the Current Population Survey." An explanation of the income and poverty concepts

and a discussion of the reliability of the data are contained in Current Population Reports Series P-60, published by the Bureau of the Census.

<sup>1</sup> For a discussion of the uses and limitations of poverty statistics, see Mollie Orshansky, "How Poverty is Measured," *Monthly Labor Review*, February 1969, pp. 37-41.

<sup>2</sup> See Genevieve W. Carter, "The Employment Potential of AFDC Mothers," *Welfare in Review*, July-August 1968, pp. 1-11.

<sup>3</sup> For a description of these programs, see the *Work Incentive Program*, First Annual Report of the U.S. Department of Labor on Training and Employment, 1970. Also see The Family Assistance Act of 1970, now pending in Congress.

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**A note on communications**

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

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Fluctuations in  
the rate of change  
of consumer prices  
generally match changes  
in economic activity

GEOFFREY H. MOORE

# Postwar price cycles: a new chronology

INFLATION is characterized by a general and widely diffused rise in prices and costs. However, all prices and factors affecting prices do not begin to rise or fall at the same time. Moreover, prices do not all move at the same pace. These differences in price behavior have significant consequence. Real wages—money wages adjusted for price changes—may rise or fall, with vital effects on the wage earner and his family. Profit margins, dependent on the difference between prices and costs, may rise or fall, thereby encouraging or discouraging expansion of production, hiring of workers, development of investment plans, or shifts of resources from one activity to another.

This article sets forth some of the results of a recent study of the cyclical behavior of prices.<sup>1</sup> It describes a new chronology of fluctuations in the rates of change in the price level, relates these fluctuations to those in overall economic activity, examines the extent to which price changes involve the entire price system, measures the tendencies of some prices to lead and others to lag, and sketches the relationship of price cycles to changes in costs and profits. Recent developments are touched on with a very broad brush.

## Reference chronology for prices

A simple yet effective device for studying business cycles is the National Bureau of Economic Research's reference chronology of peaks and troughs in economic activity, created by Wesley Clair Mitchell. It is a widely used device in tracing fluctuations in the economy and has imprinted upon the minds of many economic statisticians the

meaning of "shaded areas" in charts of monthly time series.

In view of the usefulness of such a framework, it seems sensible to adopt a similar strategy for studying movements in the price system. To do so, however, a number of questions have to be faced. Should the chronology represent peaks and troughs in the level of prices or in their rate of change? If the latter, how should the rate of change be measured? monthly? quarterly? What type of data should be used: unadjusted or seasonally adjusted? What index or set of indexes of prices should be used to construct the chronology? What criteria should be set up to define the chronology and identify its turning points?

The business cycle chronology was based on the working definition of business cycles set forth by Mitchell in his 1927 volume, *Business Cycles—The Problem and Its Setting*,<sup>2</sup> and later refined by Arthur F. Burns and Mitchell in their 1946 monograph, *Measuring Business Cycles*.<sup>3</sup> In brief, the definition applied three criteria to the problem: the magnitude, the duration, and the diffusion of fluctuations in economic activity. One inquired how large the decline or rise in aggregate activity was, how long it lasted, and how widely it was diffused over different economic sectors. Turning points were identified not by referring to a single aggregate, such as gross national product, but by determining the consensus among a number of series, each of which had some claim to represent or reflect total economic activity.

There is much to be said for developing a price chronology in a similar manner. Whether it is the level of prices or their rate of change that is selected as the ultimate variable, attention should naturally be focused upon swings that are of substantial size, last more than just a few months, and are widely diffused throughout the price system.

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It would be convenient to depend upon a single general price index for this purpose. Unfortunately, although the idea of an index of the general price level is an ancient one, there is today no single widely accepted measure of it. The three leading candidates would be the Consumer Price Index, the Wholesale Price Index, and the Gross National Product Deflator. Each of these has its merits and deficiencies for the purpose.

The Deflator is quarterly, whereas the other two indexes are monthly, and other things being equal, a monthly chronology would be preferred. The Deflator has the largest economic coverage, but that also means it includes some dubious elements, notably in the government sector where the "price" is really a wage rate. For this reason many consider the Private GNP Deflator a better price index. The Deflator is affected not only by changing prices but also by changing weights, because it is derived by dividing current dollar GNP by an estimate of GNP in constant dollars, whereas the other two indexes use fixed weights and hence reflect price changes alone.

The Wholesale Price Index, of course, covers only one part of the price system—commodities, not services—has some gaps in its industrial coverage and depends in part upon list prices rather than actual transaction prices. The Consumer Price Index is the closest approximation of the three to an actual transaction price index but is limited to prices paid by urban wage earners' and clerical workers' families. Unlike the other two, it includes prices for existing goods, such as houses and used cars, as well as for newly produced goods and services.

These considerations do not point to a clear-cut conclusion, except to suggest a real need for a monthly general price index. Lacking this, I have based the chronology in this paper upon the Consumer Price Index, using the GNP Deflator and the Wholesale Price Index, and some of their principal components (for example, the Private Deflator and the WPI for industrial commodities) to provide supplementary evidence. The CPI has risen almost continuously since 1954, but there have been sizable fluctuations in its rate of increase, and the chronology identifies these fluctuations. The rate of inflation is, of course, of major concern. The chronology shows when this rate, as measured by the CPI, reached high points and low points since 1947.

To aid us in identifying turning points in the price cycle, we turned to a National Bureau of Economic Research computer program recently developed by Charlotte Boschan and Gerhard Bry. Essentially, this program reproduces, in an objective and mechanical fashion, most of the choices of "specific cycle" turning points that used to be entirely dependent upon the judgment of National Bureau staff. Of course, it uses criteria that are similar to those used by the staff. It bases its choices upon whether the fluctuations in the data are sufficiently large and long enough to be reflected in various moving averages, but does not explicitly use any criterion as to the size of a swing. Despite this, it is rather uncanny in its ability to detect and identify turning points independently selected by experts. We used the turns selected by the computer program in a large majority of instances. The exceptions were due to the occasional failure of the program to mark a large movement because it is too short, or (more frequently) to mark very small movements simply because they last quite long.

After deciding upon the rate of change in prices as the variable that the chronology would represent, several other decisions remained. First, the rates of change had to be seasonally adjusted or derived from seasonally adjusted indexes. During the past year the Bureau of Labor Statistics has been reporting the seasonally adjusted rate of change in the CPI. The seasonal pattern has a relatively small effect upon the level of the index (currently the largest and the smallest seasonal factors are, respectively, 100.12 in July and 99.83 in January and February). Nevertheless, it has a substantial effect upon rates of change over short periods. For example, the rate of change from July 1969 to January 1970 is raised from an annual rate of 5.7 percent to 6.3 percent after seasonal adjustment, which is equivalent to dividing a seasonal index of 90 into the unadjusted rate. This seasonal effect has been powerful enough to cause the unadjusted July to January rates to be lower than either the preceding or the following January to July rates in 4 years out of the past 5.<sup>4</sup>

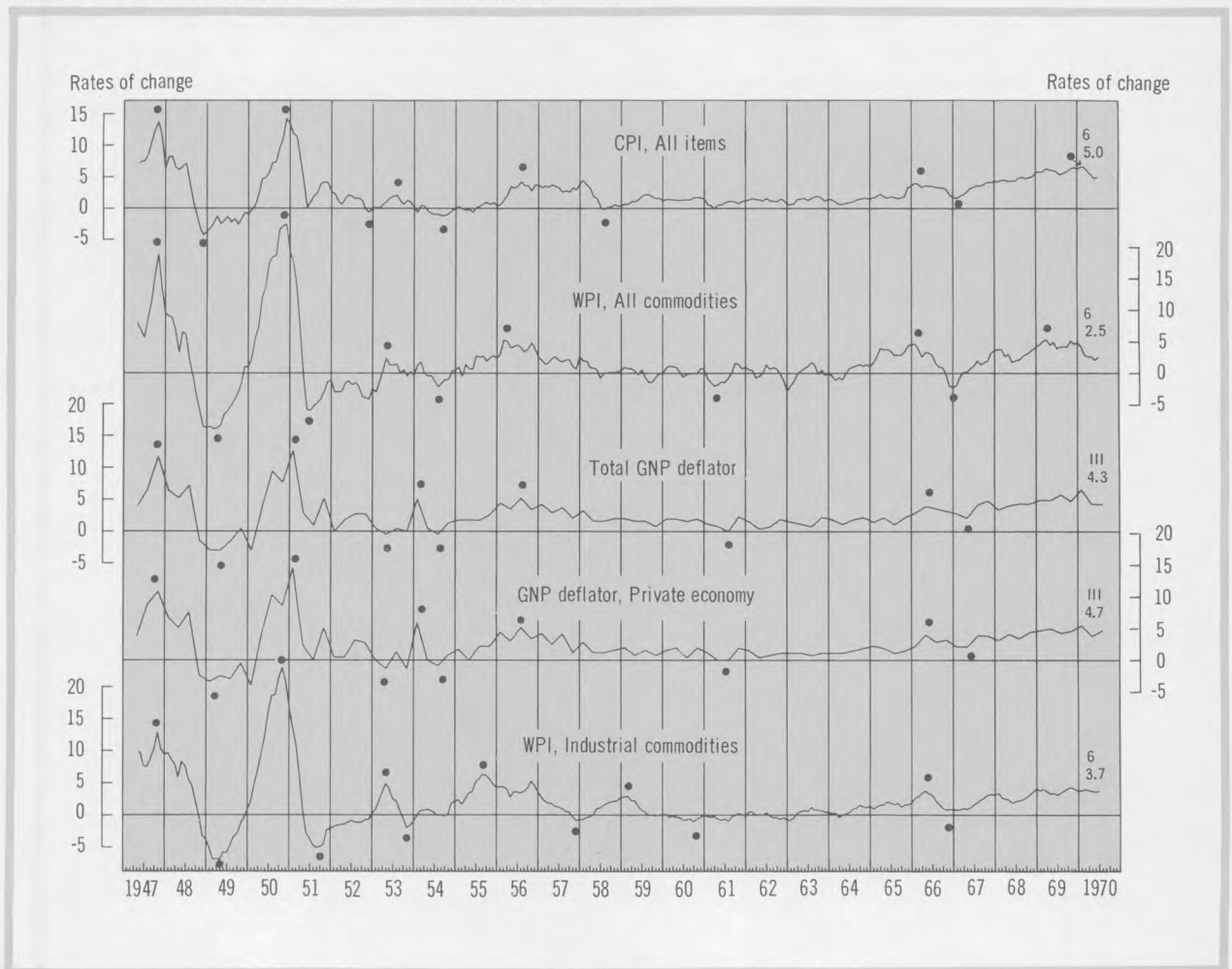
Next, it is necessary to determine precisely how the rate of change is to be measured. The range of possibilities is wide. The interval over which change is measured can be as short as 1 month or as long as 12 months or more. Monthly indexes can be averaged over calendar quarters,

or over moving 3-month intervals and rates of change measured between these averages. More complicated smoothing formulas can be applied. Generally, month-to-month changes are highly erratic, so some form of smoothing is desirable. On the other hand, smoothing formulas can twist and distort cyclical patterns and timing relationships. After some experimentation I concluded that the rate of change over a 6-month span met reasonably well such criteria as smoothness, simplicity, and limited distorting effects, for the CPI and most other price and wage series. For series that are available only in quarterly form, quarter-to-quarter changes are used. Occasionally we use changes over 12-month or 4-quarter spans, when these are the only data available or when the 6-month or 1-quarter rates are unduly erratic.

### Postwar price cycles

Taking into account the foregoing considerations, chart 1 shows the reference chronology, based upon the rate of change in the Consumer Price Index, together with rates of change in the other comprehensive indexes mentioned earlier. Six contractions in the rate of change are identified: in 1947-48, 1950-52, 1953-54, 1956-58, 1959-61, and 1966-67. We have marked a tentative peak in February 1970. If this peak is confirmed by data later this year and in 1971, this will mark the beginning of the seventh contraction since 1947. Taking the 23-year period between the 1947 and 1970 peaks, we find that expansions in the rate of change lasted 162 months in the aggregate, while contractions covered 106 months. That is, although

Chart 1. Rates of change in comprehensive price indexes





the Consumer Price Index has been generally rising during this period, the rate of increase has declined over long stretches—aggregating nearly 9 years.

The other indexes show broadly similar fluctuations, but with exceptions, especially in the period 1959–64. In terms of these comprehensive indexes, therefore, the chronology seems to represent fluctuations that are widely diffused in the price system. This matter will be examined more directly later.

During the first three contractions in the rate of change in the CPI, the rate fell below zero; that is, the index declined. But the rate barely reached zero in the next two contractions (1958 and 1961), and did not do so at all in the last one (1967). Indeed, the level of the rate at its successive low points becomes progressively higher throughout the period. There is a related tendency for the declines in the rate to become progressively smaller. In the first two contractions the rate dropped 18 and 15 percentage points; in the next two, 3 and 4½ percentage points; and in the last two, 2 and 2½ percentage points. (See table 1.) However, the high points in the rate have not become progressively higher, nor have the expansions become progressively larger. If there has been a rising floor under the rate, there has not been a rising ceiling also. One possible explanation, which needs further exploration, is that the rising importance of services, and the diminishing

importance of foods in family budgets has had the effect of preventing declines in the rate of change of the CPI from reaching as low a level in recent years as they did earlier in the postwar period.

### Price cycles and business cycles

How does the price chronology compare with the business cycle chronology? Four of the price contractions correspond with the four business contractions of 1948–49, 1953–54, 1957–58, and 1960–61. But the business expansion of 1949–53 was interrupted by the price contraction of 1950–52, and the long business expansion that began in 1961 was interrupted by the price contraction of 1966–67. Each of these interruptions was also characterized by some hesitancy in business as well. Hence there is a notable degree of correspondence between the behavior of the rate of change in the Consumer Price Index and general economic activity. Since World War II, every economic slowdown or actual recession has been accompanied by a cyclical contraction in the rate of change in the price level, and cyclical contractions in the rate of change in the price level have not occurred at other times.

This is not to say, however, that a business recession is a necessary condition for a reduction in the rate of inflation. As already noted, two such reductions since 1947 have occurred at times when the economy merely slowed down. Moreover, several of the declines in the rate of price rise that

**Table 1. Comparison of peaks and troughs in the rate of change of the Consumer Price Index (all items) with those for selected price indexes, 1947–70**

| Peaks and troughs in the rate of change in the Consumer Price Index, all items |                            |                | Lead (–) or lag (+) in months, at turns in the Consumer Price Index, all items |                                |                       |                              |                        | GNP implicit price deflator |    |
|--|----------------------------|----------------|--|--------------------------------|-----------------------|------------------------------|------------------------|-----------------------------|----|
|  |                            |                | Consumer Price Indexes for—  |                                |                       | Wholesale Price Indexes for— |                        |                             |    |
| Peak or trough   | Date                       | Rate (percent) | Food   | Other commodities <sup>1</sup> | Services <sup>1</sup> | All commodities              | Industrial commodities | Consumer finished goods     |    |
| Peak   | October 1947               | 13.8           | 0  |                                |                       | 0                            | 0                      | 0                           |    |
| Trough   | November 1948              | –4.3           | 0  |                                |                       | +3                           | +5                     | 0                           |    |
| Peak   | November 1950              | 14.3           | 0  |                                |                       | 0                            | –1                     | –2                          |    |
| Trough   | November 1952              | –0.6           | +3   |                                |                       | –17                          | –15                    | 0                           |    |
| Peak   | July 1953                  | –2.1           | +7   |                                |                       | –3                           | 3                      | +7                          |    |
| Trough   | August 1954                | –1.2           | +2   |                                |                       | –1                           | –10                    | –1                          |    |
| Peak   | July 1956                  | –4.3           | –3   | +5                             | +7                    | –5                           | –11                    | +17                         |    |
| Trough   | July 1958                  | –0.2           | 0  | 0                              | +2                    | (3)                          | –8                     | +1                          |    |
| Peak   | July 1959                  | 2.3            | +10  | –3                             | –1                    | (3)                          | –5                     | +7                          |    |
| Trough   | March 1961                 | 0              | 0  | –10                            | +2                    | 0                            | –6                     | –1                          |    |
| Peak   | January 1966               | 4.1            | 1  | (3)                            | +5                    | 0                            | +3                     | –1                          |    |
| Trough   | January 1967               | 1.6            | 0  | (3)                            | +3                    | –1                           | –3                     | –1                          |    |
| Peak   | February 1970 <sup>2</sup> | 6.7            |  |                                |                       |                              |                        |                             |    |
| Median lead (–) or lag (+), in months  |                            |                | 0  | –1.5                           | +2.5                  | –0.5                         | –4                     | –0.5                        | +3 |

<sup>1</sup> Comparable data not available prior to 1956.

<sup>2</sup> Tentative.

<sup>3</sup> No timing comparison.

NOTE: Rates of change in the Consumer and Wholesale Price Indexes are computed over 6-month spans, centered, seasonally adjusted at annual rate. Rates of change in the GNP deflator are computed from quarter to quarter, centered, seasonally adjusted at annual rate.

were associated with business cycle contractions began well before the contraction in business activity got under way. The 1947 and 1956 peaks in the rate of change in the Consumer Price Index both came about a year before the business cycle peak, and the 1959 price peak came 10 months before the business peak. In fact, in 1948, all of the decline in the rate of change in prices—and it was substantial—occurred before the recession began. In 1953, the two peaks coincided. More often than not, then, the CPI has begun to decelerate while business activity was still expanding.

On the other hand, low points in the rate of price change have coincided rather closely with business cycle troughs, at least on three out of four occasions. The 1948 upturn in the rate of price change (from a level of minus 4 percent) came 11 months before the business upturn, but the 1954 price upturn coincided with the business upturn, while the 1958 and 1961 price upturns followed the business turn by 3 months and 1 month, respectively. In short, declines in the rate of price change have typically started earlier and hence have continued somewhat longer than business cycle contractions.

It is important to note, however, that the rate of price change has usually persisted at a low level, even a negative level, beyond the point of upturn. Perhaps the most striking finding is that a year or a year and a half after the business peak the rates of price change have all been in the vicinity of zero, plus, or minus 1 percent.

### The diffusion of price change

One of the characteristics of business cycles that Wesley Mitchell deemed important, and which he demonstrated empirically time and again, was their generality. Mitchell and Burns wrote in their 1946 volume: "A business cycle consists of expansions occurring at about the same time in many economic activities, followed by similarly general recessions, contractions, and revivals. . . ." Among the many activities are prices, and we have just seen that the rate of change in the price level is clearly one of the participants in the ebb and flow of business cycles.

This observation does not, however, directly answer the question whether the price chronology we have constructed reflects widespread, similar movements among different prices. We can get at

this question by examining diffusion indexes of prices, for such indexes report how many out of a given population of prices are rising at a particular time and how many are falling. In terms of the popular conception of whether or not the economy is experiencing inflation, or whether it is getting worse or better, variations in the degree of generality of price increases are perhaps of more significance than variations in the rate of change in a price index.

The price diffusion indexes constructed in this analysis illustrate several propositions. First, at all times some prices are falling and some are rising, but the proportions that are in the one category or the other vary greatly. Second, the most widespread increases in prices have generally occurred during the periods marked off as expansions in our price chronology, while the most widespread reductions in prices have generally occurred during the contractions. This reflects the fact that the Consumer Price Index increases more rapidly at some times than at others partly because price increases are more widespread at those times, not only because the increases are larger.

Third, there are discernible sequences in the process whereby price changes spread through the economy: prices of industrial materials take an early position, wholesale prices of manufactured goods move somewhat later, and retail prices of consumer goods and services come still later. The sequences among those parts of the price system are so long drawn out, in fact, that on several occasions (notably during 1957–58) the most widespread *declines* in the early moving prices came almost at the same time as the most widespread *increases* in consumer prices. Unless the sequences in the price system are taken into account, therefore, one could be misled into thinking that the cyclical swings in prices are less general than they are in fact.

### Leads and lags

The diffusion indexes depict some of the sequences in the price system. But we can examine the matter more thoroughly by referring to the rates of change in a larger array of price indexes using the price chronology as a reference frame in the same way that the business cycle chronology has been used to study leads and lags in economic



activities generally. In this manner we can observe not only the leads and lags of other prices vis-a-vis the Consumer Price Index, but also their leads and lags with respect to one another.

Looking first at certain major components of the Consumer Price Index, we find that the turns in the commodity component match those in the total index very closely. On five occasions since 1956 (when the commodity-service grouping first became available) the turns in the rate of change in the commodity index and in the total index came in exactly the same month, while on the remaining occasion the commodity turn was 1 month earlier. This correspondence is due more to food prices, whose volatile movements have a marked effect on both the commodities component and the total, than to commodities other than food. As for prices of services, their well-known tendency to lag is apparent. Perhaps less well known is the fact that the rate of change in service prices undergoes cyclical movements that correspond closely, except for the lag, to those in commodity prices. The lag of service prices behind commodity prices averages about 3 months.

Turning to wholesale prices, we find that the total WPI exhibits a slight tendency to lead the total CPI. That is, it leads on five occasions, exactly coincides 4 times, and lags only once. The lead appears to derive more from the industrial commodities in the WPI than from the farm products, processed foods and feeds component. The latter component, however, matches the CPI quite closely, and of course compares most directly with the food price component of the CPI, which, as we have seen, itself has a dominant effect on the CPI. The behavior of consumer prices depends, to an extent most city dwellers are probably unaware of, on the behavior of farm prices.

The industrial commodities component of the WPI has turned before the CPI 9 times since 1948, coincided once, and lagged twice. The tendency to lead is imparted primarily by the prices for crude and intermediate materials other than foods, rather than for finished goods. Prices for crude materials other than food have led 9 out of 10 turns in the CPI since 1947; the average lead is about 4 months. This index is similar in its movements and timing to the weekly spot market index of industrial materials prices. On

most occasions the turns in the rates of change in these two materials price indexes have occurred within a month or two of each other. Prices for producer finished goods—that is, machinery, equipment, trucks, office furniture, and so on—show about as much tendency to lag behind as to lead the movements in the CPI.

The rate of change in the GNP Deflator is a lagging indicator in comparison with the rate of change in the CPI. This is true also of the Private Deflator, since its turns usually coincide with those of the total. The Deflators have lagged behind the turns in the CPI far more frequently than they have led or coincided with it, and the average lag has been about 3 months. The reason for the lag may lie in the fact that personal consumption expenditures—that is, the type of expenditure reflected in the CPI—constitute less than two-thirds of total GNP, while the prices for the two largest elements in the remainder—fixed investment goods and government services—are relatively sticky.

Our review of the complex structure of leads and lags in the price system has merely scratched the surface of the subject. Very generally, the discernible sequences in the manner in which price changes spread through the economy are as follows: Prices of industrial materials move first. Wholesale prices of manufactured goods move somewhat later. Retail prices of foods and other commodities follow shortly thereafter, and retail prices of services, such as passenger fares and medical fees, bring up the rear. In this review, we have dealt with prices for fairly large groupings of goods and services and have not dealt at all with the prices of fixed assets, such as land or buildings, or the price of labor, or of interest rates. There is much room for further investigation.

### Costs and profits

During the past few years, economists and statisticians have developed a systematic body of data that connects the rate of change in the price level with rates of change in labor compensation, output per man-hour, labor costs, profits and other costs per unit of output. From these data, a fairly clear picture of the general behavior of costs and profits in the United States emerges.

When prices are relatively stable or declining—

the bottom of the price cycle—the rate of increase in output per man-hour is high. It diminishes, however, as prices rise. Rates of increase in hourly compensation for workers, on the other hand, are usually at a moderate level but soon begin to rise, partly in response to the upward movement of prices. The rate of change in unit labor costs is low and often declining during the beginning phase of price expansion but rises sharply in the later phase as a result of the opposing movements of the rates of change in labor compensation and in productivity. Other unit costs follow a similar path. The effect of all this on unit profits is to produce a rapid rise at the start of a price expansion, but a decline at the end.

The situation is reversed when inflation starts to subside. When the rate of price increase first starts down, output per man-hour continues to grow at lower rates for a while but presently starts up, contributing to a reduction in physical costs. Not long afterward, the rate of increase in hourly compensation turns down. The output rise and the compensation slowdown generate a decline in the rate of increase in unit labor costs and other unit costs start showing more moderate rates of increase. In summary, at the start of a price contraction, increases in total unit costs exceed those of prices—with unit profits therefore declining—but the downswing in costs exceeds that in prices before the bottom of the price contraction is reached.

How does the current situation in the United States stack up in terms of the price chronology we have outlined? As stated earlier in the article, we have placed a tentative recent peak for the chronology of prices in February 1970, based upon the rate of change in the Consumer Price Index. This is the month when the seasonally adjusted rate of change over a 6-month interval reached its highest level in the current upswing, 6.7 percent per year. (February is simply the central month of that interval, which runs from November 1969 to May 1970.) Since then, the 6-month rate has begun to decline, and the most recent observation on it (covering the period March to September 1970) is 5.0 percent.

We do not consider this peak to be firmly established as yet, since the decline has not been very large or very long. But there is evidence to support it in the behavior of the Wholesale Price

Index, the Gross National Product Deflator, and indexes of unit labor costs and unit profits. Moreover, all of the price diffusion indexes for the current period have receded from their highs, which were reached during 1968 and 1969. That is, fewer prices have been rising in recent months, and more have been declining. The general trend has been one of a slowing in the pace of price and cost inflation, and that is the reason for recognizing it, at least tentatively, in our chronology of price change. □

—FOOTNOTES—

<sup>1</sup> This article is adapted from a paper presented at a colloquium "The Business Cycle Today," which was sponsored by the National Bureau of Economic Research in September 1970. The full paper will be published as *The Cyclical Behavior of Prices* (BLS Report 384, 1970).

<sup>2</sup> Wesley C. Mitchell, *Business Cycles—The Problem and Its Setting* (New York, National Bureau of Economic Research, 1927).

<sup>3</sup> Arthur F. Burns and Wesley C. Mitchell, *Measuring Business Cycles* (New York, National Bureau of Economic Research, 1946).

<sup>4</sup> The substantial seasonal effect on the rate of change can be illustrated as follows. The increase in the seasonal factor from 99.83 in January to 100.12 in July is 0.6 percent at an annual rate. If the increase in the unadjusted index is at a 6-percent annual rate, the seasonal factor accounts for about 10 percent of the rise. Of course, it has an equal and opposite effect on the increase from July to January. The ups and downs in the rate of increase that are attributable to seasonal factors can be quite misleading in judging trends in the rate of inflation. As the figures given below indicate, the seasonally adjusted rates show far more clearly the onset of inflation in 1965, its interruption in 1967, and its continuation thereafter, than do the unadjusted rates.

|                   | Percent change at annual rate, CPI, all items |                     |
|-------------------|---|---------------------|
|                   | Unadjusted                                    | Seasonally adjusted |
| 1964—January–July | 1.1   | 0.6                 |
| July–January      | 1.1   | 1.6                 |
| 1965—January–July | 2.4   | 1.9                 |
| July–January      | 1.5   | 2.0                 |
| 1966—January–July | 4.2   | 3.7                 |
| July–January      | 2.5   | 3.1                 |
| 1967—January–July | 3.2   | 2.6                 |
| July–January      | 3.6   | 4.2                 |
| 1968—January–July | 5.0   | 4.4                 |
| July–January      | 4.3   | 5.0                 |
| 1969—January–July | 6.7   | 6.1                 |
| July–January      | 5.7   | 6.3                 |
| 1970—January–July | 6.0   | 5.4                 |



# Understanding laboratory education: an overview

Encounter groups, T groups, and Tavistock  
—a review article comparing  
three types of laboratory education,  
the state of research in the field,  
and the ethical issues involved

CLAYTON P. ALDERFER

LABORATORY EDUCATION—learning about human behavior through experiences in group activities—is simultaneously an evolving educational technology, a loosely defined philosophy, and a social movement. Most of its practitioners believe that human interactions can be better understood and more effectively carried out, and, as a consequence, more gratifying to the participants. Thus, laboratory education offers the promise of radically changing the way we understand and act in human relationships. Much of this promise has been realized.

But not all of the aspirations have been fully achieved. The failures, the incompleteness, and the sense of even greater possibilities have led many persons to be critical of laboratory education. Some of these criticisms are based on carefully collected data which has been subjected to thorough analysis. Other evaluations have been severely biased and often sensationalistic, whether the conclusions were positive or negative. This article reviews the current status of laboratory education, with an emphasis on identifying major areas of conflict and explaining why the disagreements take the form that they do.

## Common processes of learning

The term “laboratory education” refers to a set of assumptions and practices. The various forms of laboratory education include a number of common elements such as acceptance of experience-based learning technology, recognition of the role of emotions in human relationships, and utilization of the small group (10 to 12 persons) as a central component in training designs.

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The learning laboratory usually takes place on a “cultural island.” Participants are taken away from their normal day-to-day activities to a setting where the learning experiences occur. Frequently this new setting is naturally beautiful, but at the very least it is different and thereby provides the participant with both safety from former distractions and a setting that does not necessarily reinforce his usual ways of behaving. A second component of the laboratory involves the use of unstructured or semistructured learning tools. The staff usually attempts to design a set of experiences that serve to heighten certain aspects of human behavior and emotions. Participants learn by becoming actively involved in these activities and by developing skills which allow them to observe both themselves and others during these experiences. A person is asked to engage himself in the unfolding events and later to step back and try to see the patterns in his own and others’ behavior. Much of the sense of excitement and high level of emotionality comes from the participant’s becoming involved. Experiential learning is based on the assumption that experience precedes intellectual understanding. A continuing challenge in designing laboratories is to achieve that optimal degree of involvement which allows a person to flavor the richness of human interaction but is not so compelling that he loses all sense of what is happening.

A key element in almost all laboratory designs is the small group, typically quite unstructured and serving as a primary group for most participants during the varied laboratory program. One or two staff members meet regularly with the small group to aid participants’ learning.

VARIATIONS IN LABORATORY METHODS. Differences among various laboratory methods tend to emerge around the nature of the small group activities.

Three frequently used names for the small groups are encounter groups, T groups, and self study groups. The professional organizations most closely identified with these group labels are, respectively, Esalen Institute, National Training Laboratories Institute for Applied Behavioral Science, and Tavistock Institute of Human Relations. The varied names for the group provide clues about the different nature of the learning experiences offered and of the whole laboratories which utilize the particular type of group. Differences (which tend to be of degree only) include relative focus on intrapsychic, interpersonal, intragroup, or intergroup phenomena; emphasize the personal in comparison to the professional qualities of the staff; and explicitly include the place of thinking in laboratory activities.

Reliable data on the extent of laboratory training are difficult to come by. Table 1 gives estimates, provided by leaders in the three areas, on the number of participants. In actual practice there are many more laboratories than those covered by these estimates. Warner Burke, Director, Center for Organization Studies, NTL, estimates that the 1970 NTL figure represented about 5 percent of the laboratories conducted in the United States. The overwhelming majority are being conducted independently of the NTL by business firms, educational institutions, church groups, and so on. But though the table understates the actual number of participants it does illustrate the rapid growth in laboratory education.

**ENCOUNTER LABORATORIES.** The encounter group, the Esalen Institute, and personal growth laboratories in general tend to focus primarily on learning about the individual. Encounter groups tend to produce experiences where a person examines himself in new and different ways, aided by others. A participant in this kind of experience is encouraged to look inward to himself, to become more in touch with his fantasy life, and to become more aware of his physical activities. Part of the emphasis on body movement includes attention to nonverbal communications. A person may learn to attend more fully to his own nonverbal communications, to read others' signs more adequately, and to practice being more effective in his body language. Psychodramatic techniques are often used in laboratories of this kind. Frequently the focus in these exercises is on interpersonal relationships that have been troublesome for people

**Table 1. Participants in experiential laboratories sponsored by three organizations in the United States**

| Sponsoring group                    | Approximate number of participants <sup>1</sup> |      |        |
|-------------------------------------|---|------|--------|
|                                     | 1962  | 1965 | 1970   |
| Esalen.....                         |   | 600  | 11,000 |
| National Training Laboratories..... | 900   |      | 2,400  |
| Tavistock.....                      |   | 100  | 250    |

<sup>1</sup> These estimates were provided by Richard Price and Stuart Miller of Esalen; Warner Burke and Patricia Walton of National Training Laboratories; and Edward Klein of Tavistock.

in the past. Other group members are asked to volunteer to be "stand-ins" for or representatives of a key person in a participant's life history. Staff members help set the stage for these encounters, sometimes actively taking part themselves, and almost always leading the discussion and working through of the events after they happen.

Personal growth laboratories contain more components than the encounter group, however. Various exercises in body movement and artistic expression are frequently employed. It is not uncommon for the staff to include members of the performing arts such as modern dance or theater. Some of the key writings which give greater detail, flavor, and rationale for these methods include Schutz (1967), Murphy (1967), Perls (1969), and Rogers (1969).<sup>\*</sup> John Weir is another key figure in the development of encounter laboratories, but to this writer's knowledge he has not written of his ideas or developments.

There can be little doubt that many persons who attend encounter-oriented laboratories have joyful, freeing experiences. The ever increasing popularity of the Esalen Institute and personal growth laboratories testifies to this (Murphy, 1967; Shepard, 1970). Yet these experiences have also been validly criticized. With the focus of the laboratories on freeing people and making them more expressive, little of their learning experience is directed toward examining the consequences of excessive self-expression. Because the laboratories produce potent effects so rapidly, they also tend to spawn disciples very readily (Lakin, 1969). It is not uncommon for participants to start their own groups and "turn on" their friends after as few as one or two group experiences. Within the laboratory itself, participants may be tempted to engage in personality analyses of each other for which they

<sup>\*</sup> Authors and their works are listed in the bibliography following the text.



are ill-equipped (Argyris, 1967).

Staff members tend to be central in the learning processes and often are charismatic figures. They frequently seem magical in the techniques they employ and in the effects they can have on some people (Haigh, 1968). As a consequence some participants tend to copy the manifest qualities of staff members' behavior without careful or thoughtful examination of what or how they are learning.

Another factor which is likely to work against a more critical examination of the learning processes by participants is the tendency for an anti-intellectual bias to develop. While the laboratories are a potent counterforce to our culture's excessive reliance on rational intellectual activities, they seem to forget that thinking is also part of the human potential. Encounter laboratories give relatively little attention to how thinking and talking can be reincorporated into a person's behavioral repertoire after he has become more emotionally and physically free.

Although all laboratories find the boundary between education and therapy to be a fine one, perhaps the line is thinnest in the encounter laboratories (Jenkins, 1962). Many staff members for encounter laboratories are also practicing psychotherapists. The new techniques which have developed through encounter laboratories have also had an impact on the practice of psychotherapy, and the latter has affected the laboratories (Burton, 1969).

Both the beauty and the limitations of the encounter approach are captured in the frequently quoted words of Frederick S. Perls:

I do my thing, and you do your thing.  
I am not in this world to live up to your expectations.  
And you are not in this world to live up to mine.  
You are you and I am I,  
And if by chance we find each other, it's beautiful.

The sense of individuality and freedom in these words is unmistakable. But missing is the recognition that commitments can be reached by mutuality and that a superordinate goal may sometimes require the suppression of certain individual needs in order for others to be expressed.

**T GROUP LABORATORIES.** The T group (for human relations training) and the National Training Laboratories Institute at its outset were developed to increase the human relations skills which people brought to their leadership, group, and

organizational relationships. Bradford, Benne, and Lippitt, the men whose original conversations led to the founding of NTL, were social psychologists who were interested in both research and action (Bradford, 1967). The initial focus of learning was on interpersonal and intragroup phenomena. National Training Laboratories has grown considerably over the years, however, and today it conducts laboratories focused on individual growth and intergroup relations. Nevertheless, the initial focus on interpersonal and intragroup phenomena still conditions much of what T groups and NTL are about.

T group laboratories often tend to be focused on the interpersonal impact that members make on each other. In the unstructured T groups, members examine their leadership, membership, and other roles. They see the consequences of different kinds of leadership styles and attempt to learn about the complex interrelationships between group processes and group effectiveness.

A T group leader acts as a person who is also a professional. He does not deny that he is more experienced and knowledgeable than most group members, but he does not act in such a way as to increase the natural distance between himself and group members. He is likely to discuss his own feelings when he sees that as useful to himself and others. He attempts to establish relationships of mutuality between himself and group members. Recognizing that some members of a group will assume that he is like other key figures in their lives, he is willing to examine the impact of his own behavior on others, but he is also likely to ask group members to concentrate on his group behavior when giving feedback. He is likely to assume that people learn not only from what he says but also from how he behaves.

The T group tradition has produced a considerable amount of empirical research (for example, *The Journal of Applied Behavioral Science*) and theorizing (Bradford, Gibb, and Benne, 1964; Argyris, 1962, 1969). The quality of this work has sometimes been questioned by thoughtful critics (Dunnette and Campbell, 1968; House, 1967), with good reason. Frequently laboratory education research has consisted of poorly designed studies from which the investigators have drawn unjustified conclusions. Control groups have often been missing. Measuring instruments have been poorly designed. More recently, investigators have addressed directly the special problems of research

on laboratory education and are now utilizing research designs which offer greater promise in terms of the kinds of conclusions one might draw (Rubin, 1967; Harrison, 1970; Alderfer and Lodahl, 1971).

Democratic values have played an important part in much of the thinking that has influenced T group theory and practice (Whyte, 1953). The impact of democratic practices has undoubtedly been a strong factor in accounting for the wide diversity of practice, the high degree of innovation, and the strong sense of collaboration and commitment experienced by many members of the NTL system. Nevertheless, the profusion of democratic values has also served as a means for avoiding some more difficult issues.

In a long overdue action, National Training Laboratories has recently begun to develop the organizational machinery for accrediting group leaders. For a long time NTL had been unofficially granting credentials to practitioners by publishing lists of those persons who were elected to positions of Professional Member, Associate, or Fellow (Schein and Bennis, 1965). In order not to emphasize its exclusiveness, however, NTL consistently maintained the public position that it was not an accrediting agency. Now the focusing of public attention on the quality of group leadership and NTL's eminence in the field has led the organization to change its course.

National Training Laboratories' initial focus was toward interpersonal and intragroup phenomena. For some time there was a tendency for the key learnings from this level of analysis to be transferred uncritically to larger units, such as intergroup relations and larger social systems. A key paper in this line of thought was by Slater and Bennis (1964), who proclaimed "Democracy Is Inevitable." More recently, Bennis (1970) has revised his original thinking, and NTL has become increasingly involved with intergroup concerns, especially those surrounding racism in our society.

**TAVISTOCK CONFERENCES.** The self-study group has evolved from a tradition which traces its roots to modern psychoanalytic theory of object relations (Klein, 1959). During World War II, British psychoanalyst W. R. Bion discovered that groups were a useful way to treat psychiatric casualties from the war. His group work led to his writing of *Experiences in Groups* (1959), a book that has become a classic in the field and

a key theoretical work for leaders of Tavistock study groups. Although Tavistock theories have evolved from the psychoanalytic tradition, the conferences are directed to learning, not therapeutic goals (Rice, 1965).

Authority relationships form a key element in the learning process of self-study groups. Tavistock staff members, who are called consultants, remain distant and remote in their relationships with group members. They think about their behavior in terms of "staying in role," with the intent of contributing to the group's exploration of relations within the group. In carrying out their roles, the consultants are very punctual in entering and leaving group meetings, dress in relatively formal attire, and intervene in group activity only when they believe it will promote learning. Their statements tend to be metaphorical and they consistently point out how members seem to be relating to them, often as surrogates for other key figures such as parents, siblings, lovers, and the like (Astrachan and Klein, 1961; Redlich and Astrachan, 1969).

Tavistock laboratories also focus on intergroup relations through the use of exercises which ask participants to negotiate among groups in order to make a decision or carry out a task. These activities serve to underline the impact of individual, subgroup, and group boundaries. The analysis of boundaries plays a key role in Tavistock theory and methods. One of the key learnings is the types of fantasy and mythmaking that groups indulge in with respect to each other across group boundaries. A. K. Rice's work (1965, 1969) on laboratory design and on individual, group, and intergroup transactions as boundary crossings is the major conceptual work in this area.

Staff members direct their interventions to the group rather than to any individual. The latter's behavior or statements, however, are assumed to express group concerns unless contradicted by others. Thus, whenever a person speaks in the group he is viewed as speaking for the group and his statement is viewed as representing some element of the group opinion.

Little in the staff behavior allows one to determine the degree to which the interventions cause the study group behavior or merely reflect it. Consultants rarely discuss their own feelings with the group, although they do use their feelings as an important source of data for understanding

group events (Rice, 1965). It might be expected that group members would focus much of their attention on the consultant when he intervenes in the group activity yet behaves in a relatively inaccessible manner. Important questions can be raised about the generality of the learning about leadership that participants achieve in study groups. It is one thing to learn that persons develop vivid and hostile fantasies about persons who appear to be leaders yet deny the role, who behave in distant ways and speak metaphorically about their perceptions of the group. It may be a mistake, however, to assume that reactions of this sort are representative of typical reaction to authority figures regardless of how they behave.

Tavistock consultants do not suggest that their behavior is a model for group members to follow. Yet a question can be raised as to whether modeling occurs nonetheless. There is research to support the notion that modeling or imitation is a general human learning process (Bandura and Walters, 1963). If modeling does occur in study groups, then it would appear that the Tavistock style of study group would teach participants to be leaders who do not share their feelings, remain personally distant from the group, talk in metaphors, focus attention on themselves by their mode of intervention, and hold quite strictly to the prescribed definition of their roles.

This writer has serious questions about whether these types of learning are very useful for small group effectiveness. However, there are times when learning of this kind is realistic. Leaders of large social systems cannot be seen regularly by more than a few members. They frequently serve as spokesmen for the group. To come to terms with leaders in this kind of role, group members have little choice but to rely on their fantasies and therefore to project and transfer their reactions from prior relationships. Learnings from study group and intergroup activities in a Tavistock laboratory can be very enlightening with regard to multiple group functioning in large scale social systems.

### Comparison of laboratory approaches

The primary learning and dangers differ among the three approaches to laboratory education. For encounter group laboratories, the primary target is individual expression and artistic creativity. A danger in this approach is that partici-

pants may learn to act out their impulses without realistically considering the consequences of their behavior for themselves and for others. Tavistock laboratories primarily aid learning about mutuality, trust, and collaboration. There is a danger that democratic values and behavior may be applied in situations where they are not realistic or appropriate. Moreover, differences among individuals with regard to task or professional competence may be ignored because they tamper with the norm that everyone is equal. Tavistock laboratories promote learning about authority relationships and the functions of group boundaries. It is possible that consultant behavior in the study group may become a model for non-mutuality when this kind of behavior is neither necessary nor effective.

The common theme in the criticisms of each of these approaches to learning by experience is that the particular approach may lead to unwarranted generalization. Learning which evolves from a particular approach does not apply to all situations. At first glance it would appear that this caution is clear to understand and easy to apply. But the learning processes of laboratory education do not lend themselves readily to a norm of moderation. Overattention to concerns about being too self-expressive can prevent a person from taking the risks which would enable him to become more free and spontaneous. Fear of being overwhelmed by a pseudodemocratic horde may prevent a person from exposing enough of himself to really find out what can be gained by sharing more of himself with the group. The need to feel competent or free of tension may inhibit a person from exposing himself to his fantasies about distant leaders or to engage in the turbulent processes of intergroup negotiations. It is difficult to write critically about the different approaches to laboratory education without unintentionally colluding with the very human processes—fear, hostility, fantasy, and so on—that prevent persons from learning about themselves and their complex relations with others.

The kinds of laboratory education described in this article represent efforts to apply behavioral science concepts to increase learning about human relationships. Each of the laboratories exists as an educational setting. However, although all approaches aim to transfer learning to non-laboratory settings, an active role for the staff in promoting transfer typically ends with the con-



clusion of the laboratory. Additional developments in the direct utilization of behavioral science knowledge for organizational change through the use of experiential methods will be the subject of a future article.

### Public and professional criticism

During the past several years, a number of articles have been devoted to laboratory education, both in widely circulated newspapers and magazines and in professional journals. Not all of this coverage has been comprehensive or unbiased. Some has been blatantly slanted and inaccurate. The purpose of this section is to alert the reader to some of the forms that public and professional criticism has taken and to caution him against putting too much credence in sensationalistic accounts.

**NEWSPAPERS AND MAGAZINES.** The front page of the *Wall Street Journal* on July 14, 1969, carried a story with the headline, "Some Companies See More Harm Than Good In Sensitivity Training—Frank Exchanges Sometimes Hamper Work; Sessions Can Produce Breakdowns—A Tough Boss Turns Meek." The lead paragraph was, "Last year a big New York consumer products company sent Mrs. D, a product manager, to a week-long sensitivity training program. She got so sensitive she quit the company." In this article, a number of key academic authorities were cited to support the author's slant, but the full range of professional opinion was not presented. In a number of instances the writer obtained opinions from persons who had participated in symposia or debates on laboratory education but chose to present only the critical side of the controversy. He cited Marvin Dunnette and John Campbell (1968) on the subject of research findings but did not include Chris Argyris (1968) who had raised questions with them about research procedures. Warren Bennis (1966) has written extensively about the conditions under which laboratory methods are likely to result in constructive organizational change but nowhere was his work included.

In contrast to the above article, *Today's Health* featured a discussion of laboratory education from a more balanced perspective. The title of this article was "Sensitivity Training: Fad, Fraud, or New Frontier." The lead paragraph in the piece was, "Here's a comprehensive, up-to-the-minute

look at a new dimension in human relations—its problems (misguided do-gooders), its bizarre aspects (T group bums looking for thrills), and its outlook (potential for good)." This article, too, had a bit of sensationalism, for it only included pictures of encounter labs where the participants were engaged in active nonverbal behaviors. But for one who was willing to read the text, author Ted J. Rakstis provided a sampling of informed opinion, both inside and outside the medical profession as well as inside and outside the laboratory education profession. Cautions, criticisms, and potentials all received attention and discussion. The reader looking for a final definitive opinion would not be satisfied by Rakstis' piece, but one looking for a delineation of the issues so he could make more informed choices would be aided by it.

**PSYCHIATRISTS.** An issue on which one might expect psychiatrists to agree concerns the impact of laboratory education on mental health. They do not, and the December 1969 issue of the *American Journal of Psychiatry* shows a broad range of differences. At one extreme, there is the paper by Ralph Cranshaw who asked, "How Sensitive is Sensitivity Training?" He reported three cases of psychiatric problems which arose in conjunction with persons attending laboratory programs, and he noted that his colleagues had encountered similar cases. He argued that the responsibilities of laboratory trainers had not been fully defined and implied that the practitioners of sensitivity training could be justly accused of irresponsible experimentation with human beings. He charged that education in the form of sensitivity does not include the concepts of freedom, truth, and empathy in its operation. In his conclusion he stated, "The medical profession can say, to those who will listen, that sensitivity training is insensitive to the individual, for he is not seen as a whole person."

There were some very questionable qualities about the Cranshaw paper. With an  $n=3$  sample the writer seemed willing to generalize to the entire operation of sensitivity training. One of the three cases was under treatment with Cranshaw prior to attending the laboratory which preceded his hospitalization for emotional difficulties. Cranshaw did not raise such questions as whether the hospitalization might have occurred regardless of the laboratory experience, whether his own efforts at treatment might have hastened the need for

hospitalization, or whether the hospitalization was a constructive or destructive experience for the client. When arguing that freedom, empathy, and truth are not part of the code of operations for sensitivity training, Cranshaw was simply not fully informed. Key writings in the field by Argyris (1962), Bennis (1966), and Bradford *et al* (1964) have consistently emphasized these values.

The way Cranshaw approached his critique was unfortunate because the issues he raised with regard to possible harm to participants, areas of responsibility among trainers, and the necessity for free choice for participants are important. They can be handled adequately only by continually confronting them. The errors in logic and fact in his presentation, however, probably reduce the kind of positive effect which his points could have.

At the other extreme of psychiatric reaction is the paper by Cadden and others (1969), who reported their experiences with a voluntary program of laboratory education for incoming medical students. They found no evidence that the group experiences precipitated emotional illnesses. In contrast, they noted that the laboratory experiences aided several students in becoming aware of their need for psychiatric consultation. The overall need for psychiatric consultation among first year students, however, was reduced in comparison to preceding years because the groups made it possible to handle certain situational crises more effectively. They also noted that the laboratory program seemed to improve student-faculty communication. The contrast with Cranshaw's reactions could hardly be more marked.

There is no reason to assume that only one of the two critiques is accurate, however. Both refer to rather specific cases. One underlines the dangers; the other shows realized potential. It would be a serious error to assume that because some laboratories are poorly conducted or some individuals poorly handled, all similar activities share these outcomes. It would be equally unfortunate to assume that because one system found benefits for individuals and groups, all systems will also benefit without careful planning and competent execution.

**T GROUP TRAINERS.** The inhouse controversies which were featured in the Landmarks issue of *The Journal of Applied Behavioral Science* (1967, 3(2)) focused on the differences in approach to laboratory education. In the one case, Argyris

(1967), who has consistently contributed to T group practice, theory, and research, raised issues with the encounter group wing of NTL. He found many of the trends in personal growth laboratories to be running counter to the initial goals and concepts of the National Training Laboratories. Several NTL trainers responded to Argyris' issues, but there was little consensus among their responses. Some, such as Kingsbury (1967) and Shepard (1967), sharply disagreed with him. Others such as Coffey (1967) and Work (1967) essentially agreed with him. Those who disagreed were more active in conducting personal growth laboratories than those who agreed.

In the same edition, Bass questioned whether the T group with its focus on openness and collaboration provided a full enough range of learnings to permit transfer to organization level issues. He was particularly concerned with learnings about competing interest groups, distant leaders, and organizational demands which sometimes require suppressing individual and small group interests. Few of the commentators on the Bass paper agreed with all of the premises of his arguments, but most agreed in whole or in part with his general conclusions.

Major areas of disagreement emerged within the NTL tradition when the interpersonal and intra-group focus became more oriented to the individual and when the inadequacies of using only collaborative models in large social systems became apparent. The inhouse controversies closely paralleled the various emphases featured among the different types of laboratory education programs. The potential payoff from constructive dialogue among practitioners from the various orientations is high, because the strengths and limitations of the approaches are often complementary.

### Empirical research and ethical questions

Most thoughtful discussions of laboratory education pay some attention to what has been or can be offered by empirical research. Many of the controversial issues could be clarified, differentiated, and possibly even resolved if the appropriate empirical studies were carried out. Ideally, research produces unambiguous answers to precisely defined questions. Practically, this rarely happens. During the past several years there have been two independent efforts to review the research literature on laboratory education

(House, 1967; Campbell and Dunnette, 1968). These reviews reached some, though not identical, agreement in their conclusions. However, several of the commentators on laboratory education have written as if there was no research or that one could not draw conclusions from it (Gottschalk and Pattison, 1969; Rakstis, 1970).

House (1967) stated his major conclusions as follows: "It has been shown that T group training is not only capable of inducing anxiety, but the anxiety is an intended part of the training. Such induced anxiety may have the very unrewarding effect of unsettling, upsetting, and frustrating those subjected to it. The method may also have the intended effect of inducing more consideration for subordinates, less dependence on others, less demand for subservience from others, and better communication through more adequate and objective listening."

Campbell and Dunnette (1968) concluded: "The evidence, though limited, is reasonably convincing that T-group training does induce behavioral changes in the 'back home' setting. . . . It still cannot be said with any certainty whether T groups lead to greater or lesser changes in self-perceptions than other types of group experience, the simple passage of time, or the mere act of filling out a self-description questionnaire. . . ."

House (1967) laid greater emphasis on the role of anxiety and tension in the learning process of laboratory education than Campbell and Dunnette (1968) did. Meanwhile, Campbell and Dunnette (1968) gave more attention to the inadequacies of current research designs than House did. They also differentiated more precisely than House between behavioral and attitudinal changes as a result of laboratory education. Reading House, one would probably feel relatively sure that important changes came from laboratory education, but the reader would also be encouraged to examine whether the costs of the changes were worth the payoff. Reading Campbell and Dunnette, one would probably be less certain about the type of changes, especially with regard to attitudes, that could be credited to laboratory education. One would also be alerted to many of the methodological errors that have been made in laboratory education research.

Elsewhere, this writer has commented on the House and Campbell-Dunnette reviews (Alderfer, 1970). House tends to underemphasize the fact that most important or significant change proc-

esses include anxiety. The key question concerns whether the participants and staff are equipped to deal with the tensions effectively, not with whether they should exist. Poor instruments and inadequate controls do contaminate many laboratory education research studies. It is also true, however, that studies frequently had different sources of invalidity and yet reached the same conclusions. Studies with better designs had ways of checking sources of error even though they could not completely control them. My conclusion, therefore, was that the two reviews were conservative both with respect to the potential dangers in the methods and with respect to the kind of payoffs that could be expected.

Most of the research reviewed to date has been directed toward seeing whether T group laboratories result in behavior and attitude changes for participants when they return to work settings. There has been far less research, if any, on similar or related questions for encounter and Tavistock laboratories. Much of the public concern over laboratory education has been tied directly or indirectly to personal growth laboratories. The lack of empirical research on these very potent learning settings should be changed. A similar point applies to the Tavistock laboratories, and there are indications that research of this kind is being carried out (Astrachan and Klein, 1970).

Lakin's (1969) delineation of ethical issues in laboratory education offers a paradigm for thinking through many of the needed researches. We need to study more about the processes that lead persons to attend laboratories, including questions of how to identify persons who might be harmed and who are most likely to benefit. The work of Steele (1968) and Rubin (1967) offer promise in this direction, but it is only a bare beginning. We need to know more about the effect of various design components, staff behavior, and laboratory processes, such as that offered by the research of Argyris (1962), Culbert (1968), Harrison and Lubin (1965), Bolman (1970; 1971), Schmuck et al (1969), Lubin and Zucherman (1969), and Alderfer and Lodahl (1971). But the number of questions that could be addressed is much greater than the answers so far provided. Quite a few studies have been addressed to assessing the outcomes of laboratory education, but still more with better designs and instrumentation are needed. Especially important are questions with regard to changes in interpersonal



and intergroup behavior as a result of laboratory programs. What we know about laboratory induced changes in behavior exists almost entirely at the individual level.

Both the critics and the advocates of laboratory education are people. They have their own unique combinations of needs, values, abilities, and personal styles. They participate in interpersonal relationships with each other. They belong to overlapping and competing groups. Their reactions (including this author's) to laboratory education are bound to be influenced by these factors.

Questions of knowledge, professional competence, and ethical behavior are closely intertwined. When it is well known that a particular behavioral pattern is harmful, a professional who consciously or unconsciously undertakes such a pattern should be questioned on ethical grounds. So often the issues are not clear, however. Sometimes conservative members of a profession or of a competing profession raise ethical questions about innovations because they fear that they will soon have

to revise or change some of their own well established ideas or behavior if the new concepts are proven valid. The value of innovation for its own sake should never be a reason for infringing on the freedom or individuality of human beings. Nor should the inertia of tradition serve to block the responsible experimentation that is so necessary if we are to become more effective in coping with the many social problems that we face in today's world.

These issues define some very fine lines to draw. Reasonable and competent professionals have disagreed and will continue to disagree on specific cases. The important conditions for public welfare and for professional growth are that issues of professional practice be subject to continual examination by those who are equipped to do so, that theory development and empirical research go along with new developments in professional practice, and that the outcomes of these dialogues be shared among the professions and with the public. □

#### —BIBLIOGRAPHY—

- Alderfer, C. and Lodahl, T. M., "A quasi-experiment on the use of experiential methods in the classroom," *Journal of Applied Behavioral Science*, 1971, in press.
- Alderfer, C., "Subcultures in behavioral science and the interpretation of research on experiential methods," *Proceedings of the Twenty-second Annual Winter Meeting, IRRA*, 1969, 98-108.
- Argyris, C., "Conditions for competence acquisition and therapy," *Journal of Applied Behavioral Science*, 1968, 4, 147-178.
- Argyris, C., *Interpersonal Competence and Organizational Effectiveness* (Homewood, Ill., Dorsey, 1962).
- Argyris, C., "Issues in evaluating laboratory education," *Industrial Relations*, 1968, 8, 28-40.
- Argyris, C., "On the future of laboratory education," *Journal of Applied Behavioral Science*, 1967, 3, 153-183.
- Astrachan, B. M. and Klein, E. B., "Learning in groups," *Journal of Applied Behavioral Science*, 1971, in press.
- Bandura, A. and Walters, R. H., *Social Learning and Personality Development* (New York, Holt, Rinehart, and Winston, 1963).
- Bass, B. M., "The anarchist movement and the T-group: some possible lessons for organizational development," *Journal of Applied Behavioral Science*, 1967, 3, 211-227.
- Bennis, W. G., *Changing Organizations* (New York, McGraw-Hill, 1966).
- Bennis, W. G., "A funny thing happened on the way to the future," *American Psychologist*, 1970, 25, 595-608.
- Bolman, L., "Some effects of trainers on their T groups," *Journal of Applied Behavioral Science*, 1971, in press.
- Bradford, L. P., "Biography of an institution," *Journal of Applied Behavioral Science*, 1967, 3, 127-143.
- Burton, A. (ed.) *Encounter* (San Francisco, Jossey-Bass, 1969).
- Cadden, J. J., Flach, F. F., Blakeslee, S., and Charlton, R., "Growth in medical students through group process," *American Journal of Psychiatry*, 1969, 126, 862-873.
- Calame, B. E., "The truth hurts," *Wall Street Journal*, July 14, 1969, 1.
- Campbell, J. P. and Dunnette, M. D., "Effectiveness of T-group experiences in managerial training and development," *Psychological Bulletin*, 1968, 70, 73-104.

- Coffey, H. S., "Some fundamental issues raised," *Journal of Applied Behavioral Science*, 1967, 3, 184-185.
- Cranshaw, R., "How sensitive is sensitivity training?" *American Journal of Psychiatry*, 1969, 126, 868-873.
- Culbert, S. A., "Trainer self-disclosure and member growth in two T-groups," *Journal of Applied Behavioral Science*, 1968, 4, 25-46.
- Dunnette, M. D. and Campbell, J. P., "Laboratory Education: impact on people and organizations," *Industrial Relations*, 1969, 8, 1-27.
- Gottschald, L. A. and Pattison, E. M., "Psychiatric perspectives on T-groups and the laboratory movement: an overview," *American Journal of Psychiatry*, 1969, 126, 823-839.
- Haigh, G. V., "A personal growth crisis in laboratory training," *Journal of Applied Behavioral Science*, 1968, 4, 437-452.
- Harrison, R., "Problems in the design and interpretation of research on human relations training," *Journal of Applied Behavioral Science*, 1971, in press.
- Harrison, R. and Lubin, B., "Personal style, group composition, and learning," *Journal of Applied Behavioral Science*, 1965, 1, 286-301.
- House, R. J., T-group education and leadership effectiveness: a review of the empiric literature and a critical evaluation," *Personnel Psychology*, 1967, 20, 1-32.
- Jenkins, D. H., "Ethics and responsibility in human relations training," In Weschler, I. R. and Schein, E. H., *Issues in Human Relations Training* (Washington, NTL-NEA, 1962), 108-113.
- Kingsbury, S., "An open letter to Chris Argyris," *Journal of Applied Behavioral Science*, 1967, 3, 186-199.
- Klein, M., *Our adult world and its roots in infancy*. Tavistock Pamphlet No. 2.
- Lakin, M., "Some ethical issues in sensitivity training," *American Psychologist*, 1969, 24, 923-928.
- Lubin, B. and Zuckerman, M., "Level of arousal in laboratory training," *Journal of Applied Behavioral Science*, 1969, 5, 483-490.
- Murphy, M., "Esalen: where it's at," *Readings in Psychology Today*. (Delmar, Calif., C.R.M., 1967), 410-415.
- Perls, F. S., *Ego, Hunger, and Aggression* (New York, Random House, 1969).
- Rakstis, T., "Sensitivity training: fad, fraud, or new frontier," *Today's Health*, 1970, 48(1), 20-25, 86.
- Redlich, F. C. and Astrachan, B., "Group dynamics training," *American Journal of Psychiatry*, 1969, 125, 1501-1507.
- Rice, A. K., "Individual, group, and intergroup processes," *Human Relations*, 1969, 22, 565-584.
- Rice, A. K., *Learning for Leadership* (London, Tavistock, 1965).
- Rogers, C. R., "The group comes of age," *Psychology Today*, 1969, 3, 27-31; 58-61.
- Rubin, I., "The reduction of prejudice through laboratory training," *Journal of Applied Behavioral Science*, 1967, 3, 29-50.
- Schein, E. H. and Bennis, W. G., *Personal and Organizational Change through Group Methods* (New York, Wiley, 1965).
- Shepard, H. A., "In defense of clumsiness," *Journal of Applied Behavioral Science*, 1967, 3, 204-205.
- Shepard, H. A., "Personal growth laboratories: toward an alternative culture," *Journal of Applied Behavioral Science*, 1970, 6, 259-268.
- Schmuck, R. A., Runkel, P. J., and Longmeyer, D., "Improving organizational problem solving in a school faculty," *Journal of Applied Behavioral Science*, 1969, 5, 455-482.
- Schutz, W. C., *Joy: Expanding Human Awareness* (New York, Grove Press, 1967).
- Slater, P. E. and Bennis, W. G., "Democracy is inevitable," *Harvard Business Review*, 1964, 42(2), 51-59.
- Steele, F. I., "Personality and the laboratory style," *Journal of Applied Behavioral Science*, 1968, 4, 25-46.
- Whyte, W. F., *Leadership and group participation* (New York State School of Industrial and Labor Relations, May 1953).
- Work, H. H., "To Chris Argyris," *Journal of Applied Behavioral Science*, 1967, 3, 208-209.

# Productivity in the soft drinks industry

While output doubled  
over a 10-year period,  
industry employment  
increased by  
only 30 percent

EDWIN ADELMAN AND CHARLES ARDOLINI

OUTPUT PER MAN-HOUR has been rising substantially faster in the soft drinks industry<sup>1</sup> than in the Nation as a whole in recent years. Output per man-hour in the industry went up almost 60 percent between 1958 and 1968.<sup>2</sup> (See table 1.) This increase represents an annual growth rate of 4.4 percent a year<sup>3</sup>—significantly higher than the 3.6-percent rate for all manufacturing during this period. Since 1960, output per man-hour has grown at an average annual rate of 5.3 percent a year following the only decline in productivity (1.6 percent) in 1960. High output increases, technological improvements, larger establishments, new products, and increases in capital expenditures all contributed to the rapid advance in productivity.

## Output

Output increases were perhaps the major explanation for the industry's above average rate of productivity growth. Soft drink output doubled between 1958 and 1968, increasing at an average rate of 7 percent a year.

After the decline in 1960, output grew at a steady pace throughout the period. This trend culminated in an especially large increase in 1968—14½ percent—that was produced by two factors: an unusually hot summer and an intensive promotion campaign by the soft drink manufacturers.

Part of the increase in output over the period represents an increase in demand for soft drinks, based on population growth. An even greater part represents a 60-percent increase in per capita consumption of soft drinks between 1959 and 1968. During this period, soft drinks became the Nation's second most popular beverage. The

following tabulation shows annual per capita consumption in gallons.<sup>4</sup>

|                  | 1959 | 1968 |
|------------------|------|------|
| Coffee.....      | 40   | 36   |
| Milk.....        | 28   | 24   |
| Soft drinks..... | 18   | 28   |

One reason for this growth in soft drink demand was the changing distribution of age groups in the population. The most rapid expansion took place in the 12- to 24-year-old group, which has the highest per capita consumption rate of soft drinks. Increased advertising stimulated demand for soft drinks, especially in the colder months, when consumption tends to drop. Convenience packaging, diet drinks, and new flavors helped attract new consumers. The growth of vending machine operations increased the availability of soft drinks. Also important was the movement by the industry to larger size single drink containers. From 1963 to 1967, the number of 6- to 9-ounce bottles decreased by almost 32 percent, and the number of 16-ounce bottles increased by 60 percent.

## Employment

While output doubled between 1958 and 1968, employment grew by only 30 percent—from 99,100 to 128,400. Since the proportion of production workers and nonproduction workers remained fairly stable, output per man-hour went up at the same rate for production workers as for all employees.

The composition of the work force in the soft drinks industry differs considerably from the average manufacturing industry. Over 60 percent of the soft drink employees are nonproduction workers, compared with 27 percent for total manufacturing. The high proportion of nonproduction workers reflects the large number of delivery personnel employed by the industry. In most other industries, delivery service either calls for fewer

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persons or is performed by persons employed in transportation industries.

### Changes in technology and marketing

Improvements in technology and marketing interacted with the large growth in output in such a way that only a slight increase in man-hours was required.

A shift to cans and nonreturnable bottles made it easier to adopt palletized handling in the plant. The shift also helped shorten the deliveryman's turn-around time by giving him fewer returnable bottles to handle. Increases in delivery truck size and better design of warehouses have made it economically feasible to use forklift trucks and conveyor systems, decreasing plant loading and unloading time.

The replacement of the corner grocery store by the supermarket also speeded up delivery time. The deliveryman makes increasingly fewer small stops along his route and can take a whole truckload to a single warehouse or supermarket equipped for fast unloading.

New developments in bottling and canning also influenced production worker requirements per unit of output. For example, canned soft drinks were relatively unimportant at the beginning of the period studied, but by the end of the period canning machines with a 1,200-can-per-minute capacity were in operation. These and similar machines resulted in canning speeds so fast that in 1968 only 220 canning lines were needed to process the almost 10 billion cans shipped to the industry that year. In 1964, 109

canning lines processed 2.6 billion cans.

New and faster ways to package soft drinks include shrink wrapping machines that attach bottles or cans together by plastic circlets that are then shrunk to hold the package tightly. The industry also introduced faster and more versatile labeling machines.

### Changes in industry organization

One of the major changes that took place in the soft drinks industry between 1958 and 1968 was a 50-percent growth in the size of the average establishment. In 1958, nearly 4,000 establishments had an average of 24 employees; by 1967, 3,400 establishments had an average of 36 employees. This trend probably contributed to productivity growth, because larger establishments are usually better able to achieve advantages from increased specialization of labor and more efficient utilization of machinery.

This growth in establishment size represents the combined effect of two trends: The new developments in packaging and marketing already mentioned an increase in the variety of products. Traditionally, shipping costs for bottled soft drinks kept bottlers small; franchises were consequently restricted to local areas. These small bottlers found it difficult to handle the wide variety of new sizes and shapes of glass containers, especially nonreturnable bottles. In addition, canned soft drinks, which went from 2 to 18 percent of the industry's output between 1958 and 1968, require separate equipment.

The introduction of new products not only expanded output but tended to favor larger establishments. Companies added a variety of new flavors, especially fruit, and diet soft drinks, to their production during the 1960's. Frozen carbonated beverages ("slush"), sold in convenience stores, were another new product.

**Table 1. Output per man-hour and related data, bottled and canned soft drinks industry, 1958-68**

[Indexes 1958=100]

| Year                           | Output per all employee man-hour | Output | All employee man-hours |
|--------------------------------|----------------------------------|--------|------------------------|
| 1958                           | 100.0                            | 100.0  | 100.0                  |
| 1959                           | 104.4                            | 108.2  | 103.6                  |
| 1960                           | 100.6                            | 106.5  | 105.9                  |
| 1961                           | 104.5                            | 109.7  | 105.0                  |
| 1962                           | 111.5                            | 118.1  | 105.9                  |
| 1963                           | 114.8                            | 125.6  | 109.4                  |
| 1964                           | 120.4                            | 137.0  | 113.8                  |
| 1965                           | 126.1                            | 147.9  | 117.3                  |
| 1966                           | 133.3                            | 165.6  | 124.2                  |
| 1967                           | 137.9                            | 174.4  | 126.5                  |
| 1968                           | 158.7                            | 199.8  | 125.9                  |
| Average annual rates (percent) |                                  |        |                        |
| 1958-68                        | 4.4                              | 7.0    | 2.5                    |

### Capital expenditures

Although the relationship between capital expenditures and output per man-hour is not directly measurable, large capital expenditures per employee in the soft drinks industry probably contributed to the above average rate of productivity growth.

Capital expenditures per employee in this industry consistently exceeded manufacturing in

general between 1958 and 1967. They grew from \$660 per employee in 1958 to \$1,360 in 1967. This ratio in 1967 was about 30 percent higher than the overall manufacturing ratio.

### Prospective developments in the 1970's

Several new technological developments not now widely used could have a marked effect on maintaining the relatively high rate of productivity gain. Some of these developments will increase bottling speeds, such as machines that handle up to 2,000 bottles a minute, compared with the 800 bottle capacity of the fastest machines in the late 1950's. Glass and plastic bottles now being developed will allow faster bottling speeds because of their greater strength.

Another innovation should facilitate quality control and stock rotation. Crown coder machines stamp invisible codes on bottles or can tops that, with the use of ultraviolet light, will help the bottler detect the line, shift, plant, and date of production.

Some of the changes in the product, such as a new additive to cut foaming and loss of carbonation, will help productivity directly. Other changes may increase productivity indirectly by adding to the demand for soft drinks; high-protein soft drinks, both carbonated and uncarbonated, could be used as a diet supplement for undernourished children; and isotonic drinks are now being

promoted as a thirst-quenching, quick energy source.

The Federal Government's ban on cyclamates has already stimulated the development of new formula diet drinks. The need to decrease pollution poses a more serious problem. Groups concerned about the Nation's environment have focused attention on soft drink cans and nonreturnable bottles as a major source of hard to dispose of litter. As a result, research efforts on lightweight, self-decomposing containers have expanded. □

### —FOOTNOTES—

<sup>1</sup> The soft drinks industry is made up of establishments that manufacture bottled and canned soft drinks and carbonated waters. It is designated Industry 2086 in the 1967 *Standard Industrial Classification (SIC) Manual*. This industry does not include the manufacture of syrup or similar ingredients that are the industry's raw materials.

<sup>2</sup> Series begins in 1958 due to the lack of sufficient output data for prior years.

<sup>3</sup> All average annual rates of change are based on the linear least squares trend line of the logarithms of the index numbers.

<sup>4</sup> Data from *Soft Drinks Industry*, January 30, 1970.

A technical note describing the methods and procedures used in developing the indexes is available on request. The indexes for this industry will be kept current and will be included in the annual BLS bulletin on Indexes of Output Per Man-Hour, Selected Industries.

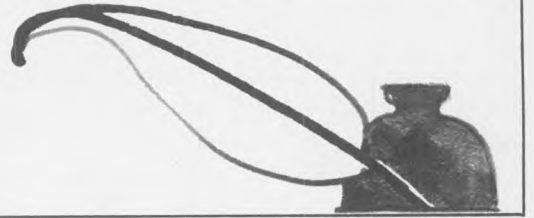
### Suburbs and central cities

If past trends continue, nearly half of our national population will be living in the suburban parts of our metropolitan areas in 1985; only one-fourth will be living in central cities. Virtually all of the white growth has occurred in the suburban ring. The nonwhite growth has

taken place primarily in the central cities. Unless there is a sharp change in trends observed in the decades 1950-60 and 1960-70, one-third of central city residents would be black in 1985 compared to one-fifth at present.

—DR. GEORGE H. BROWN,  
Director, U.S. Bureau of the Census,  
speaking in New York City,  
October 7, 1970.

# Communications



## RECENT STATUTES COVERING PUBLIC EMPLOYEES

JOSEPH P. GOLDBERG

ANY ATTEMPT to keep up with rapidly changing public employee law and policies, particularly at the State level, would require a looseleaf approach, but three developments since publication of "Changing policies in public employee labor relations" (*Monthly Labor Review*, July 1970) merit special notice. They are a Federal act establishing the U.S. Postal Service and State laws covering public employees in Hawaii and Pennsylvania.

The Hawaii and Pennsylvania laws have received much attention because they permit public employees to strike under specified conditions, but these statutes have other noteworthy features. The Postal Reorganization Act authorizes collective bargaining on wages and working conditions under laws applying to private industry and retains the ban on Federal employee strikes, while providing for binding arbitration in the event of negotiation impasses. This act, negotiated after the March strike, was signed by President Nixon in August.

The new postal statute covers only the Federal employees of the postal service. Other Federal employees are covered by Executive Order 11491 and the procedures established under it. They do not have negotiation rights on wages.

The three statutes establish comprehensive machinery for determining exclusive representation rights, appropriate units, violation of prohibited employer, employee, or employee organization practices, grievance procedures, and contract negotiations. Wages and working conditions are to be negotiated with exclusive bargaining agents

and written contracts executed. The National Labor Relations Board will decide national postal unit boundaries and conduct elections. Responsibility for handling impasses will belong to the Federal Mediation and Conciliation Service. The existing State labor relations board will administer the Pennsylvania law, with court determination of the impact of strikes on the health and welfare of the community. A new tripartite public employment relations board will administer the Hawaii statute, including the question of strike permissibility.

The new Hawaii and Pennsylvania statutes cover all State and local public employees, including teachers, who are covered under some State laws by separate legislation. In addition the Pennsylvania statute covers employees of non-profit organizations receiving government grants or appropriations, but excludes policemen and firemen, already covered by an earlier statute requiring binding arbitration.

The statutes vary in their treatment of union membership requirements. The Hawaii statute authorizes the agency shop while permitting any employee to refrain from joining the union. At the request of the exclusive bargaining agent, all employees in the bargaining unit will be assessed "reasonable service fees necessary to defray" the costs for the union in negotiating and administering the agreement. The Pennsylvania statute authorizes negotiations on maintenance of membership, under which union membership would be maintained for the duration of the contract. However, members would still have the right to resign within 15 days prior to contract expiration. The postal statute sets forth the employee's right to join or refrain from joining a union. All three statutes authorize union dues checkoff on written authorization by individual employees.

Provisions in the Pennsylvania and Hawaii statutes regarding the right to strike must be viewed in the context of exhaustion of the com-

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plete impasse procedure established, as well as the right of petition by the public employer for an investigation of the impact of a threatened or ongoing strike. First, it should be noted that the postal and Hawaii statutes authorize, and the Pennsylvania statute requires, procedures culminating in binding arbitration of grievances or disputes arising out of the *interpretation* of the provisions of an agreement. Procedures governing the *negotiation* of the terms of agreements under the State statutes fix time limits for negotiations to adequately precede the employer's budget submission date. If the parties are unable to reach agreement, these procedures call for mediation and factfinding with recommendations to occur within specified periods. Only after these steps have been exhausted and the impasse persists are strikes lawful, and then only if they do not create a "clear and present danger or threat to health, safety, or welfare of the public." In the event of a strike, the public employer may petition for investigation of the strike's impact. In Pennsylvania, the petition goes to the courts for relief; in Hawaii, it goes to the public employee board, which sets requirements to be met to avoid or remove the imminent danger. The Pennsylvania statute prohibits strike action for guards at prisons or mental hospitals, or for employees involved in the necessary functions of the courts. Both statutes

make it unlawful to strike before the mediation and factfinding procedures have been exhausted.

The postal act continues the ban on Federal employee strikes. Steps for negotiation or renegotiation of a contract are set forth, including advance notice, factfinding, and binding arbitration if an impasse persists 180 days after the start of bargaining.

These statutes underline the trend to comprehensive statutes providing for collective bargaining, with machinery comparable to that in the private sector. For those States that have yet to act in this field, there is now ample evidence of the utility of such arrangements and mounting experience on which to base statutory arrangements. For success in the application of such statutes, attention should also be given to the experience of States in calling on the views of representatives of public employee unions and associations, public management, as well as of union, management, and impartial experts in the private field. "The question to be faced in the 1970's," the annual report of the American Bar Association's State Labor Law Committee recently stated, "is whether the States will assume their rightful responsibility in this area or whether, because of a lack of State action, it will be necessary for Congress to assume this burden at the national level." □

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### American Bar unit urges more State labor laws

The American Bar Association's Committee on State Labor Law, in its 1970 annual report, emphasizes the growth in State legislation giving public employees the right to collective negotiations and urges inactive States to follow suit. . . .

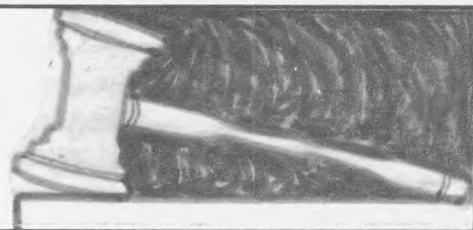
The report, signed by attorneys representing labor unions, management clients, and public agencies, says that "State and local governments should act to establish appropriate representation machinery to determine the wishes of employees and to resolve supervisory questions, unit determination questions, and the like.

"Experience has demonstrated that such machinery is essential if disputes over representation are to be resolved peacefully. Many strikes occurred in 1969 as a result of disputes over recognition and representation. Such disputes can have a national impact, such as occurred in Memphis, Tenn., and in the strike involving Charleston, S.C.'s public hospitals and hospital workers.

"In the opinion of the committee, necessary representation machinery should be established by all States so that there should be no need for an employee organization in public employment to engage in a work stoppage over issues of recognition and representation. . . ."

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# Union Conventions



## UNITED STEELWORKERS OF AMERICA

JOHN L. GURNEY

THE 15th Constitutional Convention of the Steelworkers met in Atlantic City, September 28–October 2, to determine the union's direction and establish policy for the next 2 years. In resolutions and discussions, the 3,767 delegates indicated deep concern over the current state of the country's economy, the November elections and their impact on economic policy, and the union's upcoming negotiations with the basic steel industry and other major producers during 1971. Knowledgeable labor reporters were surprised at the delegates' talk of the probability of a strike next year.

### Demands for greater gains

Reflecting the attitude of the delegates, and presumably of most members, Steelworkers' President I. W. Abel was critical of the Administration's economic policies on the money supply, interest rates, unemployment, consumer prices, and others. He emphasized the accomplishments of the 1968 contract—pensions for widows, vacation bonus, earnings protection plan, and the extension of incentive pay to some hourly rated workers—and told the delegates that considerable attention must now be given to the needs of the younger workers. Although the union now claims 1,225,700 members and assets have reached a record of more than \$50 million, changes in the union membership's age composition left no room for complacency. About 35 percent of the members are under the age of 30, and every 2 years there is a turnover affecting approximately one-third of the active

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membership. The Steelworkers recognized that programs have to be established to meet the needs of the younger workers, as well as for the long-term members. Thus, the issues before the delegates were those of job security, unemployment, and efforts to stop "wage erosion" by inflation.

Most of the 3,600 contracts the union holds with 2,600 employers expire in 1971: container contracts on February 15, aluminum agreements on May 31, copper mining, smelting, and refining on June 30, and basic steel contracts on August 1. A major bargaining goal adopted by the convention included a cost-of-living escalator clause, without a ceiling, tied to the Consumer Price Index. Specifically, the union would seek an escalator clause providing for a 1-cent-an-hour wage increase for every 0.3-percent rise in the Consumer Price Index. A cost-of-living escalator clause had been eliminated in the settlement of the 116-day strike in 1959. Some 250 resolutions calling for restoration of the escalator clause indicated the importance of this demand in coming negotiations.

In addition to a very substantial wage increase to make up for declines in real earnings, the delegates resolved to demand a shorter workweek with no reduction in take-home pay. The resolution read in part, ". . . we must continue to pursue the goals of a shorter workweek and cost-of-living protections. Economic and social stability requires a fully employed labor force with real buying power in the market place." It was not made clear how and to what extent the working hours would be reduced.

A report to the delegates by the union's top officers pointed out that gross hourly earnings of steelworkers in 1969 averaged \$4.02 an hour—86 cents an hour more than in 1961, with only "a small fraction of this representing a rise in purchasing power." Better pension protection was also cited as a top priority goal: "Our goal is full pension guarantees for every wage earner in our jurisdiction. It is vital that Federal legislation be

immediately enacted, including the following protections: (a) guarantees by Federal reinsurance, (b) minimum standards for funding and vesting, and (c) amendments to bankruptcy laws providing special priority for pension obligations."

Another important bargaining goal calls for a 2-week summer vacation shutdown of the entire steel industry. The resolution noted that if industry can build up inventories for a strike, it can also stock inventories for a vacation shutdown.

### Political priorities

Turning to political issues, the convention called for the election of more "liberals" to Congress, to counter what is described as the "antilabor direction" of the Administration. It pledged the union to redouble its efforts to raise funds for labor-endorsed candidates and to get out votes on election day. Walter J. Burke, Secretary-treasurer of the union, told the delegates that the decision made by the voters in November will determine whether liberal and labor interests will lose the legislative branch as well as the executive and judicial branches of Government.

The convention outlined four major legislative goals. Delegates endorsed the Daniels occupational health and safety bill (H.R. 16785) pending in the House of Representatives, called for reasonable quotas on steel imports, approved—without opposition—a national health insurance plan that would absorb Medicare and Medicaid and guarantee complete medical care service, and strongly urged the enactment of an antipollution law with distinct standards and timetables.

### Internal dissent

A proposal to eliminate the longstanding clause prohibiting strikes during the life of a contract generated controversy among the delegates. Frequently in anger, delegates charged that "management willfully violates the contract," but because of the "no-strike" clause workers have no recourse except through the time-consuming grievance and arbitration procedure. The complaint was voiced that arbitration of a grievance may require up to 4 years and cost \$500 or more. As a result, delegates said, the grievance settlement machinery is clogged with a backlog of cases. Abel, while agreeing that arbitration is

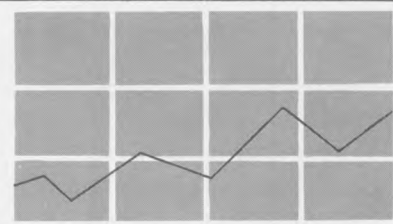
costly and time consuming, asked the delegates not to lose sight of the many merits of the grievance procedure. He told them that "it is far better to solve their grievances by reason than by violence and hatred." After prolonged debate, the issue was referred for further study to the union's Wage Policy Conference.

A note of discord was sounded by the National Ad Hoc Committee of Steelworkers, composed of black workers and members of other minority groups. This committee was formed in 1964 in an effort to get minority representation on the union's 28-member executive board. At present, there are no blacks on the board, although blacks are represented on the staff of every department of the international union. A proposal from the floor would have enlarged the executive board by adding either two more vice presidents or three more national directors to assist the steel union president, these offices to be filled through appointment by the president until the next general election. The proposal, also an issue in the 1968 convention, was voted down because the delegates believed it would be improper to designate members of the board on the basis of race rather than ability. President Abel said that the union has a record of advancing the interests of all people and a diligent effort had been made to give minority group members positions of leadership in the organization.

The single constitutional change, adopted despite vehement opposition, increased the salary of the top officers. Under the change, the salary of President Abel was increased from \$50,000 to \$60,000 a year, that of Secretary-treasurer Burke and Vice President Joseph P. Moloney from \$35,000 to \$42,500, and the salaries of the National Director of Canada and the 24 district directors from \$20,000 to \$25,000 a year. Union officials stated that the increases were the first since 1956 for the top officials and the first since 1964 for the directors. Several delegates stated that the rank and file would have to tighten their belts in anticipation of possible strikes in 1971, and international officers should be expected to do the same. Others praised the union leadership and asked the convention to show their support by voting the increase. The amendment was adopted by a close voice vote. Election of officers was not an issue at the convention since their present terms do not expire until 1973. □



# The Anatomy of Price Change



## THE THIRD QUARTER, 1970

AS BUSINESS ACTIVITY remained sluggish, the rate of inflation continued to moderate in the third quarter. The Consumer Price Index rose at a seasonally adjusted annual rate of 4.2 percent during July, August, and September—down from 7 percent in the first quarter and 5.9 percent in the second—the smallest quarterly advance in two years. The Implicit Price Deflator for the Personal Consumption Expenditures component of private GNP has shown the same general pattern as the Consumer Price Index since the first quarter of this year.

Although prices in the consumer sector of private GNP increased at a slower rate than in the second quarter, construction and producers' durable equipment components advanced at a more rapid pace. The Implicit Price Deflator for private GNP, therefore, rose at a 4.5-percent annual rate, more than the 4.1-percent rate registered in the second quarter, but considerably smaller than the peak rate of 5.3 per-

cent in the first quarter of 1970. (See table 1.)

The moderation in the rate of advance of the Implicit Price Deflator since the first quarter has resulted from substantial changes in underlying demand and cost pressures. Early in 1970, unit labor costs were rising rapidly due to declines in output and productivity and large increases in compensation per man-hour. In the second quarter, output per man-hour rose significantly for the first time in 2 years. Since output edged up only slightly, the gain resulted primarily from the decline in employment. The improvement in output per man-hour was accompanied by a slower rise in compensation per man-hour. These developments produced a decline in the rate of increase in unit labor costs, from an annual rate of 9.6 percent in the first quarter to 1.5 percent in the second quarter. Price changes, however, did not fully reflect the extent of the slower rise in unit labor costs because other unit costs such as capital consumption allowances, indirect business taxes, and net interest rose at a more rapid rate. Profits per unit of output also moved up in the second quarter following substantial declines in the preceding two quarters.

In the third quarter, unit labor costs rose more than in the second quarter, at an annual rate of 3.3 percent. The gain in output per man-hour was larger than in the second quarter but compensation per man-hour also increased at a faster pace. Unit nonlabor costs continued to advance almost as rapidly as in the second quarter.

In both the second and third quarters, the rise in unit labor costs was smaller than the rise in the Implicit Price Deflator. The labor share of private GNP consequently moved down—quite significantly in the second quarter, and less so in the third quarter. The labor share had advanced

**Table 1. The anatomy of price change, 1969 and 1970**

| Item   | Percent change from previous quarter (at annual rate—compounded) |      |      |      |                  |
|--|--|------|------|------|------------------|
|  | 1969   |      | 1970 |      |                  |
|  | III  | IV   | I    | II   | III <sup>2</sup> |
| <b>PRODUCT DEFLATORS</b>                                     |  |      |      |      |                  |
| Private GNP deflator.....                                    | 4.5  | 4.7  | 5.3  | 4.1  | 4.5              |
| Personal consumption expenditures.....                       | 4.8  | 4.7  | 5.1  | 4.2  | 3.5              |
| Private construction.....                                    | 7.8  | 2.7  | 4.5  | 7.9  | 13.4             |
| Residential.....   | 4.4  | 1.3  | 3.8  | 5.2  | 10.8             |
| Nonresidential.....  | 9.5  | 3.6  | 4.8  | 10.2 | 14.0             |
| Producers' durable equipment.....                            | 4.4  | 4.2  | 5.7  | 2.7  | 4.1              |
| Government purchase of goods and services <sup>1</sup> ..... | 3.6  | 5.5  | 5.7  | 6.9  | 5.5              |
| <b>UNIT COSTS (TOTAL PRIVATE—ALL PERSONS)</b>                |  |      |      |      |                  |
| Private GNP Deflator.....                                    | 4.5  | 4.7  | 5.3  | 4.1  | 4.5              |
| Unit labor costs.....  | 6.5  | 7.9  | 9.6  | 1.5  | 3.0              |
| Compensation per man-hour.....                               | 8.2  | 8.8  | 6.8  | 5.3  | 7.7              |
| Output per man-hour.....                                     | 1.6  | 0.8  | -2.5 | 3.7  | 4.6              |
| Unit nonlabor costs.....                                     | 1.1  | -0.8 | -2.0 | 8.6  | 7.3              |

<sup>1</sup> Excludes services of government employees.

<sup>2</sup> Based on October 1970 data.

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steadily for almost 2 years to a peak in the first quarter of this year and, even with the subsequent declines the share was still at the highest level since the fourth quarter of last year. The profit share of private GNP, which had been trending down since late 1968, declined substantially in the fourth quarter of last year and in the first quarter of this year, but was almost unchanged in the second quarter and appears to have risen in the third. The shares of other private GNP components continued to advance.

### Consumer goods and services

Changes in food prices greatly influence the Consumer Price Index and the Deflator for Personal Consumption Expenditures. The rate of advance in food prices accelerated through 1969 to a peak in the first quarter of this year, slowed markedly in the second quarter, and leveled out in the third quarter. (See table 2.) The reversal in trend reflected primarily increased supplies and lower prices for eggs in the second quarter and fruits and vegetables, poultry, and meats in the third quarter. Meat and poultry supplies were larger this summer because of expanded production and some slackening in demand. Supplies

were further bolstered by accelerated marketings of livestock and poultry early in the fall when grain prices advanced substantially following reports of corn blight damage.

Commodities other than food contributed significantly toward a more moderate rise in consumer prices in the third quarter. Increases for furniture and appliances were smaller than in the second quarter; gasoline prices declined; and used car prices eased off from their second quarter peak. Used car prices were relatively high this spring and summer as late-model used cars were in short supply, partly because of the slack in new car sales this year. New car prices of 1970 models remained unusually strong even as the 1971 model year began. Despite slow sales, dealers may have been reluctant to grant large concessions on the existing stock of 1970 cars because of the auto strike. Apparel prices rose sharply late in the third quarter when the new fall line of clothing was introduced.

In perspective, the changes in the third quarter for nonfood commodities remained below their recent peak rates. As table 2 shows, for most of these commodities the peak rate of change occurred in 1969 and for retail apparel prices in the second quarter of 1968, when they rose at a

**Table 2. Percent change in wholesale and retail prices for consumer goods and services, 1969 and 1970**

[Seasonally adjusted, annual rates, compounded]

| Item                                   | Relative importance, December 1969 |       | Indexes | Quarter |      |      |      |      |      | 3-month span ending 1970 |           |         |                       |
|--|------------------------------------|-------|---------|---------|------|------|------|------|------|--------------------------|-----------|---------|-----------------------|
|  | CPI                                | WPI   |         | 1969    |      |      |      | 1970 |      |                          | September | October | November <sup>p</sup> |
|  |                                    |       |         | I       | II   | III  | IV   | I    | II   | III                      |           |         |                       |
| Personal consumption expenditures..... |                                    |       |         | 3.7     | 5.0  | 4.8  | 4.7  | 5.1  | 4.2  | 3.5                      | (1)       | (1)     | (1)                   |
| Consumer Price Index.....              |                                    |       |         | 5.5     | 6.6  | 5.4  | 5.8  | 7.0  | 5.9  | 4.2                      | 4.2       | 5.3     | (1)                   |
| Consumer goods.....                    | 100.0                              |       | CPI     | 4.3     | 5.9  | 4.7  | 5.2  | 5.1  | 4.8  | 2.4                      | 2.6       | 3.5     | (1)                   |
|  |                                    | 100.0 | WPI     | 3.5     | 5.4  | 3.4  | 5.9  | 4.8  | -0.9 | 1.3                      | 3.6       | 2.2     | 3.0                   |
| Nondurables.....                       | 73.4                               |       | CPI     | 3.8     | 6.1  | 5.5  | 5.7  | 5.8  | 4.1  | 1.7                      | 2.3       | 2.8     | (1)                   |
|  |                                    | 76.7  | WPI     | 4.0     | 7.0  | 4.3  | 6.5  | 5.2  | -1.4 | 0.9                      | 3.6       | .0      | 2.4                   |
| Food.....                              | 35.6                               |       | CPI     | 4.0     | 6.7  | 6.9  | 7.3  | 9.1  | 3.3  | .0                       | 1.4       | 1.6     | (1)                   |
|  |                                    | 39.5  | WPI     | 6.4     | 9.1  | 4.4  | 9.7  | 8.7  | -8.6 | 0.7                      | 4.2       | -4.2    | -1.8                  |
| Nondurables except food.....           | 37.8                               |       | CPI     | 4.1     | 5.1  | 4.3  | 4.3  | 3.0  | 4.7  | 3.0                      | 3.6       | 4.6     | (1)                   |
|  |                                    | 37.2  | WPI     | 1.6     | 3.1  | 4.1  | 3.6  | 2.6  | 3.1  | 2.7                      | 3.5       | 4.3     | 3.9                   |
| Apparel, less footwear.....            | 14.6                               |       | CPI     | 5.5     | 5.3  | 4.7  | 5.5  | 2.6  | 2.3  | 2.9                      | 4.0       | 7.3     | (1)                   |
|  |                                    | 10.0  | WPI     | 3.5     | 2.0  | 6.6  | 5.5  | 3.0  | 2.4  | 1.6                      | 3.3       | 5.6     | 3.8                   |
| Gasoline.....                          | 4.6                                |       | CPI     | 6.6     | 7.4  | -1.0 | -0.4 | -3.2 | 6.8  | -3.0                     | -0.1      | 2.9     | (1)                   |
|  |                                    | 3.8   | WPI     | 3.0     | 13.3 | -2.6 | 0.1  | -7.4 | -3.5 | -6.3                     | 5.9       | 8.9     | 6.6                   |
| Durables.....                          | 26.6                               |       | CPI     | 5.4     | 5.2  | 2.2  | 4.1  | 3.2  | 6.1  | 5.4                      | 4.6       | 5.8     | (1)                   |
|  |                                    | 23.0  | WPI     | 1.4     | 2.1  | 1.4  | 2.8  | 3.0  | 2.5  | 3.0                      | 3.1       | 9.2     | 9.2                   |
| New cars.....                          | 3.6                                |       | CPI     | 1.8     | 1.1  | 1.5  | 2.0  | 4.2  | 1.1  | 3.6                      | 6.9       | 10.2    | (1)                   |
|  |                                    | 10.3  | WPI     | .0      | 2.1  | 0.3  | 3.9  | 1.9  | 2.3  | 2.1                      | 3.3       | 20.3    | 20.3                  |
| Furniture.....                         | 2.2                                |       | CPI     | 5.4     | 8.4  | 4.4  | 4.6  | 3.0  | 4.7  | 1.4                      | 1.5       | 2.4     | (1)                   |
|  |                                    | 2.7   | WPI     | 5.7     | 3.3  | 4.4  | 1.9  | 3.3  | 3.3  | 3.0                      | 2.8       | 1.8     | 0.5                   |
| Appliances including radio and TV..... | 2.5                                |       | CPI     | 0.1     | 1.0  | 1.6  | 1.4  | 1.8  | 2.1  | 0.9                      | .0        | 1.4     | (1)                   |
|  |                                    | 3.5   | WPI     | -3.3    | .0   | 0.7  | 0.2  | 2.2  | 0.8  | 1.8                      | 1.9       | 1.8     | 0.6                   |
| Services <sup>2</sup> .....            | 100.0                              | (1)   | CPI     | 7.5     | 8.3  | 6.7  | 6.6  | 10.0 | 9.0  | 6.8                      | 7.2       | 7.1     | (1)                   |
| Household, except rent.....            | 40.9                               | (1)   | CPI     | 8.4     | 11.0 | 8.8  | 9.5  | 11.5 | 11.5 | 6.9                      | 7.9       | 8.9     | (1)                   |
| Transportation.....                    | 14.4                               | (1)   | CPI     | 10.7    | 6.7  | 5.7  | 9.2  | 18.5 | 7.7  | 9.8                      | 10.8      | 9.1     | (1)                   |
| Medical care.....                      | 14.6                               | (1)   | CPI     | 9.3     | 9.5  | 7.7  | 2.6  | 7.3  | 9.4  | 8.7                      | 7.8       | 6.5     | (1)                   |

<sup>1</sup> Not available.

<sup>2</sup> Total services, not seasonally adjusted.

p=Preliminary.

NOTE: Relative importances are for consumer goods portions of CPI and WPI. For all items in the CPI, consumer goods represent 63.8 percent and services represent 36.2 percent. CPI durables also include home purchases and used cars which are not included in WPI. For WPI, consumer goods represent 33.9 percent of all commodities.

7.8-percent annual rate.

The rate of advance of the CPI services component, another significant influence on prices, decelerated in the third quarter, to an annual rate of 6.8 percent from 10 percent in the first quarter and 9 percent in the second. Household services recorded the smallest increase in almost 2 years as mortgage interest rates leveled out following an uptrend extending back to the fall of 1967. In addition, charges for home maintenance services continued to decelerate. The upward pace of medical care services which had accelerated in the second quarter slowed slightly. Prices of transportation services moved up at a faster pace reflecting higher local transit fares in many cities including Chicago, San Francisco,

Washington, D.C., St. Louis, and Cincinnati, and general increases in railroad and airplane fares. Although the third quarter rise in transportation services was substantial, it was smaller than the exceptionally large increase recorded in the first quarter when New York City transit fares were raised.

Early in the fourth quarter, consumer and business demands showed little sign of improvement with the general direction of the economy obscured by the auto strike. During this period, prices declined for food with meat and poultry still in good supply; advanced more rapidly than in the third quarter for new cars, reflecting increases for 1971 models; and at a faster pace for other consumer goods. □

### Inflation in Western Europe and Japan

The cyclical upswing in economic activity that began in mid-1967 in Western Europe, and earlier in Japan, has continued in 1970 despite the slackening in over-all demand in the United States. Boom conditions in 1969 and 1970 have been accompanied by substantial and pervasive price and wage advances. Prices, after rising moderately in 1968, accelerated markedly in 1969, and the rate of increase has remained high this year. The major part of this inflation was at first attributable to the

pressure of excess demand. Increasingly, however, cost-push elements have begun to predominate, as excess demand seems to be responding to restrictive policy actions, and as labor costs in particular continue to rise.

Intense inflationary pressures have been experienced in all the major industrial countries in 1969-70. In some countries—especially Germany, Japan, and the Netherlands—substantial excess demand has persisted into 1970 and has, of course, been accompanied by upward cost pressures. In France and Belgium, on the other hand, demand has exerted less pressure on capacity this year than in 1969; nevertheless, costs have continued to increase. In the United Kingdom, and to a lesser extent in Italy also, cost pressures that developed despite absence of excess demand were the major factor contributing to inflation throughout the past 2 years.

#### Consumer Prices

[Percentage change at annual rate, 2d quarter to 2d quarter]

| Country             | 1967<br>to<br>1968 | 1968<br>to<br>1969 | 1969<br>to<br>1970 |
|---------------------|--------------------|--------------------|--------------------|
| Belgium.....        | 2.3                | 3.8                | 4.1                |
| France.....         | 4.1                | 6.4                | 5.8                |
| Germany.....        | 1.3                | 2.6                | 3.9                |
| Italy.....          | 1.6                | 2.0                | 5.1                |
| Netherlands.....    | 2.0                | 18.1               | 3.5                |
| Japan.....          | 5.6                | 5.1                | 7.6                |
| United Kingdom..... | 4.5                | 5.5                | 5.8                |
| United States.....  | 4.1                | 5.5                | 6.4                |

<sup>1</sup> Reflects introduction of value-added tax on January 1, 1969.

Note: Consumer prices for all goods and services; for Belgium rent is excluded. OECD data.

—*Federal Reserve Bulletin*, October 1970,  
pp. 743-755.



## Research Summaries



### WAGES IN STRUCTURAL CLAY PRODUCTS MANUFACTURING

JOSEPH C. BUSH

STRAIGHT-TIME EARNINGS of workers in production and related jobs in manufacturing structural clay products averaged \$2.58 an hour in September 1969. Earnings of nearly all of the 43,409 workers covered by the Bureau of Labor Statistics survey were within a range of \$1.60 to \$4.50 an hour. The middle half of the workers earned from \$2.07 to \$2.99. Men, over nine-tenths of the industry's work force, averaged \$2.61—45 cents more than women.

The \$2.58 level of earnings in September 1969 was 24 percent above the \$2.08 average in July–August 1964, the date of a similar Bureau survey.<sup>1</sup> Increases in average earnings from 1964 to 1969 were 19 percent in the Border States and Pacific regions, 23 percent in the Middle Atlantic, Great Lakes, and Middle West, 34 percent in the Southwest, and 40 percent in the Southeast. The increases in average earnings ranged from 21 to 25 percent among the four industry branches for which separate data were developed.

Workers in plants making primarily brick and structural clay tile, nearly half of the industry's employment, averaged \$2.39 an hour in September 1969 compared with \$3.03 for those in clay refractory plants which accounted for one-fifth of the production workers. Averages were \$2.42 in ceramic wall and floor tile and \$2.68 in clay sewer pipes plants. Part of these variations in earnings levels resulted from differences in the geographic distribution of employment among the industry branches. For example, the Southeast and Southwest (two relatively low-paying regions) accounted for nearly one-half of the workers in brick and

structural clay tile plants, but for only one-eighth of those in clay refractories.

Hourly earnings for all production workers averaged \$2.02 in the Southwest, \$2.47 in the Border States, \$2.88 in the Pacific region, \$2.90 in the Middle West, and \$2.92 in the Middle Atlantic. Workers in the Southeast and in the Great Lakes—the two largest regions of industry employment—averaged \$2.16 and \$2.85, respectively. As indicated in table 1, earnings levels also varied among States of industry concentration.

Production worker averages were higher in metropolitan areas than in smaller communities (\$2.61 and \$2.56), higher in plants with 100 workers or more than in smaller plants (\$2.65 and \$2.47), and higher in plants with collective bargaining agreements than in nonunion plants (\$2.74 and \$2.22).

Plants with collective bargaining agreements covering a majority of their production workers employed seven-tenths of the industry's work force. The proportions were slightly more than half in brick and structural clay tile plants, nearly two-thirds in ceramic wall and floor tile plants, seven-eighths in clay sewer pipe plants, and over nine-tenths in clay refractories. Nearly two-fifths of the workers in the Southwest were in union plants, compared with one-half in the

**Table 1. Average straight-time hourly earnings in structural clay products manufacturing establishments, by industry branch, selected states, September 1969**

| Industry branch and State              | Number of workers | Average hourly earnings |
|--|-------------------|-------------------------|
| <b>Brick and structural clay tile:</b> |                   |                         |
| California.....                        | 543               | \$3.07                  |
| Georgia.....                           | 1,103             | 2.05                    |
| Illinois.....                          | 919               | 3.12                    |
| North Carolina.....                    | 1,752             | 2.19                    |
| Ohio.....                              | 2,238             | 2.84                    |
| Pennsylvania.....                      | 1,578             | 2.80                    |
| Texas.....                             | 2,498             | 1.95                    |
| <b>Ceramic wall and floor tile:</b>    |                   |                         |
| California.....                        | 1,047             | 2.60                    |
| <b>Clay refractories:</b>              |                   |                         |
| Missouri.....                          | 2,627             | 3.19                    |
| Ohio.....                              | 1,514             | 3.00                    |
| Pennsylvania.....                      | 2,729             | 3.20                    |
| <b>Clay sewer pipe:</b>                |                   |                         |
| Ohio.....                              | 1,551             | 2.84                    |

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Southeast and three-fourths or more in the other regions.

Separate information was also obtained for a number of occupational classifications selected to represent the various activities performed in the industry. Average hourly earnings ranged from \$2.15 for janitors to \$3.34 for maintenance electricians. Averages for some of the jobs with at least 1,000 workers were: \$2.42 for tunnel kiln firemen, \$2.48 for off bearers, \$2.70 for tunnel kiln placers, \$2.72 for tunnel kiln unloaders, and \$3.15 for periodic kiln setters and drawers.

Paid holidays (usually 6 or 7 days a year) and paid vacations were available to more than nine-tenths of the production workers. Typical vacation provisions were 1 week of pay after 1 year of service, 2 weeks after 5 years, and at least 3 weeks after 15 years. Nearly three-tenths of the workers received 4 weeks or more of paid vacation after 25 years of service. Over nine-tenths of the workers were in establishments that paid at least part of the cost of life, hospitalization, and surgical insurance benefits. Retirement pension plans, other than Federal social security, covered nearly three-fifths of the production workers.

The survey covered plants with 20 workers or more, primarily engaged in manufacturing structural clay products such as brick, clay tile, ceramic wall and floor tile, clay firebrick, clay sewer pipe, terra cotta, and roofing tile. Earnings data developed by the study exclude premium pay for overtime and for work on weekends, holidays, and late shifts. A comprehensive report on the survey is expected to be issued this winter. Separate releases for the States listed in table 1 are available from the Bureau or any of its regional offices. □

—FOOTNOTE—

<sup>1</sup> See Charles M. O'Connor, "Wages in Structural Clay Products, July-August 1964," *Monthly Labor Review*, September 1965, pp. 1089-1092.

## OUTPUT PER MAN-HOUR IN SELECTED INDUSTRIES

CAROLYN S. FEHD

For the majority of some 30 industries, growth in productivity during 1969 was considerably smaller

than during 1968. The productivity growth in 1969 appears low after above average gains in 1968, which occurred as many manufacturing industries rebounded from strikes during 1967. Of the industries studied, nine experienced actual declines in output per man-hour while only four had higher growth rates.

The slowdown in productivity in the selected industries was consistent with the behavior of both manufacturing and the total economy in 1969. Motor vehicles and steel, the two largest of the selected industries and among the most sensitive to cyclical fluctuations, reflect this slowdown. In steel, productivity increased less than 1 percent as the increase in man-hours nearly kept pace with the modest increase in output. In motor vehicles, the productivity rate declined over 3 percent as output declined and man-hours increased.

The latest Bureau study of industrial productivity, presented in *Indexes of Output Per Man-Hour, Selected Industries, 1939 and 1947-69* (BLS Bulletin 1680, 1970), shows that the average annual growth rates for these industries during the 1957-69 period varied from 0.7 percent for footwear to 8.2 percent for air transportation. Of the 25 manufacturing industries, 15 had growth rates higher than the 3.3 percent for all manufacturing for 1957-69. Substantial growth of over 5 percent per year was shown by seven of the 15 malt liquor, cigars, hosiery, petroleum refining, tires and tubes, aluminium rolling and drawing, major household appliances, and radio and television receiving sets. In the nonmanufacturing industries—coal mining, railroads, air transportation, and gas and electric utilities—growth rates were over 5 percent per year for the 1957-69 period.

Although all the selected industries showed increased productivity from 1947 to 1969, only three, air transportation, petroleum refining, and gas and electric utilities, had positive rates of growth for every year. For five of the industries—malt liquor, cigarettes, hosiery, tires and tubes, and glass containers—the rate of growth from 1957 to 1969 was more than twice that for 1947 to 1957. (See table 1.) One industry, footwear, had a rate of growth for 1957 to 1969 less than half that from 1947 to 1957.

About one-half of the industries that had above

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Table I. Growth in output per all employee man-hour

| Selected Industries                          | Average annual rate of change (percent) <sup>1</sup> |         |
|--|--|---------|
|  | 1957-69  | 1947-57 |
| Mining:                                      |  |         |
| Iron mining.....                             | 22.8   | 1.8     |
| Copper mining.....                           | 21.5   | 2.4     |
| Coal mining.....                             | 25.5   | 6.3     |
| Bituminous coal and lignite.....             | 25.5   | 6.5     |
| Manufacturing:                               |  |         |
| Canning and preserving.....                  | 33.3   | 4.4     |
| Flour and other grain mill products.....     | 3.6  | 3.2     |
| Sugar.....                                   | 4.3  | 4.1     |
| Candy and other confectionery products.....  | 3.3  | 2.8     |
| Malt liquors.....                            | 5.7  | 2.3     |
| Tobacco products; total.....                 | 3.3  | 2.6     |
| Cigarettes, chewing and smoking tobacco..... | 1.8  | 0.8     |
| Cigars.....                                  | 5.8  | 4.4     |
| Hosiery.....                                 | 6.3  | 2.9     |
| Paper, paperboard, and pulp mills.....       | 4.4  | 3.3     |
| Corrugated and solid fiber boxes.....        | 52.7   | -----   |
| Man-made fibers.....                         | 4.5  | -----   |
| Petroleum refining.....                      | 6.8  | 5.0     |
| Tires and inner tubes.....                   | 5.4  | 2.4     |
| Footwear.....                                | 0.7  | 2.5     |
| Glass containers.....                        | 2.5  | 1.0     |
| Cement, hydraulic.....                       | 44.6   | 5.2     |
| Concrete products.....                       | 3.1  | 5.6     |
| Steel.....                                   | 2.5  | 2.1     |
| Gray iron foundries.....                     | 2.5  | -----   |
| Primary copper, lead, and zinc.....          | 2.2  | 3.0     |
| Primary aluminum.....                        | 4.0  | 3.3     |
| Aluminum rolling and drawing.....            | 56.8   | -----   |
| Major household appliances.....              | 55.8   | -----   |
| Radio and television receiving sets.....     | 56.3   | -----   |
| Motor vehicles and equipment.....            | 4.1  | -----   |
| Other:                                       |  |         |
| Railroads.....                               | 6.2  | 4.2     |
| Air transportation.....                      | 68.2   | 10.1    |
| Gas and electric utilities.....              | 6.5  | 7.9     |

<sup>1</sup> Average annual rate based on least squares trends of the logarithms of index numbers.

<sup>2</sup> Output per production worker man-hour.

<sup>3</sup> Average annual rate of change for 1957-67.

<sup>4</sup> Average annual rate of change for 1957-68.

<sup>5</sup> Average annual rate of change for 1958-69.

<sup>6</sup> Output per employee.

average productivity gains during the 1957-69 period also had above average output increases. One industry, corrugated and solid fiber boxes, had a higher than average increase in output but below average increase in productivity. In coal mining, sugar, flour, malt liquor, hydraulic cement, and railroads, increases in productivity were near average, but output either declined or increased at less than the average rate.

Only four of the selected industries, air transportation, radio and television receiving sets, man-made fibers, and motor vehicles, had employment gains averaging over 4 percent from 1957 to 1969. These four industries also had high output increases and substantial increases in productivity. Employment increased between 2 and 4 percent in aluminum rolling and drawing and in primary aluminum.

Employment declined in 13 industries from 1957 to 1969. The largest drops occurred in coal mining, railroads, petroleum refining, and flour milling, where small output increases were associated with large productivity increases. □

## WAGES IN FABRICATED STRUCTURAL STEEL

MICHAEL J. TIGHE

THE LATEST Bureau of Labor Statistics wage survey in fabricated structural steel plants shows a rather wide variation of individual pay rates for workers in production and related jobs. The industry employs workers in a range of skills from general labor to highly trained crafts, such as welders and mechanics, to fabricate metal parts for bridges, buildings, ships, and other structures. The dispersion of individual pay rates also reflects differences in pay among plants scattered throughout the Nation.

Virtually all workers in the industry are men. They are largely paid time rates and are mostly employed in plants having collective bargaining agreements. Union plants employ about three-fourths of the industry's work force. Most workers in nonunion plants are found in the Southeast and Southwest regions.

The level of straight-time hourly earnings (\$3.13) in the industry in October 1969 was 25 percent above the average (\$2.50) recorded in a similar Bureau study in October-November 1964.<sup>1</sup> The advance in earnings levels amounted to 23 percent in the Great Lakes and 25 percent in the Middle Atlantic (the two largest regions in terms of industry employment), and ranged from 16 percent in the Mountain States to 30 percent in New England and the Southeast.

Workers in the Great Lakes and Middle Atlantic regions, together accounting for slightly more than two-fifths of the industry's 64,600 production workers, averaged \$3.31 and \$3.54 an hour, respectively. Averages in the other regions of the country show even wider differences. They range from less than \$3 an hour in the Southeast (\$2.51), Southwest (\$2.67), and the Border States (\$2.68) to a high of \$3.96 in the Pacific region. Variations in earnings levels were also found among major centers of industry concentration (table 1).

Among jobs selected to represent activities performed by production and related workers in the industry, average hourly earnings ranged from \$2.01 for watchmen to \$3.70 for template makers. Hand welders, one of the numerically largest

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**Table 1. Earnings<sup>1</sup> of production workers in fabricated structural steel manufacturing establishments, selected areas, October 1969**

| Area   | Number of workers | Average hourly earnings |
|--|-------------------|-------------------------|
| Birmingham.....  | 1,226             | \$2.89                  |
| Chicago.....   | 1,800             | 3.36                    |
| Cleveland.....   | 639               | 3.36                    |
| Detroit.....   | 1,964             | 3.63                    |
| Houston.....   | 1,153             | 2.59                    |
| Los Angeles-Long Beach and Anaheim-Santa Ana-Garden Grove..... | 1,724             | 3.83                    |
| New York-Northeastern New Jersey.....                          | 2,862             | 4.18                    |

<sup>1</sup> Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

occupations, averaged \$3.42 for class A work (welding metal parts placed in any position) and \$3.03 for the less demanding class B work (welding parts placed in a flat or horizontal position). Other numerically important jobs and their averages included general mechanics (\$3.61), helpers (\$2.77), structural fitters (\$3.51), and steel layout men (\$3.68). Riveters—once an important job in the industry—were found infrequently in the October 1969 survey. Welding and, to a lesser extent, bolting have replaced riveting as a major means of joining metal parts.

Paid holidays and paid vacations were provided by almost all establishments in the survey. The

large majority of the workers received from 6 to 9 holidays a year, and 1 week of vacation pay after 1 year of service, 2 weeks after 3 years, and 3 weeks after 15 years. Half of the workers, however, were in establishments granting 3 weeks of vacation pay after 10 years of service and 4 weeks or more after 25 years. Life, hospitalization, medical, and surgical insurance, usually financed wholly by the employer, covered more than nine-tenths of the workers. Retirement pension plans, other than Federal social security, were provided to about three-fourths of the workers.

Earnings information developed by the survey excludes premium pay for overtime and for work on weekends, holidays, and late shifts. A comprehensive report on the survey will be issued early in 1971. Separate releases for the areas listed in table 1 were issued earlier and are available from the Bureau or any of its regional offices. □

#### FOOTNOTE

<sup>1</sup> See Charles M. O'Connor, "Earnings in Fabricated Structural Steel, 1964," *Monthly Labor Review*, October 1965, pp. 1219-1222.

### Attitudes toward inflation

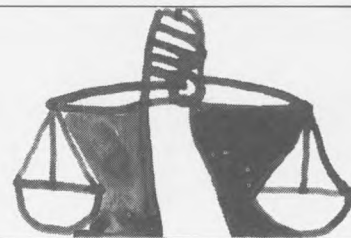
Most Americans believe that it is not possible to protect oneself against inflation. To be sure, in reply to a general question asking whether anything could be done to protect oneself, 27 percent answered in the affirmative, and upper income people gave that answer even somewhat more frequently. Yet when those who answered in the affirmative were queried, "What can you do?", the most common replies did not represent real protection against inflation. "We may buy less," was the most frequent answer, especially among upper income people. . . .

In many foreign countries in times of runaway inflation a "flight from money" developed and people hastened to make purchase in excess or in advance of their needs so as to protect themselves against the expected large price increases. Survey Research Center studies, which make use of an indirect approach to this problem, provided little indication of such behavior in the United States during the 1960's.

At times when price increases are especially salient, as during the last three quarters of 1969, inflation serves to dampen consumer sentiment and therefore to reduce willingness to buy. Consumers resent inflation which deprives them of the fruits of income gains which people feel they have worked for and earned. For these reasons, many people react to inflation by cutting down their spending on discretionary items. In contrast, an inclination by consumers to buy in anticipation of rising prices has been of less significance; it has been observed primarily regarding some particular goods, the prices of which were expected to advance significantly at certain times. For example, there was some anticipatory demand for new cars in the third quarter of 1968.

—GEORGE KATONA AND OTHERS,  
*1969 Survey of Consumer Finances*  
(Ann Arbor, University of Michigan,  
Institute for Social Research, 1970).

# Significant Decisions in Labor Cases



## Arbitration in no-contract period

A collective bargaining agreement expired and the union rejected an offer to keep it in effect pending adoption of a new contract. The employer then unilaterally reinstated the old grievance procedure minus the arbitration clause, and later refused to arbitrate the grievances filed during the no-contract period. In disposing of the union's refusal-to-bargain charge, the National Labor Relations Board said the employer was within his right to eliminate the clause and to refuse arbitration. (*Hilton Davis Chemical Co.*<sup>1</sup>).

Arbitration is a matter of mutual agreement, the Board said. Encouraging arbitration is a declared national policy, "[b]ut we must not be induced by that policy or its benefits to overlook that arbitration is, at bottom, a consensual surrender of the economic power which the parties are otherwise free to utilize. Absent mutual consent, the parties revert to the statutory scheme of 'free' collective bargaining . . . in good faith [but each party] is under no statutory mandate to reach agreement or to forfeit its rights to utilize its economic power if no agreement can be achieved." Supreme Court and appellate court decisions were cited in support.<sup>2</sup>

Good-faith bargaining is the parties' statutory obligation, "not only over the terms and conditions of a . . . new agreement but also over employee grievances which may arise during [the no-contract] hiatus. But it does not follow that during such period the [National Labor Relations Act] requires the parties to submit to arbitration any grievance . . . they are unable to resolve."

During the hiatus, however, the employer cannot "unilaterally attempt to impose new channels for resolution of disputes"—as was the case in

*Bethlehem Steel Co.*<sup>3</sup>—for then he would undercut the union's status as employees' representative.

In his partial dissent, Member McCulloch maintained, "It is now settled that a grievance procedure is within the [meaning of the statutory provision concerning] 'wages, hours, and other terms and conditions of employment' and hence is a mandatory bargaining subject of collective bargaining"; and that "[g]rievance arbitration is generally considered part and parcel of the grievance procedure."

He concluded: "I am not saying that an employer cannot discontinue an existing practice of grievance arbitration after the termination of a collective bargaining agreement. I would hold only that an employer cannot abandon such practice, anymore than he can change the wages or seniority of his employees after the expiration of a bargaining contract, without first notifying the representative of his employees and giving the latter an opportunity to bargain about such change." He disagreed with the majority that there is a distinction between the present situation and that in *Bethlehem Steel Co.* "Indeed it is illogical to say that an employer acts lawfully if he unilaterally completely abolishes a pre-existing grievance procedure, but acts unlawfully if he only modifies it," Mr. McCulloch said.

## Orders to bargain

It is an established rule of law that a union may rightfully demand recognition and bargaining on the basis of authorization cards properly obtained from a majority of employees. This principle was affirmed by the Supreme Court in *Gissel*,<sup>4</sup> where the Court upheld the NLRB's power to issue—and specified the conditions for—orders against employers who unlawfully refuse to deal with unions holding such cards.

The present case (*Gibson Products*<sup>5</sup>) involved a situation where the employer not only refused to deal with a union with authorizations from most

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Prepared by Eugene Skotzko of the Office of Publications, Bureau of Labor Statistics, in consultation with the Office of the Solicitor of Labor.

of his employees, but proceeded to engage in a series of unfair labor practices designed to undermine the union's majority position. The Board had directed the employer to bargain without an election, but an appellate court refused to enforce the order and remand the case for reconsideration in the light of its earlier decision in *American Cable Systems*.<sup>6</sup>

In reaffirming its original stand, the Board chose to consider that court's statement in a later disposition of the *American Cable Systems*<sup>7</sup> (subsequent to the remand of the present case) that under the Supreme Court's ruling in *Gissel*, to use the Board's language, "no bargaining order should issue unless *at the time such an order is directed* the Board 'finds the electoral atmosphere unlikely to produce a fair election. . . .'" (Board's emphasis and citation from the appellate decision.)

In effect, this rule means that, should a union lose its majority status due to the employer's unlawful conduct between the time it claimed such a status and the time of election eventually ordered by the Board, it would not only lose the election but, barring some irregularities, would have no valid ground to challenge the result. The employer would be rewarded for his unlawful conduct. In the face of the employer's unfair practices, the most the NLRB could do would be to order the employer to cease those practices, and to direct that an election be held—one which, as a result of the employer's misconduct, would probably bring defeat to the union.

In reconsidering the case, the Board responded to these instructions as follows: "We respectfully disagree. In our view, the holding of the court misconceives the rationale of the *Gissel* decision and would render a bargaining order inappropriate in a large majority of the cases where the Supreme Court sanctions its use."

The Board continued: "In *Gissel*, the Supreme Court affirmed, without qualification, the settled principle that a bargaining order is not rendered inappropriate by the circumstances that a union has, or may have, lost its majority status between the time of the commission of the employer's unfair labor practice and the Board's decision. The Court stated: 'We have long held that the Board is not limited to a cease-and-desist order in such cases, but has authority to issue a bargaining order without first requiring the union to show that it has been able to maintain its majority status. . . . And we have held that the Board has

the same authority even where it is clear that the union, which once [had] cards from a majority of the employees, represents only a minority when the bargaining order is entered.'"

In the Board's view, *Gissel* "make[s] it plain that the Supreme Court fashioned no different rule for authorization card cases from that which it applies in other cases where the union has lost majority status as a result of the employer's unfair labor practices and the time required for the Board to 'catch up' with that unlawful action."

The Board had no doubt that "the Supreme Court contemplated that the propriety of a bargaining order would be judged as of the time of the commission of the unfair labor practices and not in the light of subsequent events."

### Waiver of the right to bargain

Once again the NLRB has stressed that employees must not be required to waive their statutory right to bargain over conditions of employment. Involved in the case (*Bendix-Westinghouse Automotive*<sup>8</sup>) was the question of participation in a company benefit plan on company terms versus the right to bargain over the plan.

A company had established a savings and stock ownership plan for its salaried employees, with the stipulation that the participants shall not be "within a collective bargaining unit." Members of the unit could become eligible to participate only if their union, upon request of the company, would execute "a waiver, in terms acceptable to [the] company, of all rights . . . and claims of right by [the union] to bargain collectively with respect to the plan. . . ."

The plan, one of voluntary participation and with a 2-to-1 ratio of required employee/employer contributions, was announced during [though not challenged as being in response to] a union's campaign to organize the company's salaried employees. The union eventually lost the election and charged the company had committed an unfair labor practice by publicizing the plan.

The Board said the union was right. It adopted the trial examiner's statement that "[w]hile represented employees are not 'automatically' disqualified [by the plan's eligibility requirement] in the sense that they are forever foreclosed from participation, it is nevertheless true that they—unlike unrepresented employees—can remain or become eligible only by paying the price of giving



up the statutory right [under section 7] to bargain about the subject matter of the plan.”

Exactly how did the eligibility restriction interfere with the employees' rights to free organization and bargaining? The trial examiner cited the NLRB's reasoning in a similar case:<sup>9</sup> “Employees considering [the] selecting [of] a bargaining agent would . . . be impeded in their free exercise of their right to selection by clear and unequivocal language in [the] plan indicating that they would suffer a loss of benefit if they selected a union and the company recognized it. . . .”

### Managerial employees

Traditionally, and consistently, the NLRB has excluded from a bargaining unit those nonsupervisory employees whom it considered as not having sufficient “community of interest” with the group that constitutes the bulk of the unit. It calls them “managerial employees,” including in this group workers whose interests seem to be “more with the persons who formulate, determine, and oversee company policy than with those in the proposed unit who merely carry out the resultant policy. . . .”

Not so long ago, however, the Board issued a decision (in *North Arkansas Electric Cooperative*<sup>10</sup>) that appeared to be inconsistent with that position: it held that the discharge of a nonsupervisory adviser to the management for union activity was unlawful. A court of appeals noted this seeming inconsistency and directed reconsideration.

The NLRB conceded that the managerial employee category was “Board-created, not established by the act,”<sup>11</sup> and that it lacked a precise definition—a defect that “may be inherent in the difficult process [of] evaluating ‘community of interest.’” Yet it said, “We do not at this initial consideration wish to attempt an inflexible comprehensive definition, for we are of the view that a definition must be evolved on a case-to-case basis.”

But the Board corrected the position it had taken in previous decisions,<sup>12</sup> and overruled those decisions to the extent they implied that managerial employees are not entitled to the protection of the National Labor Relations Act. It said, “An employee may not have the requisite community of interest with other employees to be included with them in a . . . unit, and yet clearly be an employee entitled to the protection of the act as a section 2(3) ‘employee.’ On the other hand, some

persons we have traditionally excluded as ‘managerial’ might more accurately have been termed ‘employers’ within the definition of section 2(2), which defines employers as including ‘any person acting as an agent of an employer.’”

The Board reaffirmed its original decision in this case. It found that, although the discharged employee had represented the employer in various capacities as adviser and differed from the employees in the unit in that he received a monthly salary and no overtime pay, he was not concerned with “*the formulation, determination, or effectuation of policy with respect to employee relations matters.*” (Board's emphasis.)

### IN BRIEF . . .

**UNION FINE.** A company supervisor who was also a union member and a foreman of a crew of union men found it necessary one day to start work 15 minutes ahead of the scheduled beginning of the workday. He did not ask the crew for help during the 15-minute period, instead he received assistance from two management superintendents. For this he was tried and fined by his union. The charge was, a breach of the collective bargaining agreement—starting the workday too soon, and using men of other crafts to do work that was within the union's jurisdiction.

The union considered its action a matter of internal discipline. In the litigation that followed, it claimed protection under the Supreme Court's ruling in *Allis-Chalmers*<sup>13</sup> sanctioning such discipline.

But the NLRB, and later a court of appeals, viewed the fine as an unwarranted punishment of a union member for his acts supervisory in nature. *Allis-Chalmers* did not apply here, the court said, since that case involved a genuinely internal affair of a union, whereas here the union “sought to enforce its viewpoint as to the meaning of the contract”—a matter of concern to the union as well as the employer.

“Since the effect of the union's act . . . is to change the [employer's] representative from one representing the viewpoint of management to a person responsive or subservient to the union's viewpoint, the union's act constitutes interference with an employer's control over its representative,” a violation of section 8(b)(1)(B) of the NLRA, the court concluded. (*NLRB v. Sheet Metal Workers, Local 49*.<sup>14</sup>)

FOOD ON EMPLOYER PREMISES. Is the price of food regularly supplied to employees on company premises a "condition of employment" subject to mandatory bargaining?

At least twice within the past 4 years the NLRB has said that it is, and both times a court of appeals has overruled it. In 1967 it held, in *Westinghouse Electric Corp.*,<sup>15</sup> that an employer unlawfully refused to bargain over cafeteria food prices charged by a caterer but determined through a contractual arrangement with the employer. Recently the Board issued a similar ruling (in *McCall Corp.*<sup>16</sup>) in a situation where the employer supplied food in vending machines and also refused to bargain over prices. In each case other eating facilities were available to employees.

In the latter action, the Board asked that the *Westinghouse* decision be overruled, but the court refused. Nor did it enforce the Board's order.

Holding that the two cases were alike, the court said that the price of food served on company premises was not a condition of employment and the employer did not have to bargain over it.

Noteworthy in *McCall*, however, was the dissent of Circuit Judge Sobeloff. He said:

. . . "In common parlance, the conditions of a person's employment are most obviously the various physical dimensions of his working environment." [Cited from a Supreme Court ruling.<sup>17</sup>] No employee can reasonably be expected to work a full 8-hour day without eating. Accordingly, . . . the availability or nonavailability of reasonably priced food [is] an important "physical dimension" of any employee's working environment. . . .

The majority apparently embraces the view that the furnishing of food by an employer does not become a significant feature of the employment relationship unless the employees have no alternative whatsoever. . . . □

—FOOTNOTES—

<sup>1</sup> *The Hilton-Davis Chemical Co., Div. of Sterling Drug, Inc. and Local 342, Chemical Workers*, 185 NLRB No. 58, August 27, 1970.

<sup>2</sup> Including *United Steelworkers v. Warrior & Gulf Navigation Co.*, 363 U.S. 574, 582 (1960)—see *Monthly Labor Review*, August 1960, pp. 854-856; *Proctor & Gamble Independent Union v. Proctor & Gamble Manufacturing Co.*, 312 F.2d 181, 184 (C.A. 2, 1962)—see *Monthly Labor Review*, February 1963, p. 175; and *John Wiley & Sons, Inc. v. Livingston*, 376 U.S. 543 (1964)—see *Monthly Labor Review*, May 1964, p. 564.

<sup>3</sup> 136 NLRB 1500 (1962). This was a supplemental decision (contrary to the original one, 133 NLRB 1347, 1961), where the Board held that, during a no-contract hiatus, the company had violated the Labor Management Relations Act by unilaterally imposing a new grievance procedure without bargaining with the union. On this issue the Board was upheld by a court of appeals (in *Marine & Shipbuilding Workers*, 320 F.2d 615, C.A. 3, 1963—see *Monthly Labor Review*, October 1963, p. 1196), although the case was remanded for reconsideration on other issues; cert. denied 375 U.S. 984 (1964).

The Board's view in a subsequent decision (*Kingsport Press*, 165 NLRB 964) that arbitration clause survives contract expiration was corrected by a court of appeals in the same case (399 F.2d, C.A. 6, 1968, enforcement denied—see *Monthly Labor Review*, January 1969, p. 76), which cited a precedent opinion that "[e]xpired contract rights affecting mandatory bargaining issues . . . have no efficacy unless the rights have become a part of the status quo of the entire plant operation." (*Frontier Homes Corp.*, 371 F.2d 974, C.A. 8, 1967).

<sup>4</sup> *NLRB v. Gissel Packing Co.* (395 U.S. 575) and three companion cases (1969)—see *Monthly Labor Review*, September 1969, pp. 50-52.

<sup>5</sup> *Gibson Products Co. and Retail Clerks Union, Local 390*,

185 NLRB No. 74 (supplementing 172 NLRB No. 243), August 27, 1970.

<sup>6</sup> *NLRB v. American Cable Systems, Inc.*, 414 F.2d 661 (C.A. 5, 1969).

<sup>7</sup> *NLRB v. American Cable Systems, Inc.* (C.A. 5, No. 25358, March 30, 1970).

<sup>8</sup> *Bendix-Westinghouse Automotive Air Brake Co. and United Automobile Workers*, 185 NLRB No. 29, August 27, 1970.

<sup>9</sup> *Motor Wheel Corp.*, 180 NLRB No. 71 (1969).

<sup>10</sup> *North Arkansas Electronic Cooperative, Inc. and International Brotherhood of Electrical Workers*, 185 NLRB No. 83 (supplementing 168 NLRB No. 122), August 27, 1970.

<sup>11</sup> The Board said, "The concept seems to have had its origin in *Vulcan Corp.* (58 NLRB 733, 736), where a timber cruiser log buyer, who spent about 75 percent of his time away from the plant and on occasion substituted for the superintendent, was excluded from a unit because 'of the responsibility of his position and his peculiar relationship to management, and in view of the fact that his interests are apparently different from those of the production and maintenance employees. . . .'"

<sup>12</sup> Including *Swift & Co.*, 115 NLRB 752 (1956); and *Diana Shop*, 118 NLRB 743 (1957).

<sup>13</sup> 388 U.S. 175 (1967); see *Monthly Labor Review*, August 1967, p. 58

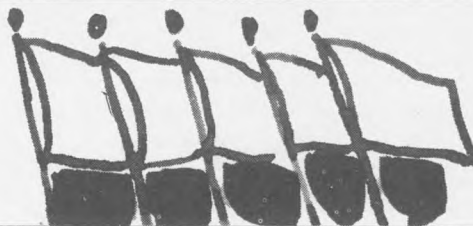
<sup>14</sup> C.A. 10, No. 69-70, August 28, 1970.

<sup>15</sup> *Westinghouse Electric Corp. v. NLRB* 387 F. 2d, 542 (C.A. 4, 1967).

<sup>16</sup> *McCall Corp. v. NLRB* (C.A. 4, No. 12638, September 17, 1970).

<sup>17</sup> *Fibreboard Paper Products Corp. v. NLRB*, 379 U.S. 203, 222 (1964); see *Monthly Labor Review*, February 1965, p. 191.

## Foreign Labor Briefs



### Social security in Latin America

Several Latin American governments have improved their social security systems recently.<sup>1</sup> Legislative changes have been made in Argentina, Brazil, and Panama. In Costa Rica, measures were proposed in the national congress; in Ecuador and Guyana, administrative structures were strengthened.

**GUYANA.** The first comprehensive social security legislation, the National Insurance and Social Security Law, was enacted in September 1969. The law provides old age insurance and workmen's compensation for all employed persons throughout the country between the ages of 16 and 65. It will be financed by contributions of  $7\frac{1}{2}$  percent of earnings—3 percent by the employee and  $4\frac{1}{2}$  percent by the employer, with the provision that regulations may change these rates of contributions.

**BRAZIL.** A limited health care program for agricultural workers, which operated outside the general social security program through a semi-autonomous agency known as the Special Fund for Rural Welfare and Social Security, was established in 1963. Contributions to this program were only 20 percent of what, under the law, they should have been. Because of this shortage and because of shortcomings and complexities in the system (which includes seven or more other agencies), the Brazilian social security system was unified in 1967. The National Institute of Social Security which was then founded became the collecting agent for the Special Fund, as well as for the rest of the social security system.

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In May 1969, old age insurance for rural workers was provided by Decree 562. In September of that year Decree No. 65,106 (effective January 1, 1970) was issued, providing sickness, old age, and disability coverage for rural workers. This measure covered sugar workers only at first, but eventually, according to the decree, it will cover all workers in agricultural enterprises, including seasonally employed workers, and producers and suppliers of agricultural raw materials. Finances for this measure will come from the insured, who will initially pay 4 percent of the regional minimum salary and later will pay up to 6 percent; the employer, who will pay an amount equal to the minimum paid by the employee (4 percent), plus 2 percent of the regional minimum salary per employee for work-related accident insurance; and the Government, which will contribute an amount to cover administrative costs and any financial shortfall. This decree establishes sanctions against both employer and employee for failure to make proper contributions, but such sanctions are difficult to apply. A company or enterprise covered by the September 1969 decree is exempted from making any other social welfare contribution for its rural employees, including payments to the Special Fund. The National Institute for Social Security will transfer to the Special Fund 25 percent of the contributions it receives to cover expenses for medical assistance. If this amount is insufficient, the institute will make up the difference and adjust the contribution rates accordingly.

**ARGENTINA.** A new Social Assistance Law, which became effective March 1, 1970, requires all social service institutions, except private welfare organizations, to supply medical services to all workers and workers' dependents in the group they cover. A 2-percent tax based on wages and salaries paid by the employer finances the new system. Employees contribute 1 percent tax of wages if single, or 2 percent if they have families. Payments are made



to the existing state or union-owned social security institutions. Workers not covered by any such institution make payments to a trade union, which is obliged to provide social services. All union-owned institutions are expected to have adequate financial, administrative, and accounting knowledge to conduct the necessary social service. When considered advisable, government authorities may allow social security contributions to be made to company-owned, cooperative, or mutual aid institutions, provided they conform to the law.

Jurisdiction over all social welfare institutions is maintained by the National Institute of Social Welfare, which was created to administer the law. The institute promotes, coordinates, and integrates the activities of all social welfare institutions, and controls and supervises their accounting and administration. A redistribution fund will be created to help needy institutions and to increase and improve their facilities. In the future, the functions of the National Institute of Social Welfare may be delegated to regional committees or to provincial authorities.

The new social assistance law adds about 3 million workers and their families and 1.2 million retired persons and pensioners to the 2.3 million workers already covered by social welfare. Because of increased costs of living, the Argentine Government raised pensions by 10 to 14 percent for the lowest levels on the pay scale, effective September 1, 1970.

The new law does not mention private welfare institutions but implies that they will be allowed to continue in their present form. The persons whom they insure, however, and the employers of these persons, are not exempted from contributing to the public system. The unions presumably retain jurisdiction over their holiday camps and hotels but lose control of their hospitals and clinics.

**ECUADOR.** The Government established the Ecuadorean Social Security Institute in July 1970 to replace the former National Institute of Social Welfare and the former National Social Security Fund. The new institute is intended to unify the predecessor organizations, coordinate the legal provisions relating to them, and bring about more efficient operation and lower cost. It will provide better services to the contributors, the

majority of whom live in the two most populous provinces—Guayas and Pichincha. This reorganization deals primarily with the top administration of social security in the country, but an effort will be made to improve the system by establishing uniform rates and by keeping expenditures less than contributions.

**PANAMA.** The Government made workmen's compensation insurance an obligatory function of the Social Security Fund, an autonomous government agency, when the Provisional Junta issued Decree No. 68 (effective on July 1, 1970). The decree provided for unlimited medical services, physical rehabilitation for injured workers, lifetime pensions for widows and invalid children, increased pensions for permanent or temporary disability, and cost-of-living adjustments.

**COSTA RICA.** The reconciliation of constitutional requirements with financial needs presents a problem in this country. An amendment to the national constitution, dated May 12, 1961, required that maternity and sickness benefits under the Social Security Administration (Caja Costarricense de Seguro Social) be available countrywide by May 12, 1971. Even under the more limited existing system, however, a large and growing debt had accumulated in the accounts of the administration. The Government sought the counsel of the International Labor Office, and, as a result of a study concluded by that organization in October 1970, the Congress was discussing three proposed laws. One bill, which has been approved in committee, would authorize the Government to issue 2-percent Social Security Bonds to the Social Security Administration for the amount (not specified) accumulated by the Government from 1963 through December 1970.

A second bill, also approved in committee, would require contributions from salaried employees based on their full earnings. At the present time, contributions are based on the first 1,000 colones per month only (¢6.62=US\$1.00). (According to social security records, 70 percent of the employees earning more than ¢1,000 per month are registered in the program.) The bill would also encourage the immigration of doctors and nurses, particularly from Europe, for a limited but unspecified time in order to assure the system's ability to provide medical services to all persons covered.

A third proposed measure aims at simplifying collection and accounting procedures by combining the present separate contributions for the Sickness and Maternity Program and for the Old Age, Death, and Invalidity Program into one contribution for the whole system. That total contribution would amount to 15 percent of total covered earnings from 1971 to 1975, 16 percent from 1976 to 1980, and 16.5 percent from 1981 on. This bill would reduce the Government's contribution from its present nominal 4.5 percent to 1 percent. The contribution would be increased to 2 percent in 1976 and to 2.5 percent in 1981. Worker and employer contributions would continue to be 6.5 and 7.5 percent, respectively. From 1971 to 1975, 75 percent of the contributions would go to the Sickness and Maternity Program and the remainder to the Old Age, Invalidity, and Survivors Program; in 1976 the division would be 70-30, and from 1981 it would be 67-33.

The proposal to encourage the immigration of doctors and nurses has given rise to complaints by the influential Medical Union and has obliged the administration to give assurances that no Costa Rican doctor would be displaced by a foreigner. Some doctors have also felt that the measures proposed tend in the direction of socialized medicine, of which they disapprove. Some salaried employees have protested that a projected increase in wages and the traditional year-end bonus would be nullified by the proposed new levels of contributions. Nevertheless, with widespread agreement that something must be done to resolve the state debt to the Social Security Administration, and to universalize the insurance services in compliance with the Constitution, all the proposals may have a good chance of being enacted into law, possibly before the end of 1970.

### **Wages rise in North Korea**

The North Korean Government has raised cash wages of "workers, technicians, and office employees" by an average of 31.5 percent. These groups probably include most skilled and unskilled workers and those in white-collar occupations.<sup>2</sup> The announcement, which indicates a revision of occupational grades and scales,<sup>3</sup> apparently was made in anticipation of the Fifth Congress of the Korean Workers' Party in November 1970.

The raise will bring the average monthly wage of the North Korean industrial worker to 70 won (or about US\$28, at 2.5 won per U.S. dollar). The largest increases will go to those on the lowest rungs of the wage scale, and the smallest will be applied to wages of workers at the highest levels. Differentials between the highest and lowest grades will be narrowed, but differences between wages in various industries may continue.

The increase will affect only the cash portion, which, according to the regime, is about half of the average workers' total earnings. Fringe benefits, such as free medical care, annual and maternity leave, free or subsidized housing, and necessities such as clothing (which are rationed and held at low cost) apparently will not be affected.

There have been several increases in cash wages of nonagricultural workers since 1949, when North Korea became independent, but increased prices or deficiencies in supply and distribution of commodities have limited improvements in living standards.

The new increase may be a departure from previously established policy. According to the Government's announcement, a good part of the increased cash purchasing power may be absorbed by increased output of consumer goods. Luxury goods will remain scarce and already high prices might go higher.

### **Nudity guidelines in the British theater**

The appearance of British actors on the stage without clothing has become a problem for their union. Stage censorship was eliminated last year. Actors and actresses can now disrobe completely on the stage, but they can still be prosecuted for violation of public morals. The British Actors' Equity Association, an affiliate of the British Trades Union Congress, is seeking employer-approved guidelines for undressing before an audience. It wants employers to commit themselves to appropriate compensation of any Equity member brought before a court on such a morals charge. (Only Equity members appear in British theaters.)

The union is further pressing for timely notice to actors regarding undress scenes, that is, before the contract is signed, not at rehearsals. Also,

before obligating themselves to appear, actors are to be made familiar with the text of a play and with stage directions. A union representative is to watch the undress scenes to prevent demands for anything—such as suggestive gestures—not previously agreed to. The union believes it will be able to achieve its objective, in part because its counterpart in the United States, the Actors' Equity Association, has already obtained employer agreement to its demands on this issue.

### West German authors

Top officials of the German Trade Union Federation and the Association of German Authors have agreed to work together on common goals, principally on social and sociological problems. The authors' group was formed by regional associations of authors in June 1969. In discussions with the Federation, the authors examined their labor market role and their problems as employees. Plans for formal cooperation between the two groups include a loose form of association for the Association of German

Authors with either the Industrial Union of Workers in the Printing and Paper Trades or the Union of Artists, both affiliates of the German Trade Union Federation. Major goals of the authors' association are an old-age pension system and compensation for their writings used in textbooks.

### —FOOTNOTES—

<sup>1</sup> Additional discussion of social security in various countries of Latin America can be found in *Labor Developments Abroad* (prepared by the Division of Foreign Labor Conditions), December 1969 and June, July, August, and October 1970.

<sup>2</sup> In 1963, according to North Korean sources, about 50 percent of the labor force were factory workers (40 percent) or office employees (10 percent).

<sup>3</sup> Wages for industrial workers are geared to a classification system based on difficulty of work or the required skill, with special premiums for the most dangerous occupations. In addition, premiums may be paid to members of production teams meeting or exceeding performance standards. Rinn-Sup Shinn, *Area Handbook for North Korea* (Washington, American University, Area Studies Division, 1969), p. 350.

### Urban job opportunities for women

. . . A woman's domestic tasks change considerably when a family migrates from village to town, because she can no longer perform many of the duties which she did formerly in the village for family consumption. Therefore, a woman who in her rural home did little or no work beyond domestic tasks has much less to do in the town unless she can and will make up for this by taking up some economic activity outside the household. Opportunities for outside work, however, are unlikely to be available. Indeed, we have just found that women's participation in economic activities outside the domestic sphere is likely to decline rather than increase after migration to town. . . .

The problem of adaptation to town life is worse in those countries where women are

most active in the village and least active in the towns, while migration is much less of a problem in countries where, after migration, women can compensate for their smaller contribution in kind to family income with a larger contribution in money earned from working in the bazaar and service sector or in the modern sector. Since in developing countries female activity rates differ widely both in the villages and in the towns, patterns of migration and the social situations arising from migration also differ widely, depending upon the types of female activity predominating in a given country or region.

—ESTER BOSERUP,

*Woman's Role in Economic Development*  
(New York, St. Martin's Press, 1970)



# Major Agreements Expiring Next Month



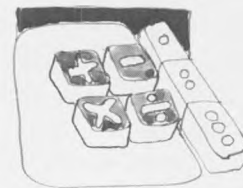
This list of collective bargaining agreements expiring in January is based on contracts on file in the Bureau's Office of Wages and Industrial Relations. The list includes agreements covering 1,000 workers or more in all industries except government.

| Company and Location  | Industry                        | Union <sup>1</sup>                                  | Number of workers |
|---|---------------------------------|---|-------------------|
| Allied Chemical Corp., Agriculture Division, Hopewell Plant (Hopewell, Va.)             | Chemicals                       | District 50, Allied and Technical (Ind.)            | 1,000             |
| American Brands Co., Inc. (Louisville, Ky.)   | Tobacco                         | Tobacco Workers                                     | 1,000             |
| American Brands Co., Inc. (North Carolina and Virginia)                                 | Tobacco                         | Tobacco Workers                                     | 4,650             |
| Bakeries, Greater New York Area <sup>2</sup> (Long Island City, N.Y.)                   | Food products                   | Bakery Workers                                      | 4,500             |
| Beech-Nut, Inc. (Canajoharie, N.Y.)   | Food products                   | Beech-Nut Employees Association (Ind.)              | 1,250             |
| Budd Co. (Michigan, Indiana, and Pennsylvania)  | Transportation equipment        | Auto Workers (Ind.)                                 | 4,000             |
| Bulova Watch Co., Inc. (New York)   | Instruments                     | Production Employees Group, Bulova Watch Co. (Ind.) | 3,050             |
| Campbell Soup Co. (Napoleon, Ohio)  | Food products                   | Meat Cutters  | 1,500             |
| Caterpillar Tractor Co. (Joliet, Ill.)  | Machinery                       | Machinists  | 5,000             |
| Central Foundry Co. (Holt, Ala.)  | Primary metals                  | Molders   | 1,700             |
| Chicago Newspaper Publishers' Association (Chicago, Ill.)                               | Printing and publishing         | Typographical                                       | 1,400             |
| Chinaware Cos. <sup>2</sup> (New York, Ohio, and Pennsylvania)                          | Stone, clay, and glass products | Potters   | 1,550             |
| Dana Corp., Axle Division (Fort Wayne, Ind.)  | Transportation equipment        | Allied Industrial Workers                           | 1,700             |
| FMC Corp., Northern Ordnance Division (Fridley, Minn.)                                  | Ordnance                        | Auto Workers (Ind.)                                 | 2,200             |
| Glass Container Manufacturers Institute, Inc. (Interstate)                              | Stone, clay, and glass products | Glass Bottle Blowers                                | 9,000             |
| Hotel, Motel, and Restaurant Employees <sup>2</sup> (Long Beach and Orange Co., Calif.) | Hotels                          | Hotel and Restaurant Employees                      | 6,000             |
| International Nickel Co., Inc., Huntington Alloy Products Division (Huntington, W. Va.) | Primary metals                  | Steelworkers  | 1,800             |
| Kaiser Jeep Corp. (Toledo, Ohio)  | Transportation equipment        | Auto Workers (Ind.)                                 | 6,000             |
| Kelsey-Hayes Co. (Detroit and Romulus, Mich.)   | Transportation equipment        | Auto Workers (Ind.)                                 | 1,750             |
| Kelsey-Hayes Co., Plants Nos. 1, 2, and 3 (Jackson, Mich.)                              | Transportation equipment        | Allied Industrial Workers                           | 1,350             |
| Kelsey-Hayes Co., Speco Division (Springfield, Ohio)                                    | Machinery                       | Auto Workers (Ind.)                                 | 1,900             |
| Los Angeles Markets Arbitration Association (Los Angeles, Calif.)                       | Wholesale trade                 | Teamsters (Ind.)                                    | 1,100             |
| McInerney Spring & Wire Co. (Grand Rapids, Mich.)                                       | Fabricated metal products       | Auto Workers (Ind.)                                 | 1,000             |
| Mead Corp., Kingsport Division (Kingsport, Tenn.)                                       | Paper                           | District 50, Allied and Technical (Ind.)            | 1,250             |
| Metropolitan Garage Board of Trade, Inc., and Associated Members (New York, N.Y.)       | Services                        | Teamsters (Ind.)                                    | 2,200             |
| National Lock Co. (Rockford, Ill.)  | Fabricated metal products       | Auto Workers (Ind.)                                 | 1,900             |
| Northern Illinois Gas Co. (Illinois)  | Utilities                       | Electrical Workers (IBEW)                           | 1,500             |
| North American Rockwell Corp., Commercial Products Group (Interstate)                   | Transportation equipment        | Auto Workers (Ind.)                                 | 6,800             |
| Outboard Marine Corp., Gale Products Division (Galesburg, Ill.)                         | Machinery                       | Machinists  | 1,350             |
| Park-Ohio Industries, Inc. (Cleveland, Ohio)  | Machinery                       | Auto Workers (Ind.)                                 | 1,150             |
| Philip Morris, Inc.:<br>Louisville, Ky.   | Tobacco                         | Tobacco Workers                                     | 1,600             |
| Richmond, Va.   | Tobacco                         | Tobacco Workers                                     | 2,300             |
| Retail and Wholesale Agreement <sup>2</sup> (New York, N.Y.)                            | Food products                   | Bakery Workers                                      | 1,500             |
| Revlon, Inc. (New Jersey)   | Chemicals                       | Retail, Wholesale and Department Store Union        | 1,700             |
| Shulton, Inc. (Clifton, N.J.)   | Chemicals                       | Teamsters (Ind.)                                    | 1,000             |
| Spartans Industries, Inc., E. J. Korvette Division (New York, N.Y.)                     | Retail trade                    | Retail Clerks                                       | 4,900             |
| Television and Radio Commercial Announcements <sup>2</sup> (Interstate)                 | Amusements                      | Musicians   | 1,000             |
| White Motor Corp.; Oliver Corp. (Charles City, Iowa)                                    | Machinery                       | Auto Workers (Ind.)                                 | 1,500             |

<sup>1</sup> Unions affiliated with AFL-CIO except where noted as Independent (Ind.).

<sup>2</sup> Industry area (group of companies signing same contract).

# Developments in Industrial Relations



## UAW negotiations

Nearly 400,000 Auto Workers at General Motors Corp., including 320,000 workers who went on strike September 15,<sup>1</sup> were covered by a tentative 3-year national agreement reached on November 11. The UAW's 350-delegate General Motors Council approved the pact on November 12 and on November 20 the union announced the contract had been ratified by the members. Full-scale production did not resume immediately, pending settlement of local disputes involving working conditions.

The contract provided a first-year wage boost of 49 to 61 cents an hour (averaging 51 cents an hour), with a 3-percent increase effective in both the second and third years. Included in the first-year increase was the 26 cents in cost-of-living adjustments that the workers would have received under the prior 3-year agreement if it had not been subject to a 16-cent cost-of-living ceiling over the term. (The union had reportedly demanded 61 cents in the first year, while the company's final prestrike offer was 38 cents.)

A feature of the agreement was a return to the unlimited quarterly escalator adjustments that prevailed prior to the 1967 settlement, which provided for annual reviews in 1968 and 1969. The first adjustment was set for December 6, 1971, calculated at a 1-cent-an-hour wage change for each 0.4-point rise in the Consumer Price Index (determined by subtracting the August 1970 index level from the average of the levels for August, September, and October 1971), followed by quarterly adjustments in March 1972, June 1972, and so on.

A compromise was reached on another major

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Prepared by Leon Bornstein and other members of the staff of the Division of Trends in Employee Compensation, Bureau of Labor Statistics, and based on information from secondary sources available in October.

bargaining issue. Workers are to be permitted to retire at a \$500 a month pension at age 58 after 30 years of service, beginning October 1, 1971, with the age requirement dropping to 56 on October 1, 1972.

The \$500, which is subject to reduction if the retiree has outside earnings, drops to \$450 at age 62, when the retiree becomes eligible for early Social Security benefits. (Under its "30-and-out" demand, the UAW had sought a \$500 a month pension, including Social Security benefits, after 30 years of service, regardless of age). Previously, employees were eligible for a \$400-a-month early retirement benefit at age 60 after 30 years of service. Other pension improvements included a \$1.75-a-month increase in the normal rate, bringing it to \$7.25-7.75 a month for each year's credited service, depending on the workers' wage scale. The rate for present retirees was also increased \$1 a month for each year of service.

Other terms included additional paid holidays, an additional week of vacation after 20 years of service, extension of the employees' prescription drug plan to retirees and their spouses, continued company payment of the full fee (recently increased to \$5.30 a month) for Part B Medicare coverage for retirees, and a 5-to-10-cent-an-hour company financing of supplemental unemployment benefits (SUB), instead of 5 to 7 cents depending on the position of the fund.

Earlier a special UAW convention had approved a temporary dues increase for 900,000 of the union's 1.4 million members still employed (that is, those not striking GM and not laid off at other firms as a result of the strike). Some 350,000 Auto Workers still employed at other auto and auto parts firms and at agricultural implement companies were assessed an extra \$20 a month on top of their normal dues of \$7 to \$8 a month. Dues of UAW members employed by other industries were

doubled to \$15-\$16 a month.

The special assessment was also necessitated by the UAW's decision to pay the insurance premiums of the strikers. Earlier, GM had agreed to pay the \$23-million-a-month premiums. The union would then reimburse the company.

In a related development, the Auto Workers and Caterpillar Tractor Co. agreed on an unlimited cost-of-living clause. This has been a top goal of the UAW in its 1970 negotiations with the automobile, automotive parts, and farm and construction equipment industries. Prior 3-year contracts at Caterpillar and other companies provided for annual adjustments of up to 8 cents in 1968 and 1969 with any excess (that would have been granted if the 8-cent limits were not in effect) to be paid at termination of the pacts. This end-of-contract payment was an important issue in the UAW strike against General Motors. The union contended that the 26-cent-an-hour catchup payment was automatic and part of the expiring agreement; GM maintained the money should be treated as part of the initial wage increase provided by any 1970 settlement. (See *Monthly Labor Review*, November 1970, p. 62.)

The Caterpillar settlement, which was limited to the escalator clause, averted an October 1 walkout; the parties agreed to an indefinite extension of the contract and negotiations continued on other issues. The 32-cent catchup payment (above the 16 cents the workers already received) will be paid when agreement is reached on the other issues, retroactive to October 2, and future escalator adjustments will be quarterly. Prior to the 1967 settlements, all of the firms had unlimited quarterly adjustments.

## Transportation

Pay for 6,500 pilots was increased an average of 12 percent in an August settlement between United Air Lines, Inc., and the Air Line Pilots Association. The agreement set a maximum pay scale of \$57,000 a year for pilots of the new Boeing 747. Maximum monthly hours were reduced from 85 to 80 effective November 1, 1970, and, in effect, to 75 on November 1, 1971, when the pilots will begin to receive 64 minutes of credit for every 60 minutes of work. Other terms included 23 days of vacation after 5 instead of 8 years of service, and the adoption of 37 and 44 days of vacation after 20 and 25 years of service,

respectively; increased carrier contributions to the basic and the supplementary pension plans to finance increased benefits; adoption of a dental plan; and improvements in group insurance. The contract expires June 1, 1972.

In Baltimore, an arbitration panel announced, on September 30, a 2½-year contract covering 1,600 employees of the Metropolitan Transit Authority. Wages were increased a total of 28 cents an hour—3 cents retroactive to April 1, 1970 (termination date of the previous contract), 3 cents retroactive to July 1, 1970, 5 cents on October 1, 1970, and April 1, 1971, and 6 cents in October 1971 and April 1972. The cost-of-living clause was continued without the ceilings the Authority had proposed. Supplementary benefits were improved. The employees are represented by the Amalgamated Transit Union.

Foremen, automotive machinists, and mechanics received a total of \$1.95 in wage increases over 3 years in a September settlement between the Machinists union and three Chicago-area trucking associations<sup>2</sup> and independent firms. Other employees received a total of \$1.65. The settlement, covering 4,000 workers, raised vacation pay from 45 hours a week to 50 hours, increased the employers' pension and welfare contributions by \$10 a week, and added a paid holiday, bringing the total to eight.

## Glass

Owens-Illinois, Inc., and the Glass Bottle Blowers union have negotiated a nationwide contract for machine operators and one for production and maintenance workers that covers all areas except the West Coast, where negotiations are conducted separately. The new 41½-month pacts, which expire March 31, 1974, replace agreements due to expire in January and March of 1971.

The contracts provided for a 25- to 58-cent-an-hour immediate wage increase (39 to 48 cents for machine operators), 21-cent increases in March of 1972 and 1973, and for reopening of wage negotiations if the Consumer Price Index rises more than 7 percent during the term. Other changes were a 2-cent increase in shift differentials, a ninth paid holiday, a fifth week of vacation after 25 years of service, a \$3 increase (to \$7) by 1973 in the monthly pension for each year of credited service, and employer assumption of the full cost of the



insurance program, which was contributory.

Negotiations with Brockway Glass Co. and several other firms are pending. The companies recently withdrew from the Glass Container Manufacturers Institute's Labor Committee, which had bargained for all its members in past years. In the 1968 bargaining, when the committee represented 17 firms of the Institute, the settlement was preceded by a 51-day strike.

### Shoes

Interco's International Shoe Division and the Boot and Shoe Workers and the United Shoe Workers unions negotiated a 4-year contract providing wage increases averaging 18 cents an hour on December 1, 1970, 15 cents on December 1, 1971, with a reopening of wage negotiations in the third year. The minimum hourly rate was set at \$1.80 in 1970, \$1.85 in October 1971, and \$1.90 in April 1972. Improvements were also made in pension and hospital-medical benefits. The October settlement covers 10,000 workers at 29 plants in Arkansas, Illinois, Missouri, and Tennessee.

### Sugar

On September 22, members of Sugar Workers Local No. 1 (an affiliate of the Seafarers union) ended a 114-day strike by ratifying a 4-year contract with the California and Hawaiian Sugar Refinery Corp. in Crockett, Calif. Terms for the 1,200 workers included a 13-percent immediate wage increase and 5-percent deferred increases plus up to 3 percent in cost-of-living adjustments in the second, third, and fourth years. The company, which is owned by five Hawaii-based firms, processes and markets cane sugar in 27 Western States.

In the beet sugar industry, the Great Western Sugar Co. and the Teamsters Union negotiated a 2-year contract covering 1,200 maintenance and processing workers in Kansas, Nebraska, Montana, Wyoming, and Colorado. Wages were increased an average of 30 cents an hour, retroactive to April 1970, and by 25 cents in June 1971. Supplementary benefits were also improved.

### Paper

A settlement between the Metropolitan Rigid Paper Box Manufacturers Association of New

York City and Teamsters Local 27 provides a \$100.30 weekly increase in wages and benefits over 3 years. The 1,800 drivers and warehousemen received a total of \$80.40 a week in wage increases—an initial rise of \$26.40 retroactive to October 1, with further increases at 6-month intervals beginning January 1, 1971. The Association said these increases will bring drivers' base pay to \$253.40 a week, up 41.7 percent. A cost-of-living clause was adopted and benefits were improved.

### Teachers

On October 20, the Philadelphia, Pa., Board of Education and the Philadelphia Federation of Teachers (an affiliate of the American Federation of Teachers) reached agreement on a 2-year, \$57.3-million wage package for the city's 13,000 public schoolteachers. The teachers struck the school system for 3 days in September, but returned to their jobs after a 30-day truce was negotiated by Governor Raymond P. Shafer. At issue was the length of the high school day. (See *Monthly Labor Review*, November 1970, p. 63.)

### Jurisdictional settlement

The United Farm Workers Organizing Committee and the Teamsters in October reached another agreement similar to the short-lived one they reached in mid-August to resolve their jurisdictional dispute on the representation of farm workers in the Salinas, Calif., area. (See *Monthly Labor Review*, October 1970, p. 54.) The new agreement, reached with the help of AFL-CIO President George Meany, called for the farm workers to have jurisdiction over the organization of field hands, while the Teamsters would have jurisdiction in canneries, frozen-food processing plants, and storage sheds.

### Salary cut

Wheeling-Pittsburgh Steel Corp. reduced the salaries of 2,000 employees by 10 percent to "conserve cash." Chairman Allison R. Maxwell said the October 1 cut was necessary because of "severe and abnormal pressures" in the industry, including labor disruptions "in and outside of the steel industry" and the steady rise in raw material costs. Mr. Maxwell said full pay would be restored as soon as possible. The move did not affect the 900

office and clerical employees represented by the Steelworkers' Union, which also represents the company's production workers.

### Conventions

**RUBBER WORKERS.** Delegates of the 220,000-member Rubber Workers' Union reelected Peter Bommarito to a third term as president at the union's 27th convention in Miami Beach. He defeated F. E. Farrington, president of Los Angeles Local 44. It was the union's first presidential contest in 10 years. Secretary-Treasurer Ike Gold, Vice President Kenneth Oldham, and 14 other Executive Board members were re-elected without opposition.

In other action, the delegates amended provisions in the constitution concerning conventions and terms of office. Under the changes, local officers will be elected to 3-year terms, instead of the present 2-year terms, effective in 1972. After the 1972 convention, the conventions will be held every 3 years instead of 2, and officers of the international will be elected for 3-year terms, rather than the current 2. The changes were initiated so that Rubber Workers' conventions, local union elections, and industrywide negotiations do not fall in the same year, as they did in 1970.

**ELECTRICAL WORKERS.** In Seattle, delegates to the Electrical Workers (IBEW) 29th convention elected President Charles H. Pillard, Secretary Joseph Keenan, and Treasurer Harry Van Arsdale, Jr., to new 4-year terms. One vice president and two executive council members were defeated, while eleven vice presidents and seven council members were re-elected. The delegates also increased the per capita payment to \$2 a month, from \$1.50, and raised the president's salary to \$60,000 from \$40,000, the secretary's to \$55,000 from \$38,000, the treasurer's to \$15,000 from \$11,000, and the vice presidents' to \$35,000 from \$25,000.

**STEELWORKERS.** See page 33 for a firsthand report on the Steelworkers convention.

### New election

The International Union of District 50, Allied and Technical Workers of the United States and Canada, asked the U.S. Department of Labor to supervise a new election of its top officers "as promptly as feasible," after Secretary of Labor J. D. Hodgson filed a complaint against the union under the Landrum-Griffin Act. Mr. Hodgson had asked a Federal court to set aside the results of the union's May 1970 election (See *Monthly Labor Review*, August 1970, pp. 81-82) because of alleged election irregularities.

The suit charged that District 50 President Elwood Moffett's winning slate was not elected by secret ballot among members in good standing, that election notices were not properly mailed to members, that the members were denied a reasonable chance to nominate and vote for the candidates of their choice, that the election was not conducted in accordance with the union's own constitution.

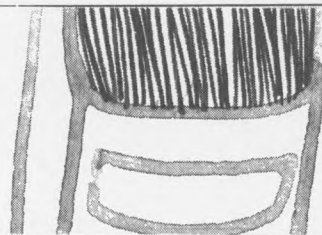
Mr. Moffett requested an "immediate meeting" with Secretary Hodgson to make arrangements for a new election. In a telegram to Mr. Hodgson, he said, "We believe that the cloud which your complaint has placed on our union . . . can best be removed by new elections to be held among our membership as promptly as feasible, in which we will welcome the supervision of your office." In the mail election, a union tally showed Mr. Moffett had defeated Angelo J. Cefalo by a vote of 53,607 to 46,824. □

### —FOOTNOTES—

<sup>1</sup> The union permitted some plants to continue operation because they produce parts for the other auto manufacturers or defense products.

<sup>2</sup> Cartage Exchange of Chicago, Inc.; Central Motor Freight Association, Inc.; and Illinois Motor Truck Operators' Association, Inc.

## Book Reviews and Notes



### Urban history

*Cities on the Move.* By Arnold Toynbee. New York, Oxford University Press, 1970. 257 pp. \$6.75.

Peruvian peasants come down to Arequipa, where they squat, waiting in vain for urban employment. This is historian Arnold Toynbee's disturbing forecast of the world-city that awaits us. "By far the greater part of the World-City's area will consist of slums," he relates in the closing pages of this short, intense book.

But why does an historian deal in portents? Most of the book is about cities of the past, generally the very distant past—Qaraqorum, Nara, and Thebes. A large part of the book—perhaps half—is concerned specifically with the selection and laying out of capital cities for empires that have come and gone. The reasons for the removal of Rome to Constantinople, the slow decline of Constantine's capital, and its ultimate abandonment as a seat of power are told in a very interesting way. The linking of China's ancient capitals to the empire's more fertile districts, achieved with a system of canals and rivers, is described and explained. We learn that Calcutta gave up its political role to Delhi, where history was less tainted by foreign subjugation. Versailles was built because Louis XIV was afraid to spend much time in Paris. Vienna has the best record of assimilating people from the corners of a diverse empire. All interesting and well told, yet the lessons remain unclear.

Toynbee makes an attempt to provide structure. The title suggests a main theme: cities have suddenly burst their boundaries and are spilling out over the edges of all the continents. The twin factors which limited the size of ancient cities—walls which could be manned effectively in time of attack and a radius which allowed each worker to walk to and from his daily toil—broke down

under explosives, aerial assault, and mechanized transport. This theme proves too weak to support the rich detail of Toynbee's book. He makes a few other practical-sounding comments in an almost wistful way, such as the observation that Arab disunity results in part from failure to select a single capital city, and he describes empires in the past which found it expedient in such circumstances to rotate their official functions among several symbolic capitals. He includes Washington, D.C., in a list of capitals which have found themselves isolated by the incursion of hostile and alienated people. Other such capitals have purchased protection from foreign mercenaries whose sympathies would presumably never lie with the commoners of the capital. These attempts at up-to-the-minute relevancy, though, are in the nature of asides in Toynbee's book.

Toynbee views cities today as "noisy, dirty . . . soulless." He is in a position to tell us that some of the ancients (he names Virgil and Cicero) had an intense affection for their cities, and he judges that modern men are estranged from cities of today. For the quality of cities tomorrow, Toynbee relies largely on the insight of Constantine Doxiadis, plus what appears to be a good deal of native pessimism. He comes down hard on *laissez faire* and the automobile.

The problem with Toynbee's forecast is that it is not his own, does not spring from his history. It is an idea he is enamored of, like his almost embarrassing compliments to the locomotive ("heaven-sent"). Indeed, the one discernible historical extrapolation he makes—that city-states became eternally obsolete at the close of the Middle Ages—he seems to contradict in later pages. After telling us that the only surviving city-state is San Marino, he soon remembers Singapore, later announces that Hong Kong cannot last, and in the closing pages of the book tells us that Sao Paulo is practically all there is to Brazil.



Historians make poor prophets, but we still need history. Toynbee's contribution to urban history is quite useful.

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### Public collective bargaining

*Collective Bargaining in Public Employment.* By Michael H. Moskow, J. Joseph Loewenberg, Edward Clifford Koziara. New York, Random House, 1970, 336 pp., bibliography.

The emergence and growth of collective bargaining in government employment has been the dominant feature in labor relations during the past 8 years. This book successfully analyzes this new, complex, and ever-changing field. It is valuable reading for labor specialists, practitioners, students, and the general public.

Every facet of public collective bargaining is presented, from survey of the characteristics of the various levels of government employment to an analytical model of a public union's preference for collective bargaining or lobbying. The authors' discussion of the various ways the public may participate in the bargaining process is thoughtful and comprehensive. I found especially innovative the presentation of "Expected Interest Group Activity," which occurs during various stages of the bargaining.

Collective bargaining at the Federal level as it has developed under President Kennedy's Executive Order 10988 is thoroughly examined in terms of its accomplishments and shortcomings. It is hoped that the shortcomings have been overcome by the recent Executive Order 11491; also included in the book. The authors' grasp of the practical problems in the field is in evidence throughout the book. For example, they point out that the various types of representation allowed under the original order were good in assisting unions to organize, but that, at the present time, exclusive representation as authorized in Executive Order 11491 is more realistic and beneficial to the bargaining process.

The great variety of laws and the complex issues regarding collective bargaining at the State and local level are examined in great detail. The

problems of recognition, unit determination, bargainable issues, impasse procedures, composition of negotiation teams, and negotiation tactics are covered. Teaching, the fastest growing area of public collective bargaining, is examined in a separate chapter, as is the field of public safety. The history and practical problems faced by management and public employee unions in these areas are carefully developed. The authors correctly point out that teachers' unions appear to be ahead of school boards in both preparing for and carrying out negotiations.

The presentation of the effects that collective bargaining has had on public management and unions is very detailed. They constantly stress its differences from collective bargaining in the private sector. The importance of political pressure in public collective bargaining is contrasted with the importance of economic pressure in collective bargaining in the private sector. The authors consider many possible impasse procedures, including a limited right to strike, factfinding, mediation, advisory arbitration, and others. Like most practitioners in this field, the authors are not certain of the best solution(s) to an impasse, though they do state that they believe unions have other ways to pressure the government than by striking. They have also gathered an excellent bibliography of the books and articles written in this field that will be most helpful to those who wish to become acquainted with the literature on public collective bargaining.

—WILLIAM H. LEAHY

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### Corporate thinking on social roles

*The Social Responsibilities of Business: Company and Community, 1900-1960.* By Morrell Heald. Cleveland, Case Western Reserve University Press, 1970. 339 pp. \$10.95.

Professor Heald's book is a work of outstanding scholarship—comprehensive, penetrating, integrative, and analytical. He interweaves a thorough, painstakingly documented analysis of the thinking of corporate leaders, with a detailed examination of their actions in the area of corporate support for social causes. With the deftness of a novelist, he

gradually develops the crucial questions—who should have ultimate control over the expanding social role of the modern corporation, and through what sort of mechanism can this control be exercised?

Heald makes it clear that corporations and their critics have been struggling with these questions in one form or another for a long time, and the answers are still far from clear. Heald himself offers no glib solutions. The closest he comes is a dispassionate espousal of some form of public representation in the decision and control process. He does not specify how extensive this incursion into the private domain should be; apparently he prefers to leave the details to a reasoned analysis of specific circumstances. His critics probably would suggest that this is simply an unwitting invitation for pervasive socialization of economic enterprise. But do they have a better solution?

Some potential readers of this book might be discouraged by the detailed historical accounts of the mechanisms and patterns of corporate giving which occupy perhaps half of the book. Their discouragement might be justified, in view of the summary statistics presented in the book: between 1936 and 1960, annual corporate giving averaged less than 1 percent of net profit before taxes. However, even though these historical sections deal with a rather insignificant aspect of corporate social responsibility, they may have considerable archival value. Furthermore, they can be skimmed over by those who aren't interested in them, without losing the "plot" of the book, which really centers on the broader problem of defining corporate social responsibilities.

For most readers, the real value of the book will lie in its scholarly historical analysis of managerial thought on the subject of corporate social responsibility. Although the book only mentions current problems of corporate responsibility in areas such as the training and employment of disadvantaged workers, urban development, and ecological control, it does contribute indirectly to their solution, through its carefully reasoned development of the basic considerations involved in channeling corporate energies to public causes.

—THOMAS H. JERDEE

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## Economic management

*Economics and Policy: A Historical Study.* By Donald Winch. New York, Walker and Co., 1970. 366 pp. \$10.

Professor Winch's well-written book is concerned mainly "with the relationship between economic thought and policy in the first half of the twentieth century." He effectively intermingles intellectual history, the history of policy debates, and economic and political history, with general history—inevitably a more amenable approach than formal theory for a rapid survey. Emphasis is on issues of national income in England and, to a lesser extent, the United States during the interwar period, with brief attention to the pre-World War I and post-World War II years.

The author indicates that the growing assertive action of government in the economic sphere generally and the "Keynesian revolution" particularly was pure progress, in that there was movement, though fitful, from intellectual and even moral naivete to sophistication. Professor Winch further suggests a direction of causal influence, with "the idea of economic management supported first by changes in economic thinking and later carried into practice."

Winch, who is Dean of the School of Social Studies at Sussex, resembles more a participant than an observer of the debates he reviews, contributing liveliness to the discussion. This approach leaves him less impartial to the issues, and an uninitiated reader may well gain an impression of insensitive, dogmatic, and unimaginative conservative villains versus compassionate, innovative, and insightful progressive heroes.

The greatest of the handful of heroes is Keynes, who is portrayed as rarely being wrong or unwise, and never to any significant degree. Keynes was, indeed, able, seminal, and conspicuous—and like Marx, a much better analyst than his followers. But historiography does not require that virtually every proposal and act of economic policy be categorized and assessed by the degree of its supposed Keynesian purity. Ironically, Keynes' deserved stature is being enhanced, not diminished, as bridges are constructed over the chasm which has embarrassingly separated "price"

and "aggregate" theory—and the bridges are based on and emanate from price theory.

Winch recurrently exaggerates, in varying degrees, the contribution of Keynes to theory, and his stature in public debates, the distinction between "micro" and "macro" economics, the established efficacy of fiscal policy, and the present capacity in "economic management" to diagnose, predict, and prescribe the action of discretionary policy. More generally, Professor Winch exaggerates the extent of professional unanimity on what constitutes Truth and on the skill in utilizing it. Perhaps, as Keynes said of Marshall, Winch is "too anxious to do good."

—WILLIAM R. ALLEN

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### Lessons from poverty programs

*The Poor Ye Need Not Have With You; Lessons From the War on Poverty.* By Robert A. Levine. Cambridge, Mass., M.I.T. Press, 1970. 262 pp. \$7.95.

A negative income tax for income maintenance, the Community Action Program (CAP) for community betterment, and the JOBS program for manpower are some of the key programs designed to reduce poverty and inequality of opportunity. For such programs to be successful, an aggregate unemployment rate that stays below 4 percent is required—this goal to be achieved even if the price is "a good deal of inflation and balance-of-payment difficulties." These are the unimpeachable lessons derived from the experience of the Office of Economic Opportunity.

Robert Levine was with OEO, Office of Research, Plans, Programs, and Evaluation, from 1966 to 1969 and has come up with a serious book about it. In the continuing exegesis of the War on Poverty, Levine's book has to be contrasted and compared with the solid contributions of Levitan, Sundquist, and Weeks as well as with the plethora of lesser works. Levine's solidity and thoroughness is on a par with the best.

The book centers on the thesis that the problems of low-income poverty and inequality of opportunity are ineluctably joined. The author advo-

cates that the discussion of antipoverty actions is to be cast in a "problem-solving" mold rather than in the more fashionable style of the politics of confrontation or provocation.

Thus, the whole book reflects Levine's thesis that "the common belief that, in order to solve a problem we must go directly to the root cause is not necessarily so!" This turns out to be implicitly a rebuttal to Moynihan's diatribe against the OEO in his *Maximum Feasible Misunderstanding*.

Not all the arguments are joined nor are the facts all in. The Community Action Program's achievements and impact are, through Levine's emphasis on processes, put in a more proper light. Moynihan's focus on chaos is balanced by Levine's noting the CAP's contribution to the creation of community institutions—particularly in urban ghettos—as the necessary precondition for equality of opportunity and the end of low-income poverty.

The core of the book—100 out of the 262 pages—is a chapter entitled "An Equally Biased Evaluation of the War on Poverty." In it the basic facts and arguments are usefully organized around the question of OEO's contribution to the reduction of low income poverty. Levine's answer is not new: ". . . it has reduced the number of poor people substantially compared with what this reduction would have been without a War on Poverty. . . ." From this reviewer, such a statement elicits, as the Levitan book also did, a loud, "Right on!"

What is new is the attempt to evaluate OEO's contribution to changes in equality of opportunity. The very attempt deserves praise as the disentangling of variables is very difficult. To do so, Levine uses as indicators of change primarily a series of ratios of white and nonwhite accomplishments between 1965 and 1969. He concludes that if there is no clear evidence of greater equality of opportunity there is clear evidence that OEO has helped stop the dangerous relative deterioration in nonwhite conditions that had been going on previously. The matter of OEO's effect in reducing inequality among various income groups is not broached, though Levine's conclusion among white-nonwhite differentials probably applies here also.

The analysis of impact is preceded by a chapter on history with neither hero nor villain. For Levine



the problem was the fact that distinction between antipoverty and equal opportunity objectives were "simply not known or understood in 1964 or 1965" and that they finally were understood "only as the result of operations." How this could have been so after years of debates on precisely this point is baffling, to say the least. The section on future direction is a paradigm of clarity. The epilogue on the Nixon Administration is charitable. The book is very well worth reading.

—OSCAR ORNATI

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### The plans to abolish poverty

*Government Against Poverty.* By Joseph A. Kershaw with the assistance of Paul N. Courant. Washington, Brookings Institution, 1970. 174 pages. \$6.95.

Kershaw's book is short, snappy and well written. It briefly covers seven topics: the concepts and classifications of poverty, the OEO anti-poverty programs, the community action program, manpower and employment policy, income maintenance programs and proposals, evaluation and management of the poverty program, and a final chapter of seven pages which deals with an assessment of the antipoverty program. It is the seventh volume in the Brookings studies in social economics, a special program of research on health, education, social security, and welfare.

This volume contains much useful information, observations, and conclusions. It summarizes the statistical data on poverty, discusses the definition and concepts of poverty, and the deficiencies of the official definition. It succinctly criticizes the existing welfare program, the President's family assistance proposal, and analyzes the pros and cons of the negative income tax. It briefly reviews the experience of Head Start, legal services for the poor, and the Job Corps.

Kershaw, however, does not present a blueprint for the abolition of poverty. He recognizes that it is "inappropriate" for a negative income tax to handle "the whole job" of poverty, pointing out "it is surely better both for society and the poor to have employable members performing up to their potential; and the education, training, and other social programs are designed to assure this."

Later, he states that the "experience in the last few years has not revealed what is the ideal set of weapons for a genuine war on poverty. But we have been learning." Kershaw points out that there is now a better understanding of the training problem, that participation of the poor has been found valuable, that we need a varied set of weapons, and "we strongly suspect that community action has a central role to play."

A blueprint for the transitional and permanent abolition of poverty (defined as insufficient income) is really not difficult to outline. The difficulty is getting the taxpayers to agree to allocate the money and to obtain the administrative talent to implement the plan in an imperfect world.

The problem is not one simply of economics or money. Attitudes and expectations play an important role in persuading taxpayers to adopt a program to abolish poverty when such matters as work incentives, illegitimacy, and large families are involved. And it could be expected that unexpected difficulties would arise in the administrative implementation of any program which would give rise to changes in it.

The "War on Poverty" did not begin in 1964 (as many young people think) when the Economic Opportunity Act was enacted. The Social Security program, for instance, is responsible for keeping about 10 million people out of poverty. Nor has the Economic Opportunity Act been primarily responsible for any significant portion of the decline in the number of persons in poverty from about 40 million to 25 million during the period 1959-68. A comprehensive attack on poverty will require many instruments and institutions.

Kershaw's book should be read along with the many other reports being published on the anti-poverty program such as Sar Levitan's contribution as well as Stanley Ruttenberg's, Daniel P. Moynihan's, and James Sundquist's. It becomes clear from all these valuable insights that it is easier to design an antipoverty program than to administer it. Nevertheless, Kershaw's book serves to demonstrate that we have made some progress toward reducing poverty during the next few years. The sequel volume we need in this series should be a "how to do it" book.

—WILBUR J. COHEN

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## Supervisory success

### *Dynamic Supervision: Problems and Opportunities.*

By Maxine H. Bishop. New York, American Management Association, Inc., 1969. 287 pp. \$11.50; \$7.75 to AMA members.

*Dynamic Supervision* provides both the new and experienced supervisor with a highly readable text describing in broad terms the total supervisory responsibility and identifying the knowledge, skills, and abilities that tend to distinguish an effective supervisor from one that is ineffectual. Acknowledging that firstline supervisors need a rather detailed knowledge of the work they oversee, this volume emphasizes two other areas of equal importance to successful supervision: (1) conceptual, analytical skills—work planning, scheduling, organizing, control, and evaluation; and (2) interpersonal skills—employee selection, training, and appraisal; communication; motivation; and leadership.

The author begins with the assumption that good supervision cannot be practiced by learning rote responses and techniques. Nevertheless, while not written as a how-to-do-it book, many helpful suggestions are provided for more easily and expeditiously fulfilling the supervisory role. Of primary importance to the supervisor is the author's treatment of designing jobs to motivate workers. This analysis draws heavily upon the work of Frederick Herzberg, Rensis Likert, Victor Vroom, Douglas McGregor, and others and represents the most authoritatively written section of the book. Also of special timeliness is the discussion of methods a supervisor may employ to maintain high performance among outstanding, average, and below average workers.

The major flaw in this otherwise informative book is the author's periodic tendency to make broad generalizations while providing little or no supporting evidence for her position. For example, she states: "A woman clerical employee who works to help support and educate a growing family does not have the same relish for job challenge and responsibility as an ambitious young man right out of college who is embarked on a business career." Although this woman may have to use her earnings to support her family, the reasoning does not necessarily follow that her desire for job challenge and responsibility should be different from that of the new college graduate. Similarly, in what might be considered her major conclusion

regarding effective supervision the author reports: "The most successful supervisors have an inherent warmth, a sincere interest in seeing that employees develop, and a sensitivity to the feelings and needs of others. They are usually able to establish rapport with the employee so that communication between them remains free and open. [In addition] a good supervisor must have the ability to work effectively with people in solving problems."

As with many of her statements, the above sentiments are not documented by references to empirical studies. This practice is regrettable since many of the author's prescriptions are aligned with the general findings of management researchers such as Chris Argyris, Warren Bennis, and many others of like stature. Unfortunately, through her apparent effort to achieve readability by forsaking extensive footnotes and bibliographical references to the larger body of management literature, the author may have decreased the authoritativeness of her work in the eyes of discerning supervisors.

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## Labor's political role

*Labor in American Politics.* By J. David Greenstone. New York, Alfred A. Knopf, Inc., 1969. 408 pp. \$8.50.

Labor's role in national politics, often the subject of speculation but rarely of painstaking analysis, is explored at length in this significant book. It is not only the first detailed treatment of the topic in about 15 years, but, provides keen insight and scholarship.

Greenstone, a political scientist at the University of Chicago, deals with organized labor's participation in several national campaigns, not with the voting behavior of the rank-and-file, union financial contributions to candidates or lobbying efforts. He analyzes organizational activities, focusing on the interaction of the AFL-CIO's Committee on Political Education (COPE) selected local affiliates, and the Democratic Party. During the last decade, the author convincingly argues, labor unions have moved from being one of many pressure groups within the Democratic Party coalition to perhaps the key element in its structure. In many cases it has assumed functions normally belonging to political parties, that is,

"to combine and to reduce many of the demands of social and economic groups."

The opening chapters trace labor in politics from the end of the Civil War to the New Deal, when the AFL's voluntarism, which served a small, homogeneous group of workers, had to yield once unions expanded to include those in mass-production industries and urban centers. Labor's new members became the constituency of the Democratic Party, an alliance which, despite severe strains at times, has managed to survive.

To assess the extent and nature of COPE's alliance with the Democratic Party, Greenstone analyzes election campaigns in 1962-65 in three cities carefully chosen to represent different urban political environments: Detroit, headquarters of a strong industrial union with a tradition of political activity; Chicago, where unions generally had to come to terms with an entrenched political machine; and Los Angeles, an example of non-factory unions in an open shop area and a weak party organization. These chapters make up the major part of the book and offer a fascinating amount of descriptive and analytical material. A major contribution is the lucid treatment of different incentives employed by unions to get members to become politically active.

Greenstone is chary of making predictions, although he sees labor lessening its emphasis on working class issues and emerging as a possible spokesman for consumerism. Of more immediate interest is his assumption that existing arrangements between COPE and the Democratic Party will continue "for some time." Recent developments underscore the hazards of political prophecy.

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### Working on the railroads

*Technological Change and Labor in the Railroad Industry.* By Fred Cottrell. Lexington, Mass., D. C. Heath and Co., 1970. 159 pp. \$12.50.

In an effort to assess the extent to which technological change is a function of a cultural milieu, this cross-cultural analysis compares the effects that changing technology has produced among railroad workers in Britain, New Zealand, and the United States. For each country, Cottrell describes the developments in technology, compares

the influence of values and social structure on adoption of the changing technology, and explains how the outcome of this interaction of technology, social structure, and values has altered the lives of the affected railroad workers.

After doing so, he offers the following conclusions: (1) that technology is strongly influenced by ecology; (2) that values and technology are interdependent; (3) that existing social structure has much to do with the direction and rate of technological change; and (4) that there are certain technological changes which approach inevitability.

The author's objectives are to provide insight and understanding regarding the impact of technological change on the railroad industry in particular and the development of societies in general. Moreover, he asserts his real departure point to be the entire decisionmaking process, as it relates to questions of values and social organization. This orientation clearly has implications for a much broader audience than that attuned specifically to the railroad industry or to rail unions or even to labor relations in general.

In this study, Cottrell goes beyond a mere historical chronology. He builds on the recent literature of technological change by examining the connection between technology and social change. On the one hand, his focus on the railroad industry, with its own very distinctive history, social systems, traditions, folklore, and technological problems, seems appropriate for this particular study. On the other hand, there are some dangers involved. The history of railroading and railroad unions has long been belabored in the literature; to the extent, in fact, that its emphasis here may well divert the attention of a considerable portion of the wider audience to which Cottrell addresses himself. Perhaps some of this effect could have been avoided by greater emphasis on more current labor problems of the industry.

These last points, it should be understood, are intended not so much as a criticism of the author's work as a conjecture that it may not receive appropriate consideration. Indeed, a study using an integrated approach to technology and social change is most welcome, at least to this reader, and the conclusions the author draws appear both warranted and relevant.

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## Other recent publications

### Economic development

Blackett, Lord, *The Gap Widens*. London, Cambridge University Press, 1970, 39 pp. 95 cents, Cambridge University Press, New York.

Canada, Economic Council, *Seventh Annual Review—Patterns of Growth*. Ottawa, 1970, 109 pp. \$2.50, Queen's Printer, Ottawa.

Hirsch, Eva, *Poverty and Plenty on the Turkish Farm*. New York, Middle East Institute of Columbia, 1970, 313 pp., bibliography. \$6, Columbia University Press, New York.

Osborne, John W., *The Silent Revolution: The Industrial Revolution in England as a Source of Cultural Change*. New York, Charles Scribner's Sons, 1970, 232 pp., bibliography. \$7.95.

Prybla, Jan S., *The Political Economy of Communist China*. Scranton, Pa., International Textbook Co., 1970, 605 pp.

### Education and training

Brooks, Thomas R., *Black Builders: A Job Program That Works*. New York, League for Industrial Democracy, 1970, 56 pp. \$1.65.

Hansen, W. Lee, *Education, Income, and Human Capital*. New York, National Bureau of Economic Research, 1970, 320 pp. \$10, Columbia University Press, New York.

### Industrial relations

Meltzer, Bernard D., *Labor Law: Cases, Materials, and Problems*. Boston, Mass., Little, Brown and Co., 1970, 1,221 pp.

"New Applications of Collective Bargaining," *Issues in Industrial Society*, Vol. 1, No. 3, 1970, pp. 8-16. (Ithaca, New York State School of Industrial and Labor Relations.)

Pratt, Robert N., "Computer Utilization in the Collective Bargaining Process," *Industrial Management Review*, Spring 1970, pp. 59-66.

Schwartz, Milton M., Harry F. Stark, H. R. Schiffman, "Responses of Union and Management Leaders to Emotionally-Toned Industrial Relations Terms," *Personnel Psychology*, Autumn 1970, pp. 361-367.

Walker, Kenneth F., *Australian Industrial Relations Systems*. Cambridge, Mass., Harvard University Press, 1970, 493 pp. \$12.50.

Willes, J. A., *The Craft Bargaining Unit: Ontario and U.S. Labor Board Experience*. Kingston, Ontario, Queen's University, Industrial Relations Center, 1970, 43 pp., bibliography. \$3.50.

### Labor force

Aleelson, Leland J., "The Working Wife: Differences in Perception Among Negro and White Males," *Journal of Marriage and the Family*, August 1970, pp. 457-464.

Ashen, Felter Orley, "Changes in Labor Market Discrimination Over Time," *Journal of Human Resources*, Fall 1970, pp. 403-430.

California State Department of Industrial Relations, *Work Stoppages in California, 1970*. San Francisco, 1970, 22 pp.

Engineering Manpower Commission of Engineers Joint Council, *Engineering and Technician Enrollments, Fall 1969*. New York, 1970, 107 pp. \$8.

Flanders, Russell B., "Employment Patterns for the 1970's," *Occupational Outlook Quarterly*, Summer 1970, pp. 2-6.

Fletcher, F. Marion, *The Negro in the Drug Manufacturing Industry*. Philadelphia, Pa., University of Pennsylvania, Wharton School of Finance and Commerce, Industrial Research Unit, 1970, 149 pp. (Racial Policies of American Industry, 21.) \$5.95.

Galloway, Lowell E. and Zachary Dyckman, "The Full Employment-Unemployment Rate: 1953-1980," *Journal of Human Resources*, Fall 1970, pp. 487-510.

Great Britain, Department of Employment and Productivity, "Employees in Great Britain, Mid-1969 Analysis by Age, Sex, Region, and Industry," *Employment and Productivity Gazette*, H.M. Stationery Office, July 1970, pp. 577-581.

Hunter, L. C. and G. L. Reid, *European Economic Integration and the Movement of Labor*. Kingston, Ontario, Queen's University, Industrial Relations Center, 1970, 38 pp. \$2.

Institute of Life Insurance, *An Assessment of Goals and Responsibilities: Retirement Planning Leadership Conference*. New York, 1970, 35 pp.

Railroad Retirement Board, "Women in the Railroad Industry," *The RRB Quarterly Review*, April-June 1970, pp. 23-27.

Relyea, Ruth, "Technological Change: How Fares the Worker?" *Manpower*, September 1970, pp. 27-29.

Rosenthal, Neal H., *A Career in the Biological Sciences*. Washington, B'nai B'rith Vocational Service, 1970, 17 pp. 35 cents.

Rosenthal, Neal H., *A Career in Medicine*. Washington, B'nai B'rith Vocational Service, 1970, 17 pp. 35 cents.

Schmidt, Fred H., *Spanish Surnamed American Employment in the Southwest*. (A study prepared for the Colorado Civil Rights Commission under the auspices of the Equal Employment Opportunity Commission.) Washington, Equal Employment Opportunity Commission, 1970, 247 pp. \$2, Superintendent of Documents, Washington.

Smith, T. Lynn, "Farm Labor Trends in the United States, 1910-1969," *International Labor Review*, August 1970, pp. 149-169.

U.S. Public Health Service, "Health Aides—A Special Section," *Public Health Reports*, September 1970, pp. 753-801.

Weaver, Charles N. and Norval D. Glenn, "The Job Performance of Mexican-Americans," *Sociology and Social Research: An International Journal*, July 1970, pp. 477-494.

### Labor organizations

Burck, Gilbert, "The Building Trades Versus the People," *Fortune*, October 1970, pp. 95-97, 159-160.

Eaton, William J., *A Look at Public Employee Unions*. Washington, Labor-Management Relations Service, 1970, 7 pp. (Strengthening Local Government Through Better Labor Relations, 4.)

Kaufman, Martin, "Putting a Union Label on the White-Collar Employee," *Conference Board Record*, September 1970, pp. 46-50.

Rapping, Leonard A., "Union Induced Racial Entry Barriers," *Journal of Human Resources*, Fall 1970, pp. 447-474.

### Personnel management

Gibbons, Charles C., "Getting 60 Minutes of Results From Every Hour," *Management Review*, October 1970, pp. 4-13.

Meyer, Pearl, "How to Read a Resume," *Dun's Review*, October 1970, pp. 49-52.

Shull, Fremont A., Jr. and others, *Organizational Decision Making*. New York, McGraw-Hill Book Co., 1970, 320 pp., bibliography. \$11.95.

Stephens, James C., *Managing Complexity: Work Technology and Human Relations*. University Press of Washington, D.C., 1970, 449 pp. \$9.

### Productivity and technological change

Mishan, E. J., *Technology and Growth: The Price We Pay*. New York, Praeger Publishers, 1970, 193 pp. \$7.95.

Vernon, Raymond, editor, *The Technology Factor in International Trade*. New York, National Bureau of Economic Research, 1970, 493 pp. \$15, Columbia University Press, New York.

### Social security

Higuchi, T., "The Special Treatment of Employment Inquiry in Social Security," *International Labor Review*, August 1970, pp. 109-126.

International Social Security Association, "ISSA Conference on Social Security Research," *International Social Security Review*, XXIII No. 2, 1970, pp. 219-356.

### Urban affairs

Aleshire, Robert A., "Planning and Citizen Participation: Costs, Benefits, and Approaches," *Urban Affairs Quarterly*, June 1970, pp. 369-393.

Deutermann, Elizabeth P., "Regional Planning Arrives," *Federal Reserve Bank of Philadelphia Business Review*, August 1970, pp. 15-25.

Lansing, John B., Robert W. Marans, Robert B. Zehner, *Planned Residential Environments*. Ann Arbor, University of Michigan, Institute for Social Research, 1970, 269 pp., bibliography.

Leggat, Al, Edward J. Gutman, James J. Mortier, *The City Prepares for Labor Relations: The Experience in Detroit, Baltimore, and Milwaukee*. Washington, Labor-Management Relations Service, 1970, 20 pp. (Strengthening Local Government Through Better Labor Relations, 3.)

### Wages and hours

California State Department of Industrial Relations, *1969 Earnings and Hours: California and Metropolitan Areas*. San Francisco, 1970, 59 pp.

Moran, Robert D., "Curbing the Garnishment Grab," *American Federationist*, September 1970, pp. 18-20.

O'Neill, Dave M., "The Effect of Discrimination on Earnings: Evidence From Military Test Score Results," *Journal of Human Resources*, Fall 1970, pp. 475-486.

Thormann, Peter H., "The Rural-Urban Income Differential and Minimum Wage Fixing Criteria," *International Labor Review*, August 1970, pp. 127-147.

### Miscellaneous

Baldwin, Robert E., *Nontariff Distortions of International Trade*. Washington, Brookings Institution, 1970, 210 pp. \$6.95.

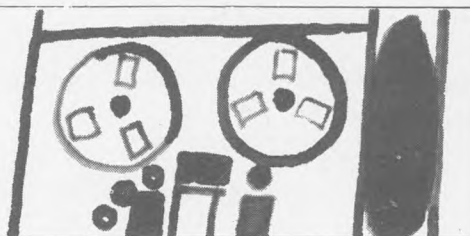
Chanin, Robert A., *Protecting Teacher Rights: A Summary of Constitutional Developments*. Washington, National Education Association, 1970, 41 pp. \$1.

Donovan, John C., *The Policy Makers*. New York, Pegasus, 1970, 255 pp. \$6.95, cloth; \$2.25, paperback.

Segal, Judith A., *Food for the Hungry: The Reluctant Society*. Baltimore, Johns Hopkins Press, 1970, 83 pp. \$6, hardbound; \$1.95, paperback.

White, Harrison C., *Chains of Opportunity: System Models of Mobility in Organizations*. Cambridge, Mass., Harvard University Press, 1970, 418 pp. \$15.

# Current Labor Statistics



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## 1. Employment status of the noninstitutional population, 16 years and over, 1947 to date

[In thousands]

| Year | Total non-institutional population | Total labor force |                       | Civilian labor force |          |             |                            |            |                        | Not in labor force |
|------|------------------------------------|-------------------|-----------------------|----------------------|----------|-------------|----------------------------|------------|------------------------|--------------------|
|      |                                    | Number            | Percent of population | Total                | Employed |             |                            | Unemployed |                        |                    |
|      |                                    |                   |                       |                      | Total    | Agriculture | Nonagricultural industries | Number     | Percent of labor force |                    |
| 1947 | 103,418                            | 60,941            | 58.9                  | 59,350               | 57,039   | 7,891       | 49,148                     | 2,311      | 3.9                    | 42,477             |
| 1948 | 104,527                            | 62,080            | 59.4                  | 60,621               | 58,344   | 7,629       | 50,713                     | 2,276      | 3.8                    | 42,447             |
| 1949 | 105,611                            | 62,903            | 59.6                  | 61,286               | 57,649   | 7,656       | 49,990                     | 3,637      | 5.9                    | 42,708             |
| 1950 | 106,645                            | 63,858            | 59.9                  | 62,208               | 58,920   | 7,160       | 51,760                     | 3,288      | 5.3                    | 42,787             |
| 1951 | 107,721                            | 65,117            | 60.4                  | 62,017               | 59,962   | 6,726       | 53,239                     | 2,055      | 3.3                    | 42,604             |
| 1952 | 108,823                            | 65,730            | 60.4                  | 62,138               | 60,254   | 6,501       | 53,753                     | 1,883      | 3.0                    | 43,093             |
| 1953 | 110,601                            | 66,560            | 60.2                  | 63,015               | 61,181   | 6,261       | 54,922                     | 1,834      | 2.9                    | 44,041             |
| 1954 | 111,671                            | 66,993            | 60.0                  | 63,643               | 60,110   | 6,206       | 53,903                     | 3,532      | 5.5                    | 44,678             |
| 1955 | 112,732                            | 68,072            | 60.4                  | 65,023               | 62,171   | 6,449       | 55,724                     | 2,852      | 4.4                    | 44,660             |
| 1956 | 113,811                            | 69,409            | 61.0                  | 66,552               | 63,802   | 6,283       | 57,517                     | 2,750      | 4.1                    | 44,402             |
| 1957 | 115,065                            | 69,729            | 60.6                  | 66,929               | 64,071   | 5,947       | 58,123                     | 2,859      | 4.3                    | 45,336             |
| 1958 | 116,363                            | 70,275            | 60.4                  | 67,639               | 63,036   | 5,586       | 57,450                     | 4,602      | 6.8                    | 46,088             |
| 1959 | 117,881                            | 70,921            | 60.2                  | 68,369               | 64,630   | 5,565       | 59,065                     | 3,740      | 5.5                    | 46,960             |
| 1960 | 119,759                            | 72,142            | 60.2                  | 69,628               | 65,778   | 5,458       | 60,318                     | 3,852      | 5.5                    | 47,617             |
| 1961 | 121,343                            | 73,031            | 60.2                  | 70,459               | 65,746   | 5,200       | 60,546                     | 4,714      | 6.7                    | 48,312             |
| 1962 | 122,981                            | 73,442            | 59.7                  | 70,614               | 66,702   | 4,944       | 61,759                     | 3,911      | 5.5                    | 49,539             |
| 1963 | 125,154                            | 74,571            | 59.6                  | 71,833               | 67,762   | 4,687       | 63,076                     | 4,070      | 5.7                    | 50,583             |
| 1964 | 127,224                            | 75,830            | 59.6                  | 73,091               | 69,305   | 4,523       | 64,782                     | 3,786      | 5.2                    | 51,394             |
| 1965 | 129,236                            | 77,178            | 59.7                  | 74,455               | 71,088   | 4,361       | 66,726                     | 3,366      | 4.5                    | 52,058             |
| 1966 | 131,180                            | 78,893            | 60.1                  | 75,770               | 72,895   | 3,979       | 68,915                     | 2,875      | 3.8                    | 52,288             |
| 1967 | 133,319                            | 80,793            | 60.6                  | 77,347               | 74,372   | 3,844       | 70,527                     | 2,975      | 3.8                    | 52,527             |
| 1968 | 135,562                            | 82,272            | 60.7                  | 78,737               | 75,920   | 3,817       | 72,103                     | 2,817      | 3.6                    | 53,291             |
| 1969 | 137,841                            | 84,239            | 61.1                  | 80,733               | 77,902   | 3,606       | 74,296                     | 2,831      | 3.5                    | 53,602             |

2. Employment status, by color, sex and age, seasonally adjusted,<sup>1</sup> quarterly averages

[In thousands]

| Characteristic           | 1970   |        |        | 1969   |        |        |        | 1968   |        |        |        | 1967   |        | Annual average |        |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|--------|
|                          | 3d     | 2d     | 1st    | 4th    | 3d     | 2d     | 1st    | 4th    | 3d     | 2d     | 1st    | 4th    | 3d     | 1969           | 1968   |
| <b>WHITE</b>             |        |        |        |        |        |        |        |        |        |        |        |        |        |                |        |
| Civilian labor force     | 73,525 | 73,263 | 73,316 | 72,475 | 71,942 | 71,466 | 71,285 | 70,392 | 70,045 | 69,851 | 69,587 | 69,440 | 68,944 | 71,778         | 69,975 |
| Men, 20 years and over   | 42,503 | 42,463 | 42,245 | 41,956 | 41,842 | 41,639 | 41,656 | 41,423 | 41,373 | 41,235 | 41,230 | 41,175 | 40,972 | 41,772         | 41,317 |
| Women, 20 years and over | 24,664 | 24,378 | 24,513 | 24,156 | 23,949 | 23,684 | 23,566 | 23,122 | 22,843 | 22,741 | 22,565 | 22,632 | 22,276 | 23,838         | 22,820 |
| Both sexes, 16-19 years  | 6,358  | 6,422  | 6,558  | 6,363  | 6,151  | 6,143  | 6,036  | 5,847  | 5,829  | 5,875  | 5,792  | 5,633  | 5,696  | 6,168          | 5,838  |
| Employed                 | 69,956 | 70,059 | 70,527 | 70,096 | 69,575 | 69,260 | 69,135 | 68,267 | 67,804 | 67,617 | 67,311 | 67,032 | 66,576 | 69,518         | 67,750 |
| Men, 20 years and over   | 40,986 | 41,131 | 41,180 | 41,091 | 40,995 | 40,871 | 40,926 | 40,677 | 40,553 | 40,405 | 40,376 | 40,300 | 40,101 | 40,978         | 40,503 |
| Women, 20 years and over | 23,504 | 23,347 | 23,587 | 23,327 | 23,120 | 22,891 | 22,794 | 22,372 | 22,066 | 21,987 | 21,777 | 21,766 | 21,416 | 23,032         | 22,052 |
| Both sexes, 16-19 years  | 5,466  | 5,581  | 5,760  | 5,678  | 5,460  | 5,498  | 5,415  | 5,218  | 5,185  | 5,225  | 5,158  | 4,966  | 5,059  | 5,508          | 5,195  |
| Unemployed               | 3,568  | 3,204  | 2,789  | 2,379  | 2,367  | 2,206  | 2,150  | 2,125  | 2,241  | 2,234  | 2,276  | 2,408  | 2,368  | 2,260          | 2,225  |
| Men, 20 years and over   | 1,517  | 1,332  | 1,065  | 865    | 847    | 768    | 730    | 746    | 820    | 830    | 854    | 875    | 871    | 794            | 814    |
| Women, 20 years and over | 1,159  | 1,032  | 926    | 829    | 829    | 793    | 772    | 750    | 777    | 754    | 788    | 866    | 860    | 806            | 768    |
| Both sexes, 16-19 years  | 892    | 841    | 798    | 685    | 691    | 645    | 648    | 629    | 644    | 650    | 634    | 667    | 637    | 660            | 643    |
| Unemployment rate        | 4.9    | 4.4    | 3.8    | 3.3    | 3.3    | 3.1    | 3.0    | 3.0    | 3.2    | 3.2    | 3.3    | 3.5    | 3.4    | 3.1            | 3.2    |
| Men, 20 years and over   | 3.6    | 3.1    | 2.5    | 2.1    | 2.0    | 1.8    | 1.8    | 1.8    | 2.0    | 2.0    | 2.1    | 2.1    | 2.1    | 1.9            | 2.0    |
| Women, 20 years and over | 4.7    | 4.2    | 3.8    | 3.4    | 3.5    | 3.3    | 3.3    | 3.2    | 3.4    | 3.3    | 3.5    | 3.8    | 3.9    | 3.4            | 3.4    |
| Both sexes, 16-19 years  | 14.0   | 13.1   | 12.2   | 10.8   | 11.2   | 10.5   | 10.7   | 10.8   | 11.0   | 11.1   | 10.9   | 11.8   | 11.2   | 10.7           | 11.0   |
| <b>NEGRO AND OTHER</b>   |        |        |        |        |        |        |        |        |        |        |        |        |        |                |        |
| Civilian labor force     | 9,210  | 9,226  | 9,224  | 9,056  | 8,979  | 8,867  | 8,914  | 8,737  | 8,700  | 8,828  | 8,762  | 8,733  | 8,632  | 8,954          | 8,759  |
| Men, 20 years and over   | 4,777  | 4,706  | 4,700  | 4,622  | 4,593  | 4,549  | 4,554  | 4,513  | 4,517  | 4,562  | 4,543  | 4,496  | 4,507  | 4,579          | 4,535  |
| Women, 20 years and over | 3,653  | 3,688  | 3,682  | 3,616  | 3,595  | 3,535  | 3,550  | 3,468  | 3,414  | 3,467  | 3,433  | 3,444  | 3,348  | 3,574          | 3,446  |
| Both sexes, 16-19 years  | 780    | 832    | 842    | 818    | 791    | 783    | 810    | 756    | 769    | 799    | 786    | 793    | 777    | 801            | 778    |
| Employed                 | 8,423  | 8,447  | 8,598  | 8,500  | 8,394  | 8,271  | 8,371  | 8,164  | 8,132  | 8,233  | 8,147  | 8,073  | 8,006  | 8,384          | 8,169  |
| Men, 20 years and over   | 4,484  | 4,434  | 4,498  | 4,445  | 4,416  | 4,382  | 4,397  | 4,335  | 4,349  | 4,388  | 4,351  | 4,305  | 4,328  | 4,410          | 4,356  |
| Women, 20 years and over | 3,392  | 3,416  | 3,468  | 3,429  | 3,372  | 3,307  | 3,352  | 3,264  | 3,205  | 3,246  | 3,200  | 3,191  | 3,112  | 3,365          | 3,229  |
| Both sexes, 16-19 years  | 547    | 597    | 632    | 626    | 606    | 582    | 622    | 565    | 578    | 599    | 596    | 577    | 566    | 609            | 584    |
| Unemployed               | 787    | 779    | 626    | 556    | 585    | 596    | 543    | 573    | 568    | 595    | 615    | 660    | 626    | 570            | 590    |
| Men, 20 years and over   | 293    | 272    | 201    | 177    | 177    | 167    | 157    | 178    | 168    | 174    | 192    | 191    | 179    | 169            | 179    |
| Women, 20 years and over | 260    | 272    | 215    | 187    | 223    | 228    | 198    | 204    | 209    | 221    | 233    | 253    | 236    | 209            | 217    |
| Both sexes, 16-19 years  | 234    | 235    | 210    | 192    | 185    | 201    | 188    | 191    | 191    | 200    | 190    | 216    | 211    | 192            | 194    |
| Unemployment rate        | 8.5    | 8.4    | 6.8    | 6.1    | 6.5    | 6.7    | 6.1    | 6.6    | 6.5    | 6.7    | 7.0    | 7.6    | 7.3    | 6.4            | 6.7    |
| Men, 20 years and over   | 6.1    | 5.8    | 4.3    | 3.8    | 3.9    | 3.7    | 3.4    | 3.9    | 3.7    | 3.8    | 4.2    | 4.2    | 4.0    | 3.7            | 3.9    |
| Women, 20 years and over | 7.1    | 7.4    | 5.8    | 5.2    | 6.2    | 6.4    | 5.6    | 5.9    | 6.1    | 6.4    | 6.8    | 7.3    | 7.0    | 5.8            | 6.3    |
| Both sexes, 16-19 years  | 30.0   | 28.2   | 24.9   | 23.5   | 23.4   | 25.7   | 23.2   | 25.3   | 24.8   | 25.0   | 24.2   | 27.2   | 27.2   | 24.0           | 24.9   |

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally

adjusted series, see the February 1970 issue of *Employment and Earnings*.

## 3. Full- and part-time status of the civilian labor force

[In thousands—not seasonally adjusted]

| Employment status                           | 1970   |        |        |        |        |        |        |        |        |        | 1969   |        |        | Annual average |        |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|--------|
|   | Oct.   | Sept.  | Aug.   | July   | June   | May    | Apr.   | Mar.   | Feb.   | Jan.   | Dec.   | Nov.   | Oct.   | 1969           | 1968   |
| <b>FULL TIME</b>                            |        |        |        |        |        |        |        |        |        |        |        |        |        |                |        |
| Civilian labor force.....                   | 70,756 | 71,329 | 74,610 | 74,884 | 73,555 | 69,383 | 69,255 | 69,116 | 69,018 | 68,869 | 69,204 | 69,296 | 69,491 | 69,700         | 68,332 |
| Employed:                                   |        |        |        |        |        |        |        |        |        |        |        |        |        |                |        |
| Full-time schedules <sup>1</sup> .....      | 65,239 | 65,910 | 68,185 | 68,044 | 66,779 | 64,413 | 64,166 | 64,108 | 63,997 | 64,155 | 65,302 | 65,517 | 65,594 | 65,503         | 64,225 |
| Part-time for economic reasons.....         | 2,370  | 2,276  | 2,984  | 3,088  | 2,831  | 2,128  | 2,301  | 2,139  | 2,117  | 2,135  | 1,998  | 1,916  | 1,955  | 2,055          | 1,970  |
| Unemployed, looking for full-time work..... | 3,146  | 3,143  | 3,441  | 3,753  | 3,945  | 2,842  | 2,787  | 2,869  | 2,904  | 2,579  | 1,904  | 1,864  | 1,942  | 2,142          | 2,138  |
| Unemployment rate.....                      | 4.4    | 4.4    | 4.6    | 5.0    | 5.4    | 4.1    | 4.0    | 4.2    | 4.2    | 3.7    | 2.8    | 2.7    | 2.8    | 3.1            | 3.1    |
| <b>PART TIME</b>                            |        |        |        |        |        |        |        |        |        |        |        |        |        |                |        |
| Civilian labor force.....                   | 12,420 | 11,218 | 9,504  | 9,917  | 10,496 | 12,358 | 12,706 | 12,574 | 12,266 | 11,850 | 12,212 | 12,131 | 12,019 | 11,032         | 10,405 |
| Employed (voluntary part-time).....         | 11,306 | 10,069 | 8,725  | 9,159  | 9,772  | 11,816 | 11,940 | 11,711 | 11,375 | 11,023 | 11,488 | 11,284 | 11,122 | 10,343         | 9,726  |
| Unemployed, looking for part-time work..... | 1,113  | 1,149  | 779    | 757    | 724    | 542    | 765    | 863    | 890    | 827    | 724    | 847    | 898    | 689            | 679    |
| Unemployment rate.....                      | 9.0    | 10.2   | 7.6    | 7.6    | 6.9    | 4.4    | 6.0    | 6.9    | 7.3    | 7.0    | 5.9    | 7.0    | 7.5    | 6.2            | 6.5    |

<sup>1</sup> Employed persons with a job but not at work are distributed proportionately among the full- and part-time employed categories.4. Employment and unemployment, by age and sex, seasonally adjusted<sup>1</sup>

[In thousands]

| Employment status               | 1970   |        |        |        |        |        |        |        |        |        | 1969   |        |        | Annual average |        |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|--------|
|                                 | Oct.   | Sept.  | Aug.   | July   | June   | May    | Apr.   | Mar.   | Feb.   | Jan.   | Dec.   | Nov.   | Oct.   | 1969           | 1968   |
| <b>TOTAL</b>                    |        |        |        |        |        |        |        |        |        |        |        |        |        |                |        |
| Total labor force.....          | 86,432 | 86,140 | 85,810 | 85,967 | 85,304 | 85,783 | 86,143 | 86,087 | 85,590 | 85,599 | 85,023 | 84,872 | 85,051 | 84,239         | 82,272 |
| Civilian labor force.....       | 83,353 | 83,031 | 82,676 | 82,813 | 82,125 | 82,555 | 82,872 | 82,769 | 82,249 | 82,213 | 81,583 | 81,379 | 81,523 | 80,733         | 78,737 |
| Employed.....                   | 78,686 | 78,424 | 78,445 | 78,638 | 78,225 | 78,449 | 78,924 | 79,112 | 78,822 | 79,041 | 78,737 | 78,528 | 78,445 | 77,902         | 75,920 |
| Agriculture.....                | 3,288  | 3,399  | 3,420  | 3,519  | 3,554  | 3,613  | 3,586  | 3,550  | 3,499  | 3,426  | 3,435  | 3,434  | 3,446  | 3,606          | 3,817  |
| Nonagriculture.....             | 75,398 | 75,025 | 75,025 | 75,119 | 74,671 | 74,836 | 75,338 | 75,562 | 75,323 | 75,615 | 75,302 | 75,094 | 74,999 | 74,296         | 72,103 |
| Unemployed.....                 | 4,667  | 4,607  | 4,231  | 4,175  | 3,900  | 4,106  | 3,948  | 3,657  | 3,427  | 3,172  | 2,846  | 2,851  | 3,078  | 2,831          | 2,817  |
| <b>MEN, 20 YEARS AND OVER</b>   |        |        |        |        |        |        |        |        |        |        |        |        |        |                |        |
| Total labor force.....          | 50,173 | 50,136 | 49,905 | 50,024 | 49,906 | 50,020 | 50,032 | 49,920 | 49,707 | 49,736 | 49,534 | 49,544 | 49,642 | 49,406         | 48,834 |
| Civilian labor force.....       | 47,502 | 47,439 | 47,178 | 47,294 | 47,154 | 47,226 | 47,199 | 47,060 | 46,836 | 46,826 | 46,578 | 46,531 | 46,599 | 46,351         | 45,852 |
| Employed.....                   | 45,538 | 45,522 | 45,424 | 45,524 | 45,521 | 45,593 | 45,667 | 45,709 | 45,534 | 45,674 | 45,553 | 45,533 | 45,511 | 45,388         | 44,859 |
| Agriculture.....                | 2,451  | 2,510  | 2,523  | 2,593  | 2,603  | 2,625  | 2,602  | 2,537  | 2,479  | 2,473  | 2,499  | 2,482  | 2,575  | 2,636          | 2,816  |
| Nonagriculture.....             | 43,087 | 43,012 | 42,901 | 42,931 | 42,918 | 42,968 | 43,065 | 43,172 | 43,055 | 43,201 | 43,054 | 43,051 | 42,936 | 42,752         | 42,043 |
| Unemployed.....                 | 1,964  | 1,917  | 1,754  | 1,770  | 1,633  | 1,633  | 1,532  | 1,351  | 1,302  | 1,152  | 1,025  | 998    | 1,088  | 963            | 993    |
| <b>WOMEN, 20 YEARS AND OVER</b> |        |        |        |        |        |        |        |        |        |        |        |        |        |                |        |
| Civilian labor force.....       | 28,534 | 28,200 | 28,447 | 28,500 | 28,026 | 27,885 | 28,274 | 28,295 | 28,066 | 28,073 | 27,875 | 27,671 | 27,767 | 27,413         | 26,266 |
| Employed.....                   | 27,082 | 26,750 | 27,092 | 27,073 | 26,772 | 26,476 | 27,022 | 27,016 | 26,925 | 27,060 | 26,897 | 26,663 | 26,699 | 26,397         | 25,281 |
| Agriculture.....                | 505    | 507    | 514    | 545    | 573    | 567    | 571    | 583    | 630    | 586    | 585    | 555    | 554    | 593            | 606    |
| Nonagriculture.....             | 26,577 | 26,243 | 26,578 | 26,528 | 26,199 | 25,909 | 26,451 | 26,433 | 26,295 | 26,474 | 26,312 | 26,108 | 26,145 | 25,804         | 24,675 |
| Unemployed.....                 | 1,452  | 1,450  | 1,355  | 1,427  | 1,254  | 1,409  | 1,252  | 1,279  | 1,144  | 1,013  | 978    | 1,008  | 1,068  | 1,015          | 985    |
| <b>BOTH SEXES, 16-19 YEARS</b>  |        |        |        |        |        |        |        |        |        |        |        |        |        |                |        |
| Civilian labor force.....       | 7,317  | 7,392  | 7,051  | 7,019  | 6,945  | 7,444  | 7,399  | 7,414  | 7,347  | 7,314  | 7,130  | 7,177  | 7,157  | 6,970          | 6,618  |
| Employed.....                   | 6,066  | 6,152  | 5,929  | 6,041  | 5,932  | 6,380  | 6,235  | 6,387  | 6,363  | 6,307  | 6,287  | 6,332  | 6,235  | 6,117          | 5,780  |
| Agriculture.....                | 332    | 382    | 383    | 381    | 378    | 421    | 413    | 430    | 390    | 367    | 351    | 397    | 317    | 377            | 394    |
| Nonagriculture.....             | 5,734  | 5,770  | 5,546  | 5,660  | 5,554  | 5,959  | 5,822  | 5,957  | 5,973  | 5,940  | 5,936  | 5,935  | 5,918  | 5,739          | 5,385  |
| Unemployed.....                 | 1,251  | 1,240  | 1,122  | 978    | 1,013  | 1,064  | 1,164  | 1,027  | 984    | 1,007  | 843    | 845    | 922    | 853            | 839    |

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonallyadjusted series, see the February 1970 issue of *Employment and Earnings*.

5. Employment totals, by occupation, with unemployment rates, seasonally adjusted,<sup>1</sup> quarterly averages

| Characteristic  | 1970   |        |        | 1969   |        |        | 1968   |        |        |        | 1967   |        | Annual average |        |        |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|
|   | 3d     | 2d     | 1st    | 4th    | 3d     | 2d     | 1st    | 4th    | 3d     | 2d     | 1st    | 4th    | 3d             | 1969   | 1968   |
| <b>EMPLOYMENT (in thousands)</b> .....                                      | 78,502 | 78,533 | 78,992 | 78,570 | 78,090 | 77,550 | 77,418 | 76,409 | 76,017 | 75,898 | 75,392 | 75,121 | 74,630         | 77,902 | 75,921 |
| <b>White-collar workers</b> .....   | 37,939 | 37,981 | 37,938 | 37,509 | 36,923 | 36,677 | 36,264 | 35,906 | 35,732 | 35,419 | 35,140 | 34,888 | 34,456         | 36,845 | 35,551 |
| Professional and technical<br>Managers, officials, and<br>proprietors ..... | 11,257 | 11,129 | 11,026 | 10,936 | 10,764 | 10,740 | 10,638 | 10,473 | 10,392 | 10,295 | 10,142 | 10,067 | 9,952          | 10,769 | 10,325 |
| Clerical workers .....  | 8,248  | 8,290  | 8,215  | 8,141  | 7,970  | 7,993  | 7,841  | 7,897  | 7,827  | 7,661  | 7,716  | 7,633  | 7,630          | 7,987  | 7,776  |
| Sales workers .....   | 13,560 | 13,748 | 13,906 | 13,655 | 13,478 | 13,281 | 13,171 | 12,876 | 12,823 | 12,816 | 12,694 | 12,624 | 12,343         | 13,397 | 12,803 |
| <b>Blue-collar workers</b> .....  | 4,873  | 4,815  | 4,791  | 4,777  | 4,711  | 4,663  | 4,614  | 4,660  | 4,690  | 4,647  | 4,588  | 4,564  | 4,531          | 4,692  | 4,647  |
| Craftsmen and foremen .....   | 27,640 | 27,663 | 28,236 | 28,389 | 28,425 | 27,931 | 28,202 | 27,774 | 27,491 | 27,513 | 27,297 | 27,279 | 27,343         | 28,237 | 27,525 |
| Operatives .....  | 10,078 | 10,109 | 10,264 | 10,265 | 10,174 | 10,044 | 10,298 | 10,147 | 9,972  | 10,003 | 9,936  | 9,827  | 9,790          | 10,193 | 10,015 |
| Nonfarm laborers .....  | 13,824 | 13,891 | 14,168 | 14,412 | 14,589 | 14,208 | 14,264 | 14,051 | 13,911 | 13,956 | 13,896 | 13,918 | 13,999         | 14,372 | 13,955 |
| Farm laborers .....   | 3,738  | 3,663  | 3,804  | 3,712  | 3,662  | 3,679  | 3,640  | 3,576  | 3,608  | 3,554  | 3,465  | 3,534  | 3,554          | 3,672  | 3,555  |
| <b>Service workers</b> .....  | 9,795  | 9,589  | 9,673  | 9,589  | 9,493  | 9,467  | 9,558  | 9,411  | 9,385  | 9,395  | 9,337  | 9,330  | 9,277          | 9,528  | 9,381  |
| <b>Farm workers</b> .....   | 3,108  | 3,234  | 3,153  | 3,089  | 3,231  | 3,417  | 3,438  | 3,346  | 3,400  | 3,507  | 3,649  | 3,654  | 3,556          | 3,292  | 3,464  |
| <b>UNEMPLOYMENT RATE</b> .....  | 5.2    | 4.8    | 4.1    | 3.6    | 3.6    | 3.5    | 3.4    | 3.4    | 3.6    | 3.6    | 3.7    | 3.9    | 3.9            | 3.5    | 3.6    |
| <b>White-collar workers</b> .....   | 2.9    | 2.8    | 2.4    | 2.2    | 2.2    | 2.0    | 2.0    | 1.9    | 2.0    | 2.0    | 2.0    | 2.2    | 2.2            | 2.1    | 2.0    |
| Professional and technical<br>Managers, officials, and<br>proprietors ..... | 2.0    | 1.9    | 1.9    | 1.5    | 1.4    | 1.3    | 1.1    | 1.2    | 1.3    | 1.2    | 1.2    | 1.3    | 1.3            | 1.3    | 1.2    |
| Clerical workers .....  | 1.5    | 1.3    | 1.0    | .9     | 1.0    | .9     | .9     | 1.0    | 1.1    | .9     | .9     | 1.0    | .9             | .9     | 1.0    |
| Sales workers .....   | 4.1    | 4.0    | 3.3    | 3.2    | 3.2    | 2.8    | 2.9    | 2.8    | 2.9    | 3.0    | 3.1    | 3.4    | 3.3            | 3.0    | 3.0    |
| <b>Blue-collar workers</b> .....  | 3.9    | 4.0    | 3.2    | 2.8    | 3.0    | 2.9    | 2.9    | 2.8    | 2.6    | 2.7    | 3.0    | 3.2    | 3.6            | 2.9    | 2.8    |
| Craftsmen and foremen .....   | 7.0    | 6.0    | 4.9    | 4.3    | 4.0    | 3.8    | 3.7    | 3.8    | 4.2    | 4.0    | 4.4    | 4.5    | 4.5            | 3.9    | 4.1    |
| Operatives .....  | 4.9    | 3.9    | 2.6    | 2.2    | 2.2    | 2.1    | 2.1    | 2.2    | 2.4    | 2.4    | 2.5    | 2.5    | 2.3            | 2.2    | 2.4    |
| Nonfarm laborers .....  | 7.6    | 6.6    | 5.7    | 5.0    | 4.4    | 4.3    | 4.1    | 4.3    | 4.5    | 4.3    | 4.8    | 5.1    | 5.1            | 4.4    | 4.5    |
| Farm laborers .....   | 10.6   | 9.4    | 7.9    | 6.9    | 7.2    | 6.5    | 6.4    | 6.7    | 7.4    | 7.0    | 7.7    | 7.8    | 7.6            | 6.7    | 7.2    |
| <b>Service workers</b> .....  | 5.6    | 5.0    | 4.7    | 3.9    | 4.5    | 4.4    | 4.0    | 4.3    | 4.5    | 4.6    | 4.3    | 4.9    | 4.5            | 4.2    | 4.5    |
| <b>Farm workers</b> .....   | 3.2    | 2.5    | 2.1    | 1.8    | 2.2    | 1.9    | 1.6    | 1.6    | 2.4    | 2.3    | 1.9    | 2.3    | 2.4            | 1.9    | 2.1    |

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of a seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of *Employment and Earnings*.

## 6. Unemployed persons, by reason for unemployment

(In thousands—not seasonally adjusted)

| Reason for unemployment,<br>age, and sex | 1970  |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual average |       |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|-------|
|  | Oct.  | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  | 1969           | 1968  |
| <b>Total, 16 years and over</b> .....    | 4,259 | 4,292 | 4,220 | 4,510 | 4,669 | 3,384 | 3,552 | 3,733 | 3,794 | 3,406 | 2,628 | 2,710 | 2,839 | 2,831          | 2,817 |
| Lost last job .....                      | 1,866 | 1,698 | 1,773 | 1,778 | 1,598 | 1,658 | 1,669 | 1,797 | 1,787 | 1,595 | 1,133 | 939   | 882   | 1,017          | 1,070 |
| Left last job .....                      | 629   | 675   | 639   | 635   | 565   | 447   | 507   | 441   | 473   | 485   | 378   | 421   | 451   | 436            | 431   |
| Reentered labor force .....              | 1,254 | 1,404 | 1,242 | 1,342 | 1,567 | 944   | 1,001 | 1,143 | 1,158 | 999   | 825   | 1,011 | 1,093 | 965            | 909   |
| Never worked before .....                | 510   | 514   | 567   | 756   | 939   | 333   | 375   | 351   | 377   | 328   | 292   | 339   | 414   | 413            | 407   |
| <b>Male, 20 years and over</b> .....     | 1,636 | 1,562 | 1,622 | 1,667 | 1,584 | 1,403 | 1,498 | 1,606 | 1,678 | 1,456 | 1,052 | 909   | 906   | 963            | 993   |
| Lost last job .....                      | 1,063 | 969   | 1,016 | 1,013 | 911   | 942   | 988   | 1,059 | 1,144 | 997   | 693   | 524   | 458   | 556            | 599   |
| Left last job .....                      | 235   | 235   | 217   | 230   | 206   | 170   | 214   | 200   | 185   | 197   | 150   | 141   | 141   | 164            | 167   |
| Reentered labor force .....              | 287   | 313   | 342   | 368   | 413   | 251   | 261   | 312   | 310   | 230   | 188   | 226   | 267   | 216            | 205   |
| Never worked before .....                | 51    | 46    | 48    | 56    | 55    | 40    | 34    | 35    | 39    | 32    | 20    | 18    | 40    | 27             | 22    |
| <b>Female, 20 years and over</b> .....   | 1,491 | 1,598 | 1,461 | 1,391 | 1,302 | 1,205 | 1,171 | 1,264 | 1,238 | 1,086 | 840   | 994   | 1,097 | 1,015          | 985   |
| Lost last job .....                      | 610   | 536   | 515   | 574   | 540   | 562   | 497   | 542   | 451   | 418   | 303   | 309   | 314   | 335            | 341   |
| Left last job .....                      | 246   | 273   | 274   | 256   | 192   | 174   | 188   | 156   | 200   | 177   | 138   | 183   | 209   | 171            | 167   |
| Reentered labor force .....              | 579   | 711   | 611   | 500   | 473   | 435   | 439   | 530   | 529   | 437   | 354   | 457   | 501   | 455            | 422   |
| Never worked before .....                | 56    | 78    | 61    | 62    | 97    | 34    | 47    | 36    | 58    | 54    | 46    | 45    | 72    | 55             | 55    |
| <b>Both sexes, 16 to 19 years</b> .....  | 1,133 | 1,131 | 1,137 | 1,451 | 1,783 | 776   | 883   | 863   | 878   | 864   | 736   | 807   | 836   | 853            | 839   |
| Lost last job .....                      | 193   | 193   | 242   | 191   | 147   | 155   | 184   | 196   | 192   | 180   | 137   | 106   | 110   | 126            | 130   |
| Left last job .....                      | 148   | 168   | 148   | 149   | 167   | 103   | 104   | 85    | 88    | 111   | 90    | 97    | 101   | 101            | 97    |
| Reentered labor force .....              | 388   | 380   | 288   | 474   | 682   | 259   | 301   | 302   | 319   | 331   | 283   | 328   | 324   | 294            | 281   |
| Never worked before .....                | 404   | 391   | 458   | 638   | 786   | 259   | 293   | 280   | 280   | 241   | 226   | 276   | 301   | 331            | 330   |



7. Unemployment rates, by age and sex, seasonally adjusted <sup>1</sup>

| Age and sex            | 1970 |       |      |      |      |      |      |      |      |      | 1969 |      |      | Annual average |      |
|------------------------|------|-------|------|------|------|------|------|------|------|------|------|------|------|----------------|------|
|                        | Oct. | Sept. | Aug. | July | June | May  | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | 1969           | 1968 |
| <b>TOTAL</b>           |      |       |      |      |      |      |      |      |      |      |      |      |      |                |      |
| 16 years and over..... | 5.6  | 5.5   | 5.1  | 5.0  | 4.7  | 5.0  | 4.8  | 4.4  | 4.2  | 3.9  | 3.5  | 3.5  | 3.8  | 3.5            | 3.6  |
| 16 to 19 years.....    | 17.1 | 16.8  | 15.9 | 13.9 | 14.6 | 14.3 | 15.7 | 13.9 | 13.4 | 13.8 | 11.8 | 11.8 | 12.9 | 12.2           | 12.7 |
| 16 and 17 years.....   | 20.1 | 19.6  | 17.4 | 15.2 | 16.0 | 15.6 | 18.7 | 15.7 | 16.3 | 17.2 | 13.7 | 14.3 | 16.5 | 14.5           | 14.7 |
| 18 and 19 years.....   | 15.1 | 14.6  | 14.7 | 13.2 | 13.3 | 13.8 | 13.8 | 12.4 | 11.7 | 11.6 | 10.2 | 9.2  | 10.4 | 10.5           | 11.2 |
| 20 to 24 years.....    | 9.5  | 9.8   | 8.3  | 8.6  | 7.4  | 8.1  | 7.7  | 6.8  | 7.3  | 6.1  | 5.8  | 5.8  | 6.4  | 5.7            | 5.8  |
| 25 years and over..... | 3.7  | 3.5   | 3.4  | 3.5  | 3.2  | 3.3  | 3.1  | 3.0  | 2.6  | 2.4  | 2.2  | 2.2  | 2.4  | 2.2            | 2.3  |
| 25 to 54 years.....    | 3.9  | 3.6   | 3.6  | 3.7  | 3.3  | 3.4  | 3.2  | 3.1  | 2.7  | 2.5  | 2.3  | 2.1  | 2.4  | 2.3            | 2.3  |
| 55 years and over..... | 3.1  | 3.1   | 2.7  | 2.9  | 3.0  | 3.3  | 2.8  | 2.7  | 2.4  | 2.0  | 2.1  | 1.9  | 2.3  | 2.0            | 2.2  |
| <b>MALE</b>            |      |       |      |      |      |      |      |      |      |      |      |      |      |                |      |
| 16 years and over..... | 5.1  | 5.0   | 4.6  | 4.5  | 4.3  | 4.4  | 4.2  | 3.6  | 3.6  | 3.3  | 2.9  | 2.9  | 3.1  | 2.8            | 2.9  |
| 16 to 19 years.....    | 17.1 | 16.7  | 15.8 | 14.1 | 14.8 | 15.0 | 15.2 | 12.5 | 13.0 | 12.6 | 11.0 | 11.7 | 11.8 | 11.4           | 11.6 |
| 16 and 17 years.....   | 19.9 | 19.6  | 17.2 | 15.2 | 16.6 | 16.4 | 17.2 | 14.6 | 15.4 | 14.9 | 13.1 | 13.7 | 14.4 | 13.7           | 13.9 |
| 18 and 19 years.....   | 15.0 | 14.1  | 14.6 | 13.6 | 13.2 | 14.6 | 13.9 | 10.8 | 11.0 | 10.8 | 9.3  | 8.9  | 9.6  | 9.3            | 9.6  |
| 20 to 24 years.....    | 11.3 | 11.0  | 8.5  | 9.1  | 7.2  | 7.7  | 7.9  | 6.4  | 6.9  | 6.1  | 5.5  | 5.3  | 6.3  | 5.1            | 5.1  |
| 25 years and over..... | 3.2  | 3.0   | 3.0  | 3.0  | 2.9  | 2.9  | 2.6  | 2.4  | 2.2  | 2.0  | 1.8  | 1.7  | 1.9  | 1.7            | 1.8  |
| 25 to 54 years.....    | 3.3  | 2.9   | 3.0  | 3.0  | 2.9  | 2.8  | 2.6  | 2.3  | 2.1  | 2.0  | 1.7  | 1.4  | 1.8  | 1.6            | 1.7  |
| 55 years and over..... | 3.1  | 3.1   | 2.9  | 2.8  | 2.8  | 3.1  | 2.8  | 2.8  | 2.4  | 2.1  | 2.2  | 1.9  | 2.2  | 1.9            | 2.1  |
| <b>FEMALE</b>          |      |       |      |      |      |      |      |      |      |      |      |      |      |                |      |
| 16 years and over..... | 6.3  | 6.4   | 5.9  | 5.9  | 5.5  | 5.9  | 5.7  | 5.7  | 5.1  | 4.8  | 4.5  | 4.5  | 4.9  | 4.7            | 4.8  |
| 16 to 19 years.....    | 17.1 | 16.9  | 16.0 | 13.7 | 14.3 | 13.4 | 16.4 | 15.6 | 13.9 | 15.2 | 12.8 | 11.9 | 14.2 | 13.3           | 14.0 |
| 16 and 17 years.....   | 20.4 | 19.6  | 17.6 | 15.1 | 15.3 | 14.6 | 20.6 | 17.0 | 17.3 | 20.3 | 14.7 | 15.0 | 19.2 | 15.5           | 15.9 |
| 18 and 19 years.....   | 15.2 | 15.1  | 14.9 | 12.7 | 13.4 | 12.9 | 13.7 | 14.3 | 12.7 | 12.4 | 11.2 | 9.6  | 11.3 | 11.8           | 12.8 |
| 20 to 24 years.....    | 7.5  | 8.4   | 8.0  | 8.1  | 7.7  | 8.7  | 7.5  | 7.2  | 7.6  | 6.2  | 6.1  | 6.5  | 6.5  | 6.3            | 6.7  |
| 25 years and over..... | 4.7  | 4.4   | 4.1  | 4.5  | 3.8  | 4.2  | 3.8  | 4.0  | 3.3  | 3.0  | 3.0  | 3.1  | 3.4  | 3.2            | 3.2  |
| 25 to 54 years.....    | 5.1  | 4.8   | 4.6  | 4.8  | 4.1  | 4.3  | 4.2  | 4.4  | 3.6  | 3.3  | 3.3  | 3.4  | 3.6  | 3.5            | 3.4  |
| 55 years and over..... | 3.2  | 3.2   | 2.5  | 3.1  | 3.2  | 3.6  | 2.7  | 2.5  | 2.3  | 1.7  | 1.9  | 2.0  | 2.5  | 2.2            | 2.3  |

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally

adjusted series, see the February 1970 issue of *Employment and Earnings*.

8. Unemployment indicators, seasonally adjusted <sup>1</sup>

[In percent]

| Selected categories  | 1970 |       |      |      |      |      |      |      |      |      | 1969 |      |      | Annual average |      |
|--|------|-------|------|------|------|------|------|------|------|------|------|------|------|----------------|------|
|  | Oct. | Sept. | Aug. | July | June | May  | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | 1969           | 1968 |
| Total (all civilian workers).....                                  | 5.6  | 5.5   | 5.1  | 5.0  | 4.7  | 5.0  | 4.8  | 4.4  | 4.2  | 3.9  | 3.5  | 3.5  | 3.8  | 3.5            | 3.6  |
| Men, 20 years and over.....  | 4.1  | 4.0   | 3.7  | 3.7  | 3.5  | 3.5  | 3.2  | 2.9  | 2.8  | 2.5  | 2.2  | 2.1  | 2.3  | 2.1            | 2.2  |
| Women, 20 years and over.....                                      | 5.1  | 5.1   | 4.8  | 5.0  | 4.5  | 5.1  | 4.4  | 4.5  | 4.1  | 3.6  | 3.5  | 3.6  | 3.8  | 3.7            | 3.8  |
| Both sexes, 16-19 years.....                                       | 17.1 | 16.8  | 15.9 | 13.9 | 14.6 | 14.3 | 15.7 | 13.9 | 13.4 | 13.8 | 11.8 | 11.8 | 12.9 | 12.2           | 12.7 |
| White.....   | 5.2  | 5.1   | 4.8  | 4.7  | 4.2  | 4.6  | 4.3  | 4.1  | 3.8  | 3.6  | 3.2  | 3.2  | 3.5  | 3.1            | 3.2  |
| Negro and other.....   | 9.3  | 9.0   | 8.4  | 8.3  | 8.7  | 8.0  | 8.7  | 7.1  | 7.0  | 6.3  | 5.7  | 6.2  | 6.6  | 6.4            | 6.7  |
| Married men.....   | 3.1  | 2.9   | 2.8  | 2.7  | 2.5  | 2.6  | 2.4  | 2.2  | 2.0  | 1.8  | 1.7  | 1.5  | 1.6  | 1.5            | 1.6  |
| Full-time workers.....   | 5.0  | 5.0   | 4.7  | 4.6  | 4.3  | 4.7  | 4.4  | 4.0  | 3.7  | 3.4  | 3.2  | 3.1  | 3.1  | 3.1            | 3.1  |
| Unemployed 15 weeks and over <sup>2</sup> .....                    | .9   | 1.0   | .9   | .9   | .8   | .7   | .7   | .7   | .6   | .5   | .5   | .5   | .4   | .5             | .5   |
| State insured <sup>3</sup> .....                                   | 4.4  | 4.2   | 3.7  | 3.5  | 3.7  | 3.6  | 3.1  | 2.7  | 2.7  | 2.5  | 2.4  | 2.4  | 2.2  | 2.1            | 2.2  |
| Labor force time lost <sup>4</sup> .....                           | 6.2  | 6.0   | 5.5  | 5.4  | 4.9  | 5.4  | 5.1  | 4.8  | 4.5  | 4.2  | 3.9  | 4.0  | 4.3  | 3.9            | 4.0  |
| <b>OCCUPATION</b>  |      |       |      |      |      |      |      |      |      |      |      |      |      |                |      |
| White-collar workers.....  | 3.2  | 2.8   | 2.7  | 3.1  | 2.6  | 2.8  | 2.9  | 2.7  | 2.3  | 2.1  | 2.1  | 2.1  | 2.4  | 2.1            | 2.0  |
| Professional and managerial.....                                   | 2.0  | 1.8   | 1.9  | 2.2  | 1.5  | 1.7  | 1.7  | 1.8  | 1.4  | 1.3  | 1.5  | 1.1  | 1.3  | 1.2            | 1.1  |
| Clerical workers.....  | 4.7  | 3.9   | 3.9  | 4.4  | 4.0  | 3.9  | 4.0  | 3.6  | 3.2  | 3.1  | 2.8  | 3.5  | 3.4  | 3.0            | 3.0  |
| Sales workers.....   | 4.3  | 3.9   | 4.0  | 4.0  | 3.4  | 4.4  | 4.1  | 3.5  | 3.4  | 2.8  | 2.6  | 2.2  | 3.5  | 2.9            | 2.8  |
| Blue-collar workers.....   | 7.2  | 7.5   | 7.0  | 6.6  | 6.3  | 6.2  | 5.7  | 5.2  | 5.0  | 4.6  | 4.3  | 4.2  | 4.2  | 3.9            | 4.1  |
| Craftsmen and foremen.....   | 4.1  | 5.8   | 4.4  | 4.4  | 4.0  | 4.2  | 3.5  | 3.1  | 2.5  | 2.3  | 2.3  | 2.1  | 2.4  | 2.2            | 2.4  |
| Operatives.....  | 8.5  | 7.6   | 7.9  | 7.2  | 6.8  | 6.7  | 6.3  | 6.2  | 6.0  | 5.1  | 5.0  | 4.9  | 4.9  | 4.5            | 4.4  |
| Nonfarm laborers.....  | 10.7 | 11.7  | 10.2 | 9.9  | 10.4 | 9.1  | 8.8  | 7.4  | 7.7  | 8.5  | 7.4  | 6.9  | 6.5  | 6.7            | 7.2  |
| Service workers.....   | 5.8  | 5.8   | 5.5  | 5.3  | 5.0  | 4.9  | 5.0  | 4.9  | 4.8  | 4.5  | 3.6  | 4.0  | 4.2  | 4.2            | 4.5  |
| <b>INDUSTRY</b>  |      |       |      |      |      |      |      |      |      |      |      |      |      |                |      |
| Nonagricultural private wage and salary workers <sup>5</sup> ..... | 6.0  | 6.0   | 5.5  | 5.6  | 5.2  | 5.2  | 4.8  | 4.6  | 4.3  | 3.9  | 3.6  | 3.6  | 3.8  | 3.5            | 3.6  |
| Construction.....  | 11.9 | 13.8  | 12.2 | 11.0 | 10.9 | 11.9 | 8.1  | 8.1  | 7.9  | 7.1  | 6.0  | 5.4  | 7.3  | 6.0            | 6.9  |
| Manufacturing.....   | 6.7  | 6.1   | 5.7  | 6.0  | 5.3  | 5.2  | 4.7  | 4.7  | 4.6  | 3.8  | 3.8  | 3.7  | 3.6  | 3.3            | 3.3  |
| Durable goods.....   | 7.1  | 6.3   | 5.5  | 5.9  | 5.1  | 4.9  | 4.9  | 4.8  | 4.7  | 3.8  | 3.7  | 3.6  | 3.2  | 3.0            | 3.0  |
| Nondurable goods.....  | 6.1  | 5.8   | 5.9  | 6.2  | 5.6  | 5.7  | 4.5  | 4.6  | 4.4  | 3.8  | 3.9  | 3.9  | 4.2  | 3.7            | 3.7  |
| Transportation and public utilities.....                           | 3.5  | 2.8   | 3.1  | 3.3  | 3.3  | 3.3  | 3.9  | 3.1  | 2.4  | 2.9  | 2.4  | 2.4  | 2.9  | 2.2            | 2.0  |
| Wholesale and retail trade.....                                    | 5.9  | 6.0   | 5.4  | 5.3  | 5.4  | 5.1  | 4.7  | 4.7  | 4.7  | 4.3  | 3.9  | 3.9  | 4.2  | 4.1            | 4.0  |
| Finance and service industries.....                                | 4.5  | 5.0   | 4.4  | 4.8  | 4.1  | 4.2  | 3.9  | 4.0  | 3.2  | 3.1  | 2.7  | 3.2  | 3.1  | 3.2            | 3.4  |
| Government wage and salary workers.....                            | 2.6  | 1.9   | 2.1  | 2.0  | 1.9  | 2.2  | 2.2  | 2.1  | 2.0  | 2.2  | 2.0  | 2.1  | 2.4  | 1.9            | 1.8  |
| Agricultural wage and salary workers.....                          | 8.4  | 10.2  | 8.2  | 8.6  | 5.5  | 9.3  | 5.9  | 6.4  | 5.8  | 6.2  | 6.5  | 5.2  | 6.3  | 6.1            | 6.3  |

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally adjusted series, see the February 1970 issue of *Employment and Earnings*.

<sup>2</sup> Unemployment rate calculated as a percent of civilian labor force.

<sup>3</sup> Insured unemployment under State programs as a percent of average covered employment.

<sup>4</sup> Man-hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force man-hours.

<sup>5</sup> Includes mining, not shown separately.

9. Duration of unemployment, seasonally adjusted <sup>1</sup>

[In thousands]

| Period  | 1970  |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual average |       |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|-------|
|   | Oct.  | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  | 1969           | 1968  |
| Less than 5 weeks.....                                      | 2,447 | 2,331 | 2,206 | 2,061 | 1,961 | 2,219 | 2,295 | 1,995 | 1,973 | 1,756 | 1,515 | 1,558 | 1,882 | 1,629          | 1,594 |
| 5 to 14 weeks.....  | 1,507 | 1,501 | 1,320 | 1,334 | 1,303 | 1,214 | 1,075 | 1,154 | 1,016 | 914   | 893   | 912   | 882   | 827            | 810   |
| 15 weeks and over.....                                      | 745   | 792   | 736   | 711   | 685   | 612   | 569   | 545   | 465   | 409   | 392   | 389   | 363   | 375            | 412   |
| 15 to 26 weeks.....   | 496   | 501   | 479   | 470   | 450   | 352   | 372   | 363   | 306   | 276   | 272   | 249   | 233   | 242            | 256   |
| 27 weeks and over.....                                      | 249   | 291   | 257   | 241   | 235   | 260   | 197   | 182   | 159   | 133   | 120   | 140   | 130   | 133            | 156   |
| 15 weeks and over as a percent of civilian labor force..... | 1.0   | 1.0   | .9    | .9    | .8    | .7    | .7    | .7    | .6    | .5    | .4    | .4    | .4    | .5             | .5    |
| Average (mean) duration, in weeks.....                      | 8.3   | 8.9   | 8.8   | 9.3   | 9.5   | 9.0   | 8.2   | 8.4   | 8.1   | 7.8   | 8.1   | 8.0   | 7.3   | 8.0            | 8.5   |

<sup>1</sup> These data have been adjusted to reflect the experience through December 1969. For a discussion of seasonal adjustment procedures and the historical seasonally

adjusted series, see the February 1970 issue of *Employment and Earnings*.

10. Unemployment insurance and employment service operations <sup>1</sup>

[All items except average benefits amounts are in thousands]

| Item   | 1970        |           |           |           |           |           |           |           |           | 1969      |           |           |           |
|--|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|  | Sept.       | Aug.      | July      | June      | May       | Apr.      | Mar.      | Feb.      | Jan.      | Dec.      | Nov.      | Oct.      | Sept.     |
| <b>Employment service:</b> <sup>2</sup>  |             |           |           |           |           |           |           |           |           |           |           |           |           |
| New applications for work.....   | p 876       | 759       | 882       | 1,148     | 854       | 857       | 828       | 765       | 950       | 658       | 711       | 762       | 801       |
| Nonfarm placements.....  | p 346       | 341       | p 333     | 374       | 339       | 352       | 328       | 295       | 326       | 311       | 372       | 463       | 503       |
| <b>State unemployment insurance programs:</b>                                    |             |           |           |           |           |           |           |           |           |           |           |           |           |
| Initial claims <sup>3,4</sup> .....  | p 1,072     | p 1,068   | 1,502     | 1,118     | 1,010     | 1,333     | 1,078     | 1,169     | 1,529     | 1,363     | 866       | 745       | 655       |
| Insured unemployment <sup>5</sup> (average weekly volume) <sup>6</sup> .....     | 1,607       | 1,710     | 1,761     | 1,583     | 1,667     | 1,770     | 1,798     | 1,874     | 1,847     | 1,375     | 1,030     | 864       | 840       |
| Rate of insured unemployment <sup>7</sup> .....                                  | 3.0         | 3.2       | 3.3       | 3.0       | 3.2       | 3.4       | 3.5       | 3.6       | 3.6       | 2.7       | 2.0       | 1.6       | 1.6       |
| Weeks of unemployment compensated.....   | p 6,017     | p 6,299   | 6,504     | 6,080     | 6,142     | 6,743     | 6,956     | 6,517     | 6,418     | 4,692     | 3,054     | 3,156     | 3,104     |
| Average weekly benefit amount for total unemployment.....                        | p \$50.57   | p \$50.65 | \$49.57   | \$49.51   | \$49.30   | \$49.00   | \$48.93   | \$49.11   | \$48.49   | \$47.42   | \$46.47   | \$46.25   | \$45.70   |
| Total benefits paid.....   | p \$296,395 | \$311,420 | \$314,201 | \$291,707 | \$292,854 | \$320,224 | \$331,067 | \$310,800 | \$299,352 | \$214,260 | \$136,585 | \$139,536 | \$136,182 |
| <b>Unemployment compensation for ex-servicemen:</b> <sup>8,9</sup>               |             |           |           |           |           |           |           |           |           |           |           |           |           |
| Initial claims <sup>3,6</sup> .....  | p 46        | p 44      | 51        | 47        | 38        | 47        | 42        | 38        | 44        | 39        | 30        | 29        | 26        |
| Insured unemployment <sup>6</sup> (average weekly volume).....                   | 81          | 89        | 84        | 73        | 70        | 70        | 69        | 66        | 61        | 48        | 38        | 32        | 32        |
| Weeks of unemployment compensated.....   | p 354       | p 363     | 356       | 303       | 280       | 294       | 289       | 244       | 242       | 193       | 126       | 127       | 133       |
| Total benefits paid.....   | p \$18,287  | \$18,612  | \$18,048  | \$15,299  | 13,972    | \$14,564  | \$14,200  | \$12,028  | \$11,957  | \$9,517   | \$6,240   | \$6,256   | \$6,514   |
| <b>Unemployment compensation for Federal civilian employees:</b> <sup>9,10</sup> |             |           |           |           |           |           |           |           |           |           |           |           |           |
| Initial claims <sup>3</sup> .....  | p 13        | p 15      | 16        | 15        | 10        | 13        | 11        | 11        | 15        | 12        | 13        | 11        | 10        |
| Insured unemployment <sup>3</sup> (average weekly volume).....                   | 32          | 33        | 31        | 27        | 26        | 27        | 29        | 30        | 28        | 24        | 22        | 18        | 17        |
| Weeks of unemployment compensated.....   | p 135       | p 131     | 129       | 107       | 107       | 118       | 128       | 109       | 110       | 101       | 75        | 76        | 74        |
| Total benefits paid.....   | p \$6,834   | \$6,570   | \$6,469   | \$5,378   | \$5,323   | \$5,824   | \$6,192   | \$5,239   | \$5,194   | \$4,748   | \$3,465   | \$3,494   | \$3,163   |
| <b>Railroad unemployment insurance:</b>  |             |           |           |           |           |           |           |           |           |           |           |           |           |
| Applications <sup>11</sup> .....   | 12          | 16        | 21        | 12        | 4         | 8         | 9         | 4         | 9         | 5         | 5         | 10        | 6         |
| Insured unemployment (average weekly volume).....                                | 18          | 17        | 15        | 11        | 15        | 16        | 19        | 18        | 21        | 17        | 14        | 15        | 13        |
| Number of payments <sup>12</sup> .....   | 36          | 38        | 27        | 26        | 30        | 43        | 42        | 38        | 47        | 35        | 28        | 36        | 28        |
| Average amount of benefit payment <sup>13</sup> .....                            | \$85.41     | \$80.86   | \$90.41   | \$91.89   | \$84.87   | \$81.50   | \$92.00   | \$96.76   | \$94.78   | \$96.02   | \$96.28   | \$89.31   | \$93.64   |
| Total benefits paid <sup>14</sup> .....  | \$2,877     | \$3,014   | \$2,035   | \$2,253   | \$2,439   | \$3,565   | \$3,668   | \$3,374   | \$4,091   | \$3,241   | \$2,513   | \$2,918   | \$2,478   |
| <b>All programs:</b> <sup>15</sup>   |             |           |           |           |           |           |           |           |           |           |           |           |           |
| Insured unemployment <sup>6</sup> .....  | p 1,765     | 1,855     | 1,897     | 1,696     | 1,778     | 1,885     | 1,916     | 1,987     | 1,957     | 1,464     | 1,105     | 929       | 902       |

<sup>1</sup> Includes data for Puerto Rico.<sup>2</sup> Includes Guam and the Virgin Islands.<sup>3</sup> Initial claims are notices filed by workers to indicate they are starting periods of unemployment. Excludes transition claims under State programs.<sup>4</sup> Includes interstate claims for the Virgin Islands.<sup>5</sup> Number of workers reporting the completion of at least 1 week of unemployment.<sup>6</sup> Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.<sup>7</sup> The rate is the number of insured unemployed expressed as a percent of the average covered employment in a 12-month period.<sup>8</sup> Excludes data on claims and payments made jointly with other programs.<sup>9</sup> Includes the Virgin Islands.<sup>10</sup> Excludes data on claims and payments made jointly with State programs.<sup>11</sup> 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.

<sup>12</sup> Payments are for unemployment in 14-day registration periods.<sup>13</sup> The average amount is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments.<sup>14</sup> Adjusted for recovery of overpayments and settlement of underpayments.<sup>15</sup> Represents an unduplicated count of insured unemployment under the State, Ex-servicemen and UCFE programs and the Railroad Unemployment Insurance Act. Includes claims filed under Extended Duration (ED) provisions of regular State laws.

p=preliminary.

SOURCE: U.S. Department of Labor, Office of Manpower Management Data Systems for all items except railroad unemployment insurance which is prepared by the U.S. Railroad Retirement Board. Data for latest month are subject to revision.



11. Employees on nonagricultural payrolls, by industry division, 1947 to date<sup>1</sup>

[In thousands]

| Year              | TOTAL  | Mining | Contract construction | Manufacturing | Transportation and public utilities | Wholesale and retail trade |                 |              | Finance, insurance, and real estate | Services | Government |         |                 |
|-------------------|--------|--------|-----------------------|---------------|-------------------------------------|----------------------------|-----------------|--------------|-------------------------------------|----------|------------|---------|-----------------|
|                   |        |        |                       |               |                                     | Total                      | Wholesale trade | Retail trade |                                     |          | Total      | Federal | State and local |
| 1947              | 43,881 | 955    | 1,982                 | 15,545        | 4,166                               | 8,955                      | 2,361           | 6,595        | 1,754                               | 5,050    | 5,474      | 1,892   | 3,582           |
| 1948              | 44,891 | 994    | 2,169                 | 15,582        | 4,189                               | 9,272                      | 2,489           | 6,783        | 1,829                               | 5,206    | 5,650      | 1,863   | 3,787           |
| 1949              | 43,778 | 930    | 2,165                 | 14,441        | 4,001                               | 9,264                      | 2,487           | 6,778        | 1,857                               | 5,264    | 5,856      | 1,908   | 3,948           |
| 1950              | 45,222 | 901    | 2,333                 | 15,241        | 4,034                               | 9,386                      | 2,518           | 6,868        | 1,919                               | 5,382    | 6,026      | 1,928   | 4,098           |
| 1951              | 47,849 | 929    | 2,603                 | 16,393        | 4,226                               | 9,742                      | 2,606           | 7,136        | 1,991                               | 5,576    | 6,389      | 2,302   | 4,087           |
| 1952              | 48,825 | 898    | 2,634                 | 16,632        | 4,248                               | 10,004                     | 2,687           | 7,317        | 2,069                               | 5,730    | 6,609      | 2,420   | 4,188           |
| 1953              | 50,232 | 866    | 2,623                 | 17,549        | 4,290                               | 10,247                     | 2,727           | 7,520        | 2,146                               | 5,867    | 6,645      | 2,305   | 4,340           |
| 1954              | 49,022 | 791    | 2,612                 | 16,314        | 4,084                               | 10,235                     | 2,739           | 7,496        | 2,234                               | 6,002    | 6,751      | 2,188   | 4,563           |
| 1955              | 50,675 | 792    | 2,802                 | 16,882        | 4,141                               | 10,535                     | 2,796           | 7,740        | 2,335                               | 6,274    | 6,914      | 2,187   | 4,727           |
| 1956              | 52,408 | 822    | 2,999                 | 17,243        | 4,244                               | 10,858                     | 2,884           | 7,974        | 2,429                               | 6,536    | 7,277      | 2,209   | 5,069           |
| 1957              | 52,894 | 828    | 2,923                 | 17,174        | 4,241                               | 10,886                     | 2,893           | 7,992        | 2,477                               | 6,749    | 7,616      | 2,217   | 5,399           |
| 1958              | 51,363 | 751    | 2,778                 | 15,945        | 3,976                               | 10,750                     | 2,848           | 7,902        | 2,519                               | 6,806    | 7,839      | 2,191   | 5,648           |
| 1959 <sup>2</sup> | 53,313 | 732    | 2,960                 | 16,675        | 4,011                               | 11,127                     | 2,946           | 8,182        | 2,594                               | 7,130    | 8,083      | 2,233   | 5,850           |
| 1960              | 54,234 | 712    | 2,885                 | 16,796        | 4,004                               | 11,391                     | 3,004           | 8,388        | 2,669                               | 7,423    | 8,353      | 2,270   | 6,083           |
| 1961              | 54,042 | 672    | 2,816                 | 16,326        | 3,903                               | 11,337                     | 2,993           | 8,344        | 2,731                               | 7,664    | 8,594      | 2,279   | 6,315           |
| 1962              | 55,596 | 650    | 2,902                 | 16,853        | 3,906                               | 11,566                     | 3,056           | 8,511        | 2,800                               | 8,028    | 8,890      | 2,340   | 6,550           |
| 1963              | 56,702 | 635    | 2,963                 | 16,995        | 3,903                               | 11,778                     | 3,104           | 8,675        | 2,877                               | 8,325    | 9,225      | 2,358   | 6,868           |
| 1964              | 58,331 | 634    | 3,050                 | 17,274        | 3,951                               | 12,160                     | 3,189           | 8,971        | 2,957                               | 8,709    | 9,596      | 2,348   | 7,248           |
| 1965              | 60,815 | 632    | 3,186                 | 18,062        | 4,036                               | 12,716                     | 3,312           | 9,404        | 3,023                               | 9,087    | 10,074     | 2,378   | 7,696           |
| 1966              | 63,955 | 627    | 3,275                 | 19,214        | 4,151                               | 13,245                     | 3,437           | 9,808        | 3,100                               | 9,551    | 10,792     | 2,564   | 8,227           |
| 1967              | 65,857 | 613    | 3,208                 | 19,447        | 4,261                               | 13,606                     | 3,525           | 10,081       | 3,225                               | 10,099   | 11,398     | 2,719   | 8,679           |
| 1968              | 67,915 | 606    | 3,285                 | 19,781        | 4,310                               | 14,084                     | 3,611           | 10,473       | 3,382                               | 10,623   | 11,845     | 2,737   | 9,109           |
| 1969              | 70,274 | 619    | 3,437                 | 20,169        | 4,431                               | 14,645                     | 3,738           | 10,907       | 3,557                               | 11,211   | 12,204     | 2,758   | 9,446           |

<sup>1</sup> The industry series have been adjusted to March 1969 benchmarks (comprehensive counts of employment) and data are not comparable with those published in issues prior to July 1970. For comparable back data, see *Employment and Earnings, United States, 1909-70* (BLS Bulletin 1312-7) to be released this fall.

These series are based upon establishment reports which cover all full- and part-time employees in nonagricultural establishments who worked during, or received pay for any part of the pay period which includes the 12th of the month. Therefore, persons who

worked in more than one establishment during the reporting period are counted more than once. Proprietors, self-employed persons, unpaid family workers, and domestic servants are excluded.

<sup>2</sup> Data include Alaska and Hawaii beginning 1959. This inclusion has resulted in an increase of 212,000 (0.4 percent) in the nonagricultural total for the March 1959 benchmark month.

12. Employees on nonagricultural payrolls, by State<sup>1</sup>

[In thousands]

| State                | Sept. 1970 <sup>2</sup> | Aug. 1970 | Sept. 1969 | State          | Sept. 1970 <sup>2</sup> | Aug. 1970 | Sept. 1969 |
|----------------------|-------------------------|-----------|------------|----------------|-------------------------|-----------|------------|
| Alabama              | 997.9                   | 1,005.0   | 1,012.0    | Montana        | 205.7                   | 208.2     | 203.6      |
| Alaska               | ( <sup>2</sup> )        | 99.6      | 91.3       | Nebraska       | 489.9                   | 481.0     | 476.2      |
| Arizona              | 540.6                   | 536.2     | 516.7      | Nevada         | 203.1                   | 205.2     | 202.0      |
| Arkansas             | 538.4                   | 536.2     | 539.7      | New Hampshire  | 261.0                   | 272.4     | 262.4      |
| California           | 7,053.7                 | 7,043.5   | 7,013.3    | New Jersey     | 2,611.5                 | 2,615.7   | 2,612.1    |
| Colorado             | 739.0                   | 734.2     | 718.1      | New Mexico     | 289.4                   | 293.4     | 287.6      |
| Connecticut          | 1,191.3                 | 1,178.8   | 1,204.8    | New York       | 7,219.9                 | 7,262.2   | 7,228.3    |
| Delaware             | 206.6                   | 206.9     | 210.4      | North Carolina | 1,757.5                 | 1,739.1   | 1,748.3    |
| District of Columbia | 679.7                   | 692.9     | 672.1      | North Dakota   | 166.3                   | 164.1     | 162.9      |
| Florida              | 2,128.9                 | 2,091.5   | 2,073.0    | Ohio           | 3,957.8                 | 3,911.1   | 3,957.3    |
| Georgia              | 1,525.9                 | 1,524.8   | 1,534.3    | Oklahoma       | 761.2                   | 762.8     | 759.2      |
| Hawaii               | 287.3                   | 295.5     | 276.7      | Oregon         | 723.1                   | 717.7     | 726.4      |
| Idaho                | 212.9                   | 211.3     | 211.1      | Pennsylvania   | 4,354.1                 | 4,356.3   | 4,406.2    |
| Illinois             | 4,435.6                 | 4,421.5   | 4,413.1    | Rhode Island   | 336.3                   | 332.9     | 344.3      |
| Indiana              | 1,867.9                 | 1,851.3   | 1,895.0    | South Carolina | 810.1                   | 809.0     | 818.7      |
| Iowa                 | 888.2                   | 884.3     | 892.2      | South Dakota   | ( <sup>2</sup> )        | 177.5     | 173.9      |
| Kansas               | 675.5                   | 663.4     | 689.3      | Tennessee      | 1,324.3                 | 1,317.9   | 1,325.3    |
| Kentucky             | 917.2                   | 908.0     | 910.6      | Texas          | 3,721.9                 | 3,729.0   | 3,645.5    |
| Louisiana            | 1,046.9                 | 1,039.6   | 1,060.2    | Utah           | 366.6                   | 364.4     | 357.8      |
| Maine                | 331.7                   | 335.8     | 333.8      | Vermont        | 149.7                   | 153.2     | 147.4      |
| Maryland             | 1,317.3                 | 1,311.4   | 1,296.8    | Virginia       | 1,459.5                 | 1,453.4   | 1,451.1    |
| Massachusetts        | 2,246.6                 | 2,257.8   | 2,260.5    | Washington     | 1,094.0                 | 1,087.3   | 1,152.0    |
| Michigan             | 2,999.8                 | 2,915.6   | 3,090.9    | West Virginia  | 519.7                   | 514.6     | 518.7      |
| Minnesota            | 1,325.9                 | 1,320.9   | 1,333.8    | Wisconsin      | 1,566.0                 | 1,549.1   | 1,553.4    |
| Mississippi          | 585.6                   | 577.9     | 581.6      | Wyoming        | 111.3                   | 114.9     | 112.6      |
| Missouri             | 1,649.9                 | 1,629.1   | 1,684.6    |                |                         |           |            |

<sup>1</sup> Revised series; not strictly comparable with previously published data.

<sup>2</sup> Not available.

<sup>2</sup> = preliminary.

SOURCE: State agencies in cooperation with U.S. Department of Labor, Bureau of Labor Statistics. More detailed industry data are available from the State agencies. For addresses, see inside back cover of *Employment and Earnings*.

13. Employees on nonagricultural payrolls, by industry division and major manufacturing group<sup>1</sup>

[In thousands]

| Industry division and group                      | 1970              |                    |         |         |         |         |         |         |         | 1969    |         |         |         | Annual average |         |
|--|-------------------|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|---------|
|  | Oct. <sup>p</sup> | Sept. <sup>p</sup> | Aug.    | July    | June    | May     | Apr.    | Mar.    | Feb.    | Jan.    | Dec.    | Nov.    | Oct.    | 1969           | 1968    |
| <b>TOTAL</b> .....                               | 70,633            | 70,987             | 70,527  | 70,602  | 71,385  | 70,780  | 70,758  | 70,460  | 70,029  | 69,933  | 71,760  | 71,354  | 71,333  | 70,274         | 67,915  |
| <b>MINING</b> .....                              | 622               | 628                | 636     | 635     | 635     | 620     | 616     | 610     | 608     | 611     | 623     | 622     | 623     | 619            | 606     |
| <b>CONTRACT CONSTRUCTION</b> .....               | 3,437             | 3,491              | 3,606   | 3,572   | 3,504   | 3,344   | 3,286   | 3,161   | 3,071   | 3,048   | 3,398   | 3,553   | 3,648   | 3,437          | 3,285   |
| <b>MANUFACTURING</b> .....                       | 18,852            | 19,512             | 19,446  | 19,325  | 19,627  | 19,432  | 19,627  | 19,794  | 19,770  | 19,824  | 20,110  | 20,194  | 20,395  | 20,169         | 19,781  |
| Production workers <sup>2</sup> .....            | 13,587            | 14,223             | 14,101  | 13,958  | 14,261  | 14,061  | 14,240  | 14,385  | 14,346  | 14,402  | 14,680  | 14,763  | 14,953  | 14,768         | 14,514  |
| Durable goods.....                               | 10,670            | 11,195             | 11,102  | 11,156  | 11,392  | 11,352  | 11,488  | 11,607  | 11,573  | 11,623  | 11,802  | 11,832  | 12,008  | 11,893         | 11,626  |
| Production workers <sup>2</sup> .....            | 7,581             | 8,088              | 7,964   | 7,993   | 8,228   | 8,164   | 8,282   | 8,379   | 8,327   | 8,377   | 8,556   | 8,580   | 8,744   | 8,648          | 8,457   |
| Ordinance and accessories.....                   | 223.3             | 236.2              | 238.8   | 242.6   | 249.9   | 254.1   | 260.1   | 271.0   | 277.6   | 282.8   | 291.3   | 297.1   | 298.3   | 318.8          | 338.0   |
| Lumber and wood products.....                    | 577.8             | 585.4              | 590.9   | 589.0   | 596.4   | 579.2   | 574.5   | 578.6   | 579.2   | 583.8   | 597.0   | 600.1   | 604.4   | 609.2          | 600.1   |
| Furniture and fixtures.....                      | 459.0             | 461.0              | 457.2   | 446.2   | 454.1   | 451.4   | 462.9   | 468.6   | 470.3   | 475.6   | 482.2   | 485.2   | 488.1   | 483.5          | 471.6   |
| Stone, clay, and glass products.....             | 636.4             | 647.2              | 649.2   | 643.8   | 650.0   | 638.0   | 639.8   | 635.1   | 632.9   | 632.0   | 650.9   | 661.9   | 664.7   | 656.3          | 635.5   |
| Primary metal industries.....                    | 1,239.8           | 1,306.4            | 1,306.2 | 1,316.6 | 1,331.6 | 1,319.4 | 1,329.5 | 1,338.1 | 1,346.6 | 1,351.4 | 1,367.6 | 1,364.7 | 1,364.0 | 1,358.0        | 1,315.5 |
| Fabricated metal products.....                   | 1,365.2           | 1,402.3            | 1,385.7 | 1,370.0 | 1,400.9 | 1,385.6 | 1,402.5 | 1,416.1 | 1,421.1 | 1,433.1 | 1,456.6 | 1,456.7 | 1,454.6 | 1,442.1        | 1,390.4 |
| Machinery, except electrical.....                | 1,867.7           | 1,916.3            | 1,932.8 | 1,969.3 | 1,998.1 | 2,006.4 | 2,040.4 | 2,058.3 | 2,055.9 | 2,044.6 | 2,043.2 | 2,028.6 | 2,036.0 | 2,027.7        | 1,965.9 |
| Electrical equipment.....                        | 1,850.9           | 1,909.4            | 1,908.3 | 1,913.2 | 1,932.1 | 1,932.5 | 1,959.1 | 1,983.2 | 1,995.2 | 1,928.2 | 1,948.9 | 1,955.4 | 2,069.7 | 2,013.0        | 1,974.5 |
| Transportation equipment.....                    | 1,577.0           | 1,846.2            | 1,745.0 | 1,795.0 | 1,889.6 | 1,897.2 | 1,928.9 | 1,963.4 | 1,901.1 | 1,999.4 | 2,042.9 | 2,049.2 | 2,088.2 | 2,067.1        | 2,038.6 |
| Instruments and related products.....            | 438.7             | 450.6              | 456.1   | 457.2   | 462.6   | 465.5   | 469.1   | 471.3   | 471.3   | 472.6   | 477.7   | 476.9   | 476.2   | 476.5          | 461.9   |
| Miscellaneous manufacturing.....                 | 434.2             | 433.9              | 431.8   | 412.9   | 426.7   | 422.4   | 421.3   | 423.0   | 421.4   | 419.0   | 443.7   | 456.4   | 463.4   | 440.2          | 433.4   |
| Nondurable goods.....                            | 8,182             | 8,317              | 8,344   | 8,169   | 8,235   | 8,080   | 8,139   | 8,178   | 8,197   | 8,201   | 8,308   | 8,362   | 8,387   | 8,277          | 8,155   |
| Production workers <sup>2</sup> .....            | 6,006             | 6,135              | 6,137   | 5,965   | 6,033   | 5,897   | 5,958   | 6,006   | 6,019   | 6,025   | 6,124   | 6,183   | 6,209   | 6,120          | 6,056   |
| Food and kindred products.....                   | 1,837.5           | 1,913.1            | 1,923.0 | 1,826.4 | 1,796.7 | 1,736.7 | 1,722.2 | 1,735.6 | 1,739.9 | 1,744.3 | 1,790.7 | 1,831.7 | 1,862.0 | 1,795.9        | 1,781.5 |
| Tobacco manufactures.....                        | 85.9              | 87.7               | 88.7    | 71.8    | 71.4    | 70.8    | 71.4    | 73.8    | 77.4    | 79.9    | 84.0    | 87.1    | 94.5    | 82.0           | 84.6    |
| Textile mill products.....                       | 949.2             | 959.5              | 961.5   | 948.2   | 971.5   | 967.2   | 974.6   | 977.3   | 979.9   | 987.6   | 995.3   | 997.6   | 994.8   | 998.7          | 993.9   |
| Apparel and other textile products.....          | 1,386.0           | 1,395.3            | 1,392.7 | 1,346.8 | 1,400.0 | 1,372.4 | 1,382.4 | 1,402.8 | 1,404.0 | 1,388.8 | 1,407.6 | 1,417.6 | 1,423.0 | 1,412.3        | 1,405.8 |
| Paper and allied products.....                   | 701.5             | 709.7              | 711.9   | 709.8   | 720.0   | 707.8   | 714.2   | 714.9   | 714.2   | 716.0   | 722.7   | 720.4   | 716.4   | 712.1          | 691.2   |
| Printing and publishing.....                     | 1,101.8           | 1,103.8            | 1,104.5 | 1,104.8 | 1,105.7 | 1,102.3 | 1,109.9 | 1,112.3 | 1,110.0 | 1,107.7 | 1,116.2 | 1,113.4 | 1,107.7 | 1,093.3        | 1,065.1 |
| Chemicals and allied products.....               | 1,047.3           | 1,056.4            | 1,065.4 | 1,066.0 | 1,063.7 | 1,058.3 | 1,063.8 | 1,064.1 | 1,060.8 | 1,058.5 | 1,062.1 | 1,059.9 | 1,058.1 | 1,060.7        | 1,029.9 |
| Petroleum and coal products.....                 | 192.9             | 193.3              | 196.7   | 197.3   | 196.7   | 191.9   | 190.4   | 189.7   | 188.4   | 188.0   | 188.9   | 191.0   | 191.8   | 182.9          | 186.8   |
| Rubber and plastics products, nec.....           | 557.4             | 574.5              | 569.7   | 569.7   | 572.5   | 543.2   | 580.8   | 585.0   | 588.2   | 593.4   | 599.6   | 601.6   | 600.5   | 593.9          | 561.3   |
| Leather and leather products.....                | 322.6             | 323.6              | 330.0   | 328.0   | 336.5   | 329.2   | 329.1   | 331.6   | 334.6   | 336.7   | 341.3   | 341.2   | 338.2   | 345.1          | 355.2   |
| <b>TRANSPORTATION AND PUBLIC UTILITIES</b> ..... | 4,524             | 4,562              | 4,574   | 4,593   | 4,561   | 4,469   | 4,432   | 4,443   | 4,420   | 4,435   | 4,478   | 4,486   | 4,481   | 4,431          | 4,310   |
| <b>WHOLESALE AND RETAIL TRADE</b> .....          | 15,045            | 14,947             | 14,869  | 14,924  | 14,994  | 14,878  | 14,818  | 14,700  | 14,606  | 14,707  | 15,638  | 15,092  | 14,850  | 14,645         | 14,084  |
| Wholesale trade.....                             | 3,892             | 3,869              | 3,886   | 3,902   | 3,872   | 3,813   | 3,803   | 3,797   | 3,788   | 3,797   | 3,841   | 3,816   | 3,801   | 3,738          | 3,611   |
| Retail trade.....                                | 11,153            | 11,078             | 10,983  | 11,022  | 11,122  | 11,065  | 11,015  | 10,903  | 10,818  | 10,910  | 11,797  | 11,276  | 11,049  | 10,907         | 10,473  |
| <b>FINANCE, INSURANCE, AND REAL ESTATE</b> ..... | 3,688             | 3,692              | 3,732   | 3,738   | 3,708   | 3,670   | 3,658   | 3,639   | 3,615   | 3,604   | 3,608   | 3,597   | 3,589   | 3,557          | 3,382   |
| <b>SERVICES</b> .....                            | 11,700            | 11,638             | 11,648  | 11,698  | 11,717  | 11,641  | 11,564  | 11,433  | 11,357  | 11,254  | 11,351  | 11,349  | 11,372  | 11,211         | 10,623  |
| Hotels and other lodging places.....             | 766.4             | 834.0              | 842.6   | 787.9   | 759.6   | 745.3   | 727.3   | 717.5   | 709.6   | 713.3   | 714.5   | 738.4   | 750.3   | 722.2          |         |
| Personal services.....                           | 984.6             | 981.5              | 995.9   | 1,016.0 | 1,009.8 | 1,006.2 | 1,006.2 | 1,003.0 | 1,005.1 | 1,022.0 | 1,025.4 | 1,028.0 | 1,025.8 | 1,031.4        |         |
| Medical and other health services.....           | 3,122.1           | 3,117.5            | 3,116.6 | 3,091.2 | 3,043.2 | 3,033.9 | 3,019.4 | 3,000.7 | 2,979.8 | 2,961.4 | 2,950.0 | 2,927.8 | 2,868.8 | 2,638.6        |         |
| Educational services.....                        | 1,112.2           | 980.3              | 1,004.5 | 1,100.5 | 1,190.7 | 1,197.8 | 1,197.8 | 1,196.1 | 1,163.6 | 1,179.9 | 1,184.5 | 1,164.3 | 1,116.9 | 1,067.3        |         |
| <b>GOVERNMENT</b> .....                          | 12,765            | 12,517             | 12,016  | 12,117  | 12,639  | 12,726  | 12,757  | 12,680  | 12,582  | 12,450  | 12,554  | 12,461  | 12,375  | 12,204         | 11,845  |
| Federal.....                                     | 2,642             | 2,649              | 2,675   | 2,700   | 2,710   | 2,765   | 2,838   | 2,758   | 2,694   | 2,690   | 2,760   | 2,705   | 2,717   | 2,758          | 2,737   |
| State and Local.....                             | 10,123            | 9,868              | 9,341   | 9,417   | 9,929   | 9,961   | 9,919   | 9,922   | 9,888   | 9,760   | 9,794   | 9,756   | 9,658   | 9,446          | 9,109   |

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, and coverage of these series, see footnote 1, table 11.

<sup>2</sup> Production workers include working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance,

repair, janitorial, and watchman services, product development, auxiliary production for plant's own use (e.g., powerplant), and recordkeeping and other services closely associated with the above production operations.

<sup>p</sup> = preliminary.

14. Employees on nonagricultural payrolls, by industry division and major manufacturing group, seasonally adjusted <sup>1</sup>

(In thousands)

| Industry division and group                      | 1970              |                    |        |        |        |        |        |        |        |        | 1969   |        |        |
|--|-------------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|  | Oct. <sup>p</sup> | Sept. <sup>p</sup> | Aug.   | July   | June   | May    | Apr.   | Mar.   | Feb.   | Jan.   | Dec.   | Nov.   | Oct.   |
| <b>TOTAL</b> .....                               | 70,129            | 70,610             | 70,414 | 70,587 | 70,629 | 70,839 | 71,149 | 71,242 | 71,135 | 70,992 | 70,842 | 70,808 | 70,836 |
| <b>MINING</b> .....                              | 621               | 621                | 619    | 618    | 620    | 620    | 622    | 626    | 626    | 625    | 627    | 624    | 622    |
| <b>CONTRACT CONSTRUCTION</b> .....               | 3,246             | 3,253              | 3,305  | 3,314  | 3,324  | 3,351  | 3,426  | 3,481  | 3,466  | 3,394  | 3,496  | 3,473  | 3,445  |
| <b>MANUFACTURING</b> .....                       | 18,689            | 19,298             | 19,271 | 19,402 | 19,477 | 19,572 | 19,795 | 19,944 | 19,937 | 20,018 | 20,082 | 20,082 | 20,233 |
| Production workers <sup>2</sup> .....            | 13,416            | 14,013             | 13,974 | 14,090 | 14,140 | 14,180 | 14,389 | 14,512 | 14,489 | 14,573 | 14,638 | 14,638 | 14,794 |
| Durable goods.....                               | 10,621            | 11,146             | 11,134 | 11,217 | 11,286 | 11,386 | 11,529 | 11,648 | 11,625 | 11,679 | 11,773 | 11,782 | 11,965 |
| Production workers <sup>2</sup> .....            | 7,526             | 8,039              | 8,019  | 8,082  | 8,134  | 8,186  | 8,318  | 8,409  | 8,367  | 8,425  | 8,516  | 8,522  | 8,703  |
| Ordnance and accessories.....                    | 223               | 237                | 240    | 243    | 250    | 256    | 261    | 271    | 277    | 281    | 290    | 296    | 298    |
| Lumber and wood products.....                    | 574               | 575                | 570    | 570    | 575    | 582    | 585    | 593    | 598    | 605    | 606    | 603    | 601    |
| Furniture and fixtures.....                      | 454               | 458                | 453    | 454    | 453    | 456    | 468    | 471    | 472    | 477    | 478    | 479    | 483    |
| Stone, clay, and glass products.....             | 630               | 635                | 631    | 628    | 636    | 638    | 644    | 651    | 657    | 653    | 659    | 659    | 658    |
| Primary metal industries.....                    | 1,260             | 1,313              | 1,298  | 1,301  | 1,305  | 1,309  | 1,323  | 1,337  | 1,349  | 1,360  | 1,380  | 1,384  | 1,386  |
| Fabricated metal products.....                   | 1,356             | 1,395              | 1,387  | 1,387  | 1,388  | 1,394  | 1,411  | 1,425  | 1,428  | 1,436  | 1,447  | 1,444  | 1,445  |
| Machinery, except electrical.....                | 1,881             | 1,924              | 1,939  | 1,969  | 1,982  | 2,004  | 2,032  | 2,046  | 2,048  | 2,043  | 2,051  | 2,043  | 2,050  |
| Electrical equipment.....                        | 1,834             | 1,902              | 1,903  | 1,934  | 1,936  | 1,956  | 1,979  | 1,995  | 1,993  | 1,922  | 1,930  | 1,934  | 2,051  |
| Transportation equipment.....                    | 1,558             | 1,838              | 1,841  | 1,853  | 1,876  | 1,897  | 1,925  | 1,950  | 1,890  | 1,988  | 2,009  | 2,028  | 2,078  |
| Instruments and related products.....            | 439               | 451                | 453    | 458    | 461    | 468    | 471    | 472    | 472    | 474    | 476    | 476    | 476    |
| Miscellaneous manufacturing.....                 | 412               | 418                | 419    | 420    | 424    | 426    | 430    | 437    | 441    | 440    | 447    | 436    | 439    |
| Nondurable goods.....                            | 8,068             | 8,152              | 8,137  | 8,185  | 8,191  | 8,186  | 8,266  | 8,296  | 8,312  | 8,339  | 8,309  | 8,300  | 8,268  |
| Production workers <sup>2</sup> .....            | 5,890             | 5,974              | 5,955  | 6,008  | 6,006  | 5,994  | 6,071  | 6,103  | 6,122  | 6,148  | 6,122  | 6,116  | 6,091  |
| Food and kindred products.....                   | 1,757             | 1,785              | 1,784  | 1,789  | 1,800  | 1,805  | 1,805  | 1,823  | 1,830  | 1,817  | 1,805  | 1,806  | 1,780  |
| Tobacco manufactures.....                        | 74                | 74                 | 82     | 81     | 81     | 81     | 81     | 81     | 80     | 80     | 77     | 80     | 81     |
| Textile mill products.....                       | 945               | 955                | 954    | 955    | 959    | 971    | 979    | 980    | 987    | 999    | 995    | 993    | 991    |
| Apparel and other textile products.....          | 1,370             | 1,383              | 1,376  | 1,393  | 1,385  | 1,375  | 1,394  | 1,396  | 1,398  | 1,416  | 1,410  | 1,405  | 1,406  |
| Paper and allied products.....                   | 702               | 707                | 703    | 706    | 711    | 714    | 721    | 721    | 720    | 721    | 720    | 718    | 716    |
| Printing and publishing.....                     | 1,100             | 1,105              | 1,103  | 1,105  | 1,103  | 1,108  | 1,111  | 1,113  | 1,113  | 1,113  | 1,110  | 1,109  | 1,106  |
| Chemicals and allied products.....               | 1,052             | 1,056              | 1,053  | 1,054  | 1,055  | 1,060  | 1,063  | 1,066  | 1,067  | 1,068  | 1,067  | 1,064  | 1,062  |
| Petroleum and coal products.....                 | 192               | 191                | 191    | 191    | 193    | 192    | 193    | 194    | 193    | 193    | 192    | 191    | 191    |
| Rubber and plastics products, nec.....           | 553               | 572                | 567    | 578    | 570    | 548    | 585    | 589    | 591    | 595    | 594    | 596    | 596    |
| Leather and leather products.....                | 323               | 324                | 324    | 333    | 334    | 332    | 334    | 333    | 333    | 337    | 339    | 338    | 339    |
| <b>TRANSPORTATION AND PUBLIC UTILITIES</b> ..... | 4,506             | 4,512              | 4,520  | 4,539  | 4,511  | 4,478  | 4,468  | 4,502  | 4,496  | 4,507  | 4,469  | 4,464  | 4,463  |
| <b>WHOLESALE AND RETAIL TRADE</b> .....          | 15,018            | 14,972             | 14,912 | 14,933 | 14,927 | 14,968 | 14,991 | 14,984 | 14,987 | 14,938 | 14,750 | 14,848 | 14,824 |
| Wholesale trade.....                             | 3,865             | 3,850              | 3,840  | 3,856  | 3,849  | 3,859  | 3,853  | 3,847  | 3,834  | 3,828  | 3,807  | 3,782  | 3,775  |
| Retail trade.....                                | 11,153            | 11,122             | 11,072 | 11,077 | 11,078 | 11,109 | 11,138 | 11,137 | 11,153 | 11,110 | 10,943 | 11,066 | 11,049 |
| <b>FINANCE, INSURANCE, AND REAL ESTATE</b> ..... | 3,695             | 3,681              | 3,670  | 3,676  | 3,679  | 3,677  | 3,673  | 3,665  | 3,652  | 3,648  | 3,626  | 3,611  | 3,596  |
| <b>SERVICES</b> .....                            | 11,688            | 11,626             | 11,521 | 11,514 | 11,532 | 11,572 | 11,564 | 11,537 | 11,530 | 11,472 | 11,431 | 11,383 | 11,361 |
| Hotels and other lodging places.....             | 749               | 715                | 722    | 749    | 764    | 768    | 772    | 770    | 775    | 770    | 770    | 760    | 761    |
| Personal services.....                           | 989               | 983                | 989    | 1,000  | 1,005  | 1,006  | 1,015  | 1,018  | 1,018  | 1,016  | 1,016  | 1,021  | 1,025  |
| Medical and other health services.....           | 3,128             | 3,102              | 3,086  | 3,070  | 3,058  | 3,034  | 3,025  | 3,007  | 2,992  | 2,973  | 2,950  | 2,931  | 2,931  |
| Educational services.....                        | 1,157             | 1,143              | 1,147  | 1,145  | 1,146  | 1,151  | 1,143  | 1,145  | 1,125  | 1,129  | 1,129  | 1,125  | 1,122  |
| <b>GOVERNMENT</b> .....                          | 12,666            | 12,647             | 12,596 | 12,591 | 12,559 | 12,601 | 12,610 | 12,503 | 12,441 | 12,390 | 12,361 | 12,323 | 12,292 |
| Federal <sup>3</sup> .....                       | 2,653             | 2,649              | 2,659  | 2,668  | 2,689  | 2,768  | 2,838  | 2,766  | 2,718  | 2,717  | 2,721  | 2,730  | 2,739  |
| State and local.....                             | 10,013            | 9,998              | 9,937  | 9,923  | 9,870  | 9,833  | 9,772  | 9,737  | 9,723  | 9,673  | 9,640  | 9,593  | 9,553  |

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, and coverage of these series, see footnote 1, table 11.

<sup>2</sup> For definition of production workers, see footnote 2, table 13.

NOTE: These data have been seasonally adjusted to reflect experience through February 1970. For additional detail, see June 1970 issue of *Employment and Earnings*.

<sup>p</sup> = preliminary. <sup>r</sup> = revised.



15. Labor turnover rates in manufacturing, 1959 to date <sup>1</sup>

[Per 100 employees]

| Year                     | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual average |
|--------------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|----------------|
| <b>Total accessions</b>  |      |      |      |      |     |      |      |      |       |      |      |      |                |
| 1959                     | 3.8  | 3.7  | 4.1  | 4.1  | 4.2 | 5.4  | 4.4  | 5.2  | 5.1   | 3.9  | 3.4  | 3.6  | 4.2            |
| 1960                     | 4.0  | 3.5  | 3.3  | 3.4  | 3.9 | 4.7  | 3.9  | 4.9  | 4.8   | 3.5  | 2.9  | 2.3  | 3.8            |
| 1961                     | 3.7  | 3.2  | 4.0  | 4.0  | 4.3 | 5.0  | 4.4  | 5.3  | 4.7   | 4.3  | 3.4  | 2.6  | 4.1            |
| 1962                     | 4.1  | 3.6  | 3.8  | 4.0  | 4.3 | 5.0  | 4.6  | 5.1  | 4.9   | 3.9  | 3.0  | 2.4  | 4.1            |
| 1963                     | 3.6  | 3.3  | 3.5  | 3.9  | 3.9 | 4.8  | 4.3  | 4.8  | 4.8   | 3.9  | 2.9  | 2.5  | 3.9            |
| 1964                     | 3.6  | 3.4  | 3.7  | 3.8  | 3.9 | 5.1  | 4.4  | 5.1  | 4.8   | 4.0  | 3.2  | 2.6  | 4.0            |
| 1965                     | 3.8  | 3.5  | 4.0  | 3.8  | 4.1 | 5.6  | 4.5  | 5.4  | 5.5   | 4.5  | 3.9  | 3.1  | 4.3            |
| 1966                     | 4.6  | 4.2  | 4.9  | 4.6  | 5.1 | 6.7  | 5.1  | 6.4  | 6.1   | 5.1  | 3.9  | 2.9  | 5.0            |
| 1967                     | 4.3  | 3.6  | 3.9  | 3.9  | 4.6 | 5.9  | 4.7  | 5.5  | 5.3   | 4.7  | 3.7  | 2.8  | 4.4            |
| 1968                     | 4.2  | 3.8  | 4.0  | 4.3  | 4.7 | 5.9  | 5.0  | 5.8  | 5.7   | 5.1  | 3.9  | 3.1  | 4.6            |
| 1969                     | 4.6  | 3.9  | 4.4  | 4.5  | 4.8 | 6.6  | 5.1  | 5.6  | 5.9   | 5.0  | 3.6  | 2.9  | 4.7            |
| 1970                     | 4.0  | 3.6  | 3.7  | 3.7  | 4.2 | 5.4  | 4.4  | 5.1  | p 4.6 |      |      |      |                |
| <b>New hires</b>         |      |      |      |      |     |      |      |      |       |      |      |      |                |
| 1959                     | 2.0  | 2.1  | 2.4  | 2.5  | 3.7 | 2.7  | 3.0  | 3.5  | 3.5   | 2.6  | 1.9  | 1.5  | 2.6            |
| 1960                     | 2.2  | 2.2  | 2.0  | 2.0  | 2.3 | 3.0  | 2.4  | 2.9  | 2.8   | 2.1  | 1.5  | 1.0  | 2.2            |
| 1961                     | 1.5  | 1.4  | 1.6  | 1.8  | 2.1 | 2.9  | 2.5  | 3.1  | 3.0   | 2.7  | 2.0  | 1.4  | 2.2            |
| 1962                     | 2.2  | 2.1  | 2.2  | 2.4  | 2.8 | 3.5  | 2.9  | 3.2  | 3.1   | 2.5  | 1.8  | 1.2  | 2.5            |
| 1963                     | 1.9  | 1.8  | 2.0  | 2.3  | 2.5 | 3.3  | 2.7  | 3.2  | 3.2   | 2.6  | 1.8  | 1.4  | 2.4            |
| 1964                     | 2.0  | 2.0  | 2.2  | 2.4  | 2.5 | 3.6  | 2.9  | 3.4  | 3.5   | 2.8  | 2.2  | 1.6  | 2.6            |
| 1965                     | 2.4  | 2.4  | 2.8  | 2.6  | 3.0 | 4.3  | 3.2  | 3.9  | 4.0   | 3.5  | 2.9  | 2.2  | 3.1            |
| 1966                     | 3.2  | 3.1  | 3.7  | 3.6  | 4.1 | 5.6  | 3.9  | 4.8  | 4.7   | 4.2  | 3.1  | 2.1  | 3.8            |
| 1967                     | 3.0  | 2.7  | 2.8  | 2.8  | 3.3 | 4.6  | 3.3  | 4.0  | 4.1   | 3.7  | 2.8  | 2.0  | 3.3            |
| 1968                     | 3.0  | 2.7  | 2.9  | 3.2  | 3.6 | 4.7  | 3.7  | 4.3  | 4.6   | 4.0  | 2.9  | 2.2  | 3.5            |
| 1969                     | 3.3  | 3.0  | 3.4  | 3.5  | 3.8 | 5.4  | 3.9  | 4.3  | 4.8   | 4.0  | 2.8  | 2.1  | 3.7            |
| 1970                     | 2.9  | 2.5  | 2.6  | 2.6  | 2.8 | 3.9  | 2.9  | 3.5  | p 3.3 |      |      |      |                |
| <b>Total separations</b> |      |      |      |      |     |      |      |      |       |      |      |      |                |
| 1959                     | 3.7  | 3.1  | 3.3  | 3.6  | 3.5 | 3.6  | 4.0  | 4.6  | 5.3   | 5.5  | 4.7  | 3.9  | 4.1            |
| 1960                     | 3.6  | 3.5  | 4.0  | 4.2  | 3.9 | 4.0  | 4.4  | 4.8  | 5.3   | 4.7  | 4.5  | 4.8  | 4.3            |
| 1961                     | 4.7  | 3.9  | 3.8  | 3.4  | 3.5 | 3.6  | 4.1  | 4.2  | 5.1   | 4.2  | 4.0  | 4.0  | 4.0            |
| 1962                     | 3.9  | 3.4  | 3.6  | 3.6  | 3.8 | 3.8  | 4.4  | 5.1  | 5.0   | 4.4  | 4.0  | 3.8  | 4.1            |
| 1963                     | 4.0  | 3.2  | 3.5  | 3.6  | 3.6 | 3.4  | 4.1  | 4.8  | 4.9   | 4.1  | 3.9  | 3.7  | 3.9            |
| 1964                     | 4.0  | 3.3  | 3.5  | 3.5  | 3.6 | 3.5  | 4.4  | 4.3  | 5.1   | 4.2  | 3.6  | 3.7  | 3.9            |
| 1965                     | 3.7  | 3.1  | 3.4  | 3.7  | 3.6 | 3.6  | 4.3  | 5.1  | 5.6   | 4.5  | 3.9  | 4.1  | 4.1            |
| 1966                     | 4.0  | 3.6  | 4.1  | 4.3  | 4.3 | 4.4  | 5.3  | 5.8  | 6.6   | 4.8  | 4.3  | 4.2  | 4.6            |
| 1967                     | 4.5  | 4.0  | 4.6  | 4.3  | 4.2 | 4.3  | 4.8  | 5.3  | 6.2   | 4.7  | 4.0  | 3.9  | 4.6            |
| 1968                     | 4.4  | 3.9  | 4.1  | 4.1  | 4.3 | 4.1  | 5.0  | 6.0  | 6.3   | 5.0  | 4.1  | 3.8  | 4.6            |
| 1969                     | 4.5  | 4.0  | 4.4  | 4.5  | 4.6 | 4.6  | 5.3  | 6.2  | 6.6   | 5.3  | 4.3  | 4.2  | 4.9            |
| 1970                     | 4.8  | 4.3  | 4.5  | 4.8  | 4.6 | 4.4  | 5.3  | 5.6  | p 6.0 |      |      |      |                |
| <b>Quits</b>             |      |      |      |      |     |      |      |      |       |      |      |      |                |
| 1959                     | 1.1  | 1.0  | 1.2  | 1.4  | 1.5 | 1.5  | 1.6  | 2.1  | 2.6   | 1.7  | 1.2  | 1.0  | 1.5            |
| 1960                     | 1.2  | 1.2  | 1.2  | 1.4  | 1.3 | 1.4  | 1.4  | 1.8  | 2.3   | 1.3  | .9   | .7   | 1.3            |
| 1961                     | .9   | .8   | .9   | 1.0  | 1.1 | 1.2  | 1.2  | 1.7  | 2.3   | 1.4  | 1.1  | .9   | 1.2            |
| 1962                     | 1.1  | 1.1  | 1.2  | 1.3  | 1.5 | 1.5  | 1.4  | 2.1  | 2.4   | 1.5  | 1.1  | .8   | 1.4            |
| 1963                     | 1.1  | 1.0  | 1.2  | 1.3  | 1.4 | 1.4  | 1.4  | 2.1  | 2.4   | 1.5  | 1.1  | .8   | 1.4            |
| 1964                     | 1.2  | 1.1  | 1.2  | 1.3  | 1.5 | 1.4  | 1.5  | 2.1  | 2.7   | 1.7  | 1.2  | 1.0  | 1.5            |
| 1965                     | 1.4  | 1.3  | 1.5  | 1.7  | 1.7 | 1.7  | 1.8  | 2.6  | 3.5   | 2.2  | 1.7  | 1.4  | 1.9            |
| 1966                     | 1.9  | 1.8  | 2.3  | 2.5  | 2.5 | 2.5  | 2.5  | 3.6  | 4.5   | 2.8  | 2.1  | 1.7  | 2.6            |
| 1967                     | 2.1  | 1.9  | 2.1  | 2.2  | 2.2 | 2.3  | 2.1  | 3.2  | 4.0   | 2.5  | 1.9  | 1.5  | 2.3            |
| 1968                     | 2.0  | 1.9  | 2.1  | 2.2  | 2.4 | 2.3  | 2.4  | 3.8  | 4.2   | 2.8  | 2.1  | 1.6  | 2.5            |
| 1969                     | 2.3  | 2.1  | 2.4  | 2.6  | 2.7 | 2.6  | 2.6  | 4.0  | 4.4   | 2.9  | 2.1  | 1.6  | 2.7            |
| 1970                     | 2.1  | 1.9  | 1.9  | 2.1  | 2.1 | 2.1  | 2.1  | 3.0  | p 3.2 |      |      |      |                |
| <b>Layoffs</b>           |      |      |      |      |     |      |      |      |       |      |      |      |                |
| 1959                     | 2.1  | 1.5  | 1.6  | 1.6  | 1.4 | 1.4  | 1.8  | 1.8  | 2.0   | 3.2  | 2.9  | 2.4  | 2.0            |
| 1960                     | 1.8  | 1.7  | 2.2  | 2.2  | 1.9 | 2.0  | 2.4  | 2.4  | 2.4   | 2.8  | 3.1  | 3.6  | 2.4            |
| 1961                     | 3.2  | 2.6  | 2.3  | 1.9  | 1.8 | 1.8  | 2.3  | 1.8  | 2.1   | 2.0  | 2.2  | 2.6  | 2.0            |
| 1962                     | 2.1  | 1.7  | 1.6  | 1.6  | 1.6 | 1.6  | 2.2  | 2.2  | 1.9   | 2.2  | 2.3  | 2.5  | 2.0            |
| 1963                     | 2.2  | 1.6  | 1.7  | 1.6  | 1.5 | 1.4  | 2.0  | 1.9  | 1.8   | 1.9  | 2.1  | 2.3  | 1.8            |
| 1964                     | 2.0  | 1.6  | 1.6  | 1.4  | 1.4 | 1.3  | 2.1  | 1.4  | 1.5   | 1.8  | 1.7  | 2.1  | 1.7            |
| 1965                     | 1.6  | 1.2  | 1.2  | 1.3  | 1.1 | 1.1  | 1.8  | 1.6  | 1.3   | 1.4  | 1.5  | 1.9  | 1.4            |
| 1966                     | 1.3  | 1.0  | 1.0  | 1.0  | .9  | 1.0  | 2.0  | 1.1  | 1.0   | 1.1  | 1.3  | 1.7  | 1.2            |
| 1967                     | 1.5  | 1.3  | 1.5  | 1.3  | 1.1 | 1.1  | 1.9  | 1.2  | 1.2   | 1.3  | 1.3  | 1.6  | 1.4            |
| 1968                     | 1.5  | 1.2  | 1.1  | 1.0  | 1.0 | .9   | 1.8  | 1.3  | 1.1   | 1.2  | 1.2  | 1.4  | 1.2            |
| 1969                     | 1.2  | 1.0  | 1.0  | .9   | .9  | 1.0  | 1.6  | 1.1  | 1.1   | 1.3  | 1.3  | 1.8  | 1.2            |
| 1970                     | 1.7  | 1.6  | 1.6  | 1.7  | 1.5 | 1.5  | 2.3  | 1.7  | p 1.8 |      |      |      |                |

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11.

Month-to-month changes in total employment in manufacturing and nonmanufacturing industries as indicated by labor turnover rates are not comparable with the changes shown by the Bureau's employment series for the following reasons: (1) The

labor turnover series measures changes during the calendar month, while the employment series measures changes from midmonth to midmonth and (2) the turnover series excludes personnel changes caused by strikes, but the employment series reflects the influence of such stoppages.

p=preliminary.

16. Labor turnover rates in manufacturing, by major industry group <sup>1</sup>

[Per 100 employees]

| Major industry group                     | Accession rates         |           |            |                         |           |            | Separation rates        |           |            |                         |           |            |                         |           |            |
|--|-------------------------|-----------|------------|-------------------------|-----------|------------|-------------------------|-----------|------------|-------------------------|-----------|------------|-------------------------|-----------|------------|
|  | Total                   |           |            | New hires               |           |            | Total                   |           |            | Quits                   |           |            | Layoffs                 |           |            |
|  | Sept. 1970 <sup>p</sup> | Aug. 1970 | Sept. 1969 | Sept. 1970 <sup>p</sup> | Aug. 1970 | Sept. 1969 | Sept. 1970 <sup>p</sup> | Aug. 1970 | Sept. 1969 | Sept. 1970 <sup>p</sup> | Aug. 1970 | Sept. 1969 | Sept. 1970 <sup>p</sup> | Aug. 1970 | Sept. 1969 |
| <b>MANUFACTURING</b> .....               | 4.6                     | 5.1       | 5.9        | 3.3                     | 3.5       | 4.8        | 6.0                     | 5.6       | 6.6        | 3.2                     | 3.0       | 4.4        | 1.8                     | 1.7       | 1.1        |
| Seasonally adjusted <sup>2</sup> .....   | 3.7                     | 4.1       | 4.8        | 2.6                     | 2.9       | 3.8        | 4.4                     | 4.5       | 4.8        | 1.9                     | 2.1       | 2.6        | 2.0                     | 1.8       | 1.2        |
| <b>Durable goods</b> .....               | 3.9                     | 4.5       | 5.4        | 2.7                     | 2.8       | 4.4        | 5.4                     | 5.3       | 6.1        | 2.6                     | 2.4       | 4.0        | 1.7                     | 1.8       | .9         |
| Ordnance and accessories.....            |                         | 2.1       | 2.9        |                         | 1.1       | 2.2        |                         | 4.2       | 5.2        |                         | 1.6       | 3.0        |                         | 1.8       | 1.4        |
| Lumber and wood products.....            | 5.3                     | 6.2       | 7.1        | 4.5                     | 5.2       | 6.4        | 7.0                     | 6.9       | 8.9        | 4.8                     | 4.7       | 6.7        | 1.1                     | 1.3       | 1.0        |
| Furniture and fixtures.....              | 6.4                     | 6.8       | 8.5        | 5.4                     | 5.4       | 7.8        | 6.8                     | 6.4       | 8.8        | 4.4                     | 4.4       | 6.8        | 1.1                     | .9        | .6         |
| Stone, clay, and glass products.....     | 4.6                     | 4.7       | 5.8        | 3.7                     | 3.6       | 5.0        | 6.2                     | 5.7       | 7.2        | 3.6                     | 3.4       | 5.1        | 1.5                     | 1.3       | .9         |
| Primary metal industries.....            | 2.8                     | 3.3       | 4.6        | 1.9                     | 1.9       | 3.6        | 4.9                     | 4.5       | 5.9        | 2.5                     | 2.1       | 4.1        | 1.5                     | 1.4       | .5         |
| Fabricated metal products.....           |                         | 5.5       | 6.6        |                         | 3.8       | 5.7        |                         | 5.7       | 7.2        |                         | 3.0       | 4.8        |                         | 1.5       | 1.0        |
| Machinery, except electrical.....        | 2.4                     | 2.8       | 4.4        | 1.6                     | 1.6       | 3.5        | 4.7                     | 4.6       | 4.7        | 1.8                     | 1.7       | 3.1        | 2.0                     | 2.0       | .6         |
| Electrical equipment.....                |                         | 3.8       | 5.2        |                         | 2.3       | 4.3        |                         | 4.7       | 5.4        |                         | 2.1       | 3.7        |                         | 1.7       | .5         |
| Transportation equipment.....            |                         | 5.8       | 5.1        |                         | 2.3       | 3.5        |                         | 5.9       | 5.7        |                         | 1.7       | 2.9        |                         | 3.3       | 1.7        |
| Instruments and related products.....    | 2.8                     | 2.8       | 3.9        | 2.0                     | 1.9       | 3.3        | 4.5                     | 4.2       | 4.9        | 2.4                     | 1.9       | 3.1        | 1.2                     | 1.2       | .7         |
| Miscellaneous manufacturing.....         | 5.6                     | 7.7       | 8.0        | 4.5                     | 5.7       | 7.0        | 6.2                     | 6.8       | 8.0        | 3.9                     | 4.0       | 5.8        | 1.4                     | 1.6       | 1.0        |
| <b>Nondurable goods</b> .....            | 5.5                     | 6.0       | 6.6        | 4.2                     | 4.5       | 5.3        | 6.9                     | 6.1       | 7.4        | 4.0                     | 3.7       | 5.0        | 2.0                     | 1.5       | 1.4        |
| Food and kindred products.....           | 8.8                     | 10.1      | 10.2       | 6.5                     | 7.9       | 7.9        | 10.6                    | 8.2       | 10.9       | 5.7                     | 4.9       | 7.0        | 3.9                     | 2.3       | 2.9        |
| Tobacco manufactures.....                | 5.5                     | 12.4      | 9.3        | 4.4                     | 9.6       | 6.2        | 6.0                     | 6.0       | 6.5        | 3.1                     | 2.9       | 4.0        | 1.7                     | 2.1       | 1.6        |
| Textile mill products.....               | 5.9                     | 5.5       | 6.6        | 4.7                     | 4.3       | 5.3        | 6.7                     | 6.6       | 7.0        | 4.7                     | 4.5       | 5.2        | .9                      | 1.0       | .7         |
| Apparel and other textile products.....  | 5.9                     | 6.9       | 6.2        | 4.1                     | 4.3       | 4.6        | 7.1                     | 6.9       | 7.1        | 3.7                     | 3.9       | 4.3        | 2.5                     | 2.0       | 1.9        |
| Paper and allied products.....           | 3.4                     | 3.5       | 5.3        | 2.8                     | 2.9       | 4.8        | 5.1                     | 4.8       | 6.7        | 3.3                     | 2.9       | 5.0        | .9                      | 1.0       | .5         |
| Printing and publishing.....             | 3.7                     | 3.4       | 5.1        | 3.1                     | 2.9       | 4.5        | 4.4                     | 4.4       | 5.0        | 2.8                     | 2.8       | 3.7        | .8                      | .9        | .5         |
| Chemicals and allied products.....       | 2.3                     | 2.1       | 3.1        | 1.9                     | 1.7       | 2.7        | 3.7                     | 3.2       | 4.5        | 2.2                     | 1.8       | 3.1        | .7                      | .6        | .5         |
| Petroleum and coal products.....         | 2.2                     | 2.4       | 2.9        | 2.0                     | 2.0       | 2.7        | 3.6                     | 3.5       | 4.2        | 2.1                     | 1.9       | 2.9        | .5                      | .6        | .3         |
| Rubber and plastics products, n.e.c..... | 5.3                     | 6.2       | 7.1        | 4.3                     | 4.1       | 6.2        | 7.3                     | 6.1       | 7.8        | 4.1                     | 3.6       | 5.5        | 1.8                     | 1.2       | .6         |
| Leather and leather products.....        | 6.5                     | 6.2       | 7.2        | 4.9                     | 4.7       | 5.3        | 8.8                     | 8.3       | 9.6        | 5.1                     | 4.8       | 5.8        | 2.5                     | 2.2       | 2.5        |

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For relationship to employment series see footnote 1, table 15.  
<sup>2</sup> These data have been seasonally adjusted to reflect experience through February 1970. For additional detail, see June 1970 issue of *Employment and Earnings*.

NOTE: For additional detail, see *Employment and Earnings*, table D-2.

<sup>p</sup> = preliminary.

Table 17. Job vacancies in manufacturing

| INDUSTRY   | 1970  |      |      |      |     |      |      |      |      |      | 1969 |      |       |      |  |
|--|-------|------|------|------|-----|------|------|------|------|------|------|------|-------|------|--|
|  | Sept. | Aug. | July | June | May | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | Sept. | Aug. |  |
| Job vacancies in manufacturing (number, in thousands)..... |       | 137  | 126  | 123  | 151 | 158  | 165  | 170  | 186  | 185  | 209  | 242  | 288   | 312  |  |
| <b>JOB VACANCY RATES <sup>1</sup></b>                      |       |      |      |      |     |      |      |      |      |      |      |      |       |      |  |
| Manufacturing.....   |       | 0.7  | 0.6  | 0.6  | 0.8 | 0.8  | 0.8  | 0.8  | 0.9  | 0.9  | 1.0  | 1.2  | 1.4   | 1.5  |  |
| Durable goods industries.....                              |       | .6   | .6   | .6   | .7  | .7   | .8   | .8   | 1.0  | 1.0  | 1.1  | 1.2  | 1.5   | 1.6  |  |
| Nondurable goods industries.....                           |       | .8   | .7   | .7   | .9  | .9   | .9   | .8   | .9   | .9   | 1.0  | 1.1  | 1.2   | 1.3  |  |
| <b>Selected durable goods industries:</b>                  |       |      |      |      |     |      |      |      |      |      |      |      |       |      |  |
| Primary metal industries.....                              |       | .6   | .4   | .5   | .6  | .7   | .6   | .6   | .8   | .7   | .9   | 1.2  | 1.5   | 1.4  |  |
| Machinery, except electrical.....                          |       | .6   | .5   | .6   | .8  | .9   | 1.0  | 1.0  | 1.2  | 1.1  | 1.4  | 1.6  | 1.8   | 1.9  |  |
| Electrical equipment and supplies.....                     |       | .7   | .6   | .6   | .8  | .8   | .9   | 1.1  | 1.1  | 1.2  | 1.2  | 1.5  | 1.8   | 1.9  |  |
| Transportation equipment.....                              |       | .6   | .5   | .5   | .6  | .5   | .7   | .6   | .8   | .8   | .8   | 1.0  | 1.2   | 1.5  |  |
| Instruments and related products.....                      |       | .7   | .6   | .7   | 1.1 | 1.4  | 1.7  | 1.7  | 1.6  | 1.4  | 1.6  | 1.9  | 2.3   | 2.3  |  |
| <b>Selected nondurable goods industries:</b>               |       |      |      |      |     |      |      |      |      |      |      |      |       |      |  |
| Textile mill products.....                                 |       | 1.0  | .9   | .8   | 1.1 | 1.1  | 1.0  | .9   | .9   | .9   | 1.0  | 1.2  | 1.4   | 1.5  |  |
| Apparel and other textile products.....                    |       | 1.5  | 1.4  | 1.4  | 1.5 | 1.5  | 1.6  | 1.6  | 1.6  | 1.5  | 1.6  | 1.8  | 1.9   | 2.0  |  |
| Printing and publishing.....                               |       | .6   | .5   | .5   | .6  | .7   | .7   | .7   | .8   | .8   | .9   | .9   | 1.1   | 1.3  |  |
| Chemicals and allied products.....                         |       | .6   | .6   | .7   | .8  | .8   | 1.0  | .9   | .9   | .8   | .9   | 1.0  | 1.1   | 1.1  |  |

<sup>1</sup> Computed by dividing the total number of job vacancies by the sum of employment plus the total number of job vacancies and multiplying the quotient by 100.

NOTE: For additional detail on this series, see *Employment and Earnings*, tables D-1, D-2, and D-3.

**18. Gross hours and earnings of production and nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by industry division, 1947 to date**

| Year              | Averages                            |              |                 | Averages                   |              |                 | Averages                            |              |                 | Averages        |              |                 |
|-------------------|-------------------------------------|--------------|-----------------|----------------------------|--------------|-----------------|-------------------------------------|--------------|-----------------|-----------------|--------------|-----------------|
|                   | Weekly earnings                     | Weekly hours | Hourly earnings | Weekly earnings            | Weekly hours | Hourly earnings | Weekly earnings                     | Weekly hours | Hourly earnings | Weekly earnings | Weekly hours | Hourly earnings |
|                   | Total private                       |              |                 | Mining                     |              |                 | Contract construction               |              |                 | Manufacturing   |              |                 |
| 1947              | \$45.58                             | 40.3         | \$1.131         | \$59.94                    | 40.8         | \$1.469         | \$58.87                             | 38.2         | \$1.541         | \$49.17         | 40.4         | \$1.217         |
| 1948              | 49.00                               | 40.0         | 1.225           | 65.56                      | 39.4         | 1.664           | 65.27                               | 38.1         | 1.713           | 53.12           | 40.0         | 1.328           |
| 1949              | 50.24                               | 39.4         | 1.275           | 62.33                      | 36.3         | 1.717           | 67.56                               | 37.7         | 1.792           | 53.88           | 39.1         | 1.378           |
| 1950              | 53.13                               | 39.8         | 1.335           | 67.16                      | 37.9         | 1.772           | 69.68                               | 37.4         | 1.863           | 58.32           | 40.5         | 1.440           |
| 1951              | 57.86                               | 39.9         | 1.45            | 74.11                      | 38.4         | 1.93            | 76.96                               | 38.1         | 2.02            | 63.34           | 40.6         | 1.56            |
| 1952              | 60.65                               | 39.9         | 1.52            | 77.59                      | 38.6         | 2.01            | 82.86                               | 38.9         | 2.13            | 67.16           | 40.7         | 1.65            |
| 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            | 75.70           | 40.7         | 1.86            |
| 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            | 98.65                      | 40.1         | 2.46            | 100.27                              | 37.0         | 2.71            | 81.59           | 39.8         | 2.05            |
| 1958              | 75.08                               | 38.5         | 1.95            | 96.08                      | 38.9         | 2.47            | 103.78                              | 36.8         | 2.82            | 82.71           | 39.2         | 2.11            |
| 1959 <sup>2</sup> | 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            | 105.44                     | 40.4         | 2.61            | 113.04                              | 36.7         | 3.08            | 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            | 110.43                     | 40.9         | 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            | 99.63           | 40.5         | 2.46            |
| 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              | 95.06                               | 38.8         | 2.45            | 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            | 112.34          | 41.3         | 2.72            |
| 1967              | 101.84                              | 38.0         | 2.68            | 135.89                     | 42.6         | 3.19            | 154.95                              | 37.7         | 4.11            | 114.90          | 40.6         | 2.83            |
| 1968              | 107.73                              | 37.8         | 2.85            | 142.71                     | 42.6         | 3.35            | 164.93                              | 37.4         | 4.41            | 122.51          | 40.7         | 3.01            |
| 1969              | 114.61                              | 37.7         | 3.04            | 154.80                     | 43.0         | 3.60            | 181.16                              | 37.9         | 4.78            | 129.51          | 40.6         | 3.19            |
|                   | Transportation and public utilities |              |                 | Wholesale and retail trade |              |                 | Finance, insurance, and real estate |              |                 | Services        |              |                 |
| 1947              |                                     |              |                 | \$38.07                    | 40.5         | \$0.940         | \$43.21                             | 37.9         | \$1.140         |                 |              |                 |
| 1948              |                                     |              |                 | 40.80                      | 40.4         | 1.010           | 45.48                               | 37.9         | 1.200           |                 |              |                 |
| 1949              |                                     |              |                 | 42.93                      | 40.5         | 1.060           | 47.63                               | 37.8         | 1.260           |                 |              |                 |
| 1950              |                                     |              |                 | 44.55                      | 40.5         | 1.100           | 50.52                               | 37.7         | 1.340           |                 |              |                 |
| 1951              |                                     |              |                 | 47.79                      | 40.5         | 1.18            | 54.67                               | 37.7         | 1.45            |                 |              |                 |
| 1952              |                                     |              |                 | 49.20                      | 40.0         | 1.23            | 57.08                               | 37.8         | 1.51            |                 |              |                 |
| 1953              |                                     |              |                 | 51.35                      | 39.5         | 1.30            | 59.57                               | 37.7         | 1.58            |                 |              |                 |
| 1954              |                                     |              |                 | 53.33                      | 39.5         | 1.35            | 62.04                               | 37.6         | 1.65            |                 |              |                 |
| 1955              |                                     |              |                 | 55.16                      | 39.4         | 1.40            | 63.92                               | 37.6         | 1.70            |                 |              |                 |
| 1956              |                                     |              |                 | 57.48                      | 39.1         | 1.47            | 65.68                               | 36.9         | 1.78            |                 |              |                 |
| 1957              |                                     |              |                 | 59.60                      | 38.7         | 1.54            | 67.53                               | 36.7         | 1.84            |                 |              |                 |
| 1958              |                                     |              |                 | 61.76                      | 38.6         | 1.60            | 70.12                               | 37.1         | 1.89            |                 |              |                 |
| 1959 <sup>2</sup> |                                     |              |                 | 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              | \$118.37                            | 41.1         | \$2.88          | 74.28                      | 37.9         | 1.96            | 85.79                               | 37.3         | 2.30            | \$69.84         | 36.0         | \$1.94          |
| 1965              | 125.14                              | 41.3         | 3.03            | 76.53                      | 37.7         | 2.03            | 88.91                               | 37.2         | 2.39            | 73.60           | 35.9         | 2.05            |
| 1966              | 128.13                              | 41.2         | 3.11            | 79.02                      | 37.1         | 2.13            | 92.13                               | 37.3         | 2.47            | 77.04           | 35.5         | 2.17            |
| 1967              | 131.22                              | 40.5         | 3.24            | 81.76                      | 36.5         | 2.24            | 95.46                               | 37.0         | 2.58            | 80.38           | 35.1         | 2.29            |
| 1968              | 138.85                              | 40.6         | 3.42            | 86.40                      | 36.0         | 2.40            | 101.75                              | 37.0         | 2.75            | 84.32           | 34.7         | 2.43            |
| 1969              | 147.74                              | 40.7         | 3.63            | 91.14                      | 35.6         | 2.56            | 108.33                              | 37.1         | 2.92            | 91.26           | 34.7         | 2.63            |

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11.

Data relate to production workers in mining and manufacturing; to construction workers in contract construction; and to nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and

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

<sup>2</sup> Data include Alaska and Hawaii beginning 1959.

NOTE: For additional detail, see *Employment and Earnings*, table C-1.



**19. Gross average weekly hours of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls, by industry division and major manufacturing group**

| Industry division and group                      | 1970              |                    |      |      |      |      |      |      |      |      | 1969 |      |      | Annual average |      |
|--|-------------------|--------------------|------|------|------|------|------|------|------|------|------|------|------|----------------|------|
|  | Oct. <sup>p</sup> | Sept. <sup>p</sup> | Aug. | July | June | May  | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. | 1969           | 1968 |
| <b>TOTAL PRIVATE</b> .....                       | 36.9              | 37.0               | 37.6 | 37.6 | 37.4 | 37.0 | 36.9 | 37.2 | 37.0 | 37.1 | 37.7 | 37.5 | 37.6 | 37.7           | 37.8 |
| <b>MINING</b> .....                              | 42.4              | 42.4               | 42.7 | 42.9 | 42.9 | 42.7 | 43.1 | 42.4 | 42.6 | 42.3 | 43.3 | 43.3 | 43.3 | 43.0           | 42.6 |
| <b>CONTRACT CONSTRUCTION</b> .....               | 37.4              | 36.1               | 38.5 | 38.5 | 38.4 | 38.1 | 37.9 | 37.2 | 36.8 | 35.7 | 37.6 | 37.1 | 38.3 | 37.9           | 37.4 |
| <b>MANUFACTURING</b> .....                       | 39.6              | 39.6               | 39.8 | 39.9 | 40.0 | 39.8 | 39.7 | 40.0 | 39.8 | 40.1 | 41.0 | 40.6 | 40.7 | 40.6           | 40.7 |
| Overtime hours.....                              | 2.8               | 3.0                | 3.0  | 2.9  | 3.1  | 2.9  | 2.8  | 3.0  | 3.0  | 3.2  | 3.6  | 3.6  | 3.7  | 3.6            | 3.6  |
| <b>Durable Goods</b> .....                       | 40.0              | 40.1               | 40.2 | 40.3 | 40.6 | 40.3 | 40.2 | 40.6 | 40.3 | 40.7 | 41.7 | 41.2 | 41.4 | 41.3           | 41.4 |
| Overtime hours.....                              | 2.7               | 3.0                | 2.9  | 2.9  | 3.2  | 2.9  | 2.8  | 3.1  | 3.0  | 3.3  | 3.8  | 3.7  | 3.9  | 3.8            | 3.8  |
| Ordnance and accessories....                     | 40.1              | 40.1               | 40.2 | 39.8 | 40.7 | 40.8 | 40.8 | 40.8 | 40.8 | 41.0 | 41.0 | 40.6 | 40.3 | 40.4           | 41.5 |
| Lumber and wood products....                     | 39.2              | 39.7               | 40.1 | 39.7 | 40.1 | 40.1 | 39.8 | 39.5 | 39.4 | 39.1 | 40.1 | 39.9 | 40.3 | 40.2           | 40.6 |
| Furniture and fixtures.....                      | 40.0              | 38.9               | 39.5 | 38.8 | 39.1 | 38.5 | 38.7 | 39.1 | 38.7 | 38.9 | 40.8 | 40.3 | 40.6 | 40.4           | 40.6 |
| Stone, clay, and glass products.....             | 41.4              | 41.4               | 41.5 | 41.3 | 41.5 | 41.5 | 41.5 | 41.3 | 40.9 | 40.9 | 42.9 | 41.9 | 42.1 | 42.0           | 41.8 |
| Primary metal industries....                     | 38.6              | 41.1               | 40.3 | 40.6 | 40.7 | 40.4 | 40.4 | 40.8 | 40.8 | 41.3 | 41.7 | 41.4 | 41.7 | 41.8           | 41.6 |
| Fabricated metal products....                    | 40.4              | 40.3               | 40.7 | 40.9 | 41.1 | 40.7 | 40.6 | 40.9 | 40.6 | 41.0 | 41.8 | 41.6 | 41.7 | 41.6           | 41.7 |
| Machinery, except electrical..                   | 40.2              | 40.0               | 40.4 | 40.6 | 41.2 | 41.1 | 41.4 | 42.1 | 41.9 | 42.2 | 43.1 | 42.2 | 42.4 | 42.5           | 42.1 |
| Electrical equipment and supplies.....           | 40.0              | 39.5               | 39.8 | 39.8 | 39.6 | 39.6 | 39.6 | 40.1 | 39.7 | 40.3 | 40.9 | 40.5 | 40.4 | 40.4           | 40.3 |
| Transportation equipment....                     | 40.6              | 40.4               | 40.0 | 40.7 | 41.6 | 40.4 | 39.2 | 40.0 | 39.6 | 40.1 | 42.2 | 41.5 | 41.9 | 41.5           | 42.2 |
| Instruments and related products.....            | 40.2              | 39.5               | 39.8 | 39.9 | 40.3 | 40.0 | 40.3 | 40.7 | 40.2 | 40.5 | 41.3 | 41.1 | 40.9 | 40.7           | 40.5 |
| Miscellaneous manufacturing industries.....      | 39.0              | 38.4               | 38.6 | 38.4 | 38.7 | 38.6 | 38.8 | 39.0 | 38.8 | 38.8 | 39.5 | 39.3 | 39.3 | 39.0           | 39.4 |
| <b>Nondurable goods</b> .....                    | 39.0              | 38.9               | 39.3 | 39.3 | 39.2 | 39.0 | 39.0 | 39.2 | 39.1 | 39.2 | 40.0 | 39.8 | 39.7 | 39.7           | 39.8 |
| Overtime hours.....                              | 2.9               | 3.1                | 3.1  | 2.9  | 3.0  | 2.9  | 2.8  | 3.0  | 3.0  | 3.1  | 3.4  | 3.4  | 3.5  | 3.4            | 3.3  |
| Food and kindred products....                    | 40.8              | 40.9               | 41.2 | 40.7 | 40.5 | 40.5 | 39.9 | 40.0 | 40.0 | 40.5 | 41.0 | 41.0 | 40.7 | 40.8           | 40.8 |
| Tobacco manufactures.....                        | 40.1              | 37.9               | 37.7 | 37.5 | 38.0 | 36.8 | 37.1 | 36.4 | 36.9 | 37.2 | 36.8 | 37.3 | 38.6 | 37.4           | 37.9 |
| Textile mill products.....                       | 40.1              | 39.2               | 40.0 | 39.9 | 40.3 | 39.7 | 39.9 | 40.1 | 40.0 | 40.0 | 41.3 | 41.1 | 40.9 | 40.8           | 41.2 |
| Apparel and other textile products.....          | 34.9              | 34.3               | 35.5 | 35.4 | 35.4 | 35.1 | 35.4 | 35.8 | 35.5 | 35.2 | 35.9 | 35.8 | 35.8 | 35.9           | 36.1 |
| Paper and allied products....                    | 41.9              | 41.8               | 41.9 | 41.7 | 41.7 | 41.8 | 41.7 | 42.0 | 41.9 | 42.4 | 43.2 | 42.9 | 43.1 | 43.0           | 42.9 |
| Printing and publishing....                      | 37.4              | 37.6               | 37.8 | 37.8 | 37.7 | 37.6 | 37.7 | 38.0 | 37.8 | 37.7 | 39.0 | 38.4 | 38.4 | 38.4           | 38.3 |
| Chemicals and allied products..                  | 40.6              | 42.0               | 41.2 | 41.4 | 41.5 | 41.6 | 41.6 | 41.8 | 41.6 | 41.7 | 42.9 | 42.0 | 41.7 | 41.8           | 41.8 |
| Petroleum and coal products..                    | 43.7              | 43.4               | 43.2 | 43.4 | 42.8 | 42.8 | 42.2 | 41.8 | 41.8 | 41.9 | 41.7 | 42.7 | 42.9 | 42.6           | 42.5 |
| Rubber and plastics products, nec.....           | 40.1              | 40.3               | 40.5 | 40.4 | 40.4 | 39.9 | 40.3 | 40.4 | 40.6 | 40.7 | 41.5 | 41.1 | 41.3 | 41.1           | 41.5 |
| Leather and leather products..                   | 36.6              | 36.2               | 37.0 | 37.9 | 38.1 | 37.5 | 36.3 | 37.1 | 37.4 | 37.7 | 38.3 | 37.4 | 37.0 | 37.2           | 38.3 |
| <b>TRANSPORTATION AND PUBLIC UTILITIES</b> ..... | 40.6              | 40.7               | 40.9 | 41.1 | 40.7 | 40.4 | 39.8 | 40.2 | 40.5 | 40.5 | 40.8 | 40.9 | 41.0 | 40.7           | 40.6 |
| <b>WHOLESALE AND RETAIL TRADE</b> .....          | 35.0              | 35.3               | 36.3 | 36.2 | 35.6 | 35.0 | 34.9 | 35.0 | 35.0 | 35.1 | 35.7 | 35.2 | 35.3 | 35.6           | 36.0 |
| Wholesale trade.....                             | 39.8              | 39.7               | 40.1 | 40.3 | 40.0 | 39.9 | 39.9 | 40.0 | 40.0 | 40.2 | 40.7 | 40.2 | 40.3 | 40.2           | 40.1 |
| Retail trade.....                                | 33.4              | 33.8               | 35.0 | 34.9 | 34.1 | 33.5 | 33.3 | 33.4 | 33.3 | 33.4 | 34.1 | 33.6 | 33.7 | 34.2           | 34.7 |
| <b>FINANCE, INSURANCE, AND REAL ESTATE</b> ..... | 36.7              | 36.6               | 36.9 | 36.8 | 36.7 | 36.7 | 36.9 | 37.0 | 37.0 | 36.9 | 37.0 | 37.2 | 37.1 | 37.1           | 37.0 |
| <b>SERVICES</b> .....                            | 34.4              | 34.4               | 35.0 | 34.9 | 34.5 | 34.3 | 34.3 | 34.7 | 34.3 | 34.3 | 34.6 | 34.6 | 34.5 | 34.7           | 34.7 |

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail, see Employment and Earnings, table C-2.

<sup>p</sup> = preliminary.

**20. Gross average weekly hours of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls, by industry division and major manufacturing group, seasonally adjusted**

| Industry division and group                      | 1970              |                    |      |      |      |      |      |      |      | 1969 |      |      |      |
|--|-------------------|--------------------|------|------|------|------|------|------|------|------|------|------|------|
|  | Oct. <sup>p</sup> | Sept. <sup>p</sup> | Aug. | July | June | May  | Apr. | Mar. | Feb. | Jan. | Dec. | Nov. | Oct. |
| <b>TOTAL PRIVATE</b> .....                       | 36.8              | 36.8               | 37.2 | 37.3 | 37.2 | 37.1 | 37.2 | 37.4 | 37.3 | 37.5 | 37.6 | 37.6 | 37.5 |
| <b>MINING</b> .....                              | 42.1              | 42.1               | 42.2 | 42.5 | 42.4 | 42.6 | 43.1 | 43.2 | 43.4 | 42.7 | 43.2 | 43.5 | 43.0 |
| <b>CONTRACT CONSTRUCTION</b> .....               | 36.7              | 35.0               | 37.3 | 37.4 | 37.6 | 38.1 | 38.3 | 38.0 | 38.2 | 36.7 | 38.2 | 38.1 | 37.6 |
| <b>MANUFACTURING</b> .....                       | 39.4              | 39.3               | 39.8 | 40.1 | 39.8 | 39.8 | 40.0 | 40.2 | 39.9 | 40.3 | 40.7 | 40.5 | 40.5 |
| Overtime hours.....                              | 2.7               | 2.7                | 3.0  | 3.0  | 3.1  | 2.9  | 3.0  | 3.2  | 3.2  | 3.3  | 3.5  | 3.5  | 3.5  |
| <b>Durable Goods</b> .....                       | 39.8              | 39.8               | 40.3 | 40.7 | 40.4 | 40.3 | 40.4 | 40.7 | 40.5 | 41.0 | 41.3 | 41.1 | 41.2 |
| Overtime hours.....                              | 2.5               | 2.7                | 2.9  | 3.1  | 3.2  | 3.0  | 3.0  | 3.2  | 3.2  | 3.4  | 3.6  | 3.5  | 3.6  |
| Ordnance and accessories.....                    | 40.0              | 39.8               | 40.4 | 40.3 | 40.6 | 40.8 | 41.1 | 41.1 | 41.3 | 40.6 | 40.5 | 40.3 | 40.2 |
| Lumber and wood products.....                    | 38.9              | 39.4               | 39.8 | 39.8 | 39.6 | 39.7 | 39.8 | 39.5 | 40.1 | 39.6 | 40.3 | 40.2 | 39.9 |
| Furniture and fixtures.....                      | 39.3              | 38.3               | 39.0 | 39.3 | 38.9 | 38.8 | 39.3 | 39.4 | 39.3 | 39.5 | 40.0 | 40.0 | 39.9 |
| Stone, clay, and glass products.....             | 41.0              | 40.9               | 41.0 | 41.2 | 41.1 | 41.3 | 41.6 | 41.8 | 41.7 | 41.7 | 42.1 | 41.8 | 41.7 |
| Primary metal industries.....                    | 39.0              | 41.1               | 40.4 | 40.7 | 40.4 | 40.2 | 40.1 | 40.7 | 40.9 | 41.2 | 41.7 | 41.6 | 42.1 |
| Fabricated metal products.....                   | 40.1              | 39.7               | 40.6 | 41.3 | 40.9 | 40.6 | 40.9 | 41.2 | 41.1 | 41.4 | 41.5 | 41.4 | 41.4 |
| Machinery, except electrical.....                | 40.2              | 39.9               | 40.9 | 41.1 | 41.1 | 41.1 | 41.4 | 41.8 | 41.9 | 42.2 | 42.6 | 42.2 | 42.4 |
| Electrical equipment and supplies.....           | 39.8              | 39.2               | 39.9 | 40.4 | 39.5 | 39.7 | 40.0 | 40.2 | 39.7 | 40.5 | 40.3 | 40.1 | 40.2 |
| Transportation equipment.....                    | 39.9              | 39.8               | 40.7 | 41.2 | 41.6 | 40.3 | 39.7 | 40.4 | 40.3 | 40.2 | 41.4 | 40.7 | 41.2 |
| Instruments and related products.....            | 40.0              | 39.3               | 40.0 | 40.3 | 40.2 | 40.1 | 40.5 | 40.7 | 40.2 | 40.7 | 40.9 | 40.9 | 40.7 |
| Miscellaneous manufacturing industries.....      | 38.6              | 38.2               | 38.6 | 39.1 | 38.6 | 38.7 | 39.0 | 39.0 | 38.6 | 39.3 | 39.3 | 39.3 | 38.9 |
| <b>Nondurable Goods</b> .....                    | 38.9              | 38.6               | 39.1 | 39.3 | 39.0 | 39.1 | 39.4 | 39.4 | 39.3 | 39.6 | 39.8 | 39.6 | 39.6 |
| Overtime hours.....                              | 2.7               | 2.8                | 3.0  | 2.9  | 3.0  | 3.0  | 3.0  | 3.2  | 3.2  | 3.4  | 3.3  | 3.3  | 3.3  |
| Food and kindred products.....                   | 40.7              | 40.1               | 40.7 | 40.2 | 40.3 | 40.7 | 40.6 | 40.5 | 40.7 | 41.0 | 40.8 | 40.8 | 40.6 |
| Tobacco manufactures.....                        | 38.7              | 36.4               | 37.4 | 37.9 | 37.4 | 37.1 | 38.3 | 37.5 | 37.3 | 38.3 | 36.2 | 37.2 | 37.3 |
| Textile mill products.....                       | 39.8              | 38.9               | 39.9 | 40.3 | 40.0 | 39.8 | 40.6 | 40.2 | 40.1 | 40.4 | 40.9 | 40.7 | 40.6 |
| Apparel and other textile products.....          | 34.9              | 34.3               | 35.1 | 35.5 | 35.2 | 35.1 | 35.5 | 35.6 | 35.5 | 35.6 | 36.6 | 35.8 | 35.8 |
| Paper and allied products.....                   | 41.7              | 41.4               | 41.7 | 41.7 | 41.6 | 41.8 | 42.1 | 42.2 | 42.3 | 42.8 | 42.8 | 42.7 | 42.8 |
| Printing and publishing.....                     | 37.3              | 37.3               | 37.6 | 37.9 | 37.7 | 37.7 | 37.9 | 38.0 | 38.0 | 38.2 | 38.6 | 38.4 | 38.2 |
| Chemicals and allied products.....               | 40.6              | 42.0               | 41.3 | 41.5 | 41.5 | 41.5 | 41.4 | 41.8 | 41.8 | 42.0 | 41.8 | 41.8 | 41.7 |
| Petroleum and coal products.....                 | 43.5              | 43.0               | 43.1 | 42.6 | 42.6 | 42.5 | 41.9 | 42.2 | 42.7 | 42.5 | 42.3 | 42.6 | 42.6 |
| Rubber and plastics products, nec.....           | 39.7              | 39.8               | 40.4 | 40.8 | 40.4 | 40.0 | 40.7 | 40.7 | 41.0 | 40.9 | 41.1 | 40.8 | 40.9 |
| Leather and leather products.....                | 36.8              | 36.5               | 36.8 | 37.6 | 37.6 | 37.7 | 37.4 | 37.4 | 37.1 | 37.5 | 37.7 | 37.3 | 37.2 |
| <b>TRANSPORTATION AND PUBLIC UTILITIES</b> ..... | 40.5              | 40.5               | 40.6 | 40.7 | 40.6 | 40.6 | 40.2 | 40.6 | 40.7 | 40.7 | 40.8 | 40.7 | 40.9 |
| <b>WHOLESALE AND RETAIL TRADE</b> .....          | 35.2              | 35.2               | 35.4 | 35.4 | 35.4 | 35.4 | 35.3 | 35.3 | 35.4 | 35.4 | 35.5 | 35.5 | 35.5 |
| Wholesale Trade.....                             | 39.8              | 39.7               | 39.9 | 40.0 | 39.9 | 40.1 | 40.1 | 40.1 | 40.2 | 40.3 | 40.5 | 40.3 | 40.3 |
| Retail trade.....                                | 33.7              | 33.7               | 33.9 | 33.9 | 33.8 | 33.9 | 33.7 | 33.8 | 33.7 | 33.8 | 33.8 | 34.0 | 34.0 |
| <b>FINANCE, INSURANCE, AND REAL ESTATE</b> ..... | 36.6              | 36.7               | 36.9 | 36.8 | 36.7 | 36.8 | 36.9 | 37.0 | 37.0 | 36.9 | 36.9 | 37.2 | 37.0 |
| <b>SERVICES</b> .....                            | 34.5              | 34.5               | 34.7 | 34.6 | 34.4 | 34.5 | 34.4 | 34.7 | 34.4 | 34.4 | 34.6 | 34.7 | 34.6 |

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.  
<sup>p</sup> = preliminary.

NOTE: These data have been seasonally adjusted to reflect experience through February 1970. For additional detail, see June 1970 issue of *Employment and Earnings*.

**21. Gross average hourly earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls, by industry division and major manufacturing group**

| Industry and division group                      | 1970              |                    |        |        |        |        |        |        |        |        | 1969   |        |        | Annual average |        |
|--|-------------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|--------|
|  | Oct. <sup>p</sup> | Sept. <sup>p</sup> | Aug.   | July   | June   | May    | Apr.   | Mar.   | Feb.   | Jan.   | Dec.   | Nov.   | Oct.   | 1969           | 1968   |
| <b>TOTAL PRIVATE</b> .....                       | \$3.28            | \$3.28             | \$3.25 | \$3.23 | \$3.21 | \$3.20 | \$3.18 | \$3.17 | \$3.15 | \$3.13 | \$3.12 | \$3.13 | \$3.12 | \$3.04         | \$2.85 |
| <b>MINING</b> .....                              | 3.92              | 3.88               | 3.84   | 3.82   | 3.82   | 3.80   | 3.79   | 3.78   | 3.77   | 3.76   | 3.71   | 3.72   | 3.69   | 3.60           | 3.35   |
| <b>CONTRACT CONSTRUCTION</b> .....               | 5.40              | 5.35               | 5.30   | 5.20   | 5.13   | 5.10   | 5.09   | 5.06   | 5.06   | 5.07   | 5.03   | 4.97   | 4.96   | 4.78           | 4.41   |
| <b>MANUFACTURING</b> .....                       | 3.38              | 3.42               | 3.37   | 3.37   | 3.36   | 3.34   | 3.32   | 3.31   | 3.29   | 3.29   | 3.29   | 3.26   | 3.25   | 3.19           | 3.01   |
| Durable Goods.....                               | 3.57              | 3.62               | 3.58   | 3.57   | 3.57   | 3.55   | 3.52   | 3.51   | 3.48   | 3.49   | 3.49   | 3.46   | 3.45   | 3.39           | 3.19   |
| Ordinance and accessories.....                   | 3.64              | 3.65               | 3.62   | 3.60   | 3.59   | 3.59   | 3.58   | 3.57   | 3.54   | 3.53   | 3.51   | 3.53   | 3.48   | 3.42           | 3.26   |
| Lumber and wood products.....                    | 3.05              | 3.04               | 3.05   | 2.98   | 2.98   | 2.92   | 2.88   | 2.86   | 2.84   | 2.83   | 2.84   | 2.86   | 2.83   | 2.74           | 2.57   |
| Furniture and fixtures.....                      | 2.80              | 2.80               | 2.81   | 2.78   | 2.76   | 2.75   | 2.73   | 2.71   | 2.70   | 2.71   | 2.71   | 2.70   | 2.68   | 2.62           | 2.47   |
| Stone, clay, and glass products.....             | 3.46              | 3.46               | 3.43   | 3.42   | 3.40   | 3.38   | 3.35   | 3.32   | 3.28   | 3.28   | 3.28   | 3.29   | 3.27   | 3.19           | 2.99   |
| Primary metal industries.....                    | 4.00              | 4.08               | 3.99   | 3.94   | 3.92   | 3.90   | 3.87   | 3.86   | 3.85   | 3.86   | 3.87   | 3.85   | 3.85   | 3.79           | 3.55   |
| Fabricated metal products.....                   | 3.60              | 3.60               | 3.56   | 3.54   | 3.54   | 3.52   | 3.50   | 3.48   | 3.46   | 3.45   | 3.44   | 3.41   | 3.39   | 3.34           | 3.16   |
| Machinery, except electrical.....                | 3.82              | 3.80               | 3.77   | 3.77   | 3.77   | 3.77   | 3.75   | 3.75   | 3.72   | 3.70   | 3.72   | 3.67   | 3.67   | 3.58           | 3.36   |
| Electrical equipment and supplies.....           | 3.31              | 3.34               | 3.31   | 3.32   | 3.30   | 3.27   | 3.24   | 3.24   | 3.20   | 3.18   | 3.17   | 3.13   | 3.13   | 3.09           | 2.93   |
| Transportation equipment.....                    | 4.02              | 4.14               | 4.11   | 4.08   | 4.10   | 4.06   | 4.00   | 4.01   | 3.97   | 4.02   | 4.04   | 3.98   | 3.95   | 3.90           | 3.69   |
| Instruments and related products.....            | 3.42              | 3.40               | 3.36   | 3.33   | 3.31   | 3.30   | 3.29   | 3.28   | 3.27   | 3.26   | 3.25   | 3.23   | 3.21   | 3.15           | 2.98   |
| Miscellaneous manufacturing industries.....      | 2.84              | 2.84               | 2.82   | 2.82   | 2.81   | 2.81   | 2.80   | 2.80   | 2.80   | 2.79   | 2.76   | 2.72   | 2.69   | 2.66           | 2.50   |
| Nondurable Goods.....                            | 3.12              | 3.14               | 3.08   | 3.09   | 3.06   | 3.05   | 3.04   | 3.03   | 3.01   | 3.01   | 2.99   | 2.97   | 2.96   | 2.91           | 2.74   |
| Food and kindred products.....                   | 3.19              | 3.21               | 3.13   | 3.16   | 3.15   | 3.16   | 3.12   | 3.10   | 3.08   | 3.08   | 3.04   | 3.01   | 2.98   | 2.96           | 2.80   |
| Tobacco manufactures.....                        | 2.87              | 2.90               | 2.78   | 3.03   | 3.03   | 2.99   | 2.98   | 2.90   | 2.89   | 2.86   | 2.67   | 2.62   | 2.49   | 2.62           | 2.48   |
| Textile mill products.....                       | 2.49              | 2.46               | 2.44   | 2.43   | 2.43   | 2.43   | 2.42   | 2.42   | 2.42   | 2.42   | 2.42   | 2.42   | 2.41   | 2.34           | 2.21   |
| Apparel and other textile products.....          | 2.43              | 2.44               | 2.41   | 2.39   | 2.38   | 2.36   | 2.37   | 2.37   | 2.36   | 2.36   | 2.35   | 2.34   | 2.34   | 2.31           | 2.21   |
| Paper and allied products.....                   | 3.52              | 3.53               | 3.49   | 3.47   | 3.42   | 3.40   | 3.37   | 3.35   | 3.35   | 3.35   | 3.34   | 3.32   | 3.31   | 3.24           | 3.05   |
| Printing and publishing.....                     | 3.98              | 4.00               | 3.95   | 3.92   | 3.90   | 3.88   | 3.85   | 3.84   | 3.81   | 3.80   | 3.81   | 3.78   | 3.77   | 3.69           | 3.48   |
| Chemicals and allied products.....               | 3.78              | 3.78               | 3.73   | 3.71   | 3.68   | 3.64   | 3.61   | 3.60   | 3.60   | 3.60   | 3.58   | 3.56   | 3.55   | 3.47           | 3.26   |
| Petroleum and coal products.....                 | 4.32              | 4.32               | 4.26   | 4.25   | 4.23   | 4.25   | 4.26   | 4.23   | 4.23   | 4.21   | 4.10   | 4.10   | 4.06   | 4.00           | 3.75   |
| Rubber and plastics products, nec.....           | 3.21              | 3.25               | 3.22   | 3.21   | 3.15   | 3.09   | 3.16   | 3.15   | 3.14   | 3.15   | 3.14   | 3.13   | 3.12   | 3.07           | 2.92   |
| Leather and leather products.....                | 2.50              | 2.50               | 2.48   | 2.48   | 2.49   | 2.49   | 2.48   | 2.47   | 2.47   | 2.46   | 2.44   | 2.42   | 2.40   | 2.36           | 2.23   |
| <b>TRANSPORTATION AND PUBLIC UTILITIES</b> ..... | 3.96              | 3.93               | 3.90   | 3.87   | 3.84   | 3.79   | 3.75   | 3.75   | 3.75   | 3.73   | 3.72   | 3.72   | 3.70   | 3.63           | 3.42   |
| <b>WHOLESALE AND RETAIL TRADE</b> .....          | 2.76              | 2.75               | 2.72   | 2.71   | 2.70   | 2.70   | 2.69   | 2.68   | 2.68   | 2.65   | 2.61   | 2.63   | 2.61   | 2.56           | 2.40   |
| Wholesale trade.....                             | 3.47              | 3.47               | 3.45   | 3.42   | 3.42   | 3.41   | 3.40   | 3.40   | 3.38   | 3.35   | 3.34   | 3.33   | 3.29   | 3.23           | 3.05   |
| Retail trade.....                                | 2.48              | 2.48               | 2.44   | 2.44   | 2.43   | 2.43   | 2.41   | 2.41   | 2.40   | 2.38   | 2.35   | 2.36   | 2.35   | 2.30           | 2.16   |
| <b>FINANCE, INSURANCE, AND REAL ESTATE</b> ..... | 3.10              | 3.08               | 3.08   | 3.06   | 3.04   | 3.04   | 3.03   | 3.05   | 3.04   | 3.02   | 2.98   | 2.99   | 2.95   | 2.92           | 2.75   |
| <b>SERVICES</b> .....                            | 2.90              | 2.90               | 2.85   | 2.83   | 2.81   | 2.80   | 2.79   | 2.79   | 2.77   | 2.74   | 2.72   | 2.72   | 2.69   | 2.63           | 2.43   |

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail, see *Employment and Earnings*, table C-2.

<sup>p</sup>=preliminary.



22. Gross average weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls, by industry division and major manufacturing group

| Industry division and group                      | 1970              |                    |          |          |          |          |          |          |          |          | 1969     |          |          | Annual average |          |
|--|-------------------|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------------|----------|
|  | Oct. <sup>p</sup> | Sept. <sup>p</sup> | Aug.     | July     | June     | May      | Apr.     | Mar.     | Feb.     | Jan.     | Dec.     | Nov.     | Oct.     | 1969           | 1968     |
| <b>TOTAL PRIVATE</b> .....                       | \$121.03          | \$121.36           | \$122.20 | \$121.45 | \$120.05 | \$118.40 | \$117.34 | \$117.92 | \$116.55 | \$116.12 | \$117.62 | \$117.38 | \$117.31 | \$114.61       | \$107.73 |
| <b>MINING</b> .....                              | 166.21            | 164.51             | 163.97   | 163.88   | 163.88   | 162.26   | 163.35   | 160.27   | 160.60   | 159.05   | 160.64   | 161.08   | 159.78   | 154.80         | 142.71   |
| <b>CONTRACT CONSTRUCTION</b> .....               | 201.96            | 193.14             | 204.05   | 200.20   | 196.99   | 194.31   | 192.91   | 188.23   | 186.21   | 181.00   | 189.13   | 184.39   | 189.97   | 181.16         | 164.93   |
| <b>MANUFACTURING</b> .....                       | 133.85            | 135.43             | 134.13   | 134.46   | 134.40   | 132.93   | 131.80   | 132.40   | 130.94   | 131.93   | 134.89   | 132.36   | 132.28   | 129.51         | 122.51   |
| Durable goods.....                               | 142.80            | 145.16             | 143.92   | 143.87   | 144.94   | 143.07   | 141.50   | 142.51   | 140.24   | 142.04   | 145.53   | 142.55   | 142.83   | 140.01         | 132.07   |
| Ordnance and accessories.....                    | 145.96            | 146.37             | 145.52   | 143.28   | 146.11   | 146.47   | 146.06   | 145.66   | 144.43   | 144.73   | 143.91   | 143.32   | 140.24   | 138.17         | 135.29   |
| Lumber and wood products.....                    | 119.87            | 120.69             | 122.31   | 118.31   | 119.50   | 117.09   | 114.62   | 112.97   | 111.90   | 110.65   | 113.88   | 114.11   | 114.05   | 110.15         | 104.34   |
| Furniture and fixtures.....                      | 112.00            | 108.92             | 111.00   | 107.86   | 107.92   | 105.88   | 105.65   | 105.96   | 104.49   | 105.42   | 110.57   | 108.81   | 108.81   | 105.85         | 100.28   |
| Stone, clay, and glass products.....             | 143.24            | 143.24             | 142.35   | 141.25   | 141.10   | 140.27   | 139.03   | 137.12   | 134.15   | 134.15   | 137.76   | 137.85   | 137.67   | 133.98         | 124.98   |
| Primary metal industries.....                    | 154.40            | 167.69             | 160.80   | 159.96   | 159.54   | 157.56   | 156.35   | 157.49   | 157.08   | 159.42   | 161.38   | 159.39   | 160.55   | 158.42         | 147.68   |
| Fabricated metal products.....                   | 145.44            | 145.08             | 144.89   | 144.79   | 145.49   | 143.26   | 142.10   | 142.33   | 140.48   | 141.45   | 143.79   | 141.86   | 141.36   | 138.94         | 131.77   |
| Machinery, except electrical.....                | 153.56            | 152.00             | 152.31   | 153.06   | 155.32   | 154.95   | 155.25   | 157.88   | 155.87   | 156.14   | 160.33   | 154.87   | 155.61   | 152.15         | 141.46   |
| Electrical equipment and supplies.....           | 132.40            | 131.93             | 131.74   | 132.14   | 130.68   | 129.49   | 128.30   | 129.92   | 127.04   | 128.15   | 129.65   | 126.77   | 126.45   | 124.84         | 118.08   |
| Transportation equipment.....                    | 163.21            | 167.26             | 164.40   | 166.06   | 170.56   | 164.02   | 156.80   | 160.40   | 157.21   | 161.20   | 170.49   | 165.17   | 165.51   | 161.85         | 155.72   |
| Instruments and related products.....            | 137.48            | 134.30             | 133.73   | 132.87   | 133.39   | 132.00   | 132.59   | 133.50   | 131.45   | 132.03   | 134.23   | 132.75   | 131.29   | 128.21         | 120.69   |
| Miscellaneous manufacturing industries.....      | 110.76            | 109.06             | 108.85   | 108.29   | 108.75   | 108.47   | 108.64   | 109.20   | 108.64   | 108.25   | 109.02   | 106.90   | 105.72   | 103.74         | 98.50    |
| Nondurable goods.....                            | 121.68            | 122.15             | 121.04   | 121.44   | 119.95   | 118.95   | 118.56   | 118.78   | 117.69   | 117.99   | 119.60   | 118.21   | 117.51   | 115.53         | 109.05   |
| Food and kindred products.....                   | 130.15            | 131.29             | 128.96   | 128.61   | 127.58   | 127.98   | 124.49   | 124.00   | 123.20   | 124.74   | 124.64   | 123.41   | 121.29   | 120.77         | 114.24   |
| Tobacco manufactures.....                        | 115.09            | 109.91             | 104.81   | 113.63   | 115.14   | 110.03   | 110.56   | 105.56   | 106.64   | 106.39   | 98.26    | 97.73    | 96.11    | 97.99          | 93.99    |
| Textile mill products.....                       | 99.85             | 96.43              | 97.60    | 96.96    | 97.93    | 96.47    | 96.56    | 97.04    | 96.80    | 96.80    | 99.95    | 99.46    | 98.57    | 95.47          | 91.05    |
| Apparel and other textile products.....          | 84.81             | 83.69              | 85.56    | 84.61    | 84.25    | 82.84    | 83.90    | 84.85    | 83.78    | 83.07    | 84.37    | 83.77    | 83.77    | 82.93          | 79.78    |
| Paper and allied products.....                   | 147.49            | 147.55             | 146.23   | 144.70   | 142.61   | 142.12   | 140.43   | 140.70   | 140.37   | 142.04   | 144.29   | 142.43   | 142.66   | 139.32         | 130.85   |
| Printing and publishing.....                     | 148.85            | 150.40             | 149.31   | 148.18   | 147.03   | 145.89   | 145.15   | 145.92   | 144.02   | 143.26   | 148.59   | 145.15   | 144.77   | 141.70         | 133.28   |
| Chemicals and allied products.....               | 153.47            | 158.76             | 153.68   | 153.59   | 152.72   | 151.42   | 150.18   | 150.48   | 149.76   | 150.12   | 150.36   | 149.52   | 148.04   | 145.05         | 136.27   |
| Petroleum and coal products.....                 | 188.78            | 187.49             | 184.03   | 184.45   | 181.04   | 181.90   | 179.77   | 176.81   | 176.81   | 176.40   | 170.97   | 175.07   | 173.77   | 170.40         | 159.38   |
| Rubber and plastics products, nec.....           | 128.72            | 130.98             | 130.41   | 129.68   | 127.26   | 123.29   | 127.35   | 127.26   | 127.48   | 128.21   | 130.31   | 128.64   | 128.86   | 126.18         | 121.18   |
| Leather and leather products.....                | 91.50             | 90.50              | 91.76    | 93.99    | 94.87    | 93.38    | 90.02    | 91.64    | 92.38    | 92.74    | 93.45    | 90.51    | 88.80    | 87.79          | 85.41    |
| <b>TRANSPORTATION AND PUBLIC UTILITIES</b> ..... | 160.78            | 159.95             | 159.51   | 159.06   | 156.29   | 153.12   | 149.25   | 150.75   | 151.88   | 151.07   | 151.78   | 152.15   | 151.70   | 147.74         | 138.85   |
| <b>WHOLESALE AND RETAIL TRADE</b> .....          | 96.60             | 97.08              | 98.74    | 98.10    | 96.12    | 94.50    | 93.88    | 93.80    | 93.80    | 93.02    | 93.18    | 92.58    | 92.13    | 91.14          | 86.40    |
| Wholesale trade.....                             | 138.11            | 137.76             | 138.35   | 137.83   | 136.80   | 136.06   | 135.66   | 136.00   | 135.20   | 134.67   | 135.94   | 133.87   | 132.59   | 129.85         | 122.31   |
| Retail trade.....                                | 82.83             | 83.82              | 85.40    | 85.16    | 82.86    | 81.41    | 80.25    | 80.49    | 79.92    | 79.49    | 80.14    | 79.30    | 79.20    | 78.66          | 74.95    |
| <b>FINANCE, INSURANCE, AND REAL ESTATE</b> ..... | 113.77            | 112.73             | 113.65   | 112.61   | 111.57   | 111.57   | 111.81   | 112.85   | 112.48   | 111.44   | 110.26   | 111.23   | 109.45   | 108.33         | 101.75   |
| <b>SERVICES</b> .....                            | 99.76             | 99.76              | 99.75    | 98.77    | 96.95    | 96.04    | 95.70    | 96.81    | 95.01    | 93.98    | 94.11    | 94.11    | 92.81    | 91.26          | 84.32    |

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17.

NOTE: For additional detail, see Employment and Earnings, table C-2.

<sup>p</sup>=preliminary.

**23. Gross and spendable average weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls, in current and 1957-59 dollars, 1960 to date**

| Year and month | Total private                 |                 |                                   |                 |                          |                 | Manufacturing                 |                 |                                   |                 |                          |                 |
|----------------|-------------------------------|-----------------|-----------------------------------|-----------------|--------------------------|-----------------|-------------------------------|-----------------|-----------------------------------|-----------------|--------------------------|-----------------|
|                | Gross average weekly earnings |                 | Spendable average weekly earnings |                 |                          |                 | Gross average weekly earnings |                 | Spendable average weekly earnings |                 |                          |                 |
|                |                               |                 | Worker with no dependents         |                 | Worker with 3 dependents |                 |                               |                 | Worker with no dependents         |                 | Worker with 3 dependents |                 |
|                | Current dollars               | 1957-59 dollars | Current dollars                   | 1957-59 dollars | Current dollars          | 1957-59 dollars | Current dollars               | 1957-59 dollars | Current dollars                   | 1957-59 dollars | Current dollars          | 1957-59 dollars |
| 1960           | \$80.67                       | \$78.24         | \$65.59                           | \$63.62         | \$72.96                  | \$70.77         | \$89.72                       | \$87.02         | \$72.57                           | \$70.39         | \$80.11                  | \$77.70         |
| 1961           | 82.60                         | 79.27           | 67.08                             | 64.38           | 74.48                    | 71.48           | 92.34                         | 88.62           | 74.60                             | 71.59           | 82.18                    | 78.87           |
| 1962           | 85.91                         | 81.55           | 69.56                             | 66.00           | 76.99                    | 73.05           | 96.56                         | 91.61           | 77.86                             | 73.87           | 85.53                    | 81.15           |
| 1963           | 88.46                         | 82.91           | 71.05                             | 66.59           | 78.56                    | 73.63           | 99.63                         | 93.37           | 79.82                             | 74.81           | 87.58                    | 82.08           |
| 1964           | 91.33                         | 84.49           | 75.04                             | 69.42           | 82.57                    | 76.38           | 102.97                        | 95.25           | 84.40                             | 78.08           | 92.18                    | 85.27           |
| 1965           | 95.06                         | 86.50           | 78.99                             | 71.87           | 86.30                    | 78.53           | 107.53                        | 97.84           | 89.08                             | 81.06           | 96.78                    | 88.06           |
| 1966           | 98.82                         | 87.37           | 81.29                             | 71.87           | 88.66                    | 78.39           | 112.34                        | 99.33           | 91.57                             | 80.96           | 99.45                    | 87.93           |
| 1967           | 101.84                        | 87.57           | 83.38                             | 71.69           | 90.86                    | 78.13           | 114.90                        | 98.80           | 93.28                             | 80.21           | 101.26                   | 87.07           |
| 1968           | 107.73                        | 88.89           | 86.71                             | 71.54           | 95.28                    | 78.61           | 122.51                        | 101.08          | 97.70                             | 80.61           | 106.75                   | 88.08           |
| 1969           | 114.61                        | 89.75           | 90.96                             | 71.23           | 99.99                    | 78.30           | 129.51                        | 101.42          | 101.90                            | 79.80           | 111.44                   | 87.27           |
| 1969:          |                               |                 |                                   |                 |                          |                 |                               |                 |                                   |                 |                          |                 |
| September      | 117.87                        | 91.16           | 93.35                             | 72.20           | 102.49                   | 79.27           | 132.84                        | 102.74          | 104.34                            | 80.70           | 114.01                   | 88.17           |
| October        | 117.31                        | 90.38           | 92.94                             | 71.60           | 102.06                   | 78.63           | 132.28                        | 101.91          | 103.93                            | 80.07           | 113.57                   | 87.50           |
| November       | 117.38                        | 89.95           | 92.99                             | 71.26           | 102.11                   | 78.25           | 132.36                        | 101.43          | 103.99                            | 79.69           | 113.63                   | 87.07           |
| December       | 117.62                        | 89.58           | 93.17                             | 70.96           | 102.30                   | 77.91           | 134.89                        | 102.73          | 105.85                            | 80.62           | 115.61                   | 88.05           |
| 1970:          |                               |                 |                                   |                 |                          |                 |                               |                 |                                   |                 |                          |                 |
| January        | 116.12                        | 88.10           | 93.43                             | 70.89           | 101.97                   | 77.37           | 131.93                        | 100.10          | 105.28                            | 79.88           | 114.48                   | 86.86           |
| February       | 116.55                        | 87.96           | 93.76                             | 70.76           | 102.32                   | 77.22           | 130.94                        | 98.82           | 104.53                            | 78.89           | 113.69                   | 85.80           |
| March          | 117.92                        | 88.53           | 94.78                             | 71.16           | 103.39                   | 77.62           | 132.40                        | 99.40           | 105.63                            | 79.30           | 114.85                   | 86.22           |
| April          | 117.34                        | 87.57           | 94.35                             | 70.41           | 102.95                   | 76.83           | 131.80                        | 98.36           | 105.18                            | 78.49           | 114.37                   | 85.35           |
| May            | 118.40                        | 87.96           | 95.14                             | 70.68           | 103.77                   | 77.10           | 132.93                        | 98.76           | 105.02                            | 78.77           | 115.27                   | 85.64           |
| June           | 120.05                        | 88.79           | 96.38                             | 71.29           | 105.08                   | 77.72           | 134.40                        | 99.41           | 107.13                            | 79.24           | 116.43                   | 86.12           |
| July           | 121.45                        | 89.50           | 97.43                             | 71.80           | 106.18                   | 78.25           | 134.46                        | 99.09           | 107.17                            | 78.98           | 116.48                   | 85.84           |
| August         | 122.20                        | 89.85           | 97.99                             | 72.05           | 106.78                   | 78.51           | 134.13                        | 98.63           | 106.92                            | 78.62           | 116.22                   | 85.46           |
| September      | 121.73                        | 89.11           | 97.64                             | 71.48           | 106.40                   | 77.89           | 135.43                        | 99.14           | 107.90                            | 78.99           | 117.25                   | 85.83           |

<sup>1</sup> For comparability of data with those published in issues prior to July 1970, see footnote 1, table 11. For employees covered, see footnote 1, table 17. Spendable average weekly earnings are based on gross average weekly earnings as published in table 21 less the estimated amount of the worker's Federal social security and income tax liability. Since the amount of tax liability depends on the number of dependents supported by the worker as well as on the level of his gross income, spendable earnings have been computed for 2 types of income receivers: (1) A worker with no dependents and (2) a married worker with 3 dependents.

The earnings expressed in 1957-59 dollars have been adjusted for changes in purchasing power as measured by the Bureau's Consumer Price Index. These series are described in "The Spendable Earnings Series: A Technical Note on its Calculation," in *Employment and Earnings and Monthly Report on the Labor Force*, February 1969, pp. 6-13.

NOTE: For additional detail, see *Employment and Earnings*, table C-5. p=preliminary. c=corrected.

**24. Consumer and Wholesale Price Indexes, annual averages and changes, 1949 to date<sup>1</sup>**

Indexes: 1957-59=100

| Year | Consumer prices |                |             |                |          |                | Wholesale prices |                |   |                |                        |                |
|------|-----------------|----------------|-------------|----------------|----------|----------------|------------------|----------------|---|----------------|------------------------|----------------|
|      | All items       |                | Commodities |                | Services |                | All commodities  |                | Farm products, processed foods, and feeds |                | Industrial commodities |                |
|      | Index           | Percent change | Index       | Percent change | Index    | Percent change | Index            | Percent change | Index                                     | Percent change | Index                  | Percent change |
| 1949 | 83.0            | -1.0           | 87.1        | -2.6           | 72.6     | 4.6            | 83.5             | -5.0           | 94.3                                      | -11.7          | 80.0                   | -2.1           |
| 1950 | 83.8            | 1.0            | 87.6        | 0.6            | 75.0     | 3.3            | 86.8             | 4.0            | 98.8                                      | 4.8            | 82.9                   | 3.6            |
| 1951 | 90.5            | 8.0            | 95.5        | 9.0            | 78.9     | 5.2            | 96.7             | 11.4           | 112.5                                     | 13.9           | 91.5                   | 10.4           |
| 1952 | 92.5            | 2.2            | 96.7        | 1.3            | 82.4     | 4.4            | 94.0             | -2.8           | 108.0                                     | -4.0           | 89.4                   | -2.3           |
| 1953 | 93.2            | 0.8            | 96.4        | -3             | 86.0     | 4.4            | 92.7             | -1.4           | 101.0                                     | -6.5           | 90.1                   | .8             |
| 1954 | 93.6            | 0.4            | 95.5        | -9             | 88.7     | 3.1            | 92.9             | .2             | 100.7                                     | -3             | 90.4                   | .3             |
| 1955 | 93.3            | -.3            | 94.6        | -9             | 90.5     | 2.0            | 93.2             | .3             | 95.9                                      | -4.8           | 92.4                   | 2.2            |
| 1956 | 94.7            | 1.5            | 95.5        | 1.0            | 92.8     | 2.5            | 96.2             | 3.2            | 95.3                                      | -6             | 96.5                   | 4.4            |
| 1957 | 98.0            | 3.5            | 98.5        | 3.1            | 96.6     | 4.1            | 99.0             | 2.9            | 98.6                                      | 3.5            | 99.2                   | 2.8            |
| 1958 | 100.7           | 2.8            | 100.8       | 2.3            | 100.3    | 3.8            | 100.4            | 1.4            | 103.2                                     | 4.7            | 99.5                   | .3             |
| 1959 | 101.5           | .8             | 100.9       | .1             | 103.2    | 2.9            | 100.6            | .2             | 98.4                                      | -4.7           | 101.3                  | 1.8            |
| 1960 | 103.1           | 1.6            | 101.7       | .8             | 106.6    | 3.3            | 100.7            | .1             | 98.6                                      | .2             | 101.3                  | -----          |
| 1961 | 104.2           | 1.1            | 102.3       | .6             | 108.8    | 2.1            | 100.3            | -.4            | 98.6                                      | -----          | 100.8                  | -0.5           |
| 1962 | 105.4           | 1.2            | 103.2       | .9             | 110.9    | 1.9            | 100.6            | -.3            | 99.6                                      | 1.0            | 100.8                  | -----          |
| 1963 | 106.7           | 1.2            | 104.1       | .9             | 113.0    | 1.9            | 100.3            | -.3            | 98.7                                      | -.9            | 100.7                  | -1.1           |
| 1964 | 108.1           | 1.3            | 105.2       | 1.1            | 115.2    | 1.9            | 100.5            | .2             | 98.0                                      | -7             | 101.2                  | .5             |
| 1965 | 109.9           | 1.7            | 106.4       | 1.1            | 117.8    | 2.3            | 102.5            | 2.0            | 102.1                                     | 4.2            | 102.5                  | 1.3            |
| 1966 | 113.1           | 2.9            | 109.2       | 2.6            | 122.3    | 3.8            | 105.9            | 3.3            | 108.9                                     | 6.7            | 104.7                  | 2.1            |
| 1967 | 116.3           | 2.8            | 111.2       | 1.8            | 127.7    | 4.4            | 106.1            | .2             | 105.2                                     | -3.4           | 106.3                  | 1.5            |
| 1968 | 121.2           | 4.2            | 115.3       | 3.7            | 134.3    | 5.2            | 108.7            | 2.5            | 107.6                                     | 2.3            | 109.0                  | 2.5            |
| 1969 | 127.7           | 5.4            | 120.5       | 4.5            | 143.7    | 7.0            | 113.0            | 4.0            | 113.5                                     | 5.5            | 112.7                  | 3.4            |

<sup>1</sup> Historical price changes are shown in greater detail and for earlier years in the Bureau's *Handbook of Labor Statistics, 1969* (BLS Bulletin 1630), in tables 108-120.

25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items

[The official name of the index is, "Consumer Price Index for Urban Wage Earners and Clerical Workers." It measures the average change in prices of goods and services purchased by families and single workers. The indexes shown below represent the average of price changes in 56 metropolitan areas, selected to represent all U.S. urban places having populations of more than 2500.]

[1957-59=100 unless otherwise specified]

| Item and group                    | General summary   |  |       |       |       |       |       |       |       |       |       |       |       | Annual average 1969 |
|-----------------------------------|-------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
|                                   | 1970              |  |       |       |       |       |       |       |       |       | 1969  |       |       |                     |
|                                   | Oct.              | Sept.  | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  |                     |
| All items                         | 137.4             | 136.6  | 136.0 | 135.7 | 135.2 | 134.6 | 134.0 | 133.2 | 132.5 | 131.8 | 131.3 | 130.5 | 129.8 | 127.7               |
| All items (1947-49=100)           | 168.5             | 167.6  | 166.8 | 166.5 | 165.9 | 165.2 | 164.4 | 163.4 | 162.5 | 161.7 | 161.1 | 160.1 | 159.3 | 156.7               |
| Food                              | 133.0             | 133.3  | 133.5 | 133.4 | 132.7 | 132.4 | 132.0 | 131.6 | 131.5 | 130.7 | 129.9 | 128.1 | 127.2 | 125.5               |
| Food at home                      | 127.8             | 128.2  | 128.6 | 128.7 | 128.0 | 127.8 | 127.4 | 127.4 | 127.4 | 126.6 | 125.8 | 123.8 | 122.9 | 121.5               |
| Food away from home               | 158.0             | 157.4  | 156.8 | 156.2 | 155.3 | 154.7 | 154.0 | 152.4 | 151.5 | 150.6 | 149.9 | 149.0 | 148.1 | 144.6               |
| Housing                           | 138.5             | 137.8  | 137.0 | 136.2 | 135.6 | 135.1 | 134.4 | 133.6 | 132.2 | 131.1 | 130.5 | 129.8 | 129.2 | 126.7               |
| Rent                              | 125.2             | 124.6  | 124.2 | 123.8 | 123.4 | 123.0 | 122.6 | 122.3 | 121.8 | 121.3 | 121.0 | 120.5 | 120.1 | 118.8               |
| Homeownership                     | 158.6             | 157.8  | 156.2 | 155.0 | 154.4 | 153.3 | 152.1 | 150.9 | 148.5 | 146.8 | 145.4 | 144.5 | 143.6 | 139.4               |
| Apparel and upkeep                | 134.8             | 133.6  | 131.5 | 131.4 | 132.2 | 131.9 | 131.1 | 130.6 | 130.0 | 129.3 | 130.8 | 130.7 | 129.8 | 127.1               |
| Transportation                    | 133.5             | 131.0  | 130.6 | 131.4 | 130.6 | 129.9 | 128.9 | 127.1 | 127.3 | 127.3 | 126.4 | 125.6 | 125.7 | 124.2               |
| Health and recreation             | 146.3             | 145.7  | 145.1 | 144.3 | 143.7 | 142.9 | 142.3 | 141.4 | 140.7 | 140.1 | 139.6 | 139.1 | 138.6 | 136.6               |
| Medical care                      | 167.9             | 167.6  | 166.8 | 165.8 | 164.7 | 163.6 | 162.8 | 161.6 | 160.1 | 159.0 | 158.1 | 157.4 | 156.9 | 155.0               |
| Special groups:                   |                   |  |       |       |       |       |       |       |       |       |       |       |       |                     |
| All items less shelter            | 134.4             | 133.7  | 133.2 | 133.0 | 132.6 | 132.1 | 131.5 | 130.7 | 130.3 | 129.8 | 129.5 | 128.6 | 128.1 | 126.3               |
| All items less food               | 138.9             | 137.8  | 136.9 | 136.6 | 136.1 | 135.5 | 134.8 | 133.8 | 133.0 | 132.3 | 131.9 | 131.4 | 130.8 | 128.6               |
| All items less medical care       | 135.6             | 134.8  | 134.2 | 133.9 | 133.4 | 132.9 | 132.2 | 131.5 | 130.8 | 130.1 | 129.7 | 128.9 | 128.2 | 126.1               |
| Commodities                       | 127.7             | 127.0  | 126.6 | 126.5 | 126.2 | 125.8 | 125.2 | 124.5 | 124.2 | 123.7 | 123.6 | 122.9 | 122.4 | 120.5               |
| Nondurables                       | 131.3             | 131.0  | 130.5 | 130.4 | 130.0 | 129.8 | 129.3 | 128.7 | 128.4 | 127.8 | 127.7 | 126.7 | 126.1 | 124.1               |
| Durables                          | 118.8             | 117.3  | 117.0 | 116.9 | 116.7 | 115.9 | 114.8 | 114.1 | 113.7 | 113.7 | 113.6 | 113.5 | 113.2 | 111.6               |
| Services                          | 158.5             | 157.7  | 156.7 | 155.8 | 155.0 | 154.1 | 153.4 | 152.3 | 150.7 | 149.6 | 148.3 | 147.2 | 146.5 | 143.7               |
| Commodities less food             | 125.0             | 123.8  | 123.0 | 122.9 | 122.8 | 122.3 | 121.6 | 120.8 | 120.4 | 120.1 | 120.3 | 120.2 | 119.8 | 118.0               |
| Nondurables less food             | 129.9             | 129.1  | 127.8 | 127.8 | 127.7 | 127.5 | 127.0 | 126.1 | 125.8 | 125.2 | 125.7 | 125.5 | 125.1 | 123.0               |
| Apparel commodities               | 134.2             | 133.0  | 130.6 | 130.5 | 131.4 | 131.2 | 130.4 | 129.9 | 129.3 | 128.6 | 130.3 | 130.4 | 129.3 | 126.5               |
| Apparel commodities less footwear | 131.3             | 129.9  | 127.2 | 127.2 | 128.3 | 128.0 | 127.1 | 126.7 | 126.2 | 125.5 | 127.5 | 127.7 | 126.6 | 123.7               |
| Nondurables less food and apparel | 127.4             | 126.7  | 126.2 | 126.2 | 125.5 | 125.3 | 125.0 | 123.9 | 123.7 | 123.2 | 123.0 | 122.6 | 122.6 | 121.0               |
| Household durables                | 109.0             | 108.6  | 108.4 | 108.3 | 108.2 | 108.0 | 107.8 | 107.4 | 106.9 | 106.6 | 106.5 | 106.5 | 106.4 | 105.5               |
| Housefurnishings                  | 113.1             | 112.7  | 112.4 | 112.5 | 112.4 | 112.2 | 112.0 | 111.7 | 111.1 | 110.5 | 110.6 | 110.4 | 110.2 | 109.0               |
| Services less rent                | 165.8             | 164.9  | 163.8 | 162.8 | 161.9 | 161.0 | 160.1 | 158.9 | 157.1 | 155.8 | 154.3 | 153.1 | 152.3 | 149.2               |
| Household services less rent      | 164.9             | 164.0  | 162.7 | 161.6 | 160.6 | 160.0 | 159.1 | 157.7 | 155.0 | 153.2 | 152.4 | 151.4 | 150.4 | 146.4               |
| Transportation services           | 161.6             | 160.2  | 158.9 | 158.6 | 157.1 | 156.1 | 155.5 | 154.5 | 154.1 | 152.9 | 148.4 | 145.8 | 145.1 | 142.9               |
| Medical care services             | 184.5             | 184.2  | 183.1 | 181.8 | 180.6 | 179.3 | 178.4 | 177.0 | 175.2 | 173.8 | 172.8 | 171.8 | 171.2 | 168.9               |
| Other services                    | 156.2             | 155.3  | 154.5 | 153.8 | 153.4 | 152.3 | 151.4 | 150.3 | 149.8 | 149.4 | 148.9 | 148.2 | 147.6 | 145.5               |
|                                   | Other index bases | U.S. average for groups, subgroups, and selected items |       |       |       |       |       |       |       |       |       |       |       |                     |
| FOOD                              | 133.0             | 133.3  | 133.5 | 133.4 | 132.7 | 132.4 | 132.0 | 131.6 | 131.5 | 130.7 | 129.9 | 128.1 | 127.2 | 127.5               |
| Food away from home               | 158.0             | 157.4  | 156.8 | 156.2 | 155.3 | 154.7 | 154.0 | 152.4 | 151.5 | 150.6 | 149.9 | 149.0 | 148.1 | 146.7               |
| Restaurant meals                  | 158.0             | 157.4  | 156.9 | 156.2 | 155.4 | 154.8 | 154.2 | 152.5 | 151.6 | 150.7 | 150.2 | 149.3 | 148.3 | 147.2               |
| Snacks                            | 138.1             | 137.4  | 137.0 | 136.5 | 135.2 | 134.6 | 134.0 | 132.4 | 132.0 | 131.4 | 129.9 | 129.2 | 128.8 | 126.2               |
| Food at home                      | 127.8             | 128.2  | 128.6 | 128.7 | 128.0 | 127.8 | 127.4 | 127.4 | 127.4 | 126.6 | 125.8 | 123.8 | 122.9 | 121.5               |
| Cereals and bakery products       | 131.5             | 130.6  | 130.1 | 128.8 | 128.2 | 128.0 | 127.6 | 127.0 | 126.3 | 125.5 | 124.9 | 124.1 | 123.7 | 123.0               |
| Flour                             | 113.6             | 113.0  | 113.6 | 113.1 | 113.3 | 113.2 | 114.2 | 113.1 | 112.1 | 111.9 | 110.9 | 111.2 | 111.6 | 111.2               |
| Cracker meal                      | 141.3             | 140.0  | 139.6 | 136.7 | 136.4 | 135.7 | 134.3 | 132.9 | 130.2 | 127.8 | 127.9 | 127.2 | 126.9 | 125.8               |
| Corn flakes                       | 137.6             | 135.2  | 131.8 | 130.4 | 130.4 | 130.5 | 130.0 | 130.4 | 130.2 | 130.2 | 130.0 | 129.7 | 129.6 | 129.4               |
| Rice                              | 115.4             | 115.0  | 115.0 | 114.9 | 115.1 | 115.0 | 114.8 | 114.4 | 114.2 | 113.8 | 113.4 | 113.0 | 113.0 | 112.9               |
| Bread, white                      | 138.1             | 139.8  | 136.9 | 135.0 | 133.4 | 134.1 | 133.3 | 133.4 | 132.6 | 132.2 | 131.1 | 129.7 | 129.1 | 128.8               |
| Bread, whole wheat                | 129.1             | 128.4  | 127.8 | 126.1 | 125.7 | 125.3 | 125.7 | 125.6 | 125.5 | 124.4 | 124.1 | 123.4 | 122.5 | 121.6               |
| Cookies                           | 107.8             | 107.4  | 107.6 | 107.2 | 105.7 | 104.7 | 103.4 | 102.4 | 101.7 | 101.3 | 100.9 | 99.8  | 99.8  | 101.0               |
| Layer cake                        | 122.5             | 122.2  | 121.9 | 121.8 | 121.8 | 121.5 | 121.7 | 121.3 | 119.9 | 118.1 | 118.0 | 117.1 | 115.4 | 113.2               |
| Cinnamon rolls                    | 123.0             | 119.9  | 120.5 | 119.6 | 118.8 | 118.5 | 118.2 | 116.4 | 116.7 | 116.3 | 115.8 | 115.1 | 115.2 | 113.2               |
| Meats, poultry, and fish          | 129.1             | 130.1  | 131.0 | 130.8 | 130.2 | 130.5 | 130.9 | 130.2 | 129.7 | 128.8 | 127.2 | 127.2 | 127.6 | 129.0               |
| Meats                             | 133.3             | 134.7  | 135.8 | 135.2 | 134.5 | 135.0 | 135.6 | 134.7 | 133.9 | 132.9 | 131.3 | 131.1 | 132.0 | 133.1               |
| Beef and veal                     | 136.4             | 136.8  | 137.2 | 136.6 | 135.3 | 135.9 | 136.5 | 133.6 | 133.0 | 132.2 | 130.6 | 131.5 | 132.9 | 135.0               |
| Steak, round                      | 128.8             | 139.0  | 129.0 | 128.8 | 127.6 | 129.0 | 131.1 | 126.9 | 126.4 | 126.2 | 123.2 | 125.2 | 126.8 | 128.1               |
| Steak, sirloin                    | 126.8             | 125.7  | 127.8 | 128.0 | 124.3 | 124.3 | 124.5 | 121.8 | 120.4 | 121.4 | 119.0 | 121.1 | 123.4 | 128.3               |
| Steak, porterhouse                | 131.9             | 131.4  | 133.1 | 132.8 | 130.1 | 129.2 | 130.5 | 126.8 | 126.4 | 126.6 | 123.9 | 125.9 | 129.0 | 132.9               |
| Rump roast                        | 124.0             | 124.9  | 124.0 | 123.4 | 123.1 | 124.2 | 125.1 | 121.1 | 120.1 | 120.7 | 118.8 | 119.5 | 121.1 | 122.1               |
| Rib roast                         | 142.9             | 144.6  | 144.0 | 142.5 | 140.6 | 142.7 | 142.8 | 141.2 | 141.8 | 141.6 | 140.5 | 140.9 | 140.8 | 145.9               |
| Chuck roast                       | 127.1             | 128.4  | 129.1 | 126.2 | 125.8 | 128.0 | 130.0 | 126.9 | 126.7 | 122.1 | 123.2 | 122.7 | 125.3 | 127.2               |
| Hamburger                         | 142.6             | 142.7  | 144.0 | 143.5 | 142.7 | 142.8 | 142.4 | 140.8 | 140.5 | 138.7 | 137.8 | 138.4 | 139.1 | 140.9               |
| Beef liver                        | 120.6             | 122.0  | 121.0 | 121.4 | 121.2 | 121.8 | 121.1 | 120.5 | 119.9 | 118.7 | 118.6 | 117.9 | 117.8 | 117.8               |
| Veal cutlets                      | 176.6             | 175.5  | 175.2 | 174.2 | 173.1 | 171.8 | 171.1 | 168.1 | 166.0 | 164.0 | 162.0 | 162.1 | 162.8 | 162.8               |



## 25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

| Index or group                              | Other index bases | 1970  |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual average 1969 |
|---|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
|   |                   | Oct.  | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  |                     |
| <b>FOOD—Continued</b>                       |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| <b>Meats, poultry, and fish—Continued</b>   |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| <b>Meats—Continued</b>                      |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Pork.....                                   |                   | 93.7  | 133.7 | 135.9 | 134.9 | 134.4 | 134.8 | 135.9 | 137.9 | 137.2 | 135.6 | 133.3 | 132.0 | 132.7 | 125.2               |
| Chops.....                                  |                   | 91.2  | 137.1 | 139.9 | 137.5 | 135.5 | 135.1 | 135.6 | 139.7 | 139.5 | 136.9 | 135.7 | 134.1 | 134.0 | 129.6               |
| Loin roast.....                             | Apr. 60           | 107.5 | 144.6 | 146.4 | 144.3 | 142.6 | 143.6 | 143.5 | 146.1 | 146.2 | 143.7 | 143.4 | 140.4 | 141.8 | 135.8               |
| Pork sausage.....                           | Dec. 63           | 116.8 | 148.1 | 149.8 | 149.5 | 150.5 | 150.4 | 150.6 | 150.6 | 148.6 | 146.7 | 146.8 | 148.3 | 149.1 | 137.8               |
| Ham, whole.....                             |                   | 147.9 | 121.3 | 126.0 | 125.9 | 126.5 | 129.0 | 133.5 | 135.3 | 134.0 | 136.9 | 130.7 | 124.8 | 123.9 | 117.1               |
| Picnics.....                                | Dec. 63           | 126.4 | 134.6 | 135.1 | 137.2 | 137.5 | 138.5 | 139.9 | 142.1 | 139.9 | 137.7 | 134.7 | 136.0 | 136.5 | 127.5               |
| Bacon.....                                  |                   | 159.6 | 137.3 | 138.7 | 137.4 | 137.4 | 137.1 | 138.2 | 138.7 | 138.8 | 136.7 | 133.1 | 132.4 | 134.9 | 124.3               |
| <b>Other meats.....</b>                     |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Lamb chops.....                             | Dec. 63           | 134.4 | 136.2 | 137.2 | 137.2 | 137.4 | 137.9 | 138.0 | 137.3 | 136.0 | 135.3 | 134.4 | 133.6 | 133.3 | 127.7               |
| Frankfurters.....                           |                   | 138.6 | 142.8 | 142.5 | 141.9 | 141.0 | 141.2 | 142.0 | 142.2 | 140.8 | 140.9 | 140.4 | 139.4 | 139.9 | 137.0               |
| Ham, canned.....                            | Dec. 63           | 132.0 | 134.2 | 136.9 | 137.1 | 137.1 | 138.2 | 137.4 | 136.1 | 134.2 | 134.2 | 134.6 | 134.7 | 134.7 | 127.4               |
| Bologna sausage.....                        | Dec. 63           | 127.9 | 129.3 | 131.9 | 132.8 | 134.4 | 136.7 | 138.3 | 138.3 | 136.6 | 134.8 | 130.4 | 127.8 | 125.1 | 120.0               |
| Salami sausage.....                         | Dec. 63           | 136.4 | 139.6 | 139.8 | 140.5 | 139.7 | 139.5 | 139.7 | 138.4 | 137.7 | 137.2 | 136.6 | 136.1 | 136.2 | 129.3               |
| Liverwurst.....                             | Dec. 63           | 131.7 | 130.5 | 131.9 | 131.5 | 131.9 | 132.0 | 131.8 | 130.4 | 128.6 | 128.0 | 127.9 | 127.1 | 127.2 | 122.1               |
|   |                   | 134.9 | 133.7 | 133.0 | 132.5 | 133.2 | 132.9 | 131.9 | 131.6 | 131.4 | 130.1 | 129.9 | 129.8 | 129.9 | 123.7               |
| <b>Poultry.....</b>                         |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Frying chicken.....                         |                   | 104.7 | 93.8  | 95.6  | 97.5  | 97.4  | 97.1  | 97.1  | 97.9  | 99.1  | 99.5  | 99.5  | 99.1  | 98.2  | 96.9                |
| Chicken breasts.....                        | Dec. 63           | 158.5 | 91.8  | 93.8  | 96.6  | 95.9  | 95.3  | 95.4  | 96.7  | 98.5  | 99.4  | 97.9  | 99.5  | 98.6  | 98.1                |
| Turkey.....                                 | Dec. 63           | 122.1 | 107.2 | 108.5 | 108.0 | 108.2 | 109.2 | 109.4 | 110.4 | 110.4 | 110.1 | 110.4 | 110.8 | 112.0 | 108.4               |
|   |                   | 129.3 | 115.2 | 116.8 | 117.3 | 119.2 | 119.5 | 119.0 | 116.9 | 115.9 | 114.4 | 110.3 | 110.0 | 107.2 | 102.8               |
| <b>Fish.....</b>                            |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Shrimp, frozen.....                         | Dec. 63           | 136.3 | 146.0 | 144.5 | 143.4 | 143.2 | 142.3 | 141.1 | 139.8 | 138.3 | 137.0 | 135.4 | 134.0 | 133.4 | 130.6               |
| Fish, fresh or frozen.....                  |                   | 134.1 | 126.3 | 126.8 | 127.4 | 128.2 | 127.8 | 126.8 | 127.4 | 126.2 | 125.4 | 124.4 | 122.9 | 122.5 | 119.3               |
| Tuna, fish, canned.....                     |                   | 97.2  | 158.7 | 157.5 | 156.2 | 154.4 | 153.0 | 152.5 | 150.9 | 148.1 | 145.2 | 143.4 | 141.1 | 139.9 | 134.6               |
| Sardines, canned.....                       | Dec. 63           | 153.0 | 131.0 | 129.0 | 126.8 | 126.6 | 126.0 | 124.5 | 123.1 | 121.6 | 120.5 | 117.9 | 116.7 | 116.2 | 114.4               |
|   |                   | 90.4  | 135.7 | 133.0 | 131.7 | 131.9 | 130.8 | 129.3 | 126.9 | 126.5 | 126.0 | 125.4 | 125.0 | 124.9 | 124.2               |
| <b>Dairy products.....</b>                  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Milk, fresh, grocery.....                   |                   | 189.7 | 131.3 | 130.8 | 130.6 | 130.2 | 129.9 | 129.5 | 129.4 | 128.8 | 128.4 | 127.6 | 126.3 | 125.8 | 124.5               |
| Milk, fresh, delivered.....                 | Dec. 63           | 168.0 | 127.4 | 126.6 | 126.6 | 126.3 | 126.6 | 126.5 | 126.8 | 126.2 | 126.1 | 125.0 | 123.4 | 122.8 | 121.8               |
| Milk, fresh, skim.....                      |                   | (1)   | 135.4 | 134.9 | 134.5 | 134.2 | 134.0 | 133.9 | 133.5 | 133.1 | 132.7 | 132.3 | 130.4 | 130.1 | 128.4               |
| Milk, evaporated.....                       | Dec. 63           | (1)   | 130.9 | 129.5 | 129.4 | 129.4 | 129.2 | 128.3 | 128.4 | 127.3 | 127.4 | 126.0 | 125.0 | 124.3 | 123.0               |
|   |                   | 146.0 | 134.1 | 133.3 | 133.1 | 131.5 | 129.7 | 127.9 | 127.7 | 127.4 | 126.4 | 125.0 | 124.3 | 123.8 | 123.5               |
| <b>Ice cream.....</b>                       |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Cheese, American process.....               |                   | 135.9 | 104.8 | 105.0 | 104.5 | 103.8 | 103.4 | 102.7 | 102.7 | 102.1 | 102.1 | 102.0 | 100.7 | 99.9  | 99.5                |
| Butter.....                                 | Dec. 63           | (1)   | 158.0 | 158.3 | 157.9 | 157.4 | 157.2 | 157.3 | 156.4 | 154.8 | 153.1 | 152.4 | 151.0 | 149.9 | 146.8               |
|   |                   | 144.4 | 121.5 | 121.6 | 121.4 | 121.1 | 121.0 | 120.2 | 119.5 | 119.5 | 119.9 | 119.6 | 119.4 | 119.9 | 118.3               |
| <b>Fruits and vegetables.....</b>           |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Fresh fruits and vegetables.....            |                   | 116.3 | 131.0 | 135.0 | 137.5 | 139.4 | 136.8 | 134.7 | 133.1 | 132.4 | 130.9 | 132.1 | 127.0 | 124.0 | 128.4               |
| Apples.....                                 |                   | 128.7 | 139.8 | 147.5 | 152.2 | 155.9 | 151.5 | 148.0 | 145.7 | 144.5 | 141.9 | 144.1 | 135.4 | 130.1 | 138.1               |
| Bananas.....                                |                   | 115.7 | 171.9 | 182.1 | 178.0 | 166.0 | 149.7 | 141.3 | 139.6 | 135.8 | 134.0 | 129.3 | 125.7 | 131.7 | 162.5               |
| Oranges.....                                |                   | 153.6 | 92.9  | 94.5  | 92.4  | 102.4 | 101.6 | 101.4 | 101.9 | 96.5  | 94.5  | 93.3  | 93.9  | 100.7 | 95.3                |
| Orange juice, fresh.....                    | Dec. 63           | 139.6 | 142.0 | 139.7 | 135.6 | 129.1 | 123.7 | 122.4 | 125.4 | 124.5 | 121.5 | 125.0 | 132.4 | 131.9 | 128.4               |
|   |                   | 123.7 | 89.8  | 90.6  | 90.1  | 89.5  | 90.1  | 89.9  | 90.6  | 90.7  | 90.5  | 91.5  | 91.8  | 92.0  | 90.9                |
| Grapefruit.....                             |                   | 117.5 | 208.8 | 213.2 | 215.4 | 189.7 | 160.1 | 152.4 | 150.6 | 151.7 | 143.7 | 142.0 | 144.1 | 184.0 | 155.1               |
| Strawberries.....                           |                   | 120.9 | 152.1 | 183.4 | 197.3 | (1)   | (1)   | 162.7 | (1)   | (1)   | (1)   | (1)   | 154.3 | 144.0 | 154.4               |
| Watermelon.....                             |                   | 111.6 | (1)   | (1)   | (1)   | 133.2 | 128.1 | 134.9 | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | 131.9               |
|   |                   | 110.3 | (1)   | 123.0 | 141.0 | 180.7 | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | 131.9               |
| Potatoes.....                               |                   | 106.9 | 153.7 | 181.8 | 194.2 | 177.2 | 166.9 | 159.9 | 153.3 | 151.1 | 144.3 | 142.0 | 140.1 | 137.6 | 144.8               |
| Onions.....                                 | Dec. 63           | 89.9  | 147.2 | 164.4 | 172.9 | 173.0 | 180.0 | 180.8 | 171.0 | 166.9 | 140.5 | 136.4 | 133.2 | 134.2 | 134.1               |
| Asparagus.....                              |                   | 96.2  | (1)   | (1)   | 133.5 | 132.1 | 138.9 | 119.3 | 176.6 | (1)   | 141.6 | (1)   | (1)   | (1)   | 138.7               |
| Cabbage.....                                |                   | 119.1 | 145.8 | 160.6 | 182.4 | 219.6 | 194.3 | 202.1 | 204.5 | 211.3 | 188.7 | 173.4 | 150.6 | 145.9 | 152.0               |
| Carrots.....                                |                   | 125.2 | 115.9 | 124.8 | 123.4 | 121.0 | 117.3 | 115.3 | 122.1 | 145.3 | 139.2 | 146.6 | 127.1 | 129.6 | 123.8               |
| Celery.....                                 |                   | 140.1 | 119.8 | 117.8 | 133.1 | 175.6 | 160.5 | 128.7 | 136.2 | 143.6 | 140.5 | 132.2 | 131.2 | 115.5 | 125.6               |
| Cucumbers.....                              | Dec. 63           | 121.9 | 100.2 | 106.9 | 125.9 | 139.4 | 154.6 | 214.0 | 209.1 | 208.5 | 203.4 | 176.5 | 122.5 | 118.5 | 148.1               |
| Lettuce.....                                |                   | 114.2 | 178.0 | 149.5 | 127.1 | 126.1 | 138.9 | 125.2 | 123.0 | 122.7 | 137.6 | 189.5 | 177.9 | 133.3 | 144.4               |
| Peppers, green.....                         | Dec. 63           | 117.7 | 136.5 | 145.3 | 174.5 | 244.1 | 344.4 | 299.7 | 265.5 | 283.9 | 231.2 | 217.2 | 160.9 | 145.7 | 172.4               |
| Spinach.....                                | Dec. 63           | 106.3 | 117.5 | 116.4 | 117.2 | 117.3 | 117.5 | 119.9 | 118.3 | 122.0 | 120.3 | 121.8 | 116.5 | 120.1 | 114.8               |
| Tomatoes.....                               |                   | 114.0 | 98.0  | 119.7 | 140.1 | 154.5 | 145.2 | 159.0 | 136.1 | 134.8 | 168.1 | 177.5 | 146.7 | 119.0 | 138.1               |
| <b>Processed fruits and vegetables.....</b> |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Fruit cocktail, canned.....                 |                   | 106.1 | 120.1 | 119.3 | 119.1 | 118.6 | 118.3 | 118.0 | 117.3 | 117.3 | 117.1 | 117.1 | 116.8 | 116.6 | 116.3               |
| Pears, canned.....                          | Dec. 63           | 138.9 | 109.6 | 108.2 | 107.9 | 106.3 | 106.3 | 106.2 | 105.3 | 104.9 | 105.3 | 106.2 | 105.4 | 105.6 | 106.4               |
| Grapefruit-pineapple juice, canned.....     | Dec. 63           | 134.0 | 109.3 | 108.2 | 107.4 | 105.9 | 105.6 | 104.9 | 104.9 | 105.4 | 106.0 | 106.4 | 106.9 | 107.6 | 108.7               |
| Orange juice concentrate, frozen.....       | Dec. 63           | 123.3 | 106.2 | 105.2 | 105.6 | 105.4 | 105.5 | 105.2 | 104.1 | 103.7 | 103.0 | 102.4 | 102.6 | 102.2 | 100.5               |
|   |                   | 133.7 | 91.6  | 92.2  | 91.6  | 92.4  | 92.4  | 92.6  | 93.5  | 96.5  | 96.4  | 97.4  | 97.2  | 98.2  | 98.9                |
| Lemonade concentrate, frozen.....           | Apr. 60           | 135.5 | 94.3  | 95.0  | 94.6  | 95.4  | 97.0  | 96.5  | 95.9  | 94.8  | 95.1  | 94.7  | 94.1  | 93.8  | 92.5                |
| Beets, canned.....                          | Dec. 63           | 111.6 | 118.5 | 117.9 | 117.7 | 117.2 | 115.9 | 116.2 | 115.0 | 114.1 | 113.9 | 113.6 | 113.3 | 112.8 | 113.2               |
| Peas, green, canned.....                    |                   | 129.9 | 124.8 | 122.9 | 123.0 | 123.0 | 122.0 | 123.1 | 121.8 | 122.2 | 122.4 | 122.4 | 123.1 | 122.9 | 121.7               |
| Tomatoes, canned.....                       |                   | 131.0 | 139.2 | 137.9 | 136.7 | 135.1 | 133.3 | 130.7 | 128.0 | 127.2 | 126.7 | 126.6 | 125.5 | 124.8 | 124.7               |
| Dried beans.....                            | Dec. 63           | 140.2 | 121.7 | 121.6 | 121.1 | 120.9 | 121.3 | 121.5 | 122.0 | 123.4 | 123.1 | 123.3 | 123.6 | 124.3 | 124.7               |
| Broccoli, frozen.....                       |                   | 144.3 | 113.7 | 113.0 | 113.5 | 113.4 | 112.9 | 113.0 | 112.7 | 111.8 | 110.9 | 109.6 | 108.0 | 106.7 | 104.7               |
| <b>Other food at home.....</b>              |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Eggs.....                                   |                   | 120.4 | 118.0 | 116.1 | 116.0 | 113.3 | 113.7 | 113.8 | 116.0 | 118.1 | 117.7 | 116.6 | 112.9 | 111.0 | 109.9               |
| Fats and oils.....                          |                   | 134.1 | 112.1 | 103.2 | 105.3 | 91.9  | 97.7  | 103.6 | 122.6 | 141.0 | 143.0 | 140.6 | 122.3 | 114.5 | 112.1               |
| Margarine.....                              | Dec. 63           | 132.4 | 112.4 | 112.1 | 111.9 | 112.0 | 111.4 | 108.8 | 106.1 | 105.6 | 105.6 | 105.0 | 103.7 | 102.7 | 103.0               |
| Salad dressing, Italian.....                | Dec. 63           | 135.9 | 105.3 | 104.7 | 104.3 | 103.6 | 103.2 | 102.3 | 102.2 | 101.9 | 102.5 | 102.6 | 102.5 | 102.8 | 102.6               |
| Salad or cooking oil.....                   | Dec. 63           | 142.5 | 138.0 | 138.0 |       |       |       |       |       |       |       |       |       |       |                     |

## 25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

| Item or group  | Other index bases | 1970  |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual average 1969 |
|--|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
|  |                   | Oct.  | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  |                     |
| <b>FOOD—Continued</b>                                  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| <b>Other food at home—Continued</b>                    |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Nonalcoholic beverages.....                            |                   | 120.3 | 119.4 | 118.4 | 117.7 | 116.5 | 115.2 | 114.0 | 112.4 | 110.7 | 109.1 | 107.4 | 106.1 | 104.3 | 103.7               |
| Coffee, can and bag.....                               |                   | 110.6 | 109.9 | 108.7 | 107.3 | 105.4 | 103.6 | 102.2 | 99.7  | 97.4  | 94.9  | 92.3  | 90.0  | 87.0  | 87.5                |
| Coffee, instant.....                                   | July 61           | 119.5 | 117.8 | 116.3 | 115.7 | 115.7 | 114.7 | 114.1 | 113.1 | 111.0 | 109.6 | 108.0 | 106.0 | 104.2 | 103.2               |
| Tea.....   |                   | 107.4 | 107.0 | 106.6 | 106.4 | 105.9 | 104.8 | 103.6 | 103.1 | 103.6 | 103.1 | 102.9 | 102.2 | 102.1 | 101.8               |
| Cola drink.....  |                   | 166.8 | 165.2 | 165.0 | 164.8 | 164.2 | 163.0 | 162.0 | 161.9 | 160.3 | 159.3 | 158.4 | 158.7 | 158.0 | 155.3               |
| Carbonated fruit drink.....                            | Dec. 63           | 133.0 | 132.3 | 131.4 | 131.4 | 130.5 | 130.0 | 128.5 | 127.4 | 126.0 | 125.5 | 124.8 | 124.7 | 124.5 | 121.9               |
| <b>Prepared and partially prepared foods.....</b>      |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Bean soup, canned.....                                 | Dec. 63           | 111.7 | 111.0 | 110.6 | 110.1 | 110.1 | 110.1 | 109.8 | 109.5 | 109.0 | 108.5 | 108.2 | 107.6 | 107.4 | 106.2               |
| Chicken soup, canned.....                              | Dec. 63           | 112.3 | 111.8 | 111.5 | 111.5 | 111.3 | 111.1 | 110.5 | 110.4 | 110.9 | 109.7 | 108.8 | 107.2 | 106.3 | 105.0               |
| Spaghetti, canned.....                                 | Dec. 63           | 102.6 | 102.3 | 102.1 | 101.1 | 102.3 | 102.3 | 102.0 | 101.8 | 101.1 | 100.8 | 100.3 | 99.5  | 98.3  | 98.0                |
| Mashed potatoes, instant.....                          | Dec. 63           | 126.3 | 124.9 | 124.2 | 124.0 | 123.4 | 123.2 | 122.7 | 121.8 | 121.1 | 120.8 | 120.4 | 119.8 | 118.9 | 117.1               |
| Potatoes, french fried, frozen.....                    | Dec. 63           | 111.3 | 111.3 | 111.1 | 111.0 | 110.8 | 110.7 | 110.6 | 110.5 | 110.3 | 109.7 | 109.6 | 110.0 | 109.6 | 107.2               |
| Baby foods, canned.....                                | Apr. 60           | 93.3  | 93.2  | 93.9  | 93.3  | 93.4  | 93.5  | 93.2  | 93.2  | 92.8  | 92.7  | 92.5  | 92.1  | 92.8  | 91.4                |
| Sweet pickle relish.....                               | Dec. 63           | 117.0 | 115.8 | 114.0 | 112.7 | 112.6 | 112.5 | 112.9 | 112.0 | 112.0 | 112.1 | 111.9 | 111.4 | 111.7 | 111.6               |
| Pretzels.....  | Dec. 63           | 119.4 | 118.1 | 117.6 | 116.4 | 117.0 | 117.6 | 118.0 | 117.2 | 116.0 | 115.6 | 115.0 | 114.3 | 114.2 | 112.8               |
|  | Dec. 63           | 111.9 | 111.4 | 111.1 | 110.4 | 110.3 | 110.1 | 110.0 | 109.1 | 108.3 | 107.1 | 107.5 | 107.0 | 107.6 | 107.1               |
| <b>HOUSING.....</b>                                    |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Shelter.....   |                   | 138.5 | 137.8 | 137.0 | 136.2 | 135.6 | 135.1 | 134.4 | 133.6 | 132.2 | 131.1 | 130.5 | 129.8 | 129.2 | 126.7               |
| Rent.....  |                   | 149.1 | 148.4 | 147.2 | 146.2 | 145.6 | 144.7 | 143.7 | 142.8 | 140.9 | 139.6 | 138.5 | 137.7 | 137.0 | 133.6               |
| Homeownership.....                                     |                   | 125.2 | 124.6 | 124.2 | 123.8 | 123.4 | 123.0 | 122.6 | 122.3 | 121.8 | 121.3 | 121.0 | 120.5 | 120.1 | 118.8               |
| Mortgage interest rates.....                           |                   | 158.6 | 157.8 | 156.2 | 155.0 | 154.4 | 153.3 | 152.1 | 150.9 | 148.5 | 146.8 | 145.4 | 144.5 | 143.6 | 139.4               |
| Property taxes.....                                    |                   | 149.6 | 149.5 | 149.2 | 149.1 | 149.1 | 149.2 | 149.1 | 148.9 | 143.5 | 139.9 | 139.6 | 139.3 | 138.8 | 134.4               |
| Property insurance rates.....                          |                   | 142.7 | 142.6 | 141.4 | 140.5 | 139.8 | 139.4 | 138.2 | 134.7 | 133.6 | 133.0 | 132.0 | 131.5 | 130.5 | 129.0               |
| Maintenance and repairs.....                           |                   | 156.1 | 155.2 | 154.6 | 154.6 | 153.5 | 153.2 | 153.6 | 152.8 | 152.8 | 152.5 | 153.3 | 152.3 | 150.7 | 148.7               |
| Commodities.....                                       | Dec. 63           | 155.2 | 154.3 | 153.2 | 152.4 | 151.4 | 149.9 | 148.8 | 148.3 | 146.9 | 146.4 | 145.8 | 144.9 | 144.5 | 140.7               |
| Exterior house paint.....                              | Dec. 63           | 120.7 | 120.6 | 120.7 | 120.3 | 119.6 | 118.4 | 117.8 | 117.2 | 116.5 | 116.1 | 115.9 | 116.0 | 116.2 | 116.1               |
| Interior house paint.....                              | Dec. 63           | 121.8 | 121.9 | 122.1 | 122.3 | 120.7 | 119.9 | 119.8 | 121.0 | 119.8 | 119.3 | 119.1 | 118.7 | 118.0 | 116.5               |
| Services.....  | Dec. 63           | 115.3 | 115.1 | 115.5 | 115.7 | 115.6 | 115.0 | 114.6 | 114.7 | 114.8 | 114.1 | 114.3 | 113.6 | 113.8 | 112.4               |
| Repainting living and dining rooms.....                | Dec. 63           | 154.0 | 152.8 | 151.2 | 150.4 | 149.3 | 147.9 | 146.7 | 146.2 | 144.7 | 144.1 | 143.5 | 142.2 | 141.6 | 136.4               |
| Reshingling roofs.....                                 |                   | 205.3 | 203.8 | 200.1 | 198.0 | 196.3 | 191.7 | 187.9 | 186.8 | 185.4 | 184.6 | 183.6 | 182.6 | 181.8 | 174.6               |
| Residing houses.....                                   | Dec. 63           | 175.0 | 173.7 | 170.9 | 169.8 | 168.0 | 167.1 | 165.6 | 166.1 | 165.4 | 164.9 | 164.1 | 163.0 | 162.3 | 155.8               |
| Replacing sinks.....                                   | Dec. 63           | 141.4 | 140.6 | 140.0 | 139.2 | 138.3 | 137.4 | 137.1 | 136.7 | 135.0 | 134.6 | 134.0 | 134.2 | 133.7 | 129.0               |
| Repairing furnaces.....                                | Dec. 63           | 156.9 | 155.2 | 153.1 | 152.7 | 151.6 | 150.4 | 149.1 | 148.2 | 145.6 | 145.2 | 144.5 | 142.6 | 142.0 | 137.4               |
|  | Dec. 63           | 157.4 | 156.3 | 155.5 | 155.2 | 154.3 | 153.7 | 152.9 | 152.4 | 151.3 | 150.0 | 149.7 | 149.2 | 148.1 | 139.1               |
| <b>Fuel and utilities.....</b>                         |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Fuel oil and coal.....                                 |                   | 119.0 | 118.2 | 117.7 | 117.2 | 116.2 | 116.4 | 116.3 | 115.6 | 114.9 | 114.6 | 114.6 | 114.2 | 113.5 | 112.9               |
| Fuel oil, #2.....                                      |                   | 125.5 | 124.3 | 122.9 | 122.3 | 121.2 | 121.0 | 120.9 | 120.8 | 120.6 | 119.7 | 119.2 | 118.9 | 118.4 | 117.8               |
| Gas and electricity.....                               |                   | 121.2 | 120.3 | 119.2 | 119.1 | 118.3 | 118.0 | 117.8 | 117.8 | 117.5 | 116.6 | 116.2 | 116.0 | 115.5 | 115.1               |
| Gas.....   |                   | 118.0 | 116.8 | 116.4 | 115.7 | 115.3 | 115.8 | 115.7 | 114.8 | 114.6 | 114.1 | 113.7 | 113.2 | 112.2 | 111.5               |
| Electricity.....                                       |                   | 123.7 | 123.6 | 123.6 | 122.3 | 122.0 | 123.2 | 123.1 | 121.9 | 121.5 | 120.5 | 119.8 | 118.8 | 116.9 | 116.8               |
| Other utilities.....                                   |                   | 111.8 | 109.8 | 109.0 | 108.7 | 108.3 | 108.2 | 108.0 | 107.5 | 107.4 | 107.4 | 107.2 | 107.2 | 106.9 | 105.8               |
| Residential telephone services.....                    |                   | 105.6 | 105.5 | 105.3 | 105.2 | 104.9 | 104.9 | 104.8 | 103.9 | 102.8 | 103.0 | 103.8 | 103.7 | 103.6 | 103.5               |
| Residential water and sewerage.....                    |                   | 158.7 | 158.7 | 158.7 | 158.7 | 151.0 | 151.0 | 151.0 | 151.0 | 147.5 | 147.5 | 147.5 | 147.5 | 145.3 | 144.4               |
| <b>Household furnishings and operation.....</b>        |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Housefurnishings.....                                  |                   | 123.9 | 123.6 | 123.2 | 123.0 | 122.8 | 122.5 | 122.0 | 121.6 | 120.8 | 120.1 | 120.0 | 119.6 | 119.3 | 117.9               |
| Textiles.....  |                   | 113.1 | 112.7 | 112.4 | 112.5 | 112.4 | 112.2 | 112.0 | 111.7 | 111.1 | 110.5 | 110.6 | 110.4 | 110.2 | 109.0               |
| Sheets, percale or muslin.....                         |                   | 117.4 | 116.8 | 116.1 | 116.7 | 116.7 | 116.2 | 116.7 | 116.4 | 115.7 | 114.2 | 116.1 | 115.7 | 115.0 | 114.4               |
| Curtains, tailored, polyester marquisette.....         |                   | 121.6 | 123.1 | 119.2 | 120.8 | 122.0 | 121.8 | 123.6 | 122.7 | 120.8 | 117.3 | 122.2 | 121.7 | 120.1 | 119.6               |
| Bedspreads, chiefly cotton, tufted.....                |                   | 111.5 | 110.4 | 113.7 | 113.9 | 113.1 | 113.2 | 113.3 | 113.7 | 112.7 | 111.6 | 112.3 | 112.1 | 112.0 | 110.9               |
| Drapery fabric, cotton or rayon/acetate.....           |                   | 118.0 | 117.6 | 117.2 | 117.9 | 117.5 | 116.8 | 117.8 | 117.1 | 116.6 | 115.0 | 117.6 | 117.7 | 117.1 | 116.2               |
| Sleepers, ready made, chiefly cotton.....              | Dec. 63           | 130.1 | 128.0 | 127.8 | 127.4 | 126.6 | 127.3 | 127.0 | 126.5 | 125.8 | 125.0 | 126.6 | 126.0 | 124.1 | 123.1               |
| Furniture and bedding.....                             | Dec. 63           | 116.2 | 115.4 | 115.4 | 115.2 | 114.3 | 112.7 | 111.8 | 112.1 | 112.3 | 111.0 | 110.4 | 110.0 | 111.1 | 109.6               |
| Bedroom furniture chest and dresser <sup>3</sup> ..... | Mar. 70           | 127.2 | 126.9 | 126.5 | 126.7 | 126.7 | 126.6 | 126.0 | 125.4 | 124.6 | 124.1 | 123.9 | 123.7 | 123.6 | 121.5               |
| Living room suites, good and inexpensive quality.....  | Dec. 63           | 101.2 | 101.6 | 100.9 | 100.9 | 100.6 | 100.5 | 100.4 |       |       |       |       |       |       |                     |
| Lounge chairs, upholstered.....                        | Dec. 63           | 128.9 | 129.4 | 129.0 | 128.8 | 128.3 | 128.1 | 127.9 | 127.3 | 126.1 | 126.0 | 126.3 | 125.8 | 125.9 | 123.7               |
| Dining room chairs <sup>4</sup> .....                  | Mar. 70           | 124.2 | 123.6 | 122.8 | 122.2 | 122.1 | 122.5 | 121.9 | 121.0 | 120.0 | 120.0 | 118.8 | 118.6 | 118.9 | 115.8               |
| Sofas, upholstered.....                                | Dec. 63           | 100.8 | 100.5 | 100.2 | 100.6 | 100.6 | 100.2 | 100.2 |       |       |       |       |       |       |                     |
| Sofas, dual purpose.....                               | Dec. 63           | 120.9 | 119.3 | 119.3 | 121.1 | 120.0 | 119.1 | 118.7 | 118.0 | 116.5 | 116.3 | 116.5 | 115.7 | 115.9 | 114.2               |
| Mattresses and box springs <sup>5</sup> .....          | June 70           | 124.3 | 122.5 | 123.7 | 122.2 | 123.9 | 123.3 | 122.6 | 120.6 | 120.0 | 120.5 | 120.0 | 120.2 | 118.9 | 117.2               |
| Cribs.....   | Dec. 63           | 100.5 | 99.9  | 99.6  | 99.5  | 100.0 |       |       |       |       |       |       |       |       |                     |
|  | Dec. 63           | 121.9 | 121.3 | 121.5 | 122.1 | 121.4 | 121.4 | 120.0 | 120.6 | 119.9 | 119.6 | 119.8 | 119.5 | 119.2 | 117.0               |
| <b>Floor coverings.....</b>                            |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Rugs, soft surface.....                                |                   | 107.4 | 107.1 | 107.3 | 107.2 | 107.2 | 107.4 | 106.9 | 106.9 | 106.9 | 106.8 | 107.1 | 107.1 | 107.1 | 106.5               |
| Rugs, hard surface.....                                |                   | 103.7 | 103.4 | 103.9 | 103.7 | 103.9 | 104.2 | 103.8 | 103.9 | 104.0 | 104.0 | 104.7 | 104.8 | 104.9 | 104.5               |
| Tile, vinyl.....                                       | Dec. 63           | 115.6 | 114.8 | 114.0 | 114.6 | 114.0 | 113.7 | 113.7 | 113.7 | 113.6 | 113.2 | 112.5 | 112.5 | 112.1 | 111.2               |
|  | Dec. 63           | 114.1 | 113.8 | 113.8 | 113.5 | 113.1 | 113.1 | 111.8 | 111.7 | 111.3 | 110.3 | 110.3 | 110.1 | 109.6 | 108.4               |
| <b>Appliances.....</b>                                 |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Washing machines, electric, automatic.....             |                   | 87.6  | 87.3  | 87.3  | 87.3  | 87.2  | 87.1  | 86.8  | 86.6  | 86.6  | 86.5  | 86.4  | 86.3  | 86.2  | 85.8                |
| Vacuum cleaners, canister type.....                    |                   | 93.1  | 92.7  | 93.1  | 93.1  | 93.0  | 92.9  | 92.9  | 92.4  | 92.3  | 91.8  | 91.5  | 91.2  | 90.9  | 90.6                |
|  |                   | 81.8  | 81.7  | 81.4  | 81.4  | 81.2  | 81.5  | 81.6  | 81.3  | 81.5  | 81.8  | 81.4  | 81.4  | 81.5  | 81.5                |

See footnotes at end of table.

25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

| Index or group  | Other index bases | 1970  |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual average 1969 |
|---|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
|   |                   | Oct.  | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  |                     |
| <b>HOUSING—Continued</b>                              |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Household furnishings and operation—Con.              |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Appliances—Continued                                  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Refrigerators or refrigerator-freezers, electric..... |                   | 88.1  | 87.7  | 87.5  | 87.6  | 87.5  | 87.3  | 87.5  | 87.2  | 86.8  | 86.1  | 86.0  | 85.8  | 85.8  | 85.3                |
| Ranges, free standing, gas or electric.....           |                   | 101.6 | 101.1 | 101.1 | 101.0 | 100.7 | 100.2 | 100.7 | 100.1 | 99.3  | 99.0  | 99.0  | 98.8  | 98.5  | 97.7                |
| Clothes dryers, electric, automatic.....              | Dec. 63           | 103.2 | 102.7 | 102.7 | 102.7 | 102.6 | 101.9 | 102.1 | 101.8 | 101.3 | 100.8 | 100.6 | 100.5 | 99.8  | 99.4                |
| Air conditioners, mountable.....                      | June 64           | (1)   | (1)   | 101.6 | 101.6 | 101.5 | 101.3 | 101.3 | (2)   | (1)   | (1)   | (1)   | (1)   | (1)   | 99.5                |
| Room heaters, electric, portable.....                 | Dec. 63           | 102.6 | (2)   | (1)   | (1)   | (1)   | (1)   | (1)   | 100.5 | 100.6 | 100.6 | 100.4 | 99.8  | 99.6  | 98.8                |
| Garbage disposal units.....                           | Dec. 63           | 108.8 | 108.8 | 108.7 | 108.5 | 108.2 | 107.4 | 107.2 | 106.6 | 105.9 | 105.5 | 105.0 | 105.0 | 104.7 | 103.9               |
| Other house furnishings:                              |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Dinnerware, earthenware.....                          |                   | 142.0 | 140.3 | 140.5 | 139.6 | 139.3 | 138.3 | 138.1 | 138.1 | 137.1 | 136.2 | 135.6 | 135.2 | 134.8 | 133.3               |
| Flatware, stainless steel.....                        | Dec. 63           | 121.8 | 122.0 | 121.9 | 121.6 | 121.0 | 120.8 | 120.7 | 120.4 | 120.1 | 119.2 | 119.0 | 119.6 | 119.6 | 118.7               |
| Table lamps, with shade.....                          | Dec. 63           | 123.4 | 121.9 | 121.4 | 120.9 | 121.6 | 121.4 | 121.2 | 119.9 | 118.6 | 118.3 | 118.7 | 118.3 | 117.8 | 114.6               |
| Housekeeping supplies:                                |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Laundry soaps and detergents.....                     |                   | 110.6 | 111.3 | 111.0 | 110.3 | 110.0 | 110.0 | 109.8 | 110.0 | 108.8 | 108.1 | 107.1 | 106.2 | 106.8 | 106.3               |
| Paper napkins.....                                    |                   | 140.2 | 139.8 | 140.4 | 140.5 | 139.5 | 138.5 | 136.4 | 134.7 | 131.3 | 129.8 | 131.0 | 130.0 | 129.0 | 128.2               |
| Toilet tissue.....                                    |                   | 129.5 | 129.9 | 130.0 | 129.9 | 129.7 | 129.4 | 127.8 | 126.8 | 123.5 | 121.9 | 120.3 | 121.2 | 121.2 | 118.9               |
| Housekeeping services:                                |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Domestic service, general housework.....              |                   | 192.5 | 191.0 | 189.5 | 186.8 | 186.6 | 185.5 | 184.8 | 182.5 | 182.0 | 180.5 | 179.9 | 178.7 | 177.6 | 173.5               |
| Baby sitter service.....                              | Dec. 63           | 144.9 | 143.9 | 142.7 | 142.4 | 141.8 | 141.5 | 140.9 | 140.0 | 138.6 | 137.6 | 137.4 | 136.6 | 135.7 | 133.7               |
| Postal charges.....                                   |                   | 165.5 | 165.5 | 165.5 | 165.5 | 165.5 | 165.5 | 165.5 | 165.5 | 165.5 | 165.5 | 165.5 | 165.5 | 165.5 | 165.5               |
| Laundry, flatwork, finished service.....              | Dec. 63           | 154.0 | 153.2 | 152.3 | 150.6 | 150.2 | 150.0 | 149.8 | 149.1 | 147.9 | 147.5 | 146.8 | 144.3 | 143.2 | 140.6               |
| Licensed day care service, pre-school child.....      | Dec. 63           | 135.8 | 135.1 | 134.3 | 133.1 | 132.7 | 132.5 | 132.0 | 132.0 | 132.0 | 132.0 | 131.8 | 131.8 | 130.7 | 127.9               |
| Washing machine repairs.....                          | Dec. 63           | 146.7 | 146.0 | 144.5 | 140.8 | 140.2 | 140.4 | 139.8 | 139.6 | 138.3 | 136.6 | 135.4 | 135.1 | 135.2 | 131.7               |
| <b>APPAREL AND UPKEEP</b>                             |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Men's and boys'                                       |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Men's:  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Topcoats, wool.....                                   |                   | 153.7 | 150.6 | (1)   | (1)   | (1)   | (1)   | (1)   | 144.1 | 141.0 | 143.7 | 147.4 | 148.5 | 145.9 | 142.9               |
| Suits, year round weight.....                         | June 64           | 164.5 | 162.8 | 159.6 | 158.6 | 160.5 | 160.2 | 159.8 | 157.3 | 153.9 | 154.2 | 158.2 | 158.2 | 156.4 | 150.9               |
| Suits, tropical weight.....                           | Dec. 63           | (1)   | (1)   | (1)   | 131.8 | 140.5 | 138.4 | 137.4 | 136.6 | (1)   | (1)   | (1)   | (1)   | (1)   | 128.6               |
| Jackets, lightweight.....                             |                   | 125.2 | 124.6 | 124.9 | 124.8 | 125.2 | 125.1 | 125.3 | 125.3 | 125.6 | 125.5 | 125.7 | 125.6 | 125.4 | 124.6               |
| Slacks, wool or wool blend.....                       |                   | 133.7 | 132.7 | 130.8 | 130.8 | 132.8 | 132.7 | 131.8 | 131.0 | 129.6 | 130.0 | 131.2 | 131.7 | 130.4 | 127.4               |
| Slacks, cotton or manmade blend.....                  |                   | 124.4 | 123.5 | 123.5 | 123.4 | 123.7 | 123.4 | 123.0 | 120.9 | 119.4 | 117.6 | 117.6 | 117.1 | 115.6 | 113.9               |
| Trousers, work, cotton.....                           |                   | 119.7 | 118.8 | 118.7 | 118.4 | 117.8 | 117.1 | 117.2 | 116.6 | 116.4 | 116.0 | 117.2 | 117.0 | 116.9 | 116.4               |
| Shirts, work, cotton.....                             |                   | 127.9 | 128.1 | 127.4 | 127.0 | 126.8 | 126.5 | 126.4 | 126.4 | 124.9 | 124.4 | 124.2 | 124.7 | 124.2 | 122.9               |
| Shirts, business, cotton.....                         |                   | 126.7 | 126.5 | 125.8 | 125.1 | 124.6 | 124.2 | 124.1 | 123.7 | 123.2 | 122.5 | 122.3 | 122.2 | 122.2 | 121.3               |
| T-shirts, chiefly cotton.....                         |                   | 134.2 | 134.9 | 134.7 | 135.0 | 134.7 | 134.6 | 134.1 | 133.9 | 133.3 | 132.4 | 131.9 | 131.8 | 131.5 | 130.0               |
| Socks, cotton.....                                    |                   | 123.4 | 123.3 | 122.7 | 123.3 | 123.1 | 122.6 | 122.6 | 121.5 | 121.3 | 120.9 | 120.9 | 120.4 | 121.1 | 119.8               |
| Handkerchiefs, cotton.....                            | Dec. 63           | 116.6 | 116.0 | 115.2 | 115.5 | 115.3 | 115.1 | 114.4 | 114.2 | 113.9 | 113.8 | 113.8 | 113.3 | 112.9 | 112.1               |
| Boys':  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Coats, all purpose, cotton or cotton blend.....       | Dec. 63           | 122.6 | (2)   | (1)   | (1)   | (1)   | (1)   | (1)   | 114.6 | 114.3 | 114.2 | 116.1 | 115.9 | 115.2 | 112.4               |
| Sport coats, wool or wool blend.....                  | Dec. 63           | 133.2 | 130.5 | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | 127.8 | 130.3 | 131.0 | 126.4 | 125.6               |
| Dungarees, cotton or cotton blend.....                |                   | 132.6 | 132.0 | 130.9 | 128.0 | 130.1 | 130.1 | 129.5 | 129.5 | 129.4 | 128.9 | 127.1 | 127.9 | 126.9 | 126.3               |
| Undershorts, cotton.....                              |                   | 131.5 | 131.6 | 131.5 | 131.3 | 131.5 | 131.6 | 130.9 | 130.5 | 129.9 | 130.1 | 130.3 | 130.3 | 129.0 | 127.1               |
| Women's and girls'                                    |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Women's:  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Coats, heavyweight, wool or wool blend.....           | Sept. 61          | 145.6 | 141.6 | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | 124.9 | 136.2 | 139.9 | 139.9 | 134.4               |
| Skirts, wool or wool blend.....                       | Mar. 62           | 143.5 | 141.0 | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | 121.0 | 135.6 | 144.6 | 145.3 | 133.9 | 129.3               |
| Skirts, cotton or cotton blend.....                   |                   | (1)   | (1)   | 125.8 | 130.0 | 136.3 | 136.3 | 135.2 | (2)   | (2)   | (1)   | (1)   | (1)   | (1)   | 129.3               |
| Blouses, cotton.....                                  |                   | 130.8 | 130.4 | 130.2 | 126.2 | 130.6 | 129.7 | 127.1 | 125.3 | 124.9 | 126.9 | 127.6 | 127.2 | 125.4 | 123.6               |
| Dresses, street, chiefly manmade fiber.....           |                   | 160.8 | 159.5 | 158.6 | 156.1 | 155.8 | 156.5 | 158.9 | 158.5 | 158.7 | 155.9 | 158.3 | 158.8 | 155.9 | 150.2               |
| Dresses, street, wool or wool blend.....              |                   | 154.0 | 152.4 | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | 144.2 | 145.7 | 144.8 | 145.7 | 141.0               |
| Dresses, street, cotton.....                          |                   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | 147.2               |
| Housedresses, cotton.....                             |                   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | 153.5 | 152.3 | 153.0 | 150.7 | 147.9               |
| Slips, nylon.....                                     |                   | 114.7 | 114.5 | 114.7 | 115.2 | 115.8 | 115.6 | 114.7 | 114.2 | 114.6 | 113.4 | 112.3 | 112.2 | 111.9 | 110.8               |
| Panties, acetate.....                                 |                   | 115.2 | 114.6 | 114.4 | 114.5 | 113.5 | 113.3 | 112.7 | 113.2 | 112.7 | 111.2 | 111.2 | 111.4 | 110.5 | 109.2               |
| Girdles, manmade blend.....                           |                   | 122.9 | 122.0 | 121.9 | 120.4 | 121.4 | 121.4 | 121.3 | 121.4 | 120.9 | 120.5 | 120.8 | 120.5 | 120.2 | 119.1               |
| Brassieres, cotton.....                               | Dec. 63           | 129.7 | 129.0 | 129.0 | 128.2 | 128.9 | 129.2 | 128.4 | 127.4 | 125.6 | 124.4 | 124.9 | 123.8 | 123.1 | 121.7               |
| Hose, nylon, seamless.....                            |                   | 99.6  | 99.0  | 99.3  | 99.4  | 98.8  | 99.1  | 98.9  | 99.0  | 98.3  | 98.5  | 99.8  | 99.8  | 99.4  | 99.1                |
| Anklets, cotton.....                                  | Dec. 63           | 121.0 | 120.5 | 119.3 | 119.7 | 118.9 | 120.1 | 120.1 | 120.5 | 122.5 | 121.0 | 121.5 | 118.5 | 118.5 | 117.2               |
| Gloves, fabric, nylon or cotton.....                  | Dec. 63           | 112.5 | 112.3 | 111.8 | 111.6 | 111.4 | 111.2 | 110.6 | 110.9 | 111.0 | 110.7 | 110.5 | 109.8 | 109.2 | 108.6               |
| Handbags, rayon faille or plastic.....                | Dec. 63           | 123.5 | 122.8 | 120.3 | 118.7 | 120.3 | 119.3 | 118.8 | 118.2 | 118.5 | 116.4 | 117.3 | 117.2 | 115.5 | 113.6               |
| Girls':   |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Raincoats, vinyl plastic or chiefly cotton.....       | Dec. 63           | 123.7 | 120.3 | (1)   | (1)   | (1)   | (1)   | (1)   | 114.8 | 118.9 | 118.1 | 125.6 | 124.4 | 121.7 | 120.9               |
| Skirts, wool or wool blend.....                       |                   | 124.0 | 124.1 | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | (1)   | 117.4 | 123.2 | 123.4 | 124.0 | 121.4               |

See footnotes at end of table.



## 25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

| Index or group                               | Other index bases | 1970  |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual average 1969 |
|--|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
|  |                   | Oct.  | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  |                     |
| <b>APPAREL AND UPKEEP—Continued</b>          |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Women's and girls—Continued                  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Girls'—Continued                             |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Dresses, cotton                              |                   | 132.0 | 129.6 | 130.7 | 131.5 | 133.2 | 129.4 | 135.1 | 134.0 | 132.3 | 129.8 | 133.6 | 136.3 | 137.4 | 134.4               |
| Slacks, cotton                               | Dec. 63           | 136.8 | (2)   | (1)   | (1)   | (1)   | (1)   | (1)   | 125.5 | 125.4 | 128.4 | 131.8 | 131.7 | 127.9 | 125.8               |
| Slips, cotton blend                          | Dec. 63           | 108.9 | 108.1 | 107.8 | 107.9 | 108.0 | 107.3 | 107.5 | 108.1 | 107.8 | 108.0 | 108.0 | 108.6 | 108.5 | 107.5               |
| Handbags                                     | Dec. 63           | 119.2 | 117.2 | 117.2 | 117.1 | 118.3 | 117.4 | 115.7 | 115.1 | 114.9 | 113.7 | 114.2 | 114.7 | 111.1 | 109.3               |
| Footwear                                     |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Men's:                                       |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Shoes, street, oxford                        |                   | 149.4 | 148.6 | 147.9 | 147.5 | 147.7 | 147.6 | 147.2 | 146.3 | 145.0 | 144.4 | 144.4 | 143.9 | 143.3 | 140.3               |
| Shoes, work, high                            |                   | 146.3 | 146.1 | 144.7 | 145.2 | 145.6 | 145.3 | 144.7 | 143.8 | 142.3 | 141.3 | 142.6 | 142.1 | 141.5 | 138.4               |
|  |                   | 145.9 | 144.9 | 144.7 | 143.4 | 143.4 | 142.9 | 142.6 | 142.1 | 141.4 | 140.9 | 139.8 | 139.5 | 139.0 | 136.7               |
| Women's:                                     |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Shoes, street, pump                          |                   | 158.6 | 157.2 | 156.2 | 155.5 | 156.8 | 157.3 | 157.3 | 155.5 | 151.6 | 151.8 | 152.7 | 152.5 | 152.0 | 148.6               |
| Shoes, evening, pump                         | Dec. 63           | 129.5 | 128.6 | 127.7 | 127.5 | 126.6 | 126.7 | 125.8 | 125.0 | 124.8 | 124.2 | 123.2 | 122.9 | 122.9 | 120.3               |
| Shoes, casual, pump                          | Dec. 63           | 138.5 | 137.9 | 137.7 | 137.2 | 138.3 | 138.7 | 138.3 | 136.3 | 135.7 | 134.2 | 134.0 | 133.4 | 132.0 | 127.7               |
| Houseslippers, scuff                         | Dec. 63           | 130.5 | 130.6 | 129.5 | 128.2 | 128.1 | 127.7 | 127.7 | 128.2 | 127.8 | 128.0 | 127.5 | 127.1 | 126.6 | 124.7               |
| Children's:                                  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Shoes, oxford                                |                   | 148.7 | 147.9 | 147.9 | 147.1 | 147.2 | 146.6 | 146.3 | 146.6 | 145.9 | 144.3 | 144.3 | 143.3 | 142.3 | 140.1               |
| Sneakers, boys', oxford type                 | Dec. 63           | 123.2 | 122.6 | 123.1 | 122.9 | 123.2 | 122.6 | 122.0 | 120.7 | 120.0 | 119.6 | 119.5 | 119.3 | 119.1 | 117.2               |
| Dress shoes, girls', strap                   | Dec. 63           | 139.9 | 138.0 | 138.5 | 138.6 | 138.3 | 138.3 | 137.5 | 138.0 | 136.6 | 136.6 | 136.4 | 135.7 | 134.6 | 131.5               |
| Miscellaneous apparel:                       |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Diapers, cotton gauze                        |                   | 105.3 | 105.3 | 105.4 | 105.4 | 105.0 | 104.9 | 104.8 | 104.9 | 104.3 | 104.0 | 104.0 | 104.1 | 103.8 | 103.0               |
| Yard goods, cotton                           |                   | 128.7 | 128.0 | 125.3 | 125.4 | 127.1 | 127.6 | 126.8 | 125.9 | 124.6 | 123.3 | 123.5 | 123.1 | 123.5 | 120.9               |
| Apparel services:                            |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Drycleaning, men's suits and women's dresses |                   | 137.2 | 136.8 | 136.7 | 136.4 | 136.3 | 136.0 | 135.7 | 135.2 | 134.6 | 133.8 | 133.3 | 132.9 | 132.2 | 130.8               |
| Automatic laundry service                    | Dec. 63           | 115.1 | 114.6 | 114.4 | 114.3 | 114.0 | 113.2 | 113.1 | 113.2 | 112.3 | 112.0 | 112.0 | 111.8 | 111.4 | 110.1               |
| Laundry, men's shirts                        | Dec. 63           | 131.4 | 131.1 | 130.6 | 130.3 | 130.0 | 129.0 | 128.8 | 128.5 | 128.0 | 126.8 | 126.7 | 124.3 | 123.8 | 122.9               |
| Tailoring charges, hem adjustment            | Dec. 63           | 137.1 | 134.6 | 134.3 | 133.7 | 133.3 | 128.8 | 128.4 | 127.7 | 127.4 | 127.0 | 127.4 | 127.6 | 127.5 | 124.5               |
| Shoe repairs, women's heel lift              |                   | 128.3 | 128.0 | 127.8 | 126.9 | 126.8 | 126.5 | 126.3 | 125.5 | 125.0 | 124.6 | 123.7 | 123.6 | 122.7 | 121.3               |
| <b>TRANSPORTATION</b>                        |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Private                                      |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Automobiles, new                             |                   | 129.2 | 126.6 | 126.4 | 127.2 | 126.7 | 125.9 | 124.9 | 123.0 | 127.3 | 127.3 | 126.4 | 125.6 | 125.7 | 124.2               |
| Automobiles, used                            |                   | 108.7 | 103.1 | 103.5 | 103.7 | 103.8 | 104.1 | 104.3 | 104.4 | 104.6 | 104.7 | 104.9 | 105.1 | 104.2 | 102.4               |
| Gasoline, regular and premium                |                   | 130.3 | 127.4 | 129.2 | 131.8 | 132.0 | 127.5 | 121.1 | 117.6 | 117.8 | 120.7 | 123.9 | 124.9 | 125.8 | 125.3               |
| Motor oil, premium                           |                   | 119.3 | 117.8 | 116.9 | 118.7 | 117.6 | 118.6 | 119.2 | 115.3 | 116.7 | 116.6 | 116.9 | 116.3 | 118.0 | 117.0               |
|  |                   | 145.8 | 145.4 | 144.3 | 143.7 | 143.0 | 142.8 | 142.6 | 142.3 | 141.4 | 140.7 | 140.2 | 140.1 | 139.6 | 137.5               |
| Tires, new, tubeless                         |                   | 122.2 | 120.9 | 119.7 | 119.0 | 118.0 | 118.6 | 118.6 | 119.4 | 118.5 | 118.2 | 118.0 | 118.0 | 117.4 | 116.2               |
| Auto repairs and maintenance                 |                   | 146.3 | 145.6 | 144.8 | 144.3 | 143.5 | 142.9 | 142.1 | 141.5 | 140.2 | 139.2 | 137.3 | 136.6 | 136.1 | 133.8               |
| Auto insurance rates                         |                   | 187.4 | 186.4 | 184.0 | 183.7 | 181.9 | 179.5 | 175.6 | 176.4 | 176.0 | 173.4 | 171.5 | 164.6 | 163.7 | 160.2               |
| Auto registration                            |                   | 140.9 | 140.9 | 140.9 | 140.9 | 140.9 | 140.9 | 140.9 | 140.3 | 140.3 | 140.3 | 134.2 | 134.2 | 134.2 | 133.6               |
| Public                                       |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Local transit fares                          |                   | 173.5 | 173.3 | 171.0 | 170.8 | 167.8 | 166.6 | 165.8 | 165.8 | 165.4 | 165.1 | 153.0 | 151.1 | 150.3 | 148.9               |
| Taxicab fares                                | Dec. 63           | 192.6 | 192.3 | 191.1 | 190.9 | 185.8 | 185.2 | 183.9 | 183.8 | 183.8 | 183.3 | 163.2 | 163.0 | 161.7 | 160.4               |
| Railroad fares, coach                        |                   | 136.0 | 136.0 | 135.9 | 135.9 | 135.9 | 131.5 | 131.5 | 131.5 | 131.5 | 131.5 | 131.5 | 127.5 | 127.5 | 126.7               |
| Airplane fares, chiefly coach                | Dec. 63           | 131.2 | 131.2 | 121.5 | 121.5 | 121.5 | 121.1 | 121.1 | 121.1 | 117.2 | 117.2 | 117.2 | 115.5 | 115.1 | 114.0               |
| Bus fares, intercity                         | Dec. 63           | 122.6 | 122.6 | 117.9 | 117.9 | 117.9 | 117.8 | 117.8 | 117.4 | 117.4 | 117.4 | 117.4 | 111.6 | 111.6 | 110.6               |
|  |                   | 132.5 | 132.5 | 130.1 | 130.1 | 130.1 | 128.6 | 128.6 | 127.9 | 127.9 | 127.9 | 127.9 | 127.0 | 127.0 | 122.4               |
| <b>HEALTH AND RECREATION</b>                 |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Medical care                                 |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Drugs and prescriptions                      |                   | 167.9 | 167.6 | 166.8 | 165.8 | 164.7 | 163.6 | 162.8 | 161.6 | 160.1 | 159.0 | 158.1 | 157.4 | 156.9 | 155.0               |
| Over-the-counter items                       | Dec. 63           | 102.2 | 102.1 | 102.2 | 102.0 | 101.6 | 101.4 | 100.9 | 100.3 | 100.0 | 99.7  | 99.6  | 99.6  | 99.4  | 99.2                |
| Multiple vitamin concentrates                | Dec. 63           | 111.9 | 110.8 | 110.5 | 110.5 | 109.7 | 109.2 | 108.6 | 107.8 | 107.2 | 107.2 | 107.1 | 107.1 | 106.9 | 106.9               |
| Aspirin compounds                            | Dec. 63           | 92.2  | 92.2  | 92.3  | 92.7  | 92.6  | 92.7  | 92.0  | 91.7  | 90.8  | 92.3  | 92.8  | 92.4  | 92.5  | 92.4                |
|  |                   | 114.2 | 112.7 | 112.3 | 112.0 | 109.8 | 109.2 | 108.1 | 107.3 | 107.4 | 106.2 | 106.6 | 106.2 | 106.1 | 106.2               |
| Liquid tonics                                | Dec. 63           | 102.2 | 102.1 | 101.8 | 101.7 | 101.8 | 101.9 | 101.9 | 101.5 | 101.2 | 101.3 | 101.3 | 101.3 | 100.8 | 101.0               |
| Adhesive bandages, package                   | Dec. 63           | 128.7 | 124.9 | 124.4 | 125.0 | 122.7 | 121.4 | 119.8 | 119.7 | 118.2 | 117.8 | 117.7 | 117.1 | 117.4 | 116.9               |
| Cold tablets or capsules                     | Dec. 63           | 113.4 | 113.3 | 113.1 | 112.7 | 112.7 | 112.7 | 112.6 | 112.2 | 111.5 | 111.0 | 110.5 | 110.0 | 109.6 | 109.2               |
| Cough syrup                                  | Dec. 63           | 119.2 | 118.0 | 117.7 | 117.5 | 117.2 | 116.4 | 116.0 | 113.5 | 113.0 | 113.4 | 112.9 | 114.7 | 113.7 | 114.5               |
| Prescriptions                                |                   | 90.0  | 90.6  | 91.0  | 90.7  | 90.6  | 90.5  | 90.3  | 89.7  | 89.7  | 89.3  | 89.1  | 89.0  | 89.0  | 88.6                |
| Anti-infectives                              | Mar. 60           | 59.3  | 61.6  | 63.5  | 63.3  | 63.2  | 63.1  | 63.0  | 62.8  | 63.0  | 62.8  | 62.8  | 62.8  | 62.8  | 62.8                |
| Sedatives and hypnotics                      | Mar. 60           | 116.8 | 116.3 | 115.1 | 114.5 | 114.0 | 114.2 | 113.7 | 112.1 | 112.0 | 110.6 | 110.4 | 109.6 | 108.9 | 107.2               |
| Ataractics                                   | Mar. 60           | 90.7  | 90.6  | 90.6  | 90.7  | 90.8  | 90.7  | 90.7  | 90.0  | 90.0  | 90.0  | 89.8  | 89.8  | 89.8  | 89.8                |
| Anti-spasmodics                              | Mar. 60           | 103.6 | 103.3 | 103.2 | 102.8 | 102.6 | 102.4 | 102.2 | 101.7 | 101.6 | 101.5 | 101.3 | 101.3 | 101.3 | 101.1               |
| Cough preparations                           | Mar. 60           | 120.5 | 119.4 | 119.1 | 118.2 | 118.1 | 118.0 | 118.1 | 117.1 | 115.2 | 112.7 | 112.0 | 111.7 | 111.4 | 109.4               |
| Cardiovasculars and antihypertensives        | Mar. 60           | 101.3 | 100.9 | 100.7 | 100.4 | 100.4 | 100.4 | 100.0 | 99.0  | 98.8  | 98.3  | 98.0  | 98.0  | 97.9  | 97.1                |
| Analgesics, internal                         | Mar. 67           | 106.3 | 106.1 | 105.9 | 105.4 | 105.4 | 105.2 | 105.3 | 104.7 | 105.0 | 104.3 | 103.3 | 103.2 | 103.1 | 102.8               |
| Anti-obesity                                 | Mar. 67           | 109.6 | 109.5 | 108.9 | 108.1 | 107.2 | 107.2 | 106.0 | 105.8 | 105.5 | 104.8 | 104.3 | 104.3 | 104.2 | 103.1               |
| Hormones                                     | Mar. 67           | 94.3  | 95.0  | 94.9  | 94.7  | 94.2  | 94.2  | 93.6  | 93.9  | 93.6  | 93.6  | 94.2  | 93.9  | 94.3  | 94.3                |
| Professional services:                       |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Physicians' fees                             |                   | 170.0 | 169.6 | 168.7 | 167.8 | 167.3 | 165.6 | 164.3 | 163.7 | 161.6 | 160.7 | 160.0 | 159.0 | 158.3 | 155.4               |
| Family doctor, office visits                 |                   | 173.9 | 173.4 | 171.2 | 171.3 | 170.8 | 168.3 | 167.3 | 166.6 | 164.0 | 163.1 | 162.4 | 161.0 | 160.6 | 157.2               |
| Family doctor, house visits                  |                   | 177.2 | 176.9 | 176.6 | 176.0 | 175.6 | 173.6 | 172.5 | 171.7 | 169.0 | 167.9 | 167.6 | 166.2 | 165.9 | 163.3               |
| Obstetrical cases                            |                   | 163.1 | 163.1 | 162.9 | 162.2 | 161.8 | 161.1 | 159.2 | 159.0 | 157.6 | 155.9 | 155.0 | 154.9 | 153.9 | 150.2               |
| Pediatric care, office visits                | Dec. 63           | 154.1 | 153.7 | 153.8 | 151.3 | 151.4 | 151.3 | 148.7 | 148.5 | 147.7 | 146.5 | 145.9 | 145.5 | 144.2 | 141.4               |
| Psychiatrist, office visits                  | Dec. 63           | 137.3 | 137.3 | 136.8 | 135.3 | 135.0 | 135.0 | 134.7 | 134.6 | 133.7 | 133.0 | 132.6 | 132.6 | 131.7 | 129.1               |

See footnotes at end of table.

## 25. Consumer Price Index—general summary and U.S. average for groups, subgroups, and selected items—Continued

| Index or group  | Other index bases | 1970  |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual average 1969 |
|---|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
|   |                   | Oct.  | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  |                     |
| <b>HEALTH AND RECREATION—Continued</b>                  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Medical care—Continued                                  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Professional services—Continued                         |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Physicians' fees—Continued                              |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Herniorrhaphy, adult                                    | Dec. 63           | 133.0 | 132.9 | 132.4 | 130.7 | 130.6 | 129.6 | 128.7 | 127.5 | 126.7 | 126.3 | 125.4 | 125.2 | 124.6 | 123.9               |
| Tonsillectomy and adenoidectomy                         |                   | 160.9 | 159.7 | 159.3 | 157.5 | 156.7 | 156.1 | 154.2 | 153.8 | 152.6 | 152.3 | 151.6 | 151.3 | 149.3 | 148.2               |
| Dentists' fees  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Fillings, adult, amalgam, one surface                   |                   | 155.2 | 154.3 | 153.4 | 152.8 | 151.9 | 151.2 | 150.7 | 148.7 | 148.4 | 148.0 | 147.6 | 147.2 | 146.9 | 143.9               |
| Extractions, adult                                      |                   | 156.8 | 156.4 | 155.5 | 154.9 | 154.1 | 153.3 | 152.5 | 150.6 | 150.3 | 149.8 | 148.7 | 148.3 | 148.3 | 144.9               |
| Dentures, full upper                                    | Dec. 63           | 154.3 | 152.4 | 151.4 | 150.1 | 149.7 | 148.9 | 148.9 | 146.1 | 145.9 | 146.0 | 147.0 | 146.7 | 145.9 | 143.1               |
|   |                   | 136.6 | 135.9 | 135.0 | 134.8 | 133.6 | 133.2 | 132.7 | 131.7 | 131.3 | 130.6 | 130.2 | 129.7 | 129.5 | 127.4               |
| Other professional services:                            |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Examination, prescription, and dispensing of eyeglasses |                   | 140.1 | 139.8 | 139.2 | 138.2 | 137.8 | 136.9 | 136.7 | 136.3 | 135.7 | 134.6 | 133.9 | 133.8 | 132.8 | 131.1               |
| Routine laboratory tests                                | Dec. 63           | 120.2 | 121.8 | 121.7 | 121.9 | 121.7 | 121.3 | 121.2 | 120.8 | 119.8 | 119.6 | 119.5 | 119.4 | 118.5 | 117.4               |
| Hospital service charges:                               |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Daily service charges                                   |                   | 297.8 | 295.1 | 292.5 | 289.1 | 284.4 | 283.1 | 282.3 | 279.0 | 275.6 | 271.6 | 267.9 | 265.4 | 263.8 | 256.0               |
| Semiprivate rooms                                       |                   | 294.7 | 292.1 | 289.3 | 285.9 | 281.1 | 279.8 | 279.1 | 275.6 | 271.9 | 268.0 | 264.1 | 261.7 | 260.1 | 252.1               |
| Private rooms   |                   | 286.0 | 283.1 | 281.0 | 277.9 | 273.5 | 272.3 | 271.4 | 268.7 | 265.9 | 261.8 | 258.7 | 256.1 | 254.7 | 247.5               |
| Operating room charges                                  |                   | 188.6 | 186.4 | 185.9 | 183.6 | 181.7 | 180.9 | 180.3 | 177.7 | 175.4 | 172.8 | 170.9 | 170.6 | 170.9 | 165.2               |
| X-ray, diagnostic series, upper G.I.                    | Dec. 63           | 133.5 | 132.8 | 132.8 | 131.4 | 131.4 | 129.4 | 129.4 | 128.1 | 127.7 | 125.4 | 124.7 | 124.5 | 124.8 | 122.7               |
| Personal care   |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Toilet goods  |                   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Toothpaste, standard dentifrice                         |                   | 132.1 | 131.7 | 131.3 | 130.6 | 130.2 | 130.3 | 129.8 | 129.6 | 129.0 | 128.5 | 128.1 | 127.8 | 127.3 | 126.2               |
| Toilet soap, hard milled                                |                   | 114.6 | 114.1 | 114.0 | 113.5 | 113.3 | 113.3 | 113.0 | 112.9 | 112.4 | 112.0 | 111.6 | 111.8 | 111.6 | 110.7               |
| Hand lotions, liquid                                    | Dec. 63           | 115.4 | 115.1 | 114.4 | 113.9 | 114.4 | 114.4 | 114.7 | 113.9 | 114.3 | 114.1 | 114.6 | 114.7 | 114.4 | 113.7               |
| Shaving cream, aerosol                                  |                   | 130.6 | 129.9 | 129.1 | 128.3 | 127.0 | 126.2 | 124.3 | 125.6 | 124.3 | 123.0 | 123.4 | 124.8 | 124.1 | 124.1               |
| Face powder, pressed                                    |                   | 110.1 | 109.6 | 109.3 | 109.5 | 111.2 | 111.5 | 117.3 | 110.5 | 110.0 | 109.2 | 109.1 | 109.7 | 110.7 | 108.6               |
| Deodorants, cream or roll-on                            |                   | 103.9 | 102.5 | 102.2 | 102.0 | 101.3 | 102.1 | 102.3 | 102.2 | 102.1 | 102.1 | 101.9 | 101.6 | 102.0 | 102.0               |
| Cleansing tissues                                       | Dec. 63           | 134.3 | 134.2 | 133.8 | 131.9 | 131.4 | 131.6 | 131.0 | 130.8 | 129.1 | 128.1 | 127.6 | 127.5 | 127.2 | 125.0               |
| Home permanent refills                                  |                   | 97.0  | 96.6  | 97.0  | 96.4  | 95.9  | 95.8  | 95.9  | 96.1  | 96.1  | 96.0  | 94.5  | 95.0  | 95.1  | 94.9                |
| Personal care services                                  |                   | 116.5 | 116.6 | 117.4 | 117.0 | 116.4 | 116.4 | 116.0 | 115.5 | 114.4 | 113.8 | 112.5 | 111.8 | 109.2 | 108.8               |
| Men's haircuts  |                   | 98.8  | 98.3  | 98.7  | 98.8  | 98.3  | 98.4  | 98.3  | 98.6  | 98.6  | 98.6  | 98.7  | 98.6  | 98.5  | 98.0                |
| Beauty shop services                                    |                   | 153.9 | 153.4 | 152.7 | 151.9 | 151.2 | 151.3 | 150.5 | 150.1 | 149.5 | 148.5 | 148.5 | 147.5 | 146.7 | 145.2               |
| Women's haircuts  | Dec. 63           | 164.6 | 164.1 | 163.6 | 162.5 | 161.0 | 161.0 | 159.7 | 159.1 | 158.7 | 158.0 | 157.8 | 156.4 | 155.2 | 153.7               |
| Shampoo and wave sets, plain                            |                   | 143.1 | 142.6 | 141.8 | 141.2 | 141.0 | 141.2 | 140.9 | 140.6 | 140.0 | 139.2 | 138.8 | 138.0 | 137.7 | 136.1               |
| Permanent waves, cold                                   |                   | 129.0 | 128.7 | 126.7 | 125.8 | 125.4 | 126.4 | 126.3 | 126.1 | 125.4 | 125.3 | 125.2 | 124.0 | 123.4 | 122.0               |
| Reading and recreation                                  |                   | 161.2 | 160.6 | 160.0 | 159.2 | 159.0 | 159.0 | 158.6 | 158.3 | 157.5 | 156.8 | 156.3 | 155.3 | 154.9 | 152.7               |
| Recreational goods                                      | Dec. 63           | 110.3 | 109.8 | 109.8 | 109.8 | 110.0 | 109.6 | 109.4 | 109.0 | 108.9 | 107.5 | 107.2 | 107.2 | 107.1 | 106.4               |
| TV sets, portable and console                           |                   | 138.4 | 137.7 | 137.1 | 136.6 | 136.1 | 135.2 | 134.4 | 133.6 | 133.2 | 133.1 | 132.7 | 132.3 | 132.0 | 130.5               |
| TV replacement tubes                                    | Dec. 63           | 100.7 | 100.5 | 100.2 | 100.1 | 100.0 | 99.9  | 99.6  | 99.4  | 99.2  | 99.1  | 99.1  | 99.2  | 99.1  | 98.6                |
| Radios, portable and table model                        |                   | 80.4  | 80.1  | 80.0  | 79.9  | 80.1  | 80.1  | 80.0  | 79.9  | 79.9  | 80.0  | 80.2  | 80.3  | 80.2  | 80.1                |
| Tape recorders, portable                                | Dec. 63           | 123.8 | 123.1 | 122.0 | 120.6 | 119.3 | 118.3 | 117.5 | 117.3 | 117.3 | 116.6 | 116.3 | 116.3 | 115.9 | 115.5               |
| Phonograph records, stereophonic                        |                   | 76.4  | 76.4  | 76.6  | 76.6  | 76.6  | 76.6  | 76.5  | 76.0  | 76.1  | 76.4  | 76.5  | 76.5  | 76.6  | 76.5                |
| Movie cameras, Super 8, zoom lens                       | Dec. 63           | 90.7  | 89.7  | 89.2  | 89.8  | 89.9  | 90.4  | 90.3  | 90.2  | 90.2  | 90.0  | 90.1  | 91.2  | 91.4  | 91.3                |
| Film, 35mm, color                                       |                   | 97.8  | 97.8  | 97.6  | 98.1  | 98.2  | 98.3  | 97.8  | 98.1  | 97.9  | 98.0  | 98.0  | 98.0  | 98.1  | 97.2                |
| Bicycle, boys'  | Dec. 63           | 81.2  | 81.9  | 82.0  | 82.2  | 82.3  | 82.0  | 81.4  | 81.3  | 81.6  | 82.1  | 82.3  | 83.4  | 83.1  | 84.0                |
| Tricycles   | Dec. 63           | 100.3 | 100.3 | 100.1 | 100.1 | 100.1 | 100.0 | 99.7  | 99.7  | 99.7  | 99.1  | 99.1  | 99.1  | 99.4  | 99.0                |
| Recreational services                                   | Dec. 63           | 111.8 | 111.7 | 111.1 | 110.7 | 110.4 | 110.5 | 110.8 | 111.4 | 111.2 | 110.7 | 110.4 | 110.0 | 109.7 | 109.0               |
| Indoor movie admissions                                 |                   | 113.9 | 113.8 | 113.3 | 113.6 | 113.7 | 113.1 | 111.6 | 111.2 | 112.0 | 111.6 | 111.6 | 111.4 | 111.9 | 109.6               |
| Adult   | Dec. 63           | 140.1 | 139.4 | 138.0 | 137.1 | 136.9 | 135.9 | 135.0 | 134.1 | 133.7 | 133.9 | 133.2 | 132.6 | 132.1 | 129.9               |
| Children's  |                   | 226.9 | 226.7 | 223.6 | 221.4 | 220.0 | 217.9 | 215.4 | 212.0 | 210.5 | 210.5 | 210.3 | 208.3 | 207.0 | 200.6               |
| Drive-in movie admissions, adult                        | Dec. 63           | 221.5 | 222.2 | 218.5 | 216.8 | 215.6 | 212.8 | 210.9 | 207.7 | 206.1 | 207.3 | 205.4 | 203.2 | 201.9 | 195.5               |
| Bowling fees, evening                                   | Dec. 63           | 245.1 | 242.1 | 240.7 | 237.0 | 235.0 | 234.8 | 230.6 | 226.7 | 225.4 | 226.9 | 227.1 | 225.4 | 224.5 | 217.6               |
| Golf greens fees  | Dec. 63           | 180.4 | 178.4 | 176.2 | 172.3 | 171.6 | 168.9 | 168.1 | 167.5 | 167.0 | 165.6 | 165.5 | 165.0 | 164.5 | 159.9               |
| TV repairs, picture tube replacement                    | Dec. 63           | 116.4 | 114.8 | 114.3 | 114.6 | 115.7 | 115.2 | 115.2 | 114.8 | 115.0 | 115.3 | 113.7 | 113.6 | 112.1 | 111.1               |
| Film developing, black and white                        | Dec. 63           | 145.8 | 145.5 | 144.8 | 145.5 | 145.1 | 141.5 | 139.3 | (2)   | (2)   | (2)   | (2)   | (2)   | 135.5 | 131.8               |
| Reading and education:                                  |                   | 97.5  | 97.7  | 97.6  | 97.7  | 97.6  | 98.6  | 98.7  | 98.9  | 99.5  | 100.2 | 100.2 | 100.0 | 101.4 | 101.7               |
| Newspapers, street sale and delivery                    | Dec. 63           | 120.5 | 119.8 | 118.4 | 116.7 | 116.4 | 117.7 | 117.6 | 117.3 | 117.7 | 117.4 | 117.7 | 117.9 | 117.9 | 119.1               |
| Piano lessons, beginner                                 |                   | 171.3 | 168.4 | 167.6 | 166.8 | 163.9 | 161.5 | 160.4 | 160.4 | 159.8 | 160.2 | 158.2 | 156.7 | 156.4 | 154.7               |
| Other goods and services                                |                   | 131.8 | 130.9 | 129.3 | 129.0 | 128.4 | 128.2 | 128.2 | 127.8 | 127.7 | 127.6 | 127.3 | 126.7 | 126.5 | 123.7               |
| Tobacco products  |                   | 139.5 | 138.8 | 138.1 | 137.3 | 136.7 | 136.1 | 135.6 | 134.8 | 134.3 | 133.9 | 133.5 | 133.1 | 132.2 | 129.0               |
| Cigarettes, nonfilter tip, regular size                 | Mar. 59           | 161.9 | 161.7 | 160.9 | 159.7 | 158.1 | 156.7 | 156.4 | 155.0 | 154.9 | 154.1 | 153.8 | 153.1 | 151.5 | 146.5               |
| Cigarettes, filter tip, king size                       |                   | 170.6 | 170.4 | 169.2 | 167.9 | 166.0 | 164.4 | 164.1 | 162.8 | 162.7 | 161.8 | 161.4 | 160.7 | 158.9 | 153.6               |
| Cigars, domestic, regular size                          |                   | 162.2 | 162.0 | 161.3 | 160.2 | 158.5 | 157.2 | 156.8 | 154.9 | 154.8 | 154.0 | 153.5 | 152.6 | 151.0 | 145.7               |
| Alcoholic beverages                                     |                   | 108.9 | 109.0 | 109.0 | 108.6 | 108.6 | 108.6 | 108.6 | 108.7 | 108.7 | 109.0 | 110.0 | 109.9 | 109.4 | 107.6               |
| Beer  |                   | 125.1 | 124.5 | 123.9 | 123.2 | 123.2 | 123.1 | 122.5 | 122.0 | 121.4 | 121.0 | 120.6 | 120.4 | 120.0 | 117.8               |
| Whiskey, spirit blended and straight bourbon            | Dec. 63           | 119.8 | 119.5 | 119.1 | 118.2 | 118.3 | 118.5 | 118.2 | 117.7 | 116.9 | 116.5 | 116.5 | 116.6 | 116.3 | 114.8               |
| Wine, dessert and table                                 |                   | 113.1 | 113.4 | 113.3 | 113.1 | 112.7 | 112.5 | 111.8 | 111.6 | 111.3 | 111.2 | 111.5 | 111.4 | 111.3 | 109.9               |
| Beer, away from home                                    | Dec. 63           | 120.1 | 120.0 | 120.0 | 119.8 | 119.6 | 119.4 | 118.9 | 117.4 | 116.8 | 116.5 | 115.2 | 114.5 | 113.6 | 110.5               |
| Financial and miscellaneous personal expenses:          |                   | 133.3 | 131.7 | 130.3 | 129.5 | 129.6 | 129.3 | 128.4 | 128.0 | 127.6 | 127.1 | 125.9 | 125.6 | 125.0 | 121.8               |
| Funeral services, adult                                 | Dec. 63           | 121.2 | 120.7 | 120.3 | 119.9 | 119.6 | 119.3 | 119.0 | 118.6 | 118.1 | 117.7 | 117.4 | 117.3 | 116.9 | 115.2               |
| Bank service charges, checking accounts                 | Dec. 63           | 115.6 | 110.4 | 110.2 | 110.2 | 110.3 | 110.0 | 110.0 | 110.1 | 110.0 | 110.2 | 110.3 | 109.9 | 109.1 | 108.3               |
| Legal services, short form will                         | Dec. 63           | 154.6 | 149.9 | 149.9 | 149.2 | 149.0 | 146.1 | 145.6 | 145.1 | 142.7 | 142.3 | 141.2 | 139.5 | 139.5 | 134.7               |

1 Priced only in season.

2 Not available.

3 This item is a replacement for bedroom suites, good or inexpensive quality, which was discontinued after March 1970.

4 This item is a replacement for dining room suites, which was discontinued after March 1970.

5 Item discontinued.

6 This item is a replacement for box springs, which was discontinued after April 1970.

7 June 1970 index revised.

NOTE: Monthly data for individual nonfood items not available for 1968.

26. Consumer Price Index<sup>1</sup>—U.S. city average, and selected areas

[1957-59=100 unless otherwise specified]

| Area <sup>2</sup>                  | 1970      |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual<br>avg. |
|------------------------------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|
|                                    | Oct.      | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  | 1969           |
|                                    | All items |       |       |       |       |       |       |       |       |       |       |       |       |                |
| U.S. city average <sup>3</sup>     | 137.4     | 136.6 | 136.0 | 135.7 | 135.2 | 134.6 | 134.0 | 133.2 | 132.5 | 131.8 | 131.3 | 130.5 | 129.8 | 127.7          |
| Atlanta, Ga.                       | (4)       | 134.9 | (4)   | (4)   | 133.6 | (4)   | (4)   | 131.9 | (4)   | (4)   | 129.9 | (4)   | (4)   | 126.7          |
| Baltimore, Md.                     | (4)       | 137.2 | (4)   | (4)   | 135.2 | (4)   | (4)   | 133.5 | (4)   | (4)   | 131.9 | (4)   | (4)   | 128.3          |
| Boston, Mass.                      | 142.3     | (4)   | (4)   | 139.5 | (4)   | (4)   | 137.9 | (4)   | (4)   | 136.1 | (4)   | (4)   | 134.7 | 131.8          |
| Buffalo, N.Y. (Nov. 1963=100)      | (4)       | (4)   | 127.9 | (4)   | (4)   | 127.0 | (4)   | (4)   | 125.3 | (4)   | (4)   | (4)   | 123.2 | 120.5          |
| Chicago, Ill.—Northwestern Ind.    | 134.5     | 133.8 | 133.1 | 132.3 | 131.5 | 131.1 | 130.2 | 129.9 | 129.3 | 129.1 | 128.3 | 127.7 | 126.9 | 124.9          |
| Cincinnati, Ohio—Kentucky          | (4)       | 132.6 | (4)   | (4)   | 131.2 | (4)   | (4)   | 129.2 | (4)   | (4)   | 127.7 | (4)   | (4)   | 124.6          |
| Cleveland, Ohio                    | (4)       | (4)   | 135.6 | (4)   | (4)   | 134.3 | (4)   | (4)   | 132.3 | (4)   | (4)   | 129.5 | (4)   | 126.3          |
| Dallas, Tex. (Nov. 1963=100)       | (4)       | (4)   | 128.3 | (4)   | (4)   | 127.1 | (4)   | (4)   | 125.6 | (4)   | (4)   | 123.7 | (4)   | 120.3          |
| Detroit, Mich.                     | 137.1     | 136.0 | 135.3 | 135.5 | 135.2 | 134.9 | 133.8 | 133.1 | 132.2 | 131.1 | 130.8 | 129.8 | 129.2 | 127.1          |
| Honolulu, Hawaii (Dec. 1963=100)   | (4)       | 123.9 | (4)   | (4)   | 123.3 | (4)   | (4)   | 122.0 | (4)   | (4)   | 119.7 | (4)   | (4)   | 117.0          |
| Houston, Tex.                      | 134.9     | (4)   | (4)   | 133.7 | (4)   | (4)   | 132.9 | (4)   | (4)   | 130.9 | (4)   | (4)   | 129.8 | 127.0          |
| Kansas City, Mo.—Kansas            | (4)       | 138.5 | (4)   | (4)   | 137.9 | (4)   | (4)   | 134.6 | (4)   | (4)   | 133.2 | (4)   | (4)   | 130.1          |
| Los Angeles—Long Beach, Calif.     | 136.6     | 136.2 | 134.3 | 135.1 | 133.9 | 133.8 | 133.5 | 132.2 | 131.6 | 131.2 | 131.0 | 130.0 | 130.1 | 128.0          |
| Milwaukee, Wis.                    | (4)       | (4)   | 131.2 | (4)   | (4)   | 130.0 | (4)   | (4)   | 128.5 | (4)   | (4)   | 127.0 | (4)   | 123.6          |
| Minneapolis—St. Paul, Minn.        | 138.2     | (4)   | (4)   | 136.7 | (4)   | (4)   | 135.1 | (4)   | (4)   | 132.8 | (4)   | (4)   | 130.3 | 127.4          |
| New York, N.Y.—Northeastern N.J.   | 144.2     | 143.4 | 142.6 | 142.1 | 141.6 | 140.7 | 140.1 | 139.1 | 138.1 | 137.0 | 136.0 | 134.6 | 134.1 | 131.8          |
| Philadelphia, Pa.—N.J.             | 140.8     | 139.8 | 137.9 | 137.4 | 137.0 | 136.5 | 135.7 | 135.4 | 134.1 | 132.9 | 132.2 | 131.7 | 131.2 | 128.9          |
| Pittsburgh, Pa.                    | 136.7     | (4)   | (4)   | 134.6 | (4)   | (4)   | 132.4 | (4)   | (4)   | 129.4 | (4)   | (4)   | (4)   | 128.5          |
| Portland, Oreg.—Wash. <sup>5</sup> | 135.3     | (4)   | (4)   | 134.1 | (4)   | (4)   | 133.4 | (4)   | (4)   | 130.7 | (4)   | (4)   | 130.1 | 128.4          |
| St. Louis, Mo.—Ill.                | (4)       | 136.2 | (4)   | (4)   | 134.1 | (4)   | (4)   | 132.4 | (4)   | (4)   | 130.7 | (4)   | (4)   | 127.5          |
| San Diego, Calif. (Feb. 1965=100)  | (4)       | (4)   | 121.8 | (4)   | (4)   | 120.9 | (4)   | (4)   | 118.6 | (4)   | (4)   | 117.0 | (4)   | 115.1          |
| San Francisco—Oakland, Calif.      | (4)       | 138.9 | (4)   | (4)   | 137.5 | (4)   | (4)   | 136.1 | (4)   | (4)   | 134.5 | (4)   | (4)   | 131.1          |
| Scranton, Pa. <sup>4</sup>         | (4)       | (4)   | 137.9 | (4)   | (4)   | 136.9 | (4)   | (4)   | 134.4 | (4)   | (4)   | 127.3 | (4)   | 129.2          |
| Seattle, Wash.                     | (4)       | (4)   | 134.6 | (4)   | (4)   | 133.9 | (4)   | (4)   | 132.2 | (4)   | (4)   | 130.0 | (4)   | 128.3          |
| Washington, D.C.—Md.—Va.           | (4)       | (4)   | 137.8 | (4)   | (4)   | 136.7 | (4)   | (4)   | 134.6 | (4)   | (4)   | 132.0 | (4)   | 129.5          |
|                                    | Food      |       |       |       |       |       |       |       |       |       |       |       |       |                |
| U.S. city average <sup>3</sup>     | 133.0     | 133.3 | 133.5 | 133.4 | 132.7 | 132.4 | 132.0 | 131.6 | 131.5 | 130.7 | 129.9 | 128.1 | 127.2 | 125.5          |
| Atlanta, Ga.                       | 132.2     | 131.7 | 131.7 | 131.4 | 131.1 | 130.0 | 130.6 | 130.5 | 130.7 | 129.0 | 128.4 | 126.9 | 126.5 | 123.8          |
| Baltimore, Md.                     | 137.4     | 137.7 | 137.8 | 137.6 | 137.0 | 136.5 | 135.9 | 136.2 | 135.4 | 134.9 | 134.1 | 132.3 | 131.5 | 128.8          |
| Boston, Mass.                      | 138.6     | 138.5 | 139.1 | 138.1 | 137.0 | 136.6 | 135.9 | 135.4 | 135.0 | 134.3 | 133.1 | 131.6 | 131.2 | 129.3          |
| Buffalo, N.Y. (Nov. 1963=100)      | 127.6     | 127.9 | 128.4 | 129.5 | 128.6 | 128.1 | 128.4 | 127.3 | 127.0 | 125.4 | 125.1 | 122.8 | 121.9 | 120.6          |
| Chicago, Ill.—Northwestern Ind.    | 133.3     | 133.4 | 135.0 | 133.8 | 133.6 | 133.1 | 132.6 | 133.0 | 132.0 | 132.8 | 131.3 | 129.4 | 128.3 | 127.2          |
| Cincinnati, Ohio—Kentucky          | 130.1     | 130.1 | 130.1 | 130.5 | 129.7 | 129.1 | 128.6 | 127.9 | 127.8 | 127.2 | 126.6 | 125.1 | 124.1 | 122.1          |
| Cleveland, Ohio                    | 131.0     | 131.8 | 131.9 | 132.1 | 131.2 | 130.8 | 129.7 | 129.3 | 128.4 | 129.0 | 128.5 | 125.7 | 125.0 | 123.2          |
| Dallas, Tex. (Nov. 1963=100)       | 126.4     | 127.3 | 127.4 | 125.9 | 125.8 | 126.0 | 125.5 | 125.5 | 125.9 | 125.0 | 124.2 | 122.8 | 121.7 | 119.8          |
| Detroit, Mich.                     | 131.1     | 133.1 | 133.3 | 133.3 | 132.2 | 132.1 | 131.2 | 130.9 | 130.2 | 129.8 | 129.3 | 126.8 | 126.1 | 124.3          |
| Honolulu, Hawaii (Dec. 1963=100)   | 123.4     | 124.8 | 124.3 | 123.5 | 123.8 | 123.2 | 123.4 | 123.4 | 122.9 | 123.0 | 120.8 | 119.5 | 119.7 | 117.4          |
| Houston, Tex.                      | 134.5     | 134.4 | 134.7 | 134.3 | 133.3 | 133.4 | 133.8 | 132.7 | 133.3 | 132.3 | 131.2 | 129.2 | 128.7 | 126.9          |
| Kansas City, Mo.—Kansas            | 137.6     | 138.4 | 138.4 | 138.3 | 136.9 | 136.8 | 136.4 | 135.9 | 135.8 | 135.1 | 134.4 | 132.9 | 131.2 | 129.4          |
| Los Angeles—Long Beach, Calif.     | 128.9     | 128.8 | 128.3 | 128.9 | 127.8 | 128.1 | 127.4 | 126.7 | 127.2 | 126.2 | 125.8 | 124.7 | 124.0 | 122.6          |
| Milwaukee, Wis.                    | 129.2     | 129.2 | 130.0 | 130.0 | 129.4 | 129.4 | 129.3 | 130.2 | 130.1 | 129.5 | 128.4 | 127.8 | 127.6 | 125.2          |
| Minneapolis—St. Paul, Minn.        | 132.3     | 132.5 | 132.4 | 132.3 | 131.4 | 131.3 | 131.2 | 131.2 | 130.6 | 129.5 | 128.2 | 127.2 | 126.5 | 123.7          |
| New York, N.Y.—Northeastern N.J.   | 137.4     | 137.3 | 137.5 | 137.9 | 136.8 | 136.0 | 135.7 | 135.1 | 134.7 | 133.8 | 132.9 | 130.6 | 129.6 | 127.1          |
| Philadelphia, Pa.—N.J.             | 134.0     | 133.3 | 133.0 | 133.1 | 132.4 | 132.3 | 131.5 | 132.0 | 132.0 | 130.7 | 129.7 | 128.0 | 127.0 | 125.5          |
| Pittsburgh, Pa.                    | 128.9     | 128.7 | 128.7 | 129.6 | 128.7 | 128.8 | 128.3 | 128.2 | 128.0 | 127.5 | 127.1 | 125.7 | 125.3 | 122.4          |
| Portland, Oreg.—Wash. <sup>5</sup> | 128.0     | (4)   | (4)   | 127.9 | (4)   | (4)   | 128.5 | (4)   | (4)   | 126.7 | (4)   | (4)   | 124.4 | 124.0          |
| St. Louis, Mo.—Ill.                | 138.1     | 139.0 | 137.9 | 137.7 | 136.7 | 136.3 | 136.5 | 136.6 | 137.4 | 136.6 | 135.5 | 133.5 | 132.4 | 129.5          |
| San Diego, Calif. (Feb. 1965=100)  | 122.7     | 123.0 | 122.8 | 123.0 | 122.0 | 122.3 | 121.3 | 120.8 | 121.3 | 120.6 | 120.0 | 119.1 | 117.8 | 117.0          |
| San Francisco—Oakland, Calif.      | 128.4     | 128.8 | 129.7 | 130.5 | 129.1 | 129.0 | 128.8 | 128.2 | 128.7 | 128.2 | 127.2 | 126.2 | 125.6 | 123.8          |
| Scranton, Pa.                      | (4)       | (4)   | 132.0 | (4)   | (4)   | 131.3 | (4)   | (4)   | 131.3 | (4)   | (4)   | 131.9 | (4)   | 125.0          |
| Seattle, Wash.                     | 130.6     | 131.0 | 131.3 | 130.6 | 130.3 | 130.6 | 130.1 | 128.5 | 129.2 | 127.8 | 127.6 | 126.2 | 125.2 | 124.5          |
| Washington, D.C.—Md.—Va.           | 135.4     | 136.1 | 136.1 | 137.6 | 137.1 | 136.2 | 136.6 | 135.7 | 136.2 | 134.8 | 133.5 | 131.2 | 130.5 | 129.5          |

<sup>1</sup> See table 23. Indexes measure time-to-time changes in prices. They do not indicate whether it costs more to live in one area than in another.

<sup>2</sup> The areas listed include not only the central city but the entire urban portion of the Standard Metropolitan Statistical Area, as defined for the 1960 Census of Population; except that the Standard Consolidated Area is used for New York and Chicago.

<sup>3</sup> Average of 56 "cities" (metropolitan areas and nonmetropolitan urban places beginning January 1966).

<sup>4</sup> All items indexes are computed monthly for 5 areas and once every 3 months on a rotating cycle for other areas.

<sup>5</sup> Old series.





27. Wholesale price indexes,<sup>1</sup> by group and subgroup of commodities—Continued[1957-59=100 unless otherwise specified]<sup>2</sup>

| Code                                    | Commodity Group  | 1970  |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual average 1969 |
|---|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
|   |  | Oct.  | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  |                     |
| <b>INDUSTRIAL COMMODITIES—Continued</b> |  |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| 09                                      | Pulp, paper, and allied products.....                              | 113.0 | 112.4 | 112.3 | 112.5 | 112.2 | 112.3 | 112.5 | 112.1 | 111.8 | 111.1 | 109.5 | 109.3 | 109.0 | 108.2               |
| 09-11                                   | Pulp, paper, and products, excluding building paper and board..... | 113.8 | 113.2 | 113.1 | 113.3 | 113.0 | 113.0 | 113.2 | 112.9 | 112.5 | 111.8 | 110.1 | 109.9 | 109.6 | 108.6               |
| 09-11                                   | Woodpulp.....  | 109.6 | 109.6 | 109.6 | 109.6 | 105.0 | 105.0 | 105.0 | 104.7 | 104.7 | 103.7 | 98.0  | 98.0  | 98.0  | 98.0                |
| 09-12                                   | Wastepaper.....  | 86.8  | 90.0  | 92.6  | 95.3  | 99.0  | 104.2 | 108.5 | 108.5 | 108.2 | 107.5 | 106.7 | 107.0 | 107.2 | 108.3               |
| 09-13                                   | Paper.....   | 123.1 | 122.6 | 122.5 | 121.9 | 121.7 | 121.6 | 121.6 | 121.6 | 121.5 | 120.3 | 117.4 | 117.0 | 116.5 | 116.6               |
| 09-14                                   | Paperboard.....  | 97.2  | 95.9  | 95.5  | 95.5  | 95.5  | 96.7  | 97.0  | 97.0  | 97.1  | 96.0  | 96.0  | 96.0  | 95.9  | 94.4                |
| 09-15                                   | Converted paper and paperboard products.....                       | 114.0 | 113.3 | 113.2 | 113.7 | 113.6 | 113.4 | 113.5 | 112.9 | 112.2 | 111.9 | 110.7 | 110.6 | 110.3 | 108.8               |
| 09-2                                    | Building paper and board.....                                      | 92.7  | 92.8  | 93.1  | 93.2  | 93.3  | 93.3  | 93.4  | 92.9  | 93.0  | 93.4  | 93.9  | 94.4  | 94.6  | 97.1                |
| 10                                      | <b>Metals and metal products.....</b>                              | 129.0 | 128.7 | 128.8 | 129.0 | 129.1 | 128.7 | 127.8 | 127.0 | 126.1 | 124.9 | 123.8 | 122.9 | 122.4 | 118.9               |
| 10-1                                    | Iron and steel.....  | 121.6 | 120.9 | 120.3 | 120.4 | 120.2 | 118.9 | 117.3 | 117.7 | 117.0 | 114.6 | 113.9 | 113.7 | 113.7 | 111.0               |
| 10-13                                   | Steel mill products.....   | 123.5 | 122.8 | 122.8 | 122.8 | 122.0 | 120.5 | 118.7 | 118.4 | 117.7 | 115.5 | 116.4 | 116.4 | 116.4 | 113.7               |
| 10-2                                    | Nonferrous metals.....   | 147.5 | 148.4 | 151.1 | 152.6 | 155.0 | 157.2 | 157.1 | 153.4 | 152.8 | 152.8 | 150.1 | 146.4 | 144.8 | 137.4               |
| 10-3                                    | Metal containers.....  | 129.7 | 126.1 | 126.1 | 126.1 | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 | 120.6 | 120.6 | 120.6 | 120.6 | 119.7               |
| 10-4                                    | Hardware.....  | 128.4 | 128.0 | 127.1 | 126.3 | 125.9 | 125.4 | 125.2 | 124.9 | 124.7 | 124.2 | 123.0 | 122.7 | 122.2 | 120.5               |
| 10-5                                    | Plumbing fixtures and brass fittings.....                          | 125.0 | 127.0 | 124.8 | 125.1 | 124.7 | 124.0 | 123.2 | 122.8 | 122.8 | 122.8 | 122.8 | 122.2 | 120.8 | 118.7               |
| 10-6                                    | Heating equipment.....   | 104.6 | 103.8 | 103.4 | 103.3 | 102.4 | 101.7 | 101.3 | 100.5 | 99.9  | 99.7  | 99.7  | 99.3  | 98.7  | 97.6                |
| 10-7                                    | Fabricated structural metal products.....                          | 120.1 | 119.6 | 119.4 | 119.1 | 118.7 | 117.3 | 116.4 | 116.0 | 114.6 | 114.0 | 113.7 | 113.6 | 113.4 | 111.5               |
| 10-8                                    | Miscellaneous metal products.....                                  | 133.5 | 133.1 | 131.6 | 131.2 | 130.4 | 128.3 | 127.5 | 127.1 | 125.2 | 124.9 | 124.5 | 124.4 | 124.4 | 122.0               |
| 11                                      | <b>Machinery and equipment.....</b>                                | 126.0 | 125.3 | 124.8 | 124.7 | 124.1 | 123.7 | 123.4 | 123.1 | 122.8 | 122.5 | 121.9 | 121.0 | 120.5 | 119.0               |
| 11-1                                    | Agricultural machinery and equipment.....                          | 139.5 | 138.4 | 137.6 | 137.4 | 137.1 | 137.4 | 137.3 | 137.1 | 137.2 | 136.7 | 136.4 | 135.8 | 133.2 | 132.8               |
| 11-2                                    | Construction machinery and equipment.....                          | 145.0 | 142.2 | 141.6 | 141.2 | 141.0 | 140.9 | 140.8 | 140.6 | 140.3 | 140.2 | 139.8 | 138.6 | 137.7 | 135.5               |
| 11-3                                    | Metalworking machinery and equipment.....                          | 141.9 | 141.5 | 141.5 | 142.2 | 141.7 | 141.3 | 140.3 | 139.8 | 139.3 | 138.6 | 138.0 | 136.5 | 135.4 | 133.4               |
| 11-4                                    | General purpose machinery and equipment.....                       | 131.7 | 130.6 | 130.1 | 129.8 | 128.2 | 127.9 | 127.6 | 127.1 | 126.5 | 126.1 | 124.8 | 123.7 | 123.4 | 121.4               |
| 11-6                                    | Special industry machinery and equipment (Jan. 1961=100).....      | 137.0 | 135.8 | 135.4 | 135.1 | 134.3 | 134.0 | 133.6 | 133.6 | 133.4 | 133.3 | 132.8 | 130.6 | 130.2 | 128.7               |
| 11-7                                    | Electrical machinery and equipment.....                            | 109.5 | 109.4 | 108.8 | 108.6 | 108.2 | 107.5 | 107.3 | 107.2 | 106.9 | 106.8 | 106.2 | 106.0 | 105.6 | 104.8               |
| 11-9                                    | Miscellaneous machinery.....                                       | 124.5 | 124.0 | 123.2 | 123.0 | 123.1 | 122.9 | 122.8 | 122.3 | 121.7 | 121.5 | 121.0 | 120.4 | 120.0 | 118.1               |
| 12                                      | <b>Furniture and household durables.....</b>                       | 109.2 | 109.0 | 108.9 | 108.8 | 108.6 | 108.3 | 108.3 | 108.1 | 107.9 | 107.5 | 107.2 | 106.9 | 106.5 | 106.1               |
| 12-1                                    | Household furniture.....   | 126.6 | 126.5 | 126.6 | 126.3 | 126.0 | 125.9 | 125.6 | 125.3 | 125.1 | 124.3 | 123.6 | 123.6 | 123.3 | 122.3               |
| 12-2                                    | Commercial furniture.....  | 128.7 | 128.4 | 128.4 | 127.6 | 127.6 | 125.1 | 125.1 | 124.9 | 124.5 | 124.4 | 124.1 | 124.0 | 122.4 | 120.0               |
| 12-3                                    | Floor coverings.....   | 92.9  | 92.7  | 92.7  | 92.7  | 92.6  | 92.8  | 93.1  | 93.4  | 93.5  | 93.5  | 93.1  | 93.1  | 93.1  | 94.1                |
| 12-4                                    | Household appliances.....  | 95.5  | 95.0  | 95.1  | 94.9  | 94.9  | 94.9  | 94.8  | 94.7  | 94.4  | 94.4  | 93.6  | 93.6  | 93.1  | 93.0                |
| 12-5                                    | Home electronic equipment.....                                     | 77.4  | 77.2  | 77.2  | 77.2  | 77.0  | 77.0  | 77.0  | 77.2  | 77.2  | 77.2  | 77.8  | 77.7  | 77.9  | 78.2                |
| 12-6                                    | Other household durable goods.....                                 | 136.6 | 136.5 | 135.8 | 135.8 | 135.5 | 135.3 | 135.6 | 134.6 | 134.8 | 133.0 | 133.3 | 131.1 | 131.2 | 130.6               |
| 13                                      | <b>Nonmetallic mineral products.....</b>                           | 119.1 | 118.7 | 118.5 | 118.1 | 117.9 | 117.9 | 117.8 | 117.3 | 116.9 | 116.5 | 114.5 | 113.9 | 113.8 | 112.8               |
| 13-11                                   | Flat glass.....  | 122.1 | 122.1 | 122.1 | 122.1 | 121.6 | 121.1 | 121.5 | 119.9 | 119.0 | 118.4 | 117.8 | 116.2 | 116.2 | 114.6               |
| 13-2                                    | Concrete ingredients.....  | 122.7 | 122.6 | 122.4 | 122.4 | 122.3 | 122.1 | 121.9 | 120.8 | 120.6 | 120.1 | 116.7 | 116.7 | 116.6 | 115.6               |
| 13-3                                    | Concrete products.....   | 119.8 | 119.7 | 118.9 | 118.3 | 118.1 | 117.4 | 117.2 | 117.0 | 116.4 | 115.9 | 114.2 | 113.6 | 113.5 | 112.2               |
| 13-4                                    | Structural clay products exc. refractories.....                    | 122.2 | 122.0 | 121.3 | 121.3 | 121.2 | 121.2 | 120.9 | 119.8 | 119.4 | 119.4 | 118.5 | 118.5 | 117.8 | 117.0               |
| 13-5                                    | Refractories.....  | 125.7 | 125.7 | 125.7 | 125.7 | 125.8 | 126.1 | 125.9 | 125.4 | 125.1 | 123.5 | 120.9 | 117.2 | 117.2 | 115.1               |
| 13-6                                    | Asphalt roofing.....   | 96.2  | 95.3  | 93.6  | 92.0  | 92.7  | 95.1  | 95.1  | 97.8  | 100.8 | 101.8 | 101.2 | 94.0  | 96.7  | 98.3                |
| 13-7                                    | Gypsum products.....   | 99.8  | 99.2  | 104.7 | 100.7 | 100.7 | 104.0 | 105.6 | 107.0 | 108.3 | 107.3 | 104.3 | 109.8 | 105.9 | 106.4               |
| 13-8                                    | Glass containers.....  | 120.9 | 120.9 | 120.9 | 120.9 | 120.9 | 120.9 | 120.9 | 120.9 | 120.9 | 120.9 | 116.1 | 116.1 | 116.1 | 116.1               |
| 13-9                                    | Other nonmetallic minerals.....                                    | 116.9 | 114.8 | 114.6 | 113.9 | 113.7 | 113.7 | 113.5 | 112.4 | 111.0 | 111.0 | 110.6 | 110.6 | 110.6 | 109.1               |
| 14                                      | <b>Transportation equipment (Dec. 1968=100).....</b>               | 108.2 | 103.6 | 103.3 | 103.2 | 103.3 | 103.2 | 103.1 | 103.2 | 102.9 | 102.9 | 102.7 | 102.7 | 102.3 | 100.7               |
| 14-1                                    | Motor vehicles and equipment.....                                  | 115.0 | 109.7 | 109.5 | 109.4 | 109.5 | 109.4 | 109.3 | 109.4 | 109.1 | 109.1 | 109.0 | 109.0 | 108.7 | 107.0               |
| 14-4                                    | Railroad equipment (Jan. 1961=100).....                            | 120.2 | 119.5 | 119.3 | 119.3 | 119.3 | 119.0 | 118.8 | 118.7 | 117.7 | 117.4 | 115.7 | 115.1 | 115.1 | 112.4               |
| 15                                      | <b>Miscellaneous products.....</b>                                 | 122.0 | 121.9 | 121.5 | 121.4 | 121.0 | 118.2 | 117.8 | 117.8 | 117.5 | 117.4 | 117.0 | 117.0 | 116.7 | 114.7               |
| 15-1                                    | Toys, sporting goods, small arms, ammunition.....                  | 117.0 | 116.4 | 116.2 | 115.9 | 115.8 | 115.1 | 115.0 | 115.3 | 114.2 | 114.1 | 112.7 | 112.8 | 112.3 | 111.3               |
| 15-2                                    | Tobacco products.....  | 132.1 | 132.1 | 131.8 | 131.7 | 132.3 | 124.1 | 124.1 | 124.1 | 124.0 | 124.0 | 124.0 | 124.0 | 123.8 | 120.8               |
| 15-3                                    | Notions.....   | 110.4 | 110.4 | 109.8 | 109.8 | 109.4 | 109.0 | 109.0 | 109.0 | 109.0 | 107.2 | 107.2 | 107.2 | 106.7 | 103.6               |
| 15-4                                    | Photographic equipment and supplies.....                           | 117.3 | 117.5 | 117.2 | 117.0 | 116.1 | 116.2 | 116.2 | 115.9 | 115.8 | 115.7 | 115.3 | 115.0 | 114.9 | 113.0               |
| 15-9                                    | Other miscellaneous products.....                                  | 118.8 | 118.8 | 118.3 | 118.2 | 116.8 | 116.8 | 115.0 | 114.8 | 114.8 | 115.1 | 114.9 | 114.9 | 114.8 | 113.1               |

<sup>1</sup> As of January 1967, the indexes incorporated a revised weighting structure reflecting 1963 values of shipments. Changes also were made in the classification structure, and titles and composition of some indexes were changed. Titles and indexes in this table conform with the revised classification structure, and may differ from data previously published. See Wholesale Prices and Price Indexes, January 1967 (final) and February 1967 (final) for a description of the changes.

<sup>2</sup> As of January 1962, the indexes were converted from the former base of 1947-49=100 to the new base of 1957-59=100. Technical details and earlier data on the 1957-59 base furnished upon request to the Bureau.

NOTE: For a description of the general method of computing the monthly Wholesale Price Index, see BLS Handbook of Methods for Surveys and Studies (BLS Bulletin 1458, 1966), Chapter 11.

28. Wholesale price indexes for special commodity groupings<sup>1</sup>[1957-59=100, unless otherwise specified]<sup>2</sup>

| Commodity group  | 1970  |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual average 1969 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
|  | Oct.  | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  |                     |
| All commodities—less farm products.....  | 118.9 | 118.4 | 118.1 | 118.1 | 117.6 | 117.4 | 117.2 | 116.8 | 116.6 | 116.3 | 115.4 | 115.0 | 114.7 | 113.4               |
| All foods.....   | 121.3 | 124.3 | 122.3 | 124.9 | 123.5 | 122.8 | 123.2 | 124.9 | 124.5 | 125.0 | 123.3 | 123.1 | 119.8 | 119.0               |
| Processed foods.....   | 124.5 | 125.6 | 125.9 | 126.7 | 125.2 | 124.6 | 125.4 | 125.7 | 124.6 | 124.5 | 122.8 | 122.1 | 121.8 | 119.9               |
| Textile products, excluding hard and bast fiber products.....                          | 98.6  | 99.2  | 99.6  | 99.6  | 99.9  | 100.2 | 100.4 | 100.6 | 101.0 | 101.3 | 101.0 | 101.1 | 101.1 | 101.0               |
| Hosiery.....   | 91.7  | 92.1  | 92.2  | 92.2  | 92.2  | 92.3  | 92.3  | 92.4  | 92.8  | 92.8  | 92.7  | 92.7  | 92.7  | 92.7                |
| Underwear and nightwear.....   | 117.3 | 117.0 | 117.0 | 117.0 | 116.9 | 116.7 | 116.7 | 116.4 | 116.4 | 116.2 | 115.9 | 115.7 | 115.7 | 115.0               |
| Refined petroleum products.....  | 103.8 | 103.8 | 103.1 | 102.4 | 102.2 | 104.2 | 101.3 | 100.8 | 101.2 | 101.0 | 102.2 | 101.6 | 101.6 | 101.8               |
| East Coast.....  | 118.1 | 118.1 | 116.7 | 115.0 | 113.2 | 110.2 | 103.6 | 103.4 | 103.4 | 103.4 | 103.4 | 103.4 | 103.4 | 103.4               |
| Mid-Continent.....   | 104.8 | 105.5 | 106.3 | 104.7 | 101.4 | 111.7 | 98.5  | 99.2  | 102.2 | 101.2 | 103.9 | 102.5 | 98.7  | 102.0               |
| Gulf Coast.....  | 98.1  | 98.5  | 98.9  | 97.8  | 97.5  | 99.6  | 98.6  | 99.3  | 99.3  | 98.4  | 100.7 | 99.8  | 101.4 | 100.7               |
| Pacific Coast.....   | 95.0  | 95.0  | 92.3  | 92.3  | 94.8  | 94.8  | 94.0  | 92.2  | 91.2  | 92.5  | 92.5  | 92.5  | 92.3  | 93.0                |
| Midwest (Jan. 1961=100).....   | 103.6 | 102.3 | 101.3 | 101.3 | 100.9 | 101.8 | 99.3  | 96.8  | 98.0  | 98.0  | 99.1  | 98.4  | 97.4  | 97.5                |
| Pharmaceutical preparations.....   | 97.0  | 96.8  | 97.7  | 97.1  | 96.9  | 96.9  | 96.8  | 97.4  | 97.0  | 97.0  | 97.1  | 96.7  | 96.5  | 96.3                |
| Lumber and wood products excluding millwork and other wood products <sup>3</sup> ..... | 117.0 | 118.2 | 117.5 | 116.5 | 117.4 | 118.6 | 117.3 | 116.4 | 117.5 | 119.3 | 120.6 | 122.2 | 120.1 | 134.6               |
| Special metals and metal products <sup>4</sup> .....                                   | 125.3 | 123.3 | 123.2 | 123.3 | 123.4 | 123.1 | 122.5 | 122.0 | 121.4 | 120.6 | 119.9 | 119.2 | 118.8 | 116.0               |
| Machinery and motive products.....   | 122.8 | 120.4 | 120.0 | 119.8 | 119.5 | 119.3 | 119.0 | 118.9 | 118.6 | 118.4 | 117.9 | 117.4 | 116.9 | 115.3               |
| Machinery and equipment, except electrical.....  | 136.5 | 135.5 | 135.0 | 134.9 | 134.3 | 134.1 | 133.7 | 133.3 | 132.9 | 132.6 | 131.9 | 130.6 | 129.9 | 128.1               |
| Agricultural machinery, including tractors.....  | 141.7 | 140.5 | 139.8 | 139.6 | 139.4 | 139.8 | 139.7 | 139.6 | 139.7 | 139.3 | 139.1 | 138.5 | 135.5 | 135.2               |
| Metalworking machinery.....  | 151.1 | 151.0 | 149.7 | 149.7 | 149.0 | 148.3 | 147.1 | 146.6 | 146.0 | 145.2 | 144.6 | 143.6 | 143.4 | 140.5               |
| Total tractors.....  | 146.3 | 143.5 | 142.9 | 142.6 | 142.6 | 142.8 | 142.8 | 142.9 | 143.0 | 142.8 | 142.5 | 141.3 | 139.4 | 138.1               |
| Industrial valves.....   | 134.5 | 134.3 | 134.3 | 133.7 | 131.8 | 131.2 | 130.1 | 130.0 | 129.4 | 128.5 | 127.3 | 125.8 | 125.8 | 124.2               |
| Industrial fittings.....   | 127.7 | 127.3 | 127.3 | 127.7 | 124.2 | 124.2 | 124.2 | 124.2 | 124.2 | 123.2 | 119.4 | 118.6 | 118.0 | 115.9               |
| Abrasive grinding wheels.....  | 111.5 | 109.7 | 107.1 | 107.1 | 107.1 | 107.1 | 107.1 | 107.1 | 107.1 | 107.1 | 107.1 | 107.1 | 107.0 | 103.3               |
| Construction materials.....  | 118.8 | 118.9 | 119.2 | 118.8 | 118.6 | 118.5 | 118.0 | 117.5 | 117.4 | 117.4 | 116.9 | 116.9 | 116.3 | 117.7               |

<sup>1</sup> See footnote 1, table 26.<sup>2</sup> See footnote 2, table 26.<sup>3</sup> Formerly titled "Lumber and wood products, excluding millwork."<sup>4</sup> Metals and metal products, agricultural machinery and equipment, and motor vehicles and equipment.



29. Wholesale price indexes,<sup>1</sup> by stage of processing[1957-59=100]<sup>2</sup>

| Commodity group  | 1970  |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual average 1969 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
|  | Oct.  | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  |                     |
| <b>ALL COMMODITIES</b> .....   | 117.8 | 117.8 | 117.2 | 117.7 | 117.0 | 116.8 | 116.6 | 116.6 | 116.4 | 116.0 | 115.1 | 114.7 | 114.0 | 113.0               |
| <b>CRUDE MATERIALS FOR FURTHER PROCESSING</b> .....  | 110.9 | 112.5 | 110.9 | 113.8 | 113.0 | 112.8 | 113.4 | 114.2 | 113.0 | 110.7 | 109.9 | 109.0 | 108.7 | 107.9               |
| Foodstuffs and feedstuffs.....   | 111.4 | 114.4 | 112.4 | 116.6 | 114.8 | 114.4 | 115.3 | 117.3 | 115.5 | 112.9 | 112.2 | 111.0 | 110.5 | 110.4               |
| Nonfood materials except fuel.....   | 103.6 | 103.9 | 103.6 | 104.4 | 105.9 | 106.9 | 107.0 | 106.6 | 106.9 | 105.3 | 104.2 | 104.0 | 104.0 | 102.0               |
| Manufacturing.....   | 102.0 | 102.4 | 102.0 | 102.9 | 104.6 | 105.6 | 105.8 | 105.6 | 105.9 | 104.3 | 103.2 | 103.0 | 103.0 | 101.0               |
| Construction.....  | 121.5 | 121.3 | 121.0 | 121.0 | 120.7 | 120.3 | 120.2 | 118.0 | 117.5 | 116.4 | 115.3 | 115.3 | 115.1 | 114.0               |
| Crude fuel.....  | 146.2 | 139.7 | 136.9 | 135.9 | 134.4 | 131.8 | 131.5 | 125.2 | 124.7 | 122.2 | 121.5 | 121.1 | 119.9 | 117.6               |
| Manufacturing industries.....  | 136.1 | 131.7 | 130.0 | 129.3 | 128.1 | 126.2 | 126.0 | 121.5 | 121.2 | 119.6 | 118.8 | 118.6 | 117.8 | 116.0               |
| Nonmanufacturing industries.....   | 159.8 | 150.3 | 146.1 | 144.8 | 143.0 | 139.2 | 138.8 | 130.3 | 129.4 | 125.8 | 125.0 | 124.5 | 122.8 | 119.8               |
| <b>INTERMEDIATE MATERIALS, SUPPLIES AND COMPONENTS</b> .....   | 117.1 | 116.8 | 116.6 | 116.4 | 115.9 | 115.7 | 115.3 | 114.8 | 114.7 | 114.4 | 113.5 | 113.1 | 112.8 | 111.8               |
| Materials and Components for Manufacturing.....  | 116.0 | 115.7 | 115.8 | 115.7 | 115.4 | 115.3 | 115.0 | 114.4 | 113.9 | 113.6 | 112.9 | 112.6 | 112.2 | 110.8               |
| Materials for food manufacturing.....  | 124.5 | 124.0 | 124.2 | 124.3 | 123.0 | 122.5 | 123.4 | 122.9 | 121.5 | 121.1 | 119.9 | 120.0 | 119.2 | 116.8               |
| Materials for nondurable manufacturing.....  | 102.7 | 102.5 | 102.8 | 102.6 | 102.4 | 102.8 | 102.7 | 102.4 | 102.3 | 102.3 | 101.6 | 101.7 | 101.5 | 101.2               |
| Materials for durable manufacturing.....   | 125.0 | 124.8 | 125.3 | 125.5 | 125.6 | 125.4 | 124.5 | 123.4 | 122.7 | 122.1 | 121.4 | 120.4 | 120.0 | 118.1               |
| Components for manufacturing.....  | 122.0 | 121.6 | 120.8 | 120.3 | 119.7 | 119.0 | 118.7 | 118.3 | 118.0 | 117.7 | 117.0 | 116.7 | 116.1 | 114.0               |
| Materials and Components for Construction.....   | 119.7 | 119.7 | 119.6 | 119.1 | 118.9 | 118.6 | 118.2 | 117.7 | 117.3 | 117.3 | 116.8 | 116.7 | 116.2 | 116.9               |
| Processed fuels and lubricants.....  | 110.4 | 108.7 | 106.4 | 105.5 | 104.8 | 105.1 | 103.6 | 103.0 | 103.0 | 102.4 | 102.7 | 102.1 | 102.3 | 100.9               |
| Manufacturing industries.....  | 113.7 | 111.3 | 109.0 | 108.2 | 107.6 | 107.3 | 106.7 | 106.1 | 106.0 | 105.3 | 105.1 | 104.5 | 104.8 | 103.1               |
| Nonmanufacturing industries.....   | 105.3 | 104.6 | 102.3 | 101.3 | 100.4 | 101.6 | 98.8  | 98.3  | 98.3  | 97.8  | 99.0  | 98.4  | 98.4  | 97.4                |
| Containers.....  | 119.9 | 118.7 | 118.7 | 119.1 | 118.7 | 118.5 | 118.5 | 118.1 | 117.6 | 116.2 | 114.8 | 114.6 | 114.5 | 113.3               |
| Supplies.....  | 121.2 | 121.7 | 120.8 | 120.7 | 118.9 | 118.3 | 118.5 | 117.6 | 120.1 | 119.7 | 116.9 | 115.9 | 115.6 | 114.4               |
| Manufacturing industries.....  | 122.1 | 121.7 | 121.9 | 122.3 | 122.1 | 121.9 | 121.7 | 121.1 | 120.9 | 120.5 | 119.4 | 118.7 | 118.0 | 117.0               |
| Nonmanufacturing industries.....   | 120.0 | 121.0 | 119.5 | 119.2 | 116.8 | 116.0 | 116.4 | 115.4 | 119.1 | 118.6 | 115.1 | 113.9 | 113.9 | 112.5               |
| Manufactured animal feeds.....   | 120.2 | 123.6 | 120.2 | 119.4 | 112.9 | 111.4 | 113.2 | 110.7 | 122.8 | 123.7 | 114.1 | 111.6 | 112.3 | 110.6               |
| Other supplies.....  | 116.0 | 115.7 | 115.3 | 115.2 | 114.8 | 114.5 | 114.2 | 113.9 | 113.4 | 112.3 | 111.8 | 111.4 | 111.0 | 109.8               |
| <b>FINISHED GOODS (Including Raw Foods and Fuels)</b> .....  | 120.0 | 119.9 | 119.1 | 119.7 | 119.0 | 118.7 | 118.6 | 119.0 | 118.8 | 118.8 | 118.0 | 117.6 | 116.5 | 115.3               |
| Consumer Goods.....  | 117.8 | 118.1 | 117.2 | 118.0 | 117.3 | 117.0 | 116.8 | 117.4 | 117.3 | 117.3 | 116.5 | 116.2 | 115.1 | 114.0               |
| Foods.....   | 121.9 | 125.1 | 123.3 | 125.9 | 124.2 | 123.6 | 124.1 | 126.0 | 125.9 | 126.4 | 124.5 | 123.9 | 121.2 | 120.3               |
| Crude.....   | 108.1 | 120.7 | 107.6 | 118.3 | 115.4 | 115.0 | 114.3 | 123.3 | 128.0 | 131.6 | 129.5 | 131.0 | 114.2 | 117.5               |
| Processed.....   | 124.5 | 125.9 | 126.2 | 127.3 | 125.8 | 125.2 | 125.9 | 126.4 | 125.4 | 125.3 | 123.5 | 122.5 | 122.4 | 120.7               |
| Other nondurable goods.....  | 117.1 | 116.8 | 116.4 | 116.0 | 115.9 | 115.6 | 114.9 | 114.7 | 114.6 | 114.2 | 114.1 | 113.8 | 113.6 | 112.3               |
| Durable goods.....   | 111.6 | 108.4 | 108.3 | 108.3 | 108.1 | 108.0 | 107.8 | 107.8 | 107.6 | 107.4 | 107.2 | 107.1 | 106.9 | 105.8               |
| Producer Finished Goods.....   | 127.0 | 125.3 | 124.9 | 124.6 | 124.2 | 124.0 | 123.7 | 123.5 | 123.1 | 122.9 | 122.3 | 121.5 | 120.8 | 119.3               |
| Manufacturing industries.....  | 132.4 | 131.3 | 130.9 | 130.6 | 129.9 | 129.5 | 129.1 | 128.9 | 128.4 | 128.0 | 127.5 | 126.2 | 125.8 | 124.1               |
| Nonmanufacturing industries.....   | 121.9 | 119.8 | 119.4 | 119.2 | 119.0 | 118.8 | 118.7 | 118.5 | 118.2 | 118.0 | 117.4 | 117.0 | 116.1 | 114.7               |
| <b>SPECIAL GROUPINGS</b>   |       |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| Crude materials for further processing, excluding crude foodstuffs and feedstuffs, plant and animal fibers, oilseeds and leaf tobacco..... | 120.6 | 118.7 | 117.2 | 118.0 | 119.5 | 120.0 | 120.3 | 118.5 | 118.5 | 116.0 | 114.5 | 114.1 | 113.7 | 110.5               |
| Intermediate materials supplies and components, excluding intermediate materials for food mfg., and mfr.'d animal feeds.....               | 116.3 | 116.0 | 115.8 | 115.6 | 115.4 | 115.2 | 114.7 | 114.2 | 113.9 | 113.5 | 112.9 | 112.6 | 112.2 | 111.3               |
| Consumer finished goods, excluding consumer foods.....   | 115.1 | 113.6 | 113.3 | 113.1 | 112.9 | 112.7 | 112.2 | 112.1 | 111.9 | 111.7 | 111.5 | 111.3 | 111.1 | 109.9               |

<sup>1</sup> See footnote 1, table 26.<sup>2</sup> See footnote 2, table 26.

NOTE: For description of the series by stage of processing, see Wholesale Prices and Price Indexes, January 1967 (final) and February 1967 (final).

30. Wholesale price indexes,<sup>1</sup> by durability of product[1957-59=100]<sup>2</sup>

| Commodity group                            | 1970  |       |       |       |       |       |       |       |       |       | 1969  |       |       | Annual average 1969 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
|  | Oct.  | Sept. | Aug.  | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  |                     |
| All commodities.....                       | 117.8 | 117.8 | 117.2 | 117.7 | 117.0 | 116.8 | 116.6 | 116.6 | 116.4 | 116.0 | 115.1 | 114.7 | 114.0 | 113.0               |
| Total durable goods.....                   | 123.0 | 121.9 | 121.7 | 121.6 | 121.5 | 121.3 | 120.9 | 120.5 | 120.0 | 119.6 | 119.0 | 118.4 | 117.9 | 116.6               |
| Total nondurable goods.....                | 114.0 | 114.8 | 113.9 | 114.8 | 113.8 | 113.6 | 113.6 | 113.9 | 113.9 | 113.4 | 112.4 | 111.9 | 111.2 | 110.3               |
| Total manufactures.....                    | 118.6 | 118.2 | 118.0 | 118.0 | 117.4 | 117.1 | 116.9 | 116.6 | 116.4 | 116.1 | 115.3 | 114.9 | 114.6 | 113.3               |
| Durable.....                               | 123.0 | 121.8 | 121.6 | 121.5 | 121.3 | 121.0 | 120.5 | 120.1 | 119.7 | 119.4 | 118.8 | 118.3 | 117.9 | 116.6               |
| Nondurable.....                            | 114.4 | 114.6 | 114.4 | 114.5 | 113.6 | 113.4 | 113.4 | 113.2 | 113.2 | 113.0 | 111.9 | 111.6 | 111.4 | 110.1               |
| Total raw or slightly processed goods..... | 113.0 | 115.4 | 112.6 | 115.7 | 114.7 | 114.5 | 114.7 | 116.3 | 116.0 | 114.8 | 113.9 | 113.1 | 111.0 | 110.9               |
| Durable.....                               | 121.5 | 122.8 | 121.2 | 124.4 | 128.9 | 131.9 | 131.9 | 134.0 | 133.8 | 128.9 | 125.3 | 124.0 | 122.8 | 115.8               |
| Nondurable.....                            | 112.6 | 115.0 | 112.1 | 115.2 | 113.9 | 113.6 | 113.8 | 115.3 | 115.1 | 114.1 | 113.3 | 112.5 | 110.3 | 110.7               |

<sup>1</sup> See footnote 1, table 26.<sup>2</sup> See footnote 2, table 26.

NOTE: For description of the series by durability of product and data beginning with 1947, see "Wholesale Price and Price Indexes, 1957" (BLS Bulletin 1235, 1958).

31. Industry-sector price indexes for the output of selected industries<sup>1</sup>

[1957-59=100 unless otherwise indicated]

| 1963 SIC Code        | Industry                               | Other bases | 1970              |       |       |       |       |       |       |       | 1969  |       |       |       |       | Annual average 1969 |
|----------------------|--|-------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|
|                      |  |             | Aug. <sup>2</sup> | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  | Sept. | Aug.  |                     |
| <b>MINING</b>        |  |             |                   |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| 1111                 | Anthracite.....                        |             | 118.4             | 118.4 | 116.8 | 116.8 | 119.3 | 119.3 | 119.3 | 119.3 | 118.4 | 114.9 | 111.4 | 111.4 | 108.0 | 109.0               |
| 1211                 | Bituminous coal.....                   |             | 161.3             | 158.8 | 155.9 | 149.6 | 148.2 | 134.6 | 132.7 | 125.9 | 124.9 | 124.2 | 121.3 | 116.2 | 116.1 | 116.7               |
| 1311                 | Crude petroleum and natural gas.....   |             | 110.5             | 110.4 | 111.2 | 111.2 | 111.2 | 111.0 | 111.0 | 111.0 | 110.9 | 110.9 | 110.8 | 110.9 | 110.6 | 110.0               |
| 1421                 | Crushed and broken stone.....          |             | 120.1             | 120.0 | 120.0 | 119.5 | 119.4 | 116.6 | 116.3 | 115.1 | 114.5 | 114.2 | 114.2 | 113.6 | 113.4 | 113.4               |
| 1442                 | Construction sand and gravel.....      |             | 129.0             | 129.0 | 128.4 | 128.3 | 128.0 | 126.7 | 125.8 | 124.7 | 123.0 | 123.0 | 122.5 | 121.5 | 121.4 | 121.4               |
| 1475                 | Phosphate rock.....                    |             | 117.6             | 117.6 | 147.4 | 147.4 | 147.4 | 147.4 | 147.4 | 147.4 | 147.4 | 147.4 | 147.4 | 147.4 | 147.4 | 147.4               |
| 1476                 | Rock salt.....                         |             | 113.1             | 113.1 | 113.1 | 113.1 | 113.1 | 107.0 | 107.0 | 107.0 | 107.0 | 107.0 | 107.0 | 107.0 | 105.5 | 105.5               |
| 1477                 | Sulfur.....                            |             | 91.8              | 91.8  | 91.8  | 96.0  | 93.9  | 100.1 | 104.2 | 115.8 | 115.8 | 124.1 | 165.4 | 165.4 | 154.4 | 154.4               |
| <b>MANUFACTURING</b> |  |             |                   |       |       |       |       |       |       |       |       |       |       |       |       |                     |
| 2011                 | Meat slaughtering plants.....          | 12/66       | 117.2             | 120.6 | 117.9 | 115.9 | 118.5 | 120.1 | 116.8 | 117.5 | 114.0 | 113.5 | 113.8 | 116.2 | 117.4 | 112.8               |
| 2013                 | Meat processing plants.....            | 12/66       | 115.0             | 117.5 | 117.7 | 119.3 | 121.2 | 124.4 | 123.3 | 119.7 | 121.3 | 118.5 | 119.1 | 120.3 | 122.0 | 113.1               |
| 2015                 | Poultry dressing plants.....           |             | 97.0              | 100.9 | 96.2  | 101.3 | 100.9 | 107.5 | 105.0 | 111.4 | 105.7 | 103.3 | 101.7 | 104.0 | 107.8 | 101.7               |
| 2021                 | Creamery butter.....                   | 12/66       | 110.7             | 110.6 | 110.7 | 110.8 | 110.6 | 105.1 | 104.9 | 104.7 | 106.3 | 105.1 | 105.1 | 105.1 | 104.9 | 104.7               |
| 2033                 | Canned fruits and vegetables.....      | 12/66       | 113.2             | 112.4 | 111.8 | 111.4 | 110.6 | 109.9 | 110.0 | 109.6 | 109.8 | 109.7 | 109.5 | 109.0 | 108.7 | 108.4               |
| 2036                 | Fresh or frozen packaged fish.....     |             | 150.9             | 150.9 | 150.7 | 145.6 | 147.4 | 147.9 | 155.9 | 155.3 | 150.8 | 154.1 | 146.5 | 145.9 | 143.8 | 144.0               |
| 2044                 | Rice milling.....                      |             | 93.1              | 93.1  | 93.1  | 93.1  | 93.1  | 93.1  | 93.1  | 93.1  | 94.0  | 94.0  | 93.1  | 92.6  | 93.6  | 93.6                |
| 2052                 | Biscuits, crackers and cookies.....    | 12/66       | 115.5             | 115.5 | 115.5 | 115.5 | 115.5 | 112.4 | 110.5 | 109.7 | 109.7 | 109.7 | 108.0 | 107.1 | 104.5 | 105.8               |
| 2061                 | Raw cane sugar.....                    | 12/66       | 115.3             | 114.6 | 115.5 | 114.5 | 111.0 | 111.0 | 112.2 | 113.9 | 107.0 | 110.1 | 110.5 | 109.6 | 108.9 | 108.5               |
| 2062                 | Cane sugar refining.....               | 12/66       | 113.6             | 113.5 | 113.6 | 110.7 | 110.3 | 110.3 | 110.5 | 110.8 | 108.9 | 109.3 | 109.2 | 108.4 | 108.1 | 106.9               |
| 2063                 | Beet sugar.....                        | 12/66       | 112.5             | 112.4 | 112.5 | 110.2 | 109.3 | 109.3 | 108.0 | 108.0 | 106.1 | 106.6 | 106.7 | 106.4 | 106.3 | 105.1               |
| 2073                 | Chewing gum.....                       |             | 120.1             | 117.1 | 106.3 | 106.2 | 106.2 | 106.2 | 106.2 | 106.2 | 106.2 | 106.2 | 106.1 | 106.1 | 106.1 | 106.1               |
| 2082                 | Malt liquors.....                      |             | 109.6             | 109.4 | 109.1 | 109.2 | 108.2 | 107.4 | 107.3 | 107.4 | 107.3 | 107.3 | 107.7 | 107.1 | 107.2 | 106.3               |
| 2083                 | Malt.....                              | 12/66       | 94.1              | 94.1  | 94.1  | 94.1  | 94.1  | 94.1  | 94.1  | 96.8  | 96.8  | 96.8  | 96.8  | 96.8  | 96.8  | 96.8                |
| 2084                 | Wines and brandy.....                  |             | 118.8             | 118.8 | 118.8 | 118.8 | 118.8 | 118.8 | 118.8 | 118.3 | 118.3 | 118.3 | 118.3 | 115.5 | 115.5 | 116.3               |
| 2091                 | Cottonseed oil mills.....              |             | 117.7             | 115.9 | 111.3 | 108.9 | 108.4 | 105.0 | 108.4 | 109.0 | 99.4  | 95.8  | 91.5  | 97.0  | 97.2  | 95.1                |
| 2092                 | Soybean oil mills.....                 | 12/66       | 101.5             | 99.4  | 93.9  | 92.2  | 98.6  | 93.6  | 101.6 | 95.9  | 88.6  | 88.0  | 91.0  | 85.7  | 87.4  | 86.5                |
| 2094                 | Animal and marine fats and oils.....   | 12/66       | 114.9             | 110.5 | 110.5 | 110.9 | 113.3 | 109.6 | 111.5 | 105.2 | 96.4  | 104.9 | 102.1 | 105.8 | 104.6 | 94.5                |
| 2096                 | Shortening and cooking oils.....       |             | 115.5             | 114.1 | 114.1 | 114.1 | 114.7 | 113.7 | 108.6 | 108.3 | 108.8 | 107.2 | 105.5 | 102.6 | 102.5 | 103.8               |
| 2098                 | Macaroni and noodle products.....      | 12/66       | 104.6             | 104.6 | 104.6 | 104.6 | 104.6 | 104.6 | 104.6 | 101.9 | 101.9 | 101.9 | 101.9 | 101.9 | 101.8 | 101.5               |
| 2111                 | Cigarettes.....                        |             | 133.9             | 134.0 | 134.7 | 125.1 | 125.1 | 125.1 | 125.1 | 125.1 | 125.1 | 125.0 | 125.0 | 125.0 | 121.9 | 121.9               |
| 2121                 | Cigars.....                            |             | 107.2             | 107.1 | 107.3 | 107.3 | 107.2 | 107.2 | 107.2 | 106.8 | 107.3 | 107.3 | 106.8 | 106.8 | 105.2 | 104.3               |
| 2131                 | Chewing and smoking tobacco.....       |             | 151.4             | 146.3 | 146.4 | 142.3 | 142.3 | 142.3 | 141.4 | 141.4 | 141.4 | 140.6 | 138.5 | 138.3 | 138.1 | 137.2               |
| 2254                 | Knit underwear mills.....              | 12/66       | 108.7             | 108.9 | 108.8 | 108.5 | 108.5 | 108.4 | 108.4 | 108.2 | 107.8 | 107.7 | 107.7 | 107.7 | 107.7 | 107.0               |
| 2272                 | Tufted carpets and rugs.....           | 12/66       | 94.1              | 94.2  | 93.9  | 94.1  | 94.5  | 94.9  | 95.1  | 95.1  | 95.6  | 95.6  | 95.6  | 95.7  | 95.7  | 96.0                |
| 2311                 | Men's and boys' suits and coats.....   |             | 146.1             | 145.7 | 145.4 | 143.9 | 143.9 | 143.7 | 143.6 | 142.7 | 142.7 | 142.2 | 140.4 | 139.4 | 138.5 | 137.3               |
| 2321                 | Men's dress shirts and nightwear.....  |             | 123.6             | 123.6 | 123.6 | 123.3 | 123.0 | 123.1 | 122.6 | 122.6 | 122.1 | 121.0 | 121.0 | 120.6 | 120.6 | 119.6               |
| 2322                 | Men's and boys' underwear.....         | 12/66       | 110.4             | 109.8 | 109.8 | 109.6 | 109.6 | 109.6 | 109.5 | 109.4 | 109.1 | 109.0 | 109.0 | 107.9 | 107.9 | 107.7               |
| 2327                 | Men's and boys' separate trousers..... | 12/66       | 107.8             | 105.7 | 107.9 | 107.7 | 107.5 | 107.5 | 107.4 | 107.3 | 106.9 | 106.8 | 106.8 | 106.4 | 106.3 | 105.8               |
| 2328                 | Work clothing.....                     |             | 123.1             | 122.9 | 123.1 | 121.6 | 121.2 | 120.9 | 120.1 | 119.8 | 119.1 | 119.0 | 119.0 | 118.3 | 117.7 | 117.6               |
| 2381                 | Fabric dress and work gloves.....      |             | 137.3             | 137.3 | 137.3 | 137.3 | 137.3 | 137.3 | 137.3 | 136.2 | 137.1 | 135.4 | 135.4 | 134.8 | 132.1 | 132.8               |
| 2426                 | Hardwood dimension and flooring.....   | 12/66       | 113.7             | 113.2 | 114.4 | 114.4 | 113.1 | 113.8 | 115.2 | 116.8 | 116.5 | 116.6 | 116.7 | 117.2 | 117.3 | 118.2               |
| 2442                 | Wirebound boxes and crates.....        | 12/67       | 114.8             | 114.4 | 113.6 | 113.6 | 113.6 | 113.4 | 113.4 | 113.0 | 110.7 | 110.0 | 110.0 | 110.0 | 108.6 | 108.2               |
| 2515                 | Mattresses and bedsprings.....         | 12/66       | 109.2             | 109.0 | 108.9 | 108.9 | 108.9 | 108.8 | 108.8 | 108.8 | 110.2 | 108.7 | 108.5 | 108.5 | 108.5 | 108.2               |
| 2521                 | Wood office furniture.....             |             | 140.6             | 140.6 | 140.6 | 140.5 | 140.5 | 140.5 | 140.1 | 139.8 | 139.2 | 138.9 | 137.6 | 135.9 | 134.3 | 134.6               |
| 2647                 | Sanitary paper products.....           | 12/66       | 117.9             | 118.0 | 118.3 | 118.0 | 117.9 | 117.5 | 117.0 | 116.9 | 115.3 | 115.3 | 113.9 | 113.5 | 113.1 | 112.2               |
| 2654                 | Sanitary food containers.....          | 12/66       | 102.5             | 102.5 | 102.4 | 102.5 | 102.5 | 102.5 | 102.4 | 101.6 | 101.3 | 101.2 | 100.6 | 100.4 | 100.4 | 100.7               |

See footnotes at end of table.

31. Industry-sector price indexes for the output of selected industries<sup>1</sup>—Continued

| 1963<br>SIC<br>Code            | Industry                            | Other<br>bases | 1970              |       |       |       |       |       |       | 1969  |       |       |       |       | Annual<br>average<br>1969 |
|--------------------------------|-------------------------------------|----------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
|                                |                                     |                | Aug. <sup>2</sup> | July  | June  | May   | Apr.  | Mar.  | Feb.  | Jan.  | Dec.  | Nov.  | Oct.  | Sept. |                           |
| <b>MANUFACTURING—Continued</b> |                                     |                |                   |       |       |       |       |       |       |       |       |       |       |       |                           |
| 2822                           | Synthetic rubber.....               |                | 96.1              | 96.2  | 96.2  | 96.2  | 96.2  | 96.0  | 95.9  | 96.0  | 96.0  | 96.0  | 96.0  | 95.9  | 95.7                      |
| 2823                           | Cellulosic man-made fibers.....     |                | 95.7              | 95.7  | 95.9  | 95.9  | 95.8  | 95.8  | 95.7  | 95.7  | 95.6  | 95.6  | 95.6  | 95.6  | 95.7                      |
| 2824                           | Organic fibers, noncellulosic.....  | 12/66          | 96.0              | 96.0  | 96.0  | 96.0  | 96.0  | 96.0  | 96.0  | 96.0  | 96.0  | 96.0  | 96.0  | 96.0  | 96.0                      |
| 2871                           | Fertilizers.....                    | 12/66          | 89.1              | 88.2  | 88.3  | 88.2  | 88.3  | 88.2  | 88.3  | 86.6  | 85.0  | 85.0  | 85.4  | 88.3  | 88.5                      |
| 2872                           | Fertilizers, mixing only.....       | 12/66          | 97.1              | 95.1  | 95.2  | 95.1  | 95.1  | 95.1  | 94.4  | 90.7  | 90.6  | 90.6  | 91.2  | 92.7  | 92.6                      |
| 2892                           | Explosives.....                     |                | 118.6             | 118.6 | 118.6 | 118.6 | 118.6 | 118.5 | 118.4 | 117.8 | 117.1 | 117.3 | 117.3 | 117.4 | 117.5                     |
| 2911                           | Petroleum refining.....             |                | 98.5              | 97.9  | 97.6  | 99.4  | 96.8  | 96.3  | 96.7  | 96.6  | 97.8  | 97.3  | 97.3  | 97.5  | 98.1                      |
| 3111                           | Leather tanning and finishing.....  |                | 119.8             | 120.7 | 120.7 | 121.3 | 121.2 | 119.0 | 118.2 | 120.4 | 120.5 | 121.2 | 122.3 | 121.5 | 120.4                     |
| 3121                           | Industrial leather belting.....     | 12/66          | 122.8             | 122.5 | 121.6 | 120.8 | 120.7 | 120.5 | 121.1 | 117.6 | 118.3 | 117.2 | 117.4 | 117.6 | 118.2                     |
| 3221                           | Glass containers.....               |                | 120.8             | 120.8 | 120.8 | 120.8 | 120.8 | 120.8 | 120.8 | 120.8 | 116.1 | 116.1 | 116.1 | 116.1 | 116.1                     |
| 3241                           | Cement, hydraulic.....              |                | 120.5             | 120.5 | 120.5 | 120.5 | 120.3 | 120.3 | 120.4 | 120.4 | 114.9 | 114.9 | 114.9 | 114.9 | 114.8                     |
| 3251                           | Brick and structural clay tile..... |                | 128.7             | 128.7 | 128.7 | 128.7 | 128.3 | 127.3 | 126.4 | 126.4 | 125.1 | 125.1 | 124.4 | 124.4 | 123.5                     |
| 3255                           | Clay refractories.....              |                | 131.5             | 131.5 | 131.6 | 132.0 | 131.7 | 131.2 | 130.9 | 129.0 | 126.2 | 125.2 | 122.2 | 122.2 | 122.0                     |
| 3259                           | Structural clay products, nec.....  |                | 120.4             | 120.4 | 120.0 | 120.0 | 119.6 | 117.2 | 117.1 | 117.2 | 116.4 | 116.4 | 115.9 | 115.1 | 115.0                     |
| 3261                           | Vitreous plumbing fixtures.....     |                | 105.3             | 105.3 | 104.7 | 104.7 | 104.6 | 104.6 | 104.6 | 104.6 | 104.6 | 104.2 | 103.4 | 102.4 | 102.4                     |
| 3262                           | Vitreous china food utensils.....   |                | 149.4             | 149.4 | 149.4 | 149.4 | 149.4 | 146.2 | 146.2 | 143.7 | 143.7 | 143.7 | 139.8 | 139.8 | 139.8                     |
| 3263                           | Fine earthenware food utensils..... |                | 133.0             | 133.0 | 133.0 | 133.0 | 133.0 | 132.8 | 132.8 | 131.2 | 131.2 | 131.2 | 130.9 | 130.9 | 130.9                     |
| 3271                           | Concrete block and brick.....       |                | 120.4             | 120.5 | 120.8 | 120.7 | 120.4 | 118.7 | 118.1 | 117.6 | 115.4 | 115.0 | 114.9 | 114.6 | 114.5                     |
| 3273                           | Ready mixed concrete.....           | 1958           | 120.8             | 120.0 | 119.6 | 119.0 | 118.7 | 118.7 | 118.0 | 117.3 | 115.7 | 114.9 | 114.7 | 114.4 | 113.7                     |
| 3275                           | Gypsum products.....                |                | 105.1             | 101.2 | 101.2 | 104.5 | 106.0 | 107.4 | 108.7 | 107.7 | 104.7 | 110.1 | 106.2 | 106.4 | 103.6                     |
| 3312                           | Blast furnace and steel mills.....  |                | 121.7             | 121.7 | 121.0 | 119.4 | 117.8 | 117.2 | 116.4 | 114.6 | 115.3 | 115.3 | 115.2 | 114.4 | 114.3                     |
| 3315                           | Steel wire drawing, etc.....        | 12/66          | 113.4             | 113.0 | 112.5 | 112.5 | 110.5 | 109.8 | 110.1 | 109.3 | 108.6 | 108.5 | 108.4 | 107.5 | 107.0                     |
| 3316                           | Cold finishing of steel shapes..... | 12/66          | 119.4             | 119.3 | 118.6 | 116.3 | 114.8 | 114.7 | 114.7 | 112.1 | 113.6 | 113.7 | 113.7 | 112.1 | 112.1                     |
| 3317                           | Steel pipe and tube.....            | 12/66          | 115.5             | 115.3 | 115.2 | 114.9 | 111.7 | 110.7 | 110.6 | 110.6 | 110.5 | 110.4 | 110.4 | 108.4 | 107.8                     |
| 3321                           | Gray iron foundries.....            | 12/68          | 108.1             | 107.8 | 106.9 | 106.9 | 106.3 | 105.5 | 103.9 | 103.6 | 101.8 | 101.9 | 101.9 | 101.9 | 102.4                     |
| 3333                           | Primary zinc.....                   | 12/66          | 109.2             | 109.4 | 109.5 | 109.5 | 109.6 | 109.6 | 107.9 | 108.1 | 107.7 | 107.7 | 107.4 | 105.6 | 100.9                     |
| 3334                           | Primary aluminum.....               | 12/66          | 118.0             | 118.0 | 118.0 | 118.0 | 118.0 | 114.0 | 114.0 | 114.0 | 114.0 | 114.0 | 114.0 | 110.0 | 110.3                     |
| 3339                           | Primary nonferrous metals, nec..... | 12/66          | 149.6             | 150.0 | 151.2 | 153.7 | 157.2 | 156.7 | 140.2 | 140.3 | 134.8 | 138.9 | 133.9 | 131.8 | 123.8                     |
| 3351                           | Copper rolling and drawing.....     |                | 173.0             | 174.2 | 177.7 | 177.8 | 176.2 | 172.0 | 175.8 | 176.7 | 171.4 | 166.4 | 166.4 | 165.9 | 166.6                     |
| 3352                           | Aluminum rolling and drawing.....   | 12/68          | 109.0             | 109.0 | 109.0 | 108.9 | 108.3 | 107.4 | 107.4 | 107.4 | 107.8 | 107.2 | 106.4 | 105.5 | 105.1                     |
| 3411                           | Metal cans.....                     | 12/66          | 113.9             | 113.9 | 113.9 | 113.9 | 113.9 | 113.9 | 113.8 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 108.7                     |
| 3423                           | Hand and edge tools.....            | 12/67          | 115.7             | 114.6 | 113.7 | 113.5 | 113.4 | 113.3 | 112.6 | 111.4 | 110.8 | 110.6 | 109.6 | 108.4 | 108.4                     |
| 3431                           | Metal plumbing fixtures.....        |                | 102.5             | 102.6 | 102.2 | 101.3 | 101.2 | 100.5 | 100.4 | 100.4 | 100.4 | 100.3 | 99.8  | 99.4  | 98.8                      |
| 3493                           | Steel springs.....                  | 12/66          | 109.8             | 109.3 | 108.8 | 108.5 | 108.0 | 107.4 | 107.4 | 107.4 | 107.2 | 107.2 | 107.2 | 106.8 | 106.8                     |
| 3496                           | Collapsible tubes.....              | 1958           | 106.5             | 106.5 | 106.6 | 106.6 | 106.6 | 106.4 | 104.4 | 104.4 | 103.8 | 103.7 | 103.7 | 103.6 | 103.4                     |
| 3498                           | Fabricated pipe and fittings.....   |                | 134.3             | 132.9 | 132.3 | 132.3 | 132.2 | 132.2 | 132.2 | 130.9 | 130.8 | 130.4 | 130.4 | 130.3 | 128.5                     |
| 3519                           | Internal combustion engines.....    | 12/66          | 113.6             | 113.2 | 112.5 | 112.7 | 112.7 | 112.6 | 112.1 | 111.9 | 110.9 | 110.8 | 110.1 | 109.7 | 109.1                     |
| 3533                           | Oil field machinery.....            |                | 129.1             | 129.3 | 128.8 | 127.4 | 126.9 | 126.4 | 125.9 | 125.4 | 125.1 | 122.7 | 122.5 | 122.4 | 121.8                     |
| 3534                           | Elevators and moving stairways..... | 12/66          | 116.8             | 116.8 | 115.6 | 115.6 | 115.6 | 114.7 | 114.7 | 114.7 | 114.7 | 110.5 | 107.7 | 107.7 | 107.6                     |
| 3537                           | Industrial trucks and tractors..... |                | 137.7             | 137.7 | 135.4 | 135.4 | 135.3 | 134.3 | 134.3 | 134.0 | 134.0 | 133.9 | 133.6 | 132.6 | 131.2                     |
| 3552                           | Textile machinery.....              | 12/69          | 103.1             | 103.0 | 102.7 | 102.2 | 101.8 | 101.4 | 101.0 | 100.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0                     |
| 3562                           | Ball and roller bearings.....       | 12/66          | 107.6             | 107.6 | 107.5 | 107.5 | 107.5 | 107.4 | 107.3 | 107.2 | 105.7 | 103.7 | 103.7 | 102.6 | 102.6                     |
| 3572                           | Typewriters.....                    | 12/66          | 104.5             | 104.5 | 104.6 | 104.6 | 104.6 | 104.1 | 103.9 | 103.9 | 103.9 | 103.8 | 103.2 | 103.1 | 103.1                     |
| 3576                           | Scales and balances.....            |                | 135.1             | 135.1 | 135.0 | 135.9 | 135.8 | 134.7 | 134.7 | 133.3 | 133.4 | 133.2 | 133.0 | 133.0 | 129.9                     |
| 3612                           | Transformers.....                   | 12/66          | 103.2             | 103.1 | 103.0 | 102.7 | 102.8 | 102.9 | 100.9 | 100.9 | 100.3 | 99.3  | 100.2 | 101.6 | 101.6                     |
| 3613                           | Switchgear and switchboards.....    | 12/66          | 112.8             | 111.4 | 109.9 | 109.1 | 108.6 | 108.0 | 107.5 | 107.1 | 107.1 | 106.7 | 105.7 | 105.9 | 103.6                     |
| 3624                           | Carbon and graphite products.....   | 12/67          | 105.4             | 105.2 | 105.2 | 105.2 | 105.2 | 105.2 | 105.2 | 105.2 | 104.8 | 104.4 | 104.4 | 104.3 | 102.9                     |
| 3635                           | Household vacuum cleaners.....      | 12/66          | 100.2             | 100.2 | 100.1 | 100.1 | 100.1 | 100.1 | 100.1 | 99.9  | 99.9  | 99.9  | 99.9  | 99.8  | 99.8                      |
| 3641                           | Electric lamps.....                 | 12/66          | 106.6             | 106.4 | 106.0 | 106.1 | 105.8 | 104.6 | 101.9 | 101.7 | 98.4  | 98.5  | 99.2  | 101.1 | 100.3                     |
| 3652                           | Phonograph records.....             |                | 123.5             | 123.5 | 123.5 | 123.5 | 123.5 | 123.5 | 123.5 | 123.5 | 123.5 | 123.5 | 123.5 | 123.5 | 122.6                     |
| 3671                           | Electron tubes, receiving type..... | 12/66          | 127.4             | 127.4 | 127.5 | 121.4 | 121.4 | 121.4 | 121.4 | 121.3 | 121.2 | 121.3 | 121.3 | 121.2 | 117.8                     |
| 3672                           | Cathode ray picture tubes.....      | 12/66          | 88.5              | 88.1  | 88.2  | 88.1  | 87.5  | 87.5  | 87.5  | 87.5  | 87.5  | 89.7  | 90.0  | 90.0  | 89.7                      |
| 3673                           | Electron tubes, transmitting.....   | 12/66          | 104.0             | 103.5 | 104.3 | 104.2 | 103.8 | 103.7 | 103.8 | 103.4 | 103.2 | 103.2 | 103.1 | 103.0 | 102.9                     |
| 3674                           | Semiconductors.....                 | 12/66          | 91.4              | 91.4  | 91.6  | 91.4  | 92.2  | 92.7  | 92.7  | 92.7  | 92.7  | 92.8  | 92.7  | 92.6  | 92.7                      |
| 3692                           | Primary batteries, dry and wet..... |                | 117.9             | 117.5 | 117.2 | 116.9 | 116.5 | 116.4 | 116.1 | 115.4 | 115.4 | 115.3 | 115.2 | 115.2 | 114.9                     |
| 3693                           | X-ray apparatus and tubes.....      | 12/67          | 121.2             | 121.6 | 121.0 | 121.5 | 119.3 | 119.1 | 118.8 | 119.1 | 117.4 | 115.6 | 115.4 | 113.1 | 112.8                     |
| 3941                           | Games and toys.....                 | 12/66          | 117.0             | 117.0 | 117.0 | 115.7 | 115.7 | 115.6 | 113.8 | 112.5 | 112.1 | 112.2 | 111.4 | 111.4 | 111.3                     |

<sup>1</sup> For a description of the series, see BLS Handbook of Methods for Surveys and Studies (BLS Bulletin 1458), Chapter 12. See also, "Industry and Sector Price Indexes," in Monthly Labor Review, August 1965, pp. 974-982.

<sup>2</sup> Current monthly industry-sector price indexes are not available for this issue. At the beginning of each calendar year, changes in the sample for some indexes must be

made and necessary internal reweighting accomplished; this has caused the delay.

NOTE. Beginning in January 1967, index weights and classifications are based on the 1963 Censuses of Manufactures and Minerals. They were formerly based on the 1958 Industrial Censuses.



32. Work stoppages resulting from labor-management disputes <sup>1</sup>

| Month and year             | Number of stoppages        |                        | Workers involved in stoppages          |                                    | Man-days idle during month or year |                                   |
|----------------------------|----------------------------|------------------------|--|------------------------------------|------------------------------------|-----------------------------------|
|                            | 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 |
| 1945                       | 4,750                      |                        | 3,470                                  |                                    | 38,000                             | 0.31                              |
| 1946                       | 4,985                      |                        | 4,600                                  |                                    | 116,000                            | 1.04                              |
| 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                               |
| 1968: January              | 314                        | 483                    | 187.8                                  | 275.7                              | 2,668.5                            | .18                               |
| February                   | 357                        | 569                    | 275.0                                  | 451.3                              | 4,104.1                            | .29                               |
| March                      | 381                        | 618                    | 174.5                                  | 368.7                              | 3,682.0                            | .26                               |
| April                      | 505                        | 748                    | 537.2                                  | 656.7                              | 5,677.4                            | .38                               |
| May                        | 610                        | 930                    | 307.3                                  | 736.2                              | 7,452.2                            | .49                               |
| June                       | 500                        | 810                    | 168.5                                  | 399.9                              | 5,576.8                            | .40                               |
| July                       | 520                        | 880                    | 202.0                                  | 465.1                              | 4,611.9                            | .30                               |
| August                     | 466                        | 821                    | 153.8                                  | 359.6                              | 4,048.9                            | .26                               |
| September                  | 448                        | 738                    | 169.8                                  | 349.0                              | 3,081.1                            | .22                               |
| October                    | 434                        | 741                    | 279.0                                  | 414.5                              | 3,991.7                            | .25                               |
| November                   | 327                        | 617                    | 129.9                                  | 306.1                              | 2,430.5                            | .17                               |
| December                   | 183                        | 408                    | 64.1                                   | 189.2                              | 1,692.5                            | .11                               |
| 1969: January              | 342                        | 511                    | 184.9                                  | 264.3                              | 3,173.3                            | .21                               |
| February                   | 385                        | 578                    | 177.1                                  | 339.9                              | 2,565.8                            | .18                               |
| March                      | 436                        | 651                    | 158.1                                  | 386.3                              | 2,412.5                            | .16                               |
| April                      | 578                        | 831                    | 309.7                                  | 462.3                              | 3,755.0                            | .24                               |
| May                        | 723                        | 1,054                  | 286.3                                  | 507.7                              | 4,744.7                            | .32                               |
| June                       | 565                        | 911                    | 214.6                                  | 500.0                              | 4,722.7                            | .31                               |
| July                       | 528                        | 883                    | 255.0                                  | 461.5                              | 4,311.0                            | .27                               |
| August                     | 538                        | 915                    | 191.2                                  | 394.8                              | 3,634.3                            | .24                               |
| September                  | 554                        | 904                    | 185.6                                  | 274.5                              | 2,193.4                            | .15                               |
| October                    | 531                        | 850                    | 337.0                                  | 420.9                              | 3,167.5                            | .19                               |
| November                   | 324                        | 611                    | 131.0                                  | 367.6                              | 4,307.6                            | .31                               |
| December                   | 196                        | 446                    | 50.8                                   | 276.0                              | 3,881.8                            | .24                               |
| 1970: January <sup>p</sup> | 260                        | 420                    | 55                                     | 233                                | 3,730                              | .25                               |
| February <sup>p</sup>      | 290                        | 460                    | 106                                    | 296                                | 1,820                              | .13                               |
| March <sup>p</sup>         | 390                        | 570                    | 294                                    | 364                                | 2,230                              | .14                               |
| April <sup>p</sup>         | 600                        | 810                    | 319                                    | 385                                | 4,181                              | .26                               |
| May <sup>p</sup>           | 750                        | 960                    | 309                                    | 470                                | 7,516                              | .52                               |
| June <sup>p</sup>          | 600                        | 840                    | 212                                    | 428                                | 5,040                              | .31                               |
| July <sup>p</sup>          | 490                        | 750                    | 192                                    | 354                                | 4,378                              | .28                               |
| August <sup>p</sup>        | 420                        | 700                    | 135                                    | 202                                | 2,800                              | .18                               |
| September <sup>p</sup>     | 550                        | 810                    | 539                                    | 655                                | 7,625                              | .50                               |
| October <sup>p</sup>       | 410                        | 650                    | 159                                    | 608                                | 10,056                             | .65                               |

<sup>1</sup> The data include all known strikes or lockouts involving 6 workers or more and lasting a full day or shift or longer. Figures on workers involved and man-days idle cover all workers made idle for as long as 1 shift in establishments directly involved in

a stoppage. They do not measure the indirect or secondary effect on other establishments or industries whose employees are made idle as a result of material or service shortages.  
<sup>p</sup> Preliminary.

## 33. Output per man-hour, hourly compensation, unit costs, and prices, private economy, seasonally adjusted

[Indexes 1957-59=100]

| Year and quarter   | Output  |                  | Man-hours |                  | Output per man-hour |                  | Compensation per man-hour <sup>1</sup> |                  | Real compensation per man-hour <sup>2</sup> |                  | Unit labor costs |                  | Unit nonlabor payments <sup>3</sup> |                  | Implicit price deflator <sup>4</sup> |                  |
|--|---------|------------------|-----------|------------------|---------------------|------------------|--|------------------|---|------------------|------------------|------------------|-------------------------------------|------------------|--------------------------------------|------------------|
|  | Private | Private non-farm | Private   | Private non-farm | Private             | Private non-farm | Private                                | Private non-farm | Private                                     | Private non-farm | Private          | Private non-farm | Private                             | Private non-farm | Private                              | Private non-farm |
| 1967: 1st qtr. ....  | 146.4   | 148.2            | 110.6     | 115.5            | 132.4               | 128.4            | 147.6                                  | 143.3            | 128.7                                       | 125.0            | 111.5            | 111.7            | 117.7                               | 117.9            | 113.8                                | 114.0            |
| 2d qtr. ....   | 147.5   | 149.1            | 109.5     | 114.9            | 134.7               | 129.8            | 150.4                                  | 145.6            | 130.3                                       | 126.0            | 111.7            | 112.1            | 118.8                               | 118.8            | 114.3                                | 114.6            |
| 3d qtr. ....   | 149.1   | 150.9            | 110.3     | 115.3            | 135.2               | 130.9            | 152.4                                  | 147.8            | 130.6                                       | 126.6            | 112.8            | 113.0            | 119.9                               | 120.3            | 115.5                                | 115.6            |
| 4th qtr. ....  | 150.1   | 152.0            | 111.0     | 116.1            | 135.3               | 130.9            | 154.3                                  | 149.7            | 131.1                                       | 127.2            | 114.1            | 114.4            | 120.6                               | 120.8            | 116.5                                | 116.7            |
| Ann. Avg. ....   | 148.3   | 150.1            | 110.3     | 115.4            | 134.4               | 130.0            | 151.2                                  | 146.6            | 130.1                                       | 126.2            | 112.5            | 112.8            | 119.2                               | 119.4            | 115.1                                | 115.2            |
| 1968: 1st qtr. ....  | 152.4   | 154.3            | 111.3     | 116.5            | 136.9               | 132.4            | 158.5                                  | 153.6            | 133.3                                       | 129.2            | 115.8            | 116.0            | 120.4                               | 120.8            | 117.5                                | 117.8            |
| 2d qtr. ....   | 155.1   | 157.4            | 112.3     | 117.7            | 138.1               | 133.7            | 160.8                                  | 155.7            | 133.7                                       | 129.5            | 116.5            | 116.5            | 122.3                               | 122.7            | 118.7                                | 118.8            |
| 3d qtr. ....   | 156.7   | 159.0            | 112.9     | 118.5            | 138.8               | 134.2            | 164.1                                  | 158.4            | 134.7                                       | 130.1            | 118.2            | 118.1            | 122.0                               | 122.6            | 119.6                                | 119.7            |
| 4th qtr. ....  | 157.9   | 160.1            | 113.2     | 118.9            | 139.5               | 134.6            | 167.5                                  | 161.7            | 135.9                                       | 131.3            | 120.1            | 120.2            | 122.3                               | 122.7            | 120.9                                | 121.1            |
| Ann. Avg. ....   | 155.5   | 157.7            | 112.4     | 117.9            | 138.3               | 133.7            | 162.8                                  | 157.4            | 134.4                                       | 130.0            | 117.7            | 117.7            | 121.7                               | 122.1            | 119.2                                | 119.3            |
| 1969: 1st qtr. ....  | 159.0   | 161.1            | 114.2     | 120.1            | 139.3               | 134.1            | 170.0                                  | 163.9            | 136.3                                       | 131.5            | 122.1            | 122.2            | 122.8                               | 123.0            | 122.4                                | 122.5            |
| 2d qtr. ....   | 159.8   | 162.4            | 115.1     | 121.2            | 138.9               | 134.0            | 172.4                                  | 166.2            | 136.0                                       | 131.1            | 124.2            | 124.1            | 123.2                               | 123.0            | 123.8                                | 123.7            |
| 3d qtr. ....   | 160.9   | 163.4            | 115.3     | 121.7            | 139.5               | 134.2            | 175.9                                  | 169.2            | 136.8                                       | 131.6            | 126.1            | 126.1            | 123.6                               | 123.5            | 125.2                                | 125.1            |
| 4th qtr. ....  | 160.4   | 163.1            | 114.8     | 121.4            | 139.7               | 134.3            | 179.6                                  | 172.4            | 137.8                                       | 132.2            | 128.6            | 128.4            | 123.3                               | 123.2            | 126.6                                | 126.4            |
| Ann. Avg. ....   | 160.0   | 162.5            | 114.9     | 121.1            | 139.3               | 134.2            | 174.5                                  | 167.9            | 136.8                                       | 131.6            | 125.3            | 125.2            | 123.2                               | 123.2            | 124.5                                | 124.5            |
| 1970: 1st qtr. ....  | 159.2   | 161.9            | 114.7     | 121.4            | 138.9               | 133.3            | 182.6                                  | 175.1            | 138.0                                       | 132.3            | 131.5            | 131.4            | 122.7                               | 122.0            | 128.3                                | 127.9            |
| 2d qtr. ....   | 159.5   | 162.1            | 113.8     | 120.4            | 140.1               | 134.6            | 185.0                                  | 177.7            | 137.6                                       | 132.1            | 132.0            | 132.0            | 125.3                               | 124.9            | 129.5                                | 129.4            |
| 3d qtr. ....   | 160.1   | 162.8            | 113.0     | 119.5            | 141.7               | 136.2            | 188.5                                  | 181.0            | 138.6                                       | 133.1            | 133.0            | 132.9            | 127.5                               | 130.9            | 131.0                                | 127.4            |
| Percent change over previous quarter at annual rate <sup>5</sup> |         |                  |           |                  |                     |                  |  |                  |   |                  |                  |                  |                                     |                  |                                      |                  |
| 1967: 1st qtr. ....  | -1.3    | -2.2             | 0.0       | -0.3             | -1.3                | -1.8             | 3.1                                    | 4.3              | 2.4   | 3.6              | 4.4              | 6.2              | -1.0                                | -1.6             | 2.3                                  | 3.2              |
| 2d qtr. ....   | 3.0     | 2.5              | -3.8      | -2.1             | 7.0                 | 4.6              | 7.8                                    | 6.3              | 4.8   | 3.4              | 0.7              | 1.6              | 3.8                                 | 2.9              | 1.9                                  | 2.1              |
| 3d qtr. ....   | 4.3     | 4.8              | 2.9       | 1.6              | 1.4                 | 3.2              | 5.4                                    | 6.3              | 1.2   | 2.0              | 4.0              | 3.1              | 3.9                                 | 5.2              | 4.0                                  | 3.9              |
| 4th qtr. ....  | 2.9     | 2.9              | 2.5       | 2.7              | 0.3                 | 0.3              | 5.1                                    | 5.4              | 1.6   | 1.9              | 4.7              | 5.1              | 2.3                                 | 1.8              | 3.8                                  | 3.9              |
| 1968: 1st qtr. ....  | 6.1     | 6.2              | 1.1       | 1.5              | 4.9                 | 4.6              | 11.2                                   | 10.6             | 6.7   | 6.2              | 6.0              | 5.7              | -0.8                                | 0.0              | 3.3                                  | 3.5              |
| 2d qtr. ....   | 7.2     | 8.2              | 3.7       | 4.2              | 3.4                 | 3.9              | 6.1                                    | 5.7              | 1.2   | 0.9              | 2.6              | 1.8              | 6.6                                 | 6.4              | 4.1                                  | 3.5              |
| 3d qtr. ....   | 4.3     | 4.2              | 2.0       | 2.8              | 2.2                 | 1.4              | 8.4                                    | 7.0              | 3.1   | 1.9              | 6.0              | 5.5              | -1.0                                | -0.4             | 3.3                                  | 3.2              |
| 4th qtr. ....  | 3.1     | 2.8              | 1.2       | 1.3              | 1.8                 | 1.4              | 8.5                                    | 8.7              | 3.6   | 3.8              | 6.5              | 7.2              | 1.1                                 | 0.4              | 4.4                                  | 4.6              |
| 1969: 1st qtr. ....  | 2.8     | 2.6              | 3.4       | 4.2              | -0.5                | -1.5             | 6.2                                    | 5.5              | 1.2   | 0.5              | 6.7              | 7.1              | 1.4                                 | 1.1              | 4.7                                  | 4.8              |
| 2d qtr. ....   | 2.1     | 3.1              | 3.3       | 3.6              | -1.1                | -0.4             | 5.9                                    | 5.8              | -1.0  | -1.0             | 7.1              | 6.3              | 1.5                                 | 0.0              | 4.9                                  | 3.9              |
| 3d qtr. ....   | 2.5     | 2.5              | 0.9       | 1.9              | 1.6                 | 0.6              | 8.2                                    | 7.3              | 2.3   | 1.4              | 6.5              | 6.6              | 1.1                                 | 1.5              | 4.5                                  | 4.7              |
| 4th qtr. ....  | -1.0    | -0.6             | -1.8      | -1.0             | 0.8                 | 0.3              | 8.8                                    | 7.7              | 3.0   | 1.9              | 7.9              | 7.3              | -0.8                                | -1.0             | 4.7                                  | 4.3              |
| 1970: 1st qtr. ....  | -3.0    | -2.9             | -0.5      | -0.1             | -2.5                | -2.9             | 6.8                                    | 6.6              | 0.5   | 0.3              | 9.6              | 9.8              | -2.0                                | -3.8             | 5.3                                  | 4.8              |
| 2d qtr. ....   | 0.7     | 0.4              | -3.0      | -3.3             | 3.7                 | 3.9              | 5.3                                    | 5.9              | -1.1  | -0.6             | 1.5              | 1.9              | 8.6                                 | 9.8              | 4.1                                  | 4.6              |
| 3d qtr. ....   | 1.6     | 1.7              | -2.9      | -3.0             | 4.6                 | 4.8              | 7.7                                    | 7.8              | 3.0   | 3.1              | 3.0              | 2.9              | 7.3                                 | 8.5              | 4.5                                  | 4.8              |
| Percent change over previous year <sup>6</sup>                   |         |                  |           |                  |                     |                  |  |                  |   |                  |                  |                  |                                     |                  |                                      |                  |
| 1969: 1st qtr. ....  | 4.3     | 4.4              | 2.6       | 3.1              | 1.7                 | 1.3              | 7.3                                    | 6.7              | 2.3   | 1.8              | 5.4              | 5.4              | 2.0                                 | 1.8              | 4.1                                  | 4.0              |
| 2d qtr. ....   | 3.1     | 3.2              | 2.5       | 3.0              | 0.6                 | 0.2              | 7.2                                    | 6.7              | 1.7   | 1.3              | 6.6              | 6.5              | 0.8                                 | 0.2              | 4.3                                  | 4.1              |
| 3d qtr. ....   | 2.7     | 2.8              | 2.2       | 2.7              | 0.4                 | 0.0              | 7.2                                    | 6.8              | 1.5   | 1.2              | 6.7              | 6.8              | 1.3                                 | 0.7              | 4.6                                  | 4.5              |
| 4th qtr. ....  | 1.6     | 1.9              | 1.4       | 2.1              | 0.2                 | -0.2             | 7.3                                    | 6.6              | 1.4   | 0.7              | 7.1              | 6.8              | 0.8                                 | 0.4              | 4.7                                  | 4.4              |
| 1970: 1st qtr. ....  | 0.2     | 0.5              | 0.5       | 1.1              | -0.3                | -0.6             | 7.4                                    | 6.8              | 1.2   | 0.6              | 7.8              | 7.5              | 0.0                                 | -0.8             | 4.8                                  | 4.4              |
| 2d qtr. ....   | -0.2    | -0.2             | -1.1      | -0.6             | 0.9                 | 0.5              | 7.3                                    | 6.9              | 1.2   | 0.8              | 6.3              | 6.4              | 1.7                                 | 1.5              | 4.6                                  | 4.6              |
| 3d qtr. ....   | -0.4    | -0.4             | -2.0      | -1.8             | 1.6                 | 1.5              | 7.2                                    | 7.0              | 1.3   | 1.2              | 5.5              | 5.4              | 3.2                                 | 3.2              | 4.6                                  | 4.6              |

<sup>1</sup> Wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. Also includes an estimate of wages, salaries, and supplementary payments for the self-employed.

<sup>2</sup> Compensation per man-hour adjusted for changes in the consumer price index.

<sup>3</sup> Nonlabor payments include profits, depreciation, interest, rental income and indirect taxes.

<sup>4</sup> Current dollar gross product divided by constant dollar gross product.

<sup>5</sup> Percent change computed from original data.

<sup>6</sup> Current quarter divided by comparable quarter a year ago.

NOTE: Data for 1967, 1968, 1969, and the first quarter of 1970 have been adjusted to new benchmarks and are not comparable to those published in the Monthly Labor Review prior to September 1970.

SOURCE: Output data from the Office of Business Economics, U.S. Department of Commerce. Man-hours and compensation of all persons from the Bureau of Labor Statistics.

= Preliminary.

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- , ed. *On Fighting Poverty: Perspectives from Experience*. Jan. 80-81.
- Taft, Philip and Leon Stein. *American Labor: From Conspiracy to Collective Bargaining*. Sept. 71-74.
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- Toynbee, Arnold. *Cities on the Move*. Dec. 55-56.
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- Van de Vall, Mark. *Labor Organizations: A Macro- and Micro-Sociological Analysis on a Comparative Basis*. Nov. 67-68.
- Weber, Arnold R., Frank H. Cassell, Woodrow L. Ginsburg, eds. *Public-Private Manpower Policies*. Aug. 90-91.
- Weisberger, Bernard A. *The New Industrial Society*. Feb. 79-80.
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- Travis, Sophia C. U.S. labor force: projections to 1985. May 3-12.
- Tyler, Gus. Book review. Jan. 81-82.
- Ulmer, Melville J. Book review. June 84-85. Oct. 59-60.
- Waldman, Elizabeth. Changes in the labor force activity of women. June 10-18; Marital and family characteristics of the U.S. labor force. May 18-27; Viet Nam war veterans—transition to civilian life. Nov. 21-29.
- Weisz, Morris. Book review. Sept. 64-65.
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- Willacy, Hazel M. Changes in factory workweek as an economic indicator. Oct. 25-32.
- and Harvey J. Hilaski. Working women in urban poverty neighborhoods. June 35-38.
- Wolfbein, Seymour L. Book review. Sept. 69-70.
- Woodruff, William. Book review. Feb. 76.
- Wortman, Max S., Jr. Book review. Apr. 90-91.
- Young, Anne M. Employment of school-age youth. Sept. 4-11.
- Zagoria, Sam. Book review. Apr. 90.
- Zeller, Frederick A. Book review. June 87-88.

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### Indexes to the Monthly Labor Review

Each year the December issue of the *Monthly Labor Review* contains an index, by subject, of articles published in the *Review* in the current year. Also included are listings of statistical tables and of books reviewed, by author of book. In recent years, the index has also included an alphabetical list of authors.

At intervals, these year-end indexes have been combined and published as BLS Bulletins:

Bulletin 695, *Subject Index to the Monthly Labor Review, Volumes 1 to 11, July 1915 to December 1920*

Bulletin 696, *Subject Index to the Monthly Labor Review, Volumes 12 to 51, January 1921 to December 1940*

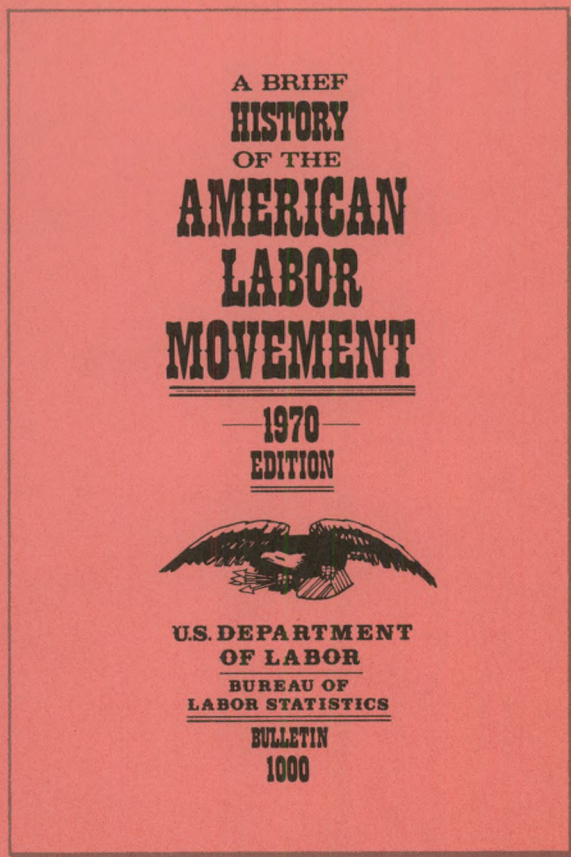
Bulletin 1080, *Subject Index of Volumes 52-71, Monthly Labor Review, January 1941 to December 1950*

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