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

In this issue:
Articles on jobless youth and immigration policy


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## Labor Month In Review



STATE OF THE ART. Annual meetings of the American Economic Association often are occasions for selfexamination. Two University of Wisconsin economists contributed to that tradition at the recent Washington, D.C., meeting of the Association with critical looks at the state of the art of economics.

Jack Barbash, John P. Bascom Professor of Economics and Industrial Relations (emeritus), warned that academic economics is turning into a guild because its craft or professional side is promoted at the expense of its practical or problem-solving side. Here are excerpts from his paper, "The Guilds of Academe or Brother, Can You Paradigm?"

What makes academic economics a guild form is the primacy of producer values over consumer values-research over teaching, theory over application, fidelity "to guild rules [over] quick adaptation to popular demand." It is not that the practical uses of economics are ignored by the guild; it is that guild priorities are shaped by inner-directed craft interests which overshadow, perhaps even overwhelm, the externally oriented uses of economics in the real world.

There is a respectable body of commentary, ironically by guild members of impeccable standing, which assails guild economics on two fundamental grounds: (1) irrelevance to the real world and (2) hyperrefinement of methodology. These are classic guild pathologies. Innovation and problemsolving in the real world of economics seem to be mainly the work of businessmen, popularizers and politicians who are typically objects of fear and loathing within guild circles and whose approaches to problem-solving are put down by guildpersons as "adversary bargaining" or "political dialogue."

The guild principle has actually served academic economics well. Economics is probably the most demanding of the social sciences and has attracted many of the first-rate minds in the country. The guild rigor has made economics the "hardest" of the social sciences.

Problem-solving, on the other hand, has not, I think, been well served by guild values in academic economics. Not a single vital issue of our time-poverty, labor unrest, unemployment, urban deterioration, discrimination, economic development (perhaps inflation is a perverse exception)-has been brought to public awareness through the scholarship of mainstream economics. Once, however, partisans, politicians and popularizers bring the issue out into the open, academic economists do not shrink from processing it for its value to the guild paradigm.
The loss of relevance and accessibility in economics carries large implications for the politics of a democracy. It means that large masses of citizens are rendered powerless to cope with problems in the household and the public economies except through mediation by a meritocracy. No evil intentions are implied. But guild narcissism relegates civic education to an inferior position in its scheme of values. The complexity of large-scale society makes economics difficult enough. But guild obscurantism makes the discipline even more complex and abstruse to the layman than it needs to be.

John M. Culbertson, professor of economics, suggested that economics may be failing because it has never made the transition to the thought-world of modern science. Here are excerpts from his paper, "Economics and the Scientific Method."

Over the past two centuries, one field of thought after another has basically recreated itself by adopting the scientific method and discarding its earlier
methods and its earlier doctrines, which were revealed by the new intellectual standards as myths, wishful beliefs, prejudices, superstitions. Where does economics fit into this picture?
The factions into which economists are divided and their versions of economics obviously derive from political or ideological preconceptions. Indeed, the major versions of economics all seem to tell different versions of the same basic story, which is the elemental story of prophetic myth: Everything would be just fine, just as it should be, if only. . .-here one fills in one's version of the required simple, symbolic action, the panacea, laissez faire, deregulation, supply side, or public ownership of the means of production, the required slogan, Keynesian Revolution, monetarism, radical economics. Can this be science?

In the prevailing economics, one hears a great deal of "relations,' but, strangely, virtually nothing of the distinction between causal relations and what once were "spurious correlation." One hears much of "significance," but this proves to be "statistical significance"-a statistical significance properly contingent on conditions that usually prove not to be met. One hears little of knowledge, much of theories, models, hypotheses, conjectures, propensities, principles. One sees endless speculations relating to hypothetical cases, but virtually no reference to the actual structures and processes by which events are governed in actual economies.

The present condition of economics can be interpreted as implying the existence of a great challenge to economists. Economics now could be something very different from what it is. Economics could be providing the means to deal realistically with societal economic problems, rather than providing a stream of ideological nostrums and fashionable gimmicks, to mislead economic policy.

# Tracking youth joblessness: persistent or fleeting? 

High turnover, seasonality, and work-school transitions are some reasons for high unemployment among young people; a recent longitudinal study suggests that recurrent and extensive joblessness among a relatively few persons may also be an important aspect of the labor market

## NORMAN BOWERS

Many studies have focused on differences between youth and adults in job and labor force turnover in attempts to account for the fact that youth unemployment is always higher than that of adults. However, some recent research suggests that the observed age-related differences in the incidence of joblessness are misleading indicators of the dynamics of youth unemployment. While frequent turnover is admittedly a feature of the youth labor market, the core of joblessness may in fact be accounted for by a relatively small number of persons who search for jobs for very long periods. ${ }^{1}$

A new study of matched data from the Current Population Survey examines the unemployment experience of selected individuals in the course of a year, and over 2 consecutive years. The findings suggest that:

- Prolonged joblessness is somewhat concentrated among a relatively small group of workers but is also strongly affected by the business cycle.
- A clear association exists between the extent of past joblessness and the likelihood of subsequent unemployment.
- Two or more spells of joblessness in one year do not necessarily presage similar unemployment the next year.

[^0]- Recurrent unemployment is no respecter of age, striking all labor force groups.
The analysis exploits the short-run longitudinal capabilities of the Current Population Survey, which permit construction of a 2 -year retrospective labor force history of persons in the sample. This previously untapped data set allows some examination of the following important questions: Is the experience of extensive unemployment in one year associated with extensive unemployment in the following year? How important are repeat spells of unemployment? And, are persons with multiple spells of unemployment in one year more likely than others to experience spells in the subsequent year?

Of course, 2 years is a relatively short time in terms of labor force history, and no definitive analysis of what has been called the "scarring effect" of persistent youth joblessness is possible. ${ }^{2}$ Still, the questions that can be addressed are of interest in their own right.

## Data sets and limitations

The Current Population Survey (CPS), which provides the underlying data base for the following analysis, is a monthly survey of a rotating panel of approximately 60,000 households (strictly speaking, addresses). ${ }^{3}$ Each month, Census Bureau enumerators visit the households in the sample and ask a series of structured questions about the labor force status of each member 16 years of age and over during the reference week. The CPS com-

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prises eight independent panel or rotation groups. Each household is interviewed for 4 consecutive months, dropped from the sample for 8 months, and reinterviewed for 4 final months. Therefore, it is possible that as many as one-half of the households visited in March of one year will be interviewed again the following March, and that responses for this subset of the CPS sample may be matched for purposes of longitudinal study. ${ }^{4}$
To examine work and unemployment experience, two separate matches were made from CPS data for March 1975-76, and for March 1978-79. These reference dates were chosen for two basic reasons: First, every March, a series of supplemental questions about the previous year's work experience is asked of CPS respondents. Included is such information as weeks worked, weeks unemployed, spells of unemployment, and number of employers worked for during the previous year. Thus, for those persons in our matched samples, we have 2 years of labor force history; that is, the work experience data in the matched files refer to 1974-75 and 1977-78. This allows some examination of the concentration and persistence of unemployment, the effects of repeated jobless spells, and so forth. Second, the data from these two time periods might shed some light on the effect of the business cycle on work experience; the March 197576 match covers a rather deep recessionary period, while the March 1978-79 match covers 2 years of recovery and expansion.

Several important restrictions on the use of these data and the sample should be noted at the outset. The major data problem is that the work experience questions are asked retrospectively, and the responses are thus subject to recall biases. Respondents may not accurately remember what they and the other members of their households were doing a year earlier. For example, individuals may not recall a brief period during which they were not available for work, and may instead report one long spell of unemployment. The results of Census Bureau tests with the usual monthly CPS questions suggest that recall bias is very important, and generally results in higher estimates of employment and lower estimates of unemployment. ${ }^{5}$

In addition to the data limitations, there are problems with the matched sample, in particular those involving differing probabilities of reinterview and response variability. Basically, the biases in the matched data fall under the heading of sample selectivity: ${ }^{6}$ All movers, nonrespondents, those who died, and persons who change answers to questions on which the match is keyed (such as race or sex) are lost to the sample. (In contrast to most longitudinal files, the CPS is not designed to follow respondents who move.) This problem goes beyond the simple loss of a match because the reason for a non-match may, in some way, be correlated
with an individual's labor force activity. For example, persons who change addresses or are otherwise not matched may have different patterns of labor force activity than others. In other words, it is possible that there is some interaction between labor market activity and the likelihood of being in the matched file.

Thus, our matched sample is not a random sample of the population, and common forms of statistical analysis are not necessarily appropriate without adjustment for the selectivity problem. For example, persons who change addresses are disproportionately "lost" from the sample, while those less likely to move-older people and whites-are overrepresented in both of the matched data sets. More importantly, only about 50 percent of youth age 18 to 24 who were potential matches were retained. More than 60 percent of 16 - and 17 -year-olds made the match, but that is still somewhat below the proportion of adults matched. In addition, persons in the actual match are less likely than those in the full set of potential matches to have been currently unemployed, and slightly more likely to have been currently employed (especially in March 1975-76). If current labor force status is associated with past status, or is a determinant of future work experience, the matched data will necessarily reflect that bias.

A related sample problem involves rotation group bias. Persons in rotation groups 1 through 4 in March 1975 and March 1978 were eligible for inclusion in each match. ${ }^{7}$ The data for whites age 18 and over indicate that these persons are underrepresented in the first rotation group relative to each of the other rotation groups. On the other hand, there is some evidence of an overrepresentation of blacks age 16 to 17 in the first rotation group. (Interpreting the data for the other age groups for blacks in the sample is difficult, as the rotation group proportions fluctuate considerably.) Of course, individuals do not necessarily enter the survey in the first rotation group, because the rotation group identifier refers to the address of the household and not to the person(s) occupying the address. And, the matched sample may be weighted toward later rotation panels if persons in later rotation groups are more likely to be matched because they are less "mobile"-the sample selectivity problem.

The phenomenon of rotation group bias in panel surveys can often involve more than just differential reinterview probabilities. Specifically, it may also include a conditioning effect - that is, the answers to survey questions are affected by the number of times the respondent has been interviewed. However, the degree to which the information from the CPS work experience questionnaire might be influenced by respondent conditioning is not known.

Lastly, there is the problem of weighting the data. Because the weights used to inflate the raw sample
counts from each monthly CPS are based on answers received that month, the March weights for the match periods 1975-76 and 1978-79 need not be the same. As there is currently no reliable theoretical or statistical foundation for handling this problem, the unweighted matched samples are used for analysis. Therefore, any results based on these data pertain, strictly speaking, only to those persons in the sample, and generalized conclusions should be significantly tempered. ${ }^{8}$

## A theoretical overview

The unemployment rate may be disaggregated into its frequency and extent components. Much previous research has indicated that youth-adult differences are primarily the result of a higher incidence of unemployment among youth, rather than longer spells. ${ }^{9}$

Table 1 provides further evidence of this relationship. The incidence of unemployment shown is simply the number of persons who experienced unemployment at any time over the period divided by the number of persons with any labor force experience during the period. Both the incidence over a single year and that for the 2-year period covered by the matched data have been calculated. ${ }^{10}$ (Excluded from the unemployment figures are all persons who worked at least 50 weeks during the year, but also experienced a 1- to 2-week temporary layoff. This exclusion should not greatly affect the estimates for youth because so few are full-year workers. The calculations for adults 25 years of age and older will be biased downward slightly because a number do experience such brief layoffs.) Table 1 also shows the probability that those in the sample who reported unemployment in 1974 or 1977 also experienced some joblessness during the subsequent year (1975 or 1978). This probability is a rough indicator of the "persistence" of unemployment. The closer the probability is to 1 , the less "turnover" there is among those who experience unemployment. Last, we show the average number of weeks of joblessness experienced over the entire 2-year period covered by each match. This number was estimated by dividing the total number of weeks of unemployment over the match period by the number of persons who had some unemployment at any time during that 2 years.

Not surprisingly, the results are similar to the findings of other researchers. The likelihood of joblessness declines with increasing age, while average total time unemployed increases with age. Blacks have a higher incidence of joblessness, and usually spend more time unemployed than whites. Youth whose major activity was attending school show both a lower incidence and spend significantly less total time unemployed than other youth. ${ }^{11}$

The probability that persons who had some unemployment in 1974 or 1977 also experienced unem-
ployment during the following year varied among demographic groups. Youth age 18 to 24 were generally more likely than others to have some joblessness in both years, but these differences were not always large. Overall, the results suggest that neither the persistence hypothesis-that the same persons unemployed one year are also unemployed the next year-nor the turnover hypothesis - that different persons are unemployed each year-completely fits the facts.

Information on weeks of employment is shown in table 2 . Reported weeks worked vary significantly by age, race, sex, and major activity. ${ }^{12}$ And, except for those whose major activity was school, the average number of weeks worked varies in the opposite manner from that of the experience of unemployment. ${ }^{13}$ Lastly, the probability that persons who worked during 1974 or 1977 also worked during the following year varied significantly among groups. For example, young blacks were much less likely than their white counterparts to have worked in consecutive years.

Recently, some researchers have suggested that youth-adult experiences cannot be fully explained by these simple average differences in the likelihood and amount of unemployment and the "normal turnover" that such movement is supposed to represent. ${ }^{14}$ Specifically, it has been suggested that the "youth job problem" is really one of a small minority of persons who are without jobs for extended periods, rather than the outcome of high job turnover, seasonality, and the transition between school and work. Do the CPS match data lend any evidence for this hypothesis?

## Recurrent unemployment

Repeat spells. It is certainly true that analysis of "average durations" and "average flow probabilities" may mask differences in the experience of unemployment within demographic groups. For example, while the probability of unemployment may satisfactorily account for most youth-adult differences, the bulk of youth joblessness may be highly concentrated by race, sex, or major activity or the same persons may experience many (short) spells of unemployment over time. (Of course, such concentration may also occur within other labor force groups.) Thus, an important question is: Do the same persons experience multiple spells of unemployment from year to year, or is there little relationship between past and subsequent spell frequencies?

Data on the prevalence of repeated jobless spells are available from the CPS matched file. But the information is subject to one additional important limitation. In the March work-experience supplement to the CPS, one of the questions is: "Were the (number of) weeks (person's name) was looking for work (or on layoff) all in one stretch?" The responses are coded as 1 spell, 2 spells, or 3 or more spells. However, this question is asked only of
those persons who also worked at any time during the previous year. Thus, spell information is obtained only for a subset of those who experienced some unemployment. Because demographic groups differ significantly in the likelihood of having worked during the year, the data may be biased in terms of assessing the issue of recurrent spells of unemployment. Consider, for example, the data set for the 1977-78 match. In 1977, blacks, women, and persons whose major activity was school were less likely to have worked than other groups. However, a number of such individuals were reported as having looked for work for varying lengths of time,
and were thus unemployed labor force participants. (The results from the 1974-75 match, although not shown here, were very much the same. The major difference was that, regardless of their experience in 1974, there was a somewhat greater likelihood that persons reported one or more spells in 1975 than was true of the $1977-78$ match. This is clearly a cyclical phenomenon.)

There are a number of ways to examine the importance of multiple periods of unemployment. ${ }^{15}$ For example, one might calculate the average number of spells per person, and compare that across demographic

Table 1. The incidence and duration of unemployment by age, race, sex, and school status, 1974-75 and 1977-78


[^1]divided by the number of persons who experienced unemployment at least once. Total weeks unemployed was derived by multiplying the number of persons unemployed by the mid-point of the following duration intervals: 1 to 4 weeks; 5 to 14 weeks; 15 to 26 weeks; 27 to 39 weeks; and 40 to 52 weeks.
Note: Excludes those persons who worked at least 50 weeks during the year and experienced a temporary layoff of 1 to 2 weeks.

Table 2. Duration of employment by age, race, sex, and school status, 1974-75 and 1977-78
[ In weeks]

|  | 1974-75 |  |  |  | 1977-78 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age, race, sex, and school status | Average duration of employment, 1974 | Average duration of employment, 1975 | Average duration of employment, 1974-75 | Probability of some employment in both 1974 and 1975 | Average duration of employment, 1977 | Average duration of employment, 1978 | Average duration of employment, 1977-78 | Probability of some employment in both 1977 and 1978 |
| Total |  |  |  |  |  |  |  |  |
| 16 to 17 years | 24.0 | 25.4 | 39.8 | 0.832 | 21.8 | 25.9 | 38.9 | 0.862 |
| 18 to 19 years | 27.8 | 30.1 | 51.0 | . 870 | 27.9 | 30.7 | 52.6 | . 913 |
| 20 to 24 years . . . . | 35.5 | 36.1 | 65.5 | . 889 | 35.7 | 36.8 | 67.5 | . 928 |
| 25 to 54 years . . . . | 41.9 | 41.6 | 78.9 | . 938 | 41.5 | 41.9 | 79.5 | . 954 |
| 55 years and over . . | 40.6 | 40.4 | 72.9 | . 832 | 39.6 | 40.2 | 72.1 | . 852 |
| White |  |  |  |  |  |  |  |  |
| 16 to 17 years | 24.9 | 25.9 | 41.4 | . 850 | 22.4 | 26.3 | 40.4 | . 884 |
| 18 to 19 years | 28.3 | 30.4 | 52.4 | . 888 | 28.7 | 31.3 | 54.6 | . 926 |
| 20 to 24 years . . . . | 35.7 | 36.2 | 66.0 | . 895 | 36.4 | 37.2 | 68.8 | . 933 |
| 25 to 54 years ..... | 41.9 | 41.7 | 79.2 | . 939 | 41.6 | 42.0 | 79.7 | . 956 |
| 55 years and over . . | 40.6 | 40.5 | 72.9 | . 830 | 39.7 | 39.3 | 72.5 | . 854 |
| Black and other |  |  |  |  |  |  |  |  |
| 16 to 17 years . . . . | 15.9 | 20.4 | 26.6 | . 667 | 15.6 | 21.2 | 26.4 | . 648 |
| 18 to 19 years . . . . | 23.3 | 26.7 | 39.8 | . 718 | 21.4 | 25.8 | 38.2 | . 808 |
| 20 to 24 years .... | 34.4 | 35.3 | 61.6 | . 846 | 31.1 | 34.0 | 58.7 | .895 |
| 25 to 54 years . . . . . | 41.5 | 40.5 39.5 | 76.6 | . 923 | 40.6 38.8 | 41.5 37.9 | 77.6 | . 943 |
| 55 years and over . . | 40.3 | 39.5 | 72.9 | . 859 | 38.8 | 37.9 | 68.1 | . 821 |
| Men |  |  |  |  |  |  |  |  |
| 16 to 17 years ..... | 23.6 | 25.8 | 40.6 | . 845 | 21.9 | 26.6 | 40.1 | . 859 |
| 18 to 19 years ..... | 28.9 | 30.5 | 53.3 | . 894 | 28.5 | 30.4 | 53.7 | . 938 |
| 20 to 24 years . . . . . | 36.5 | 36.7 | 69.0 | . 924 | 37.1 | 38.4 | 72.5 | . 965 |
| 25 to 54 years ..... | 44.3 | 43.8 | 86.7 | . 981 | 44.0 | 44.3 | 87.3 | . 988 |
| 55 years and over .. | 41.4 | 40.6 | 75.0 | . 856 | 40.4 | 40.9 | 74.4 | . 865 |
| Women |  |  |  |  |  |  |  |  |
| 16 to 17 years . . . . | 24.5 | 24.9 | 39.0 | . 817 | 21.6 | 25.1 | 37.7 | . 866 |
| 18 to 19 years . . . . | 26.5 | 29.6 | 48.5 | . 843 | 27.3 | 31.0 | 51.5 | . 889 |
| 20 to 24 years .... | 34.5 | 35.4 | 61.9 | . 851 | 34.3 | 35.1 | 62.5 | 889 |
| 25 to 54 years . . . . 5 | 38.7 39.4 | 38.5 | 69.2 69.8 | .880 798 | 38.2 38.4 | 38.9 39.3 | 70.4 68.8 | . 911 |
| 55 years and over . . | 39.4 | 40.0 | 69.8 | . 798 | 38.4 | 39.3 | 68.8 | . 832 |
| Major activity: School |  |  |  |  |  |  |  |  |
| 16 to 17 years . . . | 23.4 | 24.6 | 38.1 | . 825 | 21.3 | 25.1 | 37.5 | 856 |
| 18 to 19 years ..... | 23.2 | 23.9 | 40.3 | . 844 | 23.3 | 25.6 | 42.5 | . 883 |
| 20 to 24 years . . . . . | 24.0 | 25.0 | 42.6 | . 819 | 24.8 | 25.4 | 44.6 | . 891 |
| Major activity: Other |  |  |  |  |  |  |  |  |
| 16 to 17 years . . . | 26.6 | 29.6 | 48.8 | . 862 | 24.5 | 30.6 | 47.7 | . 895 |
| 18 to 19 years . . . . | 31.9 | 35.8 | 61.3 | . 894 | 34.4 | 35.2 | 63.2 | . 943 |
| 20 to 24 years ..... | 38.2 | 38.5 | 71.0 | . 905 | 37.6 | 38.9 | 71.9 | . 934 |

groups; or, one might estimate the proportion of the unemployed who had more than one spell over a given period. The approach taken here is a bit different, in that it attempts to determine whether individuals who report multiple spells in one period are more likely than those with one or no reported spells to experience multiple spells in the next period.

The information needed to address this question is presented in tables 3 and 4. These tables show the number of persons in the sample by the number of jobless spells reported in 1977 and the corresponding probability of having no spells reported, one spell, two spells, or more than two spells during 1978. ${ }^{16}$ For example, table 3 shows that among 16- to 17 -year-olds who had one spell in 1977, 20 percent had one spell in 1978. It is im-
portant to note that persons shown in the "no spells reported" category include both those who had no unemployment, and those with some unemployment but no work experience. Depending on the labor force group, the "no work-unemployment" group constituted 2 to 9 percent of the total "no spells reported" category.

The data in table 3 suggest several interesting phenomena. First, for all persons there is a somewhat higher probability that those who had multiple spells in 1977 experienced at least one spell in 1978. Second, the likelihood of experiencing two or more spells in 1978 tends to be an increasing function of the number of spells in 1977 (except among all 18- to 19 -year-olds). Unfortunately, the reasons for the transitions from em-
ployment into unemployment cannot be determined. And, in order to identify any causal relation between multiple spells in one period and the experience of multiple spells in the subsequent period, we would require more information to ensure that the results are not simply due to heterogeneity in the probability of recurrent spells among individuals. Of equal importance is the fact that there is far from a perfect correlation between reported spells in 1977 and the likelihood of spell recurrence in 1978, and, as previously indicated, 2 years of data may be insufficient to truly assess the issue of spell recurrence. It may be noted that youth age 16 to 24 who had two or more spells in 1977 were somewhat more likely than their adult counterparts to report two or more spells in 1978; this was especially true for persons age 20 to 24 .
Men with multiple jobless spells in 1977 were more likely than women to have multiple spells in 1978, and this difference in probabilities tends to increase with age. However, regardless of sex and age, the probability of two or more spells in 1978 is positively related to the number of spells in $1977 .{ }^{17}$
Table 4 shows the experience of persons 16 to 24 years of age by their major activity classification in March 1978. Persons 16 to 19 whose major activity was school were less likely to report having any spells in

1978 (recall that this does not necessarily mean they had no unemployment), regardless of the number of spells in 1977. There is no clear difference in this probability among 20 - to 24 -year-olds. Individuals age 16 to 19 whose major activity was other than school and who experienced two or more jobless spells in 1977 were just slightly more prone to report multiple spells again in 1978 compared to the school group. However, this difference was not very large.

The data in tables 3 and 4 do indicate some correlation between repeat spells in 1977 and spells in 1978, but the significance of this relationship is unclear. Differences in the probability of recurrent spells between youth and adults are not large, but the fact that one must have had some work experience in 1977 in order to be asked about jobless spells may introduce a significant bias to this comparison. Thus, while there is some support for the hypothesis that "past turnover is associated with subsequent turnover," the phenomenon does not appear to be pervasive, or to differ greatly among labor force groups. ${ }^{18}$

The concentration of unemployment. Perhaps recurrent, multiple spells of unemployment mask the fundamental nature of youth and other groups' joblessness. Instead, it may be that unemployment is truly concentrated

Table 3. The probability of experiencing recurring spells of unemployment by age and sex, 1977-78

| Age and spells of unemployment in 1977 | Total |  |  |  |  | Men |  |  |  |  | Women |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number in sample | Probability of experiencing: |  |  |  | Number in sample | Probability of experiencing: |  |  |  | Number in sample | Probability of experiencing: |  |  |  |
|  |  | No spells, 1978 | One spell, 1978 | Two spells, 1978 | Three or more spells, 1978 |  | $\begin{aligned} & \text { No } \\ & \text { spells, } \\ & 1978 \end{aligned}$ | One spell, 1978 | Two spells, 1978 | Three or more spells, 1978 |  | No spells, 1978 | One spell, 1978 | Two spells, 1978 | Three or more spells, 1978 |
| 16 to 17 years: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No spells reported | 1,869 | 0.855 | 0.098 | 0.025 | 0.022 | 910 | 0.854 | 0.091 | 0.029 | 0.026 | 959 | 0.856 | 0.104 | 0.022 | 0.018 |
| One spell .. | 140 | . 671 | . 200 | . 071 | . 057 | 71 | . 662 | . 197 | . 085 | . 056 | 69 | . 681 | . 203 | . 058 | . 058 |
| Two spells . . . . | 33 | . 666 | . 152 | . 121 | . 061 | 24 | . 667 | . 167 | . 125 | . 042 | 9 | . 667 | . 111 | . 111 | . 111 |
| Three or more spells | 31 | .645 | . 194 | . 129 | . 032 | 22 | . 545 | . 227 | . 182 | . 045 | 9 | . 889 | . 111 | . 000 | . 000 |
| 18 to 19 years: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No spells reported | 1,160 | 834 | . 107 | . 038 | . 022 | 544 | 827 | . 105 | . 037 | . 031 | 616 | 839 | . 109 | . 039 | . 013 |
| One spell . . . . . | 193 | . 684 | . 212 | . 021 | . 083 | 81 | . 556 | . 309 | . 037 | . 099 | 112 | . 777 | . 143 | . 009 | . 071 |
| Two spells . . . . . . . . . . | 67 | . 552 | . 179 | . 134 | . 134 | 40 | . 500 | . 175 | . 175 | . 150 | 27 | . 630 | . 185 | . 074 | . 111 |
| Three or more spells . . . | 56 | .661 | . 268 | . 000 | . 071 | 39 | . 667 | . 256 | . 000 | . 077 | 17 | .647 | . 294 | . 000 | . 059 |
| 20 to 24 years: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No spells reported . . . . . | 2,552 | . 876 | . 092 | . 018 | . 015 | 1,136 | . 862 | . 104 | . 018 | . 017 | 1,416 | . 887 | . 082 | . 018 | . 013 |
| One spell . . . . . . . . . . | 423 | . 757 | . 175 | . 035 | . 033 | 229 | . 742 | . 179 | . 039 | . 039 | 194 | . 773 | . 170 | . 031 | . 026 |
| Two spells | 131 | . 603 | . 183 | . 130 | . 084 | 87 | . 575 | . 207 | . 126 | . 092 | 44 | . 659 | . 136 | . 136 | . 068 |
| Three or more spells . . . | 116 | . 586 | . 181 | . 095 | . 138 | 77 | .481 | . 234 | . 104 | . 182 | 39 | . 795 | . 077 | . 077 | . 051 |
| 25 to 54 years: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No spells reported . . . . . | 17,161 | . 952 | . 035 | . 007 | . 007 | 7,958 | . 951 | . 034 | . 008 | . 007 | 9,203 | . 952 | . 036 | . 006 | . 006 |
| One spell | 1,164 | . 717 | . 194 | . 054 | . 034 | 562 | . 660 | . 217 | . 068 | . 055 | 602 | . 771 | . 173 | . 042 | . 015 |
| Two spells . . . . . . . . . . | 284 | . 585 | . 246 | . 088 | . 081 | 171 | . 503 | . 304 | . 105 | . 088 | 113 | . 708 | . 159 | . 062 | . 071 |
| Three or more spells . . . | 236 | . 593 | . 203 | . 072 | . 131 | 138 | . 522 | . 225 | . 080 | . 174 | 98 | . 694 | . 173 | . 061 | . 071 |
| 55 years and over: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No spells reported . . . . . . | 11,404 | . 986 | . 009 | . 002 | . 002 | 4,945 | . 981 | . 013 | . 002 | . 004 | 6,459 | . 990 | . 007 | . 002 | . 001 |
| One spell . . . . . . . . . . | 227 | . 797 | . 128 | . 048 | . 026 | 147 | . 755 | . 156 | . 061 | . 027 | 80 | . 875 | . 075 | . 025 | . 025 |
| Two spells . . . . . . . . . . | 53 | . 566 | . 283 | . 132 | . 019 | 32 | . 594 | . 250 | . 156 | . 000 | 21 | . 524 | . 333 | . 095 | . 048 |
| Three or more spells . . . | 48 | . 583 | . 167 | . 063 | . 188 | 31 | . 516 | . 161 | . 097 | . 226 | 17 | . 706 | . 176 | . 000 | . 118 |

Table 4. The probability of experiencing recurring spells of unemployment by age and school status, 1977-1978
[Numbers in thousands]

| Age and spells of unemployment in 1977 | Major activity: School |  |  |  |  | Major activity: Other |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number in sample | Probability of experiencing: |  |  |  | Number in sample | Probability of experiencing: |  |  |  |
|  |  | No spells, 1978 | One spell, 1978 | Two spells, 1978 | Three or more spells, 1978 |  | No spells, 1978 | One spell, 1978 | Two spells, 1978 | Three or more spells, 1978 |
| 16 to 17 years: |  |  |  |  |  |  |  |  |  |  |
| No spells reported | 1,642 | 0.859 | 0.099 | 0.023 | 0.019 | 227 | 0.828 | 0.088 | 0.044 | 0.040 |
| One spell ...... | 110 | . 736 | . 173 | . 064 | . 027 | 30 | 433 | . 300 | . 100 | . 167 |
| Two spells | 25 | 680 | . 160 | . 120 | . 040 | 8 | . 625 | . 125 | . 125 | . 125 |
| Three or more spells | 24 | 708 | . 125 | . 125 | . 042 | 7 | . 429 | . 429 | . 143 | . 000 |
| 18 to 19 years: |  |  |  |  |  |  |  |  |  |  |
| No spells reported | 646 | . 828 | . 115 | . 042 | . 015 | 514 | . 850 | . 097 | . 033 | . 029 |
| One spell | 83 | . 745 | . 229 | . 000 | . 024 | 110 | . 636 | . 200 | . 036 | . 127 |
| Two spells | 20 | 650 | . 150 | . 100 | . 100 | 47 | . 510 | . 191 | . 149 | . 149 |
| Three or more spells | 15 | . 733 | . 267 | . 000 | . 000 | 41 | . 634 | . 268 | . 000 | . 098 |
| 20 to 24 years: |  |  |  |  |  |  |  |  |  |  |
| No spells reported |  |  |  |  |  |  |  |  |  |  |
| One spell | 62 | . 774 | . 194 | . 016 | . 016 | 361 | . 753 | . 172 | . 039 | . 036 |
| Two spells . | 12 | .667 | . 167 | . 083 | . 083 | 119 | . 597 | . 185 | . 134 | . 084 |
| Three or more spells | 5 | . 200 | . 200 | . 400 | . 200 | 111 | . 603 | . 180 | . 081 | .135 |

among persons who suffer very long single spells of unemployment, while most others are unemployed only infrequently or not unemployed at all. To address this question, it is necessary to examine the extent to which the total number of weeks unemployed during a given period is "concentrated" among a small number of people. ${ }^{19}$

Little information is available on this issue, primarily because of the difficulties in obtaining unemployment (and employment) spell histories. The usual approach has been to use data from the March CPS work-experience supplement to measure the extent of unemployment over the previous year. From these data it is possible to calculate the number of weeks of joblessness by duration category as a percent of total reported weeks unemployed for any given labor force group. For example, in 1975, only 4.4 percent of all persons with some labor force experience were unemployed for more than 26 weeks, but this group accounted for almost 52 percent of total weeks unemployed. ${ }^{20}$

The same kind of information by age, sex, race, and major activity is shown in tables 5,6 , and 7 for the years 1974-75, and 1977-78. Again, the data are from the matched CPS files. The calculations are based on the mid-range of the unemployment duration categories. This is a rather simplistic assumption, but it should not affect the relative value of the estimates because it is used consistently. The analysis excludes essentially yearround workers with 1 to 2 weeks unemployment due to temporary layoff, but all other persons who looked for work are included.

As previous research has indicated, the aggregate probability of leaving unemployment tends to decline with time unemployed. The result is an apparent concentration of unemployment in longer duration catego-
ries simply because the likelihood of escape from joblessness is lower the longer a spell has lasted. Even if each individual's escape rate were constant over time unemployed, a relatively large share of unemployment would be accounted for by individuals with lower escape probabilities. The data should be interpreted with this in mind.

As expected, the yearly data in table 5 provide clear evidence of over-the-year unemployment concentration, but the degree of concentration varies somewhat by age, sex, and economic conditions. In 1974, the 8.6 percent of the labor force of young men age 16 to 17 who were unemployed more than 14 weeks accounted for 69.3 percent of total weeks unemployed. (The labor force percentages are not shown here, but are available upon request.) Among women of the same age, the numbers were 4.1 and 53.6 percent, respectively. The brief bouts that youth have with unemployment would appear to contribute less to overall unemployment; among 16- to 17 -year-old males in 1974, 14.6 percent were jobless less than 5 weeks and accounted for just 12.8 percent of all weeks unemployed. There is a pronounced cyclical pattern to these data. In 1975, both the proportion of the labor force and the percent of total weeks unemployed indicate a sizable shift toward extensive individual total weeks of unemployment. The 1977 and 1978 distributions tend to fall between those for 1974 and 1975. ${ }^{21}$

Table 6 shows similar information by race. With the exception of 16 - to 17 -year-olds in 1974, both the percent of total weeks unemployed over 14 weeks and the proportion of the labor force jobless for that length of time are higher for black workers. And, once again, cyclical factors clearly operate to lengthen total time out of work: In 1975, fully 23 percent of the labor force of blacks age 18 to 19 were unemployed more than 14
weeks, accounting for 82.7 pecent of total weeks unemployed. For white workers, the figures were 10.5 and 76.7 percent, respectively.

The distributions vary only slightly by major activity (table 7), except among those age 16 to 17 , for whom no pattern is apparent. For those 18 to 19 whose major activity was not school, unemployment was more concentrated in long total durations relative to the major activity school group, irrespective of aggregate economic conditions. With the exception of 1977, this was also true among 20 - to 24 -year-olds.

The data tell a consistent story. Weeks unemployed over the course of a year are highly concentrated and very sensitive to the business cycle. Although the degree of concentration among adults is somewhat more skewed toward longer total time unemployed than among youth, the difference is not very large. However, relating this concentration to the issue of "turnover" depends, in part, on whether lengthy unemployment occurs in one spell or is spread over many spells. Our data show that some persons are unemployed a lot, but this does not necessarily mean that these individuals spend a long time finding a particular job. The observed inequality in the distribution of unemployment could also result if all unemployment were generated by high turnover. Any determination of the importance of turnover requires estimating (simulating) how unequal unemployment would be in a simple economy with high turnover and comparing the results to the observed concentrations. ${ }^{22}$

The following tabulation tries to put this issue into
some perspective. The first eight lines indicate the proportion of persons unemployed 15 weeks or longergenerally considered the floor for long-term unemploy-ment-in the indicated year and who also worked, by the number of spells of unemployment reported. (Only data for 1974 and 1977 are shown here, but the results for 1975 and 1978 were similar.) For example, among 16- to 17 -year-olds in 1977, 44.4 percent of those with unemployment over 14 weeks reported it all in one spell. (The last two lines of the tabulation show the percentage of people unemployed over 14 weeks who did not work at any time during the indicated year and for whom there is thus no spell information available.)

| Age |  |  |  |
| :---: | :---: | :---: | :---: |
| 16 to | 18 to | 20 to | 25 and |
| 17 | 19 | 24 | over |

1974:
Persons with work
experience $\ldots \ldots$
1 spell $\ldots .$.
2 spells . . . . . .
3 or more spells

| 100.0 | 100.0 | 100.0 | 100.0 |
| ---: | ---: | ---: | ---: |
| 51.4 | 40.6 | 48.2 | 48.6 |
| 32.4 | 36.1 | 23.7 | 23.6 |
| 16.2 | 33.3 | 28.1 | 27.7 |

1977:
Persons with work
experience $\ldots$. . . .
1 spell $\ldots$
2 spells . . . . .
3 or more spells

| 100.0 | 100.0 | 100.0 | 100.0 |
| ---: | ---: | ---: | ---: |
| 44.4 | 38.6 | 54.6 | 62.5 |
| 28.9 | 30.1 | 24.6 | 19.1 |
| 26.7 | 31.3 | 20.8 | 18.4 |

Persons with no work
experience:

| 1974 | $\ldots$ | $\ldots$ | 22.9 | 12.7 | 10.1 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1977 | $\cdots$ | $\ldots$ | 26.2 | 17.0 | 12.5 |
| 13.4 | 13.2 |  |  |  |  |

Table 5. Percent distribution of unemployment by duration, sex, and age, selected years, 1974-78

| Year and duration of unemployment | Total |  |  |  |  | Men |  |  |  |  | Women |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 16 to 17 years | 18 to 19 years | 20 to 24 years | 25 to 54 years | 55 years and over | 16 to 17 years | 18 to 19 years | 20 to 24 years | 25 to 54 years | 55 years and over | 16 to 17 years | 18 to 19 years | 20 to 24 years | 25 to 54 years | 55 years and over |
| 1974 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 to 4 weeks | 15.2 | 9.2 | 7.2 | 4.8 | 3.1 | 12.8 | 6.8 | 6.5 | 3.3 | 2.4 | 18.8 | 12.7 | 8.2 | 6.5 | 3.6 |
| 5 to 14 weeks | 28.7 | 27.4 | 26.6 | 26.7 | 18.9 | 29.4 | 29.1 | 28.6 | 27.0 | 17.9 | 27.8 | 25.1 | 24.3 | 26.4 | 17.9 |
| 15 to 26 weeks | 19.3 | 24.6 | 30.9 | 30.1 | 24.7 | 27.7 | 22.9 | 29.0 | 32.5 | 27.5 | 24.0 | 27.0 | 33.2 | 27.2 | 18.0 |
| 27 to 39 weeks | 16.8 | 24.5 | 21.6 | 21.0 | 24.7 | 17.4 | 25.6 | 24.8 | 20.3 | 24.3 | 16.1 | 22.9 | 17.8 | 21.9 | 22.1 |
| 40 to 52 weeks | 19.9 | 14.5 | 13.6 | 17.3 | 34.4 | 24.2 | 15.6 | 11.1 | 16.8 | 27.9 | 13.5 | 12.8 | 16.5 | 18.0 | 38.5 |
| 1975 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 to 4 weeks | 7.1 | 4.8 | 3.3 | 2.6 | 1.9 | 5.1 | 3.4 | 2.2 | 1.8 | 1.4 | 9.7 | 7.0 | 5.0 | 3.6 | 2.6 |
| 5 to 14 weeks | 17.3 | 20.3 | 14.7 | 17.6 | 11.3 | 19.3 | 20.4 | 14.6 | 18.1 | 12.3 | 14.6 | 20.2 | 15.0 | 17.0 | 9.6 |
| 15 to 26 weeks | 23.7 | 22.9 | 25.8 | 27.2 | 27.3 | 24.5 | 23.3 | 27.2 | 31.2 | 30.8 | 22.7 | 22.3 | 23.7 | 22.6 | 22.0 |
| 27 to 39 weeks | 20.6 | 20.6 | 20.6 | 20.7 | 22.2 | 21.3 | 23.3 | 22.2 | 20.1 | 17.8 | 19.7 | 16.3 | 18.2 | 19.4 | 28.8 |
| 40 to 52 weeks | 31.3 | 31.4 | 35.5 | 31.9 | 37.4 | 29.7 | 29.6 | 33.8 | 28.9 | 37.8 | 33.3 | 34.1 | 38.1 | 35.3 | 36.8 |
| 1977 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 to 4 weeks ....... | 11.2 | 8.4 | 4.9 | 3.8 | 1.8 | 8.5 | 6.7 | 3.5 | 2.7 | 1.9 | 15.9 | 10.4 | 6.9 | 5.1 | 1.7 |
| 5 to 14 weeks ....... | 27.7 | 25.9 | 23.7 | 22.1 | 15.2 | 25.0 | 24.3 | 22.9 | 21.3 | 14.5 | 32.3 | 27.7 | 25.0 | 23.0 | 16.3 |
| 15 to 26 weeks ..... | 15.4 | 25.3 | 31.1 | 32.5 | 23.1 | 18.4 | 26.2 | 32.2 | 37.1 | 22.6 | 10.4 | 24.3 | 29.2 | 27.6 | 23.8 |
| 27 to 39 weeks | 19.7 | 20.4 | 10.1 | 22.8 | 26.0 | 23.0 | 21.1 | 18.1 | 21.3 | 26.2 | 14.0 | 19.5 | 18.0 | 24.4 | 25.6 |
| 40 to 52 weeks | 26.0 | 20.0 | 22.2 | 18.8 | 33.9 | 25.2 | 21.6 | 23.2 | 17.7 | 34.7 | 27.3 | 18.2 | 20.8 | 20.0 | 32.7 |
| 1978 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 to 4 weeks | 8.1 | 6.1 | 4.3 | 3.6 | 1.9 | 6.6 | 4.5 | 3.5 | 2.6 | 1.8 | 10.6 | 8.6 | 5.2 | 4.7 | 2.1 |
| 5 to 14 weeks | 21.4 | 26.4 | 18.6 | 24.2 | 22.2 | 15.4 | 23.4 | 16.8 | 26.2 | 22.6 | 31.0 | 30.6 | 20.8 | 22.1 | 20.7 |
| 15 to 26 weeks | 26.1 | 27.6 | 34.4 | 30.9 | 22.8 | 26.8 | 29.5 | 33.8 | 35.3 | 23.5 | 25.1 | 25.2 | 35.1 | 26.2 | 20.7 |
| 27 to 39 weeks | 18.1 | 15.8 | 20.4 | 19.9 | 21.5 | 18.9 | 15.0 | 25.9 | 15.2 | 19.4 | 16.8 | 16.9 | 13.3 | 24.8 | 24.6 |
| 40 to 52 weeks | 26.2 | 24.0 | 22.4 | 21.5 | 31.7 | 32.2 | 27.8 | 19.9 | 20.7 | 31.0 | 16.4 | 18.8 | 25.5 | 22.3 | 31.8 |

Table 6. Percent distribution of unemployment by duration, race, and age, selected years, 1974-78

| Year and duration of unemployment | White |  |  |  |  | Black and other |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 16 to 17 years | 18 to 19 years | 20 to 24 years | 25 to 54 years | 55 years and over | 16 to 17 years | 18 to 19 years | 20 to 24 years | 25 to 54 years | 55 years and over |
| 1974 |  |  |  |  |  |  |  |  |  |  |
| 1 to 4 weeks | 15.0 | 10.0 | 7.3 | 4.8 | 2.8 | 16.4 | 5.9 | 7.0 | 4.7 | 3.9 |
| 5 to 14 weeks | 26.4 | 29.2 | 27.2 | 27.9 | 19.0 | 43.4 | 19.7 | 24.0 | 21.4 | 10.7 |
| 15 to 26 weeks | 19.6 | 27.9 | 30.7 | 29.6 | 22.2 | 17.6 | 11.4 | 31.9 | 32.7 | 31.7 |
| 27 to 39 weeks | 18.0 | 21.3 | 22.1 | 22.3 | 22.6 | 9.4 | 36.6 | 19.2 | 14.9 | 27.8 |
| 40 to 52 weeks | 20.9 | 11.5 | 12.7 | 15.5 | 33.5 | 13.1 | 25.6 | 17.9 | 26.3 | 25.9 |
| 1975 |  |  |  |  |  |  |  |  |  |  |
| 1 to 4 weeks | 7.0 | 5.3 | 3.6 | 2.8 | 1.8 | 7.0 | 3.6 | 2.1 | 1.6 | 2.3 |
| 5 to 14 weeks | 17.5 | 22.8 | 15.9 | 18.5 | 11.3 | 16.1 | 13.7 | 10.1 | 13.4 | 10.7 |
| 15 to 26 weeks | 24.9 | 25.9 | 27.3 | 27.6 | 26.9 | 17.4 | 14.7 | 19.9 | 25.1 | 30.0 |
| 27 to 39 weeks | 20.7 | 21.2 | 22.2 | 20.9 | 21.7 | 20.0 | 26.7 | 14.4 | 19.9 | 26.0 |
| 40 to 52 weeks | 29.9 | 29.6 | 30.9 | 30.2 | 38.3 | 39.1 | 41.3 | 37.9 | 39.9 | 31.1 |
| 1977 |  |  |  |  |  |  |  |  |  |  |
| 1 to 4 weeks | 11.8 | 9.6 | 5.8 | 4.0 | 1.8 | 8.4 | 5.1 | 2.3 | 3.0 | 2.2 |
| 5 to 14 weeks | 20.6 | 29.1 | 27.0 | 24.0 | 14.3 | 26.9 | 16.7 | 14.4 | 15.3 | 21.3 |
| 15 to 26 weeks | 30.4 | 23.5 | 33.4 | 32.8 | 22.9 | 14.4 | 30.7 | 24.4 | 31.3 | 24.0 |
| 27 to 39 weeks | 23.5 | 19.4 | 17.7 | 23.5 | 26.0 | 17.5 | 23.2 | 19.1 | 20.2 | 25.7 |
| 40 to 52 weeks | 22.1 | 18.5 | 16.1 | 15.7 | 35.0 | 32.6 | 24.3 | 39.9 | 30.3 | 26.9 |
| 1978 |  |  |  |  |  |  |  |  |  |  |
| 1 to 4 weeks | 8.7 | 7.2 | 5.0 | 4.0 | 1.9 | 6.0 | 3.4 | 2.3 | 2.1 | 2.0 |
| 5 to 14 weeks | 22.9 | 29.4 | 20.4 | 26.3 | 22.9 | 16.0 | 18.4 | 13.3 | 16.1 | 18.7 |
| 15 to 26 weeks | 23.9 | 28.0 | 36.7 | 31.9 | 23.0 | 34.4 | 26.5 | 27.8 | 26.9 | 21.4 |
| 27 to 39 weeks | 20.5 | 17.7 | 20.7 | 19.7 | 22.7 | 9.2 | 10.7 | 19.6 | 20.6 | 15.3 |
| 40 to 52 weeks | 24.0 | 17.8 | 17.2 | 18.1 | 29.5 | 34.3 | 40.9 | 37.0 | 34.3 | 42.6 |

The results are interesting, in part because of the differences between years. In 1977, teenagers who worked and who experienced extensive unemployment were more likely than persons over age 20 to have been jobless two or more times; in addition, a larger fraction of teenagers than of others did not work at all and experienced more than 14 weeks of unemployment. On the other hand, the data for 1974 show little difference in spell proportions except for 18 - to 19 -year-olds. For example, among 16 to 17 -year-olds who worked in 1974, 48.6 percent of those with at least 15 total weeks of unemployment had two or more spells compared to 51.3 percent for adults 25 years of age and older. The proportion with no work experience was little different between adults and 16 - to 17 -year-olds, although a much smaller percentage of those age 18 to 24 reported no work experience. While a sizable proportion of long duration unemployment is accounted for by persons who had no work experience during the year, the data do suggest that it is hazardous to conclude that a large majority of workers with a lot of unemployment incur it in one long spell.

It is very useful to know that, in a single year, joblessness is concentrated among a small proportion of the labor force who are unemployed a lot, although not necessarily in a single spell. However, it is quite another matter to infer that the same individuals experience persistent, lengthy periods of unemployment year after year. In the next section, we use CPS data to gain some additional perspective on this issue.

Table 7. Percent distribution of unemployment by duration, school status, and age, selected years, 1974-78

| Year and duration of unemployment | Major activity: School |  |  | Major activity: Other |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 16 to 17 years | 18 to 19 years | 20 to 24 years | $\begin{array}{\|c} 16 \text { to } 17 \\ \text { years } \end{array}$ | 18 to 19 years | 20 to 24 years |
| 1974 |  |  |  |  |  |  |
| 1 to 4 weeks | 17.7 | 18.6 | 15.6 | 6.6 | 5.8 | 6.3 |
| 5 to 14 weeks | 27.4 | 38.8 | 36.4 | 33.5 | 23.2 | 25.5 |
| 15 to 26 weeks | 19.7 | 22.1 | 22.9 | 18.1 | 25.5 | 31.8 |
| 27 to 39 weeks | 16.7 | 10.7 | 10.5 | 17.5 | 29.5 | 22.9 |
| 40 to 52 weeks | 18.6 | 9.9 | 14.7 | 24.3 | 16.1 | 13.4 |
| 1975 |  |  |  |  |  |  |
| 1 to 4 weeks | 7.0 | 8.0 | 9.2 | 7.4 | 3.0 | 2.5 |
| 5 to 14 weeks | 16.7 | 22.9 | 28.3 | 20.7 | 18.9 | 13.0 |
| 15 to 26 weeks | 22.9 | 25.8 | 36.7 | 28.2 | 21.3 | 24.4 |
| 27 to 39 weeks | 20.2 | 19.1 | 14.1 | 22.7 | 21.5 | 18.6 |
| 40 to 52 weeks | 33.2 | 24.2 | 11.8 | 21.0 | 35.4 | 38.6 |
| 1977 |  |  |  |  |  |  |
| 1 to 4 weeks | 12.9 | 13.1 | 10.1 | 6.3 | 6.3 | 4.3 |
| 5 to 14 weeks | 30.2 | 27.7 | 29.9 | 20.7 | 25.1 | 23.0 |
| 15 to 26 weeks | 14.8 | 29.1 | 16.6 | 17.3 | 23.7 | 32.7 |
| 27 to 39 weeks | 16.8 | 19.7 | 26.7 | 27.9 | 20.7 | 17.1 |
| 40 to 52 weeks | 25.3 | 10.3 | 16.6 | 27.8 | 24.3 | 22.9 |
| 1978 |  |  |  |  |  |  |
| 1 to 4 weeks | 9.4 | 8.5 | 12.1 | 3.7 | 4.2 | 3.4 |
| 5 to 14 weeks | 21.1 | 36.2 | 21.9 | 22.6 | 28.4 | 18.2 |
| 15 to 26 weeks | 22.5 | 23.3 | 28.0 | 39.4 | 31.0 | 35.2 |
| 27 to 39 weeks | 20.6 | 14.7 | 13.9 | 9.1 | 16.7 | 21.2 |
| 40 to 52 weeks | 26.4 | 29.6 | 24.1 | 25.3 | 19.6 | 22.1 |

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Is current status linked with past unemployment?
If the observed concentration of unemployment is more than a statistical anomaly in information for single years, one would expect data from the 2 -year CPS
matched samples to corroborate the following two hypotheses: First, the more weeks an individual is unemployed in one year, the higher is his or her probability of experiencing some unemployment the subsequent year. Second, a worker with extensive unemployment

Table 8. Weeks of unemployment in 1974 and 1977 and the probability of experiencing unemployment during the subsequent year, by sex, race, and age

| Sex, race, age, and weeks of unemployment in 1975 or 1978 | Probability of experiencing unemployment in 1975 based on weeks of unemployment in 1974 |  |  |  | Probability of experiencing unemployment in 1978 based on weeks of unemployment in 1977 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than 5 weeks | 5 to 14 weeks | 15 weeks and over | 27 weeks and over | Less than 5 weeks | 5 to 14 weeks | 15 weeks and over | 27 weeks and over |
| Total |  |  |  |  |  |  |  |  |
| 16 to 17 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks | 0.316 | 0.402 | 0.375 | 0.500 | 0.301 | 0.355 | 0.459 | 0.432 |
| 15 weeks and over 18 to 19 years: | . 103 | 182 | . 146 | $250$ | $.091 .$ | . 118 | . 230 | . 216 |
| 18 to 19 years: 1 or more weeks | . 349 | 455 | 481 | 621 | . 320 | . 395 | . 530 | . 522 |
| 15 weeks and over | . 109 | . 178 | . 291 | 379 | . 102 | . 118 | . 250 | 261 |
| 20 to 24 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks. | .316 .124 | .480 .46 | .573 393 | 603 414 | .229 .091 | .320 .249 | .442 .499 | 487 360 |
| 15 weeks and over | . 124 | . 246 | . 393 | . 414 | . 091 | . 249 | . 299 | . 360 |
| 25 to 54 years: 1 or more weeks ........ | . 318 | 445 | . 502 | . 524 | . 264 | . 334 | . 426 | 438 |
| 15 weeks and over ........ | . 136 | . 251 | .361 | . 382 | . 081 | . 102 | . 270 | . 309 |
| 55 years and over: 1 or more weeks | . 203 | . 327 | . 397 | . 385 | . 203 | 234 | . 325 | 303 |
| 15 weeks and over | . 125 | . 202 | . 319 | 295 | . 051 | . 102 | . 198 | 197 |
| Men |  |  |  |  |  |  |  |  |
| 16 to 17 years: 1 or more weeks | . 308 | 404 | . 429 | . 625 | . 265 | . 340 | . 512 | 480 |
| 15 weeks and over | . 128 | . 191 | . 250 | . 375 | . 074 | . 109 | . 279 | 280 |
| 18 to 19 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks ........ | . 464 | . 508 | . 478 | 652 .435 | .397 .175 | .500 .120 | .518 .268 | .539 .269 |
| 15 weeks and over ........ 20 to 24 years: | . 196 | . 190 | . 283 | . 435 | . 175 |  |  |  |
| 20 to 24 years: | . 360 | . 570 | . 663 | . 606 | . 226 | . 342 | 448 | 478 |
| 15 weeks and over | . 151 | . 290 | . 488 | . 455 | . 097 | . 139 | . 326 | . 363 |
| 25 to 54 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks . . . . . . . | . 374 | .503 | . 543 | . 569 | . 294 | . 383 | 485 .414 | .516 387 |
| 15 weeks and over 55 years and over: | . 180 | 277 | . 412 | . 431 | . 094 | . 113 | . 314 |  |
| 1 or more weeks | . 267 | . 356 | . 369 | . 333 | . 289 | . 280 | . 346 | 329 |
| 15 weeks and over | . 167 | . 220 | . 298 | . 262 | . 053 | . 120 | 223 | . 224 |
| Women |  |  |  |  |  |  |  |  |
| 16 to 17 years: 1 or more weeks | . 325 | . 400 | . 300 | . 250 | . 333 | . 375 | . 333 | 333 |
| 15 weeks and over | . 078 | . 167 | . 000 | . 000 | . 107 | . 097 | . 111 | 250 |
| 18 to 19 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks 15 weeks and over | .260 .041 | .368 .158 | .485 .303 | .500 .286 | .262 .048 | .288 .102 | .500 .227 | .500 .250 |
| 15 weeks and over 20 to 24 years: | . 041 | . 158 |  |  |  |  |  |  |
| 1 or more weeks | . 275 | . 352 | . 508 | . 600 | . 231 | . 283 | . 431 | . 500 |
| 15 weeks and over | . 099 | . 183 | . 308 | . 360 | . 085 | . 111 | . 255 | . 357 |
| 25 to 54 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks | . 282 | . 372 | . 448 | . 472 | . 246 | . 285 | .356 | 364 |
| 15 weeks and over | . 109 | . 218 | . 294 | . 326 | . 074 | . 091 | . 218 | 236 |
| 55 years and over: 1 or more weeks |  |  |  |  |  |  |  |  |
| 1 or more weeks 15 weeks and over | .147 .088 | .289 .178 | $\begin{aligned} & .439 \\ & .351 \end{aligned}$ | .444 .333 | $\begin{aligned} & .048 \\ & .048 \end{aligned}$ | .170 .075 | $\begin{aligned} & .293 \\ & .159 \end{aligned}$ | $\begin{aligned} & .261 \\ & .152 \end{aligned}$ |
| White |  |  |  |  |  |  |  |  |
| 16 to 17 years: 1 or more weeks |  |  |  |  |  |  |  |  |
| 1 or more weeks . ....... 15 weeks and over ....... | .311 .098 | .393 .180 | .395 .233 | .545 .409 | .282 .089 | . 351 | .440 .360 | .433 .367 |
| 18 to 19 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks . . . . . . . . 15 | .339 .098 | .419 151 | .444 .886 | 600 360 | .306 089 | .364 .111 | .493 .217 | .469 .250 |
| 20 to 24 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks | . 284 | 455 | . 573 | . 604 | . 205 | . 313 | 448 | . 479 |
| 15 weeks and over | . 101 | . 221 | . 363 | . 396 | . 076 | . 128 | . 299 | . 352 |
| 25 to 54 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks ........ 15 weeks and over ........ | .330 .135 | .446 .242 | .504 .367 | .515 .382 | .254 .068 | .341 .097 | .428 .265 | .448 .320 |
| 55 years and over: |  |  |  |  |  | . 097 | 265 |  |
| 1 or more weeks | . 189 | . 354 | 400 | . 397 | . 180 | . 229 | . 339 | . 306 |
| 15 weeks and over | . 113 | 219 | . 325 | . 309 | . 040 | . 105 | . 194 | . 185 |

Table 8. Continued-Weeks of unemployment in 1974 and 1977 and the probability of experiencing unemployment during the subsequent year, by sex, race, and age

| Sex, race, age, and weeks of unemployment | Probability of experiencing unemployment in 1975 based on weeks of unemployment in 1974 |  |  |  | Probability of experiencing unemployment in 1978 based on weeks of unemployment in 1977 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| in 1975 or 1978 | Less than 5 weeks | 5 to 14 weeks | 15 weeks and over | 27 weeks and over | Less than 5 weeks | 5 to 14 weeks | 15 weeks and over | 27 weeks and over |
| Black and other |  |  |  |  |  |  |  |  |
| 16 to 17 years: |  |  |  |  |  |  |  |  |
| 10r more weeks . | .348 .130 | .438 .188 | . 0000 | . 0000 | .421 .105 | .375 .188 | .545 .545 | .429 .143 |
| 18 to 19 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks | 412 | . 667 | .625 | . 583 | . 391 | . 550 | . 581 | 643 |
| 15 weeks and over | . 176 | .333 | .313 | . 417 | . 174 | . 150 | . 323 | . 286 |
| 20 to 24 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks . | . 483 | . 538 | . 577 | . 600 | . 400 | . 357 | . 425 | . 500 |
| -15 weeks and over | . 241 | . 385 | . 538 | . 500 | . 200 | . 190 | .301 | . 375 |
| 25 to 54 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks | . 258 | . 440 | . 494 | . 559 | .311 | . 290 | . 420 | .405 |
| 15 weeks and over | . 145 | . 307 | . 333 | . 382 | . 149 | . 130 | . 287 | . 278 |
| 55 years and over: |  |  |  |  |  |  |  |  |
| 1 or more weeks . | . 272 | . 000 | . 381 | . 300 | $.333$ | . 261 | . 231 | . 071 |
| 15 weeks and over . . . . . . . | . 182 | . 000 | . 286 | . 200 | . 111 | . 087 | . 231 | . 286 |

one year is more likely to encounter the same prospect the next year.

Tables 8 and 9 provide information relevant to these hypotheses. ${ }^{23}$ They show the probability that persons had at least 1 week or more than 14 weeks of joblessness in 1975 or 1978 by the length of time unemployed during the previous year (1974 or 1977). For example, table 8 shows that, for those age 16 to 17 who were unemployed 1 to 4 weeks in 1974, the probability of having at least 1 week of unemployment in 1975 was 316 .

With virtually no exception, persons unemployed longer in one year have a higher probability of having some joblessness during the next year. Moreover, longterm unemployment (a total of 15 weeks or more) during one year is associated with a higher probability of extensive total joblessness during the subsequent year.

There appear to be some age-related differences in these probabilities, but they are not so large or persistent that they show up in each data set. However, this unemployment persistence does seem to be slightly greater among those age 18 to 24 than among adults or young teenagers. There is also a cyclical pattern in the unemployment probabilities; that is, regardless of time unemployed during 1974, individuals had a higher probability of 15 weeks or more of joblessness in 1975 than during the recovery-expansion years of 1977-78. Once again, this underscores the critical importance of the business cycle in understanding unemployment duration.

Blacks and whites exhibit the same general pattern as all workers in these age categories. However, except among 16 - to 17 -year-old employed blacks (for whom

Table 9. Weeks of unemployment in 1974 and 1977 and the probability of experiencing unemployment during the subsequent year, by school status and age

| School status, age, and weeks of unemployment | Probability of experiencing unemployment in 1975 based on weeks of unemployment in 1974 |  |  |  | Probability of experiencing unemployment in 1978 based on weeks of unemployment in 1977 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| in 1975 or 1978 | Less than 5 weeks | 5 to 14 weeks | 15 weeks and over | 27 weeks and over | Less than 5 weeks | 5 to 14 weeks | 15 weeks and over | 27 weeks and over |
| Major activity: School |  |  |  |  |  |  |  |  |
| 16 to 17 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks | 0.321 | 0.404 | 0.351 | 0.444 | 0.295 | 0.307 | 0.469 | 0.320 |
| 15 weeks and over | . 107 | . 211 | . 162 | 278 | . 090 | . 093 | . 143 | . 080 |
| 18 to 19 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks | . 348 | . 368 | . 333 | 400 | .214 | . 333 | . 600 | . 545 |
| 15 weeks and over | . 058 | . 132 | . 133 | . 200 | . 071 | . 103 | . 200 | . 091 |
| 1 or more weeks | . 256 | . 500 | . 273 | 250 | . 267 | . 314 | . 500 | 615 |
| 15 weeks and over | . 051 | . 083 | . 000 | . 000 | . 022 | . 143 | 273 | . 308 |
| Major activity: Other |  |  |  |  |  |  |  |  |
| 16 to 17 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks | . 267 | . 400 | . 455 | 667 | . 330 | . 555 | . 684 | . 667 |
| 15 weeks and over | . 067 | . 100 | . 091 | 167 | . 095 | . 222 | . 421 | . 333 |
| 18 to 19 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks | . 350 | . 508 | . 516 | 656 | . 416 | . 425 | .457 | . 514 |
| 15 weeks and over | . 167 | . 206 | . 328 | .406 | . 130 | . 125 | . 271 | . 314 |
| 20 to 24 years: |  |  |  |  |  |  |  |  |
| 1 or more weeks . | . 333 | . 476 | . 597 | .630 | . 218 | .321 137 | $\begin{array}{r}436 \\ \hline\end{array}$ | $.469$ |
| 15 weeks and over | . 145 | . 272 | . 425 | .444 | . 109 | . 137 | . 306 | . 367 |

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the very small sample makes data interpretation hazardous), blacks unemployed in 1974 or 1977 were somewhat more likely than whites to experience unemployment in 1975 or 1978. And blacks who were jobless at least 15 weeks in either 1974 or 1977 had a somewhat higher probability than whites of experiencing extensive unemployment during the subsequent year.
Table 9 shows that 18 - to 24 -year-olds whose major activity was not school, and who had more than 14 weeks of unemployment in 1974 or 1977, were only marginally more likely than their student counterparts to experience long periods of unemployment in the following year. For example, 30.6 percent of those age 20 to 24 whose major activity was other than school and who were unemployed more than 14 weeks in 1977 had
long-term unemployment in 1978, compared to 27.3 percent among the school group. However, these differences are related, at least in part, to the business cycle; the differences in probabilities are much greater for 1974-75 than for 1977-78.

The foregoing analysis does suggest that unemployment is concentrated, in the sense that there is an association between past and subsequent unemployment over a 2 -year period for the persons in this sample. However, determination of a strict causal relationship, or of influences, other than the business cycle, on the labor supply and demand schedules underlying the association is beyond the scope of this study. ${ }^{24}$ Nor have we advanced any hypothesis about what constitutes a substantively significant degree of persistence. These are subjects for further research. ${ }^{25}$

Acknowledgement: This article is part of a longer report presented at the Experts Meeting on the Role of High Turnover in Youth Labor Markets sponsored by the Organization for Economic Co-Operation and Development, Paris, Nov. 27-28, 1980. The comments received from participants at the Experts Meeting, particularly John M. Evans and John P. Martin, were extremely helpful in clarifying many issues. The author would also like to express his appreciation to Bernard Altschuler, Kenneth Buckley, John Lawrence, and Bob Whitmore of the Bureau of Labor Statistics for their assistance in the preparation of this article.

A critique of much of the relevant literature is contained in Norman Bowers, "Young and marginal: an overview of youth employment," Monthly Labor Review, October 1979, pp. 4-16. A turnover perspective and an implicit critique of that approach can be found in Jacob Mincer and Linda Leighton, "Labor Turnover and Youth Unemployment," and Kim Clark and Lawrence Summers, "The Dynamics of Youth Unemployment," in Richard Freeman and David Wise, eds., The Youth Unemployment Problem: Its Nature, Causes, and Consequences (Chicago, University of Chicago Press, 1981). Also see Joseph Antos and Wesley Mellow, "The Youth Labor Market: A Dynamic Overview," BLS Staff Paper 11 (Bureau of Labor Statistics, 1979).

For example, this article will not discuss the potential impact of unemployment on subsequent wages (and growth in wages) or career prospects. See Brian E. Becker and Stephen M. Hills, "Teenage Unemployment: Some Evidence of the Long Run Effects on Wages," Journal of Human Resources, Summer 1980, pp. 354-72; David Ellwood, "Teenage Unemployment: Permanent Scars or Temporary Blemishes," in Richard Freeman and David Wise, eds., The Youth Unemployment Problem: Its Nature, Causes, and Consequences (Chicago, University of Chicago Press, 1981); and Paul Osterman, Getting Started: The Youth Labor Market (Cambridge, Mass., MIT Press, 1980).
${ }^{3}$ See The Current Population Survey: Design and Methodology, Technical Paper 40 (Bureau of the Census, 1978).
${ }^{4}$ For a discussion of matched data from the CPS, see Using the Current Population Survey as a Longitudinal Data Base, Report 608 (Bureau of Labor Statistics, 1980); Daniel Glazer, "A micro-data approach to the Current Population Survey," Monthly Labor Review, February 1979, pp. 46-48; and Terence Kelly, "The Creation of Longitudinal Data from Cross-Section Surveys: An Illustration from the Current Population Survey," Annals of Economic and Social Measurement, April 1973, pp. 209-14.
${ }^{\text {s }}$ See Robert Aquilino, "Methods Test Phase III: Third Report on the Accuracy of Retrospective Interviewing and Effects of Change in Respondent on Labor Force Data," Memo, Bureau of the Census, Apr. 2, 1971. Also see Dale Morgenstern and Nancy Barrett, "The Retrospective Bias in Unemployment Reporting by Sex, Race and

Age," Journal of the American Statistical Association, June 1974, pp. 355-57.
${ }^{\circ}$ See James Heckman, "Sample Selection Bias as a Specification Error," Working Paper No. 172 (Cambridge, Mass., National Bureau of Economic Research, 1977), pp. 1-55; and G. S. Maddala, "Self-Selectivity Problems in Econometric Models," in P. Krishniah, ed., Applications of Statistics (Amsterdam, North Holland Publishing Co., 1977). An example of selectivity bias from CPS matched data is included in Francis W. Horvath, "Tracking individual earnings mobility with the Current Population Survey," Monthly Labor Review, May 1980, pp. 43-46.
${ }^{7}$ See Barbara Bailar, "The Effects of Rotation Group Bias on Estimates from Panel Surveys," Journal of the American Statistical Association, March 1975, pp. 23-30; Barbara Bailar and Camilla Brooks, "An Error Profile: Employment as Measured by the Current Population Survey," report prepared for the Federal Committee on Statistical Methodology, Subcommittee on Nonsampling Errors, 1978; and Philip McCarthy, "Some Sources of Error in Labor Force Estimates from the Current Population Survey," Background Paper 15 (National Commission on Employment and Unemployment Statistics, 1978), pp. 62-76.

The data supporting these assertions are available from the author upon request.
"See George Perry, "Unemployment Flows in the U.S. Labor Market," Brookings Papers on Economic Activity, 2, 1972, pp. 245-78; Jacob Mincer and Linda Leighton, "Labor Turnover and Youth Unemployment"; and Robert Frank and Richard Freeman, "The Distribution of the Unemployment Burden: Do the Last Hired Leave First?" Review of Economics and Statistics, August 1978, pp. 380-91. Note that our concern is with differences across groups. Discussion of the concentration and persistence of unemployment within groups will be analyzed later in the article. The age breaks used for this study were chosen to allow for some examination of differences between adults and various youth groups. For example, those age 16 to 17 tend to be in school; school activity drops off considerably with age. Therefore, one might expect different labor force experience between (say) 16- to 17 -year-olds and those age 20 to 24 who are more likely to be in the process of establishing themselves in the full-time labor market. It is also important to understand how age was defined in this paper. From the March 1975-March 1976 matched file, individuals were classified on the basis of their age as of March 1975. From the March 1978-March 1979 file the age classification related to March 1978. Therefore, we are not comparing the behavior of 16 - to 17-year-olds in 1974 with the behavior of 16- to 17-year-olds in 1975. Rather, we are following the same individuals over the entire 2-year time span for which data are available from each matched file, but to simplify the tabular presentation, age is taken as fixed as of March 1975 or March 1978.
${ }^{10}$ The incidence of unemployment over the 2 -year period is less than twice the average incidence because some people experienced unemployment during both years. There are two possible reasons for this: First, the experience of unemployment in one year increases the probability of having some unemployment the next year. And, second, individuals may have constant (over time) but different probabilities of becoming unemployed, and those with higher probabilities are more likely to be jobless at any time. For a discussion of "sorting" and "tenure dependence," see Stephen W. Salant, "Search Theory and Duration Data: A Theory of Sorts," Quarterly Journal of Economics, February 1977, pp. 39-57; A. McGregor, "Unemployment Duration and Re-employment Probability," Economic Journal, December 1978, pp. 693-706; and John Barron and Wesley Mellow, "Changes in Labor Force Status Among the Unemployed," Journal of Human Resources, Summer 1981, pp. 427-41.
'It is important to understand the meaning of the "major activity" classification. The very first item posed to the household respondent for each young person in the CPS sample is: "What was (person's name) doing most of last week, going to school or something else?" This is not the same as asking whether the individuals were enrolled or not enrolled in school. For example, there will be persons who are enrolled in school whose major activity is something else. If this group is "more committed" to the labor force, measures of labor force experience by major activity will tend to show more volatility among the school group. Further, the classification refers to specific months - March 1975 and March 1978 - and not, as is true of the employment and unemployment data, to an entire year. Changes in one's major activity could have occurred in the months between March 1975-76 and between March 1978-79. Any differences exhibited between major activity status cannot necessarily be taken as an indication of a causal relation.

There is some evidence from the CPS that the proportion of black male youth with any employment experience in a given year has fallen significantly. No discernible trend is evident for whites. See Norman Bowers, "Young and Marginal," p. 9.

Differences in the unemployment and employment experience of the major activity groups have suggested to some analysts that one's "student status" is an important explanatory variable for many young persons' partial commitment to the job market. Whether school activity is a cause, effect, or involves reciprocal interaction, however, is open to some dispute. Much more about the school-work relation, the role of youth labor in the economy, and changes in that role over time, as well as the functions of the educational system and its connection to the economy would first have to be specified before any causal statement could be made with confidence. See Robert Lerman, "Some Determinants of Youth School Activity," Journal of Human Resources, Summer 1972, pp. 366-83; and Paul Osterman, "Understanding Youth Unemployment," Working Papers for a New Society, January-February 1978, pp. 58-63.
${ }^{14}$ This view is particularly associated with the work of Kim Clark and Lawrence Summers, "The Dynamics of Youth Unemployment."

An analysis of recurrent spells among three age cohorts in Great Britain may be found in Richard Disney, "Recurrent Spells and the Concentration of Unemployment in Great Britain," Economic Journal, March 1979, pp. 109-19.
${ }^{16}$ The small cell sizes in many cases make interpretation of the probability calculations very difficult. Therefore, rather than a finely detailed dissection of the data, focus will be on a few general features.

Black-white differences-not shown here-exhibited no detectable pattern, a fact perhaps affected by the sample selectivity involved; that is, although blacks reported more unemployment than whites, they were less likely to have had any work experience during 1977 and therefore spell information was not collected.
${ }^{18}$ We also examined whether there was an association between the reporting of multiple spells and an individual's industry of longest job during the previous year. Especially among adults, the percent with two or more spells whose industry of longest job was in construction was quite a bit higher than the proportions in other major industries. This association also held - though not as strongly - for those age 20
to 24 . Not surprisingly, those teenagers with multiple spells were not disproportionately concentrated in any industry. Note, however, that "industry of longest job" in the past year is not necessarily the only industry in which individuals worked over the year, nor does it necessarily indicate working for the same employer.

See Kim Clark and Lawrence Summers, "The Dynamics." Robert Frank and Richard Freeman, in "The Distribution of the Unemployment Burden," also make the point that spell length may be more important in explaining differences in unemployment within the youth group than differential turnover or spell frequency.
${ }^{20}$ See Norman Bowers, "Probing the issues of unemployment duration," Monthly Labor Review, July 1980, p. 30.
'Among adults who had some work experience, those whose longest job over a given year was in construction were more likely than others to experience 15 or more weeks of unemployment. This association was much weaker among teenagers. As would also be expected, the proportion of workers with more than 14 weeks of unemployment in a year tended to be greater across all major industry groups in 1975 than in other years. Again, this represents the importance of the business cycle in understanding length of time spent looking for work.

See Robert Lerman, "The Nature of the Youth Employment Problem: A Review Paper," prepared for the Vice President's Task Force on Youth Employment, Nov. 26, 1979, pp. 28-29.

Data in these tables do not necessarily show causality because of the problem of distinguishing heterogeneity and state dependence. One attempt to test for heterogeneity or duration dependence among a sample of unemployed workers is discussed in A. McGregor, "Unemployment Duration," pp. 693-706. One might buttress the results shown in the tables with regression analysis. However, simply correlating current with previous unemployment does not necessarily isolate the impact of previous unemployment if some people-because of institutional and personal characteristics - are more prone to experience unemployment; and, such characteristics need not be observable. In part, this issue revolves around the questions of "adjusting or controlling" for heterogeneity among individuals in the likelihood of experiencing unemployment, and sample selection bias. Of course, a number of ways have been proposed to handle this problem, but their adequacy rests heavily upon the existence of a well-specified theory of unemployment and the "goodness of fit" in transforming the theoretical concepts into their testable empirical counterparts, and, equally important, having a correct theory of censored samples in order to adjust for selectivity bias, assuming that one believes the issue to be important to understanding unemployment. Because of the much fuller treatment that these questions deserve, no attempt was made to go beyond the tabulations shown in the text. For one example of this type of approach, see James J. Heckman and George J. Borjas, "Does Unemployment Cause Further Unemployment? Definitions, Questions and Answers from a Continuous Time Model of Heterogeneity and State Dependence," Economica, August 1980, pp. 247-83.
${ }^{4}$ One could undoubtedly list many "factors" which might be associated with extensive joblessness, such as kinds of jobs held, wages, family income, education, and so forth. No attempt has been made here to disaggregate the data into such cells because, especially among youth, the sample sizes are simply too small.

Although not shown here, it should also be noted that there is evidence from the matched files that length of time worked in one year is strongly and positively associated with the probability of working again the following year. There are also some important differences among demographic groups. Black workers, particularly teenagers, are less likely than whites to have had any employment experience at all and less likely to have had subsequent employment regardless of the number of weeks worked the previous year. This is a result both of young blacks' higher probability of experiencing an employment separation and, once separated, the greater difficulty they have in finding a job. There are also differences in "persistence" between the major activity groups: The school group's current working experience is somewhat less related to weeks worked during the past year compared to the other group.

# Unemployment insurance laws: changes enacted during 1981 

> All States tightened work requirements; most adopted a variety of options to the pension offset provision, and a few imposed a 1-week waiting period

## Diana Runner

All States enacted legislation last year tightening eligibility for extended unemployment insurance benefits, in accordance with the Federal Budget Reconciliation Act of 1980. "Suitable work" requirements were added, and workers filing an interstate claim no longer are eligible for more than 2 weeks of extended benefits if an extended benefit period is not in effect for the week in the State where the claim is filed.

Sixteen States enacted a compensable waiting week requirement for regular unemployment insurance claims so they can be reimbursed for 50 percent of the Federal share of the first week of extended benefits payable to an individual. ${ }^{1}$

Most States have changed their pension offset provision to reflect the variety of options available under the Federal law. Variations are as follows: 26 States offset a pension only if the pension or retired pay, annuity or similar periodic payment is under a plan maintained (or contributed to) by a base period or chargeable employer; 21 States permit benefits to be reduced on less than a dollar-for-dollar basis by taking into consideration the amount of contributions made by the individual for the pension; ${ }^{3} 15$ States disregard pension payments if the

[^2]base-period employment did not affect eligibility for or increase the amount of the pension; ${ }^{4}$ however, excluded from this exemption are pensions paid under the Social Security Act and the Railroad Retirement Act.
The following is a summary of some significant changes in State unemployment insurance laws during 1981.

## Arizona

Benefits. Established a permanent voluntary work-sharing program, if it is agreed to by the employer and union and approved by the State agency.

Coverage. The exclusion from coverage of aliens performing agricultural labor will continue until their status changes under the Federal law.

Disqualification. The disqualification for misconduct was changed from a flat period beginning with the week following the filing of a claim plus 10 weeks with benefits reduced by eight times the weekly benefit amount to a duration disqualification and until the individual earns five times the weekly benefit amount.

Administration. The time period for appealing an appeals board decision to the court of appeals was decreased from 35 to 30 days.

## Arkansas

Benefits. The qualifying wages were changed from 30 times the weekly benefit amount earned in two quarters of the base period to 30 times high-quarter wages divided by 26 and earn-
ings in two quarters. An individual's weekly benefit amount will be computed as $1 / 52$ of his or her total wages for insured work in the two highest quarters of the base period and, beginning January 1, 1984, the computation will be $1 / 26$ of total wages during the high-quarter of the base period. From July 1, 1981, to January 1, 1984, the minimum weekly benefit amount will be increased from $\$ 15$ to $\$ 31$ and the maximum weekly benefit amount will be frozen at $\$ 136$. From January 1, 1984, through June 30, 1984, the maximum weekly benefit amount will be determined as $66-2 / 3$ percent of the State average weekly wage for insured employment during 1982 and the minimum weekly benefit amount will be determined as 15 percent of the statewide average weekly wage during 1982. A temporary requalification requirement was added until December 31, 1983, providing that an individual may not requalify for benefits in a second benefit year unless he or she has wages of at least 30 times the weekly benefit amount and wages in at least two quarters of the base period and, subsequent to filing the claim establishing his or her previous benefit year, has been paid wages equal to 10 (formerly 6) times his weekly benefit amount.

Disqualification. Until December 31, 1983, the maximum potential benefits of an individual who is disqualified because of misconduct in connection with work or for failure to apply for or accept suitable work, will be reduced by an amount equal to eight times the weekly benefit amount, but benefit duration may not be reduced to less than 1 week. Also, until January 1, 1984, an individual who voluntarily left a base-period employer without good cause will have the base-period wages paid by that employer reduced by 25 percent. The weekly benefit amount, maximum benefit amount, and potential duration of benefits will be determined accordingly, but the maximum benefit entitlement may not be reduced to less than the weekly benefit amount. In addition to the 14 weeks of disqualification which apply to an individual who makes a false statement or misrepresentation, a disqualification of 3 weeks (formerly 2 ) will be imposed for each week of falsification.

Financing. The taxable wage base for 1982 and 1983 was increased from $\$ 6,000$ to $\$ 6,900$ and for 1984 and the following years, reduced to $\$ 6,000$. The level of the stabilization tax will depend on the solvency of the fund and may range from 0.1 to 0.5 percent. The range of rates for positive-balance employers will be 0.7 to 3.3 percent and negative-balance employer rates will be 5.5 percent for 1982 and 6.0 percent for 1983 and subsequent years. The prohibition against charging an employer for benefits paid when the base-period wage credits represent regular part-time employment and the claimant continues in that employment during the period for which benefits are paid was repealed.

Administration. The period in which an overpayment may be recovered or deducted from future benefits was increased from 1 to 2 years. A judicial review of unemployment compensation cases will now be taken to the court of appeals rather than the circuit court.

## Colorado

Coverage. An individual in the employ of a corporation of which he or she is the majority or controlling shareholder and an officer is excluded from coverage.

Disqualification. A Head Start program that is not a part of a school administered by a board of education is excluded from the definition of "educational institution" for purposes of applying the between-terms denial because the Head Start em-
ployees are not subject to the same employment conditions as other employees of the school. An individual's weekly benefit amount will not be reduced if he or she is receiving military service-connected disability benefits paid by the Veterans' Administration, but will be reduced because of receiving a military disability retirement pension based on the previous work of the individual.

Penalties. The penalty for fraud was amended to require an individual who received benefits through fraudulent misrepresentation to repay $11 / 2$ times the benefits received. Formerly, an individual was required to repay only the weekly benefit amount he received.

Financing. Benefits paid that will be charged against the fund and not against an employer's account will also include combined wage claims in which Colorado wages are transferred to another State. Also, benefits may be noncharged if an individual was disqualified for voluntary leaving and misconduct.

## Administration. The local Government Advisory Council was

 abolished.
## Connecticut

Disqualification. Conduct constituting larceny in the third degree was added to the definition of misconduct.

Financing. If the administrator finds than an individual's most recent separation from a base-period employer results in disqualification for leaving work to study or voluntary retirement, benefits will not be charged, provided the employer filed a notice for appeal.

Administration. The name of the appeals division was changed from the Unemployment Commission to the Employment Security Appeals Division and the second-stage appeal body was changed from a commission to a board. The Rural Manpower Services Advisory Council was abolished.

## Delaware

Benefits. Dismissal payments which the employing unit is not legally required to make and holiday pay were included in the definition of wages. The computation of the weekly benefit amount was changed from $1 / 26$ of total wages during the high quarter to $1 / 104$ of the individual's total wages during the base period. The change in the computation of the maximum weekly benefit amount from 63 to 66-2/3 percent of the State average weekly wage was delayed from 1981 to 1983. The seasonal provisions of the law were deleted.

Financing. The contribution rate was increased from 5 to 7 percent and no employer's basic assessment rate will be less than 6.3 percent (formerly 2.7 ) unless all previous assessments have been paid.

## Florida

Benefits. The maximum weekly benefit amount was increased from $\$ 105$ to $\$ 125$.

Disqualification. An individual will be disqualified for any week the unemployment is because of a suspension for misconduct connected with work or is because of a leave of absence, if the leave was voluntarily initiated by the individual.

Administration. The Advisory Council was extended until October 1, 1987, and the members of the council shall be
appointed by the Secretary of the Department of Labor and Employment Security (formerly appointed by division).

## Georgia

Benefits. The maximum weekly benefit amount was increased from $\$ 90$ to $\$ 115$. The seasonal provisions of the law were deleted.

Coverage. The exclusion of services performed by participants in Comprehensive Employment and Training Act/Public Service Employment programs will not apply if the State's unemployment fund is reimbursed for benefits paid from Federal funds provided for that purpose. The exclusion from coverage of aliens performing agricultural labor was extended to January $1,1982$.

Disqualification. The requalifying requirement was amended for purging a disqualification for voluntary leaving and refusal of "suitable work" to require that the wages earned must be in insured work. A duration disqualification for specific misconduct discharges was added, with requalification earnings of eight times the weekly benefit amount in bona fide work. The duration disqualification will apply if the individual was discharged for intentional conduct which resulted in physical assault, bodily injury, or property loss or damage amounting to $\$ 2,000$, theft, sabotage, embezzlement, or falsification of an employer's records.

Administration. The members of an appeals tribunal were changed from referees to administrative hearing officers and the administration of the first level of appeal was transferred from the Board of Review to the commissioner.

## Illinois

Benefits. The minimum base-period qualifying wages were increased from $\$ 1,400$ to $\$ 1,600$ and the amount that must be earned outside the high quarter was increased from $\$ 385$ to $\$ 440$. The base period was changed from the four calendar quarters ending 4 to 7 months before the beginning of the benefit year to the first four of the last five completed calendar quarters immediately preceding the benefit year.

Disqualification. Good cause for voluntary leaving must be for reasons attributable to the employing unit. However, the voluntary leaving disqualification will not apply if an individual is physically unable to work or leaves work to care for a spouse, child, or parent who is in poor physical health; leaves work to accept other work that he performs for at least 2 weeks or that pays him at least twice his weekly benefit amount; leaves work rather than accept a transfer that would cause another employee to be bumped; leaves work because of sexual harassment by another employee with the employer's knowledge; or leaves work that would be deemed unsuitable. The requirement for purging disqualifications for the three major causes was changed from an alternative of weeks of work and earnings or weeks of otherwise compensable unemployment to a requirement that the individual have earnings in covered employment of not less than his current weekly benefit amount in each of 4 calendar weeks. Also, an individual cannot be disqualified for refusing to apply for or accept work if the position offered by an employing unit is a transfer to other work and the acceptance would separate an individual currently performing the work. The recoupment period following a finding of eligibility during which benefits were erroneously paid was extended from 1 to 3 years.

Financing. The taxable wage base was increased from $\$ 6,500$ to $\$ 7,000$. An employer's account will be relieved from charges for voluntary quit if the claimant left work, took another job, held it long enough to earn six times the weekly benefit amount, and then was separated from the new work. Also noncharged are benefits paid if an employer continues to employ the claimant in part-time work to the same extent as in the base period. The contribution rate for employers paying total quarterly wages less than $\$ 50,000$ was limited to a maximum of 2.7 percent of wages paid; and for any calendar year in which emergency contribution rates are in effect, the maximum contribution rate for employers paying quarterly wages less than $\$ 50,000$ will be 3.1 percent of insured quarterly wages. The emergency contribution rate for an employer whose regular contribution rate is two-tenths of 1 percent or higher will be the sum of the regular rate plus four-tenths of 1 percent. The rates for the most and least favorable schedules were increased from the current range of 0.1 to 5.0 percent to 0.2 to 5.3 percent.

Administration. The period for appealing either a claims adjudicator or referee decision was extended from 14 to 30 days.

## Indiana

Coverage. Individuals performing services in a work-relief or work-training program will be excluded from coverage.

Disqualification. The pension offset provision was amended to add that Old Age, Survivors Insurance benefits will be considered payments under a plan of an employer maintained or contributed to by a chargeable employer. The disqualification for failure to apply for or to accept suitable work under the regular program was changed from the week of failure or refusal and until the individual earned eight times the weekly benefit amount to the week of failure or refusal and until the individual earns wages equal to his or her weekly benefit amount in each of 4 weeks.

## Iowa

Financing. A reimbursing employer will not have benefits charged when the reimburser is a base-period employer and continues to provide the same employment to the individual during the benefit year as during the base period. The period of chargeability required to qualify for a computed rate was increased from 2 to 5 years. However, the 2 -year chargeability requirement is retained for an employer with a negative percentage of excess whose account has been charged for more than 26 times the maximum weekly benefit amount for an individual with four dependents or more. An additional surcharge of 0.5 percent was added for employers who have a negative balance for two consecutive rate computation dates and a cumulative 0.5 -percent surcharge is now added for each successive year of negative balance, but the surcharge may not exceed 3 percent of taxable wages.

## Louisiana

Disqualification. The disqualification applied for voluntary leaving and misconduct discharges will be assessed for separations from any base-period or subsequent employer. Also, an individual who has been disqualified for voluntary leaving or misconduct will requalify after he has been paid wages equal to at least 10 times the weekly benefit amount subsequent to a claim for a compensable week for unemployment benefits, rather than subsequent to the week in which the disqualifying act occurred as was previously provided.

Financing. The rated governmental employer provisions providing a special financing option for political subdivisions was deleted. Nonprofit organizations and political subdivisions which make payments in lieu of contributions will not be charged for benefits paid because of prompt payment or administrative error if the claimant was not entitled to the benefits. In addition, the Louisiana law provides for not charging a reimbursing employer for benefits paid to an individual who continues to remain in the employ of a base-period employer with no reduction in the number of hours worked or wages paid.

## Maine

Disqualification. Total or partial weekly benefit amounts will be reduced by the amount of holiday pay an individual has or is entitled to receive for that week. For nonfraudulent overpayments, no more than 10 percent can be withheld weekly from a claimant's unemployment benefit amount.

Financing. The contribution rate computation date was changed from December 31 to June 30 of each calendar year and the effective date of the contribution rate from July 1 to January 1 of each calendar year. A successor employer's contribution rate from the date of acquisition to the end of the current rate period will be the rate determined immediately prior to acquisition. A newly computed rate for the successor will be determined by combining the experience of the predecessor and successor as of the regular computation date (formerly, the rate period in which the acquisition took place) for subsequent contribution rate periods.

Administration. An appeal from a determination may be extended an additional 15 days for good cause.

## Maryland

Benefits. The maximum weekly benefit amount was increased from $\$ 120$ to $\$ 140$ and the step-down provision was changed from three to six lower divisions on the benefit schedule.

Eligibility. A valid circumstance for voluntary leaving is specified as only a substantial cause which is directly attributable to, arising from, or connected with the conditions of employment or actions of the employer, or another cause of necessitous or compelling nature such that the individual had no reasonable alternative other than to leave the employment. Also, an individual who resigns because of poor health or to care for an ailing relative must furnish a written statement by a physician or hospital or other documentary evidence of the health problem. The time limit for recoupment of overpaid benefits will be 3 years from the date benefits were paid, and after 5 years any amount not recouped may be deemed uncollectible.

Financing. The rate for newly covered employers is the higher of 1.0 percent or State's 5 -year benefit-cost ratio, or the contribution rate which applies to employers with a benefit ratio of .0000 , not to exceed 2.8 percent (formerly 2.7).

## Michigan

Benefits. For a temporary period of March 1, 1981, to April 1, 1983, the following changes will apply: the number of "credit weeks" needed to establish a benefit year increased from 14 to 18 and the definition of "credit week" was changed from $\$ 25$ or more to one in which the claimant earned wages equal to at least 20 times the State's minimum hourly wage. Also, the weekly benefit amount will be computed at 70 percent of an individual's after-tax weekly wage, up
to 58 percent of the State's average weekly wage.
Disqualification. The waiver of the work search requirement for claimants enrolled in and attending classes as a full-time student has been suspended until April 3, 1983. A special disqualification provision for voluntary leaving and misconduct discharges has been established to apply after March 1, 1981, and before April 1, 1983, and requires requalifying earnings of the lesser of 7 times the weekly benefit amount or 40 times the State's minimum hourly wage times 7, and the reduction in an individual's total entitlement will not apply during this period.

Administration. The agency may waive recovery of improperly paid benefits if the payment was not the fault of the individual and if repayment would be contrary to equity and good conscience.

## Mississippi

Coverage. Employment for governmental entities and nonprofit organizations will not include services performed as part of a work-relief or work-training program assisted or financed in whole or part by any Federal or State agency or political subdivision, unless coverage of such service is required by Federal law. Also, employment for participants in Comprehensive Employment and Training Act/Public Service Employment programs unless coverage is Federally required.

## Montana

Administration. The Division of Employment Security and its bureaus were abolished and their functions will continue in the Department of Labor and Industry.

## Nevada

Financing. The proportional charging of benefits was changed to provide that an employer who has paid 75 percent of a claimant's base-period wages will be charged (except those for which a reimbursing employer is liable) with all benefits paid, but the agency may not charge benefits paid after a voluntary quit or a misconduct discharge if employer provides appropriate evidence to the agency. The range of rates for the most favorable schedule was changed from the previous 0.6 to 3.0 percent to 0.3 to 3.6 percent and the maximum rate in the least favorable schedule, from 3.5 to 4.1 percent.

## New Hampshire

Benefits. The qualifying wages were increased from $\$ 600$ to $\$ 800$ in each of two calendar quarters. The minimum weekly benefit amount was increased from $\$ 21$ to $\$ 26$ (annual earnings of $\$ 1,700$ ) and the maximum weekly benefit amount from $\$ 114$ to $\$ 132$ (annual earnings of $\$ 16,500$ ).

Coverage. Temporary services performed for a political committee or candidate for election in a primary or general election is excluded from employment except services for the permanent State committee or national committee of any political party.

Disqualification. An individual's benefits will not be reduced if he or she is paid for a State legal holiday or for any full day which management observes as a holiday with a general closing of business, provided the number of paid holidays does not exceed the total number of legal holidays in a year.

Administration. The terms of office for advisory council members were changed from 1 to 3 years. A Board of Review was

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established for second-stage appeals (formerly, New Hampshire provided for only one administrative appeal which was the first-stage appeals body) with a 15-day appeal period of the first-stage appeals body decision. Also, the judicial review appeal body was changed from the Superior Court of the county where the claim was filed to the State Supreme Court.

Penalties. The penalty for fraudulent misrepresentation was changed from a fine of not less than $\$ 20$ nor more than $\$ 200$ or imprisonment of not more than 1 year, or both, to a misdeméanor.

## New Mexico

Disqualification. Extends a denial of benefits to any school employee for any week during a period of paid sabbatical leave provided in the individual's contract, and during an established and customary vacation period or holiday recess if the individual performs such services before sabbatical leave, vacation, or holiday recess and there is a reasonable assurance that he or she will perform the services following the sabbatical leave, vacation, or holiday recess. The period of disqualification for failure without good cause to accept work when offered or to apply for available suitable work when directed or referred by the agency was changed from 1 to 13 weeks following the week of failure to a duration disqualification and until the claimant earns at least five times the weekly benefit amount.

## New York

Disqualification. The voluntary leaving disqualification will not apply if an individual under a collective bargaining agreement or written employer plan exercises his option to be separated with the employer's consent for a temporary period when there is a temporary layoff because of lack of work. An individual who is otherwise eligible for benefits will not be deemed unavailable solely because he is serving on a grand or petit jury.

## North Carolina

Benefits. The qualifying requirements were changed from baseperiod wages of at least $\$ 565.50$ and high-quarter wages of not less than $\$ 150$ to base-period wages of at least six times the State's average weekly insured wage and $1 \frac{1}{2}$ times the high-quarter wages and the high-quarter wages must equal $11 / 2$ times the State's average weekly insured wage. The weekly benefit amount payable to a partially unemployed individual must equal the difference between the weekly benefit amount and that part of the wages paid in excess of 10 percent (previously one-half of the weekly benefit amount) of the average weekly wage in the high quarter of the base period.

Coverage. Services performed by an individual on a fishing boat are exempted if the individual is working under an arrangement with the boat owner or operator which provides no cash other than a share of the boat's catch or a share of the proceeds from the sale of the catch. However, the exemption applies only if the boat's operating crew is made up of fewer than 10 individuals and the exclusion will not apply if a Federal unemployment tax is assessed on the service.

Disqualification. Benefits are denied between two successive academic years or during a similar period between two regular terms based on services performed for secondary schools on a part-time or substitute basis.

Financing. An employer who employs a claimant part time in the base period and continues to give substantial equal part-
time employment is not charged for benefits. A contributing nonprofit employer that elects to change to a reimbursement basis may be relieved of the requirement to pay a quarterly 1.0 -percent tax under certain conditions.

## North Dakota

Disqualification. The definition of suitable work was changed so that, after an individual has received 18 weeks of benefits, suitable work will be any work that pays wages equal to the maximum weekly benefit amount, provided that consideration is given to the degree of risk involved to the individual's health, safety, morals, physical fitness, and the distance of the work from his residence. The labor dispute disqualification was changed from any week in which the claimant's unemployment is because of a work stoppage to any week in which the unemployment is because of a strike, sympathy strike, or a claimant's work stoppage dispute of any kind. The requalifying requirement after disqualification for voluntary leaving was changed to require claimants to earn wages in employment equal to eight times the weekly benefit amount instead of five times the weekly benefit amount. The voluntary leaving disqualification will not apply if an individual accepted work which could have been refused with good cause and terminated the employment with the same good cause within the first 10 weeks after starting work.

Financing. The computation date for determining the rate of contributions was changed from December 31 to September 30 and the maximum tax rate is limited to 5 percent. Employers ineligible for an experience-rated computation will pay contributions at a rate equal to the average industry tax rate but not less than 1 percent, except for those in industries where the average tax rate exceeds 3 percent, who will pay at the standard rate.

## Oklahoma

Disqualification. Educational institutions operated by the Department of Human Services are excluded, if not inconsistent with Federal law, from the nonprofessional between-terms denial. An individual will not be denied benefits for voluntary leaving if the claimant exercises his option of accepting a layoff pursuant to a union contract or an established employer plan. Recovery of nonfraudulent overpayments continues into the next subsequent benefit year that begins within 1 year of the expiration of the current benefit year.

## Oregon

Benefits. The qualifying requirement was increased from 18 weeks of work with an average of $\$ 20$ per week and total base-period wages of $\$ 700$ to 18 weeks of work and total base-period wages of $\$ 1,000$. The computation of the maximum weekly benefit amount was changed from 55 to 58 percent of the State average weekly wage beginning October 4, 1981, and will be increased to 60 percent beginning July 4, 1982, and 64 percent beginning July 4, 1983.

## Disqualification. Oregon now provides for a denial of benefits

 to professional and nonprofessional employees of educational service districts between school terms and during customary vacation periods or holiday recesses. An individual's performance of voluntary services for a charitable organization or governmental entity, without pay, will not prevent that individual from being considered unemployed. The requalifying conditions for benefits after a disqualification were modified by adding that an individual must perform service in employ-ment subject to Oregon law or as an employee of an employing unit in Oregon or any other State or Canada or as a Federal employee. The disqualification for voluntary leaving because of marital obligations, to be married, or to accompany a spouse was deleted. Also, Oregon deleted the alternative requirement that a disqualification for voluntary leaving, misconduct, or refusal of work may be satisfied if claimant has in 8 weeks registered for work, been able to and available for work, actively seeking work, and unable to obtain suitable work. An individual disqualified for voluntary leaving, discharge for misconduct, or refusal of suitable work will have his benefit rights reduced by eight times his weekly benefit amount but not less than the weekly benefit amount unless he or she has previously received benefits during the benefit year.

Financing. The minimum tax rate under the most favorable schedule was decreased from 1.2 to 0.9 percent and under the least favorable schedule from 2.6 to 2.2 percent.

Administration. The time limit for appealing a referee decision to the Employment Appeals Board was increased from 10 to 20 days.

## South Carolina

Coverage. Services performed by an individual in a work-relief or work-training program are excluded unless the Federal law mandates the coverage.

Benefits. The seasonal employment provisions of the law were repealed.

Administration. The time for reconsideration of an initial determination was increased from 7 to 10 days.

## South Dakota

Benefits. The computation of the weekly benefit amount was changed from $1 / 22$ to $1 / 26$ of high-quarter wages and the qualifying requirement was increased from base-period wages in other than high quarter of at least 20 times the weekly benefit amount and high-quarter wages of $\$ 600$ to base-period wages in other than the high quarter of at least 30 times the weekly benefit amount and high-quarter wages of $\$ 728$.

Disqualification. The pension offset provision was amended to require an individual's weekly benefit amount to be reduced by the entire prorated amount of any pension, annuity, or retirement payment including disability pension payments based on the individual's previous work. Military service-connected disability payments are exempted from the offset. South Dakota now provides that it is good cause for voluntary leaving if an individual accepted employment while on layoff and subsequently quit to return to work for his regular employer.

Financing. All employer contribution rates were increased by 0.4 percent. However, the rate increase may not be credited to the employer's experience-rating account. The fund balance required for determining the range of rates was changed for the least favorable rate schedule from $\$ 5$ million to $\$ 5.5$ million. An employer's experience-rating account may not be charged for benefits paid to individuals based on total base-period wages of less than $\$ 100$ earned from one employer.

Administration. The Secretary may waive or cancel recovery of an overpayment if the claimant has been duly discharged by a Federal bankruptcy court, the claimant died, or if the overpayment has been outstanding for 10 years or more.

## Tennessee

Benefits. The earnings disregarded for computing partial benefits were increased from $\$ 20$ to $\$ 30$.

Disqualification. An individual who receives regular wages for a vacation period under terms of a labor-management agreement will have his weekly benefit amount reduced by the amount of the wages received, but only if work will be available for the individual with the employer at the end of the vacation period.

## Texas

Disqualification. The disqualifications for voluntary leaving, misconduct, and refusal of suitable work were changed from a variable period of from 1 to 25 weeks ( 1 to 13 for suitable work) to a duration disqualification and until the individual requalifies by working 6 weeks or earning wages equal to six times the weekly benefit amount. Also, an individual who voluntarily leaves work to move with a spouse from the area where they worked will be disqualified from 6 to 26 weeks. An individual will be disqualified for voluntarily leaving work if he or she left because of a medically verified illness, injury, disability, or pregnancy, even though still available for work. However, an individual will not be disqualified whose workrelated reason for separation was urgent, compelling, and of a necessitous nature. Texas repealed the requirement that benefits must be reduced by an amount equal to the number of weeks of postponed benefits for voluntary leaving, discharge for misconduct, or refusal of suitable work. Misconduct is defined to include any action that places others in danger or an intentional violation of employer policy or law, but does not include an act that responds to an unconscionable act of the employer.

## Vermont

Benefits. The definition of "wages" was redefined, for purposes of determining whether an individual is partially unemployed, to include that part of one's weekly remuneration which is in excess of $\$ 15$ for the individual plus $\$ 3$ for each dependent, rather than the amount in excess of $\$ 10$, as previously defined.

Disqualification. Any individual who was fired because of inability to perform the job because of a felony or misdemeanor conviction will be disqualified for benefits. Also, Vermont now disqualifies any individual who, during a job interview, made false statements, showed an unreasonable lack of interest, or whose behavior was calculated to preclude an offer of work. However, no individual will suffer more than one disqualification for any one disqualifying act. Holiday pay, backpay awards, and compensation for temporary total disability were included as disqualifying income.

Administration. The name of the State agency was changed from the Department of Employment Security to the Department of Employment and Training.

## Virgin Islands

Coverage. Services performed under the Comprehensive Employment and Training Act (CETA) will be excluded unless required by Federal law.

Disqualification. A denial of benefits was extended to nonprofessional school employees during a period between 2 successive academic years and to any school employee for any week during an established or customary vacation period or holiday

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recess if the individual performs the services in the first of such academic years or terms or immediately before such vacation or holiday recess and there is a reasonable assurance that the individual will perform the services in the second of such academic years or terms and also immediately following a vacation or holiday recess. An individual will be disqualified if he did not make reasonable efforts to seek work on his own initiative. The disqualifications for voluntary leaving, misconduct (including disciplinary suspensions), and refusal of suitable work were changed from a 6 -week disqualification or for the period of unemployment immediately following separation, whichever ends sooner, to a duration disqualification which continues until the individual has been employed at least 4 weeks and earns at least four times his weekly benefit amount. Also, the labor dispute disqualification was changed from any week in which an individual's unemployment is caused by a stoppage of work because of a labor dispute to a labor dispute in active progress. The disqualification for fraudulent misrepresentation was changed from the week of determination plus 52 weeks to the week the determination is mailed or delivered plus 51 weeks.

Financing. The taxable wage base was increased from $\$ 6,000$ to $\$ 8,000$.

## Virginia

Benefits. The maximum weekly benefit amount was increased from $\$ 122$ to $\$ 138$ and the minimum from $\$ 38$ to $\$ 44$ and an individual's weekly benefit amount will be determined on the wages earned in the highest two quarters (previously one) in the base period. The amount of base-period wages needed to qualify for benefits was increased from $\$ 1,368$ to $\$ 2,200$. The 1 -week waiting period was repealed.

Coverage. Services performed by an individual as a public service employee under CETA and as a temporary employee of the General Assembly were excluded from coverage. However, Virginia included services performed in agricultural labor by aliens admitted to the United States to perform such labor.

Disqualification. If the Federal Unemployment Tax Act is amended to include nonprofessional employees of institutions of higher education in the between-terms denial provisions of the law, the denial will become simultaneously effective under the Virginia law.

Financing. Benefits paid to claimants during the appeals process in a disputed claim will be charged to the nonprofit organization or governmental entity even though the claimant may be found totally or partially ineligible for benefits. The maximum basic experience rate was increased from 4.5 to 6.2 percent and the rate for newly subject employers was increased from 2.0 to 2.5 percent. The formula for determining experience rating changed from a benefit-wage ratio, which measures the relative experience of employers by the separation of workers which result in benefit payments, to a benefit ratio which is determined as a percentage obtained by dividing the employer's benefit charges for the preceding fiscal year by the total payroll for the same period. An unspecified poll cost charge and a fund-building rate of 0.2 percent will be added if the fund balance factor is 50 percent or less for a year.

Administration. The statutory limitation within which a disqualification for fraudulent misrepresentation may be im-
posed was changed from 2 to 3 years and the provision deleted which limits the ineligibility of a claimant for benefits for up to 5 years for fraud if the benefits are not repaid. Also, the commission may determine as uncollectible or purge any unpaid benefit overpayment upon the death of the person or upon the individual's discharge in bankruptey occurring after the determination of overpayment.

## Washington

Coverage. Excludes, at the discretion of the employer, services performed by corporate officers.

Disqualification. A disqualification for voluntary leaving will continue if the work obtained to purge the disqualification is a mere sham to qualify for benefits and not bona fide work. In determining whether the work is bona fide, factors to be considered include the duration of work, the extent of direction and control by the employer over the work, and the level of skill required for the work in light of the individual's training and experience.

## West Virginia

Benefits. An individual will be considered partially unemployed if he or she has weekly earnings of at least $\$ 26$ and, if less than $\$ 26$, a person will be considered totally unemployed. Formerly, an individual was considered partially unemployed if the weekly wages were less than the weekly benefit amount plus $\$ 25$. A partially unemployed individual must serve a 1 -week waiting period.

Disqualification. The disqualification for voluntary leaving was changed from a 6 -week disqualification with an equal reduction in maximum benefits to a duration disqualification or until the individual returns to covered employment and has been employed for at least 30 working days. West Virginia added to the disqualification for refusal of suitable work that the total benefit entitlement will be reduced by an amount equal to four times the individual's weekly benefit amount. The definition of gross misconduct was amended to add that it shall include but not be limited to any act of misconduct where the individual has received prior written warnings that termination of employment may result from that act. The disqualification for fraudulent misrepresentation to obtain benefits was changed from a variable 5 to 52 weeks to a flat 52 weeks. Deleted was the requirement that for each week of disqualification for fraudulent misrepresentation, an additional 5-week disqualification would be imposed.

Penalties. The fine for fraud, upon conviction, was increased from not less than $\$ 20$ or more than $\$ 50$ to not less than $\$ 100$ or more than $\$ 500$ or by imprisonment for not longer than 30 days or both.

Financing. The taxable wage base was increased from $\$ 6,000$ to $\$ 8,000$. A newly covered employer's tax rate will be 2.7 percent, except that out-of-State corporations or business entities in the construction trades will pay 7.5 percent. The tax rate of employers who do not have 36 months of chargeability was increased from 1.5 to 2.7 percent. Benefits paid to an individual who voluntarily leaves work without good cause involving fault on the part of the employer will no longer be noncharged. The fund requirement for the most favorable schedule was changed from $\$ 110$ million to 150 percent of average benefit payments for the 3 preceding calendar years with the rates ranging from 0 to 7.5 percent and the fund require-
ment for the least favorable schedule from $\$ 60$ million to 100 percent of average benefit payments for the 3 preceding years with the rates ranging from 1.5 to 7.5 percent. A 1-percent surtax will be added to each employer's rate until the trust fund assets equal or exceed the average benefit payments from the fund for 3 preceding years. Partial benefits paid to an individual will be charged to the account of the last employer for whom he worked 30 working days.

Administration. The first-stage appeals body was changed
from an examiner to an administrative law judge.

## Wisconsin

Disqualification. The disqualification for voluntary leaving will not apply if the individual left or lost employment because he or she reached the firm's compulsory retirement age.

## Wyoming

Financing. The new employer bonding requirements applicable to new contributing employers were repealed.

FOOTNOTES

[^3]Alaska, California, Connecticut, Florida, Georgia, Hawaii, Illinois, Iowa, Maine, Maryland, Michigan, Montana, Nevada, New Mexico, New York, North Dakota, South Carolina, Tennessee, Vermont, Washington, and Wisconsin.
${ }^{4}$ Alaska, Arizona, California, Connecticut, Georgia, Hawaii, Iowa, Maine, Montana, Nevada, New York, Tennessee, Vermont, Washington, and Wisconsin.

## 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.

# Workers' compensation: key legislation in 1981 

> Higher benefit levels, broader coverage, and improved medical and rehabilitation services are among the actions taken by States to provide better protection for injured workers

LaVerne C. Tinsley

Forty-nine States, Puerto Rico, and the District of Columbia were in legislative session during 1981. ${ }^{1}$ Deliberations resulted in the introduction of more than 1,500 proposals and enactment of more than 100 laws dealing with workers' compensation. Coverage and benefits were addressed in most of the amendments as in previous years. Numerous administrative changes were also made and medical and rehabilitation services for injured workers were improved.

Workers' compensation coverage was revised by new enactments in 19 States. These revisions extended coverage to workers including apprentices or students in work training or educational programs in four jurisdictions and to specified volunteers serving as State employees in emergency situations.

Forty-six jurisdictions and the District of Columbia raised their maximum weekly benefit levels for total disability and death either statutorily or according to increases linked to each State's average weekly wage. (See table 1.) Total maximums were increased in Arkansas, Mississippi, and Tennessee.

[^4]Effective January 1, 1982, Michigan became the second State, after Iowa, to establish maximum weekly benefit levels for disability and death at 80 percent of spendable earnings. Spendable earnings are defined as the employee's gross wage less State and Federal income taxes and social security where appropriate. Previously, maximum weekly benefits in these States were established at $66-2 / 3$ percent of the employee's average weekly wage before taxes.
One State, Maine, rescinded legislation that would have increased maximum weekly benefits to 200 percent of the State's average weekly wage on July 1, 1981. Thus, benefits remain at $166-2 / 3$ percent of the State's average weekly wage.

Legislation was also enacted in Maine which permits injured workers to select their own physician or surgeon from those licensed to practice in the State. Previously, workers were required to select physicians from a panel provided by the State workers' compensation agency.

The laws of Montana, Nebraska, North Carolina, Oregon, and Virginia were amended to increase burial allowances.

Several States updated their rehabilitation provisions for injured workers. For instance, unemployed dependent surviving spouses in Minnesota are now eligible to apply for rehabilitation. The intent of this legislation is to allow dependent surviving spouses the opportunity to

Table 1. Jurisdictions that increased maximum weekly temporary total disability benefits during 1981

| Jurisdiction | Former maximum | New maximum |
| :---: | :---: | :---: |
| Alabama | \$148.00 | \$161.00 |
| Alaska | \$650.00 | \$858.00 |
| Arkansas | \$126.00 | \$140.00 |
| California | \$154.00 | \$175.00 |
| Colorado | \$244.65 | \$261.80 |
| Connecticut | $\$ 285.00$, plus $\$ 10$ for each dependent under 18 years of age not to exceed 75 percent of employee's wage | $\$ 310.00$, plus $\$ 10$ for each dependent under 18 years of age not to exceed 75 percent of employee's wage |
| Delaware | \$175.28 | \$194.81 |
| District of Columbia | \$456.24 | \$496.70 |
| Florida | \$211.00 | \$228.00 |
| Georgia | \$110.00 | \$115.00 |
| Hawaii . | \$215.00 | \$235.00 |
| Idaho . | $\$ 181.80$ to $\$ 252.50$ according to number of dependents, plus 7 percent of SAWW for each child up to 5 | $\$ 198.00$ to $\$ 275.00$ according to number or dependents plus 7 percent of SAWW for each child up to 5 |
| Illinois | \$376.33 | \$394.19 |
| lowa | \$384.00 | \$501.00 |
| Kansas | \$170.00 | \$187.00 |
| Kentucky | \$217.00 | \$233.26 |
| Louisiana | \$164.00 | \$183.00 |
| Maine | \$332.16 | \$367.25 |
| Maryland | \$241.00 | \$248.00 |
| Massachusetts | $\$ 245.48$, plus $\$ 6$ for each dependent; aggregate not to exceed worker's average weekly wage or $\$ 150$ | \$269.93, plus \$6 for each dependent; aggregate not to exceed worker's average weekly wage or $\$ 150$ |
| Michigan | \$171.00 to \$200.00 according to number of dependents | \$181.00 to \$210.00 according to number of dependents |
| Minnesota | \$244.00 | \$267.00 |
| Mississippi | \$ 98.00 | \$112.00 |
| Missouri. | \$150.00 | \$174.00 |
| Montana | \$219.00 | \$241.00 |
| Nevada | \$245.09 | \$270.20 |
| New Hampshire | \$213.00 | \$234.00 |
| New Jersey | \$185.00 | \$199.00 |
| New Mexico | \$201.04 | \$221.50 |
| North Dakota | $\$ 213.00$, plus $\$ 5$ for each dependent child; aggregate not to exceed worker's net wage after taxes and social security | $\$ 233.00$, plus $\$ 5$ for each dependent child; aggregate not to exceed worker's net wage after taxes and social security |
| Ohio | \$258.00 | \$275.00 |
| Oklahoma | \$155.00 | \$175.00 |
| Oregon | \$261.32 | \$286.88 |
| Pennsylvania | \$242.00 | \$262.00 |
| Rhode Island | $\$ 217.00$, plus $\$ 6$ for each dependent; aggregate not to exceed 80 percent of worker's average weekly wage | $\$ 238.00$, plus $\$ 6$ for each dependent; aggregate not to exceed 80 percent of worker's average weekly wage |
| South Carolina | \$197.00 | $\$ 216.00$ |
| South Dakota Tennessee | $\$ 191.00$ $\$ 119.00$ | $\$ 208.00$ |
| $\begin{aligned} & \text { Tennessee } \\ & \text { Texas ... } \end{aligned}$ | \$119.00 $\$ 133.00$ | \$126.00 |
| Utah . | $\$ 230.00$, plus $\$ 5$ for dependent spouse and each dependent child up to 4, but not to exceed 100 percent of SAWW | $\$ 256.00$, plus $\$ 5$ for dependent spouse and each dependent child up to 4, but not to exceed 100 percent of SAWW |
| Vermont <br> Virginia | $\$ 208.00$ $\$ 213.00$ | $\$ 225.00$, plus $\$ 5$ for each dependent under 21 years of age $\$ 231.00$ |
| Washington | \$204.66 | \$223.34 |
| West Virginia | \$262.08 | \$276.26 |
| Wisconsin . | \$233.00 | \$249.00 |
| Wyoming ................. | \$402.01 | \$411.21 |

Note: Benefit increases are based on the applicable State's average weekly or monthly wage, and for the District of Columbia, the national average weekly wage. However, 9 States (Arizona, Arkansas, California, Georgia, Indiana, Mississippi, Nebraska, New York, and Tennes-
see) and Puerto Rico prescribe statutory amounts; 5 States (Arizona, Indiana, Nebraska, New York, and North Carolina) and Puerto Rico are not listed because no increases for temporary total disability were legislated during 1981.
become self-sufficient. Compensation will now be allowed while a workers' potential for rehabilitation is being evaluated in Arkansas.

In Nevada, injured workers may select a second physician from a panel within 90 days after injury (formerly 45 days) if the initial selection proved to be unsatisfactory. Allowances for board, lodging, travel, and maintenance were increased in New Mexico. And in Oregon, workers who fail to enroll in rehabilitation programs may now have their compensation suspended.

More States are penalizing employers for failure to make timely compensation payments and also for failure to make certain notifications regarding claims. In
other States, employees are being penalized for not obtaining insurance coverage.

Additional changes were made in State workers' compensation statutes during the year that focused on various administrative procedures and reporting requirements. Six states established study committees to review and recommend improvements in these areas.

Following is a summary of legislation enacted by individual States.

## Alabama

County governments are now permitted to cover their offlcials and employees through group self-insurance programs.

An amendment was proposed to the Alabama Constitution which would prohibit suits by "co-employees" for personal injury, disease, or death arising out of and in the course of employment.


#### Abstract

Alaska The monthly compensation payment during rehabilitation (from the Second Injury Fund) was increased from $\$ 100$ to $\$ 200$; and the total maximum compensation during rehabilitation from $\$ 5,000$ to $\$ 10,000$.

Employers are newly required to notify the Workmen's Compensation Board within 14 days of any change in a compensation claim. A civil penalty of $\$ 100$, plus $\$ 25$ per day, was established for failure to give notice within the specified time period but no fine can exceed $\$ 2,500$ for each offense.


## Arizona

Coverage was extended to State employees who serve as volunteers without compensation in certain search or rescue operations.

Payments by employers or carriers for no-dependency death were decreased from 2 to $11 / 2$ percent of all premiums received during the preeeding year.

New provisions were established regarding financing of the Special Fund.

## Arkansas

Volunteer emergency services workers were included for coverage.

Participants in the State's workfare project, whose sole purpose for participating is to retain food stamps and not for employment within the State, were excluded from coverage.

Maximum weekly benefits for disability and death were raised in two steps. On March 1, 1981, benefits increased to $\$ 140$ from $\$ 126$ and on March 1, 1982, benefits will increase to $\$ 154$. During the same periods, total maximum benefits for temporary total and permanent partial disability increased to $\$ 63,000$ (from $\$ 56,700$ ) and will increase to $\$ 69,000$. For permanent total disability or death occurring on or after March 1,1981 , the new total aggregate is $\$ 75,000$, formerly $\$ 50,000$.

Temporary total disability benefits can now be extended after the first 40 weeks of compensation and beyond for 13 -week intervals. Benefits for temporary and permanent total disability will be barred for any week that a claimant can simultaneously receive unemployment compensation benefits.

A limit of $\$ 10,000$ and 6 months will be placed on all medical services, hospital, and other treatment available to injured workers. In some instances, these services may be waived or extended.

New procedures were adopted regarding employee rights in change of physician.

Injured workers are now eligible to receive up to 6 weeks of compensation while their potential for rehabilitation is being evaluated if they are not working or receiving any benefits.

Lump sum attorney fees will now be discounted at the current rate of 7 percent.

Benefit payments normally made from the Second Injury Fund will revert to the employer at the time of an accident if the Fund becomes insolvent before July 1, 1983.

The penalty for making late compensation payments was increased from 6 to 10 percent of the unpaid benefit.

The requirement that widowers be incapacitated in order to receive compensation was eliminated, thereby allowing widowers the same benefits as widows.

## California

Coverage of persons who perform officiating services at amateur sporting events sponsored by public agencies or by private nonprofit organizations was removed. Students participating as athletes in amateur sporting events were also eliminated from coverage.

## Colorado

Mandatory coverage is now required of employers who enter into bona fide cooperative educational or student internship programs sponsored by educational institutions for the purpose of providing on-the-job training for students.

Public entities with annual payrolls of at least $\$ 1$ million are now allowed to become workers' compensation self-insurers or form self-insurance pools if their payrolls are less.

A 52 -week time limit was set on benefits paid during vocational rehabilitation or for income maintenance. The maximum ( $\$ 20,000$ ) on medical aid and vocational rehabilitation was removed.

Chiropractors are now permitted to treat workers' compensation claimants.

In addition to the 1.75 -percent premium tax imposed for maintenance of the Major Medical Insurance Fund, another premium tax was added.

Further investment was authorized of moneys in the workers' compensation special funds in the form of notes, loans, bonds, and certain certificates.

The Industrial Commission is newly required to review appealed cases within the scope of the issues presented in the record only.

## Connecticut

Participants in work, training, or educational programs approved by the labor commissioner will now be covered for workers' compensation.

Payments for accident and health or life insurance coverage will be borne by the Second Injury Fund in cases where benefits for total incapacity continue for longer than 104 weeks.

A provision was added to the statutes making the last employer or insurer initially liable for payment of compensation. If it is determined that other employers are equally liable for compensation, the commissioner will order them to reimburse the initially liable employer or insurer at a 12 -percent interest rate.

By enactment, the State was required to use a private insurance carrier for workers' compensation coverage, and procedures for coverage by private carriers was added to the law.

A Statistical Division was established in the Workers' Compensation Commission to primarily compile and maintain statistics concerning occupational injuries and diseases, voluntary agreements, status of claims, and commissioner's dockets. Funding of the Division will come from the Administrative Cost Fund.

## Delaware

Authorization was made for the appointment of a State Disability Reform Committee to recommend legislation to consolidate disability programs.

## Florida

Legislation extended the existence of the Workers' Compensation Advisory Council to October 1, 1987. The title of "judges of industrial claims" was changed to "deputy commissioners."

## Georgia

Coverage was extended to members of the Georgia National Guard while serving on active duty in the State and to certain volunteer firefighters.

Maximum weekly benefits for disability and death were increased from \$110 to \$115.

Attorney fees assessed against opposing parties are no longer required to be made in a lump sum.

The requirement that the employer or insurer keep the Administrator of the Subsequent Injury Trust Fund informed of any proposed compensation settlements or agreements was eliminated.

Regulation of group self-insurance funds for workers' compensation was transferred from the Secretary of State to the Insurance Commissioner.

## Idaho

Officials who serve at athletic contests involving secondary schools were eliminated from coverage.

Total disability benefits less than the State's current applicable minimum for the first 52 weeks of compensation will thereafter be not less than the State's current applicable minimum, or 45 percent.

Children can now receive death benefits beyond age 18 if they are incapable of self-support for an additional 500 weeks, minus the period benefits were paid prior to age 18 .

A maximum of $\$ 5,000$ was set as payment into the State treasury by employers for no-dependency death cases.

Employers are required to pay interest on all compensation awards due, and at the rate in effect when the award was made. The present rate is 8 percent per annum.

## Indiana

Students who are permanently impaired will now receive the same coverage as full-time employees for workers' compensation purposes while performing services for an employer in an approved vocational educational training program.

## Iowa

Persons certified by the Council of Accreditation in Occupational Hearing Conservation are now allowed to make audiometric examinations.

## Kansas

The medical allowance for selection of another physician by an employee was raised from $\$ 150$ to $\$ 350$ for cases where the physician selected by the employer is unsatisfactory.

## Louisiana

Sole proprietors are now permitted an exemption from coverage upon request.

The coverage waiver allowed to corporate officers, who own at least 10 percent of the corporate stock, and to partners will be unlimited and apply to all trades, businesses, or occupations conducted by the corporation or partnership. This provision also applies to sole proprietors.

Workers who are employed by a private household and perform services that are not incidental to, or do not arise out of any trade, business, or occupation of the household are specifically excluded from coverage.

Group self-insurance funds are newly required to maintain at least $\$ 4$ million of excess insurance to secure the payment of all compensation benefits.
The House and Senate Labor and Industry Committees were authorized to direct a study of workers' compensation rate structures and the profit margins of insurance companies.

## Maine

Agriculture employment, where 150 cords of wood or less are harvested annually from farm wood lots, and aquaculture employment are removed from coverage provided that their employees are covered by liability insurance of not less than $\$ 25,000$ and medical insurance of not less than $\$ 1,000$.

Employees who participate in ridesharing programs and receive no remuneration were exempted from coverage as well as those who receive injuries as a result of voluntary participation in an employer-sponsored athletic team or event.

The increase in maximum weekly benefits based on 200 percent of the State's average weekly wage, effective July 1, 1981, was recinded. Benefits will remain at 166-2/3 percent.
Initial selection of physician or surgeon by an employee is now permitted from a list of those who are licensed to practice in the State of Maine.

Interest and penalties will now be applicable to compensation claims involving State employees who were previously excluded.

An employee with permanent partial disabilities caused partly by a previous injury will be compensated for the entire injury from his or her present employer. The employer will be reimbursed by the Second Injury Fund.
The provision which established the employer's liability for compensation of second injuries and permitted employees to apply for compensation from the Second Injury Fund was repealed.

Employers or insurers may now recover benefit payments made to employees pending an appeal, if the court rules that an employee was not entitled to compensation. The ordering of any repayment of benefits which would cause a hardship or an injustice was prohibited.

Petitions for rehearings are now required to be filed within 30 days of an agreement, award, or decree. Previously, the time limit was 20 days.

Employees or prospective employees are no longer permitted to waive their rights to compensation for an aggravation of an occupational disease.

Upon the discovery of new evidence, the Workers' Compensation Commission can now reopen a workers' compensation case.

Other changes occurred relating to bonding and excess insurance.

## Maryland

Coverage was established for volunteer firefighters and rescue workers of Frederick County.

Insurers and self-insurers are allowed to convert, with approval of the Workmen's Compensation Commission, permanent partial disability awards that have not exceeded 51 weeks of benefits to a lump sum without discount, less any attorney fee.

All assets and obligations of the Workers' Compensation Insolvency Fund were transferred to the Maryland Insurance Guaranty Association.

Additional assessments were authorized against insurers and self-insured employers in order to maintain the solvency of the Uninsured Employers' Fund.

The administrator of the Subsequent Injury Fund was authorized to hire any expert to defend the fund, if necessary, when suits are filed against it.

Rules and regulations for group self-insurance will now be developed by the Workmen's Compensation Commission alone, rather than jointly with the insurance commissioner.

Businesses located in urban enterprise zones may be eligible for discounts on insurance premiums paid to the State Accident Fund if certain Federal standards are met.

## Michigan

The definition of "public employer" was broadened to include two employers or more in the same industry with combined assets of at least $\$ 1$ million who pool their liabilities as self-insurers.

## Minnesota

Coverage was expanded to include the superintendent of the Bureau of Criminal Apprehension within the application of the law.

A 10-year sliding scale was set up for payment of death benefits which formerly were paid during the lifetime of the recipient.

Permanent partial disability awards will now be paid in a lump sum when the employee returns to work.

Upon request, surviving dependent spouses who are unemployable can now receive rehabilitation.

The time within which an employer is required to make first payment of compensation was reduced from 30 to 14 days.

A medical fee schedule was established with a cap on fees at 75 percent of the usual and customary community charges for the preceding year. Services covered by the fee schedule include medical, chiropractic, podiatric, surgical, hospital, and other health care provider treatment and services.

The burden of proof concerning a work-related injury was made the responsibility of the employee.

Group self-insurance pools are no longer required to consist of employers in the same industry.

Fines charged to uninsured employers were increased from $\$ 50$ to $\$ 500$; and up to $\$ 2,000$ when the employer has five employees or more.

## Mississippi

Maximum weekly benefits for disability and death were raised from $\$ 98$ to $\$ 112$; and total maximum from $\$ 44,100$ to $\$ 50,400$. The weekly minimum benefit of $\$ 25$ was retained.

The Department of Public Safety is now permitted to become a self-insurer upon proper notification to the Industrial Commission.

## Missouri

The provision which exempted from coverage employers with a total gross annual payroll for the preceding calendar year or part of the current calendar year of not more than $\$ 10,000$ was eliminated.

Minimum weekly benefits for disability and death occurring on or after September 28, 1981, were set at $\$ 40$. Previously, no statutory minimum was in effect.

Compensation for temporary partial disability was set at 66-2/3 percent of the difference between the average earnings of the employee before the accident and the amount which the employee will reasonably be able to earn during disability. No consideration was previously given to earning capacity during disability when determining benefits.

Permanent partial disability in lieu of all other compensation except for medical and physical rehabilitation expenses was changed. Compensation for permanent partial disability will now be in addition to compensation for temporary total or partial disability.

A fine of $\$ 100$ per day was added as a penalty against employers who fail to insure or self-insure their liability for workers' compensation, up to a maximum of $\$ 5,000$. Any
fines collected will go to the Second Injury Fund for payments to employees of uninsured employers.

Group self-insurance was authorized and will be regulated by the Division of Workers' Compensation.

## Montana

The Workers' Compensation Division was authorized to set fees for medical, chiropractic, and paramedical services, excluding hospital services, based on 90 percent of the usual and customary charges of the medical specialty involved.

Silicosis victims will now receive up to $\$ 200$ in monthly payments, formerly $\$ 175$.
The burial allowance was increased from $\$ 1,100$ to $\$ 1,400$.

## Nebraska

Corporation officers owning at least 25 percent of the corporate stock are permitted to waive coverage.

The burial allowance was raised from $\$ 1,000$ to $\$ 2,000$.

## Nevada

Apprentices in vocational training classes or receiving bona fide instruction under an apprenticeship committee and receiving at least $\$ 150$ a month during such periods are covered for workers' compensation.

Volunteers, excluding students, who perform work for private organizations as part of a public program and who are not otherwise covered for workers' compensation will now be entitled to benefits as employees of a public agency.

Some voluntary ski patrollers were excluded from statutory coverage as well as sole proprietors who are no longer domiciled in Nevada.

Compensation is now allowed for both injury and disease provided the combined award does not exceed compensation payable for the total percentage of disability.

Police officers and firefighters who are partially disabled because of occupational diseases and incapable of performing their work are now entitled to partial disability benefits.

Certain employees of the Department of Motor Vehicles are now entitled to benefits for occupational heart or lung disease.

Injured employees who are not satisfied with their initial choice of physician may select another physician from a panel if the choice is made within 90 days after injury, formerly 45 days.

Physicians who testify at hearings are entitled to the same fees as witnesses in civil cases. An appeals officer may order a fee for the physician according to the fee schedule for medical consultations.

Self-insured employers were instructed not to make payments to physicians until an itemized statement of services has been received.

Every self-insured employer is required to furnish the Commissioner of Insurance with specified insurance information to carry out the provisions of the law.

Excess insurance or reinsurance coverage obtained by a selfinsured employer must be written by a Nevada carrier.

Several studies were authorized during the year of which the results and recommendations are to be reported to the 62 d session of the legislature. One is to be conducted by the Nevada Industrial Commission on the Occupational Diseases Act and the other by the Legislative Commission on the feasibility and desirability of allowing insurance coverage to be provided through private carriers.

## New Mexico

The maximum benefit allowable for board, lodging, travel, and maintenance of the family during rehabilitation was in-
creased from $\$ 1,000$ to $\$ 3,000$.

## New York

Employers are now liable for payment of services provided an injured employee by a self-employed physiotherapist pursuant to written instructions of an authorized physician or podiatrist.

Employers are now required to pay the attorney fees of employees who win discrimination cases.

Appointment of qualified interpretors is now mandatory at hearings in which a deaf person is a party or witness. Interpreting services will be paid out of administrative funds.

Temporary referees of the Workers' Compensation Board must now be qualified with appropriate training or experience.

The definition of "average weekly wage" was expanded to include an alternative calculation of benefits based on total wages of the last 8 weeks immediately preceding disability and excludes the week in which disability began.

## North Carolina

Minimum weekly benefits for disability and death were raised from $\$ 20$ to $\$ 30$.

The cap (\$80) was removed on weekly benefits for National Guardsmen and the weekly maximum applicable to other employees applied ( 100 percent of the State's average weekly wage).

Maximum weekly compensation for partial incapacity, total disability, or death due to asbestosis or silicosis was changed from $\$ 80$ to 100 percent of the State's average weekly wage.

The statute of limitations for asbestosis, lead poisoning, and silicosis was amended. Compensation for asbestosis may now be awarded up to 10 years after disablement or death from exposure to such disease. The time limit for lead poisoning remains at 2 years. Silicosis was deleted from the law as a special provision and is now subject to the general statute of limitations for occupational diseases, which is 2 years after disablement or death. There is no provision for death after continuous disablement from silicosis.

The burial allowance of $\$ 500$ was raised to $\$ 1,200$.
A carrier or employer who appeals a compensation award must pay 8-percent interest on the final compensation award from the initial filing date if unsuccessful.

If disputes arise between employer and employee concerning the continuance of medical treatment, the Industrial Commission at its discretion may order further treatment.

## North Dakota

Maximum weekly death benefits were raised from $\$ 90$ to $\$ 105$. Supplementary benefits for permanent total disability and death were increased from 20 to 25 percent of the difference between the benefits a claimant is receiving and the maximum benefits in effect on July 1, 1975.

The burial allowance was raised from $\$ 1,000$ to $\$ 2,000$.
A rebuttable presumption was created which specifies that an injury can be attributable to intoxication, based on the alcohol level in the blood.

Allowances for rehabilitation can no longer be ordered in lieu of death benefits where there is a rehabilitation contract.

The filing time for claims was extended from 60 days to no more than 1 year after injury for disability, and from 1 year to 2 years following death.

A legislative council was directed to study workmen's compensation wage base and premium determinations, with special emphasis on the effects the statutorily established maximum payroll base has on premium levels of various employers.

## Oklahoma

Two employers or more are now permitted to pool their liabilities to qualify as group self-insurers. Boards of education and institutions of higher education may also qualify as selfinsurers for workers' compensation.

A special House and Senate Committee was authorized to study the workers' compensation rate structure of the State Insurance Fund.

## Oregon

The burial allowance was raised from $\$ 1,000$ to $\$ 3,000$, and the cost of transportation for the decedent's body is now included as part of the burial allowance.

Dependent children, or the surviving spouse for the dependent children, will now be entitled to $\$ 150$ instead of $\$ 100$ in death benefits per month.

Workers or their beneficiaries are entitled to recover 33-1/3 percent of an award, up from 25 percent, in third-party cases.

Within 120 days from the date a worker becomes temporarily totally disabled, the insurer or self-insured employer must act to enroll the worker in a physical rehabilitation program, if necessary.

Participants of rehabilitation programs approved by the Workers' Compensation Department are newly entitled to temporary total disability benefits.
Suspension of compensation may be authorized by the Director of the Workers' Compensation Department against a claimant who fails to participate in rehabilitation.

All users of the Department's rehabilitation facility must pay users fees to meet the cost of services and to protect the State against tort and liability claims.

The Department's director was also authorized to enter into contracts for rehabilitation services with private rehabilitation centers if such centers meet the State's licensing requirements.

Travel expenses were granted for employees who travel more than 50 miles from their residence to attend a workers' compensation hearing.

A rebuttable presumption was established that a person is an independent contractor unless such person has qualified either as a carrier-insured employer or a self-insured employer instead of a direct responsibility employer or as a contributing employer.

The State Accident Insurance Fund Corp. may now conduct reinsurance business as well as workers' compensation insurance with Oregon employers.

## Rhode Island

Employees will no longer be entitled to receive compensation while incarcerated if they have no dependents.

Qualified employers are permitted to self-insure for a specified sum by furnishing security, indemnity, or bond equal to the particular amount together with insurance for projected losses in excess of such sum.

## South Carolina

Fines can now be levied against an employer or carrier for failure to submit certain reports, forms, and records in any phase of the claims process.

Full Commission reviews are now to be conducted by threemember panels composed of commissioners who are appointed by the chairperson, excluding the original hearing commissioner.

## Tennessee

The maximum weekly benefits for disability and death were increased from $\$ 119$ to $\$ 126$, and total maximum from $\$ 47,600$ to $\$ 50,400$.

Sole proprietors and partners who are covered under the workers' compensation law may continue coverage in effect under any other individual or group accident and sickness policy.

## Texas

Political subdivisions are newly authorized to provide full medical benefits and minimum compensation payments to injured volunteer firefighters, police, emergency medical personnel, and other specified volunteers.

Lifetime benefits were established for statutorily prescribed permanent total disability awards.

No attorney fees will be allowed in a case where benefits will be paid for life if the employer's insurance company admits liability and makes payments while the case is pending. If liability is admitted, the claimant's attorney is entitled to a reasonable fee.
Claims for compensation under voluntary policies are subject to the jurisdiction of the Industrial Accident Board.

The Assigned Risk Pool may at its discretion insure an individual entity without insuring any combinable entities.
Various duties and authority were granted to the attorney general relating to investigation of possible workers' compensation fraud.

## Utah

Payments for temporary total disability were allowed to be extended in certain cases.
Maximum weekly payments for temporary partial disability were increased from $66-2 / 3$ percent to 100 percent of the State's average weekly wage. Additional payments of $\$ 5$ were authorized for a dependent spouse and each dependent child up to 4 , under age 18, but total payment not to exceed 100 percent of the State's average weekly wage.

Minimum weekly benefits for persons entitled to compensation from the Second Injury Fund were increased from $\$ 85$ to $\$ 100$.

## Vermont

The exemption for agriculture or farm employment was raised from $\$ 1,000$ to $\$ 2,000$ per aggregate payroll in a calendar year.

## Virginia

The burial allowance was increased from $\$ 1,000$ to $\$ 2,000$, and for transportation expenses of the deceased from $\$ 300$ to $\$ 500$.

Documentation regarding social security disability benefits will now be required by the Industrial Commission when a claimant files for cost-of-living supplements in order to establish eligibility under the law.

The House and Senate Committees on Labor and Commerce were authorized to establish a joint subcommittee to study the State's laws concerning brown lung disease (byssinosis) and determine if the present laws should be revised.

## Washington

Sole proprietors or partners are permitted an exemption from mandatory coverage after certain conditions are met.

Self-insurers can now insure the payment of permanent total disability or death benefits by setting up a bond with the Department of Labor and Industry.

Claims for medical treatment only, not involving permanent disability, may be closed once treatment is concluded.

## Wisconsin

The Department of Administration was authorized to administer workers' compensation for State employees and their dependents.

## Wyoming

Permanent total disability benefits were increased to 66-2/3 percent of the State's average weekly wage for a maximum of 257 weeks. Previously, a maximum benefit of $\$ 30,000$ was paid in monthly installments at the rate of the State's average weekly wage as determined quarterly.

Benefits for death were also changed to 66-2/3 percent of the State's average weekly wage for a maximum period of 231 weeks. Previously, $\$ 25,000$ was paid in monthly installments at the rate of the State's average weekly wage. This enactment also eliminated the provision that allowed surviving spouses, who remarry before the entire award is paid, to receive only $\$ 500$ of any unpaid balance.

The monthly contribution paid into the Industrial Accident Account by employers who engage in extrahazardous employment was decreased from 1 percent to .75 percent of the monthly earnings of the employee.
FOOTNOTE

[^5]
# Select commission suggests changes in immigration policy_a review essay 

> Tougher enforcement, higher quotas, amnesty for most current illegal aliens, and a 'more reliable' means of checking the legal status of all workers are among the 67 recommendations of a 2-year Congressional panel

Philip L. Martin

Many believe that immigration to the United States is out of control. Instead of the 450,000 immigrants anticipated in 1980, 808,000 legal immigrants, refugees, and special entrants were admitted, and an unknown number of illegal or undocumented workers, as many as 500,000 , entered by various means. Immigration is at an alltime high, exceeding the previous high average of 880,000 per year between 1901 and $1910 .^{1}$ The Select Commission on Immigration and Refugee Policy was created by Congress in 1978 and given 2 years to develop an immigration remedy. Its March 1981 report contains 67 recommendations designed to reassert control over immigration. ${ }^{2}$

Apparently, despite our immigrant heritage, Americans are opposed to more large-scale immigration. The Roper poll of June 1980 found that 91 percent of Americans support an "all-out effort" to stop illegal immigration and 80 percent want to reduce the number of legal immigrants and refugees. However, the commission believes that more legal immigrants could be ad-

Philip L. Martin, associate professor of agricultural economics at the University of California, Davis, served as an adviser to the Select Commission on Immigration and Refugee Policy.
mitted if illegal immigration were stopped. Its major recommendation was that the United States "close the back door to undocumented and illegal migration [and open] the front door a little more to accommodate legal migration."

In a world of nation-states, all countries must make three immigration decisions: (1) how many immigrants to admit; (2) from where; and (3) in what status. All sovereign nations claim the right to control their borders, making immigration a privilege extended to a few individuals, not a basic human right available to all. Most countries severely limit the settler immigration characteristic of the American past. More than half of the 1 million or so "settler immigrants" admitted to the world's 164 nations each year come to the United States. Unlike most nations, the United States treats all countries equally when issuing visas under the 6 -tier preference system that governs the admission of our 270,000 planned immigrants. Also unique is our reluctance to separate the right to work from the right to continued residence. The United States has only 30,000 legal temporary workers, persons expected to leave when their seasonal jobs end. In contrast, European nations have used temporary alien workers for 5 to 10 percent of their work forces. ${ }^{3}$

## MONTHLY LABOR REVIEW February 1982 - Immigration Commission

The commission's 453 -page report is a moderate response to restrictionist pressures. If its proposals were adopted, total immigration would decrease, but the legal share would rise. The report recommends more enforcement, amnesty for illegal aliens now in the United States, a 67 -percent increase in quota (planned) immigrants for 5 years, no upper limit on total immigration (quota admissions, exempt relatives, and refugees), and a new international approach to vexing refugee problems.

The thrust of the report is the need for enforcement to reassert control over immigration. The commission voted 14-2 to recommend fining employers who knowingly hire illegal aliens and narrowly (8-7) recommended a "more reliable" mechanism to identify persons authorized to work (such as a counterfeit-proof social security card). By 14 to 1 it advocated increased enforcement of existing labor standards laws. Adoption of the enforcement recommendations would presumably help curb illegal immigration. But what about the 4 to 6 million persons currently living in the United States illegally? The commission recommends a onetime amnesty that would permit aliens in the United States before January 1, 1980, to become legal immigrants after the new enforcement mechanisms become active. Congress would decide the details of the amnesty program.

The commission recommended (14-2) against a largescale, temporary worker program that might help curb future illegal immigration. By the same margin, it suggested that the small (but numerically unrestricted) $\mathrm{H}-2$ program, which admits aliens for temporary jobs, be continued, but argued that employers should be weaned from dependence on such workers.
The commission's recommendations range from a call for "better understanding of international migration" to a "visa waiver for tourists and business travelers from selected countries." A quick review of immigration law and the commission's responsibilities will help put the proposals in context. The best way to outline the recommendations is to discuss their impacts on the three major groups of immigrants: legal, illegal or undocumented, and refugee.

## Background

The Select Commission on Immigration and Refugee Policy was established by Public Law 95-412 on October 5, 1978, "to study and evaluate . . . existing laws, policies, and procedures governing the admission of immigrants and refugees." It was asked specifically "to conduct a study and analysis of the effects of immigration on (1) social, economic, and political conditions in the United States; (2) demographic trends; and (3) present and projected [domestic] unemployment."

The commission was established after Congress, in the early 1970's, repeatedly failed to approve sanctions
on employers who knowingly hired illegal aliens; after both Presidents Ford and Carter organized interagency task forces to study immigration issues; and after President Carter's August 1977 enforcement and amnesty proposals to curb illegal immigration died in Congress. The commission's members knew that most immigration reform proposals do not survive the crossfire of opposition from special interest groups.

The commission faced the task of recommending reforms in current immigration law, which is humanitarian in spirit (favoring the admission of refugees and relatives of U.S. residents), but which is also increasingly utilitarian in practice, because illegal immigration delivers large numbers of alien workers to American employers. The 16 commissioners included four Cabinet secretaries (Justice, Health and Human Services, Labor, and State); eight members of Congress; and four representatives of the public at large. The commission's chairman was the Reverend Theodore Hesburgh of Notre Dame University.

Reforming immigration policy is never easy. Despite an immigrant heritage and the belief that the United States has always welcomed the world's tired and poor, past immigration policy actually discouraged the entry of aliens. Immigration law grew out of an ever lengthening list of excluded "undesirables" in the 1880'sfirst prostitutes and convicts, then Chinese, lunatics, and idiots, and in 1885, contract laborers. Current immigration law excludes more than 30 classes of "undesirable aliens," including homosexuals and security risks. The commission's predecessor, the 1907 Immigration Commission, headed by Senator William Dillingham, ${ }^{4}$ demanded the first quantitative restrictions. ${ }^{5}$ The 1921 Quota Act limited immigration from any country to 3 percent of the foreign-born persons from that country living in the United States in 1910. In 1924, the National Origins Law set an annual quota for each country, of 2 percent of a nationality's U.S. residents, and restricted total annual immigration to 150,000 . Western hemisphere nations, including Mexico, were exempt from the quota.

In 1952, the current Immigration and Nationality Act (INA) was enacted over President Truman's veto. The INA reaffirmed national origins quotas. Amendments in 1965 eliminated the quotas and established a 7 -tier system of family and skill preferences in order to rank would-be immigrants from each country. These amendments strengthened provisions that protect American workers from the competition of aliens. Needed immigrants had to show that American workers were not available to fill vacant jobs and that their employment would not adversely affect U.S. wages and working conditions.

The 1965 amendments replaced national origins quotas with a 20,000 -per-country limit on quota immi-
grants from Eastern Hemisphere nations. Those nations, combined, could send 170,000 immigrants to the United States annually; Western Hemisphere nations were given 120,000 immigrant slots, but no country limits or preference system were imposed. In 1976, the INA was amended to extend the preference system and 20,000-per-country limit to the Western Hemisphere, and in 1978, hemisphere quotas were replaced by a single worldwide quota of 290,000 . The 1980 Refugee Act put seventh preference refugees under a separate 50,000 -person ceiling but left 270,000 slots for relatives and needed workers.

## The research issue

The commissioners were divided on whether to conduct more research or whether the first priority was to build a consensus based on past research and reform proposals. This failure to agree resulted in simultaneous research, public hearings, and public relations strategies. Research included 22 studies of the economic and social progress of recently arrived immigrants and refugees, and a series of 24 consultations with experts, concerning topics ranging from illegal immigration to refugee issues. Public hearings were held in 12 cities across the country and attracted 700 witnesses. As a matter of public relations the commission attempted to confer with a variety of special interest groups.

Many felt that the commission should not make unpopular control and enforcement recommendations until it could quantify the benefits and costs of current migration patterns. A few commissioners wanted to begin a multiyear, longitudinal study of legal immigrants, because research on illegal aliens did not promise precise results. ${ }^{6}$ However, the majority stressed that research must focus on the impacts of illegal aliens and seek answers to relevant questions, even if it were difficult. ${ }^{7}$ The result was a standoff and no new substantive research. The commission's research and public hearings thus yielded a 916 -page staff report and nine appendix volumes which do not expand the information base significantly. Instead, the report presents a general review of the evolution of immigration law, an overview of current problems, and analyses of the experiences of particular immigrant groups.

What kind of research on illegal aliens would have been most useful? Three basic research strategies are available. First, legal immigrants can be studied and the results extrapolated to the illegal population. For example, the economic progress of Mexican immigrants can be studied, under the assumption that illegal entrants of the same educational attainment and age, and in the same location, are making similar progress despite their undocumented status. This extrapolation strategy promises estimates of unknown accuracy. Second, illegal aliens who worked in the United States can be
interviewed after they return to their home countries, where they can talk freely about their experiences. These "sending country" samples have an acknowledged bias-they include only aliens who returned. Another problem is that such studies say far more about individuals than about the impact of aliens on U.S. labor markets. A third research strategy would be to study both apprehended and unapprehended illegal aliens within selected localities, so that data from different localities may be compared. Several commissioners endorsed the idea of local area studies to determine socioeconomic impacts in cities known to contain large numbers of aliens, such as Houston, Los Angeles, and New York. These studies could examine the structure and growth of local industries, changes in local work forces, and labor market indicators such as wage levels and dispersion, hiring and turnover patterns, and unionization.

In addition to local area studies, many academicians urged a replication of the 1975 David North and Marion Houstoun study of apprehended aliens. ${ }^{8}$ Those urging such a study believed that a large sample of aliens would show the "maturation" of illegal aliensmore women, more from urban areas, and more nonfarm workers. A stratified sample would permit researchers to isolate aliens caught before finding jobs, those apprehended after working at least 2 weeks, and those in the United States for at least 2 years.

Apprehension identifies persons here illegally. However, the problem with studies based on apprehension statistics is that persons caught and deported may not be representative of the entire illegal alien population. If that population is considered to be a room of unknown size and shape, then the apprehended alien sample is a window of known dimensions that permits a look into the room. However, it is not possible to determine whether a particular window (or sample) is a peephole or picture window. If a series of apprehended alien studies leads to uniform conclusions on characteristics and impacts, it may be assumed that the underlying phenomenon is similar among urban areas.

Immigration research will always be controversial. Scientific inquiry requires theory, data, and hypothesis testing, but there is no theory that tells us how fast the population should increase. Immigration data are scanty and unreliable. More research cannot answer specific questions precisely, such as how much will gross national product, unemployment, and average hourly earnings change if 1 million additional immigrants were admitted. But it can document trends and permit qualitative answers to questions of interest-what impacts will current migration patterns have and how do the effects of immigration vary with local conditions? Immigration reform decisions will require value judgments, but these can be informed by research.

## Legal immigration

The Immigration and Nationality Act anticipates the arrival of 270,000 quota immigrants each year. Each aspiring immigrant must clear three hurdles. First, the immigrant must qualify under one of the six preferences. Second, there must be a preference quota slot available, such as the 54,000 openings for unmarried adult sons and daughters of U.S. citizens, or the 27,000 slots available to immigrants of exceptional ability and their dependents. Finally, one of the sending country's 20,000 quota slots must be available to the applicant. ${ }^{9}$

The commission recommends that the system of nation and preference quotas be retained but that the worldwide quota be raised to 350,000 . This increase "can advance U.S. interests without harming U.S. workers." The 350,000 quota would separate immigrants into two distinct channels. One group would continue the tradition of family unification, and some unspecified percentage of the 350,000 quota would be assigned to each family unification category. The second channel would admit independent immigrants-aliens with no qualifying family ties but with exceptional ability or money to invest in the United States. The commission could not agree whether these "new seed" immigrants should be admitted only if they have job offers from American employers and will not affect U.S. workers adversely ( 7 votes), or if they should be admitted without an individual test unless the Secretary of Labor has declared that their admission adversely affects U.S. workers ( 7 votes). It also failed to agree if the 54,000 slots now available to "needed permanent workers" should be increased in number, or decreased.

Current law exempts parents, spouses, and minor children of adult U.S. citizens from all quotas. In most years, 100,000 to 150,000 quota-exempt immigrants are admitted. The commission recommended quota exemptions for unmarried adult sons and daughters of adult U.S. citizens (14-2), grandparents of adult U.S. citizens (13-3), and brothers and sisters of adult U.S. citizens (9-7). These additional exemptions and the naturalization of recent immigrants and refugees could increase the annual exempt flow of immigrants to 200,000 or more.

Would-be immigrants from some countries face waiting lists of 5 years or more, which encourages illegal entry. To reduce these waiting lists, the commission recommended (12-4) that for 5 years, an additional 100,000 slots be added to the new 350,000 worldwide quota, increasing quota immigration 67 percent. If all these recommendations were adopted, permanent or "settler" immigration could average 650,000 annually for the first 5 years and 550,000 each year thereafter, but this total would not be a firm ceiling. Despite strong pleas from environmental protection and popula-
tion control groups, only one commissioner voted to impose an absolute ceiling on immigrant admissions.

## Refugees

Refugee policy was changed by the Refugee Act of 1980, which permits admission of 50,000 refugees annually. However, the actual refugee quota is determined each year by the President, in consultation with Congress. In fiscal year 1981, the refugee quota was 217,000 , and in 1982, it is 173,000 .

The act brought the American definition of "refugee" into conformity with the United Nations standard. Until 1980, the United States defined refugees as persons fleeing communist countries, communist-dominated areas, or any country in the Middle East. A refugee is any person outside his or her country of nationality or normal residence who is unable or unwilling to return "because of a well-founded fear of persecution on account of race, religion, nationality, membership in a particular social group, or political opinion."

The commission recommended, by a vote of 11 to 3 , that the President, in consultation with Congress, continue to set an annual refugee quota that considers both geographic and individual factors. The dissenting commissioners argued that 1980 presidential consultations with Congress were only pro forma. Because three "emergency admissions" occurred for every "planned" refugee, they believe that in actuality the President controls refugee admissions virtually unchallenged.

The Refugee Act of 1980 was in force when Cuban "boat people" arrived in southern Florida during the summer of 1980. By the end of the year, $125,000 \mathrm{Cu}$ bans and 15,000 Haitians had come to the United States illegally and had sought political asylum.

Most of the Cubans were resettled with friends or relatives in the United States. However, the private boats transporting the refugees were forced to accommodate an estimated 24,000 expelled "criminals." Many of these persons had committed only political offenses, but at least 3,500 were common criminals who are now in jail or at a detention center in Fort Chaffee, Arkansas.

The United States had never before received waves of persons seeking mass asylum. The Administration did not permit the Cubans and Haitians to claim refugee status immediately, lest it appear that the United States would "reward" illegal entry or accept "pushouts" of criminal elements by foreign governments in the future, and because officially defined refugees are entitled to Federally-paid welfare, health, and training assistance for up to 3 years. Instead of being given refugee status, the Cubans and Haitians were made "special entrants" with indefinite parole status, and are eligible for half of normal refugee benefits.

Pushouts and mass asylum requests figured prominently in the commission's deliberations. The commis-
sioners recommended $12-3$ to "deter the illegal migration of those who are not likely to meet the criteria for acceptance." They urged that requests for asylum be individually and expeditiously processed and that the United States "not hesitate to deport those persons who come to U.S. shores-even when they come in large numbers - who do not meet the established criteria." To expedite these deportation reviews, the commission recommended, 13-1, the development of "group profiles" to determine probable eligibility for asylum, even though each individual would still be required to prove his or her own eligibility. To ensure fair treatment of all who claim refugee status in the future, it was proposed that an interagency body be established, to make contingency plans that deal more systematically with future pushouts and mass asylum requests.
Once in the United States, refugees must be resettled and integrated into society. Since 1975, nearly 1 million refugees have been accepted, half from Indochina. Traditionally, the Federal Government admits refugees, and voluntary associations (especially church groups) resettle them in conjunction with State and local governments. The expansion of social welfare programs, the large number of refugees, and the tendency of refugees to cluster in a few areas have encouraged the Federal Government to step up its refugee assistance efforts. The Refugee Act of 1980 allows the Federal Government to reimburse voluntary agencies for the costs of resettling refugees, $\$ 525$ for each Indochinese refugee and $\$ 365$ for each European, African, and Middle Eastern refugee.

The commission recommended (11-3) that State and local governments help plan for refugee resettlement and that Federal "impact aid" be considered for communities with concentrations of refugees. Federal policies now attempt (unsuccessfully) to disperse refugees. But the commission suggested that refugees be encouraged to cluster in particular areas because (1) they will anyway; (2) more experienced refugees can ease the inte-
gration of newcomers; and (3) it is less expensive to provide special education and training assistance to concentrations of refugees. It also recommended that refugee resettlement be geared to the achievement of selfsufficiency, and that cash assistance be terminated for refugees "who refuse appropriate job offers." ${ }^{10}$

Clustering refugees concentrates their economic benefits and costs. If refugees help revive declining neighborhoods and keep mobile industries from leaving an area, local economies benefit. If, on the other hand, unskilled refugees compete with disadvantaged residents for jobs and require costly education and social services, local economies suffer. No conclusive evidence is available to demonstrate that communities are generally either helped or hurt by an infusion of refugees.

## Illegal immigration

The study of illegal immigration was the commission's principal purpose and the issue that defied resolution. The commission's sounding of public opinion found that most U.S. citizens want to close the halfopen door of undocumented and illegal migration.
The number of illegal aliens in the United States is unknown. Partial evidence for the belief that an "uncontrolled hemorrhage of people" is flooding into the country comes from statistics on apprehended aliens. Since 1970, the Immigration and Naturalization Service (INS) has apprehended more than 8 million persons illegally in the United States (table 1). Today, most aliens are caught away from the worksite, and the decline in the percentage of workers among apprehended aliens in data for the 1970's reflects ins de-emphasis of worksite inspections, rather than a true increase in the proportion of jobless aliens. INS worksite inspections were halted on March 31, 1980 to encourage illegal aliens to participate in the decennial census. According to table 1, industrial worker apprehensions outnumbered farmworker apprehensions in 10 of the last 11 years.

Table 1. Illegal aliens apprehended in the United States, by type of employment, fiscal years 1970-80

| Fiscal year | Agricultural |  |  | Industrial and other |  |  | Totals |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Border patrol | Internal investigation | Total | Border patrol | Internal investigation | Total | Total workers | Total apprehensions | Workers as percent of apprehendees |
| 1970 | 51,655 | 4,254 | 55,909 | 12,928 | 60,844 | 73,772 | 129,681 | 324,444 | 40.0 |
| 1971 | 73,399 | 5,314 | 78,713 | 13,924 | 62,145 | 76,069 | 154,782 | 397,517 | 38.9 |
| 1972 | 80,922 | 4,873 | 85,795 | 18,339 | 79,869 | 98,208 | 184,003 | 478,708 | 38.4 |
| 1973 | 99,384 | 6,342 | 105,726 | 23,547 | 102,370 | 125,917 | 231,643 | 647,512 | 35.8 |
| 1974 | 112,107 | 4,964 | 117,071 | 24,472 | 99,833 | 124,305 | 241,376 | 780,991 | 30.9 |
| 1975 | 110,184 | 4,742 | 114,926 | 26,797 | 108,665 | 135,462 | 250,383 | 756,819 | 33.1 |
| 1976 | 116,735 | 6,085 | 122,820 | 25,531 | 110,734 | 136,265 | 259,085 | 866,433 | 29.9 |
| 1977 | 94,665 | 14,381 | 109,046 | 24,763 | 114,528 | 139,291 | 248,337 | 1,033,427 | 24.0 |
| 1978 | 95,021 | 12,551 | 107,572 | 38,812 | 87,019 | 125,831 | 233,403 | 1,047,687 | 22.3 |
| 1979 | 102,482 | 11,013 | 113,495 | 31,177 | 89,074 | 120,251 | 233,746 | 1,069,400 | 21.9 |
| 1980 | 51,291 | 6,914 | 58,205 | 17,641 | 66,185 | 83,826 | 142,031 | 910,361 | 15.6 |

Source: INS form C-23.18 for the years cited, obtained from publication noted in text footnote 11.

The commission reviewed the research on numbers and characteristics of illegal aliens and discovered five "common findings":

- A review of "other studies" led the Census Bureau to estimate that in 1978 , 3.5 million to 5 million aliens may have been in the country illegally. Less than half were Mexican.
- Young single males are most likely to attempt to cross borders without inspection. Characteristics of persons using false documents or violating terms of their legal entry are more diverse.
- Almost all illegals are attracted by U.S. jobs that pay relatively high wages, often 5 to 10 times the earnings the alien could expect at home.
- Most illegal aliens earn at least the minimum wage. Many earn up to $\$ 6$ or $\$ 7$ per hour.
- There is no meaningful "average length of stay" in the United States. Some illegals do seasonal agricultural and construction work and leave the United States for 2 or 3 months each year. However, a growing proportion are expected to settle permanently, a trend anticipated by experience with migrant labor in other countries.

The commission also reviewed the impacts of illegal aliens on wages and unemployment, social service costs, and the "overall effect on U.S. society," finding almost "no consensus" among researchers. For example, the commissioners noted that opinions on job displacement range from zero (no displacement) to one (every illegal alien displaces one American). Similarly, the commission reported that some economists believe the presence of unskilled illegals increases the wages of skilled workers but depresses the wages offered to young and unskilled Americans. The commission's report adopted a middle position on both issues, arguing that illegals depress wages and increase unemployment to an unknown extent.

The commission took a firmer stance on the social service impacts of illegals, agreeing with persons who maintain that "illegal aliens do not place a substantial burden on social services." It sided with those who argue that illegals have payroll taxes deducted from their paychecks, but that for fear of being apprehended, illegals avoid the social service agencies that provide corresponding benefits. David North's tabulation of taxbased benefits received data from 10 studies supports the commission's position. However, his own 1981 study of 580 aliens found that half of the 147 illegals who qualified for unemployment insurance in California sought benefits, and 35 percent collected. ${ }^{11}$

The commission believes that illegal immigration must be curbed because "illegality breeds illegality." Mexican and American "coyotes" smuggle aliens across
the border in a business so profitable "it rivals the smuggling of narcotics," but carries a much lower probability of apprehension and punishment. ${ }^{12}$ A smuggling ring can transport 500 aliens weekly and charge each person \$500, generating $\$ 12$ million annually. In 1979 , the INS arrested 18,500 such smugglers. But only a third of the 6,000 prosecuted were convicted.

Aliens illegally present are returned if apprehended. However, in 38 States it is not a crime to knowingly hire an illegal alien. ${ }^{13}$ They, like other workers, are protected by labor standards laws. Aliens, whether aware of their rights or victims of systems they do not understand, generally do not complain when employers break wage and working condition laws. This is true regardless of the educational level of aliens, as most know that employers can easily report them to the INS. The alien who knows he should be paid $\$ 3.35$ hourly instead of only $\$ 3$ knows that the extra 35 cents over 1,000 work hours is $\$ 350$. However, if a complaint leads to apprehension, the alien worker loses wages, may pay $\$ 300$ to $\$ 400$ in smuggling fees to get back into the United States, and must then find another job. Because of the border patrol's partial enforcement (which encourages the smuggling business) and because employers suffer no penalties for hiring illegal aliens, a system that delivers docile aliens to U.S. employers is maintained. The commission believes that this cycle of lawbreaking is illegal immigration's most pernicious impact, breeding disregard for all U.S. law.

Would a "guestworker program" curb pressures to enter the U.S. illegally? The commission "carefully weighed" the arguments for and against guestworkers, and recommended (14-2) against the introduction of a large-scale temporary worker program. Moreover, the commission recommended (14-2) to "streamline" the current H -2 program that admits temporary alien workers for temporary U.S. jobs. It suggested that the Department of Labor speed the certification process and that employers of $\mathrm{H}-2$ 's be required to forward to the U.S. Treasury the payroll taxes they now withhold. Although the commission wants to end the dependence of any industry on a constant supply of $\mathrm{H}-2$ workers, it is aware of the benefits of a slight expansion of the program.

Instead of guestworkers, the commission recommends enforcement to keep out illegal entrants, but amnesty for persons illegally in the United States before January 1, 1980. The enforcement package would include "better border and interior controls" and "economic deterrents in the workplace," such as more and bettertrained border patrol officers and equipment, crackdowns on alien smugglers and visa abusers, civil and possibly criminal penalties for employers who knowingly hire illegal aliens (14-2), the development of a "more
reliable" mechanism to separate legal workers from illegal aliens ( $8-7$ ), and increased enforcement of wage and working conditions laws. After these enforcement measures are in place, the commission recommends a onetime amnesty program that would permit illegal aliens to request immigrant status. The details of the amnesty program are the preserve of Congress, but the commission estimates that 2.7 million persons may qualify if all undocumented aliens in the United States for at least 2 years have their status legalized.

Will border enforcement, employer sanctions, and identification cards stop illegal immigration? No one can give an unequivocal answer. Most immigration specialists believe that this three-pronged enforcement strategy will sharply reduce illegal immigration. Only 350 officers patrol the 2,000-mile Mexican border, one for every six miles. But most of the Mexican border is "self-policing" desert-60 percent of all apprehensions are made along 60 miles of border-the lower Rio Grande Valley, and around El Paso, Texas and Chula Vista, California. Similarly, fines and identification may not stop the hiring of illegal aliens, but penalties of $\$ 500$ to $\$ 1,000$ per illegal hire would reduce economic incentives that now make some employers prefer aliens. Immigration enforcement will never be completely successful. The policy question is what level of failure the United States is willing to tolerate.

## Conclusions

Immigrants are responsible for about half of today's net population growth. If the commission's immigration and enforcement recommendations were accepted and
net illegal immigration were reduced to 100,000 annually, the population would increase from 227 million today to a peak of 281 million in the year 2025. By 2030, more than 12 percent of the American population will be immigrants themselves, or descended from immigrants who arrived after 1980. If legal immigration is increased but enforcement efforts fail, permitting net annual illegal immigration of 500,000 , the population would be 306 million by 2035. Post-1980 immigrants and their descendents would be 20 percent of the expanded population.

Immigration is an important component of population growth, and proposals to control it are subjected to a benefit-cost analysis. Many items, such as employer sanctions and identification cards, run counter to American tradition, and debate shifts from a particular immigration item to discussions of the unknown effects of current arrangements. The result is policy stagnation. There is widespread feeling that "something must be done" but no consensus on what to do. The employers benefiting from large-scale immigration fight to keep their cheap labor. Americans who lose are unable to quantify the impact of immigrants on their own economic well-being or organize to present their complaints.

Immigration reform is a social issue that generates tension but defies an easy solution. Tension is reflected in the psychological feeling that the United States should curb immigration in an era of limits. The reality is that immigration is at an alltime high. If the United States cannot grope its way toward a consensus, it risks extreme, probably restrictionist action. ${ }^{14}$
${ }^{1}$ Leon Bouvier, The Impact of Immigration on U.S. Population Size (Washington, Population Reference Bureau, 1981), p. 1.
${ }^{2}$ U.S. Immigration Policy and the National Interest (Washington, Select Commission on Immigration and Refugee Policy, 1981).
${ }^{3}$ Philip Martin, Guestworker Programs: Lessons from Europe (Washington, U.S. Department of Labor, Bureau of International Labor Affairs, 1980).
${ }^{4}$ The report of the Dillingham Commission, issued in 1911, blamed immigrants for depressed wages, industrial accidents, unemployment, and economic recession. Isaac Hourwich, in Immigrants and Labor (New York, P. P. Putnam \& Sons, 1912) reviewed possible errors and biases in the Dillingham report.
'A third element of immigration law, facilitating entry for such persons as relatives and refugees, appeared after quantitative restrictions took effect. Congress exempted political offenders from the 1875 exclusion of criminals and agreed that refugees from religious persecution did not have to pass the 1917 literacy test.
${ }^{0}$ These commissioners blocked research on illegal immigration, a sentiment reflected in page xiii of the staff report: "Early in its deliberations the commission decided not to spend money on what would be a fruitless effort to count the number of illegal aliens." However, most commissioners wanted research on impacts, not numbers.
${ }^{7}$ A $\$ 1$ million study of illegal aliens, begun in 1978, was supposed
to interview 100,000 illegal aliens, but produced no useful data. Christopher Dickey, " $\$ 1$ Million U.S. Study Yields Dubious Results," Washington Post, Dec. 10, 1978, p. 1.
${ }^{*}$ David North and Marion Houstoun, The Characteristics and Role of Illegal Aliens in the U.S. Labor Market (Washington, Linton \& Co., 1975).
${ }^{9}$ The would-be immigrant must not belong to one of the 33 classes of excludable aliens, such as homosexuals, convicted felons, or Nazi war criminals.
${ }^{10}$ California has almost two-thirds of the Indochinese refugees. The deputy director of California's health agency, Joe Diaz, believes that many of the refugees will be dependent on welfare assistance indefinitely. See Robert Lindsay, "Refugees," The New York Times, June 7, 1981, p. 1.
' David North, Government Records: What They Tell Us About the Role of Illegal Immigrants in the Labor Market and in Income Transfer Programs (Washington, New TransCentury Foundation, 1981).
${ }^{12}$ John Credson, "Aliens are Contraband of Choice at Mexican Border," The New York Times, July 10, 1980, p. A10.
${ }^{13}$ The Farm Labor Contractors Act requires a farmer or crew leader to determine the status of workers before hiring them.
${ }^{14}$ Reprints of this article will be available from the Giannini Foundation, University of California at Davis, No. 636.

## Communications

## Another look at the link between work injuries and job experience

## Fred Siskind

In a recent article in the Review, Norman Root and Michael Hoefer investigated the relationship between duration of employment and worker injuries and illnesses. ${ }^{1}$ Their analysis of 1976 and 1977 workers' compensation data for 10 States from the Bureau's Supplementary Data System (SDS) led them to conclude that "more workers are injured in the first month and year of service than any other month or year . . ." ${ }^{2}$

However, Root and Hoefer were unable to calculate injury incidence rates by employment duration to determine whether certain tenure groups experience disproportionately high numbers of injuries. Constructing such statistics would involve dividing the number of injuries by the total exposed population for each group. While the numerators for incidence rates-numbers of injuries by employment duration-are available from the SDS, the appropriate denominators - total numbers of injured and uninjured workers by tenure group-are more difficult to estimate.
The following analysis uses a ratio index approach to gauge the relative injury experience of workers by duration of employment. ${ }^{3}$ Injury and employment duration information from the SDS is linked with work experience data for the general working population from the 1977 Quality of Employment Survey and the January 1978 Current Population Survey. As we will see, the results suggest that workers would generally be subject to disproportionately high injury rates during their first few months and years on the job.

## Data sources

The Supplementary Data System gathers detailed injury and illness information from the workers' compensation system in each cooperating State ${ }^{4}$ Data from 1977

[^6]and 1978 are used for this analysis. The 1977 information covers 540,000 cases in the 12 jurisdictions which reported employment duration information to the Bu reau for that year: California, Colorado, Idaho, Indiana, Iowa, Kentucky, Maine, Maryland, New Mexico, South Dakota, the Virgin Islands, and Wyoming. Data for 1978 pertain to 705,440 injury and illness cases from 16 jurisdictions-Alaska, Hawaii, Montana, and Utah, in addition to those listed above.

Records of injuries and illnesses in such a small number of jurisdictions are not necessarily representative of nationwide experience. However, the 1977 data are from jurisdictions accounting for 21 percent of U.S. employment, and 1978 information covers 23 percent.

The 1977 Quality of Employment Survey (QES) was conducted by the Survey Research Center of the University of Michigan under contract to the Department of Labor. During October-December 1977, a representative sample of 1,515 employed persons age 16 or older and currently employed 20 hours or more per week were interviewed concerning their work experiences. Two questions were asked regarding job tenure:

- "For how many years or months altogether have you worked for your present employer?"
- "For about how long altogether have you had your present job (with this employer)?"

Table 1. Relative injury experience by duration of employment, 1977

| Employment <br> duration | Percent distribution of <br> Injury and <br> illness cases ${ }^{1}$ <br> (1) |  |  | Wage and <br> salary <br> workers ${ }^{2}$ <br> (2) | All workers ${ }^{3}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | | Incidence |
| :---: |
| ratio 1 |
| $(1) /(2)$ | | Incidence |
| :---: |
| ratio 2 |
| $(1) /(3)$ |

[^7]Table 2. Relative injury experience by duration of employment, 1978

| Employment duration | Percent distribution of - |  | Incidence ratio (1)/(2) |
| :---: | :---: | :---: | :---: |
|  | Injury and illness cases' <br> (1) | All workers ${ }^{2}$ (2) |  |
| 1 to 3 months | 20.1 | 11.6 | 1.73 |
| 4 to 6 months | 10.6 | 9.0 | 1.18 |
| 7 to 12 months | 14.4 | 9.8 | 1.47 |
| 2 to 3 years.. | 20.9 | 20.7 | 1.01 |
| 4 to 5 years | 9.9 | 12.3 | . 80 |
| 6 to 10 years | 12.5 | 15.7 | . 80 |
| 11 to 25 years | 9.9 | 16.0 | . 61 |
| 25 to 35 years | 1.4 | 3.9 | . 36 |
| 36 or more years | . 2 | 1.1 | . 18 |

[^8]The first question was asked of wage and salary workers. The second was asked of all workers, with the phrase in parentheses omitted for the self-employed. ${ }^{5}$
The Current Population Survey (CPS) is a monthly survey of 65,000 households which provides comprehensive labor force data. A supplement to the January 1978 CPS asked respondents for 56,000 households to specify the date on which each employed household member started working at his or her present job or business. Duration data calculated from the responses to that question, and a description of the sample design and estimating methods, have been published in a bls Special Labor Force Report. ${ }^{6}$

## Results of the ratio index analysis

Table 1 presents the percentage distribution of injury and illness cases by duration of employment from 1977

SDS data (column 1), and the distribution of workers by duration of employment from the QES survey (column 2 in terms of duration with current employer, and column 3 by duration in current job). Columns 4 and 5 present the ratios of the injury and illness percentages in column 1 to the overall employment duration percentages in columns 2 and 3, respectively. A ratio greater than 1 indicates that the percentage of injuries for workers in the particular duration group (for example, 1 to 3 months) is higher than the percentage of employment accounted for by the same group. A ratio below 1 indicates the opposite.

Whether employment duration is measured as time with present employer or time in current job, the data show a steady decline in risk as employment duration increases. First-year workers incur more than their share of injuries while those with more than 5 years on the job experience a disproportionately low number of injuries. But while the results support our expectations, they are limited in scope and should be interpreted with caution. The injury and work duration data from the SDS cover only 12 jurisdictions in 1977 and 16 jurisdictions in 1978, while the employment duration data from the QES reflect nationwide experience. And, QES data do not permit analysis of injury experience for different age and sex groups.

The limitations listed above can be overcome by using employment duration data from the CPS. These data are based on a much larger sample than the QES results, and are available for the separate jurisdictions (except the Virgin Islands). Table 2 thus provides information, comparable to that in table 1, which is limited to the jurisdictions which submitted injury data for 1978 to

Table 3. Relative injury experience by employment duration, sex, and age, 1978

| Sex and age of worker | Employment duration |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 to 3 months | 4 to 6 months | 7 to 12 months | $\begin{aligned} & 2 \text { to } 3 \\ & \text { years } \end{aligned}$ | 4 to 5 years | 6 to 10 years | 11 to 25 years | 26 to 35 years | 36 years and over |
| Men |  |  |  |  |  |  |  |  |  |
| Total, age 16 and over | 2.02 | 1.33 | 1.63 | 1.09 | 80 | . 76 | . 53 | 30 | . 13 |
| Age 16 to 17 | 1.69 | 72 | . 95 | . 55 | . 30 | $\ldots$ | $\ldots$ |  | . $\cdot$ |
| Age 18 to 19 | 1.60 | 83 | 1.02 | 60 | . 24 |  | $\ldots$ |  | $\ldots$ |
| Age 20 to 24 | 1.48 | . 97 | 1.32 | 85 | . 64 | . 35 |  | $\ldots$ |  |
| Age 25 to 34 | 1.76 | 1.27 | 1.51 | 94 | . 73 | . 77 | . 49 | 33 |  |
| Age 35 to 44 | 2.25 | 1.58 | 1.67 | 1.03 | . 85 | . 81 | . 67 | . 33 | 29 |
| Age 45 to 54 | 2.19 | 1.59 | 1.84 | 1.36 | 1.13 1.10 | 1.10 1.08 | .72 1.09 | . 53 | . 29 |
| Age 55 to 64 ... | 2.34 | 1.29 1.55 | 1.40 2.35 | 1.43 1.65 | 1.10 .72 | 1.08 2.02 | $\begin{array}{r}1.09 \\ \hline 99\end{array}$ | . 53 |  |
| Age 65 and over | 2.91 | 1.55 | 2.35 |  |  |  |  |  |  |
| Women |  |  |  |  |  |  |  |  |  |
| Total, age 16 and over | 1.33 | 1.00 | 1.30 | . 96 | . 86 | . 90 | 80 | . 53 | . 25 |
| Age 16 to 17 | 1.59 | 71 | . 98 | . 68 | . 10 | ... | $\ldots$ | $\ldots$ | . |
| Age 18 to 19 | 1.53 | . 76 | 1.08 | . 64 | 19 |  | $\ldots$ | ... | . . |
| Age 20 to 24 | 1.36 | . 98 | 1.17 | . 82 | 74 | . 53 |  | $\ldots$ | $\ldots$ |
| Age 25 to 34 | 1.27 | 1.03 | 1.45 | . 92 | . 75 | . 91 | . 62 |  |  |
| Age 35 to 44 | 1.23 | 1.13 | 1.22 | 1.08 | 1.02 | . 89 | . 76 | 13 |  |
| Age 45 to 54 | . 99 | 1.00 | 98 | 1.69 | 1.02 | . 97 | 81 101 | 49 78 |  |
| Age 55 to 64 | 1.23 | 1.17 | 1.27 | 1.06 | 1.07 | . 91 | 1.01 | 78 50 | $\begin{array}{r}43 \\ \hline\end{array}$ |
| Age 65 and over | . 72 | 1.33 | 96 | 1.34 | . 75 | 1.60 | 1.23 | . 50 |  |

Note: Numerators for the ratios are data from unpublished SDS tables for 16 jurisdictions. Denominators are unpublished CPS data for January 1978 for the same jurisdictions, except the Virgin Islands

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the SDS. The ratio calculation results are generally similar to those shown in table 1. First-year workers experience more than their share of injuries while those with 4 or more years on the job incur a disproportionately low number of injuries. However, the decline in injury experience as job duration increases is not as smooth as that shown in table 1 ; for example, the 4 -to- 6 -month ratio is below that for 7 - to 12 -months' tenure.

Table 3 presents ratios for detailed age categories by sex. Within most age categories, workers are more likely to experience an injury during their first few months or years on the job than after longer periods. However, for a few age groups - women 45 to 54 , and both men and women 65 and over-a clear decline with tenure does not seem to prevail. Another interesting finding is that the disproportionately higher share of injuries experienced in the first 3 months, and generally the first year, in a new job is more marked for men than for women, particularly in the higher age categories. One possible explanation for this finding is the different industry and
occupational mix for men and women. Men may work disproportionately in those industries and occupations where injuries are more common in the first few months on the job. ${ }^{7}$

The foregoing analysis indicates that workers would generally experience disproportionately high injury rates during their first year on a new job or working for a new employer. The data for men and women by detailed age categories support this observation. Almost all age and sex groups have disproportionately high injury experiences during their first few months and first full year on a new job.

These findings are further evidence that special efforts should be made to assure that new employees and employees changing jobs are aware of good safety practices in the workplace. The Federal Mine Safety and Health Amendments Act of 1977 requires such safety training for miners. Similar efforts may be beneficial in many other industries.


#### Abstract

' Norman Root and Michael Hoefer, "The first work-injury data available from new BLS study," Monthly Labor Review, January 1979, pp. 76-80. Other published studies of the relationship between work injuries and work experience appear to be limited to specific industries, firms, or occupations, and most were conducted many years ago. See, for example, R. H. Van Zelst's study of copper plant workers, "Effect of Age and Experience on Accident Rates," Journal of Applied Psychology, October 1954, pp. 313-17; Amy Hewes, "Study of Accident Records in a Textile Mill," Journal of Industrial Hygiene, October 1921, pp. 187-95; Homer L. Humke's study of accidents in an industrial concern, "First Month Found Most Dangerous," Personnel Journal, March 1936, pp. 336-37; and Theodore Barry and Associates, "Behavioral Analysis of Workers and Job Hazards in the Roofing Industry," Contract No. HSM-99-72-121 for NIOSH, U.S. Department of Health, Education and Welfare, June 1975. Other studies are cited by Root and Hoefer.


Root and Hoefer, "The first work-injury data," p. 77. Throughout
the following discussion, the word "injury" will include both injuries and illnesses.
${ }^{\text {' }}$ See Norman Root and Deborah Sebastian, "BLS develops measure of job risk by occupation," Monthly Labor Review, October 1981, pp. 26-30, for a discussion of the ratio index technique applied to data for occupational groups.

A more detailed description of the SDS is provided by Norman Root and David McCaffrey, "Providing more information on work injury and illness," Monthly Labor Review, April 1978, pp. 16-21.
'The QES is described in Robert P. Quinn and Graham L. Staines, The 1977 Quality of Employment Survey (Ann Arbor, Mich., The University of Michigan, 1979).
${ }^{6}$ Edward S. Sekscenski, "Job Tenure Declines as Work Force Changes," Special Labor Force Report 235 (Bureau of Labor Statistics, 1980).
'Root and Hoefer, "The first work injury data," p. 79. Tables 3 and 4 show considerable variance in injury experience by occupation and industry.

# Special Labor Force Reports-Summaries 



## More than half of all children have working mothers

Allyson Sherman Grossman

More children than ever before have mothers who are in the labor force. In March 1981, 31.8 million youngsters below age 18 - 54 percent of the Nation's total had mothers who were either employed or looking for work. (See table 1.) Since 1970, the number of children with working mothers has grown by 6.2 million despite a 6.6 -million decline in the children's population. ${ }^{1}$

By March 1981, a record 8.2 million children below age $6-45$ percent of all preschoolers-had working mothers. A year earlier, these figures were 7.7 million or 43 percent. Two major factors accounted for this growth. First, the long-term increase in labor force activity among mothers below age 35 accelerated over the year. Their participation rate advanced by more than 2 percentage points, to reach 49 percent. Second, as the number of births among these women increased, ${ }^{2}$ the population below age 6 grew by nearly 400,000 . At the same time, the population of school-age children (6-to-17-year-olds) dropped substantially over the year, and the number of these children with working mothers also declined. Thus, preschoolers accounted for all of the year's net increase in the number of children with working mothers.

## More young mothers working

Reflected in these patterns are the changing work and marital profiles of women born during the post-World War II baby boom. For instance, between March 1980 and March 1981, the number of working mothers increased by 600,000 to reach 18.4 million, and those with children below age 6 were responsible for 60 percent of the gain. Within this group, women between the ages of 25 and 34 registered the greatest increases. These women have generally been showing a propensity to delay marriage, postpone childbearing, and ultimate-

[^9]ly to have fewer children than women of comparable ages in the past. As a result, many of those who eventually become mothers have spent more years in the labor force than many of their predecessors, and they often choose to remain in the work force or return to it soon after childbearing. In contrast, the early marriage and prolific childbearing patterns of a generation ago resulted in the almost automatic and prolonged withdrawal of young mothers from the labor force. ${ }^{3}$

Because of these trends, the traditional concept of a family with the father as the only earner has changed dramatically. For example, both parents were earners in about 60 percent of all married-couple families with children under 18 years in 1981. (See table 2.) On average, these dual-earner families were smaller than comparable single-earner families. Fewer than 6 of 10 had more than one child, compared with nearly 7 of 10 of the one-earner families. Among families maintained by women, the presence of earners was affected by the number of children. For instance, of families with children, 65 percent of those without earners had more than one child compared with less than half of those with earners.

Other sociological changes of the 1970's also contributed to the growing number of children with working mothers. Two of these were the increase in the divorce rate and the growing occurrence of unwed mothers. In 1981, 11.6 million youngsters - 1 of every 5-were living with their mother or their father only. This was almost 60 percent more than in 1970, when 1 of every 9 youngsters lived with only one parent. Most lived with their mothers; however, small increases have been posted in the number of children living only with their father. Black children were far more likely than white children to be living with one parent ( 50 percent of black children, compared with 15 percent of white children).

Despite the recent surge into the labor force of mothers with younger children, older children remain more likely than younger ones to have working mothers. For example, of all children between the ages of 14 through 17 who lived in two-parent families in March 1981, 60 percent had mothers in the labor force, compared with 56 percent of the 6 -to- 13 -year-olds and 45 percent of

Table 1. Number of children under 18, by age, type of family, and labor force status of mother, March 1980 and March 1981 [Numbers in thousands]

| Type of family and labor force status of mother | Children under 18 |  |  | Children 6 to 17 |  |  | Children under 6 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | March 1980 |  | March 1981 | March 1980 |  | March 1981 | March 1980 |  | March 1981 |
|  | Original | Revised |  | Original | Revised |  | Original | Revised |  |
| Total children ${ }^{1}$ | 58,107 | 59,714 | 59,148 | 40,688 | 41,788 | 40,842 | 17,418 | 17,927 | 18,306 |
| Mother in labor force | 30,663 | 31,529 | 31,785 | 23,196 | 23,826 | 23,569 | 7,467 | 7,703 | 8,216 |
| Mother not in labor force | 26,493 | 27,208 | 26,269 | 16,722 | 17,168 | 16,398 | 9,771 | 10,040 | 9,871 |
| Married-couple families | 46,829 | 48,155 | 47,542 | 32,150 | 33,032 | 32,111 | 14,679 | 15,123 | 15,431 |
| Mother in labor force | 24,218 | 24,912 | 25,178 | 18,032 | 18,525 | 18,307 | 6,186 | 6,386 | 6,871 |
| Mother not in labor force | 22,611 | 23,244 | 22,364 | 14,118 | 14,507 | 13,804 | 8,493 | 8,737 | 8,560 |
| Families maintained by women ${ }^{2}$ | 10,327 | 10,582 | 10,513 | 7,768 | 7,961 | 7,857 | 2,559 | 2,620 | 2,656 |
| Mother in labor force . . . | 6,445 | 6,617 | 6,607 | 5,164 | 5,300 | 5,262 | 1,281 | 1,317 1 | 1,345 |
| Mother not in labor force | 3,882 | 3,964 | 3,906 | 2,604 | 2,661 | 2,595 | 1,278 | 1,303 | 1,311 |
| Families maintained by men ${ }^{2}$ | 951 | 978 | 1,094 | 771 | 794 | 875 | 180 | 184 | 219 |

Children are defined as "own" children of the family. Included are never-married daughters, sons, stepchildren and adopted children. Excluded are other related children such as grandchildren, nieces, nephews, cousins, and unrelated children.
${ }^{2}$ Includes only divorced, separated, widowed, or never-married persons Note: Due to rounding, sums of individual items may not equal totals.
the children under 6 . Among children living with their mother only, the proportion whose mothers worked was two-thirds for those between the ages of 6 and 17 and one-half for those below age 6. (See table 3.)

## Socioeconomic characteristics

Proportionately more black ( 59 percent) than white children (53 percent) had working mothers in 1981.

Table 2. Families by presence and number of children under 18, number and relationship of earners in 1980, and family type, March 1981
[Numbers in thousands]

| Number and relationship of earners by family type | No children under 18 | With children under $18{ }^{1}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | 1 | 2 | 3 | 4 or more |
| Total families | 29,140 | 31,562 | 12,984 | 11,688 | 4,635 | 2,275 |
| No earners | 6,406 | 1,957 | 677 | 674 | 313 | 294 |
| One earner | 8,033 | 11,369 | 4,383 | 4,338 | 1,807 | 842 |
| Two earners or more | 14,701 | 18,234 | 7,925 | 6,657 | 2,514 | 1,139 |
| Married-couple families | 24,381 | 24,935 | 9,739 | 9,526 | 3,843 | 1,828 |
| No earners | 5,492 | 411 | ! 21 | 147 | 62 | 82 |
| One earner | 6,375 | 7,525 | 2,376 | 3,058 | 1,406 | 685 |
| Husband | 4,581 | 7,039 | 2,172 | 2,875 | 1,341 | 650 |
| Wife | 1,341 | 366 | 154 | 144 | 46 | 22 |
| Other | 453 | 119 | 50 | 38 | 19 | 12 |
| Two earners or more | 12,514 | 16,998 | 7,242 | 6,322 | 2,374 | 1,062 |
| Husband and wife | 10,637 | 14,919 | 6,317 | 5,717 | 2,068 | 817 |
| Husband and other(s) not wife | 1,511 | 1,868 | 804 | 546 | 289 | 229 |
| Husband nonearner | 365 | 211 | 119 | 59 | 18 | 14 |
| Families maintained by women ${ }^{2}$ | 3,482 | 5,935 | 2,839 | 1,949 | 728 | 419 |
| No earners | 728 | 1,488 | 519 | 518 | 246 | 204 |
| One earner | 1,246 | 3,366 | 1,740 | 1,132 | 353 | 141 |
| Two earners or more | 1,508 | 1,081 | 580 | 299 | 129 | 173 |
| Families maintained by men² | 1,278 | 692 | 407 | 193 | 64 | 28 |
| No earners | 186 | 58 | 37 | 9 | 5 | 8 |
| One earner | 412 | 478 | 267 | 148 | 48 | 16 |
| Two earners or more | 679 | 155 | 103 | 36 | 11 | 4 |

[^10]This difference has been narrowing in recent years as white mothers have joined the work force at a faster pace than black mothers. Nevertheless, at every age level, black children in 2-parent families were still more likely than white children to have a working mother. In one-parent families, however, the situation was reversed; a larger share of white than black children had a working mother. Hispanic children were less apt than either white or black children to have working mothers.

Regardless of race, ethnic origin, or family type, children with a working mother were in families with considerably higher incomes, on average, than were children whose mother was out of the labor force. The median income in 1980 for all two-parent families with children was $\$ 26,500$ when the mother worked and $\$ 21,300$ when she did not.

Generally, white children live in families with higher incomes than black children. Family income for white, two-parent families with children averaged $\$ 26,900$ when the mother was in the labor force and $\$ 21,700$, when she was not. Comparable median incomes for black families were $\$ 23,000$ when the mother worked and $\$ 14,900$ when she did not. (See table 4.)

For some mothers, work is a necessity. It provides economic benefits that may constitute a major share of their offspring's support. In March 1981, one-fourth of all children - 14.8 million in all-were living in families in which their father was absent ( 10.5 million), unemployed ( 2.4 million), or out of the labor force ( 1.9 million). More than half of all black children and nearly one-fifth of all white children lived in one of these circumstances. Between March 1980 and 1981, the total number of children in these situations remained steady as the increase in the number with unemployed fathers was offset by a decline in the numbers whose fathers were absent or out of the labor force. In each of these

Table 3. Children under 18 by age, type of family, and employment status of parents, March 1981
[Numbers in thousands]

| Item | Children under 18 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Total | 14 to 17 | 6 to 13 | Under 6 |
| Total children ${ }^{1}$ | 59,148 | 14,607 | 26,235 | 18,306 |
| Mother in labor force | 31,785 | 8,698 | 14,871 | 8,216 |
| Employed | 29,269 | 8,193 | 13,688 | 7,388 |
| Unemployed | 2,516 | 505 | 1,183 | 828 |
| Mother not in labor force . . . . | 26,269 | 5,498 | 10,900 | 9,871 |
| Married-couple families | 47,542 | 11,329 | 20,782 | 15,431 |
| Mother in labor force | 25,178 | 6,763 | 11,544 | 6,871 |
| Employed . . . . . . . . . . . | 23,516 | 6,426 | 10,800 | 6,290 |
| Unemployed . . . . . . . . . | 1,662 | 337 | 744 | 581 |
| Mother not in labor force | 22,364 | 4,566 | 9,238 | 8,560 |
| Father in labor force | 44,763 | 10,490 | 19,605 | 14,669 |
| Mother in labor force | 24,042 | 6,372 | 11,060 | 6,610 |
| Employed | 22,462 | 6,060 | 10,349 | 6,053 |
| Unemployed | 1,580 | 312 | 711 | 557 |
| Mother not in labor force . . | 20,721 | 4,119 | 8,544 | 8,058 |
| Father employed | 42,376 | 10,003 | 18,632 | 13,741 |
| Mother in labor force | 22,744 | 6,086 | 10,485 | 6,173 |
| Employed | 21,383 | 5,813 | 9,865 | 5,704 |
| Unemplayed | 1,361 | 273 | 620 | 468 |
| Mother not in labor force | 19,632 | 3,917 | 8,147 | 7,569 |
| Father unemployed | 2,387 | 487 | 973 | 927 |
| Mother in labor force | 1,298 | 285 | 575 | 438 |
| Employed | 1,079 | 246 | 484 | 348 |
| Unemployed | 219 | 39 | 91 | 89 |
| Mother not in labor force | 1,089 | 202 | 397 | 490 |
| Father not in labor force | 1,918 | 736 | 804 | 379 |
| Mother in labor force | 730 | 325 | 282 | 122 |
| Employed . . . . . . . . . | 667 | 304 | 256 | 107 |
| Unemployed . . . . . . . . | 63 | 22 | 26 | 15 |
| Mother not in labor force . . | 1,188 | 410 | 521 | 256 |
| Father in armed forces | 861 | 103 | 373 | 384 |
| Mother in labor force | 407 | 66 | 201 | 139 |
| Employed | 388 | 62 | 195 | 131 |
| Unemployed . . . . . . . | 19 | 4 | 7 | 8 |
| Mother not in labor force | 454 | 37 | 172 | 245 |
| Other families: |  |  |  |  |
| Maintained by women ${ }^{2}$. . . . | 10,513 | 2,867 | 4,990 | 2,656 |
| Mother in labor force | 6,607 | 1,935 | 3,327 | 1,345 |
| Employed | 5,753 | 1,768 | 2,888 | 1,098 |
| Unemployed . . . . . . . | 854 | 167 | 439 | 247 |
| Mother not in labor force | 3,906 | 932 | 1,663 | 1,311 |
| Maintained by men ${ }^{2}$. . . . . . | 1,094 | 411 | 464 | 219 |

${ }^{1}$ Children are defined as "own" children of the family. Included are never-married daughters, sons, stepchildren, and adopted children. Excluded are other related children such as grandchildren, nieces, nephews, cousins, and unrelated children.
${ }^{2}$ Includes only divorced, separated, widowed, or never-married persons.
Note: Due to rounding, sums of individual items may not equal totals.
cases, family income in 1980 was substantially greater when the mother was in the labor force.

Table 4. Children under 18 by age, type of family, labor force status of mother, race and Hispanic origin, March 1981, and median family income, 1980
[Numbers in thousands]

| Item | Two-parent families |  |  | One-parent families maintained by women ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | White | Black | Hispanic | White | Black | Hispanic |
| Total children ${ }^{2}$ | 42,129 | 3,960 | 3,688 | 6,583 | 3,698 | 1,074 |
| Mother in labor force | 21,865 | 2,520 | 1,571 | 4,375 | 2,090 | 423 |
| Mother not in labor force | 20,264 | 1,441 | 2,117 | 2,208 | 1,608 | 651 |
| Children 14 to 17 years | 10,024 | 987 | 744 | 1,867 | 947 | 230 |
| Mother in labor force | 5,916 | 649 | 350 | 1,356 | 549 | 110 |
| Mother not in labor force | 4,108 | 338 | 393 | 511 | 398 | 121 |
| Children 6 to 13 years | 18,416 | 1,754 | 1,572 | 3,157 | 1,708 | 512 |
| Mother in labor force | 10,057 | 1,147 | 714 | 2,200 | 1,040 | 217 |
| Mother not in labor force | 8,359 | 606 | 858 | 957 | 668 | 295 |
| Children under 6 years | 13,688 | 1,220 | 1,372 | 1,558 | 1,043 | 331 |
| Mother in labor force | 5,892 | 723 | 507 | 818 | 501 | 96 |
| force | 7,794 | 496 | 865 | 740 | 541 | 236 |
|  | Median family income, 1980 |  |  |  |  |  |
| Total children | \$24,200 | \$20,200 | \$17,100 | \$8,800 | \$6,300 | \$6,300 |
| Mother in labor force | 26,900 | 23,000 | 21,400 | 11,900 | 8,900 | 8,900 |
| Mother not in labor force | 21,700 | 14,900 | 14,000 | 5,000 | 4,400 | 5,400 |
| Children 14 to 17 years | 29,000 | 21,400 | 19,700 | 12,500 | 7,600 | 8,200 |
| Mother in labor force | 31,100 | 24,500 | 24,400 | 14,900 | 10,600 | 11,400 |
| Mother not in labor force | 25,400 | 13,600 | 15,600 | 6,800 | 5,400 | 6,400 |
| Children 6 to 13 years | 24,800 | 21,100 | 18,000 | 9,000 | 6,600 | 6,400 |
| Mother in labor force | 27,200 | 23,700 | 22,400 | 11,700 | 8,900 | 8,400 |
| Mother not in labor force | 22,400 | 16,100 | 14,200 | 5,100 | 4,600 | 5,600 |
| Children under 6 years | 21,000 | 18,400 | 15,000 | 5,300 | 4,600 | 5,300 |
| Mother in labor force | 22,800 | 20,300 | 18,500 | 8,200 | 7,300 | 8,000 |
| Mother not in labor force | 19,500 | 14,100 | 13,200 | 4,200 | 3,600 | 4,600 |

${ }^{1}$ Includes only divorced, separated, widowed, or never-married persons.
${ }^{2}$ Children are defined as "own" children of the family. Included are never-married daughters, sons, stepchildren, and adopted children. Excluded are other related children such as grandchildren, nieces, nephews, cousins, and unrelated children.

Note: Due to rounding, sums of individual items may not equal totals.
About 4.6 million families with children were in poverty during 1980. About 7 percent of married couples with children were poor as were 44 percent of the families maintained by women. For both family types, the incidence of poverty increased as family size grew.

Unless otherwise indicated, the data in this report are from information collected in the March supplement to the Current Population Survey conducted and tabulated for the Bureau of Labor Statistics by the Bureau of Labor Statistics by the Bureau of the Census. The data have been inflated using population weights based on results from the 1980 census of population. The March 1980 data also have been revised to bring them in line with the new population weights and to make them comparable with the March 1981 data. Previously published 1980 data reflected population weights projected forward from the 1970 Census. The effect of the revision on the 1980 data is shown in table 1, which presents the original as well as the revised estimates for 1980.

As the table shows, the number of children with working mothers in March 1980 was revised upward by 866,000 . Despite this, and sim-
ilarly significant changes in other data for 1980, the various relationships and percentages based on the new estimates are nearly the same as those based on the previously published estimates.
${ }^{2}$ Final Natality Statistics, National Center for Health Statistics, Division of Vital Statistics, Natality Statistics.

See Howard Hayghe, "Families and the rise of working wives-an overview," Monthly Labor Review, May 1976, pp. 12-19; Janet L. Norwood and Elizabeth Waldman, "Women in the Labor Force: Some New Data Series," U.S. Department of Labor, Report 575; and George Masnich and Mary Jo Bane, "The Nation's Families 19601990," (Massachusetts, Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University, 1980), pp. 52-85.

## Research Summaries



# Becoming a union leader: the path to local office 

Karen S. Koziara, Mary I. Bradley, and David A. Pierson

Although there are many commonly held notions about why and how people become union officers, there is little empirical information about the process of becoming one, particularly at the local level. Much of what is known about local union officers comes from studies done in the 1950's and early 1960's. Although these studies focused on analyzing the functions or operations of local unions, they do provide information on their leadership. ${ }^{1}$

Based on prior research, there has been some preliminary theoretical work on the process of officer selection. However, the results have been used primarily to explain why women are underrepresented in union office, rather than to provide information on who becomes a union officer, and why and how they become one. ${ }^{2}$ This paper examines more general hypotheses about the officer selection process suggested by earlier studies.

## Selecting an officer

We assume that the decisions of both union members, including officers, and candidates are important in the leadership selection process, and that perceptions of members and candidates are an essential part of the decisionmaking. The significance of member perceptions and candidate self-evaluations in officer selection is that people act upon what they believe to be true, rather than reality itself. ${ }^{3}$

Both members, including officers, and candidates compare candidates' perceived qualifications to requirements of office. If members perceive that a candidate meets the latter, he or she can become an officer. How-

[^11]ever, if the candidate is viewed as unqualified, the candidate cannot attain office. Similarly, people do not run for office unless they think of themselves as qualified and acceptable to other members and officers, and believe the rewards of office will meet their needs.

Drawing from earlier research on union leadership, our study was designed to test several hypotheses. Two closely related ones are first, that time as a union member, and particularly that spent as an officer, results in members and candidates seeing a candidate as being sufficiently experienced to hold higher office; and second, that experience in lower office is seen as an important qualification for higher office, and may even be a prerequisite for holding top local positions.

Self-perceptions of readiness for office are likely to be enhanced by time with the union and prior experience in its administration. These will also be affected by indications from members and current officers that they perceive the candidates as qualified for office. Finally, willingness to take office requires that candidates see the rewards of office as meaningful.

## Methodology used

The data used to analyze these hypotheses are from a study of the administration and structure of eight large local unions, varying in size from 1,500 to 12,000 members, in three Eastern States. Three of these locals are in the public sector and five are in the private sector. Service, professional, and industrial unions are included. Indepth interviews with each local's top officers (presidents, vice presidents, secretary-treasurers, and executive board members) were included as part of a sophisticated case study. Interviews were conducted by two-person interdisciplinary teams, each consisting of an industrial relations specialist and an organizational behavior specialist. The team approach was used to check interrater reliability and reduce probability of dis-ciplinary-based selective perception. The results provide a rich source of qualitative and quantitative information about union leadership and administration.

## Who were the respondents?

Thirty-eight elected union officers were interviewed and placed in one of two categories. The first consists
primarily of local presidents; however, in two locals an elected manager or director had the major administrative responsibility and was included in this category. It contains a total of 10 officers -8 white men, 1 black man, and 1 white woman.

The second category has 28 people, including vice presidents, secretary-treasurers, and other executive board members. It is made up of 17 whites, 10 blacks, and 1 Hispanic. There are 23 men and 5 women in this group.

## Prior union administrative experience

As mentioned earlier, prior union involvement and administrative experience was hypothesized to be a prerequisite for election to top local leadership. Of the presidents responding to the question about number of previous positions, all had held some with the union prior to their current job. Six had held three previous positions; three had held two; and none had held fewer than two. The mean number of positions held beforehand was 2.66 .

The respondents in the vice president category had somewhat less experience, but their responses followed a similar pattern. Three had three previous positions, eight had had two, 14 had had one, and two officers reported that their current position was their first in union administration. The mean number of prior offices was 1.44 .

These responses indicate that union presidents and vice presidents usually have prior union experience before being elected to their current office, and that presidents have somewhat more experience in prior office than do vice presidents.

The respondents' prior union experience shows presidents to have spent an average of 17 years in the local, compared with 15 years for vice presidents. The presidents had spent about 15 years in administrative positions, including their current positions. This indicates that most of the presidents began their path to office relatively soon after joining a union.

The vice presidents had been members of the local an average of 15 years. They had spent an average of 9.3 years as a union officer, and 3.9 years in their current positions. This suggests that although presidents appear to become active in union administration sooner than vice presidents, involvement for both groups actually begins within 5 years of their initial membership.

The first union administrative position for most officers was shop steward ( 6 of 9 presidents and 22 of 27 vice presidents). Most officers who did not start as steward began with less responsible positions, such as that of trustee. In only a few cases did they have as their first position an office more responsible than shop steward. Generally, these officers had been charter
members of the local, and had begun in executive board or similar positions.
In six instances, officers had begun their union careers in other locals, which subsequently merged with their current organizations, and continued in administration after the mergers. None showed a pattern of changing locals in a quest for higher administrative office.

Most officers interviewed had progressed steadily to positions of increased responsibility in the union (all presidents and 22 of 28 vice presidents). Practically none had breaks in their careers as union officers. Many reasons could be suggested for this finding; however, a pattern appears clear. People who achieve the highest elected positions in union office begin their careers early in their union tenure at entry level positions (most often shop steward) and usually have uninterrupted careers as they progress to more responsible positions. One of the implications of this finding is that when there are election challenges to incumbent leaders, they do not come from members outside the leadership hierarchy but from people already in the established network. This reinforces the idea that experience is a major variable influencing how potential candidates for office are perceived by themselves and others. It is also consistent with the explanation for the paucity of women in union office, which suggests that interrupted work careers inhibit advancement to other positions. ${ }^{4}$

## Member and officer perceptions

One of the assumptions mentioned earlier in describing the selection of union officers is that perceptions of officers, members, and candidates are an important part of the decisionmaking process. Participants' responses as to why they became union officers are supportive of this idea. Five of the respondents in the president category were asked either by officers or union members to run for office. Similarly, 20 of 26 respondents in the vice president category reported originally running for office at the urging of either officers or members. This is consistent with the hypothesis that members and candidates both must see a candidate's qualifications for office as congruent with the demands of office. It also suggests that an important element influencing candidates' self-evaluations is the communication to them of the positive perceptions of members or officers.

## Candidates' self-perceptions

In addition to the encouraging feedback from officers and other members, the union officials interviewed initially had positive self-perceptions of their ability to handle the responsibilities of union office. Eight of ten presidents indicated that they originally ran for office because they thought they had something to contribute
to the union. Eighteen of twenty-six vice presidents also gave this reason. Their responses included comments such as, "I can deal with people;" "I thought I could do a good job," and "I was as good as anyone else."

## Rewards of office

Another factor assumed to influence the decision to become an officer is the candidate's perception of the rewards of office. Sayles and Strauss have identified six general rewards of union office: a sense of achievement or self-fulfillment, an outlet for aggression, an intellectual outlet, relief from monotonous jobs, opportunity to gain prestige of status, and a social outlet. ${ }^{5}$ The officers interviewed identified as most important three of these rewards, which are closely related: self-fullfillment, intellectual outlet, and relief from monotonous jobs. Many officers, 31 of 37 , saw union office as an opportunity for self-fulfillment or growth that could not be gotten from their jobs. Typical responses were, "I wanted to do something more than ring a bell everyday," "I wanted control over my own destiny," and "I wanted to do something meaningful."

In contrast, the other rewards of office were mentioned much less frequently. Only three officers indicated prestige as a reason for being a union officer; five gave desire for power as a motivating factor; and none mentioned either desire for an outlet for aggression or social opportunities.

Thus, the interviews show the importance of personal growth and fulfillment in causing people to want to hold office. The form that fulfillment takes varies according to individuals, as indicated by such statements
as, "I like the freedom it brings me," to, "I wanted to show that black people were people, too." However, the significance of this growth is a theme that was apparent in nearly every interview.

Commitment to unionization, while not really a reward of office, was another common theme. Thirty of thirty-seven officers gave it as a reason for either entering or continuing to hold union office. Although this indicates idealism, the commitment was often expressed in very practical terms. A typical comment was, "Because of the way management is here, we needed a good union." However, belief in unionism, as well as desire for personal growth, was important in the decision to be a union officer.

Although this paper is based on a limited number of observations, the officers interviewed come from a variety of occupations and their responses show consistency. The pattern indicates that people who eventually become union officers become active in union administration early in their tenure with the union. Once having become active, officers remained involved in administration. They progressed up the administrative hierarchy, reaching top level office only after experience in other positions. In general, they are people who believe unions have a meaningful function to perform in our society, and see themselves as benefiting from the opportunity for personal growth provided by holding office. Important motivators encouraging them to be active are: urging by members and officers, self-perceptions, the desire for personal growth, and a commitment to unionization.
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'Leonard R. Sayles and George Strauss, The Local Union (New York, Harcourt, Brace and World, 1953); Jack Barbash, Labor's Grass Roots (New York, Harper \& Row Publishers, 1961); and Raymond Miles and J. B. Ritchie, "Leadership Attitudes among Union Officials," Industrial Relations, October 1968, pp. 108-17.

Karen S. Koziara and David A. Pierson, "Barriers to Women Becoming Union Leaders," Industrial Relations Research Association 33rd

Annual Proceedings, 1980, pp. 48-54.
${ }^{3}$ See, for example, Fritz Heider, The Psychology of Interpersonal Relations (New York, John Wiley \& Sons, 1958), pp. 20-78.
${ }^{4}$ Alice H. Cook, "Women and American Trade Unions," The Annals of the American Academy of Political and Social Science, January 1968, pp. 123-32.
${ }^{5}$ Sayles and Strauss, The Local Union, pp. 64-65.

# Developments in Industrial Relations 



## Early negotiations in the auto industry

With the Nation in the midst of a recession that began in midyear, and the domestic automobile industry still afflicted by a sales slump that began 2 years earlier, the United Auto Workers agreed to early negotiations with General Motors Corp. (GM), Ford Motor Co., and American Motors Corp. Early negotiations also were scheduled with International Harvester Co., which faced a possible loss of $\$ 500$ million on its 1981 sales of trucks and farm equipment. Chrysler was not involved in the talks because its UAW-represented workers had agreed to wage concessions in November 1979, January 1980, and January 1981 that provided for more than a billion dollars less in compensation increases than the union's 1979 settlements with GM and Ford. The current GM and Ford (and Chrysler) agreements with the UAW expire in September 1982; the American Motors agreements expire in September 1983 (January 1983 at its Toledo, Ohio plant); and the International Harvester agreement expires in October 1982.

There was no immediate indication of whether the early negotiations might result in new multiyear contracts that would supplant the balance of existing agreements, or if any new contracts would not be effective until the expiration of the current agreements. Certainly, GM's and Ford's position was clear; they began 1981 by calling for immediate labor cost concessions to reduce a claimed $\$ 8$-an-hour disparity with the Japanese auto producers. Throughout the year, the two companies intensified their drive for cost relief, citing their growing financial losses and increasing job cutbacks.

There also was no clear indication of what form any possible union concessions might take, although both GM and Ford insisted that it would not be necessary to reduce wages. Ford President Donald E. Petersen mentioned changes such as reducing the number of paid days off, tightening the requirements for medical leaves of absence, and broadening job definitions to permit

[^12]more efficient utilization of employees. Earlier, he had called for a freeze on automatic cost-of-living pay adjustments. This proposal was unpopular with UAW members, who view cost-of-living adjustment clauses as a sacrosanct part of their contracts ever since they were first negotiated with GM in 1948.

GM Chairman Roger B. Smith said that a program to cut unexcused absences and increase productivity could substantially reduce operating costs. According to Smith, days off for sickness and accidents increased by 50 percent in the last 10 years and in 1980, GM lost \$1 billion because of unexcused absences.

Ford and GM indicated willingness to follow the lead of Chrysler and adopt profit-sharing plans. But this approach was viewed with skepticism by many workers, who doubted that the companies could attain profitability in the near future.

An approach that was apparently more acceptable to the union as a basis for bargaining was included in an American Motors proposal made to the union in November. The proposal called for American Motors' employees to lend the company approximately $\$ 150$ million, with repayment of the principal - and 10 percent interest-expected to begin in 1984. The money for the loan would be accrued by eliminating or reducing scheduled future improvements in wages and benefits.

To some extent, the UAW's decision to consider cost concessions was influenced by cuts in compensation of white-collar employees announced by Ford and GM. At Ford, the changes for 63,000 salaried employees included a loss of two vacation days in 1982; elimination of a paid holiday in December; exclusion of the cost-of-living allowance in calculation of paid time off (the allowance continued to be included in pay for time worked); and limiting overtime pay to straight-time rates for employees exempt from the requirements of the Fair Labor Standards Act.

At GM, the changes for the 138,000 white-collar employees in the United States included elimination of 8 casual days off, cuts in the vacation schedule, elimination of cost-of-living pay for paid time not worked, and increased insurance deductibles and reduced benefits. Reportedly, the company also was in the process of lay-
ing off 13,000 employees from its worldwide staff of 190,000 white-collar workers.
The results of adverse economic conditions also were apparent in other industries, as union members generally agreed to employer requests for labor cost concessions:

- In Fort Wayne, Ind., 1,000 employees of Dana Corp.'s truck axle plant agreed to cuts in labor costs totaling $\$ 2$ million a year. The revisions included a 6 -month delay of a scheduled 3 -percent wage increase, cancellation of a holiday bonus, and lower cost-of-living adjustments. The workers are represented by the Allied Industrial Workers.
- In the Detroit area, a scheduled shutdown of Federal Forge Inc. was averted when its 190 employees voted to give up four paid holidays and their cost-of-living adjustments. The plant produces forgings for the automobile industry. Its production workers are represented by the Uaw.
- Also in the Detroit area, 150 employees of the Macomb Daily newspaper accepted a $\$ 30-$-aeek pay cut and elimination of their cost-of-living clause. The workers are represented by various unions.
- In the trucking industry, Motor Freight Express, Inc. announced that more than two-thirds of its $1,500 \mathrm{em}$ ployees had joined the voluntary "job rescue plan" since its inception in September 1981. Under the plan, 21 percent of each participant's pay is withheld to aid the company, with the withholding to be reduced as the company's condition improves. The company operates in a number of States; its employees are represented by the Teamsters.
However, not all management efforts to reduce labor costs were successful:
- At American Airlines, unions representing 21,000 employees turned down a company request that employees accept a 5 -percent pay reduction during the first quarter of 1982 and forgo raises for the rest of the year. An official of one of the unions said that the company had not proved that its financial condition warranted such a sacrifice.
- In the farm and construction equipment industry, 3,000 employees rejected Allis-Chalmers Corp.'s request for a 1 -year wage freeze and other concessions that the company said were needed to help improve its ability to compete with other companies. An official of the Auto Workers said the company had reported a profit for the first 9 months of 1981 and its top executives were receiving excessive salaries.


## Meatpacking contracts feature union concessions

The "old line" meatpacking companies' efforts to compete more effectively with newer, lower cost firms
such as Iowa Beef Processors were strengthened when the United Food and Commercial Workers agreed to new contracts that provide for a number of wage and benefit concessions. The first settlement, with Armour and Co., set a pattern for accords with Wilson \& Co. and George A. Hormel \& Co. Later, other companies followed the pattern, bringing the total number of workers affected to about 40,000 .
John Teets, chairman and chief executive officer of Armour (and chief executive officer of the parent Greyhound Corp.) called the contract "a historic first" for an industry that is in "total disarray." Teets said, "If we did not get this kind of contract, we would have to close many plants." Armour, which has closed 24 plants during the past 10 years, suffered a $\$ 5.7$-million loss in 1980.

The new contract at Armour, negotiated slightly more than 8 months in advance of the scheduled expiration date of existing agreements, did not provide for any specified wage increase. However, the agreement is subject to a reopening on wages in September 1984, with the union permitted to strike if a settlement is not attained.

The cost-of-living clause, which provided for semiannual pay adjustments, was retained in the contract, but the 4,100 employees will not receive any actual adjustments. Instead, they will receive a one-time lump sum in December 1983 equal to the amount they would have received if the clause was operative during all of 1982. The payment will be at least $\$ 400$, regardless of how few hours an employee worked in 1982. The lump-sum payment does not apply to workers hired after the effective date of the new contract. In addition, Armour is now permitted to pay new employees $\$ 1$ less than the standard rate for their job during their first 60 days of work and 50 cents less during the following 30 days. The same reductions also will apply during the first 90 days and the succeeding 30 days for employees hired for new second or third shifts.

Benefit changes include a $\$ 2$ increase in the pension rate, bringing it to $\$ 17$ a month for each year of credited service. This change will be effective on September 1,1985 , the day after the contract expires.
In a concession to the union, Armour agreed not to close any plants, departments, or divisions before July 1, 1983. Armour also gave the union a copy of its capital investment plan for the next 5 years and will divulge its actual expenditures each year.

## Jerry Wurf, AFSCME president, dies

Jerry Wurf, president of the State, County and Municipal Employees since 1964, died December 10 after a heart attack. During his tenure, the union grew from 220,000 to 1 million members, making it the largest
public employee union in the AFL-CIO.
afl-CIo President Lane Kirkland and secretary-treasurer Thomas R. Donohue called Wurf "one of the most dynamic figures of our time," and said that "the labor movement is richer because he passed our way."

Wurf's successor was General McEntee, head of the union's District Council 13 in Pennsylvania and a member of the union since 1958. In the weighted balloting by the 25 -member executive board, McEntee received 483,080 of the electoral ballots cast and William Lucy, the union's secretary-treasurer, received 449,911 .

## Worker's effort to buy steel plant fails

A steelworker local's effort to save 3,000 jobs at Kaiser Steel Corp. suffered a setback when Kaiser said that an employer stock-ownership plan was not "desirable or workable." The local had started the purchase drive after the company announced plans to phase out its steelmaking operations in Fontana, Calif., and the nearby Eagle Mountain iron ore mine.

Kaiser operated at a profit during the first three quarters of 1981, but company officials said they did not view this as a turnaround from the losses suffered in each of the preceding 18 quarters. The company's plan calls for the continuation of steel finishing at Fontana, using purchased steel. Kaiser is the ninth largest firm in the industry; it does not have any other steelmaking plants.

## Dupont workers reject union representation

The Steelworkers' 8 -year organizing campaign at the DuPont Co. suffered a severe blow when 11,500 employees of 14 plants in seven States rejected representation by the union. The employees at six of the plants voted to retain their local independent unions while those at the other plants voted to remain nonunion.

John Oshinski, who has headed the union's organizing drive since 1979, said the DuPont workers turned down the opportunity to "throw off Dupont's total control of their lives," and thus, the "hard-fought campaign has now been concluded." Carl De Martino, DuPont's vice president for employee relations, called the result of the National Labor Relations Board elections "a strong endorsement of our policies and our sensitivity to people's needs."

DuPont has 66,000 employees eligible to be represented by unions. About 3,000 of them, at 13 plants, belong to international unions; about 23,000 , at 33 plants, are represented by local independent unions. The Steelworkers represent a small number of workers at a facility in Biwabik, Minn. DuPont, the Nation's largest chemical maker, has about 100 plants in the United States.

## Controllers can apply for other Federal jobs

There was another development in the dispute concerning the fate of the 11,500 fired air traffic controllers, as President Reagan modified his termination order to permit them to apply for Federal jobs, but not their old jobs. The controllers, discharged because of their strike against the Federal Government, can reapply for Federal employment in departments and agencies other than the Federal Aviation Administration.

In general, labor leaders expressed disappointment in the President's action. An official of AFL-ClO said, "This is not what the AFL-CIO Executive Council had in mind last week when it met with and urged the President to show compassion toward the air controllers." Robert E. Poli, president of the Professional Air Traffic Controllers Organization (PATCO) described the new policy as a "cruel hoax on both the fired controllers and the American taxpayer," explaining that, "there are few if any available Federal jobs."

Leaders of the Teamsters union, who also had met with the President as part of his efforts to improve the Administration's relations with organized labor, approved this change of policy.
J. J. O'Donnell, head of the Air Line Pilots Association, said ". . . any action the Administration takes, we are in accord with, 100 percent."

In a related development, the National Transportation Safety Board dismissed Patco assertions that the air traffic control system was less safe than before the union's members were dismissed in August. However, the board did warn that continued heavy workloads for the 6,000 controllers and 4,000 supervisors and military controllers operating the system could eventually reduce flight safety.

## A\&P reduces its contribution to pension plan

The Great Atlantic \& Pacific Tea Co. moved to stem operating losses by reducing the company's contribution to the pension plan for 10,000 salaried employees who are not represented by unions. A company official said the change was possible because the previous financing method did not fully take into account rising interest rates on fund investments, which resulted in a $\$ 200$-million surplus.

Under the new formula, A\&P's pension contribution will equal 4 percent of each employee's salary. Employees will contribute up to 6 percent of their salary, with A\&P contributing an additional amount equal to half of what the employees pay in.

A\&P also announced plans to close more unprofitable stores. The food store chain is the Nation's second largest, employing 65,000 workers in 30 States primarily east of the Mississippi River.

## Private pension plans stressed

In a report on how to ensure adequate income for retirees, the Committee for Economic Development calls for more reliance on private pension plans and personal savings and less reliance on social security benefits. The nonpartisan group of business and academic leaders composing the committee said that with the current approach "future working generations will bear impossible funding burdens, and future retirees will face insecurity and hardship."

According to the committee, the overall cost of retirement programs rose from 2.3 percent of the Gross National Product in 1950 to 8.2 percent in 1977, and increasing social security costs had to be borne by future generations. To increase the role of private pension plans and personal savings, the committee recommended increasing the tax-free amounts that individuals can allocate to their personal retirement plans; making employees' contributions to private group plans tax deductible and encouraging employers to establish savings plans for employees; giving employers more flexibility in their pension plans, including delaying the normal retirement age to match future changes in social security laws; raising the eligibility age for full social security benefits to 68; and adjusting annual benefits according to changes in wages rather than the present method of adjustment according to movement of the Consumer Price Index.

## Private secretaries can join union, court says

In a decision that was significant for thousands of office workers, the Supreme Court upheld the National Labor Relations Board's position that employees with access to confidential information are permitted to organize and are assured of other protections under the Na tional Labor Relations Act, as long as the information
does not involve labor-management relations. The board had held to this interpretation of the act (also known as the Wagner Act) since its passage in 1935.

The case arose when the personal secretary to the chief executive officer of the Hendricks County Rural Electric Membership Cooperative in Danville, Ind., was fired for joining other employees in petitioning for the reinstatement of a disabled worker. The secretary appealed to the National Labor Relations Board, which held that she was protected by the Wagner Act because she was not involved in labor relations matters.

However, this decision was reversed on appeal to the U.S. Court of Appeals for the Seventh Circuit, which ruled that "all secretaries working in a confidential capacity" are not covered by the act. Its decision was based on a 1974 Supreme Court ruling that managerial employees are not covered by the act. According to the Circuit Court, a footnote to the 1974 ruling also appeared to exclude all confidential employees.

Writing for the majority, Supreme Court Justice William J. Brennan, Jr., said the 1974 footnote was a mistake. He noted that in 1947 the Congress passed the Taft-Hartley Act, which amended the Wagner Act to cover "professional employees." Justice Brennan concluded that Congress passed the amendment with full knowledge of the National Labor Relations Board position and that most of the newly covered professionals would have access to confidential information.

In a opinion written by Justice Lewis F. Powell, the four dissenting members of the court said that secretaries should be excluded from coverage of the Wagner Act because they "are privy to the most sensitive details of management decision-making."

The court's majority decision also means that 18 em ployees of the Malleable Iron Range Co. in Beaver Dam, Wis., involved in a concurrent case may not be classified as confidential and may join a union, unless the employer shows another reason for excluding them.

## Major Agreements Expiring Next Month



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


Continued-Collective bargaining agreements expiring

| Employer and location | Industry | Union ${ }^{1}$ | Number of workers |
| :---: | :---: | :---: | :---: |
| Union Carbide Corp. (Texas) | Chemicals | Texas Metal Trades Council | 1,550 |
| Virginia Freight Council Over-The-Road Supplement Agreement | Trucking | Teamsters (Ind.) | 1,300 |
| West Virginia Freight Local Cartage Supplement Agreement \& Over-TheRoad Supplement Agreement, 2 agreements | Trucking | Teamsters (Ind.) | 2,600 |
| Western Pennsylvania Motor Carriers Local Cartage Supplement Agreement | Trucking | Teamsters (Ind.) | 3,900 |
| Western States Area Local Cartage Supplement Agreement (Interstate) ${ }^{2}$. . Western States Area Over-The-Road Motor Freight Supplement Agreement | Trucking | Teamsters (Ind.) | 46,000 |
| (Interstate) ${ }^{2}$ ( ${ }^{\text {a }}$ | Trucking | Teamsters (Ind.) | 19,000 |
| Western States Area Office Supplement Agreement (Interstate) ${ }^{2}$. | Trucking | Teamsters (Ind.) | 6,500 |
| Western States Automotive Shop-Truck Agreement (Interstate) ${ }^{2}$ | Trucking | Teamsters (Ind.) | 2,400 |
| Western States Trucking Maintenance Agreement (Interstate) ${ }^{2}$ | Trucking | Machinists . . . | 3,000 |
|  | Government activity | Union or employee organization |  |
| New York: Security Services Unit |  | State, County and Municipal Employees | 7,950 |
| Transit Authority Unit | Transportation | Transport Workers Union . . . . . . . | 33,000 |
| Oregon: Tri-County Transportation District | Transportation | Amalgamated Transit Union | 1,400 |

[^13]
## Book Reviews



## Taking early retirement

Early Retirement-Boon or Bane? A Study of Three Large Corporations. By Dean W. Morse and Susan H. Gray. Montclair, N.J., Allanheld, Osmun \& Co. Publishers, Inc., 1980. 180 pp . $\$ 23.00$.
This book is based on the survey responses of 1,000 professional, managerial, and technical workers who had been employed by three large corporations-an unidentified manufacturer, a retailer, and a utility firm. Dean W. Morse and Susan H. Gray make use of the survey responses to assess what prompted these individuals to retire, their status at retirement, and their experiences, satisfactions, and problems after retiring. They also raise questions about corporate and public policy toward retirement, pensions, employment of older workers, and social security.
The book documents the shift toward earlier retirement, especially for men. The traditional 65 -year-oldnorm as constituting the age for retirement had become the exception rather than the rule for this group. Threefourths or more of the respondents had retired before reaching 65. Among those who retired in 1968-69, only 13 percent retired before age 60 . In the group retiring in 1976-77, 30 percent had retired before age 60 . While the Administration and others have suggested raising the age for full social security retirement benefits to 68 , the Morse-Gray study adds to the evidence indicating a continuing preference by Americans to retire at a substantially earlier age.
The Morse-Gray retirees are a special group in terms of their occupational status and income. They include no blue-collar workers or routine clerical or sales employees. Their mean preretirement annual family income was $\$ 34,500$ in 1977 dollars. Their mean family income in the 12 months preceding the survey amounted to $\$ 19,500$. Based on a combination of private pensions, social security, and investment income, this is the group with the resources for a "good old age."

However, even for this group the authors make it clear that retirement and nonretirement are far from mutually exclusive options. Two out of five of the respondents earned some kind of income after retiring. While the professionals and managers who worked usually did so on less than a full-time basis, they, like the retired policeman or civil servant who embarks on a
second career, symbolize the large numbers of persons who are in the labor force and who are also retired. This group, with its special problems and prospects, receives scant recognition in the official labor force statistics.
The post-retirement experience of the group was largely a happy one. They had ample time and at least minimally adequate resources to pursue hobbies, engage in voluntary community activities, or tinker around the house and garden. In this respect, the findings in the Morse-Gray report are similar to those in an earlier Conference Board study, Walter Wikstrom's The Productive Retirement Years of Former Managers Conference Board Report No. 747, 1978.

This portrayal of a happy retirement is marred by one major problem-inflation. Corporate pensions, unlike social security, are seldom indexed, and the adjustments made for inflation tend to be partial and ad hoc. The possibilities of offsetting the loss of purchasing power, caused by inflation, by working are severely limited by the 50 -percent reduction of social security benefits for incomes earned from work beyond the legal limit, currently $\$ 6,000$. These fears, of course, are real ones although the remedies lie beyond the scope of the book. With inflation continuing at an average rate of 10 percent a year, more than three-fifths of the original purchasing power of a pension that was not indexed would have been lost by the end of a 10 -year period. With a sharp decline from recent inflation rates, say to a 5 -percent annual level, the loss of purchasing power during this period would amount to nearly two-fifths.

The authors provide many insights into the experiences of the particular group they surveyed. They are on less firm ground when they attempt to generalize about implications for public policy of this special group. Here, the authors tend to hedge when a bolder statement might be more beneficial to the reader. For instance, the authors note that "there may be merit in (former) Secretary of Commerce Juanita Kreps' proposal to move gradually to raise the age qualifications for full (social security) benefits from 65 to 68 ." Is there, or isn't there merit in the proposal?

The book raises many questions regarding a society in which people are living longer but working fewer years. The authors consider the need for alternatives such as part-time or part-year employment or consul-
tant jobs for retired persons seeking a second career. But will these options or proposals to raise the age of full social security benefits to 68 make any sense unless there has been far more progress than has been the case to date in eliminating age discrimination in hiring or in the limit on earnings from work in the social security legislation?
In summary, the book is well written and it presents much useful information about the experiences of the group it surveys. It is less successful when it attempts to generalize from this experience a national policy for older Americans.
-Leonard A. Lecht Economic Consultant

## Risk assessment as a business tool

International Political Risk Assessment: The State of the Art. Edited by Theodore H. Moran. Washington, Georgetown University, School of Foreign Service, 1980. 80 pp. $\$ 10$.

In the past few years, a Shah's dynasty has been hurled down in Iran, the Afghan nation has been overrun by Soviet tanks, a peacemaker has been gunned down in Egypt, and the international political risk analysts have found new prominence. This slender volume does the field of political risk studies a huge service by firmly establishing the focus of risk assessment as a tool for business decisionmaking rather than a curiosity in comparative politics and economics. The quality of the panel convened for the workshop that was the basis of this book, Theodore H. Moran's judgment in selecting papers, and the superb editorial pencil he exercised have combined to produce an excellent and timely product.
Two major channels of thought in political risk analysis emerge from this workshop. The first, put forth most explicitly in Conrad Pearson's how-to-do-it paper on expert-panel methodologies, emphasizes cotuntryspecific factors. Pearson's method elicits, weighs, blends, and standardizes the opinions of groups of country experts to attempt to estimate the chance some particular set of political events will occur in the country in question. Moran's concluding essay, on the other hand, emphasizes analysis of firm- or project-specific factors that tend to increase the investor's vulnerability to politically based action, regardless of the nature of the host country. These two approaches are, of course, the blades of the same scissors, as the economist Alfred Marshall might have analogized for the firm's "supply" of political vulnerability and the host's "demand" for certain forms of politico-economic aggression.

The concise nature of International Political Risk Assessment leads me to recommend it most highly to the
senior multinational executives that would be faced with making decisions based in part on the work of political risk specialists; this excellent survey will encourage much more intelligent utilization of staff input. There is one question, however, that has puzzled me every time I have read or reviewed a piece on political risk management: the emphasis in all such pieces has been the Third World; why is this, given that the bulk of foreign direct investment is inter-industrial-nation and the potential financial impacts of such events as the recent Socialist electoral victories in France and Greece?

- Richard M. Devens, Jr.

Columbia University New York

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## Current Labor Statistics


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## NOTES ON CURRENT LABOR STATISTICS

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

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

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might otherwise mask shortterm movements of the statistical series. Tables containing these data are identified as "seasonally adjusted." Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years.

Seasonally adjusted labor force data in tables 2-7 were revised in the February 1981 issue of the Review to reflect the preceding year's experience. Beginning in January 1980, the BLS introduced two major modifications in the seasonal adjustment methodology for labor force data. First, the data are being seasonally adjusted with a new procedure called X-11/ARIMA, which was developed at Statistics Canada as an extension of the standard X-11 method. A detailed description of the procedure appears in The X-11 ARIMA Seasonal Adjustment Method by Estela Bee Dagum (Statistics Canada Catalogue No. $12-564 \mathrm{E}$, February 1980). The second change is that seasonal factors are now being calculated for use during the first 6 months of the year, rather than for the entire year, and then are calculated at mid-year for the July-December period. Revisions of historical data continue to be made only at the end of each calendar year.

Annual revision of the seasonally adjusted payroll data in tables 11, 13, 16, and 18 begins with the August 1980 issue using the X-11 ARIMA seasonal adjustment methodology. New seasonal factors for productivity data in tables 33 and 34 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month to month and from quarter to quarter are
published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100 . For example, given a current hourly wage rate of $\$ 3$ and a current price index number of 150 , where $1967=100$, the hourly rate expressed in 1967 dollars is $\$ 2(\$ 3 / 150 \times 100=\$ 2)$. The resulting values are described as "real," "constant," or "1967" dollars.

Availability of information. Data that supplement the tables in this section are published by the Bureau of Labor Statistics in a variety of sources. Press releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule given below. The BLS Handbook of Labor Statistics, Bulletin 2070, provides more detailed data and greater historical coverage for most of the statistical series presented in the Monthly Labor Review. Mbre information from the household and establishment surveys is provided in Employment and Earnings, a monthly publication of the Bureau, and in two comprehensive data books issued annually - Employment and Earnings, United States and Employment and Earnings, States and Areas. More detailed information on wages and other aspects of collective bargaining appears in the monthly periodical, Current Wage Developments. More detailed price information is published each month in the periodicals, the CPI Detailed Report and Producer Prices and Price Indexes.

## Symbols

$\mathrm{p}=$ preliminary. To improve the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.
$r=$ revised. Generally this revision reflects the availability of later data but may also reflect other adjustments.
n.e.c. $=$ not elsewhere classified.

Schedule of release dates for major BLS statistical series

| Title and frequency (monthly except where indicated) | Release date | Period covered | Release date | Period covered | MLR table number |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Employment situation | February 5 | January | March 5 | February | 1-11 |
| Producer Price Index | February 12 | January | Mr-ch 12 | February | 26-30 |
| Consumer Price Index | February 25 | January | March 23 | February | 22-25 |
| Real earnings | February 25 | January | March 23 | February | 14-20 |
| Productivity and costs: Nonfinancial corporations |  |  | March 1 | 4th quarter | 31-34 |

Note: Because of budget reductions in the Bureau of Labor Statistics, the work stoppages series was discontinued effective with the release of December 1981 data in January 1982.

## EMPLOYMENT DATA FROM THE HOUSEHOLD SURVEY

Employment data in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 60,000 households beginning in May 1981, selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

## Definitions

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

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

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

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

## Notes on the data

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

Data in tables 2-7 are seasonally adjusted, based on the seasonal experience through December 1980.

1. Employment status of the noninstitutional population, 16 years and over, selected years, 1950-80 [Numbers in thousands]


MONTHLY LABOR REVIEW February 1982 - Current Labor Statistics: Household Data
2. Employment status by sex, age, and race, seasonally adjusted
[Numbers in thousands]

| Employment status | Annual average |  | $\begin{gathered} 1980 \\ \hline \text { Dec. } \end{gathered}$ | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1979 | 1980 |  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| TOTAL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total noninstitutional population ${ }^{1}$ | 163,620 | 166,246 | 167,396 | 167,585 | 167,747 | 167,902 | 168,071 | 168,272 | 168,480 | 168,685 | 168,855 | 169,049 | 169,252 | 169,435 | 169,605 |
| Total labor force | 104,996 | 106,821 | 107,191 | 107,668 | 107,802 | 108,305 | 108,851 | 109,533 | 108,307 | 108,603 | 108,762 | 108,401 | 108,893 | 109,187 | 108,814 |
| Civilian noninstitutional population ${ }^{1}$ | 161,532 | 164,143 | 165,272 | 165,460 | 165,627 | 165,774 | 165,941 | 166,145 | 166,349 | 166,546 | 166,695 | 166,884 | 167,095 | 167,277 | 167,441 |
| Civilian labor force | 102,908 | 104,719 | 105,067 | 105,543 | 105,681 | 106,177 | 106,722 | 107,406 | 106,176 | 106,464 | 106,602 | 106,236 | 106,736 | 107,029 | 106,650 |
| Employed | 96,945 | 97,270 | 97,282 | 97,696 | 97,927 | 98,412 | 98,976 | 99,235 | 98,392 | 98,962 | 98,944 | 98,270 | 98,217 | 98,025 | 97,188 |
| Agriculture | 3,297 | 3,310 | 3,394 | 3,403 | 3,281 | 3,276 | 3,463 | 3,353 | 3,265 | 3,258 | 3,370 | 3,310 | 3,337 | 3,363 | 3,115 |
| Nonagricultural industries | 93,648 | 93,960 | 93,888 | 94,294 | 94,646 | 95,136 | 95,513 | 95,882 | 95,127 | 95,704 | 95,574 | 94,959 | 94,880 | 94,662 | 94,072 |
| Unemployed | 5,963 | 7,448 | 7.785 | 7,847 | 7,754 | 7,764 | 7,746 | 8,171 | 7,784 | 7,502 | 7,657 | 7,966 | 8,520 | 9,004 | 9,462 |
| Unemployment rate | 5.8 | 7.1 | 7.4 | 7.4 | 7.3 | 7.3 | 7.3 | 7.6 | 7.3 | 7.0 | 7.2 | 7.5 | 8.0 | 8.4 | 8.9 |
| Not in labor force | 58,623 | 59,425 | 60,205 | 59,917 | 59,946 | 59,598 | 59,219 | 58,739 | 60,173 | 60,082 | 60,093 | 60,648 | 60,359 | 60,248 | 60,791 |
| Men, 20 years and over |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Civilian noninstitutional population ${ }^{1}$ | 68,293 | 69,607 | 70,198 | 70,320 | 70,413 | 70,481 | 70,574 | 70,687 | 70,788 | 70,894 | 70,978 | 71,086 | 71,208 | 71,331 | 71,427 |
| Civilian labor force | 54,486 | 55,234 | 55,470 | 55,443 | 55,445 | 55,816 | 56,013 | 56,395 | 55,876 | 55,957 | 56,045 | 56,063 | 56,100 | 56,194 | 56,326 |
| Employed | 52,264 | 51,972 | 52,045 | 52,091 | 52,134 | 52,511 | 52,750 | 52,849 | 52,451 | 52,811 | 52,724 | 52,608 | 52,327 | 52,151 | 51,841 |
| Agriculture | 2,350 | 2,355 | 2,331 | 2,378 | 2,289 | 2,296 | 2,409 | 2,349 | 2,320 | 2,329 | 2,402 | 2,343 | 2,388 | 2,358 | 2,256 |
| Nonagricultural industries | 49,913 | 49,617 | 49,714 | 49,713 | 49,844 | 50,215 | 50,342 | 50,500 | 50,131 | 50,482 | 50,323 | 50,264 | 49,939 | 49,794 | 49,585 |
| Unemployed | 2,223 | 3,261 | 3,425 | 3,352 | 3,312 | 3,305 | 3,262 | 3,546 | 3,425 | 3,147 | 3,321 | 3,455 | 3,733 | 4,043 | 4,485 |
| Unemployment rate | 4.1 | 5.9 | 6.2 | 6.0 | 6.0 | 5.9 | 5.8 | 6.3 | 6.1 | 5.6 | 5.9 | 6.2 | 6.7 | 7.2 | 8.0 |
| Not in labor force | 13,807 | 14,373 | 14,728 | 14,877 | 14,968 | 14,665 | 14,561 | 14,292 | 14,912 | 14,937 | 14,933 | 15,023 | 15,108 | 15,137 | 15,101 |
| Women, 20 years and over |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Civilian noninstitutional population ${ }^{1}$ | 76,860 | 78,295 | 78,959 | 79,071 | 79,175 | 79,271 | 79,377 | 79,498 | 79,617 | 79,739 | 79,848 | 79,968 | 80,095 | 80,211 | 80,321 |
| Civilian labor force | 38,910 | 40,243 | 40,570 | 40,942 | 41,090 | 41,293 | 41,481 | 41,852 | 41,743 | 41,879 | 41,857 | 41,395 | 41,911 | 42,113 | 41,883 |
| Employed | 36,698 | 37,696 | 37,820 | 38,191 | 38,410 | 38,567 | 38,760 | 39,014 | 39,011 | 39,082 | 39,155 | 38,576 | 38,958 | 39,050 | 38,737 |
| Agriculture | 591 | 575 | 665 | 621 | 615 | 606 | 603 | 583 | 562 | 575 | 601 | 603 | 583 | 655 | 548 |
| Nonagricultural industries | 36,107 | 37,120 | 37,155 | 37,570 | 37,794 | 37,961 | 38,157 | 38,431 | 38,449 | 38,507 | 38,554 | 37,973 | 38,376 | 38,395 | 38,190 |
| Unemployed | 2,213 | 2,547 | 2,750 | 2,750 | 2,680 | 2,725 | 2,721 | 2,838 | 2,731 | 2,797 | 2,701 | 2,819 | 2,953 | 3,062 | 3,145 |
| Unemployment rate | 5.7 | 6.3 | 6.8 | 6.7 | 6.5 | 6.6 | 6.6 | 6.8 | 6.5 | 6.7 | 6.5 | 6.8 | 7.0 | 7.3 | 7.5 |
| Not in labor force | 37,949 | 38,052 | 38,389 | 38,129 | 38,085 | 37,978 | 37,896 | 37,646 | 37,874 | 37,860 | 37,991 | 38,573 | 38,184 | 38,098 | 38,438 |
| Both sexes, 16 to 19 years |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Civilian noninstitutional population ${ }^{1}$ | 16,379 | 16,242 | 16,114 | 16,069 | 16,039 | 16,022 | 15,991 | 15,961 | 15,944 | 15,913 | 15,869 | 15,831 | 15,792 | 15,735 | 15,693 |
| Civilian labor force | 9,512 | 9,242 | 9,027 | 9,158 | 9,146 | 9,068 | 9,228 | 9,159 | 8,558 | 8,628 | 8,700 | 8,778 | 8,724 | 8,722 | 8,441 |
| Employed | 7,984 | 7,603 | 7,417 | 7,414 | 7,384 | 7,334 | 7,465 | 7,372 | 6,930 | 7,069 | 7,065 | 7,086 | 6,931 | 6,823 | 6,609 |
| Agriculture | 356 | 380 | 398 | 404 | 376 | 374 | 451 | 421 | 383 | 354 | 368 | 364 | 366 | 350 | 312 |
| Nonagricultural industries | 7,628 | 7,223 | 7.019 | 7,010 | 7,008 | 6,960 | 7,014 | 6,951 | 6,547 | 6,715 | 6,697 | 6,722 | 6,565 | 6,473 | 6,297 |
| Unemployed | 1,528 | 1,640 | 1,610 | 1,744 | 1,762 | 1,734 | 1,763 | 1,787 | 1,628 | 1,559 | 1,635 | 1,692 | 1,793 | 1,899 | 1,832 |
| Unemployment rate | 16.1 | 17.7 | 17.8 | 19.0 | 19.3 | 19.1 | 19.1 | 19.5 | 19.0 | 18.1 | 18.8 | 19.3 | 20.6 | 21.8 | 21.7 |
| Not in labor force | 6,867 | 7,000 | 7,087 | 6,911 | 6,893 | 6,954 | 6,763 | 6,802 | 7,386 | 7,285 | 7,169 | 7,053 | 7,068 | 7,013 | 7,252 |
| White |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Civilian noninstitutional population ${ }^{1}$ | 141,614 | 143,657 | 144,500 | 144,651 | 144,774 | 144,882 | 145,006 | 145,160 | 145,316 | 145,464 | 145,575 | 145,715 | 145,871 | 146,007 | 146,129 |
| Civilian labor force | 90,602 | 92,171 | 92,383 | 92,832 | 93,035 | 93,313 | 93,860 | 94,506 | 93,464 | 93,767 | 93,789 | 93,355 | 93,845 | 94,045 | 93,658 |
| Employed | 86,025 | 86,380 | 86,377 | 86,620 | 86,940 | 87,291 | 87,791 | 88,083 | 87,500 | 87,979 | 88,046 | 87,329 | 87,344 | 87,058 | 86,312 |
| Unemployed | 4,577 | 5,790 | 6,006 | 6,213 | 6,095 | 6,022 | 6,069 | 6,422 | 5,964 | 5,787 | 5,743 | 6,026 | 6,501 | 6,987 | 7,346 |
| Unemployment rate | 5.1 | 6.3 | 6.5 | 6.7 | 6.6 | 6.5 | 6.5 | 6.8 | 6.4 | 6.2 | 6.1 | 6.5 | 6.9 | 7.4 | 7.8 |
| Not in labor force | 51,011 | 51,486 | 52,117 | 51,819 | 51,739 | 51,569 | 51,146 | 50,654 | 51,852 | 51,697 | 51,786 | 52,360 | 52,026 | 51,962 | 52,471 |
| Black and other |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Civilian noninstitutional population' | 19,918 | 20,486 | 20,771 | 20,809 | 20,853 | 20,892 | 20,936 | 20,985 | 21,033 | 21,081 | 21,120 | 21,169 | 21,224 | 21,270 | 21,312 |
| Civilian labor force | 12,306 | 12,548 | 12,668 | 12,684 | 12,598 | 12,765 | 12,899 | 12,895 | 12,741 | 12,658 | 12,793 | 12,872 | 12,913 | 12,951 | 12,969 |
| Employed | 10,920 | 10,890 | 10,895 | 11,051 | 10,942 | 11,020 | 11,193 | 11,138 | 10,928 | 10,939 | 10,877 | 10,924 | 10,905 | 10,944 | 10,883 |
| Unemployed | 1,386 | 1,658 | 1,773 | 1,634 | 1,655 | 1,745 | 1,706 | 1,757 | 1,813 | 1,719 | 1,916 | 1,948 | 2,008 | 2,007 | 2,086 |
| Unemployment rate | 11.3 | 13.2 | 14.0 | 12.9 | 13.1 | 13.7 | 13.2 | 13.6 | 14.2 | 13.6 | 15.0 | 15.1 | 15.5 | 15.5 | 16.1 |
| Not in labor force | 7.612 | 7,938 | 8,103 | 8,125 | 8,255 | 8,127 | 8,037 | 8,090 | 8,292 | 8,423 | 8,327 | 8,297 | 8,311 | 8,319 | 8,343 |

[^14]3. Selected employment indicators, seasonally adjusted
[Numbers in thousands]


${ }^{1}$ Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes
4. Selected unemployment indicators, seasonally adjusted [Unemployment rates]

| Selected categories | Annual average |  | $1980$ <br> Dec. | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1979 | 1980 |  | Jan. | Feb: | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| CHARACTERISTIC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total, 16 years and over | 5.8 | 7.1 | 7.4 | 7.4 | 7.3 | 7.3 | 7.3 | 7.6 | 7.3 | 7.0 | 7.2 | 7.5 | 8.0 | 8.4 | 8.9 |
| Men, 20 years and over | 4.1 | 5.9 | 6.2 | 6.0 | 6.0 | 5.9 | 5.8 | 6.3 | 6.1 | 5.6 | 5.9 | 6.2 | 6.7 | 7.2 | 8.0 |
| Women, 20 years and over | 5.7 | 6.3 | 6.8 | 6.7 | 6.5 | 6.6 | 6.6 | 6.8 | 6.5 | 6.7 | 6.5 | 6.8 | 7.0 | 7.3 | 7.5 |
| Both sexes, 16 to 19 years | 16.1 | 17.7 | 17.8 | 19.0 | 19.3 | 19.1 | 19.1 | 19.5 | 19.0 | 18.1 | 18.8 | 19.3 | 20.6 | 21.8 | 21.7 |
| White, total | 5.1 | 6.3 | 6.5 | 6.7 | 6.6 | 6.5 | 6.5 | 6.8 | 6.4 | 6.2 | 6.1 | 6.5 | 6.9 | 7.4 | 7.8 |
| Men, 20 years and over | 3.6 | 5.2 | 5.5 | 5.5 | 5.4 | 5.4 | 5.2 | 5.6 | 5.3 | 4.9 | 5.1 | 5.3 | 5.9 | 6.3 | 7.1 |
| Women, 20 years and over | 5.0 | 5.6 | 5.9 | 6.0 | 5.7 | 5.6 | 5.7 | 6.0 | 5.7 | 5.8 | 5.4 | 5.7 | 6.1 | 6.4 | 6.6 |
| Both sexes, 16 to 19 years | 13.9 | 14.8 | 15.4 | 16.8 | 17.4 | 16.9 | 17.2 | 18.0 | 16.5 | 16.1 | 15.6 | 17.0 | 17.6 | 19.3 | 19.3 |
| Black and other, total | 11.3 | 13.2 | 14.0 | 12.9 | 13.1 | 13.7 | 13.2 | 13.6 | 14.2 | 13.6 | 15.0 | 15.1 | 15.5 | 15.5 | 16.1 |
| Men, 20 years and over | 8.4 | 11.4 | 11.6 | 10.5 | 10.8 | 10.8 | 10.6 | 11.8 | 12.5 | 11.6 | 12.4 | 13.0 | 13.3 | 14.0 | 15.1 |
| Women, 20 years and over ........... | 10.1 | 11.1 | 12.3 | 11.0 | 11.9 | 12.6 | 11.8 | 12.0 | 12.0 | 12.0 | 12.8 | 13.7 | 13.3 | 12.8 | 13.3 |
| Both sexes, 16 to 19 years .......... | 33.5 | 35.8 | 37.5 | 36.5 | 35.4 | 37.3 | 36.1 | 33.6 | 38.6 | 36.4 | 45.7 | 37.5 | 42.9 | 41.3 | 39.6 |
| Married men, spouse present | 2.7 | 4.2 | 4.3 | 4.2 | 4.1 | 4.1 | 3.8 | 4.1 | 4.2 | 3.9 | 3.9 | 4.3 | 4.7 | 5.1 | 5.8 |
| Married women, spouse present | 5.1 | 5.8 | 5.8 | 6.2 | 5.8 | 6.0 | 5.9 | 5.9 | 5.6 | 5.6 | 5.3 | 5.9 | 6.1 | 6.6 | 6.7 |
| Women who head families | 8.3 | 9.1 | 10.4 | 10.5 | 9.6 | 9.4 | 9.8 | 10.3 | 10.6 | 11.5 | 9.8 | 10.6 | 10.7 | 10.9 | 10.6 |
| Full-time workers | 5.3 | 6.8 | 7.3 | 7.1 | 7.1 | 7.1 | 6.9 | 7.3 | 7.0 | 6.7 | 6.7 | 7.2 | 7.7 | 8.1 | 8.7 |
| Part-time workers | 8.7 | 8.7 | 8.2 | 9.2 | 9.1 | 9.0 | 9.0 | 9.7 | 9.2 | 9.3 | 9.7 | 9.6 | 9.5 | 10.2 | 9.2 |
| Unemployed 15 weeks and over | 1.2 | 1.7 | 2.3 | 2.2 | 2.1 | 2.1 | 2.0 | 2.0 | 2.2 | 2.0 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 |
| Labor force time lost ${ }^{1}$. . . . . . . | 6.3 | 7.9 | 8.2 | 8.2 | 8.1 | 8.1 | 8.2 | 8.6 | 8.0 | 7.9 | 7.9 | 8.5 | 9.1 | 9.4 | 10.1 |
| OCCUPATION |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| White-collar workers | 3.3 | 3.7 | 4.0 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 3.8 | 4.1 | 3.9 | 4.1 | 4.1 | 4.2 | 4.6 |
| Professional and technical | 2.4 | 2.5 | 2.6 | 2.8 | 2.6 | 2.7 | 3.2 | 2.9 | 2.8 | 2.8 | 2.4 | 2.8 | 2.6 | 2.7 | 3.5 |
| Managers and administrators, except farm | 1.9 | 2.4 | 2.5 | 2.4 | 2.4 | 2.6 | 2.4 | 2.7 | 2.8 | 2.7 | 2.8 | 2.7 | 2.7 | 3.0 | 3.1 |
| Salesworkers . . . . . . . . . . . . . . | 3.9 | 4.4 | 4.7 | 4.4 | 4.0 | 3.8 | 4.0 | 4.6 | 4.1 | 5.1 | 4.7 | 5.2 | 4.9 | 5.2 | 4.9 |
| Clerical workers | 4.6 | 5.3 | 5.8 | 5.7 | 5.3 | 5.9 | 5.6 | 5.6 | 5.3 | 5.7 | 5.6 | 5.7 | 6.1 | 6.1 | 6.3 |
| Blue-collar workers | 6.9 | 10.0 | 10.5 | 10.2 | 10.1 | 9.8 | 9.6 | 10.0 | 9.8 | 9.4 | 9.3 | 10.2 | 11.0 | 11.8 | 12.9 |
| Craft and kindred workers | 4.5 | 6.6 | 7.1 | 6.8 | 7.2 | 7.1 | 6.8 | 7.7 | 7.2 | 6.7 | 6.9 | 7.6 | 8.4 | 8.4 | 9.5 |
| Operatives, except transport ............. | 8.4 | 12.2 | 12.9 | 12.1 | 11.9 | 11.3 | 11.5 | 11.9 | 11.0 | 11.1 | 11.0 | 11.5 | 12.8 | 14.2 | 15.6 |
| Transport equipment operatives . .......... | 5.4 | 8.8 | 8.8 | 9.1 | 8.3 | 9.3 | 8.1 | 8.2 | 8.4 | 6.9 | 7.9 | 8.9 | 7.9 | 10.7 | 10.4 |
| Nonfarm laborers | 10.8 | 14.6 | 14.8 | 15.0 | 14.9 | 14.1 | 13.8 | 13.1 | 14.8 | 14.2 | 12.9 | 14.4 | 15.7 | 16.2 | 17.2 |
| Service workers | 7.1 | 7.9 | 7.8 | 8.0 | 8.7 | 8.1 | 8.5 | 9.4 | 9.0 | 8.0 | 8.9 | 8.9 | 9.3 | 9.8 | 9.4 |
| Farmworkers . | 3.8 | 4.4 | 4.0 | 5.0 | 4.7 | 5.1 | 3.7 | 5.4 | 6.0 | 4.5 | 5.6 | 3.7 | 6.1 | 6.1 | 6.2 |
| INDUSTRY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonagricultural private wage and salary workers ${ }^{2}$ | 5.7 | 7.4 | 7.7 | 7.5 | 7.5 | 7.3 | 7.2 | 7.8 | 7.4 | 7.2 | 7.2 | 7.6 | 8.1 | 8.5 |  |
| Construction | 10.2 | 14.2 | 13.8 | 13.3 | 13.2 | 14.7 | 14.4 | 16.3 | 16.6 | 15.0 | 16.7 | 16.3 | 18.0 | 18.2 | 18.1 |
| Manufacturing . . . | 5.5 | 8.5 | 8.8 | 8.4 | 8.4 | 8.0 | 7.4 | 7.9 | 7.6 | 7.3 | 7.0 | 7.8 | 8.6 | 9.4 | 11.0 |
| Durable goods | 5.0 | 8.9 | 9.0 | 8.3 | 8.5 | 7.9 | 7.3 | 7.3 | 7.4 | 7.3 | 6.4 | 7.6 | 8.6 | 9.4 | 11.8 |
| Nondurable goods . . . . . . . . . . . . . . . . | 6.4 | 7.9 | 8.5 | 8.5 | 8.2 | 8.3 | 7.6 | 8.9 | 7.8 | 7.3 | 7.9 | 8.0 | 8.6 | 9.5 | 9.7 |
| Transportation and public utilities | 3.7 | 4.9 | 4.9 | 5.8 | 5.5 | 6.4 | 5.7 | 5.9 | 4.7 | 4.0 | 4.8 | 4.0 | 4.6 | 5.5 | 6.2 |
| Wholesale and retail trade ... | 6.5 | 7.4 | 8.3 | 7.6 | 7.6 | 7.3 | 7.3 | 8.4 | 7.5 | 7.9 | 7.8 | 8.6 | 8.3 | 8.7 | 9.1 |
| Finance and service industries | 4.9 | 5.3 | 5.5 | 5.8 | 6.0 | 5.6 | 5.9 | 5.9 | 5.8 | 5.6 | 5.6 | 5.9 | 6.3 | 6.1 | 6.5 |
| Government workers | 3.7 | 4.1 | 4.1 | 4.4 | 4.3 | 4.6 | 4.9 | 4.8 | 4.5 | 4.5 | 4.4 | 4.6 | 4.6 | 5.3 | 5.0 |
| Agricultural wage and salary workers | 9.1 | 10.8 | 10.6 | 11.5 | 12.1 | 11.9 | 9.1 | 11.1 | 13.1 | 10.3 | 12.6 | 10.6 | 13.3 | 14.4 | 14.7 |

${ }^{1}$ Aggregate hours lost by the unemployed and persons on part time for economic reasons as a
${ }^{2}$ Includes mining, not shown separately. percent of potentially available labor force hours.

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

| Sex and age | Annual average |  | $1980$ <br> Dec. | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1979 | 1980 |  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| Total, 16 years and over | 5.8 | 7.1 | 7.4 | 7.4 | 7.3 | 7.3 | 7.3 | 7.6 | 7.3 | 7.0 | 7.2 | 7.5 | 8.0 | 8.4 | 8.9 |
| 16 to 19 years. | 16.1 | 17.7 | 17.8 | 19.0 | 19.3 | 19.1 | 19.1 | 19.5 | 19.0 | 18.1 | 18.8 | 19.3 | 20.6 | 21.8 | 21.7 |
| 16 to 17 years | 18.1 | 20.0 | 19.9 | 21.0 | 21.4 | 21.3 | 22.0 | 21.6 | 22.6 | 19.3 | 20.5 | 21.2 | 21.4 | 23.1 | 22.1 |
| 18 to 19 years | 14.6 | 16.1 | 16.4 | 17.5 | 17.9 | 17.7 | 17.2 | 18.2 | 17.3 | 17.7 | 17.4 | 18.1 | 19.9 | 20.7 | 21.4 |
| 20 to 24 years. | 9.0 | 11.5 | 11.7 | 11.9 | 11.8 | 11.7 | 12.1 | 12.9 | 12.1 | 11.3 | 11.8 | 12.1 | 12.8 | 13.0 | 13.7 |
| 25 years and over | 3.9 | 5.0 | 5.3 | 5.3 | 5.1 | 5.2 | 5.0 | 5.3 | 5.2 | 5.1 | 5.1 | 5.4 | 5.8 | 6.1 | 6.5 |
| 25 to 54 years | 4.1 | 5.4 | 5.8 | 5.7 | 5.5 | 5.5 | 5.4 | 5.6 | 5.6 | 5.4 | 5.4 | 5.8 | 6.1 | 6.6 | 7.1 |
| 55 years and over | 3.0 | 3.3 | 3.5 | 3.5 | 3.6 | 3.7 | 3.3 | 3.3 | 3.4 | 3.5 | 3.5 | 3.8 | 3.9 | 3.7 | 4.2 |
| Men, 16 years and over | 5.1 | 6.9 | 7.2 | 7.2 | 7.1 | 7.0 | 6.9 | 7.4 | 7.1 | 6.6 | 7.0 | 7.2 | 7.7 | 8.3 | 9.1 |
| 16 to 19 years. | 15.8 | 18.2 | 19.0 | 20.3 | 20.1 | 19.5 | 19.3 | 20.2 | 19.8 | 18.4 | 19.7 | 19.3 | 19.7 | 22.0 | 22.8 |
| 16 to 17 years | 17.9 | 20.4 | 20.5 | 23.0 | 22.1 | 21.1 | 22.7 | 22.7 | 24.4 | 19.8 | 21.5 | 21.2 | 20.6 | 23.0 | 23.0 |
| 18 to 19 years | 14.2 | 16.7 | 17.8 | 18.5 | 18.7 | 18.6 | 17.0 | 18.3 | 18.1 | 17.8 | 18.1 | 18.1 | 19.1 | 21.2 | 22.6 |
| 20 to 24 years ... | 8.6 | 12.5 | 12.5 | 12.8 | 12.7 | 13.0 | 13.2 | 14.2 | 12.8 | 11.3 | 12.7 | 12.9 | 13.9 | 14.6 | 14.9 |
| 25 years and over | 3.3 | 4.7 | 4.9 | 4.9 | 4.8 | 4.7 | 4.6 | 4.8 | 5.0 | 4.7 | 4.8 | 5.0 | 5.5 | 5.8 | 6.5 |
| 25 to 54 years | 3.4 | 5.1 | 5.4 | 5.2 | 5.2 | 5.1 | 4.9 | 5.1 | 5.3 | 4.9 | 5.0 | 5.5 | 5.9 | 6.4 | 7.1 |
| 55 years and over. | 2.9 | 3.3 | 3.3 | 3.4 | 3.4 | 3.2 | 3.1 | 3.4 | 3.5 | 3.4 | 3.4 | 3.5 | 3.8 | 3.6 | 4.5 |
| Women, 16 years and over | 6.8 | 7.4 | 7.7 | 7.7 | 7.6 | 7.7 | 7.7 | 7.9 | 7.6 | 7.7 | 7.5 | 7.9 | 8.3 | 8.5 | 8.6 |
| 16 to 19 years. | 16.4 | 17.2 | 16.5 | 17.5 | 18.4 | 18.7 | 18.9 | 18.7 | 18.2 | 17.7 | 17.8 | 19.3 | 21.5 | 21.5 | 20.4 |
| 16 to 17 years | 18.3 | 19.5 | 19.3 | 18.7 | 20.5 | 21.6 | 21.1 | 20.4 | 20.6 | 18.7 | 19.5 | 21.1 | 22.4 | 23.3 | 20.9 |
| 18 to 19 years | 15.0 | 15.6 | 14.8 | 16.4 | 17.0 | 16.5 | 17.4 | 18.2 | 16.4 | 17.5 | 16.8 | 18.1 | 20.8 | 20.1 | 20.0 |
| 20 to 24 years ... | 9.6 | 10.3 | 10.8 | 10.8 | 10.8 | 10.1 | 10.9 | 11.4 | 11.2 | 11.3 | 10.8 | 11.2 | 11.5 | 11.2 | 12.2 |
| 25 years and over | 4.8 | 5.5 | 5.9 | 5.8 | 5.6 | 5.9 | 5.6 | 5.9 | 5.6 | 5.7 | 5.5 | 5.9 | 6.1 | 6.4 | 6.5 |
| 25 to 54 years .. | $5.2$ | $5.9$ | $6.3$ | 6.3 | $5.9$ | $6.2$ | 6.0 | $6.4$ | 6.0 | $6.1$ | 5.9 | 6.3 | 6.5 | 6.9 | 7.0 |
| 55 years and over. | 3.2 | 3.2 | 3.9 | 3.6 | 3.9 | 4.5 | 3.7 | 3.3 | 3.3 | 3.7 | 3.6 | 4.4 | 4.1 | 3.8 | 3.8 |

6. Unemployed persons, by reason for unemployment, seasonally adjusted [Numbers in thousands]

| Reason for unemployment | 1980 | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| NUMBER OF UNEMPLOYED |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lost last job | 4,226 | 3,847 | 3,896 | 3,846 | 3,819 | 4,084 | 4,219 | 3,691 | 3,929 | 4,338 | 4,422 | 4,786 | 5,307 |
| On layoff | 1,470 | 1,258 | 1,267 | 1,299 | 1,280 | 1,368 | 1,367 | 1,178 | 1,205 | 1,412 | 1,607 | 1,790 | 2,064 |
| Other job losers | 2,756 | 2,590 | 2,629 | 2,547 | 2,539 | 2,715 | 2,852 | 2,513 | 2,724 | 2,925 | 2,815 | 2,996 | 3,243 |
| Left last job | 813 | 907 | 884 | 863 | 854 | 1,009 | 863 | 898 | 838 | 889 | 962 | 886 | 877 |
| Reentered labor force | 1,869 | 2,039 | 1,970 | 2,040 | 2,017 | 2,126 | 1,955 | 2,022 | 1,939 | 1,949 | 2,172 | 2,311 | 2,199 |
| Seeking first job | 868 | 1,000 | 928 | 986 | 987 | 938 | 956 | 873 | 944 | 953 | 987 | 977 | 1,017 |
| PERCENT DISTRIBUTION |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Job losers | 54.3 | 49.4 | 50.7 | 49.7 | 49.7 | 50.1 | 52.8 | 49.3 | 51.4 | 53.4 | 51.8 | 53.4 | 56.5 |
| On layoff | 18.9 | 16.1 | 16.5 | 16.8 | 16.7 | 16.8 | 17.1 | 15.7 | 15.7 | 17.4 | 18.8 | 20.0 | 22.0 |
| Other job losers | 35.4 | 33.2 | 34.2 | 32.9 | 33.1 | 33.3 | 35.7 | 33.6 | 35.6 | 36.0 | 33.0 | 33.4 | 34.5 |
| Job leavers | 10.5 | 11.6 | 11.5 | 11.2 | 11.1 | 12.4 | 10.8 | 12.0 | 11.0 | 10.9 | 11.3 | 9.9 | 9.3 |
| Reentrants | 24.0 | 26.2 | 25.7 | 26.4 | 26.3 | 26.1 | 24.5 | 27.0 | 25.4 | 24.0 | 25.4 | 25.8 | 23.4 |
| New entrants | 11.2 | 12.8 | 12.1 | 12.7 | 12.9 | 11.5 | 12.0 | 11.7 | 12.3 | 11.7 | 11.6 | 10.9 | 10.8 |
| UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Job losers | 4.0 | 3.6 | 3.7 | 3.6 | 3.6 | 3.8 | 4.0 | 3.5 | 3.7 | 4.1 | 4.1 | 4.5 | 5.0 |
| Job leavers | . 8 | . 9 | . 8 | . 8 | 8 | . 9 | . 8 | . 8 | . 8 | . 8 | . 9 | . 8 | . 8 |
| Reentrants | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 1.8 | 1.9 | 1.8 | 1.8 | 2.0 | 2.2 | 2.1 |
| New entrants | . 8 | . 9 | . 9 | . 9 | . 9 | . 9 | . 9 | . 8 | . 9 | . 9 | . 9 | . 9 | 1.0 |

7. Duration of unemployment, seasonally adjusted
[Numbers in thousands]

| Weeks of unemployment | Annual average |  | $1980$ <br> Dec. | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1979 | 1980 |  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| Less than 5 weeks | 2,869 | 3,208 | 3,115 | 3,259 | 3,203 | 3,209 | 3,074 | 3,369 | 3,172 | 3,187 | 3,161 | 3,383 | 3,652 | 3,815 | 4,067 |
| 5 to 14 weeks | 1,892 | 2,411 | 2,217 | 2,264 | 2,324 | 2,356 | 2,462 | 2,581 | 2,360 | 2,196 | 2,345 | 2,489 | 2,605 | 2,861 | 3,052 |
| 15 weeks and over | 1,202 | 1,829 | 2,378 | 2,358 | 2,250 | 2,192 | 2,105 | 2,168 | 2,315 | 2,100 | 2,194 | 2,212 | 2,251 | 2,330 | 2,338 |
| 15 to 26 weeks | 684 | 1,028 | 1,231 | 1,079 | 992 | 1,013 | 1,001 | 1,022 | 1,205 | 1,068 | 1,059 | 1,151 | 1,156 | 1,213 | 1,157 |
| 27 weeks and over | 518 | 802 | 1,147 | 1,279 | 1,257 | 1,179 | 1,104 | 1,146 | 1,110 | 1,032 | 1,135 | 1,061 | 1,095 | 1,117 | 1,181 |
| Average (mean) duration, in weeks | 10.9 | 11.9 | 13.5 | 14.4 | 14.4 | 14.0 | 13.7 | 13.2 | 14.2 | 13.9 | 14.5 | 13.7 | 13.7 | 13.2 | 12.8 |

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

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

## Definitions

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

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

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

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

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

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

## Notes on the data

Establishment data collected by the Bureau of Labor Statistics are periodically adjusted to comprehensive counts of employment (called "benchmarks"). The latest complete adjustment was made with the release of June 1981 data, published in the August 1981 issue of the Review. Consequently, data published in the Review prior to that issue are not necessarily comparable to current data. Complete comparable historical unadjusted and seasonally adjusted data are published in a Supplement to Employment and Earnings (unadjusted data from April 1977 through March 1981 and seasonally adjusted data from January 1974 through March 1981) and in Employment and Earnings, United States, 1909-78, BLS Bulletin 1312-11 (for prior periods).
Data on recalls were shown for the first time in tables 12 and 13 in the January 1978 issue of the Review. For a detailed discussion of the recalls series, along with historical data, see "New Series on Recalls from the Labor Turnover Survey," Employment and Earnings, December 1977, pp. 10-19.
A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," Monthly Labor Review, December 1969, pp. 9-20. See also BLS Handbook of Methods for Surveys and Studies, Bulletin 1910 (Bureau of Labor Statistics, 1976).
The formulas used to construct the spendable average weekly earnings series reflect the latest provisions of the Federal income tax and social security tax laws. For the spendable average weekly earnings formulas for the years 1979-81, see Employment and Earnings, November 1981, pp. 7-8. Real earnings data are adjusted using the Consume: Price Index for Urban Wage Earners and Clerical Workers (CPI-W).
8. Employment by industry, 1951-80

| [Nonagricultural payroll data, in thousands] |
| :--- |

${ }^{1}$ Data include Alaska and Hawaii beginning in 1959.

## 9. Employment by State

[Nonagricultural payroll data, in thousands]

| State | Nov. 1980 | Oct. 1981 | Nov. $1981{ }^{\text {P }}$ | State | Nov. 1980 | Oct. 1981 | Nov. $1981{ }^{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alabama | 1,362.7 | 1,351.2 | 1,349.9 | Montana | 282.8 | 287.5 | 285.9 |
| Alaska | 168.5 | 182.8 | 180.1 | Nebraska | 633.2 | 637.9 | 635.5 |
| Arizona | 1,024.4 | 1,023.6 | 1,028.4 | Nevada | 407.2 | 425.0 | 424.3 |
| Arkansas | 748.9 | 756.4 | 747.2 | New Hampshire | 389.3 | 390.7 | 389.3 |
| Califomia | 9,917.0 | 9,993.1 | 10,016.1 | New Jersey | 3,066.8 | 3,107.9 | 3,104.9 |
| Colorado | 1,265.2 | 1,283.3 | 1,284.3 | New Mexico | 461.2 | 470.6 | 469.1 |
| Connecticut | 1,436.8 | 1,431.9 | 1,432.3 | New York | 7,263.5 | 7,278.2 | 7,290.0 |
| Delaware | 262.4 | 259.7 | 256.9 | North Carolina | 2,415.5 | 2,409.7 | 2,406.4 |
| District of Columbia | 612.5 | 605.2 | 606.0 | North Dakota | 249.7 | 254.6 | 253.9 |
| Florida | 3,649.1 | 3,790.9 | 3,809.8 | Ohio | 4,430.3 | 4,402.1 | 4,386.0 |
| Georgia | 2,170.6 | 2,168.2 | 2,167.3 | Oklahoma | 1,152.3 | 1,196.0 | 1,197.7 |
| Hawaii | 405.2 | 398.9 | 402.3 | Oregon | 1,036.2 | 1,014.8 | 1,001.6 |
| Idaho | 335.0 | 330.8 |  | Pennsylvania | 4,772.9 | 4,679.2 | 4,686.4 |
| Illinois | 4,887.6 | 4,865.2 | 4,851.9 | Rhode Island | 404.4 | 405.7 | 404.9 |
| Indiana | 2,149.3 | 2,124.0 | 2,107.5 | South Carolina | 1,192.5 | 1,192.5 | 1,190.1 |
| lowa | 1,100.8 | 1,082.2 | 1,077.2 | South Dakota | 235.7 | 234.6 | $232.6$ |
| Kansas | 956.3 | 958.4 | 960.3 | Tennessee | 1,736.6 | 1,728.1 | 1,721.8 |
| Kentucky | 1,221.3 | 1,202.4 | 1,190.6 | Texas | 6,007.7 | 6,222.6 | 6,245.6 |
| Louisiana | 1,608.4 | 1,648.9 | 1,651.2 | Utah . | 557.8 | 567.9 | 569.9 |
| Maine . | 423.2 | 419.5 | 413.9 | Vermont . . . . . . . . . . . | 202.7 | 204.1 | 202.1 |
| Maryland | 1,706.7 | 1,694.1 | 1,696.5 | Virginia | 2,142.8 | 2,152.2 | 2,151.1 |
| Massachusetts | 2,667.6 | 2,681.0 | 2,685.0 | Washington | 1,607.8 | 1,581.6 | 1,571.0 |
| Michigan . | 3,519.4 | 3,477.4 | 3,447.4 | West Virginia | 651.0 | 633.9 | 632.5 |
| Minnesota | 1,777.2 | 1,781.4 | 1,770.4 | Wisconsin | 1,965.8 | 1,969.3 | 1,961.6 |
| Mississippi | 837.2 | 825.1 | 821.2 | Wyoming | 207.9 | 210.4 | 208.4 |
| Missouri . . | 1,973.6 | 1,978.7 | 1,974.1 | Virgin Islands | 36.3 | 34.8 | 35.4 |

10. Employment by industry division and major manufacturing group [Nonagricultural payroll data, in thousands]

| Industry division and group | Annual average |  |  | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1979 | 1980 |  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. ${ }^{\text {P }}$ | Dec. ${ }^{\text {P }}$ |
| TOTAL | 89,823 | 90,564 | 91.750 | 89,988 | 90,138 | 90,720 | 91,337 | 91,848 | 92,481 | 91,600 | 91,598 | 92,159 | 92,424 | 92,272 | 92,015 |
| MINING | 958 | 1,020 | 1,060 | 1,066 | 1.071 | 1,084 | 941 | 957 | 1,132 | 1,155 | 1,169 | 1,169 | 1,164 | 1,173 | 1,163 |
| CONSTRUCTION | 4,463 | 4,399 | 4,343 | 3,995 | 3,901 | 4,048 | 4,246 | 4,356 | 4,477 | 4,554 | 4,579 | 4,516 | 4,493 | 4,368 | 4,156 |
| MANUFACTURING | 21,040 | 20,300 | 20,238 | 20,075 | 20,065 | 20,160 | 20,253 | 20,342 | 20,531 | 20,337 | 20,473 | 20,600 | 20,368 | 20,115 | 19,854 |
| Production workers | 15,068 | 14,223 | 14,126 | 13,975 | 13,971 | 14,049 | 14,127 | 14,195 | 14,325 | 14,108 | 14,230 | 14,376 | 14,147 | 13,896 | 13,662 |
| Durable goods | 12,760 | 12,181 | 12,147 | 12,072 | 12,042 | 12,120 | 12,197 | 12,235 | 12,334 | 12,198 | 12,188 | 12,292 | 12,163 | 11,997 | 11,828 |
| Production workers | 9,110 | 8,438 | 8,374 | 8,305 | 8,279 | 8,345 | 8,412 | 8,438 | 8,500 | 8,347 | 8,323 | 8,440 | 8,313 | 8,148 | 7,997 |
| Lumber and wood products | 766.9 | 690.3 | 685.9 | 674.6 | 674.5 | 678.3 | 686.9 | 703.4 | 711.0 | 708.6 | 701.5 | 691.0 | 664.5 | 640.0 | 625.3 |
| Furniture and fixtures | 497.8 | 468.8 | 470.5 | 469.6 | 471.7 | 472.1 | 478.0 | 479.0 | 480.5 | 472.0 | 480.6 | 484.7 | 483.5 | 476.7 | 472.8 |
| Stone, clay, and glass products | 708.7 | 665.6 | 652.3 | 635.0 | 630.6 | 639.5 | 652.6 | 659.7 | 671.0 | 666.7 | 669.1 | 664.5 | 652.8 | 642.0 | 624.8 |
| Primary metal industries | 1,253.9 | 1,144.1 | 1,136.3 | 1,136.7 | 1,137.7 | 1,141.3 | 1,149.9 | 1,147.5 | 1,155.5 | 1,135.5 | 1,140.3 | 1,138.8 | 1,109.3 | 1,087.2 | 1,062.8 |
| Fabricated metal products | 1,717.7 | 1,609.0 | 1,596.4 | 1,580.2 | 1,578.1 | 1,585.4 | 1,593.7 | 1,596.1 | 1,606.8 | 1,584.5 | 1,590.9 | 1,607.5 | 1,584.2 | 1,563.4 | 1,537.2 |
| Machinery, except electrical | 2,484.8 | 2,497.0 | 2,496.8 | 2,496.9 | 2,498.4 | 2,504.3 | 2,506.1 | 2,508.6 | 2,531.3 | 2,517.4 | 2,511.4 | 2,540.7 | 2,528.4 | 2,513.4 | 2,497.9 |
| Electric and electronic equipment | 2,116.9 | 2,103.2 | 2,118.0 | 2,114.0 | 2,112.3 | 2,119.5 | 2,129.7 | 2,134.7 | 2,152.7 | 2,138.9 | 2,146.1 | 2,164.8 | 2,158.3 | 2,130.9 | 2,103.7 |
| Transportation equipment | 2,077.2 | 1,875.3 | 1,871.4 | 1,854.9 | 1,824.8 | 1,860.4 | 1,874.3 | 1,877.4 | 1,882.7 | 1,840.3 | 1,799.6 | 1,848.3 | 1,832.3 | 1,797.9 | 1,777.7 |
| Instruments and related products | 691.2 | 708.5 | 713.8 | 712.4 | 710.1 | 712.1 | 714.4 | 715.2 | 723.2 | 722.1 | 726.2 | 723.1 | 720.0 | 718.9 | 713.1 |
| Miscellaneous manufacturing | 444.8 | 419.3 | 405.9 | 398.0 | 403.3 | 406.7 | 411.3 | 413.4 | 419.5 | 412.3 | 421.8 | 428.7 | 429.9 | 426.2 | 412.2 |
| Nondurable goods | 8,280 | 8,118 | 8,091 | 8,003 | 8,023 | 8,040 | 8,056 | 8,107 | 8,197 | 8,139 | 8,285 | 8,308 | 8,205 | 8,118 | 8,026 |
| Production workers | 5,958 | 5,786 | 5,752 | 5,670 | 5,692 | 5,704 | 5,715 | 5,757 | 5,825 | 5,761 | 5,907 | 5,936 | 5,834 | 5,748 | 5,665 |
| Food and kindred products | $1,732.5$ 70.0 | 1,710.8 | $1,688.5$ 74.4 | 1,645.2 | 1,639.2 | 1,632.5 | 1,631.0 | 1,648.1 | 1,673.4 | 1,714.8 | 1,773.2 | 1,776.1 | 1,729.0 | 1,684.8 | 1,653.9 |
| Textile mill products . | 70.0 885.1 | 69.2 852.7 | 74.4 846.1 | 72.0 841.0 | 70.6 841.1 | 68.3 840.9 | 66.2 841.6 | 65.2 844.3 | 66.4 851.0 | 66.3 836.5 | 75.6 847.3 | 77.7 850.2 | 77.0 834.3 | 75.2 826.9 | 72.7 820.4 |
| Apparel and other textile products | 1,304.3 | 1,265.8 | 1,241.1 | 1,222.8 | 1,238.7 | 1,250.2 | 1,255.2 | 1,265.9 | 1,283.9 | 1,231.1 | 1,276.8 | 1,287.3 | 1,274.1 | 1,259.9 | 1,222.0 |
| Paper and allied products | 706.8 | 694.0 | 691.5 | 687.7 | 687.7 | 688.6 | 690.9 | 693.1 | 701.0 | 696.4 | 700.3 | 702.0 | 691.4 | 686.4 | 682.8 |
| Printing and publishing | 1,235.1 | 1,258.3 | 1,278.3 | 1,269.0 | 1,273.6 | 1,278.2 | 1,280.4 | 1,281.8 | 1,286.2 | 1,286.5 | 1,289.4 | 1,294.1 | 1,299.7 | 1,305.6 | 1,313.3 |
| Chemicals and allied products | 1,109.3 | 1,107.4 | 1,101.2 | 1,100.1 | 1,102.9 | 1,106.8 | 1,106.2 | 1,110.3 | 1,121.1 | 1,116.6 | 1,112.0 | 1,110.5 | 1,104.4 | 1.099 .5 | 1,098.2 |
| Petroleum and coal products | 209.8 | 196.6 | 206.8 | 206.5 | 205.7 | 207.0 | 209.5 | 212.9 | 215.4 | 216.1 | 215.4 | 212.7 | 211.4 | 210.6 | 207.3 |
| Rubber and miscellaneous plastics products | 781.6 | 730.7 | 733.2 | 731.8 | 734.2 | 737.2 | 743.5 | 749.2 | 759.0 | 747.0 | 756.8 | 760.8 | 748.2 | 737.2 | 726.2 |
| Leather and leather products | 245.7 | 232.6 | 229.4 | 226.9 | 229.5 | 230.4 | 231.7 | 235.9 | 239.1 | 227.5 | 238.6 | 237.0 | 235.7 | 232.3 | 229.2 |
| TRANSPORTATION AND PUBLIC UTILITIES | 5,136 | 5,143 | 5,150 | 5,063 | 5,076 | 5,095 | 5,120 | 5,148 | 5,195 | 5,177 | 5,175 | 5,222 | 5,204 | 5,182 | 5,167 |
| WHOLESALE AND RETAIL TRADE | 20,192 | 20,386 | 21,138 | 20,366 | 20,196 | 20,290 | 20,513 | 20,672 | 20,795 | 20,735 | 20,811 | 20,919 | 20,999 | 21,131 | 21,403 |
| WHOLESALE TRADE | 5,204 | 5,281 | 5,315 | 5,276 | 5,273 | 5,293 | 5,317 | 5,335 | 5,381 | 5,376 | 5,386 | 5,370 | 5,381 | 5,373 | 5,358 |
| RETAIL TRADE | 14,989 | 15,104 | 15,823 | 15,090 | 14,923 | 14,997 | 15,196 | 15,337 | 15,414 | 15,359 | 15,425 | 15,549 | 15,618 | 15,758 | 16,045 |
| FINANCE, INSURANCE, AND REAL ESTATE | 4,975 | 5,168 | 5,237 | 5,235 | 5,245 | 5,263 | 5,295 | 5,326 | 5,384 | 5,408 | 5,408 | 5,361 | 5,349 | 5,345 | 5,345 |
| SERVICES | 17,112 | 17,901 | 18,149 | 17,972 | 18,126 | 18,287 | 18,512 | 18,633 | 18,764 | 18,847 | 18,835 | 18,812 | 18,826 | 18,794 | 18,771 |
| GOVERNMENT | 15,947 | 16,249 | 16,435 | 16,216 | 16,458 | 16,493 | 16,457 | 16,414 | 16,203 | 15,387 | 15,148 | 15,560 | 16,021 | 16,164 | 16,156 |
| Federal | 2,773 | 2,866 | 2,782 | 2,773 | 2,774 | 2,769 | 2,773 | 2,782 | 2,825 | 2,833 | 2,803 | 2,735 | 2,737 | 2,736 | 2,742 |
| State and local | 13,174 | 13,383 | 13,653 | 13,443 | 13,684 | 13,724 | 13,684 | 13,632 | 13,378 | 12,554 | 12,345 | 12,825 | 13,284 | 13,428 | 13,414 |

11. Employment by industry division and major manufacturing group, seasonally adjusted
[Nonagricultural payroll data, in thousands]

| Industry division and group | 1980 | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. ${ }^{\text {P }}$ | Dec. ${ }^{\text {P }}$ |
| TOTAL | 90,949 | 91,091 | 91,258 | 91,347 | 91,458 | 91,564 | 91,615 | 91,880 | 91,901 | 92,033 | 91,832 | 91,499 | 91,206 |
| MINING | 1,069 | 1,083 | 1,091 | 1,098 | 950 | 957 | 1,110 | 1,132 | 1,151 | 1,162 | 1,162 | 1,175 | 1,172 |
| CONSTRUCTION | 4,387 | 4,390 | 4,389 | 4,416 | 4,418 | 4,334 | 4,284 | 4,272 | 4,275 | 4,272 | 4,259 | 4,228 | 4,194 |
| MANUFACTURING | 20,175 | 20,174 | 20,177 | 20,191 | 20,332 | 20,414 | 20,424 | 20,535 | 20,505 | 20,496 | 20,241 | 20,008 | 19,785 |
| Production workers | 14,059 | 14,053 | 14,053 | 14,074 | 14,187 | 14,247 | 14,245 | 14,327 | 14,294 | 14,281 | 14,030 | 13,788 | 13,592 |
| Durable goods | 12,077 | 12,084 | 12,074 | 12,099 | 12,207 | 12,254 | 12,278 | 12,333 | 12,332 | 12,311 | 12,115 | 11,928 | 11,754 |
| Production workers | 8,301 | 8,306 | 8,297 | 8,325 | 8,412 | 8,442 | 8,455 | 8,491 | 8,485 | 8,465 | 8,267 | 8,079 | 7,923 |
| Lumber and wood products | 687 | 689 | 691 | 692 | 702 | 710 | 699 | 702 | 686 | 677 | 652 | 635 | 625 |
| Furniture and fixtures | 464 | 464 | 466 | 467 | 478 | 484 | 486 | 488 | 487 | 485 | 480 | 471 | 466 |
| Stone, clay, and glass products | 655 | 654 | 654 | 651 | 656 | 658 | 658 | 658 | 660 | 655 | 644 | 634 | 627 |
| Primary metal industries | 1,137 | 1,137 | 1,140 | 1,141 | 1,145 | 1,142 | 1,144 | 1,140 | 1,148 | 1,139 | 1,114 | 1,089 | 1,063 |
| Fabricated metal products | 1,581 | 1,579 | 1,577 | 1,581 | 1,595 | 1,604 | 1,604 | 1,614 | 1,610 | 1,606 | 1,575 | 1,546 | 1,520 |
| Machinery, except electrical | 2,490 | 2,487 | 2,481 | 2,480 | 2,491 | 2,511 | 2,521 | 2,533 | 2,542 | 2,551 | 2,549 | 2,523 | 2,490 |
| Electric and electronic equipment | 2,103 | 2,110 | 2,110 | 2,117 | 2,134 | 2,143 | 2,148 | 2,163 | 2,166 | 2,163 | 2,150 | 2,118 | 2,089 |
| Transportation equipment | 1,839 | 1,840 | 1,833 | 1,849 | 1,878 | 1,872 | 1,886 | 1,886 | 1,889 | 1,889 | 1,811 | 1,778 | 1,746 |
| Instruments and related products | 712 | 713 | 711 | 712 | 714 | 716 | 717 | 723 | 727 | 727 | 723 | 719 | 712 |
| Miscellaneous manufacturing | 409 | 411 | 411 | 409 | 414 | 414 | 415 | 426 | 417 | 419 | 417 | 415 | 416 |
| Nondurable goods | 8,098 | 8,090 | 8,103 | 8,092 | 8,125 | 8,160 | 8,146 | 8,202 | 8,173 | 8,185 | 8,126 | 8,080 | 8,031 |
| Production workers | 5,758 | 5,747 | 5,756 | 5,749 | 5,775 | 5,805 | 5,790 | 5,836 | 5,809 | 5,816 | 5,763 | 5,709 | 5,669 |
| Food and kindred products | 1,701 | 1,696 | 1,705 | 1,691 | 1,697 | 1,703 | 1,673 | 1,691 | 1,668 | 1,669 | 1,675 | 1,671 | 1,666 |
| Tobacco manufactures | 71 | 71 | 72 | 72 | 72 | 71 | 71 | 71 | 73 | 71 | 70 | 71 | 69 |
| Textile mill products | 842 | 841 | 839 | 838 | 842 | 843 | 846 | 856 | 849 | 849 | 833 | 823 | 816 |
| Apparel and other textile products | 1,250 | 1,244 | 1,243 | 1,243 | 1,250 | 1,258 | 1,264 | 1,278 | 1,272 | 1,273 | 1,259 | 1,251 | 1,231 |
| Paper and allied products | 692 | 691 | 691 | 689 | 691 | 694 | 695 | 696 | 698 | 703 | 691 | 686 | 683 |
| Printing and publishing | 1,269 | 1,269 | 1,272 | 1,276 | 1,280 | 1,283 | 1,284 | 1,290 | 1,295 | 1,301 | 1,302 | 1,303 | 1,303 |
| Chemicals and allied products | 1,105 | 1,106 | 1,109 | 1,108 | 1,107 | 1,109 | 1,111 | 1,110 | 1,106 | 1,112 | 1,108 | 1,103 | 1,102 |
| Petroleum and coal products | 209 | 211 | 210 | 210 | 211 | 213 | 212 | 212 | 212 | 211 | 210 | 210 | 209 |
| Rubber and miscellaneous plastics products | 729 | 730 | 731 | 734 | 744 | 753 | 757 | 760 | 764 | 760 | 744 | 732 | 722 |
| Leather and leather products | 230 | 231 | 231 | 231 | 231 | 233 | 232 | 238 | 236 | 236 | 234 | 230 | 230 |
| TRANSPORTATION AND PUBLIC UTILITIES | 5,118 | 5,124 | 5,135 | 5,139 | 5,161 | 5,148 | 5,149 | 5,167 | 5,170 | 5,186 | 5,168 | 5,146 | 5,136 |
| WHOLESALE AND RETAIL TRADE | 20,470 | 20,529 | 20,600 | 20,635 | 20,636 | 20,714 | 20,717 | 20,796 | 20,862 | 20,872 | 20,916 | 20,821 | 20,726 |
| WHOLESALE TRADE | 5,300 | 5,305 | 5,313 | 5,316 | 5,333 | 5,346 | 5,349 | 5,360 | 5,375 | 5,370 | 5,360 | 5,357 | 5,342 |
| RETAIL TRADE | 15,170 | 15,224 | 15,287 | 15,319 | 15,303 | 15,368 | 15,368 | 15,436 | 15,487 | 15,502 | 15,556 | 15,464 | 15,384 |
| FINANCE, INSURANCE, AND REAL ESTATE | 5,254 | 5,268 | 5,283 | 5,293 | 5,316 | 5,326 | 5,331 | 5,344 | 5,354 | 5,366 | 5,360 | 5,356 | 5,361 |
| SERVICES | 18,240 | 18,300 | 18,343 | 18,371 | 18,475 | 18,540 | 18,560 | 18,642 | 18,667 | 18,774 | 18,788 | 18,832 | 18,865 |
| GOVERNMENT | 16,236 | 16,223 | 16,240 | 16,204 | 16,170 | 16,131 | 16,040 | 15,992 | 15,917 | 15,905 | 15,938 | 15,933 | 15,967 |
| Federal | 2,800 | 2,799 | 2,795 | 2,781 | 2,767 | 2,779 | 2,781 | 2,777 | 2,770 | 2,765 | 2,759 | 2,755 | 2,764 |
| State and local | 13,436 | 13,424 | 13,445 | 13,423 | 13,403 | 13,352 | 13,259 | 13,215 | 13,147 | 13,140 | 13,179 | 13,178 | 13,203 |

12. Labor turnover rates in manufacturing, 1977 to date [Per 100 employees]

| Year | Annual average | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total accessions |  |  |  |  |  |  |  |  |  |  |  |  |
| 1977 | 4.0 | 3.7 | 3.7 | 4.0 | 3.8 | 4.6 | 4.9 | 4.3 | 5.3 | 4.6 | 3.9 | 3.1 | 2.4 |
| 1978 | 4.1 | 3.8 | 3.2 | 3.8 | 4.0 | 4.7 | 4.9 | 4.4 | 5.4 | 4.9 | 4.3 | 3.3 | 2.4 |
| 1979 | 4.0 | 4.0 | 3.4 | 3.8 | 3.9 | 4.7 | 4.8 | 4.3 | 5.0 | 4.5 | 4.1 | 3.0 | 2.2 |
| 1980 | 3.5 | 3.8 | 3.3 | 3.5 | 3.1 | 3.4 | 3.9 | 3.8 | 4.5 | 4.3 | ${ }^{3.6}$ | 2.7 | 2.2 |
| 1981 ........... | $\ldots$ | 3.4 | 3.0 | 3.4 | 3.3 | 3.5 | 4.0 | 3.6 | 4.0 | 3.5 | 2.8 | ค2.4 | ... |
|  | New hires |  |  |  |  |  |  |  |  |  |  |  |  |
| 1977 | 2.8 | 2.2 | 2.1 | 2.6 | 2.7 | 3.5 | 3.7 | 3.0 | 4.0 | 3.5 | 3.0 | 2.2 | 1.6 |
| 1978 | 3.1 | 2.5 | 2.2 | 2.7 | 2.9 | 3.6 | 3.9 | 3.3 | 4.2 | 3.9 | 3.5 | 2.6 | 1.7 |
| 1979 | 2.9 | 2.8 | 2.5 | 2.8 | 2.9 | 3.6 | 3.8 | 3.1 | 3.7 | 3.4 | 3.1 | 2.2 | 1.5 |
| 19801981 | 2.1 | 2.4 | 2.2 | 2.3 | 2.0 | 2.1 | 2.4 | 2.1 | 2.5 | 2.6 | 2.2 | 1.6 | 1.2 |
|  | ... | 1.8 | 1.8 | 2.0 | 2.0 | 2.3 | 2.8 | 2.4 | 2.7 | 2.3 | 1.8 | ${ }^{\circ} 1.3$ | ... |
|  | Recalls |  |  |  |  |  |  |  |  |  |  |  |  |
| 1977 | 9 | 1.2 | 1.3 | 1.1 | 9 | . 8 | 8 | 9 | 1.0 | 8 | . 6 | 6 | 6 |
| 1978 | 7 | 1.0 | 7 | 8 | 8 | 8 | 7 | 8 | . 9 | 7 | . 6 | 5 | . 5 |
| 1979 | . 7 | ${ }^{1} 9$ | 7 | . 7 | . 7 | ${ }^{8}$ | . 7 | . 9 | . 9 | 8 | . 7 | 6 | ${ }_{8}$ |
| 1981 | 1.1 | $\begin{aligned} & 1.1 \\ & 1.3 \end{aligned}$ | $\begin{array}{r} 9 \\ 1.0 \end{array}$ | $\begin{array}{r} 9 \\ 1.1 \end{array}$ | $\begin{array}{r} 8 \\ 1.1 \end{array}$ | $\begin{aligned} & 1.0 \\ & 1.0 \end{aligned}$ | $\begin{gathered} 1.2 \\ 9 \end{gathered}$ | $\begin{aligned} & 1.5 \\ & 1.0 \end{aligned}$ | $\begin{aligned} & 1.7 \\ & 1.0 \end{aligned}$ | 1.4 9 | 1.1 .8 | P. 9 | 8 |
|  | Total separations |  |  |  |  |  |  |  |  |  |  |  |  |
| 1977 | 3.8 | 3.9 | 3.4 | 3.4 | 3.4 | 3.5 | 3.5 | 4.3 | 5.1 | 4.9 | 3.8 | 3.4 | 3.4 |
| 1978 | 3.9 | 3.6 | 3.1 | 3.5 | 3.6 | 3.7 | 3.8 | 4.1 | 5.3 | 4.9 | 4.1 | 3.5 | 3.4 |
| 1979 | 4.0 | 3.8 | 3.2 | 3.6 | 3.7 | 3.8 | 3.9 | 4.3 | 5.7 | 4.7 | 4.2 | 3.8 | 3.5 |
| 1980 | 4.0 | 4.1 | 3.5 | 3.7 3.2 | 4.7 | 4.8 | 4.4 | 4.2 | 4.8 4.4 | 4.1 4.1 | ${ }^{3.8}$ | -3.0 | 3.1 |
| 1981 | ... | 3.6 | 3.1 |  | 3.1 | 3.1 | 3.2 | 3.6 |  | 4.1 | 4.2 |  | $\ldots$ |
|  | Quits |  |  |  |  |  |  |  |  |  |  |  |  |
| 1977 | 1.8 | 1.4 | 1.3 | 1.6 | 1.7 | 1.9 | 1.9 | 1.9 | 3.1 | 2.8 | 1.9 | 1.5 | 1.2 |
| 1978 | 2.1 | 1.5 | 1.4 | 1.8 | 2.0 | 2.1 | 2.2 | 2.1 | 3.5 | 3.1 | 2.3 | 1.7 | 1.3 |
| 1979 | 2.0 | 1.8 | 1.6 | 1.9 | 2.0 | 2.1 | 2.1 | 2.0 | 3.3 | 2.7 | 2.1 | 1.6 | 1.1 |
| 1980 | 1.5 | 1.6 | 1.5 | 1.6 | 1.5 | 1.5 | 1.4 | 1.4 | 2.2 | 1.9 | 1.4 | 1.1 | 9 |
| 1981 |  | 1.2 | 1.1 | 1.2 | 1.3 | 1.3 | 1.4 | 1.5 | 2.1 | 1.8 | 1.3 | P. 9 | ... |
|  | Layoffs |  |  |  |  |  |  |  |  |  |  |  |  |
| 1977 | 1.1 | 1.7 | 1.4 | 1.0 | 9 | 8 | 8 | 1.5 | 1.0 | 1.1 | 1.1 | 1.1 | 1.5 |
| 1978 | 9 | 1.2 | 9 | 9 | 8 | 7 | 7 | 1.1 | 8 | 8 | . 9 | 1.0 | 1.4 |
| 1979 1980 | 1.1 | 1.1 1.6 | ${ }_{1}^{8} 8$. | 8 1.3 | .9 2.3 | $\begin{array}{r}7 \\ 2.5 \\ \hline 1\end{array}$ | .9 2.2 | 1.4 20 | 1.3 1.7 | 1.1 1.4 | 1.2 1.5 | 1.5 | 1.7 1.6 |
| 1988 1981 | $\ldots$ | 1.6 | ${ }_{1}^{1.2}$ | 1.3 1.2 | 2.3 1.0 | 2.5 1.0 | 2.2 1.1 | 1.0 1.3 | 1.7 1.3 | 1.5 | 1.5 | ${ }^{1} 2.6$ | 1.6 |

13. Labor turnover rates in manufacturing, by major industry group
[Per 100 employees]

| Major industry group | Accession rates |  |  |  |  |  |  |  |  | Separation rates |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  |  | New hires |  |  | Recalls |  |  | Total |  |  | Quits |  |  | Layoffs |  |  |
|  | Nov. <br> 1980 | $\begin{aligned} & \text { Oct. } \\ & 1981 \end{aligned}$ | Nov, $1981{ }^{\text {p }}$ | Nov. <br> 1980 | Oct. <br> 1981 | Nov, <br> $1981^{p}$ | Nov. 1980 | $\begin{aligned} & \text { Oct. } \\ & 1981 \end{aligned}$ | Nov. <br> $1981^{p}$ | Nov. <br> 1980 | $\begin{aligned} & \text { Oct. } \\ & 1981 \end{aligned}$ | $\begin{gathered} \text { Nov. } \\ \text { 1981ㄹ } \end{gathered}$ | Nov. 1980 | $\begin{aligned} & \text { Oct. } \\ & 1981 \end{aligned}$ | Nov. <br> $1981^{\mathrm{p}}$ | Nov. 1980 | $\begin{aligned} & \text { Oct. } \\ & 1981 \end{aligned}$ | Nov. <br> 1981 p |
| MANUFACTURING | 2.7 | 2.8 | 2.4 | 1.6 | 1.8 | 1.3 | 0.9 | 0.8 | 0.9 | 3.0 | 4.2 | 4.1 | 1.1 | 1.3 | 0.9 | 1.4 | 2.2 | 2.6 |
| Seasonally adjusted | 3.6 | 2.9 | 3.1 | 2.1 | 1.7 | 1.6 | 1.2 | . 9 | 1.2 | 3.3 | 4.0 | 4.1 | 1.4 | 1.2 | 1.1 | 1.3 | 2.2 | 2.3 |
| Durable goods | 2.6 | 2.4 | 2.1 | 1.4 | 1.4 | 1.0 | . 9 | . 7 | . 9 | 2.6 | 3.9 | 4.2 | . 8 | 1.0 | . 7 | 1.1 | 2.1 | 2.9 |
| Lumber and wood products | 3.3 | 3.1 | 2.9 | 2.4 | 2.0 | 1.3 | . 8 | 1.0 | 1.4 | 4.4 | 8.0 | 7.7 | 1.7 | 1.7 | 1.3 | 1.9 | 5.4 | 5.6 |
| Furniture and fixtures | 3.1 | 3.1 | 2.4 | 2.2 | 2.4 | 1.5 | . 7 | . 5 | . 7 | 2.9 | 4.7 | 4.4 | 1.4 | 1.8 | 1.1 | 9 | 2.0 | 2.6 |
| Stone, clay, and glass products | 2.4 | 2.5 | 2.0 | 1.4 | 1.4 | 9 | 8 | 9 | 1.0 | 3.6 | 4.5 | 4.7 | . 9 | 1.0 | 7 | 2.0 | 2.6 | 3.4 |
| Primary metal industries ..... | 3.3 | 2.0 | 2.8 | 7 | 7 | 4 | 2.3 | 1.1 | 2.1 | 2.1 | 5.0 | 5.6 | 4 | . 5 | 3 | 1.1 | 3.7 | 4.6 |
| Fabricated metal products | 2.7 | 2.8 | 2.1 | 1.5 | 1.7 | 1.1 | 1.0 | 8 | . 8 | 3.2 | 4.4 | 4.8 | 1.0 | 1.1 | . 7 | 1.7 | 2.6 | 3.4 |
| Machinery, except electrical | 2.1 | 2.1 | 1.6 | 1.2 | 1.4 | 1.0 | . 6 | 5 | . 4 | 1.8 | 2.9 | 2.8 | . 7 | 8 | 6 | . 6 | 1.3 | 1.6 |
| Electric and electronic equipment | 2.4 | 2.3 | 2.0 | 1.4 | 1.4 | 1.2 | . 6 | 4 | . 4 | 2.2 | 3.2 | 3.3 | 8 | 1.0 | . 7 | 8 | 1.4 | 1.9 |
| Transportation equipment | 2.8 | 2.4 |  | 1.1 | 1.0 |  | 1.3 | 1.0 |  | 2.3 | 3.6 |  | 6 | 7 |  | 1.1 | 2.0 |  |
| Instruments and related products | 1.8 | 1.7 | 1.6 | 1.4 | 1.4 | 1.2 | 2 | 1 | 2 | 1.6 | 2.3 | 2.0 | . 8 | 1.1 | 7 | 4 | 7 | 8 |
| Miscellaneous manufacturing ... | 3.3 | 4.3 | 3.0 | 2.3 | 3.0 | 2.1 | 8 | 1.1 | 8 | 5.6 | 5.4 | 5.4 | 1.5 | 1.8 | 1.3 | 3.2 | 2.5 | 3.4 |
| Nondurable goods | 3.0 | 3.4 | 2.7 | 2.0 | 2.4 | 1.6 | . 8 | 9 | 9 | 3.7 | 4.6 | 4.1 | 1.4 | 1.7 | 1.2 | 1.7 | 2.2 | 2.3 |
| Food and kindred products | 4.0 | 5.1 | 3.8 | 2.4 | 3.1 | 2.0 | 1.4 | 1.8 | 1.6 | 6.1 | 7.9 | 5.9 | 1.9 | 2.1 | 1.4 | 3.5 | 4.8 | 3.8 |
| Tobacco manufacturers ... | 3.0 | 2.0 |  | . 9 | . 9 |  | 1.7 | 1.0 |  | 5.0 | 3.4 |  | . 6 | . 5 |  | 3.7 | 2.2 |  |
| Textile mill products | 2.7 | 3.1 | 2.7 | 2.0 | 2.1 | 1.4 | . 4 | 8 | 1.1 | 3.0 | 4.5 | 3.8 | 1.5 | 1.7 | 1.2 | . 8 | 1.9 | 2.0 |
| Apparel and other products. | 4.0 | 5.0 | 3.7 | 2.4 | 3.4 | 2.2 | 1.3 | 1.3 | 1.3 | 5.1 | 5.6 | 5.8 | 2.0 | 2.6 | 1.7 | 2.4 | 2.1 | 3.3 |
| Paper and allied products ... | 2.0 | 1.8 | 1.6 | 1.2 | 1.2 | 8 | . 6 | 4 | . 6 | 2.4 | 3.0 | 2.6 | . 7 | 8 | 5 | 1.2 | 1.5 | 1.7 |
| Printing and publishing | 2.8 | 3.3 | 2.6 | 2.2 | 2.7 | 2.1 | 6 | 4 | 4 | 2.6 | 3.1 | 2.9 | 1.5 | 1.8 | 1.5 | 6 | 7 | 9 |
| Chemicals and allied products | 1.2 | 1.2 | 9 | 8 | 9 | 7 | 3 | 2 | . 2 | 1.2 | 1.7 | 1.5 | . | . 5 | 4 | 4 | 7 | . 7 |
| Petroleum and coal products | 1.6 | 1.6 | 1.0 | 1.3 | 1.4 | 8 | . 1 | 1 | . 1 | 1.9 | 2.7 | 1.6 | . 6 | . 5 | 4 | . 9 | 1.1 | . 8 |
| Rubber and miscellaneous plastics products | 3.2 | 2.8 | 2.3 | 2.0 | 1.9 | 1.3 | . 9 | 6 | . 8 | 3.3 | 4.4 | 4.9 | 1.3 | 1.4 | 9 | 1.2 | 2.1 | 3.1 |
| Leather and leather products | 4.1 | 4.7 | 3.4 | 2.9 | 3.3 | 2.1 | 1.0 | 1.1 | 1.1 | 5.8 | 6.0 | 5.4 | 2.4 | 2.7 | 1.8 | 2.7 | 2.4 | 2.8 |

14. Hours and earnings, by industry division, 1950-80
[Gross averages, production or nonsupervisory workers on nonagricultural payrolls]

| Year | Average weekly earnings | Average weekly hours | Average hourly earnings | Average weekly earnings | Average weekly hours | Average hourly earnings | Average weekly earnings | Average weekly hours | Average hourly earnings | Average weekly earnings | Average weekly hours | Average hourly earnings |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total private |  |  | Mining |  |  | Construction |  |  | Manufacturing |  |  |
| 1950 | \$53.13 | 39.8 | \$1.335 | \$67.16 | 37.9 | \$1.772 | \$69.68 | 37.4 | \$1.863 | \$58.32 | 40.5 | \$1.440 |
| 1951 | 57.86 | 39.9 | 1.45 | 74.11 | 38.4 | 1.93 | 76.96 | 38.1 | 2.02 | 63.34 | 40.6 | 1.56 |
| 1952 | 60.65 | 39.9 | 1.52 | 77.59 | 38.6 | 2.01 | 82.86 | 38.9 | 2.13 | 66.75 | 40.7 | 1.64 |
| 1953 | 63.76 | 39.6 | 1.61 | 83.03 | 38.8 | 2.14 | 86.41 | 37.9 | 2.28 | 70.47 | 40.5 | 1.74 |
| 1954 | 64.52 | 39.1 | 1.65 | 82.60 | 38.6 | 2.14 | 88.91 | 37.2 | 2.39 | 70.49 | 39.6 | 1.78 |
| 1955 | 67.72 | 39.6 | 1.71 | 89.54 | 40.7 | 2.20 | 90.90 | 37.1 | 2.45 | 75.30 | 40.7 | 1.85 |
| 1956 | 70.74 | 39.3 | 1.80 | 95.06 | 40.8 | 2.33 | 96.38 | 37.5 | 2.57 | 78.78 | 40.4 | 1.95 |
| 1957 | 73.33 | 38.8 | 1.89 | 98.25 | 40.1 | 2.45 | 100.27 | 37.0 | 2.71 | 81.19 | 39.8 | 2.04 |
| 1958 | 75.08 | 38.5 | 1.95 | 96.08 | 38.9 | 2.47 | 103.78 | 36.8 | 2.82 | 82.32 | 39.2 | 2.10 |
| $1959{ }^{1}$ | 78.78 | 39.0 | 2.02 | 103.68 | 40.5 | 2.56 | 108.41 | 37.0 | 2.93 | 88.26 | 40.3 | 2.19 |
| 1960 | 80.67 | 38.6 | 2.09 | 105.04 | 40.4 | 2.60 | 112.67 | 36.7 | 3.07 | 89.72 | 39.7 | 2.26 |
| 1961 | 82.60 | 38.6 | 2.14 | 106.92 | 40.5 | 2.64 | 118.08 | 36.9 | 3.20 | 92.34 | 39.8 | 2.32 |
| 1962 | 85.91 | 38.7 | 2.22 | 110.70 | 41.0 | 2.70 | 122.47 | 37.0 | 3.31 | 96.56 | 40.4 | 2.39 |
| 1963 | 88.46 | 38.8 | 2.28 | 114.40 | 41.6 | 2.75 | 127.19 | 37.3 | 3.41 | 99.23 | 40.5 | 2.45 |
| 1964 | 91.33 | 38.7 | 2.36 | 117.74 | 41.9 | 2.81 | 132.06 | 37.2 | 3.55 | 102.97 | 40.7 | 2.53 |
| 1965 | 95.45 | 38.8 | 2.46 | 123.52 | 42.3 | 2.92 | 138.38 | 37.4 | 3.70 | 107.53 | 41.2 | 2.61 |
| 1966 | 98.82 | 38.6 | 2.56 | 130.24 | 42.7 | 3.05 | 146.26 | 37.6 | 3.89 | 112.19 | 41.4 | 2.71 |
| 1967 | 101.84 | 38.0 | 2.68 | 135.89 | 42.6 | 3.19 | 154.95 | 37.7 | 4.11 | 114.49 | 40.6 | 2.82 |
| 1968 | 107.73 | 37.8 | 2.85 | 142.71 | 42.6 | 3.35 | 164.49 | 37.3 | 4.41 | 122.51 | 40.7 | 3.01 |
| 1969 | 114.61 | 37.7 | 3.04 | 154.80 | 43.0 | 3.60 | 181.54 | 37.9 | 4.79 | 129.51 | 40.6 | 3.19 |
| 1970 ... | 119.83 | 37.1 | 3.23 | 164.40 | 42.7 | 3.85 | 195.45 | 37.3 | 5.24 | 133.33 | 39.8 | 3.35 |
| 1971 | 127.31 | 36.9 | 3.45 | 172.14 | 42.4 | 4.06 | 211.67 | 37.2 | 5.69 | 142.44 | 39.9 | 3.57 |
| 1972 | 136.90 | 37.0 | 3.70 | 189.14 | 42.6 | 4.44 | 221.19 | 36.5 | 6.06 | 154.71 | 40.5 | 3.82 |
| 1973 | 145.39 | 36.9 | 3.94 | 201.40 | 42.4 | 4.75 | 235.89 | 36.8 | 6.41 | 166.46 | 40.7 | 4.09 |
| 1974 | 154.76 | 36.5 | 4.24 | 219.14 | 41.9 | 5.23 | 249.25 | 36.6 | 6.81 | 176.80 | 40.0 | 4.42 4.83 |
| 1975 .... | 163.53 | 36.1 | 4.53 | 249.31 | 41.9 | 5.95 | 266.08 | 36.4 | 7.31 | 190.79 | 39.5 | 4.83 |
| 1976 | 175.45 | 36.1 | 4.86 | 273.90 | 42.4 | 6.46 | 283.73 | 36.8 | 7.71 | 209.32 | 40.1 | 5.22 |
| 1977 | 189.00 | 36.0 | 5.25 | 301.20 | 43.4 | 6.94 | 295.65 | 36.5 | 8.10 | 228.90 | 40.3 | 5.68 |
| 1978 | 203.70 | 35.8 | 5.69 | 332.88 | 43.4 | 7.67 | 318.69 | 36.8 | 8.66 | 249.27 | 40.4 | 6.17 |
| 1979 | 219.91 | 35.7 | 6.16 | 365.07 | 43.0 | 8.49 | 342.99 | 37.0 | 9.27 | 269.34 | 40.2 | 6.70 |
| 1980 | 235.10 | 35.3 | 6.66 | 396.14 | 43.2 | 9.17 | 367.04 | 37.0 | 9.92 | 288.62 | 39.7 | 7.27 |
|  | Transportation and public utilities |  |  | Wholesale and retail trade |  |  | Finance, insurance, and real estate |  |  | Services |  |  |
| 1950 | ........ |  | ....... | \$44.55 | 40.5 | \$1.100 | \$50.52 | 37.7 | \$1.340 | $\ldots$ | ........ | .... |
| 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 | 395 | 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 | ........ | $\ldots$ | ....... | 57.48 | 39.1 | 1.47 | 65.68 | 36.9 | 1.78 |  | ... | ....... |
| 1957 | ........ | ...... | ,...... | 59.60 | 38.7 | 1.54 | 67.53 | 36.7 | 1.84 | ..... | ....... | ........ |
| 1958 |  | ....... | ....... | 61.76 | 38.6 | 1.60 | 70.12 | 37.1 | 1.89 | ..... | . ..... | ........ |
| $1959{ }^{1}$ | ........ | ..... |  | 64.41 | 38.8 | 1.66 | 72.74 | 37.3 | 1.95 |  | . ..... | ........ |
| 1960 | ....... |  | ....... | 66.01 | 38.6 | 1.71 | 75.14 | 37.2 | 2.02 | ..... | ...... | ........ |
| 1961 | ........ | $\ldots .$. |  | 67.41 | 38.3 | 1.76 | 77.12 | 36.9 | 2.09 | ..... | ....... | ........ |
| 1962 | ....... | ...... |  | 69.91 | 38.2 | 1.83 | 80.94 | 37.3 | 2.17 |  |  |  |
| 1963 |  |  |  | 72.01 | 38.1 | 1.89 | 84.38 | 37.5 | 2.25 |  |  |  |
| 1964 | \$118.78 | 41.1 | \$2.89 | 74.66 | 37.9 | 1.97 | 85.79 | 37.3 | 2.30 | $\$ 70.03$ 73.60 | 36.1 35.9 | $\$ 1.94$ 2.05 |
| 1965 | 125.14 | 41.3 | 3.03 | 76.91 | 37.7 | 2.04 | 88.91 | 37.2 | 2.39 | 73.60 | 35.9 | 2.05 |
| 1966 | 128.13 | 41.2 | 3.11 | 79.39 | 37.1 | 2.14 | 92.13 | 37.3 | 2.47 | 77.04 | 35.5 | 2.17 |
| 1967 | 130.82 | 40.5 | 3.23 | 82.35 | 36.6 | 2.25 | 95.72 | 37.1 | 2.58 | 80.38 | 35.1 | 2.29 |
| 1968 | 138.85 | 40.6 | 3.42 | 87.00 | 36.1 | 2.41 | 101.75 | 37.0 | 2.75 | 83.97 | 34.7 | 2.42 |
| 1969 | 147.74 | 40.7 | 3.63 | 91.39 | 35.7 | 2.56 | 108.70 | 37.1 | 2.93 | 90.57 | 34.7 | 2.61 |
| 1970 | 155.93 | 40.5 | 3.85 | 96.02 | 35.3 | 2.72 | 112.67 | 36.7 | 3.07 | 96.66 | 34.4 | 2.81 |
| 1971 | 168.82 | 40.1 | 4.21 | 101.09 | 35.1 | 2.88 | 117.85 | 36.6 | 3.22 | 103.06 | 33.9 | 3.04 |
| 1972 | 187.86 | 40.4 | 4.65 | 106.45 | 34.9 | 3.05 | 122.98 | 36.6 | 3.36 | 110.85 | 33.9 | 3.27 |
| 1973 | 203.31 | 40.5 | 5.02 | 111.76 | 34.6 | 3.23 | 129.20 | 36.6 | 3.53 | 117.29 | 33.8 | 3.47 |
| 1974 | 217.48 | 40.2 | 5.41 | 119.02 | 34.2 | 3.48 | 137.61 | 36.5 | 3.77 | 126.00 | 33.6 | 3.75 |
| 1975 | 233.44 | 39.7 | 5.88 | 126.45 | 33.9 | 3.73 | 148.19 | 36.5 | 4.06 | 134.67 | 33.5 | 4.02 |
| 1976 | 256.71 | 39.8 | 6.45 | 133.79 | 33.7 | 3.97 | 155.43 | 36.4 | 4.27 | 143.52 | 33.3 | 4.31 |
| 1977 | 278.90 | 39.9 | 6.99 | 142.52 | 33.3 | 4.28 | 165.26 | 36.4 | 4.54 | 153.45 | 33.0 | 4.65 |
| 1978 | 302.80 | 40.0 | 7.57 | 153.64 | 32.9 | 4.67 | 178.00 | 36.4 | 4.89 | 163.67 | 32.8 | 4.99 |
| 1979 | 325.58 | 39.9 | 8.16 | 164.96 | 32.6 | 5.06 | 190.77 | 36.2 | 5.27 | 175.27 | 32.7 | 5.36 |
| $1980 \ldots$ | 351.25 | 39.6 | 8.87 | 176.46 | 32.2 | 5.48 | 209.24 | 36.2 | 5.78 | 190.71 | 32.6 | 5.85 |

15. Weekly hours, by industry division and major manufacturing group
[Gross averages, production or nonsupervisory workers on private nonagriciultual payrolls]

| Industry division and group | Annual average |  |  | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1979 | 1980 |  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. ${ }^{\text {p }}$ | Dec. ${ }^{\text {p }}$ |
| TOTAL PRIVATE | 35.7 | 35.3 | 35.6 | 35.1 | 35.0 | 35.2 | 35.2 | 35.2 | 35.4 | 35.6 | 35.6 | 35.0 | 35.1 | 35.0 | 35.2 |
| MINING | 43.0 | 43.2 | 44.1 | 43.6 | 42.8 | 42.3 | 43.6 | 43.8 | 42.1 | 43.5 | 44.1 | 43.8 | 44.5 | 43.9 | 44.8 |
| CONSTRUCTION | 37.0 | 37.0 | 37.2 | 36.4 | 35.0 | 37.2 | 36.9 | 36.9 | 37.2 | 37.7 | 37.3 | 35.7 | 37.5 | 36.7 | 36.8 |
| MANUFACTURING ... | $40.2$ | 39.7 | 40.8 | 39.9 | 39.5 | 39.9 | 39.7 | 40.1 | 40.2 | $39.6$ |  |  |  |  |  |
| Overtime hours | $3.3$ | 2.8 | 3.3 | 2.9 | 2.8 | 2.8 | 2.6 | 2.9 | 3.0 | $2.8$ | $3.0$ | $2.9$ | $2.8$ | $2.6$ | $2.6$ |
| Durable goods | 40.8 | 40.1 | 41.5 | 40.4 | 39.9 | 40.5 | 40.3 | 40.6 | 40.6 | 39.9 | 40.2 | 39.8 | 40.1 | 40.0 | 40.5 |
| Overtime hours | 3.5 | 2.8 | 3.4 | 2.9 | 2.8 | 2.9 | 2.7 | 3.0 | 3.0 | 2.8 | 2.9 | 2.8 | 2.7 | 2.5 | 2.6 |
| Lumber and wood products | 39.4 | 38.6 | 39.7 | 38.8 | 38.5 | 39.0 | 39.1 | 39.6 | 39.5 | 38.7 | 39.0 | 37.9 | 38.2 | 37.6 | 38.2 |
| Furniture and fixtures. | 38.7 | 38.1 | 39.6 | 38.1 | 38.3 | 38.8 | 38.2 | 38.5 | 38.9 | 37.8 | 38.6 | 37.7 | 38.6 | 38.2 | 38.9 |
| Stone, clay, and glass products | 41.5 | 40.8 | 41.6 | 40.3 | 39.6 | 40.6 | 40.9 | 41.1 | 41.2 | 40.8 | 41.0 | 40.6 | 40.5 | 40.7 | 40.5 |
| Primary metal industries. | 41.4 | 40.1 | 41.6 | 41.1 | 40.7 | 41.1 | 41.2 | 40.9 | 40.9 | 40.3 | 40.3 | 40.8 | 39.6 | 39.6 | 39.4 |
| Fabricated metal products | 40.7 | 40.4 | 41.6 | 40.4 | 40.0 | 40.6 | 40.2 | 40.7 | 40.8 | 39.9 | 40.3 | 39.6 | 40.1 | 40.0 | 40.5 |
| Machinery except electrical . ... | 41.8 | 41.0 | 42.2 | 41.2 | 40.8 | 41.2 | 40.8 | 41.2 | 41.1 | 40.4 | 40.7 | 40.4 | 40.6 | 40.9 | 41.5 |
| Electric and electronic equipment | 40.3 | 39.8 | 41.0 | 40.1 | 39.6 | 40.2 | 39.8 | 40.1 | 40.2 | 39.7 | 40.0 | 39.7 | 39.9 | 39.8 | 40.3 |
| Transportation equipment | 41.1 | 40.6 | 43.1 | 40.9 | 40.1 | 41.1 | 41.0 | 41.6 | 41.3 | 40.7 | 40.5 | 39.9 | 40.9 | 40.8 | 41.6 |
| Instruments and related products | 40.8 | 40.5 | 41.2 | 40.6 | 40.5 | 40.6 | 39.9 | 40.3 | 40.4 | 39.9. | 40.4 | 40.4 | 40.4 | 40.8 | 41.1 |
| Miscellaneous manufacturing | 38.8 | 38.7 | 39.5 | 38.6 | 38.4 | 38.9 | 38.6 | 38.9 | 39.0 | 38.5 | 39.0 | 38.7 | 39.3 | 39.5 | 39.2 |
| Nondurable goods | $39.3$ | $39.0$ | $39.9$ | $39.2$ | 38.9 | 39.1 | 38.9 | 39.4 | 39.5 | 39.1 | 39.4 | 39.1 | 39.1 | 39.1 | 39.3 |
| Overtime hours | 3.1 | 2.8 | 3.1 | 2.9 | 2.8 | 2.7 | 2.6 | 2.9 | 2.9 | 2.8 | 3.0 | 3.1 | 2.9 | 2.8 | 2.6 |
| Food and kindred products | 39.9 | 39.7 | 40.3 | 40.0 | 39.3 | 39.2 | 39.3 | 39.8 | 39.8 | 39.6 | 40.0 | 39.8 | 39.6 | 39.8 | 40.3 |
| Tobacco manufactures | 38.0 | 38.1 | 38.1 | 38.6 | 38.5 | 37.2 | 37.2 | 38.6 | 38.5 | 38.6 | 40.7 | 40.2 | 39.4 | 38.8 | 38.7 |
| Textile mill products . . . . . . | 40.4 | 40.1 | 40.9 | 39.9 | 39.9 | 40.1 | 39.4 | 40.3 | 40.4 | 39.7 | 40.0 | 38.9 | 39.4 | 39.3 | 39.1 |
| Apparel and other textile products | 35.3 | 35.4 | 35.9 | 35.2 | 35.3 | 35.8 | 35.2 | 36.0 | 36.4 | 36.0 | 36.3 | 35.2 | 35.8 | 35.8 | 35.5 |
| Paper and allied products. | 42.6 | 42.3 | 43.7 | 42.7 | 42.2 | 42.4 | 42.3 | 42.5 | 42.7 | 42.4 | 42.5 | 43.2 | 42.4 | 42.3 | 42.5 |
| Printing and publishing ..... Chemicals and allied products | 37.5 41.9 | 37.1 41.5 | 38.1 42.1 | 37.1 | 36.9 41.5 | 37.1 | 37.0 | 37.3 | 37.2 | 37.2 | 37.5 | 37.4 | 37.2 | 37.3 | 37.9 |
| Chemicals and alied products Petroleum and coal products | 41.9 43.8 | 41.5 41.8 | 42.1 43.3 | 41.6 42.6 | 41.5 42.5 | 41.6 42.6 | 41.6 43.9 | 41.6 | 41.6 | 41.5 | 41.4 | 42.2 | 41.5 | 41.7 | 42.1 |
| Rubber and miscellaneous plastics products | 40.5 | 40.1 | 41.6 | 41.0 | 40.2 | 40.7 | 40.4 | 40.9 | 40.9 | 40.0 | 40.4 | 44.4 39.8 | 43.1 40.2 | 43.0 40.0 | 43.6 |
| Leather and leather products . ....... | 36.5 | 36.7 | 36.9 | 36.5 | 36.7 | 36.8 | 36.3 | 37.4 | 38.1 | 36.6 | 36.9 | 39.8 36.0 | 36.7 | 36.7 |  |
| TRANSPORTATION AND PUBLIC UTILITIES | 39.9 | 39.6 | 40.0 | 39.4 | 39.5 | 39.4 | 39.3 | 39.3 | 39.8 | 39.8 | 39.5 | 39.2 | 39.1 | 39.3 | 39.4 |
| WHOLESALE AND RETAIL TRADE | 32.6 | 32.2 | 32.5 | 31.7 | 31.7 | 31.9 | 32.1 | 32.0 | 32.3 | 32.8 | 32.8 | 32.2 | 31.9 | 31.9 | 32.2 |
| WHOLESALE TRADE | 38.8 | 38.5 | 38.9 | 38.5 | 38.3 | 38.5 | 38.5 | 38.5 | 38.6 | 38.8 | 38.7 | 38.5 | 38.7 | 38.6 | 38.7 |
| RETAIL TRADE | 30.6 | 30.2 | 30.5 | 29.5 | 29.6 | 29.8 | 30.0 | 29.9 | 30.4 | 30.9 | 30.9 | 30.2 | 29.8 | 29.8 | 30.2 |
| FINANCE, INSURANCE, AND REAL ESTATE | 36.2 | 36.2 | 36.3 | 36.4 | 36.4 | 36.4 | 36.3 | 36.1 | 36.1 | 36.3 | 36.3 | 36.0 | 36.2 | 36.2 | 36.2 |
| SERVICES | 32.7 | 32.6 | 32.6 | 32.5 | 32.6 | 32.6 | 32.6 | 32.5 | 32.7 | 33.0 | 32.9 | 32.4 | 32.5 | 32.5 | 32.5 |

16. Weekly hours, by industry division and major manufacturing group, seasonally adjusted
[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

| Industry division and group | 1980 | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. ${ }^{\text {P }}$ | Dec. ${ }^{\text {P }}$ |
| TOTAL PRIVATE | 35.3 | 35.3 | 35.2 | 35.3 | 35.4 | 35.3 | 35.2 | 35.3 | 35.2 | 34.9 | 35.0 | 35.0 | 34.9 |
| MANUFACTURING | 39.9 | 40.1 | 39.8 | 39.9 | 40.2 | 40.3 | 40.1 | 40.0 | 40.0 | 39.3 | 39.5 | 39.3 | 39.1 |
| Overtime hours | 3.0 | 3.0 | 2.8 | 2.8 | 2.9 | 3.2 | 3.0 | 3.0 | 3.0 | 2.7 | 2.7 | 2.5 | 2.4 |
| Durable goods | 40.4 | 40.6 | 40.1 |  | 40.8 | 40.8 | 40.5 | 40.5 | 40.5 | 39.7 | 39.9 | 39.7 | 39.4 |
| Overtime hours | 3.1 | 3.0 | 2.8 | 2.8 | 3.0 | 3.2 | 3.0 | 3.0 | 3.0 | 2.6 | 2.6 | 2.4 | 2.4 |
| Lumber and wood products | 39.3 | 39.8 | 39.1 | 39.1 | 39.6 | 39.8 | 39.0 | 38.8 | 38.6 | 37.3 | 37.6 | 37.5 | 37.7 |
| Furniture and fixtures ..... | 38.4 | 38.5 | 38.6 | 38.6 | 38.8 | 39.0 | 38.9 | 38.5 | 38.6 | 37.5 | 38.1 | 37.8 | $37.7$ |
| Stone, clay, and glass products | 41.0 | 41.3 | 40.6 | 40.7 | 41.2 | 41.0 | 40.8 | 40.9 | 40.8 | 40.3 | 40.0 | 40.2 | 39.9 |
| Primary metal industries ..... | 41.2 | 41.1 | 40.7 | 41.0 | 41.2 | 41.0 | 40.8 | 40.5 | 40.7 | 40.6 | 39.8 | 39.6 | 39.0 |
| Fabricated metal products | 40.4 | 40.5 | 40.2 | 40.4 | 40.9 | 40.9 | 40.7 | 40.5 | 40.5 | 39.5 | 40.0 | 39.6 | 39.3 |
| Machinery, except electrical | 40.9 | 41.1 | 40.8 | 40.9 | 41.3 | 41.4 | 41.1 | 41.1 | 41.2 | 40.3 | 40.7 | 40.6 | 40.3 |
| Electric and electronic equipment | 40.0 | 40.1 | 39.6 | 40.0 | 40.2 | 40.4 | 40.2 | 40.5 | 40.4 | 39.6 | 39.9 | 39.3 | 39.2 |
| Transportation equipment | 41.0 | 41.3 | 40.5 | 40.9 | 42.0 | 41.8 | 41.4 | 41.2 | 41.3 | 39.9 | 40.5 | 40.3 | 39.5 |
| Instruments and related products | 40.4 | 40.6 | 40.5 | 40.5 | 40.1 | 40.4 | 40.4 | 40.5 | 40.8 | 40.5 | 40.4 | 40.3 | 40.3 |
| Miscellaneous manufacturing . . | 38.9 | 38.8 | 38.6 | 38.7 | 38.9 | 39.2 | 39.1 | 39.2 | 39.1 | 38.4 | 39.0 | 39.0 | 38.5 |
| Nondurable goods | 39.2 | 39.5 | 39.2 | 39.2 | 39.3 | 39.6 | 39.4 | 39.3 | 39.3 | 38.9 | 39.0 | 38.8 | 38.7 |
| Overtime hours | 2.9 | 3.0 | 2.9 | 2.8 | 2.9 | 3.1 | 3.0 | 2.9 | 2.9 | 2.8 | 2.8 | 2.7 | 2.4 |
| Food and kindred products | 39.7 | 40.3 | 39.9 | 39.7 | 40.1 | 40.0 | 39.8 | 39.4 | 39.4 | 39.2 | 39.5 | 39.5 | 39.7 |
| Textile mill products . ... | 40.1 | 40.0 | 40.0 | 39.9 | 39.8 | 40.5 | 40.2 | 40.4 | 40.3 | 38.9 | 39.3 | 38.9 | 38.3 |
| Apparel and other textile products | 35.5 | 36.1 | 35.6 | 35.7 | 35.5 | 36.0 | 36.1 | 35.9 | 36.1 | 35.2 | 35.7 | 35.6 | 35.1 |
| Paper and allied products . . . . . | 42.8 | 42.6 | 42.4 | 42.4 | 42.6 | 42.8 | 42.7 | 42.7 | 42.7 | 43.1 | 42.4 | 41.9 | 41.6 |
| Printing and publishing | 37.4 | 37.5 | 37.3 | 37.1 | 37.3 | 37.6 | 37.4 | 37.3 | 37.3 | 37.1 | 37.1 | 36.9 | $37.2$ |
| Chemicals and allied products | 41.6 | 41.6 | 41.6 | 41.5 | 41.5 | 41.7 | 41.7 | 41.8 | 41.7 | 42.3 | 41.5 | 41.3 | 41.6 |
| Petroleum and coal products | 43.2 | 43.8 | 43.8 | 43.5 | 44.1 | 43.8 | 43.4 | 43.1 | 42.8 | 43.3 | 42.1 | 42.3 | 43.6 |
| Rubber and miscellaneous plastics products | 40.8 | 40.9 | 40.3 | 40.5 | 40.7 | 41.3 | 41.0 | 40.5 | 40.6 | 39.6 | 40.0 | 39.7 | 39.4 |
| Leather and leather products . . . . . . . . . . | 36.6 | 36.8 | 37.0 | 37.1 | 36.6 | 37.1 | 37.1 | 36.5 | 36.9 | 36.1 | 36.8 | 36.8 | 36.5 |
| WHOLESALE AND RETAIL TRADE | 32.1 | 32.2 | 32.2 | 32.2 | 32.3 | 32.1 | 32.1 | 32.2 | 32.1 | 32.1 | 31.9 | 32.0 | 31.9 |
| WHOLESALE TRADE | 38.6 | 38.8 | 38.6 | 38.6 | 38.6 | 38.5 | 38.5 | 38.7 | 38.6 | 38.5 | 38.5 | 38.6 | 38.4 |
| RETAIL TRADE | 30.0 | 30.1 | 30.2 | 30.2 | 30.3 | 30.1 | 30.1 | 30.1 | 30.1 | 30.1 | 29.9 | 29.9 | 29.8 |
| SERVICES | 32.7 | 32.7 | 32.8 | 32.8 | 32.8 | 32.7 | 32.5 | 32.5 | 32.4 | 32.4 | 32.5 | 32.6 | 32.6 |

[^15]small relative to the trend-cycle, or irregular components, or both, and consequently cannot be precisely
17. Hourly earnings, by industry division and major manufacturing group
[Gross averages, production or nonsupervisory workers on private nonagriciultural payrolls]

| Industry division and group | Annual average |  | $\begin{gathered} 1980 \\ \hline \text { Dec. } \end{gathered}$ | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1979 | 1980 |  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. ${ }^{\text {P }}$ | Dec. ${ }^{\text {P }}$ |
| TOTAL PRIVATE ..................... | \$6.16 | \$6.66 | \$6.94 | \$7.03 | \$7.06 | \$7.10 | \$7.13 | \$7.17 | \$7.20 | \$7.24 | \$7.30 | \$7.40 | \$7.42 | \$7.46 | \$7.45 |
| MINING | 8.49 | 9.17 | 9.57 | 9.77 | 9.86 | 9.85 | 9.70 | 9.68 | 9.94 | 10.11 | 10.15 | 10.29 | 10.28 | 10.44 | 10.42 |
| CONSTRUCTION | 9.27 | 9.92 | 10.33 | 10.42 | 10.41 | 10.44 | 10.43 | 10.53 | 10.60 | 10.74 | 10.87 | 11.02 | 11.10 | 11.11 | 11,16 |
| MANUFACTURING | 6.70 | 7.27 | 7.70 | 7.73 | 7.75 | 7.80 | 7.88 | 7.92 | 7.97 | 8.02 | 8.02 | 8.15 | 8.15 | 8.19 | 8.26 |
| Durable goods | 7.13 | 7.75 | 8.23 | 8.23 | 8.26 | 8.32 | 8.40 | 8.45 | 8.52 | 8.55 | 8.57 | 8.68 | 8.71 | 8.75 | 8.83 |
| Lumber and wood products | 6.07 | 6.53 | 6.74 | 6.79 | 6.81 | 6.79 | 6.83 | 6.92 | 7.10 | 7.16 | 7.13 | 7.15 | 7.09 | 7.11 | 7.12 |
| Furniture and fixtures | 5.06 | 5.49 | 5.70 | 5.71 | 5.74 | 5.76 | 5.78 | 5.83 | 5.89 | 5.91 | 5.98 | 6.00 | 6.05 | 6.05 | 6.13 |
| Stone, clay, and glass products | 6.85 | 7.50 | 7.83 | 7.87 | 7.89 | 7.94 | 8.11 | 8.20 | 8.31 | 8.39 | 8.41 | 8.53 | 8.50 | 8.53 | 8.57 |
| Primary metal industries | 8.98 | 9.77 | 10.36 | 10.36 | 10.56 | 10.52 | 10.76 | 10.68 | 10.76 | 10.79 | 10.99 | 11.22 | 10.97 | 11.10 | 11.11 |
| Fabricated metal products | 6.85 | 7.45 | 7.88 | 7.89 | 7.91 | 8.01 | 8.05 | 8.17 | 8.23 | 8.22 | 8.27 | 8.34 | 8.39 | 8.42 | 8.53 |
| Machinery, except electrical . | 7.32 | 8.00 | 8.50 | 8.53 | 8.56 | 8.62 | 8.67 | 8.75 | 8.81 | 8.85 | 8.86 | 8.98 | 9.05 | 9.10 | 9.20 |
| Electric and electronic equipment | 6.32 | 6.95 | 7.38 | 7.41 | 7.43 | 7.47 | 7.51 | 7.55 | 7.60 | 7.69 | 7.76 | 7.79 | 7.84 | 7.86 | 7.98 |
| Transportation equipment. | 8.53 | 9.32 | 10.09 | 9.96 | 9.93 | 10.08 | 10.14 | 10.25 | 10.36 | 10.35 | 10.30 | 10.41 | 10.65 | 10.66 | 10.71 |
| Instruments and related products | 6.17 | 6.80 | 7.13 | 7.19 | 7.20 | 7.23 | 7.25 | 7.31 | 7.34 | 7.44 | 7.56 | 7.60 | 7.61 | 7.70 | 7.81 |
| Miscellaneous manufacturing | 5.03 | 5.47 | 5.73 | 5.82 | 5.83 | 5.85 | 5.91 | 5.93 | 5.93 | 5.98 | 5.97 | 6.07 | 6.06 | 6.12 | 6.22 |
| Nondurable goods ....... | 6.01 | 6.56 | 6.89 |  | 6.98 |  |  |  |  |  |  | 7.37 | 7.34 | 7.39 | 7.44 |
| Food and kindred products | 6.27 | 6.86 | 7.13 | 7.21 | 7.24 | 7.29 | 7.37 | 7.43 | 7.43 | 7.47 | 7.50 | 7.58 | 7.53 | 7.64 | 7.74 |
| Tobacco manufactures | 6.67 | 7.73 | 8.10 | 8.50 | 8.56 | 8.61 | 8.90 | 9.03 | 9.33 | 9.43 | 8.61 | 8.66 | 8.58 | 8.91 | 8.82 |
| Textie mill products ......... | 4.66 | 5.08 | 5.34 | 5.35 | 5.35 | 5.36 | 5.36 | 5.40 | 5.42 | 5.51 | 5.66 | 5.69 | 5.72 | 5.74 | 5.73 |
| Apparel and other textile products | 4.23 | 4.57 | 4.81 | 4.89 | 4.87 | 4.94 | 4.96 | 4.98 | 5.00 | 4.94 | 4.98 | 5.06 | 5.07 | 5.06 | 5.04 |
| Paper and allied products...... | 7.13 | 7.84 | 8.27 | 8.27 | 8.28 | 8.30 | 8.37 | 8.42 | 8.55 | 8.73 | 8.67 | 8.95 | 8.82 | 8.90 | 8.93 |
| Printing and publishing | 6.94 | 7.53 | 7.88 | 7.92 | 7.96 | 8.02 | 8.04 | 8.10 | 8.13 | 8.22 | 8.27 | 8.40 | 8.42 | 8.43 | 8.44 |
| Chemicals and allied products | 7.60 | 8.30 | 8.69 | 8.74 | 8.80 | 8.84 | 8.94 | 8.99 | 9.07 | 9.16 | 9.19 | 9.38 | 9.37 | 9.43 | 9.47 |
| Petroleum and coal products | 9.36 | 10.09 | 10.38 | 11.06 | 11.33 | 11.23 | 11.40 | 11.28 | 11.29 | 11.41 | 11.31 | 11.53 | 11.46 | 11.54 | 11.50 |
| Rubber and miscellaneous plastics products | 5.97 | 6.56 | 6.97 | 7.06 | 7.04 | 7.07 | 7.15 | 7.22 | 7.23 | 7.28 | 7.32 | 7.38 | 7.39 | 7.40 | 7.47 |
| Leather and leather products .......... | 4.22 | 4.58 | 4.74 | 4.86 | 4.88 | 4.90 | 4.93 | 4.95 | 4.98 | 4.96 | 4.97 | 5.08 | 5.09 | 5.10 | 5.13 |
| TRANSPORTATION AND PUBLIC UTLLITIES | 8.16 | 8.87 | 9.30 | 9.33 | 9.45 | 9.42 | 9.54 | 9.59 | 9.63 | 9.69 | 9.89 | 9.97 | 9.96 | 10.06 | 10.08 |
| Wholesale and retail trade | 5.06 | 5.48 | 5.62 | 5.80 | 5.84 | 5.85 | 5.87 | 5.89 | 5.89 | 5.91 | 5.94 | 6.04 | 6.00 | 6.03 | 6.00 |
| Wholesale trade | 6.39 | 6.96 | 7.23 | 7.32 | 7.38 | 7.42 | 7.47 | 7.51 | 7.51 | 7.59 | 7.67 | 7.71 | 7.74 | 7.80 | 7.83 |
| RETAIL TRADE | 4.53 | 4.88 | 4.99 | 5.18 | 5.20 | 5.20 | 5.22 | 5.23 | 5.23 | 5.24 | 5.26 | 5.37 | 5.29 | 5.32 | 5.29 |
| FINANCE, INSURANCE, AND REAL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ESTATE | 5.27 | 5.78 | 6.00 | 6.10 | 6.21 | 6.19 | 6.20 | 6.24 | 6.24 | 6.27 | 6.37 | 6.38 | 6.42 | 6.52 | 6.48 |
| SERVICES | 5.36 | 5.85 | 6.12 | 6.21 | 6.27 | 6.29 | 6.30 | 6.33 | 6.33 | 6.34 | 6.41 | 6.51 | 6.57 | 6.66 | 6.66 |

18. Hourly Earnings Index for production or nonsupervisory workers on private nonagricultural payrolls, by industry division [Seasonally adjusted data: $1977=100$ ]

| Industry | 1980 | 1981 |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { Nov. } 1981 \\ & \text { to } \\ & \text { Dec. } 1981 \end{aligned}$ | $\begin{aligned} & \text { Dec. } 1980 \\ & \text { to } \\ & \text { Dec. } 1981 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | ${ }^{\text {suly }}$ | Aug. | Sept. | Oct. | Nov. ${ }^{\text {P }}$ | Dec. ${ }^{\text {P }}$ |  |  |
| TOTAL PRIVATE (in current dollars) . . | 132.6 | 133.8 | 135.0 | 135.8 | 136.7 | 137.7 | 138.4 | 139.0 | 140.7 | 141.5 | 141.9 | 143.2 | 143.3 | 0.1 | 8.1 |
| Mining ${ }^{1}$ | 139.8 | 142.1 | 143.2 | 144.0 | 145.7 | 145.6 | 147.2 | 148.9 | 149.4 | 151.5 | 151.3 | 153.6 | 153.1 | -. 3 | 9.5 |
| Construction | 126.2 | 127.6 | 128.0 | 128.6 | 129.0 | 129.4 | 130.4 | 131.8 | 132.5 | 132.9 | 134.3 | 135.3 | 135.8 | . 4 | 7.5 |
| Manufacturing | 135.4 | 136.5 | 137.5 | 138.5 | 139.9 | 140.7 | 141.6 | 142.5 | 143.6 | 144.8 | 145.5 | 146.4 | 146.9 | 4 | 8.5 |
| Transportation and public utilities ... | 132.8 | 133.7 | 135.4 | 136.1 | 137.3 | 138.9 | 139.8 | 139.3 | 141.8 | 141.7 | 142.0 | 143.9 | 144.2 | 2 | 8.6 |
| Wholesale and retail trade ...... | 132.4 | 133.7 | 135.0 | 135.8 | 136.4 | 137.4 | 137.8 | 138.4 | 140.0 | 141.2 | 140.5 | 141.5 | 141.4 | (2) | 6.9 |
| Finance, insurance, and real estate | 131.9 | 133.2 | 135.0 | 136.0 | 135.4 | 136.8 | 137.1 | 137.4 | 140.4 | 140.3 | 140.9 | 143.3 | 142.3 | -. 7 | 7.9 |
| Services | 131.1 | 132.0 | 133.2 | 134.0 | 134.8 | 136.4 | 136.6 | 136.9 | 139.4 | 139.8 | 140.7 | 142.5 | 142.5 | $\left.{ }^{2}\right)$ | 8.7 |
| TOTAL PRIVATE (in constant dollars) | 92.7 | 92.8 | 92.7 | 92.8 | 93.0 | 93.1 | 92.9 | 92.2 | 92.7 | 92.1 | 92.0 | 92.4 |  |  |  |

[^16]19. Weekly earnings, by industry division and major manufacturing group
[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

| Industry division and group | Annual average |  | $1980$ <br> Dec. | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1979 | 1980 |  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. ${ }^{\text {P }}$ | Dec. ${ }^{\text {P }}$ |
| TOTAL PRIVATE | \$219.91 | \$235.10 | \$247.06 | \$246.75 | \$247.10 | \$249.92 | \$250.98 | \$252.38 | \$254.88 | \$257.74 | \$259.88 | \$259.00 | \$260.44 | \$261.10 | \$262.24 |
| MINING | 365.07 | 396.14 | 422.04 | 425.97 | 422.01 | 416.66 | 422.92 | 423.98 | 418.47 | 439.79 | 447.62 | 450.70 | 457.46 | 458.32 | 466.82 |
| CONSTRUCTION | 342.99 | 367.04 | 384.28 | 379.29 | 364.35 | 388.37 | 384.87 | 388.56 | 394.32 | 404.90 | 405.45 | 393.41 | 416.25 | 407.74 | 410.69 |
| MANUFACTURING | 269.34 | 288.62 | 314.16 | 308.43 | 306.13 | 311.22 | 312.84 | 317.59 | 320.39 | 317.59 | 319.20 | 321.93 | 323.56 | 324.32 | 330.40 |
| Durable goods | 290.90 | 310.78 | 341.55 | 332.49 | 329.57 | 336.96 | 338.52 | 343.07 | 345.91 | 341.15 | 344.51 | 345.46 | 349.27 | 350.00 | 357.62 |
| Lumber and wood products | 239.16 | 252.06 | 267.58 | 263.45 | 262.19 | 264.81 | 267.05 | 274.03 | 280.45 | 277.09 | 278.07 | 270.99 | 270.84 | 267.34 | 271.98 |
| Furniture and fixtures | 195.82 | 209.17 | 225.72 | 217.55 | 219.84 | 223.49 | 220.80 | 224.46 | 229.12 | 223.40 | 230.83 | 226.20 | 233.53 | 231.11 | 238.46 |
| Stone, clay, and glass products | 284.28 | 306.00 | 325.73 | 317.16 | 312.44 | 322.36 | 331.70 | 337.02 | 342.37 | 342.31 | 344.81 | 346.32 | 344.25 | 347.17 | 347.09 |
| Primary metal industries | 371.77 | 391.78 | 430.98 | 425.80 | 429.79 | 432.37 | 443.31 | 436.81 | 440.08 | 434.84 | 442.90 | 457.78 | 434.41 | 439.56 | 437.73 |
| Fabricated metal products | 278.80 | 300.98 | 327.81 | 318.76 | 316.40 | 325.21 | 323.61 | 332.52 | 335.78 | 327.98 | 333.28 | 330.26 | 336.44 | 336.80 | 345.47 |
| Machinery except electrical | 305.98 | 328.00 | 358.70 | 351.44 | 349.25 | 355.14 | 353.74 | 360.50 | 362.09 | 357.54 | 360.60 | 362.79 | 367.43 | 372.19 | 381.80 |
| Electric and electronic equipment | 254.70 | 276.61 | 302.58 | 297.14 | 294.23 | 300.29 | 298.90 | 302.76 | 305.52 | 305.29 | 310.40 | 309.26 | 312.82 | 312.83 | 321.59 |
| Transportation equipment | 350.58 | 378.39 | 434.88 | 407.36 | 398.19 | 414.29 | 415.74 | 426.40 | 427.87 | 421.25 | 417.15 | 415.36 | 435.59 | 434.93 | 445.54 |
| Instruments and related products | 251.74 | 275.40 | 293.76 | 291.91 | 291.60 | 293.54 | 289.28 | 294.59 | 296.54 | 296.86 | 305.42 | 307.04 | 307.44 | 314.16 | 320.99 |
| Miscellaneous manufacturing | 195.16 | 211.69 | 226.34 | 224.65 | 223.87 | 227.57 | 228.13 | 230.68 | 231.27 | 230.23 | 232.83 | 234.91 | 238.16 | 241.74 | 243.82 |
| Nondurable goods | 236.19 | 255.84 | 274.91 | 273.22 | 271.52 | 274.09 | 275.41 | 280.13 | 282.03 | 282.69 | 285.26 | 288.17 | 286.99 | 288.95 | 292.39 |
| Food and kindred products | 250.17 | 272.34 | 287.34 | 288.40 | 284.53 | 285.77 | 289.64 | 295.71 | 295.71 | 295.81 | 300.00 | 301.68 | 298.19 | 304.07 | 311.92 |
| Tobacco manufactures | 253.46 | 294.51 | 308.61 | 328.10 | 329.56 | 320.29 | 331.08 | 348.56 | 359.21 | 364.00 | 350.43 | 348.13 | 338.05 | 345.71 | 341.33 |
| Textile mill products | 188.26 | 203.71 | 218.41 | 213.47 | 213.47 | 214.94 | 211.18 | 217.62 | 218.97 | 218.75 | 226.40 | 221.34 | 225.37 | 225.58 | 224.04 |
| Apparel and other textile products | 149.32 | 161.78 | 172.68 | 172.13 | 171.91 | 176.85 | 174.59 | 179.28 | 182.00 | 177.84 | 180.77 | 178.11 | 181.51 | 181.15 | 178.92 |
| Paper and allied products . ..... | 303.74 | 331.63 | 361.40 | 353.13 | 349.42 | 351.92 | 354.05 | 357.85 | 365.09 | 370.15 | 368.48 | 386.64 | 373.97 | 376.47 | 379.53 |
| Printing and publishing | 260.25 | 279.36 | 300.23 | 293.83 | 293.72 | 297.54 | 297.48 | 302.13 | 302.44 | 305.78 | 310.13 | 314.16 | 313.22 | 314.44 | 319.88 |
| Chemicals and allied products | 318.44 | 344.45 | 365.85 | 363.58 | 365.20 | 367.74 | 371.90 | 373.98 | 377.31 | 380.14 | 380.47 | 395.84 | 388.86 | 393.23 | 398.69 |
| Petroleum and coal products | 409.97 | 421.76 | 449.45 | 471.16 | 481.53 | 478.40 | 500.46 | 491.81 | 491.12 | 498.62 | 486.33 | 511.93 | 493.93 | 496.22 | 501.40 |
| Rubber and miscellaneous plastics products | 241.79 | 263.06 | 289.95 | 289.46 | 283.01 | 287.75 | 288.86 | 295.30 | 295.71 | 291.20 | 295.73 | 293.72 | 297.08 | 296.00 | 299.55 |
| Leather and leather products | 154.03 | 168.09 | 174.91 | 177.39 | 179.10 | 180.32 | 178.96 | 185.13 | 189.74 | 181.54 | 183.39 | 182.88 | 186.80 | 187.17 | 188.78 |
| TRANSPORTATION AND PUBLIC UTILITIES | 325.58 | 351.25 | 372.00 | 367.60 | 373.28 | 371.15 | 374.92 | 376.89 | 383.27 | 385.66 | 390.66 | 390.82 | 389.44 | 395.36 | 397.15 |
| WHOLESALE AND RETAIL TRADE | 164.96 | 176.46 | 182.65 | 183.86 | 185.13 | 186.62 | 188.43 | 188.48 | 190.25 | 193.85 | 194.83 | 194.49 | 191.40 | 192.36 | 193.20 |
| WHOLESALE TRADE | 247.93 | 267.96 | 281.25 | 281.82 | 282.65 | 285.67 | 287.60 | 289.14 | 289.89 | 294.49 | 296.83 | 296.84 | 299.54 | 301.08 | 303.02 |
| RETAIL. TRADE | 138.62 | 147.38 | 152.20 | 152.81 | 153.92 | 154.96 | 156.60 | 156.38 | 158.99 | 161.92 | 162.53 | 162.17 | 157.64 | 158.54 | 159.76 |
| FINANCE, INSURANCE, AND REAL ESTATE | 190.77 | 209.24 | 217.80 | 222.04 | 226.04 | 225.32 | 225.06 | 225.26 | 225.26 | 227.60 | 231.23 | 229.68 | 232.40 | 236.02 | 234.58 |
| SERVICES | 175.27 | 190.71 | 199.51 | 201.83 | 204.40 | 205.05 | 205.38 | 206.73 | 206.99 | 209.22 | 210.89 | 210.92 | 213.53 | 216.45 | 216.45 |

20. Gross and spendable weekly earnings, in current and 1977 dollars, 1961 to date
[Averages for production or nonsupervisory workers on private nonagricultural payrolls]

| Year and month | Private nonagricultural workers |  |  |  |  |  | Manufacturing workers |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gross average weekly earnings |  | Spendable average weekly earnings |  |  |  | Gross average weekly earnings |  | Spendable average weekly earnings |  |  |  |
|  |  |  | Worker with no dependents |  | Married worker with 3 dependents |  |  |  | Worker with no dependents |  | Married worker with 3 dependents |  |
|  | Current dollars | $1977$ dollars | Current dollars | $\begin{gathered} 1977 \\ \text { dollars } \end{gathered}$ | Current dollars | $\begin{gathered} 1977 \\ \text { doliars } \end{gathered}$ | Current doliars | $1977$ dollars | Current dollars | $\begin{gathered} 1977 \\ \text { dollars } \end{gathered}$ | Current dollars | 1977 <br> dollars |
| 1961 | \$82.60 | \$167.21 | \$67.08 | \$135.79 | \$74.48 | \$150.77 | \$92.34 | \$186.92 | \$74.60 | \$151.01 | \$82.18 | \$166.36 |
| 1962 | 85.91 | 172.16 | 69.56 | 139.40 | 76.99 | 154.29 | 96.56 | 193.51 | 77.86 | 156.03 | 85.53 | 171.40 |
| 1963 | 88.46 | 175.17 | 71.05 | 140.69 | 78.56 | 155.56 | 99.23 | 196.50 | 79.51 | 157.45 | 87.25 | 172.77 |
| 1964 | 91.33 | 178.38 | 75.04 | 146.56 | 82.57 | 161.27 | 102.97 | 201.11 | 84.40 | 164.84 | 92.18 | 180.04 |
| 1965 | 95.45 | 183.21 | 79.32 | 152.25 | 86.63 | 166.28 | 107.53 | 206.39 | 89.08 | 170.98 | 96.78 | 185.76 |
| 1966 | 98.82 | 184.37 | 81.29 | 151.66 | 88.66 | 165.41 | 112.19 | 209.31 | 91.45 | 170.62 | 99.33 | 185.32 |
| 1967 | 101.84 | 184.83 | 83.38 | 151.32 | 90.86 | 164.90 | 114.49 | 207.79 | 92.97 | 168.73 | 100.93 | 183.18 |
| 1968 | 107.73 | 187.68 | 86.71 | 151.06 | 95.28 | 165.99 | 122.51 | 312.43 | 97.70 | 170.21 | 106.75 | 185.98 |
| 1969 | 114.61 | 189.44 | 90.96 | 150.35 | 99.99 | 165.27 | 129.51 | 214.07 | 101.90 | 168.43 | 111.44 | 184.20 |
| 1970 | 119.83 | 186.94 | 96.21 | 150.09 | 104.90 | 163.65 | 133.33 | 208.00 | 106.32 | 165.87 | 115.58 | 180.31 |
| 1971 | 127.31 | 190.58 | 103.80 | 155.39 | 112.43 | 168.31 | 142.44 | 213.23 | 114.97 | 172.11 | 124.24 | 185.99 |
| 1972 | 136.90 | 198.41 | 112.19 | 162.59 | 121.68 | 176.35 | 154.71 | 224.22 | 125.34 | 181.65 | 135.57 | 196.48 |
| 1973 | 145.39 | 198.35 | 117.51 | 160.31 | 127.38 | 173.78 | 166.46 | 227.09 | 132.57 | 180.86 | 143.50 | 195.77 |
| 1974 | 154.76 | 190.12 | 124.37 | 152.79 | 134.61 | 165.37 | 176.80 | 217.20 | 140.19 | 172.22 | 151.56 | 186.19 |
| 1975 | 163.53 | 184.16 | 132.49 | 149.20 | 145.65 | 164.02 | 190.79 | 214.85 | 151.61 | 170.73 | 166.29 | 187.26 |
| 1976 | 175.45 | 186.85 | 143.30 | 152.61 | 155.87 | 166.00 | 209.32 | 222.92 | 167.83 | 178.73 | 181.32 | 193.10 |
| 1977 | 189.00 | 189.00 | 155.19 | 155.19 | 169.93 | 169.93 | 228.90 | 228.90 | 183.80 | 183.80 | 200.06 | 200.06 |
| 1978 | 203.70 | 189.31 | 165.39 | 153.71 | 180.71 | 167.95 | 249.27 | 231.66 | 197.40 | 183.46 | 214.87 | 199.69 |
| 1979 | 219.91 | 183.41 | 178.00 | 148.46 | 194.82 | 162.49 | 269.34 | 224.64 | 212.70 | 177.40 | 232.38 | 193.81 |
| 1980 | 235.10 | 172.74 | 188.82 | 138.74 | 206.06 | 151.65 | 288.62 | 212.06 | 225.79 | 165.90 | 247.01 | 181.49 |
| 1980: December | 247.06 | 173.38 | 197.18 | 138.37 | 215.47 | 151.21 | 314.16 | 220.46 | 242.86 | 170.43 | 266.14 | 186.76 |
| 1981: January | 246.75 | 171.83 | 195.68 | 136.27 | 213.96 | 149.00 | 308.43 | 214.78 | 237.60 | 165.46 | 260.36 | 181.31 |
| February | 247.10 | 170.18 | 195.92 | 134.93 | 214.22 | 147.53 | 306.13 | 210.83 | 236.08 | 162.59 | 258.70 | 178.17 |
| March . | 249.92 | 171.06 | 197.88 | 135.44 | 216.34 | 148.08 | 311.22 | 213.02 | 239.37 | 163.84 | 262.38 | 179.59 |
| April | 250.98 | 170.73 | 198.61 | 135.11 | 217.14 | 147.71 | 312.84 | 212.82 | 240.39 | 163.53 | 263.55 | 179.29 |
| May | 252.38 | 170.18 | 199.59 | 134.59 | 218.20 | 147.13 | 317.59 | 214.15 | 243.40 | 164.13 | 266.99 | 180.03 |
| June | 254.88 | 170.49 | 201.32 | 134.66 | 220.08 | 147.21 | 320.39 | 214.31 | 245.18 | 164.00 | 269.01 | 179.94 |
| July | 257.74 | 170.35 | 203.30 | 134.37 | 222.24 | 146.89 | 31759 | 209.91 | 243.40 | 160.87 | 266.99 | 176.46 |
| August | 259.88 | 170.64 | 204.79 | 134.46 | 223.85 | 146.98 | 319.20 | 209.59 | 244.42 | 160.49 | 268.15 | 176.07 |
| September | 259.00 | 168.40 | 204.18 | 132.76 | 223.19 | 145.12 | 321.93 | 209.32 | 246.15 | 160.05 | 270.13 | 175.64 |
| October | 260.44 | 169.01 | 207.07 | 134.37 | 225.23 | 146.16 | 323.56 | 209.97 | 249.93 | 162.19 | 272.84 | 177.05 |
| November ${ }^{\text {p }}$ | 261.10 | 169.00 | 207.54 | 134.33 | 225.73 | 146.10 | 324.32 | 209.92 | 250.42 | 162.08 | 273.40 | 176.96 |
| December ${ }^{p}$ | 262.24 | . . | 208.34 | , | 226.60 |  | 330.40 |  | 254.36 | ... | 277.86 | ... |

## ${ }^{1}$ Not available.

Note: The earnings expressed in 1977 dollars have been adjusted for changes in price level as measured by the Bureau's Consumer Price Index for Urban Wage Earners and Clerical Workers. These series are described in "The Spendable Earnings Series: A Technical Note on its Cal-
culation," Employment and Earnings and Monthly Report on the Labor Force, February 1969, pp. 6-13. See also "Spendable Earnings Formulas, 1979-81," Employment and Earnings, November 1981, pp. 7-8.

## UNEMPLOYMENT INSURANCE DATA

National unemployment insurance data are compiled monthly by the Employment and Training Administration of the U.S. Department of Labor from monthly records of unemployment insurance activity prepared by State agencies. Railroad unemployment insurance data are prepared by the U.S. Railroad Retirement Board.

## Definitions

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

Under both State and Federal unemployment insurance programs for civilian employees, insured workers must report the completion of at least 1 week of unemployment before they are defined as unem-
ployed. Persons not covered by unemployment insurance (about 10 percent of the labor force) and those who have exhausted or not yet earned benefit rights are excluded from the scope of the survey. Initial claims are notices filed by persons in unemployment insurance programs to indicate they are out of work and wish to begin receiving compensation. A claimant who continued to be unemployed a full week is then counted in the insured unemployment figure. The rate of insured unemployment expresses the number of insured unemployed as a percent of the average insured employment in a 12-month period.

An application for benefits is filed by a railroad worker at the beginning of his first period of unemployment in a benefit year; no application is required for subsequent periods in the same year. Number of payments are payments made in 14-day registration periods. The average amount of benefit payment is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments. However, total benefits paid have been adjusted.
21. Unemployment insurance and employment service operations
[All items except average benefits amounts are in thousands]


## PRICE DATA

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

## Definitions

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

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

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

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

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

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

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

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

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

## Notes on the data

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

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

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

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

For a discussion of the general method of computing consumer, producer, and industry price indexes, see BLS Handbook of Methods for Surveys and Studies, Bulletin 1910 (Bureau of Labor Statistics, 1976), chapters 13-15. See also John F. Early, "Improving the measurement of producer price change," Monthly Labor Review, April 1978, pp. 7-15. For industry prices, see also Bennett R. Moss, "Industry and Sector Price Indexes," Monthly Labor Review, August 1965, pp. 974-82.
22. Consumer Price Index for Urban Wage Earners and Clerical Workers, annual averages and changes, 1967-80
[1967=100]

| Year | All items |  | Food and beverages |  | Housing |  | Apparel and upkeep |  | Transportation |  | Medical care |  | Entertainment |  | Other goods and services |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Index | Percent change | Index | Percent change | Index | Percent change | Index | Percent change | Index | Percent change | Index | Percent change | Index | Percent change | Index | Percent change |
| 1967 | 100.0 |  | 100.0 | $\ldots$ | 100.0 | $\cdots$ | 100.0 | . | 100.0 |  | 100.0 |  | 100.0 |  | 100.0 | $\ldots$ |
| 1968 | 104.2 | 4.2 | 103.6 | 3.6 | 104.0 | 4.0 | 105.4 | 5.4 | 103.2 | 3.2 | 106.1 | 6.1 | 105.7 | 5.7 | 105.2 | 5.2 |
| 1969 | 109.8 | 5.4 | 108.8 | 5.0 | 110.4 | 6.2 | 111.5 | 5.8 | 107.2 | 3.9 | 113.4 | 6.9 | 111.0 | 5.0 | 110.4 | 4.9 |
| 1970 | 116.3 | 5.9 | 114.7 | 5.4 | 118.2 | 7.1 | 116.1 | 4.1 | 112.7 | 5.1 | 120.6 | 6.3 | 116.7 | 5.1 | 116.8 | 5.8 |
| 1971 | 121.3 | 4.3 | 118.3 | 3.1 | 123.4 | 4.4 | 119.8 | 3.2 | 118.6 | 5.2 | 128.4 | 6.5 | 122.9 | 5.3 | 122.4 | 4.8 |
| 1972 | 125.3 | 3.3 | 123.2 | 4.1 | 128.1 | 3.8 | 122.3 | 2.1 | 119.9 | 1.1 | 132.5 | 3.2 | 126.5 | 2.9 | 127.5 | 4.2 |
| 1973 | 133.1 | 6.2 | 139.5 | 13.2 | 133.7 | 4.4 | 126.8 | 3.7 | 123.8 | 3.3 | 137.7 | 3.9 | 130.0 | 2.8 | 132.5 | 3.9 |
| 1974 | 147.7 | 11.0 | 158.7 | 13.8 | 148.8 | 11.3 | 136.2 | 7.4 | 137.7 | 11.2 | 150.5 | 9.3 | 139.8 | 7.5 | 142.0 | 7.2 |
| 1975 | 161.2 | 9.1 | 172.1 | 8.4 | 164.5 | 10.6 | 142.3 | 4.5 | 150.6 | 9.4 | 168.6 | 12.0 | 152.2 | 8.9 | 153.9 | 8.4 |
| 1976 | 170.5 | 5.8 | 177.4 | 3.1 | 174.6 | 6.1 | 147.6 | 3.7 | 165.5 | 9.9 | 184.7 | 9.5 | 159.8 | 5.0 | 162.7 | 5.7 |
| 1977 | 181.5 | 6.5 | 188.0 | 6.0 | 186.5 | 6.8 | 154.2 | 4.5 | 177.2 | 7.1 | 202.4 | 9.6 | 167.7 | 4.9 | 172.2 | 5.8 |
| 1978 | 195.3 | 7.6 | 206.2 | 9.7 | 202.6 | 8.6 | 159.5 | 3.4 | 185.8 | 4.9 | 219.4 | 8.4 | 176.2 | 5.1 | 183.2 | 6.4 |
| 1979 | 217.7 | 11.5 | 228.7 | 10.9 | 227.5 | 12.3 | 166.4 | 4.3 | 212.8 | 14.5 | 240.1 | 9.4 | 187.6 | 6.5 | 196.3 | 7.2 |
| 1980 | 247.0 | 13.5 | 248.7 | 8.7 | 263.2 | 15.7 | 177.4 | 6.6 | 250.5 | 17.7 | 267.2 | 11.3 | 203.7 | 8.5 | 213.6 | 8.8 |

23. Consumer Price Index for All Urban Consumers and revised CPI for Urban Wage Earners and Clerical Workers,
U.S. city average - general summary and groups, subgroups, and selected items
[1967 = 100 unless otherwise specified]

| General summary | All Urban Consumers |  |  |  |  |  |  | Urban Wage Earners and Clerical Workers (revised) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980 | 1981 |  |  |  |  |  | 1980 | 1981 |  |  |  |  |  |
|  | Nov. | June | July | Aug. | Sept. | Oct. | Nov. | Nov. | June | July | Aug. | Sept. | Oct. | Nov. |
| All items | 256.2 | 271.3 | 274.4 | 276.5 | 297.3 | 279.9 | 280.7 | 256.4 | 271.4 | 274.6 | 276.5 | 279.1 | 279.7 | 280.4 |
| Food and beverages | 257.4 | 266.5 | 268.9 | 270.1 | 270.7 | 270.3 | 269.9 | 258.7 | 267.0 | 269.4 | 270.6 | 271.0 | 270.7 | 270.3 |
| Housing . . . . . . . . | 273.8 | 292.2 | 297.0 | 299.7 | 303.7 | 303.5 | 304.2 | 273.7 | 291.9 | 297.0 | 299.6 | 303.6 | 303.3 | 303.8 |
| Apparel and upkeep | 184.8 | 185.8 | 184.7 | 187.4 | 190.7 | 191.5 | 191.3 | 183.3 | 185.8 | 185.5 | 187.9 | 190.5 | 190.6 | 190.5 |
| Transportation .... | 259.0 | 279.9 | 282.6 | 283.7 | 285.2 | 287.2 | 289.1 | 259.7 | 281.0 | 283.9 | 285.1 | 286.6 | 288.9 | 290.8 |
| Medical care . | 274.5 | 291.5 | 295.6 | 299.3 | 301.7 | 304.8 | 308.2 | 276.3 | 292.9 | 295.4 | 298.6 | 300.9 | 304.0 | 307.1 |
| Entertainment | 211.2 | 220.8 | 221.1 | 222.3 | 224.0 | 225.5 | 226.8 | 209.9 | 218.3 | 218.7 | 219.9 | 221.5 | 223.4 | 224.3 |
| Other goods and services | 222.8 | 233.4 | 234.4 | 235.6 | 243.0 | 245.2 | 245.9 | 221.0 | 231.4 | 232.4 | 233.5 | 239.3 | 241.4 | 242.5 |
| Commodities | 242.5 | 253.2 | 255.0 | 256.2 | 257.7 | 257.9 | 258.0 | 242.9 | 253.8 | 255.7 | 256.9 | 258.2 | 258.4 | 258.5 |
| Commodities less food and beverages | 232.0 | 243.1 | 244.7 | 245.8 | 247.6 | 248.0 | 248.3 | 232.0 | 243.8 | 245.5 | 246.7 | 248.4 | 248.7 | 249.1 |
| Nondurables less food and beverages | 245.3 | 263.5 | 262.9 | 263.9 | 265.8 | 266.4 | 266.7 | 247.1 | 266.3 | 266.0 | 266.8 | 268.5 | 268.6 | 269.0 |
| Durables . . . . . . . . . . . . . . . . . . | 220.6 | 226.6 | 229.6 | 230.9 | 232.6 | 232.9 | 233.2 | 218.9 | 225.2 | 228.4 | 229.9 | 231.5 | 232.0 | 232.3 |
| Services | 280.9 | 303.5 | 308.8 | 312.2 | 317.3 | 318.6 | 320.6 | 281.5 | 303.9 | 309.6 | 312.7 | 317.7 | 319.2 | 321.1 |
| Rent, residential | 198.3 | 206.8 | 207.8 | 210.3 | 211.9 | 213.6 | 215.0 | 198.0 | 206.4 | 207.4 | 209.9 | 211.5 | 213.2 | 214.5 |
| Household services less rent | 331.9 | 366.7 | 374.8 | 379.9 | 387.4 | 387.2 | 389.2 | 334.8 | 370.1 | 379.4 | 384.2 | 392.2 | 391.8 | 393.6 |
| Transportation services | 253.3 | 269.6 | 275.0 | 275.7 | 277.7 | 281.0 | 283.2 | 252.2 | 268.2 | 273.8 | 274.3 | 276.3 | 279.9 | 282.3 |
| Medical care services | 296.6 | 314.4 | 319.2 | 323.4 | 326.1 | 329.7 | 333.7 | 298.7 | 315.8 | 318.5 | 322.1 | 324.7 | 328.3 | 332.0 |
| Other services | 227.2 | 236.3 | 237.6 | 239.1 | 245.8 | 247.8 | 248.7 | 227.9 | 235.6 | 236.8 | 238.3 | 243.6 | 246.6 | 247.2 |
| Special indexes: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| All items less food | 253.2 | 269.5 | 272.7 | 274.9 | 278.2 | 279.0 | 280.1 | 253.4 | 269.7 | 273.1 | 275.2 | 278.2 | 279.1 | 280.1 |
| All items less mortgage interest costs | 244.5 | 256.9 | 259.3 | 260.9 | 262.9 | 263.6 | 264.2 | 245.1 | 257.5 | 260.0 | 261.5 | 263.3 | 264.0 | 264.6 |
| Commodities less food . . . . . . . . . . | 230.0 | 241.1 | 242.6 | 243.8 | 245.5 | 245.9 | 246.2 | 230.1 | 241.8 | 243.5 | 244.7 | 246.3 | 246.6 | 247.0 |
| Nondurables less food | 240.5 | 258.0 | 257.5 | 258.4 | 260.3 | 260.7 | 261.1 | 242.2 | 260.7 | 260.4 | 261.2 | 262.9 | 263.0 | 263.4 |
| Nondurables less food and apparel | 272.1 | 298.0 | 297.8 | 298.0 | 299.1 | 299.5 | 300.1 | 273.9 | 300.0 | 299.8 | 300.0 | 301.3 | 301.5 | 302.0 |
| Nondurables | 252.4 | 266.2 | 267.1 | 268.1 | 269.5 | 269.5 | 269.5 | 253.8 | 267.6 | 268.7 | 269.7 | 270.7 | 270.7 | 270.7 |
| Services less rent | 296.4 | 321.9 | 328.1 | 331.7 | 337.5 | 338.7 | 340.8 | 297.4 | 322.6 | 329.3 | 332.6 | 338.3 | 339.7 | 341.6 |
| Services less medical care | 277.2 | 300.1 | 305.4 | 308.8 | 314.1 | 315.1 | 316.9 | 277.7 | 300.4 | 306.3 | 309.4 | 314.6 | 315.8 | 317.5 |
| Domestically produced farm foods | 249.2 | 255.9 | 259.5 | 260.6 | 260.8 | 259.5 | 258.3 | 251.1 | 255.3 | 259.0 | 259.9 | 259.9 | 258.6 | 257.8 |
| Selected beef cuts . | 278.9 | 271.6 | 275.3 | 276.7 | 277.9 | 275.5 | 271.9 | 278.4 | 274.3 | 277.9 | 277.2 | 279.7 | 276.5 | 273.2 |
| Energy . . . . . . . | 366.1 | 414.0 | 415.7 | 416.1 | 417.1 | 414.9 | 414.1 | 369.5 | 417.3 | 418.9 | 418.9 | 420.1 | 417.9 | 417.3 |
| All items less energy . . . . . . . . . | 247.7 | 260.2 | 263.5 | 265.6 | 268.6 | 269.4 | 270.4 | 247.2 | 259.3 | 262.7 | 264.7 | 267.5 | 268.3 | 269.2 |
| All items less food and energy | 242.4 | 255.6 | 259.0 | 261.3 | 264.8 | 265.9 | 267.2 | 241.5 | 254.5 | 258.1 | 260.3 | 263.6 | 264.8 | 265.9 |
| Commodities less food and energy | 211.2 | 217.5 | 219.4 | 220.9 | 222.9 | 223.4 | 223.8 | 209.9 | 216.6 | 218.7 | 220.2 | 222.1 | 222.6 | 223.0 |
| Energy commodities | 400.2 | 453.1 | 451.3 | 449.9 | 449.3 | 448.2 | 448.2 | 401.3 | 453.7 | 451.9 | 450.6 | 450.0 | 448.9 | 449.0 |
| Services less energy . . . . . . . . . . . . . . . | 278.6 | 299.8 | 304.9 | 308.3 | 313.6 | 315.3 | 317.7 | 279.3 | 300.2 | 305.7 | 308.9 | 314.0 | 316.0 | 318.2 |
| Purchasing power of the consumer dollar, $1967=\$ 1$ | \$0.390 | \$0.369 | \$0.364 | \$0.362 | \$0.358 | \$0.357 | \$0.356 | \$0.390 | \$0.368 | \$0.364 | \$0.362 | \$0.358 | \$0.358 | \$0.357 |

MONTHLY LABOR REVIEW February 1982 - Current Labor Statistics: Consumer Prices
23. Continued-Consumer Price Index - U.S. city average
[1967=100 unless otherwise specified]

23. Continued-Consumer Price Index - U.S. city average
[1967 $=100$ unless otherwise specified]

| General summary | All Urban Consumers |  |  |  |  |  |  | Urban Wage Earners and Clerical Workers (revised) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980 | 1981 |  |  |  |  |  | 1980 | 1981 |  |  |  |  |  |
|  | Nov. | June | July | Aug. | Sept. | Oct. | Nov. | Nov. | June | July | Aug. | Sept. | Oct. | Nov. |
| FOOD AND BEVERAGES - Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Food-Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Food at home - Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fruits and vegetables - Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cut corn and canned beans except lima (12/77 $=100$ ) | 124.1 | 134.6 | 136.0 | 137.4 | 136.8 | 137.7 | 138.3 | 121.8 | 133.6 | 134.8 | 135.4 | 135.1 | 135.5 | 136.0 |
| Other canned and dried vegetables ( $12 / 77=100$ ) | 121.5 | 131.4 | 134.6 | 135.4 | 135.6 | 134.6 | 133.1 | 120.3 | 129.7 | 132.8 | 133.7 | 133.8 | 133.3 | 131.8 |
| Other foods at home | 314.8 | 323.6 | 323.3 | 325.1 | 325.7 | 326.4 | 326.0 | 315.7 | 324.5 | 324.2 | 326.1 | 326.2 | 327.1 | 327.0 |
| Sugar and sweets | 381.3 | 361.3 | 360.0 | 361.3 | 361.4 | 359.9 | 359.1 | 383.9 | 363.0 | 362.8 | 362.7 | 363.1 | 360.2 | 359.0 |
| Candy and chewing gum ( $12 / 77=100$ ) | 135.7 | 145.2 | 145.9 | 146.1 | 146.8 | 148.8 | 149.3 | 136.8 | 146.5 | 147.3 | 147.4 | 147.6 | 148.7 | 148.9 |
| Sugar and artificial sweeteners (12/77 =100) | 225.9 | 168.2 | 164.6 | 164.3 | 163.0 | 157.1 | 155.2 | 225.9 | 169.3 | 166.6 | 165.3 | 164.9 | 158.4 | 157.0 |
| Other sweets ( $12 / 77=100$ ) | 132.5 | 142.6 | 142.9 | 145.0 | 145.3 | 145.2 | 144.9 | 131.9 | 140.8 | 141.8 | 142.9 | 143.8 | 144.0 | 143.1 |
| Fats and oils ( $12 / 77=100$ ) | 247.4 | 269.6 | 269.0 | 269.2 | 268.5 | 268.5 | 262.2 | 248.2 | 269.5 | 269.0 | 268.7 | 267.4 | 268.1 | 263.1 |
| Margarine | 254.9 | 256.1 | 255.9 | 258.2 | 256.7 | 256.6 | 255.2 | 256.9 | 256.0 | 256.6 | 255.7 | 254.5 | 255.9 | 254.9 |
| Nondairy substitutes and peanut butter ( $12 / 77=100$ ) | 127.4 | 181.8 | 181.0 | 179.8 | 178.5 | 176.5 | 163.0 | 128.0 | 180.5 | 179.4 | 178.8 | 177.2 | 175.2 | 163.0 |
| Other fats, oils, and salad dressings ( $12 / 77=100$ ) | 129.0 | 129.6 | 129.4 | 129.4 | 129.6 | 130.5 | 129.8 | 128.8 | 129.6 | 129.4 | 129.6 | 129.2 | 130.3 | 130.4 |
| Nonalcoholic beverages | 405.5 | 412.8 | 410.3 | 413.1 | 413.7 | 414.8 | 413.4 | 407.8 | 414.6 | 411.3 | 415.2 | 414.7 | 416.0 | 415.2 |
| Cola drinks, excluding diet cola | 284.0 | 297.0 | 294.7 | 298.2 | 298.9 | 301.1 | 298.8 | 283.6 | 294.1 | 290.8 | 296.6 | 295.6 | 297.7 | 296.1 |
| Carbonated drinks, including diet cola (12/77 = 100) | 133.8 | 140.8 | 139.6 | 141.5 | 142.4 | 142.3 | 141.4 | 133.2 | 139.3 | 138.3 | 138.9 | 140.3 | 139.6 | 139.3 |
| Roasted coffee .............. | 399.2 | 353.1 | 351.4 | 346.0 | 345.1 | 343.1 | 341.0 | 395.5 | 348.5 | 346.6 | 342.8 | 340.5 | 338.9 | 337.3 |
| Freeze dried and instant coffee | 364.9 | 335.2 | 334.3 | 333.3 | 330.8 | 329.9 | 330.8 | 364.0 | 337.1 | 334.9 | 333.8 | 331.4 | 332.7 | 333.2 |
| Other noncaibonated drinks (12/77 = 100) | 126.7 | 134.5 | 134.2 | 134.9 | 134.9 | 135.6 | 136.4 | 126.2 | 134.4 | 134.0 | 135.0 | 134.6 | 135.5 | 136.4 |
| Other prepared foods | 239.9 | 254.4 | 256.3 | 257.9 | 259.0 | 260.5 | 262.7 | 240.4 | 255.8 | 257.9 | 259.7 | 260.5 | 262.3 | 264.5 |
| Canned and packaged soup ( $12 / 77=100$ ) | 125.1 | 132.6 | 133.2 | 133.6 | 134.9 | 133.1 | 133.4 | 125.6 | 133.5 | 134.5 | 134.8 | 136.4 | 135.6 | $136.1$ |
| Frozen prepared foods (12/77 $=100$ ) $\ldots$. | 136.6 | 142.2 | 143.7 | 143.5 | 144.8 | 144.1 | 146.5 | 133.5 | 140.8 | 142.3 | 142.5 | 142.7 | 142.8 | 145.1 |
| Snacks ( $12 / 77=100$ ) | 135.2 | 147.2 | 147.5 | 148.8 | 149.6 | 152.0 | 152.5 | 136.1 | 149.1 | 150.0 | 151.5 | 152.6 | 155.3 | 155.6 |
| Seasonings, olives, pickles, and relish ( $12 / 77=100$ ) | 133.5 | 141.1 | 142.0 | 144.4 | 144.4 | 146.2 | 148.9 | 132.8 | 140.3 | 141.4 | 142.8 | 142.7 | 144.8 | 147.4 |
| Other condiments ( $12 / 77=100$ ) | 133.3 | 140.8 | 142.3 | 142.9 | 143.3 | 143.5 | 145.0 | 136.5 | 143.2 | 144.4 | 145.6 | 145.3 | 145.5 | 146.5 |
| Miscellaneous prepared foods ( $12 / 77=100$ ) $\ldots \ldots . \ldots$. | 133.5 | 139.3 | 140.7 | 142.0 | 142.3 | 144.5 | 144.8 | 133.8 | 139.9 | 141.0 | 142.1 | 142.8 | 143.9 | 145.2 |
| Other canned and packaged prepared foods (12/77 = 100) | 128.6 | 137.7 | 139.0 | 139.5 | 139.9 | 140.5 | 141.8 | 128.9 | 138.5 | 139.8 | 140.8 | 141.1 | 141.9 | $143.0$ |
| Food away from home | 275.3 | 290.6 | 292.4 | 293.7 | 294.8 | 296.2 | 297.2 | 279.5 | 293.5 | 295.2 | 296.4 | 297.6 | 299.0 | 299.6 |
| Lunch ( $12 / 77=100$ ) | 134.3 | 141.5 | 142.6 | 143.2 | 143.6 | 143.9 | 144.4 | 135.7 | 142.8 | 143.6 | 144.2 | 144.6 | 145.3 | 145.6 |
| Dinner ( $12 / 77=100$ ) | 133.4 | 140.7 | 141.3 | 141.9 | 142.4 | 143.2 | 143.6 | 136.1 | 142.6 | 143.0 | 143.7 | 144.3 | 144.8 | 145.1 |
| Other meals and snacks (12/77 = 100) | 132.5 | 140.3 | 141.6 | 142.1 | 143.1 | 143.9 | 144.6 | 134.5 | 141.3 | 142.7 | 143.1 | 143.9 | 144.8 | 145.1 |
| Alcoholic beverages | 190.9 | 199.8 | 200.5 | 201.4 | 202.5 | 201.4 | 202.3 | 192.8 | 202.1 | 202.8 | 203.8 | 204.6 | 204.3 | 204.6 |
| Alcoholic beverages at home ( $12 / 77=100$ ) |  | 129.7 | 130.1 | 130.6 | 131.4 | 130.5 | 131.2 | 125.9 | 131.5 | 131.9 | 132.4 | 132.8 | 132.5 |  |
| Beer and ale | 192.0 | 202.0 | 201.8 | 202.6 | 203.6 | 202.5 | 204.0 | 192.2 | 202.4 | 202.4 | 203.2 | 203.5 | 203.1 | $203.6$ |
| Whiskey | 138.9 | 143.0 | 143.7 | 144.7 | 145.4 | 144.0 | 144.8 | 139.8 | 144.0 | 144.7 | 145.6 | 146.2 | 146.4 | 146.2 |
| Wine . . | 215.2 | 224.6 | 227.5 | 227.4 | 229.7 | 228.2 | 227.5 | 224.0 | 233.4 | 236.9 | 235.5 | 237.6 | 238.1 | 237.4 |
| Other alcoholic beverages ( $12 / 77=100$ ) | 112.9 | 116.1 | 116.3 | 117.0 | 117.5 | 116.3 | 117.3 | 112.0 | 115.7 | 155.9 | 117.0 | 117.1 | 115.7 | 116.8 |
| Alcoholic beverages away from home ( $12 / 77=100$ ) | 125.3 | 133.1 | 134.1 | 134.7 | 135.4 | 135.5 | 135.7 | 125.5 | 133.4 | 134.0 | 135.4 | 136.2 | 136.4 | 136.6 |
| HOUSING | 273.8 | 292.2 | 297.0 | 299.7 | 303.7 | 303.5 | 304.2 | 273.7 | 291.9 | 297.0 | 299.6 | 303.6 | 303.3 | 303.8 |
| Shelter | 294.7 | 312.6 | 318.5 | 322.0 | 326.9 | 326.6 | 327.2 | 296.4 | 313.7 | 320.2 | 323.6 | 328.6 | 328.1 | 328.5 |
| Rent, residential | 198.3 | 206.8 | 207.8 | 210.3 | 211.9 | 213.6 | 215.0 | 198.0 | 206.4 | 207.4 | 209.9 | 211.5 | 213.2 | 214.5 |
| Other rental costs | 268.3 | 289.5 | 293.6 | 298.5 | 308.1 | 308.7 | 305.3 | 268.4 | 289.7 | 293.3 | 299.0 | 308.0 | 308.4 | 305.0 |
| Lodging while out of town ..... | 284.2 | 311.8 | 318.3 | 325.7 | 326.3 | 324.2 | 318.6 | 283.3 | 310.6 | 316.3 | 324.4 | 325.3 | 323.3 | 317.9 |
| Tenants' insurance ( $12 / 77=100$ ) | 126.5 | 133.1 | 133.3 | 133.9 | 135.9 | 140.0 | 140.4 | 126.8 | 133.4 | 133.7 | 134.5 | 136.4 | 140.1 | 140.3 |
| Homeownership | 329.4 | 350.4 | 358.0 | 361.8 | 367.8 | 366.7 | 367.2 | 332.3 | 352.7 | 361.2 | 364.8 | 371.0 | 369.7 | 369.8 |
| Home purchase | 267.3 | 266.6 | 271.4 | 272.6 | 274.5 | 272.5 | 270.2 | 268.2 | 266.2 | 271.2 | 272.3 | 273.8 | 271.4 | 268.6 |
| Financing, taxes, and insurance | 416.9 | 467.2 | 480.0 | 488.3 | 501.8 | 501.8 | 505.6 | 423.1 | 473.8 | 486.9 | 495.3 | 509.0 | 508.3 | 511.9 |
| Property insurance | 364.5 | 386.6 | 387.1 | 389.0 | 389.7 | 392.5 | 393.3 | 367.8 | 388.1 | 388.3 | 390.5 | 391.9 | 394.7 | 395.5 |
| Property taxes | 192.8 | 200.3 | 201.4 | 205.2 | 206.2 | 207.4 | 208.0 | 194.7 | 202.2 | 203.2 | 207.1 | 208.0 | 209.2 | 210.0 |
| Contracted mortgage interest cost | 536.7 | 610.4 | 630.1 | 641.3 | 662.0 | 661.3 | 666.8 | 539.7 | 612.9 | 632.6 | 643.8 | 664.4 | 662.5 | 667.7 |
| Mortgage interest rates | 198.0 | 226.4 | 299.4 | 232.4 | 238.2 | 239.5 | 244.1 | 198.4 | 227.2 | 230.3 | 233.3 | 239.2 | 240.5 | 245.3 |
| Maintenance and repairs | 294.2 | 315.5 | 319.3 | 320.5 | 321.6 | 320.8 | 322.8 | 291.1 | 308.2 | 316.2 | 315.8 | 318.1 | 319.2 | 319.8 |
| Maintenance and repair services | 318.6 | 344.4 | 349.0 | 350.6 | 352.5 | 351.1 | 353.8 | 315.9 | 338.7 | 350.5 | 349.5 | 352.5 | 354.2 | 354.9 |
| Maintenance and repair commodities . . . . . . . . . . . . . . . . . | 237.1 | 247.6 | 249.3 | 249.5 | 248.7 | 249.3 | 249.7 | 235.6 | 241.5 | 242.4 | 243.1 | 244.1 | 244.0 | 244.5 |
| Paint and wallpaper, supplies, tools, and equipment $(12 / 77=100)$ | 137.4 | 145.3 | 146.7 | 146.9 | 146.2 | 146.7 | 146.5 | 134.7 | 138.4 | 138.2 | 139.2 | 139.1 | 139.9 | 140.0 |
| Lumber, awnings, glass, and masonry ( $12 / 77=100$ ) | 122.3 | 124.7 | 125.0 | 124.2 | 125.0 | 124.4 | 124.1 | 122.0 | 122.7 | 123.0 | 122.0 | 123.2 | 122.3 | 121.8 |
| Plumbing, electrical, heating, and cooling supplies ( $12 / 77=100$ ) | 124.2 | 131.2 | 132.7 | 132.0 | 131.2 | 132.4 | 133.1 | 124.6 | 128.5 | 130.1 | 130.6 | 131.7 | 132.1 | 132.4 |
| Miscellaneous supplies and equipment ( $12 / 77=100$ ) | 123.7 | 128.5 | 129.2 | 130.5 | 131.2 | 131.7 | 131.6 | 126.4 | 131.7 | 132.5 | 133.3 | 134.3 | 133.7 | 134.2 |
| Fuel and other utilities | 285.7 | 320.2 | 325.1 | 327.8 | 331.1 | 330.1 | 329.8 | 286.3 | 321.2 | 326.4 | 328.7 | 332.3 | 330.9 | 330.9 |
| Fuels | 358.7 | 411.7 | 417.2 | 419.5 | 422.4 | 419.0 | 417.6 | 358.2 | 411.2 | 417.0 | 418.7 | 422.2 | 418.4 | 417.4 |
| Fuel oil, coal, and bottled gas | 567.0 | 682.0 | 677.9 | 674.6 | 673.4 | 672.7 | 676.1 | 568.3 | 685.1 | 681.1 | 677.9 | 677.0 | 675.9 | 679.3 |
| Fuel oil . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 589.8 | 715.7 | 711.0 | 707.3 | 705.7 | 704.3 | 706.8 | 590.3 | 718.4 | 713.8 | 710.2 | 709.0 | 707.1 | 709.6 |
| Other fuels (6/78 = 100) ............................. | 145.7 | 164.3 | 164.0 | 163.6 | 163.8 | 165.0 | 167.7 | 147.3 | 165.5 | 165.4 | 165.1 | 165.3 | 166.4 | 169.1 |
| Gas (piped) and electricity .............................. | 310.5 | 350.2 | 357.6 | 360.8 | 364.5 | 360.6 | 358.3 | 309.8 | 349.0 | 356.7 | 359.4 | 363.6 | 359.3 | 357.5 |
| Electricity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 258.7 | 296.7 | 306.2 | 311.9 | 309.8 | 303.0 | 298.6 | 258.4 | 296.6 | 306.2 | 312.1 | 309.9 | 302.7 | 297.7 |
| Utility (piped) gas | 379.0 | 416.9 | 418.6 | 416.2 | 431.7 | 434.5 | 437.0 | 376.7 | 413.2 | 415.8 | 411.2 | 428.5 | 430.8 | 436.0 |

MONTHLY LABOR REVIEW February 1982 - Current Labor Statistics: Consumer Prices
23. Continued - Consumer Price Index - U.S. city average
[1967 = 100 unless otherwise specified]

| General summary | All Urban Consumers |  |  |  |  |  |  | Urban Wage Earners and Clerical Workers (revised) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980 | 1981 |  |  |  |  |  | 1980 | 1981 |  |  |  |  |  |
|  | Nov. | June | July | Aug. | Sept. | Oct. | Nov. | Nov. | June | July | Aug. | Sept. | Oct. | Nov. |
| HOUSING - Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fuel and other utilities - Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other utilites and public services | 169.0 | 177.1 | 180.8 | 183.7 | 187.4 | 189.4 | 190.7 | 169.1 | 177.3 | 181.3 | 184.3 | 187.8 | 189.8 | 191.0 |
| Telephone services ... | 138.7 | 143.5 | 147.2 | 149.2 | 152.5 | 154.3 | 155.6 | 138.7 | 143.6 | 147.5 | 149.5 | 152.7 | 154.5 | 155.8 |
| Local charges ( $12 / 77=100$ ) | 108.3 | 114.9 | 116.7 | 117.3 | 120.5 | 121.5 | 123.5 | 108.3 | 115.1 | 116.9 | 117.6 | 120.7 | 121.8 | 123.8 |
| Interstate toll calls ( $12 / 77=100$ ) | 101.7 | 101.8 | 109.1 | 113.4 | 114.9 | 116.6 | 116.7 | 101.8 | 101.9 | 109.6 | 113.8 | 115.1 | 116.6 | 116.8 |
| Intrastate toll calls ( $12 / 77=100$ ) | 100.6 | 101.5 | 101.5 | 101.8 | 103.9 | 105.5 | 105.3 | 100.5 | 101.3 | 101.3 | 101.6 | 103.7 | 105.3 | 105.0 |
| Water and sewerage maintenance ... | 267.0 | 291.2 | 294.0 | 299.2 | 304.1 | 305.2 | 306.1 | 268.0 | 292.5 | 295.8 | 301.4 | 306.0 | 307.3 | 307.9 |
| Household furnishings and operations | 211.0 | 221.1 | 222.4 | 222.9 | 224.5 | 225.6 | 227.2 | 208.1 | 217.8 | 219.1 | 219.8 | 221.2 | 222.2 | 223.6 |
| Housefurnishings | 178.1 | 185.2 | 186.0 | 186.2 | 187.9 | 188.7 | 189.4 | 176.4 | 182.8 | 184.1 | 184.5 | 185.7 | 186.6 | 187.3 |
| Textile housefurnishings | 192.4 | 202.5 | 202.9 | 203.4 | 207.7 | 210.4 | 211.7 | 195.7 | 204.4 | 206.2 | 207.3 | 213.0 | 214.1 | 214.7 |
| Household linens ( $12 / 77$ = 100) ........................ | 117.3 | 125.1 | 123.3 | 124.6 | 127.7 | 130.1 | 130.8 | 122.6 | 125.7 | 126.0 | 126.8 | 129.7 | 132.0 | 131.9 |
| Curtains, drapes, slipcovers, and sewing materials ( $12 / 77=100$ ) . | 122.7 | 127.4 | 129.8 | 129.1 | 131.4 | 132.2 | 133.1 | 121.2 | 129.5 | 131.5 | 132.1 | 136.3 | 135.2 | 136.1 |
| Furniture and bedding . ................................. | 196.5 | 204.6 | 206.0 | 205.4 | 207.7 | 207.9 | 209.2 | 193.9 | 200.1 | 202.3 | 201.4 | 202.7 | 203.8 | 205.3 |
| Bedroom furniture (12/77 = 100) | 128.6 | 134.6 | 135.0 | 135.9 | 137.6 | 137.4 | 139.6 | 125.5 | 129.2 | 130.7 | 132.2 | 132.9 | 132.3 | 135.2 |
| Sofas ( $12 / 77=100$ ) | 114.2 | 116.2 | 117.6 | 116.0 | 118.6 | 119.3 | 118.7 | 113.6 | 116.0 | 116.2 | 115.0 | 117.4 | 119.0 | 118.8 |
| Living room chairs and tables (12/77 = 100) | 113.3 | 116.9 | 117.9 | 116.7 | 116.8 | 117.0 | 118.8 | 115.6 | 118.2 | 119.5 | 116.9 | 117.2 | 118.5 | 118.9 |
| Other furniture ( $12 / 77=100$ ) $\ldots . . . . . .$. | 127.9 | 135.4 | 136.2 | 135.9 | 137.3 | 137.3 | 137.1 | 124.6 | 130.5 | 132.9 | 132.2 | 132.3 | 133.0 | 133.1 |
| Appliances including TV and sound equipment | 142.6 | 146.3 | 147.1 | 147.3 | 147.7 | 147.8 | 148.2 | 141.4 | 145.6 | 146.3 | 146.6 | 146.7 | 147.2 | 147.7 |
| Television and sound equipment ( $12 / 77=100$ ) | 107.4 | 108.2 | 108.8 | 108.6 | 108.7 | 109.1 | 109.0 | 106.1 | 107.3 | 107.7 | 107.8 | 107.8 | 108.1 | 108.3 |
| Television . . . . . . . . . . . . . . . . . . | 105.1 | 105.3 | 105.6 | 105.0 | 104.6 | 105.0 | 104.8 | 103.8 | 104.3 | 104.5 | 104.2 | 103.6 | 103.8 | 103.6 |
| Sound equipment ( $12 / 77=100$ ) | 110.6 | 111.9 | 112.7 | 112.8 | 113.4 | 113.8 | 113.9 | 109.1 | 110.9 | 111.4 | 111.9 | 112.4 | 112.8 | 113.4 |
| Household appliances ........... | 166.2 | 173.2 | 174.2 | 174.9 | 175.7 | 175.3 | 176.1 | 165.2 | 172.6 | 173.6 | 174.1 | 174.4 | 175.1 | 175.9 |
| Refrigerators and home freezers | 166.1 | 172.4 | 174.2 | 175.8 | 177.5 | 177.0 | 178.7 | 169.2 | 177.1 | 178.1 | 178.9 | 180.6 | 181.6 | 182.7 |
| Laundry equipment (12/77 = 100) | 122.0 | 128.0 | 128.1 | 129.2 | 129.7 | 130.5 | 130.7 | 120.2 | 127.1 | 128.3 | 129.1 | 128.8 | 129.8 | 130.8 |
| Other household appliances ( $12 / 777=100$ ), | 114.2 | 118.9 | 119.6 | 119.5 | 119.7 | 118.9 | 119.4 | 112.4 | 116.6 | 117.1 | 117.0 | 117.1 | 117.1 | 117.4 |
| Stoves, dishwashers, vacuums, and sewing machines ( $12 / 77=100$ ) | 113.0 | 118.4 | 119.2 | 118.5 | 118.8 | 118.2 | 118.7 | 112.6 | 116.5 | 117.1 | 116.4 | 116.0 | 115.9 | 116.8 |
| Office machines, small electric appliances, and air conditioners $(12 / 77=100)$ | 115.5 | 119.4 | 120.1 | 120.6 | 120.8 | 119.8 | 120.1 | 112.1 | 116.7 | 117.1 | 117.7 | 118.3 | 118.4 | 118.1 |
|  | 124.6 | 131.0 | 131.2 | 131.7 | 133.1 | 134.2 | 134.4 | 123.2 | 129.3 | 129.8 | 131.0 | 131.6 | 132.4 | 132.4 |
| Floor and window coverings, infants', laundry, cleaning, and outdoor equipment $(12 / 77=100)$ | 124.3 | 132.1 | 132.4 | 133.4 | 134.8 | 135.4 | 136.1 | 119.0 | 125.3 | 127.1 | 129.3 | 129.6 | 129.6 | 129.7 |
| Clocks, lamps, and decor items ( $12 / 77=100$ ) | 121.4 | 124.6 | 125.0 | 125.8 | 128.2 | 128.7 | 129.5 | 119.2 | 121.9 | 122.9 | 122.5 | 123.8 | 124.5 | 125.2 |
| Tableware, serving pieces, and nonelectric kitchenware ( $12 / 77=100$ ) | 130.6 | 139.5 | 139.5 | 138.9 | 140.4 | 141.1 | 141.2 | 127.4 | 136.0 | 136.4 | 137.0 | 137.8 | 137.9 | 137.5 |
| Lawn equipment, power tools, and other hardware ( $12 / 77$ = 100) | 118.4 | 122.6 | 122.7 | 124.0 | 124.5 | 127.2 | 126.9 | 122.3 | 127.1 | 126.7 | 128.8 | 129.2 | 131.2 | 131.6 |
| Housekeeping supplies | 256.0 | 269.8 | 271.5 | 272.0 | 273.3 | 274.3 | 275.4 | 253.5 | 266.9 | 267.9 | 268.6 | 270.4 | 271.2 | 271.9 |
| Soaps and detergents | 252.4 | 266.0 | 266.5 | 267.0 | 268.9 | 269.3 | 269.7 | 248.2 | 263.6 | 263.1 | 263.6 | 265.6 | 265.3 | 265.2 |
| Other laundry and cleaning products ( $12 / 77=100$ ) | 126.7 | 133.4 | 134.8 | 134.8 | 135.7 | 136.7 | 137.3 | 126.2 | 132.3 | 133.6 | 134.7 | 135.8 | 136.6 | 137.0 |
| Cleansing and toiet tissue, paper towels and napkins (12/77 = 100) .. | 135.6 | 137.6 | 138.8 | 138.4 | 139.9 | . 141.8 | 143.6 | 136.6 | 138.2 | 139.0 | 138.7 | 140.4 | 142.4 | 143.9 |
| Stationery, stationery supplies, and gift wrap ( $12 / 77$ = 100) | 118.3 | 125.8 | 126.6 | 126.6 | 127.2 | 128.1 | 128.5 | 118.8 | 127.2 | 127.9 | 128.2 | 128.7 | 130.8 | 131.3 |
| Miscellaneous household products ( $12 / 77=100$ ) $\ldots . . \ldots \ldots . .$. . | 131.1 | 139.5 | 140.5 | 141.7 | 142.8 | 142.8 | 143.0 | 128.4 | 136.1 | 136.6 | 136.9 | 138.1 | 137.8 | 137.4 |
| Lawn and garden supplies (12/77 = 100) ..................... | 128.0 | 138.4 | 138.8 | 139.2 | 137.8 | 136.6 | 136.8 | 122.5 | 131.3 | 131.7 | 131.8 | 131.1 | 129.0 | 129.6 |
| Housekeeping services | 276.1 | 292.9 | 295.3 | 296.9 | 298.3 | 300.5 | 305.2 | 272.5 | 291.7 | 293.4 | 295.1 | 296.9 | 298.9 | 303.9 |
| Postage | 257.3 | 308.0 | 308.0 | 308.0 | 308.0 | 308.0 | 337.5 | 257.3 | 308.1 | 308.1 | 308.1 | 308.1 | 308.1 | 337.5 |
| Moving, storage, freight, household laundry, and drycleaning services $(12 / 77=100)$ | 134.6 | 141.9 | 143.1 | 143.9 | 144.7 | 145.5 | 147.0 | 131.4 | 141.8 | 142.8 | 143.8 | 144.9 | 145.2 | 146.7 |
| Appliance and furniture repair (12/77 = 100) | 120.7 | 126.3 | 127.8 | 128.5 | 129.0 | 131.3 | 132.3 | 119.7 | 125.4 | 126.4 | 127.2 | 128.3 | 130.5 | 131.2 |
| APPAREL AND UPKEEP | 184.8 | 185.8 | 184.7 | 187.4 | 190.7 | 191.5 | 191.3 | 183.3 | 185.8 | 185.5 | 187.9 | 190.5 | 190.6 | 190.5 |
| Apparel commodities | 177.2 | 176.4 | 175.1 | 178.0 | 181.4 | 182.1 | 181.8 | 176.0 | 177.0 | 176.6 | 179.0 | 181.6 | 181.5 | 181.5 |
| Apparel commodities less footwear | 173.9 | 172.5 | 171.2 | 174.3 | 178.0 | 178.4 | 177.9 | 172.5 | 173.0 | 172.8 | 175.2 | 178.1 | 177.7 | 177.3 |
| Men's and boys' ....................................... | 174.8 | 176.6 | 175.6 | 177.6 | 181.1 | 183.6 | 183.6 | 174.8 | 177.2 | 176.9 | 178.4 | 181.4 | 182.9 | 183.2 |
| Men's (12/77 = 100) ...................... | 110.1 | 111.0 | 110.3 | 111.7 | 114.3 | 115.9 | 115.9 | 110.2 | 111.6 | 111.6 | 112.8 | 115.0 | 115.8 | 115.9 |
| Suits, sport coats, and jackets (12/77 = 100) ............ | 104.7 | 104.3 | 102.5 | 105.6 | 108.8 | 109.8 | 109.9 | 99.4 | 98.4 | 97.4 | 99.7 | 102.1 | 102.0 | 102.0 |
| Coats and jackets ( $12 / 77=100$ ) $\ldots \ldots \ldots \ldots$ | 100.5 | 98.1 | 96.7 | 97.7 | 101.0 | 102.4 | 102.8 | 101.9 | 101.2 | 100.8 | 102.4 | 106.1 | 104.9 | 105.1 |
| Furnishings and special clothing ( $12 / 77=100$ ) | 123.3 | 129.7 | 129.6 | 129.5 | 132.7 | 134.3 | 133.6 | 119.7 | 124.1 | 124.8 | 125.3 | 128.5 | 130.0 | 129.8 |
| Shirts ( $12 / 77=100$ ) $\ldots . . . . . . . . . . . . . .$. | 119.6 | 117.9 | 115.5 | 117.9 | 120.6 | 123.0 | 123.0 | 120.4 | 120.4 | 118.8 | 122.1 | 123.9 | 125.5 | 125.4 |
| Dungarees, jeans, and trousers (12/77 = 100) | 103.5 | 105.0 | 106.5 | 106.6 | 107.8 | 109.2 | 109.8 | 108.7 | 111.8 | 113.2 | 112.5 | 113.5 | 114.7 | 115.5 |
| Boys' (12/77 = 100) $\ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . .$. | 113.3 | 115.4 | 115.1 | 115.8 | 116.4 | 118.1 | 118.0 | 112.7 | 114.3 | 113.6 | 113.8 | 114.8 | 116.4 | 116.5 |
| Coats, jackets, sweaters, and shirts ( $12 / 77=100$ ) $\ldots \ldots$. . | 109.4 | 108.7 | 107.0 | 109.2 | 111.3 | 111.9 | 111.6 | 112.5 | 109.8 | 107.6 | 109.5 | 112.3 | 113.5 | 112.8 |
| Furnishings ( $12 / 77$ = 100 ) $\ldots . \ldots \ldots \ldots . . . . . .$. | 118.4 | 123.9 | 124.5 | 124.3 | . 125.0 | 125.6 | 127.0 | 115.2 | 119.5 | 120.6 | 120.3 | 120.9 | 121.8 | 123.3 |
| Suits, trousers, sport coats, and jackets (12/77 = 100) | 114.3 | 117.3 | 117.7 | 117.5 | 117.0 | 119.9 | 119.3 | 111.9 | 115.9 | 115.6 | 114.7 | 114.4 | 116.6 | 116.9 |
| Wornen's and girls' . . . . . . . . . . . . . . . . . . . . | 159.9 | 155.4 | 153.5 | 157.8 | 162.9 | 161.2 | 160.6 | 159.9 | 158.1 | 157.9 | 161.2 | 164.9 | 162.7 | 162.1 |
| Women's ( $12 / 77=100$ ) | 106.3 | 102.7 | 101.2 | 104.4 | 108.1 | 106.8 | 106.3 | 106.6 | 104.9 | 104.5 | 107.1 | 109.8 | 108.1 | 107.6 |
| Coats and jackets . | 164.7 | 149.5 | 153.9 | 162.1 | 170.8 | 167.3 | 164.0 | 175.5 | 148.9 | 159.0 | 168.7 | 177.8 | 171.4 | 166.3 |
| Dresses....... | 168.1 | 163.7 | 162.2 | 166.2 | 170.8 | 166.9 | 165.0 | 157.7 | 156.6 | 154.1 | 153.4 | 155.5 | 151.5 | 151.9 |
| Separates and sportswear (12/77 = 100) | 102.9 | 98.0 | 95.1 | 97.4 | 101.1 | 100.4 | 101.1 | 102.8 | 101.0 | 99.1 | 101.1 | 103.3 | 102.3 | 101.9 |
| Underwear, nightwear, and hosiery ( $12 / 77=100$ ) | 116.7 | 119.8 | 120.0 | 121.2 | 122.8 | 123.0 | 124.1 | 116.4 | 120.0 | 120.1 | 121.0 | 122.7 | 123.4 | 124.0 |
| Suits ( $12 / 77=100$ ) $\ldots . . .$. | 97.4 | 86.3 | 78.6 | 87.0 | 95.4 | 92.4 | 89.5 | 102.8 | 103.6 | 100.6 | 109.8 | 115.0 | 110.2 | 108.5 |
| Girls' (12/77 = 100) | 106.5 | 106.4 | 106.5 | 107.9 | 109.7 | 109.2 | 109.2 | 105.3 | 106.2 | 106.9 | 107.6 | 108.8 | 108.4 | 108.4 |
| Coats, jackets, dresses, and suits (12/77 = 100) . . . . . . . . . | 102.7 | 100.4 | 100.0 | 101.6 | 103.3 | 99.8 | 100.3 | 99.1 | 98.1 | 98.9 | 101.5 | 103.3 | 99.8 | 99.9 |
| Separates and sportswear (12/77 = 100) $\ldots \ldots \ldots \ldots \ldots$. | 105.9 | 105.9 | 106.1 | 108.7 | 111.0 | 112.0 | 111.3 | 106.8 | 108.1 | 108.9 | 108.9 | 110.0 | 110.6 | 110.2 |
| Underwear, nightwear, hosiery, and accessories ( $12 / 77=100$ ) | 114.0 | 117.2 | 117.6 | 117.0 | 117.9 | 119.6 | 120.0 | 112.6 | 116.2 | 116.3 | 115.1 | 115.5 | 118.5 | 119.0 |

23. Continued-Consumer Price Index - U.S. city average
[1967 $=100$ unless otherwise specified]

| General summary | All Urban Consumers |  |  |  |  |  |  | Urban Wage Earners and Clerical Workers (revised) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980 | 1981 |  |  |  |  |  | 1980 | 1981 |  |  |  |  |  |
|  | Nov. | June | July | Aug. | Sept. | Oct. | Nov. | Nov. | June | July | Aug. | Sept. | Oct. | Nov. |
| APPAREL AND UPKEEP - Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Apparel commodities - Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Apparel commodities less footwear - Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Infants' and toddlers' | 248.9 | 260.0 | 259.8 | 263.6 | 266.4 | 268.5 | 264.9 | 254.0 | 273.0 | 272.9 | 279.3 | 279.8 | 281.6 | 274.1 |
| Other apparel commodities | 213.7 | 212.2 | 212.4 | 214.0 | 213.3 | 216.2 | 214.8 | 204.0 | 204.8 | 204.8 | 206.1 | 206.0 | 206.2 | 206.1 |
| Sewing materials and notions (12/77 = 100) | 110.3 | 114.5 | 115.3 | 117.5 | 118.3 | 118.1 | 118.6 | 110.2 | 113.2 | 113.6 | 115.3 | 116.4 | 116.3 | 116.4 |
| Jewelry and luggage $(12 / 77=100) \ldots \ldots$ | 149.9 | 146.8 | 146.6 | 147.2 | 146.2 | 149.0 | 147.5 | 141.8 | 141.2 | 141.0 | 141.4 | 140.9 | 141.1 | 141.0 |
| Footwear | 196.5 | 200.4 | 199.0 | 200.0 | 202.4 | 204.2 | 205.4 | 196.4 | 200.6 | 199.2 | 200.8 | 202.3 | 204.1 | 206.2 |
| Men's (12/77 = 100) | 125.4 | 127.7 | 128.0 | 128.3 | 128.8 | 129.3 | 130.3 | 126.7 | 129.5 | 129.5 | 129.8 | 129.7 | 130.3 | 132.3 |
| Boys' and girls' (12/77 = 100) | 126.2 | 129.1 | 130.1 | 129.1 | 129.7 | 131.1 | 132.1 | 127.4 | 128.6 | 128.7 | 130.4 | 130.7 | 132.2 | 134.0 |
| Women's (12/77 = 100) | 119.4 | 121.6 | 118.7 | 120.6 | 123.5 | 124.9 | 125.2 | 116.5 | 120.2 | 117.8 | 118.9 | 121.2 | 122.5 | 122.9 |
| Apparel services | 241.9 | 257.8 | 258.9 | 260.2 | 262.0 | 263.2 | 264.6 | 239.9 | 255.7 | 256.3 | 258.2 | 260.0 | 262.1 | 262.3 |
| Laundry and drycleaning other than coin operated ( $12 / 77=100$ ) | 142.4 | 153.2 | 153.8 | 154.7 | 155.7 | 157.1 | 158.2 | 141.6 | 152.5 | 153.1 | 153.9 | 155.0 | 156.4 | 156.3 |
| Other apparel services (12/77 = 100) $\ldots . . . . . . . . . . . . .$. | 130.0 | 136.0 | 136.7 | 137.2 | 138.2 | 137.5 | 137.9 | 129.1 | 135.0 | 135.1 | 136.5 | 137.4 | 138.3 | 138.6 |
| TRANSPORTATION | 259.0 | 279.9 | 282.6 | 283.7 | 285.2 | 287.2 | 289.1 | 259.7 | 281.0 | 283.9 | 285.1 | 286.6 | 288.9 | 290.8 |
| Private | 257.4 | 277.9 | 279.6 | 280.5 | 281.9 | 283.9 | 285.8 | 258.6 | 279.7 | 281.6 | 282.6 | 284.1 | 286.4 | 288.3 |
| New cars | 184.3 | 192.2 | 192.5 | 191.9 | 191.3 | 192.5 | 195.3 | 184.5 | 192.5 | 192.9 | 192.1 | 191.4 | 192.7 | 195.2 |
| Used cars | 230.8 | 252.9 | 260.3 | 266.9 | 272.8 | 278.2 | 281.4 | 230.8 | 252.9 | 260.3 | 266.9 | 272.8 | 278.2 | 281.4 |
| Gasoline | 370.5 | 414.4 | 412.9 | 411.7 | 411.2 | 409.9 | 409.5 | 371.7 | 415.6 | 414.0 | 412.9 | 412.4 | 411.3 | 410.9 |
| Automobile maintenance and repair | 278.4 | 291.9 | 293.5 | 295.5 | 298.7 | 301.3 | 302.8 | 278.9 | 292.6 | 293.4 | 296.1 | 299.3 | 301.8 | 303.4 |
| Body work (12/77 = 100) | 136.1 | 142.3 | 144.1 | 145.8 | 147.4 | 148.7 | 149.9 | 135.9 | 142.2 | 143.3 | 145.4 | 146.1 | 147.2 | 148.3 |
| Automobile drive train, brake, and miscellaneous mechanical repair ( $12 / 77=100$ ) | 131.6 | 138.9 | 139.9 | 140.9 | 143.1 | 144.0 | 144.2 | 135.0 | 141.7 | 141.4 | 142.6 | 145.5 | 146.5 | 147.3 |
| Maintenance and servicing ( $12 / 77=100$ ) | 131.0 | 137.1 | 137.4 | 137.8 | 138.9 | 140.3 | 140.9 | 131.1 | 136.9 | 137.3 | 138.2 | 139.2 | 140.3 | 140.5 |
| Power plant repair ( $12 / 77=100$ ) | 131.3 | 139.2 | 139.9 | 141.2 | 142.6 | 144.0 | 144.9 | 130.8 | 138.3 | 139.1 | 140.5 | 141.9 | 143.5 | 144.7 |
| Other private transportation | 228.8 | 241.0 | 242.9 | 243.0 | 244.2 | 247.5 | 249.5 | 230.6 | 243.9 | 246.0 | 245.6 | 246.9 | 250.6 | 253.0 |
| Other private transportation commodities | 203.1 | 208.5 | 208.8 | 212.1 | 212.6 | 212.7 | 213.4 | 203.4 | 211.1 | 210.8 | 213.4 | 215.5 | 216.1 | 216.8 |
| Motor oil, coolant, and other products (12/77 = 100) | 137.8 | 144.5 | 144.8 | 146.8 | 147.7 | 148.0 | 148.5 | 137.3 | 142.7 | 143.4 | 144.1 | 145.3 | 144.8 | 146.7 |
| Automobile parts and equipment (12/77 = 100) | 130.3 | 133.4 | 133.6 | 135.7 | 136.0 | 136.0 | 136.4 | 130.6 | 135.5 | 135.2 | 137.0 | 138.4 | 138.9 | 139.2 |
| Tires | 181.7 | 186.1 | 185.6 | 189.3 | 189.7 | 189.4 | 189.7 | 182.5 | 189.9 | 188.4 | 191.5 | 194.1 | 194.6 | 195.1 |
| Other parts and equipment ( $12 / 77=100$ ) | 127.3 | 130.2 | 131.7 | 132.4 | 132.8 | 133.4 | 134.1 | 126.9 | 130.7 | 132.2 | 132.9 | 133.2 | 134.3 | 134.1 |
| Other private transportation services . . . . . . . . . . | 237.9 | 252.0 | 254.3 | 253.6 | 255.0 | 259.1 | 261.5 | 240.1 | 255.0 | 257.7 | 256.6 | 257.7 | 262.2 | 265.1 |
| Automobile insurance | 251.9 | 257.4 | 259.8 | 260.3 | 262.0 | 264.6 | 265.4 | 251.5 | 256.9 | 259.6 | 260.1 | 261.8 | 264.3 | 265.0 |
| Automobile finance charges ( $12 / 77=100$ ) | 154.4 | 178.5 | 180.9 | 177.3 | 178.0 | 184.4 | 188.7 | 153.2 | 177.2 | 179.9 | 176.3 | 176.5 | 183.1 | 187.6 |
| Automobile rental, registration, and other fees ( $12 / 77=100$ ) | 115.0 | 117.8 | 118.0 | 119.5 | 120.1 | 120.2 | 120.7 | 116.7 | 118.2 | 118.4 | 119.5 | 119.8 | 120.0 | 121.1 |
| State registration | 146.6 | 148.0 | 147.9 | - 147.9 | 147.9 | 147.9 | 149.0 | 146.6 | 148.1 | 147.9 | 148.0 | 148.0 | 148.0 | 149.0 |
| Drivers' licenses (12/77 = 100) | 105.0 | 105.8 | 105.9 | 106.2 | 109.6 | 109.9 | 110.4 | 104.7 | 105.6 | 105.6 | 105.9 | 109.5 | 109.8 | 110.3 |
| Vehicle inspection ( $12 / 77=100$ ) | 123.2 | 125.7 | 128.6 | ( ${ }^{1}$ | (1) | (1) | ( ${ }^{1}$ ) | 123.9 | 126.5 | 129.3 | ( ${ }^{1}$ ) | ( ${ }^{1}$ ) | (1) | ( ${ }^{1}$ |
| Other vehicle-related fees (12/77 = 100) | 130.7 | 136.3 | 136.6 | 140.0 | 140.9 | 141.2 | 141.3 | 140.0 | 142.6 | 143.1 | 145.8 | 145.9 | 146.5 | 148.6 |
| Public | 277.0 | 303.9 | 323.1 | 326.5 | 329.1 | 330.8 | 333.2 | 269.2 | 293.6 | 317.7 | 320.9 | 324.5 | 326.6 | 328.2 |
| Airline fare | 321.8 | 360.7 | 367.3 | 371.4 | 372.5 | 372.0 | 374.5 | 319.8 | 359.3 | 365.6 | 370.0 | 371.8 | 372.9 | 373.1 |
| Intercity bus fare | 308.0 | 337.6 | 343.5 | 347.5 | 351.4 | 361.3 | 362.2 | 308.0 | 336.8 | 343.6 | 347.3 | 351.7 | 362.1 | 362.9 |
| Intracity mass transit | 236.1 | 253.5 | 290.7 | 294.0 | 298.6 | 301.7 | 304.4 | 235.6 | 251.5 | 291.0 | 293.9 | 299.2 | 301.3 | 303.6 |
| Taxi fare | 269.2 | 281.7 | 287.1 | 288.1 | 288.6 | 289.3 | 291.3 | 275.6 | 289.2 | 295.7 | 296.7 | 297.1 | 298.1 | 300.4 |
| Intercity train fare | 255.6 | 304.1 | 304.6 | 304.6 | 305.0 | 315.0 | 319.2 | 255.7 | 304.6 | 304.9 | 305.0 | 305.2 | 314.9 | 318.9 |
| MEDICAL CARE | 274.5 | 291.5 | 295.6 | 299.3 | 301.7 | 304.8 | 308.2 | 276.3 | 292.9 | 295.4 | 298.6 | 300.9 | 304.0 | 307.1 |
| Medical care commodities | 173.8 | 186.3 | 187.7 | 189.4 | 190.8 | 192.1 | 193.1 | 174.1 | 187.3 | 189.2 | 190.6 | 191.9 | 192.9 | 193.8 |
| Prescription drugs | 159.6 | 172.3 | 173.7 | 175.4 | 176.5 | 178.6 | 179.6 | 160.2 | 173.5 | 175.0 | 176.5 | 178.0 | 179.4 | 180.3 |
| Anti-infective drugs (12/77 = 100) | 124.6 | 132.2 | 133.9 | 134.8 | 136.5 | 136.8 | 136.3 | 125.6 | 134.3 | 135.8 | 137.0 | 139.2 | 139.6 | 138.9 |
| Tranquilizers and sedatives ( $12 / 77=100$ ) | 128.9 | 137.3 | 138.4 | 139.6 | 140.0 | 141.9 | 143.6 | 127.7 | 136.5 | 137.6 | 138.8 | 139.7 | 141.3 | 143.3 |
| Circulatories and diuretics ( $12 / 77=100$ ). | 118.3 | 125.5 | 126.5 | 127.6 | 127.8 | 129.5 | 130.4 | 119.9 | 126.8 | 127.9 | 128.6 | 129.0 | 130.5 | 131.0 |
| Hormones, diabetic drugs, biologicals, and prescription medical supplies $(12 / 77=100)$ | 140.4 | 157.2 | 158.1 | 160.4 | 160.6 | 161.9 | 163.3 | 139.6 | 158.1 | 158.2 | 160.3 | 161.4 | 162.8 | 164.1 |
| Pain and symptom control drugs (12/77 = 100) | 126.7 | 137.7 | 139.1 | 140.2 | 141.7 | 144.1 | 144.9 | 128.3 | 138.9 | 141.8 | 142.7 | 143.8 | 144.2 | 145.4 |
| Supplements, cough and cold preparations, and respiratory agents $(12 / 77=100)$ | 121.2 | 131.1 | 131.8 | 133.1 | 134.1 | 136.8 | 137.5 | 122.3 | 132.0 | 132.5 | 133.9 | 134.6 | 136.1 | 136.8 |
| Nonprescription drugs and medical supplies ( $12 / 77=100$ ) | 125.3 | 133.5 | 134.5 | 135.6 | 136.7 | 137.0 | 137.8 | 125.5 | 134.4 | 135.8 | 136.7 | 137.4 | 137.9 | 138.5 |
| Eyeglasses (12/77 = 100) $\ldots . . . . . . . .$. | 121.2 | 125.3 | 125.8 | 126.3 | 126.9 | 127.4 | 127.8 | 120.2 | 124.7 | 125.0 | 125.3 | 126.0 | 126.0 | 126.7 |
| Internal and respiratory over-the-counter drugs | 195.8 | 211.5 | 213.1 | 215.5 | 217.8 | 217.3 | 218.6 | 195.8 | 212.6 | 215.4 | 217.5 | 218.9 | 219.5 | 220.2 |
| Nonprescription medical equipment and supplies (12/77 = 100) | 121.5 | 128.6 | 129.9 | 130.4 | 131.4 | 132.7 | 133.7 | 123.0 | 130.7 | 132.2 | 132.3 | 132.6 | 133.8 | 134.7 |
| Medical care services | 296.6 | 314.4 | 319.2 | 323.4 | 326.1 | 329.7 | 333.7 | 298.7 | 315.8 | 318.5 | 322.1 | 324.7 | 328.3 | 332.0 |
| Protessional services | 260.4 | 275.8 | 280.4 | 282.9 | 284.3 | 286.4 | 288.4 | 263.8 | 279.4 | 280.8 | 282.7 | 284.5 | 286.2 | 288.2 |
| Physicians' services | 278.0 | 297.5 | 300.7 | 302.7 | 304.9 | 307.9 | 311.3 | 283.8 | 302.4 | 304.7 | 306.7 | 308.6 | 310.9 | 314.1 |
| Dental services | 248.0 | 260.2 | 266.5 | 269.9 | 270.8 | 271.6 | 272.3 | 250.4 | 264.0 | 264.6 | 266.6 | 268.4 | 269.5 | 270.1 |
| Other protessional services ( $12 / 77=100$ ) | 128.5 | 134.2 | 136.8 | 137.3 | 137.7 | 138.9 | 139.5 | 126.7 | 132.6 | 132.7 | 133.6 | 134.3 | 134.9 | 136.2 |
| Other medical care services | 340.5 | 361.1 | 366.1 | 372.5 | 376.5 | 382.1 | 388.4 | 341.6 | 360.3 | 364.6 | 370.6 | 374.1 | 380.3 | 386.2 |
| Hospital and other medical services (12/77 = 100) | 141.1 | 149.6 | 151.7 | 154.7 | 156.6 | 159.0 | 161.9 | 140.5 | 148.6 | 150.3 | 153.1 | 154.8 | 157.9 | 160.6 |
| Hospital room | 441.0 | 470.4 | 478.0 | 489.4 | 494.6 | 503.0 | 515.4 | 439.8 | 467.1 | 472.2 | 482.6 | 488.5 | 498.9 | 509.6 |
| Other hospital and medical care services ( $12 / 77=100$ ) . | 140.9 | 148.7 | 150.4 | 152.9 | 155.0 | 157.2 | 159.2 | 140.2 | 147.6 | 149.4 | 151.8 | 153.4 | 156.1 | 158.3 |

23. Continued-Consumer Price Index - U.S. city average
[1967 = 100 unless otherwise specified]

| General summary | All Urban Consumers |  |  |  |  |  |  | Urban Wage Earners and Clerical Workers (revised) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980 | 1981 |  |  |  |  |  | 1980 | 1981 |  |  |  |  |  |
|  | Nov. | June | July | Aug. | Sept. | Oct. | Nov. | Nov. | June | July | Aug. | Sept. | Oct. | Nov. |
| ENTERTAINMENT | 211.2 | 220.8 | 221.1 | 222.3 | 224.0 | 225.5 | 226.8 | 209.9 | 218.3 | 218.7 | 219.9 | 221.5 | 223.4 | 224.3 |
| Entertainment commodities | 214.5 | 225.4 | 225.5 | 226.5 | 227.9 | 228.9 | 230.3 | 210.2 | 220.8 | 221.1 | 222.2 | 224.0 | 224.2 | 225.5 |
| Reading materials ( $12 / 77=100$ ) | 127.6 | 136.2 | 136.0 | 136.0 | 138.1 | 138.7 | 139.8 | 127.1 | 136.1 | 135.9 | 135.9 | 137.8 | 138.3 | 139.3 |
| Newspapers | 245.6 | 264.9 | 265.0 | 265.5 | 266.3 | 267.1 | 267.6 | 244.9 | 264.8 | 265.0 | 265.4 | 266.2 | 266.9 | 267.5 |
| Magazines, periodicals, and books (12/77 = 100) | 130.7 | 137.9 | 137.3 | 137.2 | 141.1 | 141.9 | 143.9 | 130.8 | 138.2 | 137.4 | 137.1 | 141.2 | 141.9 | 143.7 |
| Sporting goods and equipment ( $12 / 77=100$ ) | 122.8 | 126.8 | 127.0 | 127.2 | 127.3 | 128.3 | 130.2 | 117.0 | 120.4 | 120.6 | 120.8 | 121.3 | 121.4 | 122.8 |
| Sport vehicles (12/77 = 100) | 124.0 | 128.7 | 129.0 | 128.6 | 128.4 | 129.4 | (1) | 115.4 | 118.4 | 118.5 | 118.3 | 118.7 | 118.6 | (1) |
| Indoor and warm weather sport equipment (12/77 = 100) | 114.7 | 116.9 | 117.7 | 118.2 | 119.1 | 119.2 | 119.6 | 112.2 | 116.9 | 117.0 | 116.7 | 117.2 | 117.3 | 118.2 |
| Bicycles | 185.7 | 191.0 | 191.0 | 192.2 | 193.2 | 194.4 | 194.3 | 185.8 | 192.0 | 192.1 | 193.5 | 193.9 | 195.9 | 196.3 |
| Other sporting goods and equipment (12/77 = 100) | 119.9 | 122.7 | 122.7 | 124.1 | 125.0 | 126.6 | 126.7 | 119.1 | 122.2 | 122.9 | 124.9 | 125.8 | 126.2 | 126.9 |
| Toys, hobbies, and other entertainment ( $12 / 77=100$ ) | 122.8 | 129.3 | 129.3 | 130.5 | 131.0 | 131.3 | 131.3 | 121.6 | 128.1 | 128.5 | 129.6 | 130.6 | 130.5 | 130.8 |
| Toys, hobbies, and music equipment ( $12 / 77=100$ ) | 120.7 | 127.9 | 127.9 | 129.3 | 129.4 | 129.6 | 129.7 | 118.4 | 125.3 | 125.3 | 126.6 | 127.1 | 126.2 | 126.7 |
| Photographic supplies and equipment ( $12 / 77=100$ ) | 121.8 | 126.2 | 125.7 | 126.0 | 126.4 | 126.0 | 125.5 | 122.7 | 126.5 | 127.0 | 127.1 | 127.7 | 127.8 | 127.5 |
| Pet supplies and expenses (12/77 = 100) $\ldots \ldots \ldots$ | 127.3 | 134.2 | 134.5 | 136.2 | 137.2 | 138.3 | 138.3 | 126.8 | 134.3 | 135.1 | 136.6 | 138.8 | 139.9 | 140.1 |
| Entertainment services | 206.9 | 214.7 | 215.2 | 216.7 | 218.9 | 221.0 | 222.3 | 210.5 | 215.1 | 215.8 | 217.0 | 218.3 | 223.3 | 223.4 |
| Fees for participant sports ( $12 / 77=100$ ) | 125.2 | 131.3 | 131.6 | 132.0 | 134.3 | 136.4 | 137.3 | 126.7 | 131.4 | 131.6 | 132.4 | 134.0 | 138.9 | 139.1 |
| Admissions ( $12 / 77=100$ ) | 122.6 | 124.9 | 125.9 | 128.1 | 128.0 | 128.3 | 128.9 | 124.3 | 124.8 | 125.7 | 126.9 | 127.3 | 128.2 | 128.3 |
| Other entertainment services ( $12 / 77=100$ ) | 118.7 | 122.2 | 121.7 | 121.7 | 122.5 | 123.1 | 123.4 | 121.6 | 123.4 | 123.2 | 123.1 | 122.7 | 124.2 | 124.1 |
| OTHER GOODS AND SERVICES | 222.8 | 233.4 | 234.4 | 235.6 | 243.0 | 245.2 | 245.9 | 221.0 | 231.4 | 232.4 | 233.5 | 239.3 | 241.4 | 242.5 |
| Tobacco products | 207.3 | 219.1 | 219.3 | 219.9 | 221.7 | 225.3 | 226.2 | 206.8 | 218.4 | 218.4 | 219.1 | 220.9 | 224.5 | 225.4 |
| Cigarettes | 209.6 | 221.4 | 221.6 | 222.2 | 224.2 | 228.1 | 228.9 | 209.3 | 220.8 | 220.7 | 221.4 | 223.4 | 227.2 | 228.1 |
| Other tobacco products and smoking accessories (12/77 = 100) | 124.3 | 132.3 | 132.5 | 132.9 | 133.1 | 134.0 | 134.7 | 123.9 | 132.7 | 133.4 | 133.9 | 134.4 | 134.7 | 135.0 |
| Personal care | 219.0 | 232.1 | 233.4 | 235.1 | 236.3 | 236.9 | 237.7 | 218.5 | 229.7 | 231.2 | 232.4 | 233.6 | 234.1 | 235.5 |
| Toilet goods and personal care appliances | 212.4 | 228.6 | 228.7 | 230.1 | 231.2 | 231.6 | 232.5 | 212.7 | 227.2 | 228.4 | 229.4 | 231.1 | 231.4 | 233.1 |
| Products for the hair, hairpieces, and wigs (12/77 = 100) | 124.5 | 132.8 | 133.9 | 134.1 | 134.1 | 134.9 | 135.4 | 123.2 | 130.4 | 131.7 | 132.5 | 133.3 | 131.8 | 133.3 |
| Dental and shaving products ( $12 / 77=100$ ) | 127.2 | 139.4 | 139.0 | 140.0 | 140.0 | 139.8 | 140.5 | 125.9 | 136.6 | 137.1 | 137.6 | 138.0 | 138.0 | 139.3 |
| Cosmetics, bath and nail preparations, manicure and eye makeup implements $(12 / 77=100)$ | 120.8 | 129.0 | 127.7 | 128.9 | 130.7 | 131.2 | 131.8 | 121.0 | 128.0 | 128.3 | 128.9 | 130.4 | 131.6 | 132.2 |
| Other toilet goods and small personal care appliances (12/77 = 100) | 122.2 | 132.0 | 133.0 | 133.9 | 134.2 | 133.7 | 134.3 | 125.3 | 135.4 | 135.9 | 136.4 | 137.4 | 138.2 | 139.1 |
| Personal care services | 225.5 | 236.0 | 238.4 | 240.3 | 241.5 | 242.3 | 243.1 | 224.4 | 232.5 | 234.4 | 235.7 | 236.3 | 237.1 | 238.1 |
| Beauty parlor services for women | 227.5 | 237.7 | 240.5 | 241.9 | 243.0 | 243.9 | 244.8 | 226.1 | 232.7 | 235.1 | 235.7 | 236.1 | 236.7 | 237.8 |
| Haircuts and other barber shop services for men (12/77 = 100) | 125.6 | 131.9 | 132.7 | 134.4 | 135.3 | 135.6 | 135.9 | 125.2 | 131.3 | 131.8 | 133.3 | 133.9 | 134.5 | 134.9 |
| Personal and educational expenses | 251.3 | 257.8 | 259.2 | 260.4 | 281.5 | 284.6 | 284.9 | 251.4 | 258.5 | 260.1 | 261.7 | 281.8 | 284.8 | 285.6 |
| Schoolbooks and supplies | 221.9 | 230.9 | 231.3 | 231.4 | 252.1 | 254.5 | 254.6 | 225.6 | 234.7 | 235.2 | 235.2 | 255.9 | 258.3 | 258.3 |
| Personal and educational services | 258.1 | 264.2 | 265.8 | 267.2 | 288.5 | 291.7 | 292.1 | 257.8 | 264.6 | 266.4 | 268.4 | 288.5 | 291.6 | 292.5 |
| Tuition and other school fees | 132.2 | 132.9 | 133.5 | 134.2 | 147.4 | 149.0 | 149.1 | 132.4 | 133.1 | 133.7 | 134.7 | 147.7 | 149.3 | 149.4 |
| College tuition ( $12 / 77=100$ ) $\ldots \ldots . . . .$. | 131.5 | 132.4 | 133.0 | 133.2 | 146.3 | 148.2 | 148.3 | 131.5 | 132.4 | 132.9 | 133.1 | 146.1 | 148.1 | 148.1 |
| Elementary and high school tuition (12/77 = 100) | 134.4 | 134.4 | 135.3 | 137.8 | 151.5 | 151.6 | 152.0 | 134.3 | 134.4 | 135.4 | 138.7 | 152.1 | 152.2 | 152.7 |
|  | 133.0 | 146.3 | 147.9 | 148.7 | 150.0 | 152.3 | 152.8 | 131.6 | 144.8 | 146.6 | 147.6 | 148.5 | 150.4 | 152.1 |
| Special indexes: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gasoline, motor oil, coolant, and other products | 365.5 | 408.4 | 407.1 | 405.9 | 405.4 | 404.3 | 403.9 | 366.7 | 409.5 | 408.0 | 406.9 | 406.5 | 405.4 | 405.1 |
| Insurance and finance | . 355.3 | 393.4 | 402.7 | 408.1 | 417.6 | 419.0 | 422.2 | 355.6 | 393.1 | 402.4 | 407.3 | 416.4 | 417.6 | 420.9 |
| Utilities and public transportation | 253.1 | 278.5 | 286.5 | 289.7 | 293.3 | 292.7 | 292.6 | 251.6 | 276.7 | 285.6 | 288.5 | 292.4 | 291.6 | 291.5 |
| Housekeeping and home maintenance services | 306.4 | 328.6 | 332.3 | 334.0 | 335.7 | 335.9 | 339.6 | 303.5 | 325.1 | 322.8 | 333.0 | 335.5 | 337.3 | 339.9 |

[^17]24. Consumer Price Index for All Urban Consumers: Cross classification of region and population size class by expenditure category and commodity and service group
[December 1977 = 100]

25. Consumer Price Index - U.S. city average, and selected areas
[1967 = 100 unless otherwise specified]

|  |  |  |  | an Con | ners |  |  |  | an W | Earne | and Cle | Work | (revise |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Area ${ }^{1}$ | 1980 |  |  |  |  |  |  | 1980 |  |  |  |  |  |  |
|  | Nov. | June | July | Aug. | Sept. | Oct. | Nov. | Nov. | June | July | Aug. | Sept. | Oct. | Nov. |
| U.S. city average ${ }^{2}$ | 256.2 | 271.3 | 274.4 | 276.5 | 279.3 | 279.9 | 280.7 | 256.4 | 271.4 | 274.6 | 276.5 | 279.1 | 279.7 | 280.4 |
| Anchorage, Alaska (10/67 $=100$ ) | 236.5 |  | 246.1 |  | 250.5 |  | 253.7 | 232.0 |  | 241.7 |  | 245.9 |  | 249.3 |
| Atlanta, Ga. |  | 269.2 |  | 276.1 |  | 281.5 |  |  | 272.8 |  | 278.1 |  | 283.0 |  |
| Baltimore, Md. | 258.4 |  | 272.5 |  | 279.9 | ... | 280,7 | 257.4 | ... | 273.7 | ... | 281.6 | ... | 280.9 |
| Boston, Mass. | 248.8 |  | 266.3 |  | 272.8 |  | 274.2 | 249.2 |  | 266.5 |  | 273.6 |  | 274.3 |
| Butfalo, N.Y. |  | 257.2 | ... | 260.3 |  | 262.5 |  | ... | 256.1 | ... | 259.4 | ... | 261.2 | ... |
| Chicago, Ill.-Northwestern Ind. | 259.9 | 269.1 | 272.7 | 275.8 | 276.9 | 276.1 | 277.0 | 258.9 | 267.9 | 271.7 | 274.6 | 275.8 | 276.3 | 277.3 |
| Cincinnati, Ohio-Ky-Ind. | 262.1 |  | 273.3 |  | 275.2 |  | 276.6 | 263.5 |  | 276.3 | ... | 277.1 |  | 279.0 |
| Cleveland, Ohio | ... | 285.3 | ... | 284.4 | ... | 282.8 | ... | ... | 283.8 | ... | 283.0 | ... | 282.3 | ... |
| Dallas-Ft. Worth, Tex. |  | 286.0 |  | 288.2 |  | 292.5 |  |  | 284.0 |  | 285.1 |  | 288.8 |  |
| Denver-Boulder, Colo. | 271.9 | .. | 294.2 |  | 298.9 |  | 297.8 | 276.7 | ... | 299.9 | ... | 304.2 | ... | 302.8 |
| Detroit, Mich. | 266.4 | 280.5 | 283.1 | 283.5 | 284.2 | 281.5 | 279.6 | 263.6 | 275.9 | 278.9 | 279.1 | 280.2 | 278.2 | 276.4 |
| Honolulu, Hawaii | ... | 252.8 | ... | 256.6 | ... | 259.3 | ... | . | 253.8 | . | 256.6 | ... | 259.1 | .. |
| Houston, Tex. | $\ldots$ | 292.9 | $\ldots$ | 294.7 | $\ldots$ | 300.0 | ... |  | 289.4 | $\ldots$ | 291.8 |  | 295.9 | ... |
| Kansas City, Mo.-Kansas |  | 270.5 |  | 271.3 |  | 272.6 |  |  | 269.1 |  | 270.2 |  | 271.3 |  |
| Los Angeles-Long Beach, Anaheim, Calif. | 255.5 | 267.9 | 272.2 | 274.8 | 279.3 | 281.3 | 281.8 | 258.4 | 271.7 | 276.3 | 278.6 | 282.9 | 284.9 | 285.5 |
| Miami, Fla. (11/77 $=100$ ) | 133.9 |  | 146.1 | $\ldots$ | 150.2 | $\ldots$ | 153.6 | 135.6 | $\ldots$ | 143.7 | $\ldots$ | 151.0 |  | 154.7 |
| Milwaukee, Wis. | 262.1 |  | 285.6 |  | 286.9 |  | 287.5 | 267.5 |  | 291.2 |  | 292.1 |  | 291.5 |
| Minneapolis-St. Paul, Minn.-Wis. |  | 276.1 |  | 286.6 |  | 291.6 |  |  | 276.6 |  | 287.0 |  | 291.6 |  |
| New York, N.Y.-Northeastern N.J. | 244.7 | 258.6 | 262.5 | 264.8 | 268.8 | 268.0 | 267.8 | 244.2 | 257.9 | 262.3 | 264.0 | 267.8 | 267.0 | 266.9 |
| Northeast, Pa. (Scranton) | 247.0 |  | 266.0 | ... | 271.5 | ... | 272.2 | 249.5 | ... | 269.0 | ... | 275.0 |  | 275.2 |
| Philadelphia, Pa.N.J. | 249.2 | 265.4 | 267.8 | 270.5 | 274.4 | 274.7 | 274.1 | 251.1 | 265.6 | 268.5 | 271.6 | 274.5 | 275.2 | 274.5 |
| Pittsburgh, Pa. |  | 271.3 |  | 277.7 |  | 277.7 |  |  | 273.0 |  | 278.1 |  | 278.4 |  |
| Portland, Oreg.Wash. | 261.9 | ... | 280.8 | ... | 291.1 | ... | 278.7 | 260.7 | ... | 279.2 | ... | 288.8 | ... | 276.3 |
| St. Louis, Mo.-III. | 253.8 | $\ldots$ | 269.4 | $\ldots$ | 273.4 | $\ldots$ | 273.8 | 254.2 | $\ldots$ | 269.2 |  | 273.0 |  | 273.0 |
| San Diego, Calif. | 279.1 |  | 305.4 |  | 313.9 |  | 321.3 | 275.1 | $\ldots$ | 300.5 |  | 308.0 |  | 315.1 |
| San Francisco-Oakland, Calif. |  | 274.0 |  | 287.9 |  | 297.0 |  |  | 274.3 |  | 287.2 |  | 295.6 |  |
| Seattle-Everett, Wash. | 262.6 |  | 282.3 | ... | 288.6 | ... | 289.2 | 259.4 |  | 277.8 |  | 284.3 |  | 285.7 |
| Washington, D.C.-Md.-Va. | 253.6 |  | 267.1 |  | 271.8 |  | 275.5 | 255.7 |  | 271.4 |  | 275.7 |  | 279.3 |
| 'The areas listed include not only the central city but the entire portion of the Standard Metropolitan Statistical Area, as defined for the 1970 Census of Population, except that the Standard Consolidated |  |  |  |  | Area is used for New York and Chicago. ${ }^{2}$ Average of 85 cities. |  |  |  |  |  |  |  |  |  |

27. Producer Price Indexes, by commodity groupings
[1967 = 100 unless otherwise specified]


[^18]27. Continued-Producer Price Indexes, by commodity groupings
[1967 = 100 unless otherwise specified]

|  | Commodity group and subgroup | Annual average 1980 | 1980 <br> Dec. | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code |  |  |  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. ${ }^{1}$ | Sept | Oct. | Nov. | Dec. |
|  | INDUSTRIAL COMMODITIES - Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 09 | Puip, paper, and allied products | 249.2 | 256.7 | 264.4 | 267.2 | 269.0 | 271.4 | 272.1 | 272.9 | 274.9 | '275.9 | 276.9 | 279.1 | 280.2 | 280.7 |
| 09-1 | Pulp, paper, and products, excluding building paper and board | 250.6 | 257.9 | 260.9 | 264.5 | 266.8 | 268.6 | 269.9 | 271.2 | 272.3 | '273.7 | 275.5 | 276.5 | 276.3 | 276.2 |
| 09-11 | Woodpulp . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 380.3 | 390.2 | 390.2 | 390.2 | 390.2 | 394.1 | 394.2 | 394.2 | 394.2 | '394.2 | 396.6 | 404.7 | 417.0 | 417.0 |
| 09-12 | Wastepaper | 208.7 | 191.5 | 191.5 | 186.1 | 185.1 | 184.2 | 182.7 | 182.9 | 182.1 | 182.1 | 178.5 | 165.1 | 144.5 | 143.4 |
| 09-13 | Paper .... | 256.8 | 269.4 | 271.7 | 272.9 | 273.8 | 275.2 | 275.9 | 278.5 | 279.7 | ${ }^{\text {'282.1 }}$ | 287.1 | 288.6 | 287.1 | 287.5 |
| 09-14 | Paperboard | 234.6 | 239.6 | 250.2 | 252.8 | 255.1 | 255.7 | 258.8 | 259.2 | 259.4 | ${ }^{\text {r } 260.6 ~}$ | 262.5 | 262.6 | 261.6 | 259.3 |
| 09-15 | Converted paper and paperboard products | 238.5 | 244.7 | 246.9 | 252.1 | 255.3 | 257.3 | 258.8 | 259.9 | 261.2 | '262.4 | 263.0 | 263.9 | 263.9 | 263.9 |
| 09-2 | Building paper and board . . . . . . . . . . . . . . . . . . . . . | 206.2 | 219.7 | 219.7 | 225.7 | 227.9 | 232.5 | 237.3 | 237.4 | 235.5 | '234.2 | 233.7 | 232.5 | 231.5 | 227.7 |
| 10 | Metals and metal products | 286.4 | 290.6 | 294.0 | 294.0 | 296.4 | 298.8 | 299.1 | 298.4 | 302.0 | ${ }^{\text {r }} 304.1$ | 305.1 | 305.5 | 303.9 | 303.6 |
| 10-1 | Iron and steel | 305.2 | 316.4 | 323.0 | 323.2 | 328.2 | 331.0 | 330.4 | 330.1 | 338.8 | 「339.9 | 339.7 | 341.5 | 339.8 | $339.7$ |
| 10-13 | Steel mill products | 302.7 | 313.7 | 322.6 | 322.9 | 328.7 | 331.8 | 331.8 | 332.2 | 344.9 | 344.9 | 345.3 | 348.7 | 348.6 | 348.9 |
| 10-2 | Nonferrous metals | 305.0 | 293.4 | 292.1 | 287.4 | 286.5 | 288.4 | 287.7 | 284.5 | 282.8 | '287.3 | 290.0 | 286.8 | 281.4 | 277.5 |
| 10-3 | Metal containers | 298.6 | 303.3 | 311.4 | 313.8 | 314.1 | 314.1 | 314.1 | 314.1 | 315.2 | '318.7 | 319.6 | 319.0 | 318.2 | 318.2 |
| 10-4 | Hardware | 240.5 | 251.7 | 254.5 | 258.0 | 258.6 | 258.5 | 259.4 | 259.7 | 263.8 | '265.3 | 265.7 | 267.5 | 268.9 | $269.4$ |
| 10-5 | Plumbing fixtures and brass fittings | 246.7 | 254.9 | 256.7 | 259.2 | 259.5 | 265.3 | 266.2 | 268.9 | 270.9 | '271.2 | 271.4 | 272.8 | 273.0 | 273.9 |
| 10-6 | Heating equipment . . . . . . . . . . | 206.5 | 214.0 | 216.6 | 217.6 | 219.5 | 219.8 | 222.3 | 223.5 | 226.4 | '227.9 | 227.9 | 228.4 | 227.6 | 229.2 |
| 10-7. | Fabricated structural metal products | 270.5 | 279.3 | 283.1 | 285.4 | 289.4 | 293.1 | 294.0 | 295.0 | 297.9 | '299.3 | 300.5 | 302.2 | 302.2 | 302.7 |
| 10-8. | Miscellaneous metal products . . . . | 250.0 | 257.6 | 260.5 | 263.1 | 264.7 | 267.2 | 269.7 | 269.4 | 272.0 | '272.9 | 274.5 | 276.2 | 277.5 | 281.4 |
| 11 | Machinery and equipment | 239.8 | 249.8 | 253.3 | 255.3 | 257.5 | 259.6 | 260.7 | 262.1 | 264.8 | '266.2 | 267.8 | 268.8 | 270.0 | 271.6 |
| $11-1$ | Agricultural machinery and equipment | 259.2 | 272.9 | 276.4 | 278.4 | 279.8 | 282.5 | 285.7 | 286.8 | 288.1 | ${ }^{\prime} 290.3$ | 292.0 | 292.1 | 298.7 | $301.3$ |
| 11-2 | Construction machinery and equipment | 289.4 | 301.4 | 305.9 | 310.0 | 312.8 | 317.0 | 318.4 | 320.1 | 323.8 | ${ }^{\prime} 325.0$ | 326.6 | 329.0 | 329.6 | 332.0 |
| 11-3 | Metalworking machinery and equipment . | 274.4 | 285.7 | 289.7 | 291.6 | 294.9 | 298.7 | 299.9 | 301.3 | 302.9 | '303.5 | 305.3 | 306.5 | 307.5 | 312.2 |
| 11-4 | General purpose machinery and equipment | 264.6 | 275.6 | 278.6 | 280.2 | 282.3 | 284.4 | 285.9 | 287.0 | 290.6 | ${ }^{\text {'292.3 }}$ | 293.5 | 294.4 | 295.6 | 297.2 |
| 11-6 | Special industry machinery and equipment | 275.8 | 290.9 | 295.6 | 299.2 | 301.0 | 303.2 | 307.2 | 308.8 | 311.0 | '310.3 | 312.7 | 314.7 | 315.2 | 316.5 |
| 11-7 | Electrical machinery and equipment . . . . | 201.7 | 208.9 | 211.9 | 213.7 | 216.0 | 217.4 | 217.5 | 219.2 | 221.1 | 222.8 | 224.1 | 225.0 | 226.0 | 226.9 |
| 11-9 | Miscellaneous machinery . . . . . . . . . . . . . . . . . . . | 229.9 | 239.6 | 243.3 | 245.2 | 247.0 | 248.5 | 248.8 | 250.1 | 254.0 | '256.0 | 257.8 | 258.3 | 259.1 | 259.8 |
| 12 | Furniture and household durables | 187.7 | 193.1 | 194.0 | 195.2 | 195.8 | 196.4 | 197.4 | 197.3 | 199.5 | '199.6 | 200.7 | 201.4 | 201.6 | 202.2 |
| 12-1 | Household furniture . . . . . . . | 204.8 | 212.1 | 212.9 | 213.8 | 214.5 | 216.5 | 216.4 | 218.6 | 220.0 | ${ }^{1} 220.7$ | 223.3 | 224.1 | 225.4 | 227.0 |
| 12-2 | Commercial furniture | 236.0 | 242.4 | 246.7 | 251.6 | 253.4 | 254.5 | 257.7 | 257.9 | 258.7 | '259.1 | 261.5 | 262.5 | 263.2 | $264.1$ |
| 12-3 | Floor coverings . . . | 163.0 | 170.7 | 172.3 | 171.9 | 174.1 | 175.3 | 179.5 | 180.7 | 182.8 | '181.9 | 181.5 | 181.5 | 180.8 | 180.7 |
| 12-4 | Household appliances | 174.2 | 179.5 | 182.2 | 183.5 | 184.2 | 185.1 | 185.5 | 186.1 | 188.8 | '189.1 | 188.3 | 189.5 | 189.7 | 190.2 |
| 12-5 | Home electronic equipment .. | 91.4 | 91.0 | - 91.1 | 91.3 | 91.4 | 90.9 | 90.8 | 86.7 | 87.4 | '87.6 | 87.8 | 88.3 | 88.0 | 87.8 |
| 12-6 | Other household durable goods .. | 278.6 | 285.7 | 278.9 | 280.8 | 278.1 | 275.3 | 276.7 | 276.4 | 282.1 | '280.9 | 285.4 | 285.3 | 284.6 | 285.5 |
| 13 | Nonmetallic mineral products | 283.0 | 291.2 | 296.6 | 297.9 | 300.9 | 310.8 | 312.0 | 313.6 | 314.3 | ${ }^{\text {' }} 314.1$ | 313.1 | 313.1 | 313.5 | 313.6 |
| 13-11 | Flat glass | 196.5 | 203.0 | 203.9 | 204.3 | 204.8 | 210.2 | 210.2 | 210.3 | 218.3 | ${ }^{\prime} 218.3$ | 218.8 | 218.5 | 218.5 | $218.5$ |
| 13-2 | Concrete ingredients | 274.0 | 279.7 | 290.0 | 291.4 | 292.6 | 297.4 | 297.5 | 297.5 | 297.7 | '298.0 | 298.4 | 298.3 | 298.3 | 298.5 |
| 13-3 | Concrete products | 273.9 | 277.6 | c 286.2 | 286.6 | 286.9 | 289.9 | 291.2 | 293.5 | 293.4 | ${ }^{+} 293.4$ | 292.9 | 293.3 | 293.2 | 293.5 |
| 13-4 | Structural clay products excluding refractories | 231.5 | 233.6 | 239.5 | 239.8 | 244.6 | 246.0 | 250.1 | 250.7 | 250.9 | '250.9 | 254.8 | 255.6 | 255.9 | 257.1 |
| 13-5 | Refractories . . . . . . . . . . . . . . . . . . . . . . | 264.6 | 273.2 | 282.6 | 293.5 | 296.1 | 296.4 | 304.0 | 307.1 | 307.1 | ${ }^{+} 307.1$ | 308.0 | 308.8 | 309.8 | 309.8 |
| 13-6 | Asphalt roofing . | 396.8 | 394.6 | 394.8 | 389.5 | 390.5 | 415.9 | 407.4 | 428.5 | 421.9 | '420.9 | 400.0 | 401.3 | 408.9 | 404.2 |
| 13-7 | Gypsum products | 256.3 | 252.7 | 259.6 | 257.3 | 257.6 | 256.8 | 261.1 | 260.7 | 259.7 | 255.3 | 252.9 | 252.4 | 251.3 | 249.7 |
| 13-8 | Glass containers | 292.7 | 311.4 | 311.4 | 311.4 | 311.4 | 326.7 | 335.3 | 335.3 | 335.5 | ${ }^{\text {' }} 3355.5$ | 334.8 | 334.8 | 334.8 | 334.8 |
| 13-9 | Other nonmetallic minerals . . . . . . . . . . . . . . . . . . . . . | 394.6 | 418.9 | 418.7 | 424.7 | 441.7 | 479.1 | 477.6 | 476.8 | 476.2 | ${ }^{\text {' } 475.3}$ | 474.2 | 473.2 | 473.5 | 475.4 |
| 14 | Transportation equipment (12/68 = 100) | 207.0 | 224.3 | 227.4 | 229.1 | 228.1 | 231.9 | 233.6 | 234.3 | 235.0 | ${ }^{\text {r }} 235.9$ | 231.7 | 244.4 | 246.2 | 246.7 |
| 14-1 | Motor vehicles and equipment . . . . . | 208.8 | 226.2 | ${ }^{\text {c } 229.0}$ | 230.9 | 229.5 | 233.9 | 236.0 | 236.7 | 237.4 | '238.4 | 232.6 | 247.5 | 248.6 | 249.2 |
| 14-4 | Railroad өquipment . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 313.1 | 323.9 | 332.5 | 332.5 | 333.9 | 335.7 | 331.2 | 331.4 | 338.1 | '338.7 | 345.0 | 345.0 | 347.5 | 346.3 |
| 15 | Miscellaneous products . . . . . . . . . . . . . . . . | 258.8 | 265.3 | 264.3 | 264.9 | 264.0 | 266.0 | 266.9 | 266.3 | 263.2 | 262.6 | 266.7 | 268.0 | 267.2 | 267.3 |
| 15-1 | Toys, sporting goods, small arms, ammunition | 198.6 | 205.7 | 208.4 | 210.5 | 211.1 | 211.3 | 211.4 | 211.2 | 213.2 | '212.7 | 215.1 | 213.7 | 213.4 | 213.8 |
| 15-2 | Tobacco products . ................. | 245.7 | 254.8 | 254.8 | 256.1 | 256.3 | 268.7 | 268.7 | 268.7 | 268.8 | ${ }^{\prime} 268.8$ | 274.2 | 278.0 | 278.0 | 277.9 |
| 15-3 | Notions . . . . . . . | 217.2 | 225.0 | 227.2 | 247.3 | 247.3 | 248.4 | 267.8 | 268.0 | 267.5 | 267.7 | 267.8 | 267.3 | 269.7 | 269.7 |
| 15-4 | Photographic equipment and supplies | 202.9 | 206.6 | 207.4 | 209.6 | 211.2 | 212.4 | 212.5 | 212.5 | 211.4 | '207.1 | 209.0 | 209.1 | 209.1 | $209.5$ |
| $15-5$ | Mobile homes ( $12 / 74=100) \ldots \ldots$ | 150.2 363.4 | 153.0 370.5 | 153.0 363.3 | 153.1 358.1 | 155.0 3513 | $(2)$ 3490 | (2) 349.4 | $\left({ }^{2}\right)$ 346.9 | 158.1 333.1 | ' 1588.3 '334.6 | 158.1 343.4 | 158.6 346.7 | 158.8 343.4 | 159.0 343.2 |
| 15-9 | Other miscellaneous products . . . . . . . . . . . . . . . . . . . | 363.4 | 370.5 | 363.3 | 358.1 | 351.3 | 349.0 | 349.4 | 346.9 | 333.1 | '334.6 | 343.4 | 346.7 | 343.4 | 343.2 |

${ }^{1}$ Data for August 1981 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.
${ }^{2}$ Not available.
${ }^{3}$ Prices for natural gas are lagged 1 month.
${ }^{4}$ Includes only domestic production.

[^19]28. Producer Price Indexes, for special commodity groupings
[1967 = 100 unless otherwise specified]

| Commodity grouping | Annual average 1980 | $1980$ <br> Dec. | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. ${ }^{1}$ | Sept. | Oct. | Nov. | Dec. |
| All commodities - less farm products | 269.6 | 281.2 | 285.4 | 288.8 | 291.9 | 295.0 | 296.1 | 296.7 | 298.0 | ${ }^{\text {² }} 298.7$ | 298.3 | 299.4 | 299.3 | 300.0 |
| All foods | 244.7 | 254.3 | 255.8 | 253.7 | 253.4 | 251.4 | 250.3 | 252.2 | 255.2 | 253.7 | 251.7 | 249.4 | 247.8 | 248.0 |
| Processed foods | 246.6 | 255.5 | 257.0 | 253.9 | 252.3 | 250.3 | 250.5 | 253.1 | 256.0 | ${ }^{\text {' } 255.0}$ | 252.8 | 250.6 | 248.2 | 246.9 |
| Industrial commodities less fuels | 243.5 | 252.3 | 255.4 | 257.2 | 258.6 | 261.8 | 262.9 | 263.5 | 265.0 | '266.1 | 266.3 | 268.6 | 268.9 | 269.4 |
| Selected textile mill products (Dec. $1975=100$ ) | 124.3 | 129.3 | 131.8 | 132.5 | 132.2 | 134.5 | 135.7 | 135.9 | 136.8 | 137.2 | 138.2 | 138.5 | 138.6 | 138.3 |
| Hosiery . . | 123.2 | 126.4 | 129.5 | 130.3 | 130.5 | 134.2 | 134.6 | 135.7 | 135.8 | 135.3 | 135.5 | 136.5 | 136.5 | 136.7 |
| Underwear and nightwear . . . . . . . . . . . . . . . . . . | 185.4 | 190.6 | 199.2 | 200.9 | 202.0 | 202.1 | 202.3 | 203.5 | 204.7 | ${ }^{1} 204.7$ | 205.0 | 205.0 | 206.0 | 206.6 |
| Chemicals and allied products, including synthetic rubber and synthetic fibers and yarns | 250.7 | 258.2 | 264.8 | 268.3 | 271.0 | 276.1 | 279.0 | 281.2 | 282.3 | ${ }^{\text {' } 284.0}$ | 284.4 | 284.2 | 283.8 | 284.0 284.0 |
| Pharmaceutical preparations . . . . . . . . . . . . . . . . . | 167.1 | 174.6 | 177.1 | 179.7 | 182.1 | 184.0 | 185.7 | 186.6 | 189.0 | ${ }^{1} 188.4$ | 190.8 | 192.7 | 192.4 | 193.0 |
| Lumber and wood products, excluding millwork | 304.0 | 314.2 | 309.2 | 306.0 | 304.8 | 312.3 | 311.5 | 312.2 | 308.7 | '306.2 | 297.9 | 290.3 | 287.7 | 290.4 |
| Special metals and metal products | 258.5 | 268.6 | 271.8 | 272.7 | 273.5 | 276.8 | 277.9 | 277.9 | 280.2 | '281.9 | 280.1 | 286.6 | 286.4 | 286.6 |
| Fabricated metal products | 258.2 | 266.3 | 269.9 | 272.5 | 274.7 | 277.0 | 278.5 | 279.0 | 281.7 | '283.1 | 284.2 | 285.6 | 286.2 | 287.9 |
| Copper and copper products . . . . . . . . . . . . . . . . . . | 222.0 | 210.8 | 207.4 | 205.0 | 204.8 | 207.7 | 206.6 | 203.7 | 202.5 | '206.2 | 205.4 | 203.8 | 199.3 | 195.9 |
| Machinery and motive products . . . . . . . . . . . . . . . | 230.4 | 244.1 | 247.4 | 249.4 | 250.2 | 253.1 | 254.4 | 255.6 | 257.4 | '258.6 | 257.6 | 264.0 | 265.5 | 266.7 |
| Machinery and equipment, except electrical | 263.0 | 276.7 | 277.3 | 279.7 | 281.9 | 284.3 | 285.9 | 287.3 | 290.4 | ${ }^{\text {'291.7 }}$ | 293.4 | 294.4 | 295.8 | 297.8 |
| Agricultural machinery, including tractors | 267.3 | 281.4 | 285.0 | 287.3 | 288.3 | 289.6 | 293.7 | 294.8 | 295.6 | '298.2 | 300.5 | 300.4 | 309.1 | 312.4 |
| Metalworking machinery . . . . . . . . . . . . . . . . . . . . . | 299.4 | 314.1 | 318.9 | 320.5 | 323.5 | 325.9 | 327.1 | 328.3 | 330.1 | ${ }^{\prime} 331.4$ | 333.7 | 335.6 | 338.1 | 339.8 |
| Numerically controlled machine tools (Dec. $1971=100$ ) | 225.6 | 230.6 | 234.6 | 235.0 | 235.7 | 235.7 | 237.3 | 241.4 | 241.7 | '241.8 | 242.1 | 242.1 | 242.5 | 242.3 |
| Total tractors | 287.3 | 301.2 | 305.8 | 311.1 | 311.8 | 316.8 | 322.0 | 322.5 | 325.5 | ${ }^{+} 327.8$ | 330.5 | 332.9 | 340.4 | 340.4 |
| Agricultural machinery and equipment less parts | 261.2 | 274.3 | 278.0 | 280.2 | 281.5 | 283.2 | 286.7 | 287.9 | 288.6 | '291.1 | 293.0 | 293.1 | 300.6 | 303.9 |
| Farm and garden tractors less parts . . . . . . . . | 268.8 | 282.4 | 284.4 | 287.2 | 287.6 | 289.3 | 297.7 | 298.0 | 298.0 | '301.4 | 305.0 | 305.0 | 316.5 | 316.5 |
| Agricultural machinery excluding tractors less parts | 266.5 | 280.9 | 285.7 | 287.7 | 289.1 | 290.2 | 290.8 | 292.5 | 293.9 | '295.8 | 297.1 | 297.0 | 303.3 | 309.3 |
| Industrial valves Industrial fittings | 287.8 291.8 | 297.8 | 300.7 | 305.5 | 310.1 | 314.0 | 314.3 | 315.3 | 317.5 | '319.8 | 319.3 | 319.0 | 320.0 | 321.9 |
| Industrial fittings .... Construction materials | 291.8 266.4 | 298.6 274.1 | 298.6 | 296.0 | 298.9 279.0 | 302.7 283.9 | 303.0 284.2 | 303.0 285.0 | 303.0 285.7 | 303.0 r 285.5 | 304.3 284.4 | 304.1 284.5 | 304.1 | 304.1 |
| Construction materials | 266.4 | 274.1 | 276.7 | 277.2 | 279.0 | 283.9 | 284.2 | 285.0 | 285.7 | '285.5 | 284.4 | 284.5 | 284.1 | 285.1 |

${ }^{1}$ Data for August 1981 have been revised to reflect the availability of late reports and corrections
$\mathrm{r}=$ revised.
by respondents. All data are subject to revision 4 months after original publication.
29. Producer Price Indexes, by durability of product
[1967=100]

| Commodity grouping | Annual average 1980 | $1980$ <br> Dec. | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. ${ }^{1}$ | Sept. | Oct. | Nov. | Dec. |
| Total durable goods | 251.5 | 261.0 | 262.7 | 263.8 | 264.9 | 267.8 | 268.6 | 269.1 | 270.8 | '271.9 | 271.7 | 274.9 | 275.2 | 275.9 |
| Total nondurable goods | 282.4 | 296.3 | 302.6 | 306.8 | 310.9 | 314.2 | 314.8 | 315.7 | 316.8 | '316.2 | 314.6 | 312.7 | 311.5 | 311.6 |
| Total manufactures | 261.5 | 272.0 | 277.3 | 279.3 | 282.3 | 285.3 | 286.2 | 286.9 | 288.0 | '288.6 | 288.1 | 289.7 | 289.6 | 290.0 |
| Durable | 250.8 | 260.4 | 262.3 | 263.4 | 264.4 | 267.2 | 268.2 | 268.9 | 270.6 | ${ }^{\text {'271.7 }}$ | 271.6 | 274.9 | 275.5 | 276.3 |
| Nondurable | 273.0 | 284.3 | 293.5 | 296.4 | 301.7 | 304.9 | 305.7 | 306.4 | 306.9 | ${ }^{\text {'306.9 }}$ | 305.9 | 305.4 | 304.6 | 304.5 |
| Total raw or slightly processed goods | 305.7 | 326.2 | 322.9 | 330.3 | 331.2 | 334.6 | 334.2 | 335.4 | 337.9 | '335.8 | 332.7 | 326.2 | 323.2 | 323.8 |
| Durable .. | 278.2 | 284.0 | 275.9 | 275.5 | 281.7 | 286.0 | 280.4 | 272.4 | 271.2 | '275.9 | 271.1 | 264.3 | 253.8 | 248.4 |
| Nondurable | 306.7 | 328.2 | 325.3 | 333.3 | 333.8 | 337.1 | 337.1 | 338.9 | 341.8 | '339.1 | 336.2 | 329.7 | 327.3 | 328.3 |

${ }^{1}$ Data for August 1981 have been revised to reflect the availability of late reports and corrections
by respondents. All data are subject to revision 4 months after original publication.
30. Producer Price Indexes for the output of selected SIC industries
[1967=100 unless otherwise specified]

|  |  | Annual | 1980 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| code | Industry description | $\begin{aligned} & \text { verage } \\ & 1980 \end{aligned}$ | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. ${ }^{1}$ | Sept. | Oct. | Nov. | Dec. |
|  | MINING |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1011 | Iron ores (12/75 = 100) | 152.9 | 155.8 | 155.8 | 168.1 | 168.1 | 168.1 | 168.1 | 168.1 | 168.1 | 168.1 | 168.1 | 168.1 | 168.1 | 171.3 |
| 1092 | Mercury ores ( $12 / 75=100$ ) | 331.2 | 325.0 | 297.9 | 324.5 | 335.4 | 354.1 | 347.9 | 352.0 | 358.3 | 365.4 | 364.5 | 354.1 | 354.1 | 343.7 |
| 1211 | Bituminous coal and lignite . | 466.7 | 473.9 | 476.1 | 478.1 | 478.5 | 483.5 | 484.5 | 488.4 | 502.1 | ${ }^{\text {'503.4 }}$ | 506.3 | 506.6 | 508.2 | 510.7 |
| 1311 | Crude petroleum and natural gas | 643.8 | 731.7 | 786.5 | 897.9 | 901.7 | 908.6 | 919.7 | 713.7 | 911.5 | '900.3 | 914.6 | 901.0 | 907.4 | 922.6 |
| 1442 | Construction sand and gravel ... | 252.7 | 264.3 | 270.1 | 272.3 | 275.2 | 278.0 | 278.4 | 278.4 | 278.4 | ${ }^{1} 278.2$ | 279.4 | 279.6 | 279.6 | 280.4 |
| 1455 | Kaolin and ball clay ( $6 / 76=100$ ) | 136.0 | 133.7 | 137.1 | 137.1 | 137.1 | 137.1 | 137.1 | 137.1 | 137.1 | 137.1 | 137.1 | 143.4 | 143.4 | 143.4 |
|  | MANUFACTURING |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2011 | Meatpacking plants . . . . . . . | 244.0 | 249.0 | 244.7 | 237.2 | 236.1 | 237.8 | 243.6 | 245.9 | 252.6 | '250.9 | 252.9 | 244.3 | 236.9 | 234.5 |
| 2013 | Sausages and other prepared meats | 220.1 | 247.4 | 235.3 | 232.9 | 230.4 | 227.5 | 230.4 | 238.1 | 246.0 | '254.0 | 253.7 | 252.0 | 248.6 | 246.7 |
| $2016$ | Poultry dressing plants ........ | 191.9 | 201.8 | 201.9 | 208.3 | 203.9 | 186.7 | 196.2 | 198.3 | 203.6 | 201.2 | 188.8 | 175.5 | 172.8 | $166.7$ |
| 2021 | Creamery butter.... | 258.5 | 274.8 | 273.6 | 273.5 | 273.6 | 273.4 | 273.4 | 273.5 | 273.8 | 273.7 | 275.0 | 279.2 | 279.5 | 275.0 |
| See footnotes at end of table. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

30. Continued - Producer Price Indexes for the output of selected SIC industries
[ $1967=100$ unless otherwise specified]

|  | Industry description | Annual average 1980 |  | 1981 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| code |  |  |  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. ${ }^{1}$ | Sept. | Oct. | Nov. | Dec. |
|  | MANUFACTURING - Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2022 | Cheese, natural and processed ( $12 / 72=100$ ) | 204.4 | 216.1 | 215.9 | 215.6 | 215.7 | 216.2 | 216.2 | 216.1 | 213.8 | '214.5 | 217.0 | 215.6 | 215.9 | 217.1 |
| 2024 | Ice cream and frozen desserts ( $12 / 72=100$ ) | 193.3 | 207.5 | 210.1 | 210.6 | 210.6 | 211.4 | 212.4 | 212.4 | 212.7 | 212.7 | 212.7 | 212.5 | 212.5 | 212.8 |
| 2033 | Canned fruits and vegetables | 221.4 | 232.0 | 233.3 | 237.4 | 241.5 | 244.0 | 245.9 | 248.9 | 251.6 | '252.9 | 255.6 | 256.1 | 255.6 | 258.8 |
| 2034 | Dehydrated food products ( $12 / 73=100$ ) | 160.2 | 170.4 | 174.1 | 171.3 | 172.9 | 174.2 | 175.3 | 175.0 | 180.5 | 178.7 | 183.4 | 182.3 | 181.6 | 182.1 |
| 2041 | Flour mills ( $12 / 71=100) \ldots \ldots .$. | 189.1 | 199.5 | 203.8 | 198.4 | 195.1 | 201.5 | 199.4 | 199.3 | 196.5 | 191.0 | 194.8 | 190.6 | 191.5 | 189.3 |
| 2044 | Rice milling | 243.4 | 287.2 | 289.6 | 289.6 | 298.0 | 300.9 | 300.3 | 300.3 | 297.4 | 284.3 | 268.2 | 247.3 | 235.4 | 215.1 |
| 2048 | Prepared foods, n.e.c. $(12 / 75=100)$ | 124.2 | 133.9 | 132.6 | 129.3 | 126.6 | 128.5 | 129.8 | 127.5 | 125.9 | '124.8 | 120.0 | 117.5 | 116.4 | 116.4 |
| 2061 | Raw cane sugar ............... | 414.1 | 402.9 | 418.0 | 367.1 | 318.8 | 275.7 | 224.8 | 263.3 | 272.2 | 254.6 | 212.3 | 219.9 | 224.3 | 230.8 |
| 2063 | Beet sugar ... | 358.0 | 423.3 | 414.5 | 398.1 | 370.7 | 350.5 | 334.4 | 339.7 | 274.1 | '287.5 | 271.0 | 272.2 | 262.1 | 272.4 |
| 2067 | Chewing gum | 290.7 | 322.9 | 323.0 | 323.0 | 323.1 | 323.1 | 303.1 | 303.1 | 303.1 | 303.2 | 303.2 | 303.2 | 303.2 | 303.2 |
| 2074 | Cottonseed oil mills | 192.9 | 228.0 | 221.2 | 193.7 | 204.4 | 218.4 | 216.6 | 212.3 | 212.0 | 206.0 | 182.3 | 172.0 | 167.2 | 182.3 |
| 2075 | Soybean oil mills | 244.3 | 270.5 | 272.0 | 252.5 | 253.2 | 259.1 | 258.1 | 248.4 | 253.7 | '245.8. | 234.6 | 230.1 | 221.1 | 221.5 |
| 2077 | Animal and marine fats and oils | 290.2 | 311.8 | 310.8 | 287.2 | 284.2 | 301.7 | 304.3 | 291.3 | 288.8 | 294.1 | 281.4 | 274.1 | 272.3 | 266.6 |
| 2083 | Malt | 249.9 | 267.4 | 286.1 | 286.1 | 286.1 | 286.1 | 286.1 | 286.1 | 286.1 | 286.1 | 275.4 | 275.4 | 275.4 | 275.4 |
| 2085 | Distilled liquor, except brandy ( $12 / 75=100$ ) | 123.0 | 129.2 | 129.2 | 133.9 | 133.9 | 133.9 | 134.3 | 134.6 | 134.6 | 135.5 | 135.5 | 135.5 | 137.9 | 137.9 |
| 2091 | Canned and cured seafoods ( $12 / 73=100$ ) | 174.0 | 183.4 | 187.3 | 187.1 | 187.6 | 187.7 | 187.3 | 187.5 | 187.4 | '188.4 | 188.8 | 188.2 | 188.3 | 188.5 |
| $2092$ | Fresh or frozen packaged fish | 366.9 | 353.9 | 374.9 | 366.7 | 385.2 | 393.5 | 378.2 | 375.5 | 367.6 | '347.1 | 355.0 | 358.4 | 362.3 | 371.1 |
| 2095 | Roasted coffee ( $12 / 72=100$ ) | 269.3 | 248.5 | 238.2 | 238.3 | 238.3 | 238.5 | 238.6 | 238.6 | 236.4 | '235.7 | 235.6 | 238.6 | 239.4 | 240.4 |
| 2098 | Macaroni and spaghetti | 233.8 | 243.6 | 243.6 | 243.6 | 243.6 | 243.6 | 246.6 | 246.6 | 259.5 | 259.5 | 259.5 | 259.5 | 259.5 | 259.5 |
| 2111 | Cigarettes . . . . . . . . | 254.6 | 263.6 | 263.6 | 264.1 | 264.2 | 278.3 | 278.3 | 278.3 | 278.3 | 278.3 | 284.2 | 288.4 | $288.4$ | 288.4 |
| 2121 | Cigars | 158.6 | 165.1 | 165.1 | 165.3 | 167.0 | 168.5 | 168.5 | 168.5 | 169.7 | '169.7 | 171.6 | 171.6 | 171.6 | 171.6 |
| 2131 | Chewing and smoking tobacco | 279.8 | 298.8 | 298.7 | 320.7 | 320.7 | 320.8 | 320.8 | 320.8 | 321.0 | '321.3 | 325.2 | 327.6 | 327.6 | 326.0 |
| 2211 | Weaving mills, cotton ( $12 / 72=100)$, | 215.8 | 225.0 | 227.9 | 230.9 | 232.3 | 235.3 | 233.5 | 234.3 | 234.7 | '237.4 | 235.5 | 236.1 | 236.3 | 235.2 |
| 2221 | Weaving mills, synthetic ( $12 / 77=100$ ) | 124.8 | 132.5 | 131.9 | 132.3 | 133.3 | 134.9 | 135.7 | 137.1 | 138.0 | '139.3 | 138.4 | 139.1 | 139.2 | $139.5$ |
| 2251 | Women's hosiery, except socks ( $12 / 75=100$ ) | 106.3 | 108.6 | 109.1 | 109.2 | 108.9 | 114.1 | 114.2 | 115.6 | 115.5 | 115.0 | 115.1 | 115.2 | 115.2 | 115.3 |
| $2254$ | Knit underwear mills | 190.1 | 195.0 | 205.6 | 208.7 | 209.7 | 209.8 | 210.0 | 210.0 | 210.7 | '210.8 | 210.8 | 210.8 | 212.7 | 212.9 |
| 2257 | Circular knit fabric mills ( $6 / 76=100$ ) | 104.6 | 107.5 | 109.3 | 109.6 | 109.1 | 110.8 | 110.5 | 110.4 | 111.0 | '112.0 | 111.0 | 112.3 | 112.1 | 111.7 |
| 2261 | Finishing plants, cotton ( $6 / 76=100$ ) | 135.1 | 140.2 | 142.4 | 144.5 | 144.6 | 146.9 | 147.0 | 146.2 | 146.3 | ${ }^{\text {'1 } 146.2}$ | 145.3 | 144.9 | $143.4$ | $141.4$ |
| 2262 | Finishing plants, synthetics, silk (6/76 = 100) | 113.6 | 120.5 | 121.7 | 123.1 | 124.3 | 125.2 | 126.6 | 126.6 | 127.1 | '127.8 | 129.0 | 129.0 | $129.1$ | 128.6 |
| 2272 | Tufted carpets and rugs | 138.1 | 145.7 | 148.1 | 147.8 | 150.2 | 151.5 | 154.5 | 155.6 | 158.3 | '157.4 | 157.9 | 157.9 | 156.4 | 156.3 |
| 2281 | Yarn mills, except wool ( $12 / 71=100$ ) | 203.5 | 215.1 | 216.9 | 218.1 | 220.7 | 220.9 | 224.1 | 225.8 | 225.1 | '225.4 | 223.9 | 222.3 | 220.1 | 217.9 |
| 2282 | Throwing and winding mills (6/76 = 100) | 115.5 | 120.1 | 123.2 | 123.2 | 131.3 | 131.5 | 139.1 | 139.3 | 142.7 | '146.8 | 146.7 | 148.0 | 145.5 | 146.0 |
| 2284 | Thread mills ( $6 / 76=100) \ldots \ldots$. | 139.1 | 143.9 | 144.1 | 144.3 | 148.4 | 150.8 | 150.9 | 151.1 | 151.1 | 151.1 | 154.8 | 157.0 | 156.9 | 156.8 |
| 2298 | Cordage and twine ( $12 / 77=100$ ) | 123.6 | 129.3 | 129.3 | 129.3 | 130.9 | 132.7 | 134.3 | 134.3 | 134.3 | 134.3 | 139.3 | 139.3 | 139.3 | 140.7 |
| 2311 | Men's and boys' suits and coats . | 212.6 | 216.1 | 218.2 | 219.7 | 220.1 | 220.3 | 220.4 | 224.6 | 225.9 | ' 226.2 | 226.1 | 227.0 | 227.1 | 230.7 |
| $2321$ | Men's and boys' shirts and nightwear | 204.4 | 209.5 | 206.3 | 207.3 | 207.1 | 207.6 | 207.1 | 207.5 | 210.5 | '210.6 | 209.6 | 210.2 | 210.4 | 211.2 |
| 2322 | Men's and boys' underwear ....... | 208.0 | 212.9 | 224.9 | 229.1 | 231.0 | 231.0 | 231.0 | 230.7 | 230.8 | ${ }^{2} 230.8$ | 230.7 | 230.8 | 232.9 | 233.0 |
| 2323 | Men's and boys' neckwear ( $12 / 75=100$ ) | 112.6 | 115.4 | 115.4 | 115.4 | 115.4 | 115.4 | 115.4 | 115.4 | 113.9 | 113.9 | 113.9 | 113.9 | 113.9 | 113.9 |
| 2327 | Men's and boys' separate trousers ...... | 175.3 | 180.3 | 185.3 | 185.3 | 185.3 | 186.0 | 186.1 | 186.1 | 186.4 | 186.4 | 186.4 | 186.6 | 186.6 | 186.8 |
| 2328 | Men's and boys' work clothing | 240.5 | 244.4 | 242.2 | 242.2 | 242.3 | 247.0 | 248.2 | 248.3 | 250.8 | '251.1 | 251.4 | 252.4 | 252.5 | 252.5 |
| $2331$ | Women's and misses' blouses and waists (6/78 = 100) | 110.3 | 115.4 | 116.3 | 116.3 | 116.4 | 118.3 | 118.4 | 118.5 | 121.0 | - 121.2 | 120.1 | 123.6 | 123.8 | 123.9 |
| 2335 | Women's and misses' dresses ( $12 / 77=100$ ) $\ldots . .$. . | 114.7 | 116.3 | 116.5 | 116.9 | 118.5 | 118.4 | 122.3 | 122.5 | 123.0 | ${ }^{1} 124.3$ | 122.5 | 122.5 | 123.6 | 122.5 |
| 2341 | Women's and children's underwear (12/72 = 100) | 154.4 | 158.1 | 165.5 | 167.5 | 168.8 | 169.0 | 169.2 | 170.5 | 170.6 | -170.6 | 171.2 | 171.2 | 172.2 | $172.2$ |
| $2342$ | Brassieres and allied garments ( $12 / 75=100$ ) $\ldots \ldots$ | 126.5 | 129.1 | 131.7 | 132.8 | 134.9 | 135.0 | 135.0 | 136.9 | 138.8 | ${ }^{1} 138.8$ | 139.2 | 139.2 | 139.3 | 140.5 |
| $2361$ | Children's dresses and blouses (12/77 = 100) | 109.9 | 117.4 | 118.1 | 118.9 | 119.2 | 120.7 | 120.5 | 120.5 | 121.6 | ${ }^{1} 121.7$ | 120.5 | 120.9 | 121.3 | 119.6 |
| 2381 | Fabric dress and work gloves . . . . . . . . . . | 268.6 | 272.1 | 284.9 | 289.1 | 289.1 | 289.1 | 292.1 | 292.1 | 289.2 | 289.2 | 289.2 | 289.2 | 289.2 | 289.2 |
| 2394 | Canvas and related products ( $12 / 77=100$ ) | 123.8 | 126.1 | 126.8 | 126.8 | 127.8 | 129.3 | 130.0 | 130.1 | 130.1 | '133.1 | 135.2 | 138.1 | 138.1 | 140.3 |
| 2396 | Automotive and apparel trimmings ( $12 / 77=100$ ) | 122.4 | 131.0 | 131.0 | 131.0 | 131.0 | 131.0 | -131.0 | 131.0 | 131.0 | 131.0 | 131.0 | 131.0 | 131.0 | $131.0$ |
| 2421 | Sawmills and planing mills ( $12 / 71=100) \ldots .$. . | 227.7 | 233.5 | 232.3 | 229.6 | 228.6 | 233.3 | 234.8 | 234.8 | 233.5 | '231.2 | 224.9 | 219.7 | 217.7 | 218.3 |
| 2436 | Softwood veneer and plywood ( $12 / 75=100$ ) | 144.6 | 158.2 | 149.8 | 149.3 | 147.2 | 152.6 | 145.7 | 148.1 | 143.8 | '139.6 | 135.7 | 129.4 | 128.6 | 134.1 |
| 2439 | Structural wood members, n.e.c. ( $12 / 75=100$ ) | 155.6 | 157.1 | 157.1 | 157.0 | 157.1 | 158.3 | 158.2 | 158.2 | 157.6 | '156.9 | 156.2 | 154.6 | 154.7 | 153.0 |
| $2448$ | Wood pallets and skids $(12 / 75=100)$ | 160.1 | 154.1 | 153.8 | 152.8 | 152.7 | 153.1 | 153.1 | 153.0 | 153.1 | '152.9 | 152.7 | 152.0 | 150.7 | 150.2 |
| 2451 | Mobile homes ( $12 / 74=100) \ldots \ldots$. | 150.3 | 153.1 | 153.1 | 153.2 | 155.0 | 155.8 | 155.9 | 156.1 | 158.1 | '158.3 | 158.1 | 159.1 | 159.0 | 160.1 |
| $2492$ | Particleboard $(12 / 75=100) \ldots \ldots .$. | 161.5 | 165.9 | 163.9 | 170.3 | 172.3 | 180.9 | 184.5 | 182.3 | 179.6 | ${ }^{\text {'173.6 }}$ | 169.3 | 166.8 | 165.7 | 164.7 |
| $2511$ | Wood household furniture ( $12 / 71=100) \ldots$. | 183.8 | 190.0 | c 191.2 | 192.1 | 193.3 | 195.4 | 196.2 | 197.5 | 198.6 | '199.2 | 200.8 | 201.6 | 200.9 | 201.9 |
| $2512$ | Upholstered household furniture ( $12 / 71=100)$ | 163.6 | 170.5 | c 169.8 | 170.1 | 170.1 | 171.8 | 169.7 | 173.9 | 175.1 | ${ }^{1} 175.1$ | 177.7 | 178.3 | 182.3 | 184.9 |
| $2515$ | Mattresses and bedsprings . . . . . . . . . . . . . | 179.1 | 186.5 | 186.3 | 188.3 | 189.5 | 190.5 | 190.4 | 190.5 | 191.3 | ${ }^{\text {'194.6 }}$ | 199.4 | 199.4 | 201.8 | 202.2 |
| 2521 | Wood office furniture .... | 235.2 | 240.9 | 244.1 | 250.4 | 253.5 | 254.5 | 255.4 | 254.6 | 254.7 | '254.7 | 258.1 | 258.1 | 258.0 | 258.6 |
| 2611 | Pulp mills ( $12 / 73=100$ ) | 240.0 | 246.8 | 246.9 | 246.9 | 246.9 | 251.2 | 251.3 | 251.3 | 251.3 | '251.3 | 253.5 | 257.2 | 265.5 | 265.5 |
| 2621 | Paper mills, except building ( $12 / 74=100$ ) | 145.5 | 150.7 | 152.0 | 152.6 | 153.3 | 153.9 | 154.3 | 155.7 | 157.0 | '157.4 | 159.6 | 159.8 | 159.6 | 159.8 |
| 2631 | Paperboard mills $(12 / 74=100) \ldots$ | 139.0 | 142.4 | 148.2 | 149.2 | 150.8 | 151.0 | 152.1 | 152.3 | 151.7 | '152.4 | 153.6 | 153.7 | 153.8 | 152.7 |
| 2647 | Sanitary paper products | $322.0$ | 338.2 | 338.3 | 342.5 | 343.0 | 343.2 | 344.3 | 344.4 | 344.2 | '344.3 | 345.3 | 345.3 | 345.3 | 345.8 |
| 2654 | Sanitary food containers | 216.0 | 225.3 | 232.0 | 235.2 | 237.9 | 239.2 | 239.2 | 242.2 | 246.0 | '252.9 | 254.5 | 254.8 | 254.7 | 254.7 |
| $2655$ | Fiber cans, drums, and similar products ( $12 / 75=100)$ | $150.6$ | $155.0$ | 157.7 | 160.6 | 160.7 | 160.8 | 160.9 | 160.9 | 163.2 | 163.2 | 163.2 | 167.8 | 167.8 | 169.1 |
| $2812$ | Alkalies and chlorine ( $12 / 73=100$ ) | $247.5$ | $262.3$ | 277.9 | $299.2$ | $295.6$ | $294.4$ | $302.2$ | $309.3$ | $306.2$ | '310.4 | 313.1 | 314.5 | 317.0 | 323.9 |
| $2821$ | Plastics materials and resins ( $6 / 76=100)$ | $143.0$ | 140.9 | 142.4 | 143.5 | 144.8 | 148.1 | 149.7 | 150.7 | 155.0 | ${ }^{\text {'155.6 }}$ | 156.9 | 155.5 | 152.3 | 155.7 |
| $2822$ | Synthetic rubber | 255.8 | 262.5 | 275.9 | 280.7 | 283.9 | 288.1 | 293.3 | 296.3 | 297.3 | '299.4 | 296.3 | 299.9 | 301.1 | 302.7 |
| 2824 | Organic fiber, noncellulosic . ...... | 132.5 | 138.9 | 144.0 | 144.7 | 147.4 | 149.9 | 156.2 | 156.8 | 159.2 | ${ }^{\text {'160.3 }}$ | 161.6 | 163.6 | 162.5 | 161.9 |
| 2873 | Nitrogenous fertilizers (12/75 = 100) | 124.4 | 131.8 | 135.0 | 138.1 | 141.7 | 147.1 | 148.5 | 143.4 | 143.5 | '143.9 | 142.7 | 143.1 | 144.4 | 141.3 |
| 2874 | Phosphatic fertilizers | 237.3 | 245.4 | 247.9 | 248.2 | 253.5 | 251.6 | 251.5 | 250.9 | 249.4 | ' 260.0 | 258.8 | 259.0 | 258.9 | 259.0 |
| 2875 | Fertilizers, mixing only | 246.9 | 252.2 | 255.8 | 266.8 | 270.0 | 271.1 | 273.6 | 273.1 | 275.3 | '273.0 | 272.5 | 271.2 | 271.6 | 268.5 |
| 2892 | Explosives .............. | 269.7 | 282.8 | 288.8 | 295.4 | 303.9 | 324.8 | 314.5 | 312.6 | 315.7 | '319.8 | 316.4 | 318.3 | 316.4 | 318.0 |
| $2911$ | Petroleum refining $(6 / 76=100) \ldots \ldots$. | 248.6 | 261.4 | 268.3 | 279.5 | 299.0 | 306.0 | 304.1 | 302.6 | 299.1 | 297.5 | 295.8 | 294.5 | 293.2 | 293.2 |
| 2951 | Paving mixtures and blocks ( $12 / 75=100$ ) | 171.4 | 181.5 | 183.1 | 185.4 | 189.1 | 198.1 | 198.8 | 198.4 | 197.1 | ${ }^{+196.3}$ | 195.8 | 196.1 | 196.4 | 196.8 |
| 2952 | Asphalt felts and coatings ( $12 / 75=100$ ) . | 173.4 | 172.5 | 172.4 | 170.0 | 169.7 | 180.4 | 176.3 | 185.7 | 182.8 | ${ }^{\text {'182.3 }}$ | 173.7 | 174.2 | 177.6 | $175.5$ |
| 3011 | Tires and inner tubes (12/73 = 100) .. | 203.1 | 210.1 | 207.0 | 209.3 | 213.8 | 215.5 | 216.2 | 216.2 | $213.1$ | ${ }^{\prime} 215.5$ | $220.5$ | $221.3$ | $221.2$ | $221.5$ |

30. Continued-Producer Price Indexes for the output of selected SIC industries
[ $1967=100$ unless otherwise specified]

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline 1972 \& \multirow[b]{2}{*}{Industry description} \& \multirow[t]{2}{*}{Annual average 1980} \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 1980 \\
& \hline \text { Dec. }
\end{aligned}
$$} \& \multicolumn{12}{|c|}{1981} <br>
\hline $$
\begin{gathered}
\text { SIC } \\
\text { code }
\end{gathered}
$$ \& \& \& \& Jan. \& Feb. \& Mar. \& Apr. \& May \& June \& July \& Aug. ${ }^{1}$ \& Sept. \& Oct. \& Nov. \& Dec. <br>
\hline 3021 \& Rubber and plastic footwear (12/71 = 100) \& 177.9 \& 182.3 \& 182.8 \& 183.4 \& 183.6 \& 183.6 \& 184.0 \& 184.1 \& 185.0 \& ${ }^{\text {'185.4 }}$ \& 185.2 \& 185.0 \& 185.0 \& 185.2 <br>
\hline 3031 \& Reclaimed rubber ( $12 / 73=100$ ) \& 184.7 \& 186.7 \& 190.4 \& 190.4 \& 187.6 \& 187.7 \& 187.7 \& 187.7 \& 192.9 \& '200.3 \& 198.1 \& 198.1 \& 198.1 \& 198.1 <br>
\hline 3079 \& Miscellaneous plastic products (6/78 $=100$ ) \& 121.7 \& 124.5 \& 125.4 \& 125.4 \& 126.3 \& 128.7 \& 129.1 \& 129.6 \& 129.2 \& '130.2 \& 130.0 \& 130.5 \& 130.5 \& 130.8 <br>
\hline 3111 \& Leather tanning and finishing ( $12 / 777=100$ ) \& 146.6 \& 156.6 \& 157.0 \& 145.5 \& 151.4 \& 158.6 \& 154.7 \& 150.7 \& 151.3 \& '148.5 \& 147.6 \& 147.5 \& 146.9 \& 147.3 <br>
\hline 3143 \& Men's footwear, except athietic ( $12 / 75=100$ ) \& 159.8 \& 162.4 \& 164.8 \& 166.5 \& 167.6 \& 168.7 \& 168.9 \& 169.6 \& 170.7 \& '171.4 \& 169.8 \& 169.6 \& 170.6 \& 171.5 <br>
\hline 3144 \& Women's footwear, except athletic . . . . . . . \& 213.5 \& 217.1 \& 217.8 \& 220.2 \& 218.7 \& 218.7 \& 219.3 \& 218.5 \& 218.9 \& '217.8 \& 217.8 \& 217.0 \& 214.5 \& 214.6 <br>
\hline 3171 \& Women's handbags and purses (12/75 = 100) \& 137.9 \& 140.9 \& 149.5 \& 149.5 \& 149.7 \& 149.7 \& 158.4 \& 158.4 \& 158.4 \& 158.4 \& 158.4 \& 158.4 \& 158.4 \& 158.4 <br>
\hline 3211 \& Flat glass ( $12 / 71=100) \ldots \ldots . .$. \& 161.3 \& 166.3 \& 167.1 \& 167.5 \& 168.1 \& 174.5 \& 174.5 \& 174.6 \& 180.0 \& '180.0 \& 180.2 \& 180.1 \& 180.1 \& 180.1 <br>
\hline 3221 \& Glass containers ...... \& 292.6 \& 311.4 \& 311.4 \& 311.4 \& 311.4 \& 326.6 \& 335.2 \& 335.2 \& 335.4 \& '335.4 \& 334.7 \& 334.7 \& 334.7 \& 334.8 <br>
\hline 3241 \& Cement, hydraulic \& 310.8 \& 310.5 \& 324.3 \& 324.3 \& '324.4 \& 332.4 \& 332.3 \& 331.0 \& 331.6 \& '331.6 \& 328.9 \& 327.2 \& 327.2 \& 327.2 <br>
\hline 3251 \& Brick and structural clay tile \& 277.3 \& 282.9 \& 286.6 \& 286.1 \& 295.3 \& 296.0 \& 297.4 \& 298.5 \& 298.9 \& '298.9 \& 300.9 \& 300.8 \& 301.4 \& 301.8 <br>
\hline 3253 \& Ceramic wall and floor tile ( $12 / 75=100$ ) \& 122.5 \& 120.1 \& 127.1 \& 127.1 \& 127.1 \& 129.6 \& 132.1 \& 132.1 \& 132.1 \& '132.1 \& 137.7 \& 137.7 \& 137.7 \& 137.8 <br>
\hline 3255 \& Clay refractories. \& 273.6 \& 280.7 \& 291.5 \& 305.2 \& 308.1 \& 308.6 \& 311.0 \& 312.2 \& 312.3 \& ${ }^{\text {' } 312.3}$ \& 314.2 \& 315.7 \& 317.0 \& 317.1 <br>
\hline 3259 \& Structural clay products, n.e.c. \& 202.7 \& 205.1 \& 209.5 \& 212.8 \& 213.0 \& 212.7 \& 223.9 \& 223.9 \& 223.9 \& ${ }^{\text {' } 223.9}$ \& 227.9 \& 232.2 \& 232.2 \& 237.0 <br>
\hline 3261 \& Vitreous plumbing fixtures .. \& 234.8 \& 245.0 \& 244.7 \& 248.9 \& 249.4 \& 252.0 \& 252.5 \& 255.8 \& 258.7 \& '259.6 \& 258.9 \& 258.9 \& 259.3 \& 260.1 <br>
\hline 3262 \& Vitreous china food utensils \& 317.3 \& 327.4 \& 327.4 \& 327.4 \& 328.0 \& 328.2 \& 336.6 \& 336.6 \& 336.6 \& 336.6 \& 336.8 \& 336.8 \& 344.7 \& 344.7 <br>
\hline 3263 \& Fine earthenware food utensils \& 295.5 \& 297.9 \& 298.6 \& 298.6 \& 307.9 \& 308.2 \& 309.6 \& 309.6 \& 309.6 \& '309.6 \& 313.3 \& 313.3 \& 314.4 \& 314.4 <br>
\hline 3269 \& Pottery products, n.e.c. ( $12 / 75=100)$ \& 152.6 \& 155.5 \& 155.5 \& 155.5 \& 158.5 \& 158.6 \& 160.6 \& 160.7 \& 160.7 \& ${ }^{\text {' } 160.7}$ \& 161.7 \& 161.7 \& 163.6 \& 163.6 <br>
\hline 3271 \& Concrete block and brick \& 257.3 \& 259.4 \& 264.1 \& 265.0 \& 263.2 \& 267.4 \& 271.2 \& 271.2 \& 271.2 \& 274.0 \& 274.2 \& 274.0 \& 274.5 \& 275.3 <br>
\hline 3273 \& Ready-mixed concrete \& 279.9 \& 282.9 \& 294.8 \& 295.4 \& 296.0 \& 298.5 \& 299.4 \& 301.7 \& 300.7 \& ${ }^{\text {'300.0 }}$ \& 299.5 \& 299.7 \& 299.2 \& 299.5 <br>
\hline 3274 \& Lime ( $12 / 75=100$ ) \& 157.7 \& 161.8 \& 165.7 \& 171.7 \& 172.6 \& 172.4 \& 172.6 \& 173.0 \& 173.1 \& '173.9 \& 173.9 \& 173.9 \& 173.8 \& 174.0 <br>
\hline 3275 \& Gypsum products .. \& 256.7 \& 253.1 \& 259.9 \& 257.6 \& 257.9 \& 257.1 \& 261.4 \& 260.9 \& 261.8 \& 258.9 \& 257.0 \& 251.5 \& 252.5 \& $$
250.6
$$ <br>
\hline 3291 \& Abrasive products ( $12 / 71=100)$ \& 212.6 \& 220.6 \& 222.8 \& 221.7 \& 223.1 \& 232.7 \& 233.2 \& 234.1 \& 235.0 \& '235.1 \& 235.6 \& 237.5 \& 239.6 \& $$
240.0
$$ <br>
\hline 3297 \& Nonclay refractories ( $12 / 74=100$ ) \& 161.1 \& 167.6 \& 172.4 \& 177.5 \& 178.9 \& 178.9 \& 186.6 \& 189.7 \& 189.7 \& '189.7 \& 189.8 \& 189.8 \& 190.2 \& 190.2 <br>
\hline 3312 \& Blast furnaces and steel mills .... \& 310.5 \& 320.7 \& 328.7 \& 328.9 \& 334.0 \& 336.7 \& 337.3 \& 338.2 \& 350.1 \& '350.0 \& 350.3 \& 353.1 \& 352.9 \& 353.2 <br>
\hline 3313 \& Electrometallurgical products (12/75 = 100) \& 117.7 \& 117.3 \& 119.9 \& 120.0 \& 120.0 \& 120.8 \& 120.6 \& 120.7 \& 121.2 \& 121.5 \& 121.4 \& 125.4 \& 125.4 \& 125.3 <br>
\hline 3316 \& Cold finishing of steel shapes ..... \& 284.0 \& 293.3 \& 302.8 \& 303.1 \& 306.1 \& 308.2 \& 308.2 \& 309.5 \& 325.0 \& 325.7 \& 326.2 \& 326.4 \& 326.4 \& 326.7 <br>
\hline 3317 \& Steel pipes and tubes \& 290.9 \& 308.4 \& 315.5 \& 316.3 \& 326.1 \& 333.1 \& 334.1 \& 336.3 \& 348.2 \& '350.6 \& 350.6 \& 362.0 \& 362.3 \& 363.1 <br>
\hline 3321 \& Gray iron foundries ( $12 / 68=1$ \& 282.5 \& 290.7 \& 295.2 \& 296.1 \& 295.6 \& 297.0 \& 298.4 \& 298.4 \& 298.8 \& '299.9 \& 301.9 \& 304.6 \& 303.9 \& 304.7 <br>
\hline 3333 \& Primary zinc \& 270.5 \& 288.7 \& 300.3 \& 300.0 \& 299.7 \& 311.9 \& 332.7 \& 335.1 \& 335.4 \& '353.8 \& 351.5 \& 332.9 \& 337.5 \& 327.3 <br>
\hline 3334 \& Primary aluminum \& 297.9 \& 328.0 \& 331.7 \& 332.3 \& 332.2 \& 332.8 \& 334.2 \& 332.5 \& 334.2 \& '334.4 \& 336.4 \& 335.8 \& 332.5 \& 332.8 <br>
\hline 3351 \& Copper rolling and drawing \& 227.5 \& 222.8 \& 218.7 \& 215.3 \& 211.8 \& 213.1 \& 212.6 \& 210.6 \& 209.4 \& ${ }^{\text {' } 212.9}$ \& 213.7 \& 212.9 \& 209.4 \& 208.6 <br>
\hline $$
3353
$$ \& Aluminum sheet, plate, and foil ( $12 / 75=100$ ) \& 158.2 \& 165.1 \& 169.3 \& 170.7 \& 172.1 \& 173.8 \& 174.4 \& 176.1 \& 177.3 \& '177.4 \& 178.7 \& 180.7 \& 179.9 \& 180.9 <br>
\hline 3354 \& Aluminum extruded products ( $12 / 75=100)$ \& 167.7 \& 176.4 \& 176.8 \& 177.1 \& 177.3 \& 180.6 \& 180.7 \& 180.8 \& 181.2 \& 181.3 \& 181.2 \& 181.3 \& 181.4 \& 181.1 <br>
\hline 3355 \& Aluminum rolling, drawing, n.e.c. ( $12 / 75=100$ ) \& 146.2 \& 151.1 \& 155.3 \& 157.1 \& 157.2 \& 157.3 \& 157.4 \& 157.3 \& 157.2 \& ${ }^{1} 157.2$ \& 158.1 \& 163.3 \& 166.2 \& 166.1 <br>
\hline 3411 \& Metal cans ......................... \& 291.6 \& 297.3 \& 302.1 \& 303.0 \& 304.7 \& 304.7 \& 304.7 \& 304.7 \& 305.5 \& ${ }^{\text {' } 306.7}$ \& 307.4 \& 307.2 \& 306.6 \& 306.6 <br>
\hline 3425 \& Hand saws and saw blades ( $12 / 72=100$ ) \& 182.1 \& 190.5 \& 195.4 \& 196.3 \& 198.0 \& 198.1 \& 200.2 \& 200.2 \& 204.1 \& '204.2 \& 204.2 \& 204.5 \& 204.6 \& 205.6 <br>
\hline 3431 \& Metal sanitary ware ................ \& 248.3 \& 253.8 \& 256.0 \& 256.4 \& 258.5 \& 262.8 \& 264.8 \& 265.2 \& 269.2 \& '269.7 \& 267.5 \& 267.7 \& 270.6 \& 272.0 <br>
\hline 3465 \& Automotive stampings (12/75 = 100) \& 136.9 \& 141.2 \& 143.0 \& 143.9 \& 144.2 \& 145.0 \& 145.0 \& 145.2 \& 146.2 \& '146.4 \& 147.2 \& 147.7 \& 149.7 \& 153.7 <br>
\hline 3482 \& Small arms ammunition ( $12 / 75=100$ ) \& 145.6 \& 160.9 \& 157.9 \& 157.8 \& 157.2 \& 157.8 \& 157.8 \& 157.8 \& 157.8 \& '159.9 \& 165.3 \& 165.3 \& 165.3 \& 165.3 <br>
\hline 3493 \& Steel springs, except wire ........ \& 230.3 \& 234.3 \& 238.4 \& 239.2 \& 239.5 \& 241.2 \& 241.7 \& 241.9 \& 243.7 \& '248.9 \& 249.5 \& 249.6 \& 253.8 \& 254.3 <br>
\hline 3494 \& Valves and pipe fittings ( $12 / 71=100$ ) \& 230.0 \& 238.3 \& 240.2 \& 242.1 \& 244.8 \& 247.6 \& 247.9 \& 248.5 \& 250.0 \& '251.0 \& 251.2 \& 251.4 \& 251.9 \& 253.8 <br>
\hline 3498 \& Fabricated pipe and fittings ....... \& 315.5 \& 329.9 \& 335.7 \& 335.7 \& 338.5 \& 358.8 \& 359.9 \& 361.6 \& 364.6 \& '370.0 \& 374.7 \& 379.1 \& 378.8 \& 379.4 <br>
\hline 3519 \& Internal combustion engines, n.e.c. \& 275.4 \& 289.9 \& 298.2 \& 299.4 \& 302.6 \& 306.0 \& 306.2 \& 307.2 \& 312.0 \& '314.2 \& 320.9 \& 321.6 \& 322.4 \& 321.5 <br>
\hline 3531 \& Construction machinery ( $12 / 76=100$ ) \& 141.1 \& 147.5 \& 150.0 \& 151.4 \& 152.6 \& 154.4 \& 155.3 \& 156.9 \& 159.0 \& 159.5 \& 160.0 \& 161.5 \& 161.6 \& 162.1 <br>
\hline 3532 \& Mining machinery ( $12 / 72=100) \ldots$. \& 258.5 \& 270.0 \& 272.5 \& 273.5 \& 276.2 \& 279.5 \& 280.0 \& 280.8 \& 282.7 \& ${ }^{\prime} 285.3$ \& 286.0 \& 288.7 \& 290.3 \& 291.8 <br>
\hline 3533 \& Oiifield machinery and equipment \& 338.1 \& 360.9 \& 367.0 \& 374.2 \& 378.2 \& 382.2 \& 384.6 \& 390.3 \& 401.3 \& ${ }^{\text {' } 406.5}$ \& 408.7 \& 413.3 \& 418.3 \& 420.1 <br>
\hline 3534 \& Elevators and moving stairways. \& 239.3 \& 249.5 \& 250.3 \& 250.3 \& 250.3 \& 251.2 \& 251.2 \& 251.2 \& 252.1 \& ${ }^{\prime} 252.8$ \& 254.6 \& 257.1 \& 259.9 \& 261.4 <br>
\hline 3542 \& Machine tools, metal forming types ( $12 / 71=100)$ \& 279.5 \& 292.0 \& 297.5 \& 298.0 \& 301.9 \& 303.0 \& 304.5 \& 305.7 \& 307.6 \& '309.5 \& 312.0 \& 312.3 \& 312.3 \& 313.0 <br>
\hline 3546 \& Power driven hand tools (12/76 = 100) \& \& 137.9 \& 142.6 \& 144.9 \& 145.2 \& 146.4 \& 147.0 \& 147.1 \& 148.2 \& '148.4 \& 148.6 \& 148.8 \& 148.7 \& 149.3 <br>
\hline 3552 \& Textile machinery ( $12 / 69=100) \ldots \ldots$ \& 216.6 \& 226.0 \& 235.7 \& 235.0 \& 240.0 \& 240.4 \& 241.2 \& 244.4 \& 246.2 \& ${ }^{\prime} 245.4$ \& 247.0 \& 248.1 \& 247.9 \& 250.0 <br>
\hline 3553 \& Woodworking machinery ( $12 / 72=100)$ \& 212.5 \& 221.5 \& 222.5 \& 223.1 \& 224.7 \& 225.5 \& 219.1 \& 219.7 \& 224.0 \& '225.4 \& 225.3 \& 226.9 \& 229.0 \& 229.0 <br>
\hline 3576 \& Scales and balances, excluding laboratory \& 215.0 \& 217.9 \& 220.5 \& 221.1 \& 224.2 \& 230.2 \& 230.2 \& 230.3 \& 226.6 \& '226.6 \& 226.1 \& 226.1 \& 226.1 \& 226.4 <br>
\hline 3592 \& Carburetors, pistons, rings, valves ( $6776=100$ ) \& 156.6 \& 167.6 \& 168.9 \& 170.9 \& 171.5 \& 172.0 \& 172.0 \& 176.5 \& 180.8 \& '181.3 \& 181.9 \& 185.2 \& 187.0 \& 187.1 <br>
\hline 3612 \& Transformers . . . . . . . . . . . . . . . . . . . . \& 184.9 \& 193.3 \& 194.9 \& 197.1 \& 204.3 \& 206.0 \& 207.8 \& 209.6 \& 210.7 \& '212.8 \& 215.9 \& 216.2 \& 221.5 \& 219.8 <br>
\hline 3623 \& Welding apparatus, electric ( $12 / 72=100)$ \& 209.9 \& 215.8 \& 218.9 \& 220.9 \& 222.1 \& 224.3 \& 225.9 \& 227.2 \& 228.3 \& ${ }^{\text {' } 229.6}$ \& 230.8 \& 231.8 \& 232.4 \& 234.7 <br>
\hline 3631 \& Household cooking equipment ( $12 / 75=100$ ) \& 133.1 \& 137.5 \& 140.1 \& 141.0 \& 141.1 \& 140.5 \& 140.7 \& 141.0 \& 140.5 \& ${ }^{\prime} 141.5$ \& 141.2 \& 141.6 \& 142.0 \& 142.6 <br>
\hline 3632 \& Household refrigerators, freezers (6/76 $=100$ ) \& 121.4 \& 125.1 \& 127.5 \& 127.5 \& 127.6 \& 129.4 \& 129.5 \& 130.8 \& 135.5 \& '135.5
'1746 \& 135.0 \& 136.4 \& 136.4
178.5 \& 136.4 <br>
\hline 3633 \& Househoid laundry equipment ( $12 / 73=100$ ). \& 162.0 \& 167.4 \& 169.8 \& 170.2 \& 170.9 \& 173.5 \& 173.9 \& 173.6 \& 174.1 \& '174.6 \& 176.0 \& 176.8 \& 178.5 \& 178.8 <br>
\hline 3635 \& Household vacuum cieaners \& 154.4 \& 159.1 \& 159.1 \& 156.3 \& 158.5 \& 158.4 \& 158.5 \& 158.6 \& 158.6 \& '158.8 \& 152.2 \& 154.5 \& 154.2 \& 154.0 <br>
\hline 3636 \& Sewing machines ( $12 / 75=100$ ) \& 129.1 \& 130.3 \& 130.3 \& 130.3 \& 131.9 \& 131.8 \& 153.8 \& 153.8 \& 153.8 \& ${ }^{\prime} 153.8$ \& 153.1 \& 155.4 \& 155.4 \& 155.4 <br>
\hline 3641 \& Electric lamps . . . . . . . . . . . \& 260.3 \& 266.2 \& 265.8 \& 271.2 \& 272.6 \& 275.5 \& 275.1 \& 276.5 \& 275.2 \& '280.0 \& 283.2 \& 285.9 \& 286.6 \& 282.7 <br>
\hline 3644 \& Noncurrent-carrying wiring devices ( $12 / 72=100$ ) \& 219.7 \& 229.2 \& 233.1 \& 236.3 \& 240.6 \& 242.6 \& 242.8 \& 251.5 \& 253.3 \& '253.8 \& 261.0 \& 261.2 \& 264.6 \& 264.6 <br>
\hline 3646 \& Commercial lighting fixtures ( $12 / 75=100$ ) $\ldots .$. \& 139.3 \& 144.7 \& 145.1 \& 148.0 \& 151.4 \& 156.1 \& 156.2 \& 156.2 \& 154.4 \& '155.5 \& 157.2 \& 156.8 \& 157.3 \& 158.4 <br>
\hline 3648 \& Lighting equipment, n.e.c. ( $12 / 775=100$ ). \& 139.9 \& 145.0 \& 146.3 \& 146.8 \& 152.7 \& 153.2 \& 153.3 \& 153.7 \& 153.8 \& 161.3 \& 161.5
3275 \& 161.4
327.6 \& 162.0
327.8 \& 162.7
3423 <br>
\hline 3671 \& Electron tubes receiving type . . . . . . \& 251.8 \& 272.7 \& 284.3 \& 284.4 \& 285.0 \& 285.0 \& 285.1 \& 312.5 \& 327.4 \& 327.5 \& 327.5 \& 327.6 \& 327.8 \& 342.3 <br>
\hline 3674 \& Semiconductors and related devices \& 90.7 \& 91.6 \& 91.1 \& 90.8 \& 91.3 \& 91.2 \& 90.6 \& 90.3 \& 89.2 \& ${ }^{\text {' } 89.2}$ \& 89.5 \& 89.2 \& 91.0 \& 91.9 <br>
\hline 3675 \& Electronic capacitors ( $12 / 75=100$ ) \& 162.7 \& 170.3 \& 170.3 \& 171.1 \& 173.2 \& 168.7 \& 168.5 \& 171.2 \& 171.4 \& ${ }^{\prime} 178.8$ \& 168.9 \& 172.4 \& 169.2 \& 168.0 <br>
\hline 3676 \& Electronic resistors ( $12 / 75=100$ ) $\ldots$ \& 134.2 \& 137.8 \& 139.0 \& 139.9 \& 139.9 \& 140.0 \& 140.8 \& 141.2 \& 142.1 \& '142.5 \& 142.6 \& 142.6 \& 142.8 \& 142.5 <br>
\hline 3678 \& Electronic connectors ( $12 / 75=100$ ) \& 148.1 \& 149.7 \& 152.2 \& 153.5 \& 154.5 \& 154.4 \& 153.7 \& 154.3 \& 155.0 \& '155.8 \& 155.3 \& 156.3 \& 155.8 \& 156.6 <br>
\hline 3692 \& Primary batteries, dry and wet. \& 176.5 \& 176.9 \& 179.0 \& 183.3 \& 184.2 \& 182.6 \& 181.0 \& 181.0 \& 181.6 \& 182.7

1
1
150.1 \& 183.4 \& 182.7 \& 182.7
158.5 \& 182.7
158.9 <br>
\hline 3711 \& Motor vehicles and car bodies ( $12 / 75=100$ ) \& 136.7 \& 144.0 \& 145.3 \& 145.7 \& 144.2 \& 148.4 \& 149.6 \& 150.3 \& 150.3 \& ${ }^{1} 150.1$ \& 143.2 \& 158.3 \& 158.5 \& 158.9 <br>
\hline 3942 \& Dolls ( $12 / 75=100) \ldots \ldots . . . . . . . . . .$. \& 127.4 \& 128.3 \& 130.7 \& 132.3 \& 132.4 \& 132.4 \& 130.9 \& 130.9 \& 130.9 \& ${ }^{1} 130.9$ \& 130.6 \& 130.6 \& 130.6 \& 130.6 <br>
\hline 3944 \& Games, toys, and children's vehicles \& 205.2 \& 207.1 \& 213.9 \& 220.2 \& 221.2 \& 221.2 \& 221.8 \& 221.9 \& 222.0 \& '222.0 \& 220.1 \& 220.1 \& 220.5 \& 221.5 <br>
\hline 3955 \& Carbon paper and inked ribbons ( $12 / 75=100$ ) \& 132.8 \& 135.0 \& 133.0 \& 136.4 \& 136.4 \& 136.9 \& 136.9 \& 140.4 \& 140.4 \& 140.6 \& 140.6 \& 140.6 \& 140.6 \& 140.7 <br>
\hline 3995 \& Burial caskets $(6 / 76=100) \ldots \ldots \ldots \ldots$ \& 131.2 \& 135.0 \& 135.0 \& 135.0 \& 138.0 \& 138.1 \& 138.3 \& 138.3 \& 138.3 \& 140.6 \& 143.4 \& 143.4 \& 143.4 \& 142.7 <br>
\hline 3996 \& Hard surface floor coverings (12/75 = 100) .. \& 143.7 \& 146.6 \& 148.6 \& 148.6 \& 148.7 \& 151.5 \& 151.5 \& 151.5 \& 153.3 \& 153.6 \& 153.7 \& 153.7 \& 153.7 \& 153.7 <br>

\hline \multicolumn{5}{|l|}{${ }^{1}$ Data for August 1981 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.} \& \multicolumn{2}{|l|}{$$
\begin{aligned}
& \mathrm{r}=\text { revised. } \\
& \mathrm{c}=\text { corrected. }
\end{aligned}
$$} \& \& \& \& \& \& \& \& \& <br>

\hline
\end{tabular}

## PRODUCTIVITY DATA

Productivity data are compiled by the Bureau of Labor Statistics from establishment data and from estimates of compensation and output supplied by the U.S. Department of Commerce and the Federal Reserve Board.

## Definitions

Output is the constant dollar gross domestic product produced in a given period. Indexes of output per hour of labor input, or labor productivity, measure the value of goods and services produced per hour of labor. Compensation per hour includes wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. The data also include an estimate of wages, salaries, and supplementary payments for the self-employed, except for nonfinancial corporations, in which there are no self-employed. Real compensation per hour is compensation per hour adjusted by the Consumer Price Index for All Urban Consumers.

Unit labor cost measures the labor compensation cost required to produce one unit of output and is derived by dividing compensation by output. Unit nonlabor payments include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from the current dollar gross domestic product and dividing by output. In these tables, unit nonlabor costs contain all the components of unit nonlabor payments except unit profits. Unit profits include corporate profits and inventory valuation adjustments per unit of output.

The implicit price deflator is derived by dividing the current dollar estimate of gross product by the constant dollar estimate, making the deflator, in effect, a price index for gross product of the sector reported.

The use of the term "man hours" to identify the labor component of productivity and costs, in tables 31 through 34 , has been discontinued. Hours of all persons is now used to describe the labor input of payroll workers, self-employed persons, and unpaid family workers. Output per all-employee hour is now used to describe labor productivity in nonfinancial corporations where there are no self-employed.

## Notes on the data

In the private business sector and the nonfarm business sector, the basis for the output measure employed in the computation of output per hour is Gross Domestic Product rather than Gross National Product. Computation of hours includes estimates of nonfarm and farm proprietor hours.

Output data are supplied by the Bureau of Economic Analysis, U.S. Department of Commerce, and the Federal Reserve Board. Quarterly manufacturing output indexes are adjusted by the Bureau of Labor Statistics to annual estimates of output (gross product originating) from the Bureau of Economic Analysis. Compensation and hours data are from the Bureau of Economic Analysis and the Bureau of Labor Statistics.

Beginning with the September 1976 issue of the Review, tables 3134 were revised to reflect changeover to the new series - private business sector and nonfarm business sector-which differ from the previously published total private economy and nonfarm sector in that output imputed for owner-occupied dwellings and the household and institutions sectors, as well as the statistical discrepancy, are omitted. For a detailed explanation, see J. R. Norsworthy and L. J. Fulco, "New sector definitions for productivity series," Monthly Labor Review, October 1976, pages 40-42.
31. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years, 1950-80 [1977=100]

| Item | 1950 | 1955 | 1960 | 1965 | 1970 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Private business sector: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | 50.3 | 58.2 | 65.1 | 78.2 | 86.1 | 94.8 | 92.7 | 94.8 | 97.9 | 100.0 | 99.8 | 99.5 | 99.3 |
| Compensation per hour | 20.0 | 26.3 | 33.9 | 41.7 | 58.2 | 71.3 | 78.0 | 85.5 | 92.9 | 100.0 | 108.4 | 119.3 | 131.5 |
| Real compensation per hour | 50.4 | 59.6 | 69.4 | 80.0 | 90.8 | 97.3 | 95.9 | 96.3 | 98.8 | 100.0 | 100.7 | 99.6 | 96.7 |
| Unit labor cost | 39.8 | 45.2 | 52.1 | 53.3 | 67.6 | 75.2 | 84.2 | 90.2 | 94.8 | 100.0 | 108.6 | 119.9 | 132.4 |
| Unit nonlabor payments | 43.5 | 47.8 | 50.8 | 57.8 | 63.4 | 75.6 | 78.9 | 90.7 | 94.4 | 100.0 | 105.1 | 110.9 | 118.3 |
| Implicit price deflator | 41.0 | 46.1 | 51.7 | 54.8 | 66.2 | 75.3 | 82.4 | 90.4 | 94.7 | 100.0 | 107.4 | 116.9 | 127.6 |
| Nonfarm business sector: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | 56.2 | 62.7 | 68.2 | 80.4 | 86.7 | 95.3 | 93.1 | 95.0 | 98.1 | 100.0 | 99.8 | 99.1 | 98.8 |
| Compensation per hour .... | 21.8 | 28.3 | 35.6 | 42.8 | 58.6 | 71.7 | 78.4 | 86.0 | 93.0 | 100.0 | 108.5 | 119.0 | 130.8 |
| Real compensation per hour | 55.0 | 63.9 | 73.0 | 82.2 | 91.5 | 97.7 | 96.4 | 96.8 | 99.0 | 100.0 | 100.7 | 99.3 | 96.2 |
| Unit labor cost | 38.8 | 45.1 | 52.3 | 53.2 | 67.6 | 75.2 | 84.3 | 90.5 | 94.8 | 100.0 | 108.7 | 120.0 | 132.4 |
| Unit nonlabor payments | 42.8 | 47.9 | 50.5 | 58.2 | 64.0 | 71.9 | 76.1 | 88.9 | 94.0 | 100.0 | 103.6 | 108.5 | 117.6 |
| Implicit price deflator. | 40.2 | 46.0 | 51.7 | 54.9 | 66.4 | 74.1 | 81.6 | 89.9 | 94.5 | 100.0 | 107.0 | 116.2 | 127.4 |
| Nonfinancial corporations: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all employees | (1) | (1) | 66.3 | 79.9 | 85.4 | 94.5 | 91.3 | 94.4 | 97.4 | 100.0 | 100.4 | 100.4 | 101.0 |
| Compensation per hour | (1) | (1) | 36.3 | 43.0 | 58.3 | 70.8 | 77.6 | 85.5 | 92.5 | 100.0 | 108.2 | 118.7 | 130.7 |
| Real compensation per hour | (1) | (1) | 74.2 | 82.6 | 91.0 | 96.5 | 95.4 | 96.3 | 98.5 | 100.0 | 100.5 | 99.1 | 96.2 |
| Unit labor cost | (1) | (1) | 54.7 | 53.8 | 68.3 | 74.9 | 85.1 | 90.6 | 95.0 | 100.0 | 107.8 | 118.2 | 129.4 |
| Unit nonlabor payments | (1) | (1) | 54.6 | 60.8 | 63.1 | 70.7 | 75.7 | 90.9 | 95.0 | 100.0 | 103.8 | 108.3 | 117.3 |
|  | (1) | (1) | 54.7 | 56.2 | 66.5 | 73.4 | 81.8 | 90.7 | 95.0 | 100.0 | 106.4 | 114.8 | 125.2 |
| Manufacturing: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | 49.5 | 56.5 | 60.1 | 74.6 | 79.2 | 93.1 | 90.9 | 93.5 | 97.7 | 100.0 | 100.9 | 102.0 | 101.7 |
| Compensation per hour | 21.5 | 28.8 | 36.7 | 42.9 | 57.6 | 69.1 | 76.4 | 85.5 | 92.4 | 100.0 | 108.2 | 118.8 | 131.6 |
| Real compensation per hour | 54.1 | 65.2 | 75.1 | 82.3 | 89.9 | 94.2 | 93.9 | 96.3 | 98.3 | 100.0 | 100.5 | 99.2 | 96.7 |
| Unit labor cost . . . | 43.4 | 51.0 | 61.1 | 57.4 | 72.7 | 74.2 | 84.1 | 91.4 | 94.6 | 100.0 | 107.3 | 116.5 | 129.4 |
| Unit nonlabor payments | 55.1 | 59.4 | 62.0 | 70.3 | 66.0 | 71.6 | 70.4 | 88.5 | 95.1 | 100.0 | 104.7 | 105.7 | 108.7 |
| Implicit price deflator .... | 46.8 | 53.4 | 61.3 | 61.2 | 70.7 | 73.4 | 80.1 | 90.6 | 94.7 | 100.0 | 106.5 | 113.4 | 123.4 |

[^20]32. Annual changes in productivity, hourly compensation, unit costs, and prices, 1970-80

| Item | Year |  |  |  |  |  |  |  |  |  |  | Annual rate of change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1950-80 | 1960-80 |
| Private business sector: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | 0.9 | 3.6 | 3.5 | 2.7 | -2.3 | 2.3 | 3.3 | 2.1 | -0.2 | -0.3 | -0.2 | 2.5 | 2.2 |
| Compensation per hour | 7.4 | 6.6 | 6.5 | 8.0 | 9.4 | 9.6 | 8.6 | 7.7 | 8.4 | 10.1 | 10.2 | 6.0 | 7.1 |
| Real compensation per hour | 1.4 | 2.2 | 3.1 | 1.7 | -1.4 | 0.4 | 2.7 | 1.2 | 0.7 | -1.1 | -3.0 | 2.4 | 1.9 |
| Unit labor cost. | 6.4 | 2.9 | 2.9 | 5.2 | 11.9 | 7.2 | 5.1 | 5.5 | 8.6 | 10.4 | 10.4 | 3.5 | 4.8 |
| Unit nonlabor payments | 0.7 | 7.6 | 4.5 | 5.9 | 4.4 | 15.0 | 4.1 | 5.9 | 5.1 | 5.5 | 6.6 | 3.2 | 4.4 |
| Implicit price deflator .. | 4.5 | 4.4 | 3.4 | 5.4 | 9.4 | 9.7 | 4.7 | 5.6 | 7.4 | 8.8 | 9.2 | 3.4 | 4.7 |
| Nonfarm business sector: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | 0.3 | 3.3 | 3.7 | 2.5 | -2.4 | 2.1 | 3.2 | 2.0 | -0.2 | -0.7 | -0.3 | 2.1 | 1.9 |
| Compensation per hour | 7.0 | 6.6 | 6.7 | 7.6 | 9.4 | 9.6 | 8.1 | 7.6 | 8.5 | 9.7 | 9.9 | 5.7 | 6.8 |
| Real compensation per hour | 1.0 | 2.2 | 3.3 | 1.3 | -1.4 | 0.4 | 2.2 | 1.0 | 0.7 | -1.4 | -3.2 | 2.1 | 1.6 |
| Unit labor cost. | 6.6 | 3.1 | 2.8 | 4.9 | 12.1 | 7.4 | 4.7 | 5.5 | 8.7 | 10.4 | 10.3 | 3.5 | 4.8 |
| Unit nonlabor payments | 1.1 | 7.4 | 3.2 | 1.3 | 5.9 | 16.7 | 5.7 | 6.4 | 3.6 | 4.8 | 8.4 | 3.1 | 4.2 |
| Implicit price deflator | 4.8 | 4.5 | 3.0 | 3.7 | 10.1 | 10.3 | 5.1 | 5.8 | 7.0 | 8.6 | 9.7 | 3.4 | 4.6 |
| Nonfinancial corporations: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all employees | 0.4 | 4.8 | 3.0 | 2.6 | -3.4 | 3.4 | 3.2 | 2.7 | 0.4 | -0.0 | 0.6 | (1) | 2.1 |
| Compensation per hour | 6.8 | 6.5 | 5.8 | 7.7 | 9.7 | 10.1 | 8.2 | 8.1 | 8.2 | 9.7 | 10.1 | (1) | 6.7 |
| Real compensation per hour | 0.8 | 2.1 | 2.5 | 1.4 | -1.1 | 0.9 | 2.3 | 1.5 | 0.5 | -1.4 | $-3.0$ | (1) | 1.5 |
| Unit labor cost | 6.3 | 1.6 | 2.8 | 4.9 | 13.6 | 6.5 | 4.9 | 5.3 | 7.8 | 9.7 | 9.5 | (') | 4.6 |
| Unit nonlabor payments | 0.5 | 7.4 | 2.7 | 1.5 | 7.1 | 20.1 | 4.6 | 5.2 | 3.8 | 4.4 | 8.3 | (1) | 3.8 |
| Implicit price deflator | 4.4 | 3.5 | 2.8 | 3.8 | 11.4 | 10.9 | 4.8 | 5.2 | 6.4 | 7.9 | 9.1 | (') | 4.3 |
| Manutacturing: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | -0.2 | 6.1 | 5.0 | 5.4 | -2.4 | 2.9 | 4.4 | 2.4 | 0.9 | 1.1 | -0.3 | 2.6 | 2.7 |
| Compensation per hour ..... | 6.8 | 6.1 | 5.4 | 7.2 | 10.6 | 11.9 | 8.0 | 8.3 | 8.2 | 9.8 | 10.7 | 5.6 | 6.7 |
| Real compensation per hour | 0.8 | 1.8 | 2.0 | 0.9 | -0.3 | 2.5 | 2.1 | 1.7 | 0.5 | -1.3 | -2.5 | 2.0 | 1.5 |
| Unit labor cost | 7.0 | 0.0 | 0.3 | 1.7 | 13.3 | 8.8 | 3.4 | 5.7 | 7.3 | 8.6 | 11.0 | 2.9 | 3.8 |
| Unit nonlabor payments | -2.5 | 11.2 | 0.8 | -3.3 | -1.8 | 25.9 | 7.4 | 5.2 | 4.7 | 0.9 | 2.9 | 2.1 | 2.7 |
| Implicit price deflator .......... | 4.3 | 3.1 | 0.5 | 0.3 | 9.0 | 13.1 | 4.6 | 5.6 | 6.5 | 6.4 | 8.8 | 2.7 | 3.5 |

${ }^{1}$ Not available.
33. Quarterly indexes of productivity, hourly compensation, unit costs, and prices, seasonally adjusted [1977=100]

| Item | Annual average |  | Quarterly indexes |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1979 |  |  |  | 1980 |  |  |  | 1981 |  |  |
|  | 1979 | 1980 | 1 | II | III | IV | 1 | II | III | IV | 1 | II | III |
| Private business sector: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | 99.5 | 99.3 | 99.7 | 99.7 | 99.4 | 99.1 | 99.5 | 99.1 | 99.4 | 99.1 | 100.3 | 101.1 | 100.9 |
| Compensation per hour | 119.3 | 131.5 | 115.0 | 118.1 | 120.7 | 123.2 | 126.4 | 130.1 | 133.1 | 135.9 | 139.7 | 143.2 | 146.4 |
| Real compensation per hour | 99.6 | 96.7 | 100.6 | 100.3 | 99.2 | 98.0 | 96.7 | 96.5 | 96.9 | 96.0 | 96.1 | 96.8 | 96.2 |
| Unit labor cost . . . . . . | 119.9 | 132.4 | 115.4 | 118.5 | 121.4 | 124.3 | 127.0 | 131.3 | 133.9 | 137.0 | 139.4 | 141.6 | 145.1 |
| Unit nonlabor payments | 110.9 | 118.3 | 109.6 | 110.4 | 111.5 | 112.2 | 115.2 | 116.0 | 119.7 | 122.7 | 127.6 | 129.3 | 132.2 |
| Implicit price deflator | 116.9 | 127.6 | 113.4 | 115.8 | 118.1 | 120.2 | 123.0 | 126.1 | 129.1 | 132.2 | 135.4 | 137.5 | 140.8 |
| Nonfarm business sector: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | 99.1 | 98.8 | 99.5 | 99.1 | 98.9 | 98.8 | 98.9 | 98.2 | 99.0 | 99.0 | 100.0 | 100.4 | 99.9 |
| Compensation per hour | 119.0 | 130.8 | 114.9 | 117.7 | 120.2 | 123.0 | 126.0 | 129.4 | 132.3 | 135.4 | 139.1 | 142.4 | 145.6 |
| Real compensation per hour | 99.3 | 96.2 | 100.4 | 100.0 | 98.8 | 97.8 | 96.4 | 96.0 | 96.3 | 95.6 | 95.7 | 96.3 | 95.7 |
| Unit labor cost | 120.0 | 132.4 | 115.4 | 118.7 | 121.5 | 124.4 | 127.4 | 131.8 | 133.6 | 136.8 | 139.1 | 141.9 | 145.7 |
| Unit nonlabor payments | 108.5 | 117.6 | 107.1 | 107.7 | 109.2 | 110.1 | 113.9 | 115.1 | 119.2 | 122.0 | 127.8 | 128.7 | 131.9 |
| Implicit price deflator . . | 116.2 | 127.4 | 112.6 | 115.1 | 117.4 | 119.7 | 122.9 | 126.3 | 128.8 | 131.9 | 135.3 | 137.5 | 141.1 |
| Nonfinancial corporations: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all employees | 100.4 | 101.0 | 100.6 | 100.7 | 100.5 | 99.9 | 100.2 | 100.1 | 101.8 | 101.8 | 103.3 | 103.9 | 103.7 |
| Compensation per hour | 118.7 | 130.7 | 114.5 | 117.6 | 120.1 | 122.7 | 125.7 | 129.3 | 132.5 | 135.5 | 139.2 | 142.3 | 145.4 |
| Real compensation per hour | 99.1 | 96.2 | 100.1 | 99.9 | 98.7 | 97.5 | 96.2 | 95.9 | 96.5 | 95.7 | 95.7 | 96.2 | 95.6 |
| Total unit costs . . . . . . . . | 116.8 | 129.7 | 112.2 | 115.3 | 118.2 | 121.3 | 124.2 | 129.2 | 131.1 | 134.1 | 136.0 | 138.7 | 142.2 |
| Unit labor cost | 118.2 | 129.4 | 113.8 | 116.8 | 119.5 | 122.8 | 125.4 | 129.1 | 130.2 | 133.1 | 134.7 | 137.0 | 140.2 |
| Unit nonlabor costs | 112.7 | 130.2 | 107.8 | 111.2 | 114.6 | 117.2 | 120.9 | 129.3 | 133.8 | 136.9 | 139.5 | 143.6 | 147.9 |
| Unit profits | 99.0 | 90.2 | 105.6 | 100.7 | 97.5 | 92.2 | 95.5 | 83.4 | 89.1 | 92.4 | 106.8 | 102.8 | 105.1 |
| Implicit price deflator | 114.8 | 125.2 | 111.5 | 113.7 | 115.9 | 118.1 | 121.0 | 124.1 | 126.4 | 129.5 | 132.7 | 134.7 | 138.0 |
| Manufacturing: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | 102.0 | 101.7 | 101.5 | 102.3 | 102.0 | 102.1 | 102.0 | 100.7 | 100.7 | 103.2 | 104.1 | 105.1 | 105.5 |
| Compensation per hour | 118.8 | 131.6 | 114.5 | 118.6 | 119.8 | 122.3 | 125.4 | 130.0 | 133.9 | 137.3 | 140.9 | 144.6 | 147.7 |
| Real compensation per hour | 99.2 | 96.7 | 100.2 | 100.7 | 98.5 | 97.2 | 95.9 | 96.4 | 97.5 | 97.0 | 96.9 | 97.8 | 97.1 |
| Unit labor cost . . . . . . . . . | 116.5 | 129.4 | 112.9 | 115.9 | 117.5 | 119.8 | 122.9 | 129.1 | 133.0 | 133.0 | 135.4 | 137.5 | 140.1 |

34. Percent change from preceding quarter and year in productivity, hourly compensation, unit costs, and prices, seasonally adjusted at annual rate
[1977 = 100]

| Item | Quarterly percent change at annual rate |  |  |  |  |  | Percent change from same quarter a year ago |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { I } 1980 \\ \text { to } \\ \text { I\| } 1980 \end{gathered}$ | $\begin{gathered} \text { II } 1980 \\ \text { to } \\ \text { III } 1980 \end{gathered}$ | $\begin{aligned} & \text { III } 1980 \\ & \text { to } \\ & \text { IV } 1980 \end{aligned}$ | $\begin{gathered} \hline \text { IV } 1980 \\ \text { to } \\ \text { I } 1981 \end{gathered}$ | $\begin{gathered} \text { I } 1981 \\ \text { to } \\ \text { II } 1981 \end{gathered}$ | $\begin{gathered} \text { II } 1981 \\ \text { to } \\ \text { III } 1981 \end{gathered}$ | $\begin{gathered} \text { II } 1979 \\ \text { to } \\ \text { II } 1980 \end{gathered}$ | $\begin{gathered} \text { III } 1979 \\ \text { to } \\ \text { III } 1980 \end{gathered}$ | $\begin{gathered} \text { IV } 1979 \\ \text { to } \\ \text { IV } 1980 \end{gathered}$ | $\begin{gathered} \hline \text { I } 1980 \\ \text { to } \\ \text { I } 1981 \end{gathered}$ | $\begin{gathered} \text { II } 1980 \\ \text { to } \\ \text { II } 1981 \end{gathered}$ | $\begin{gathered} \text { III } 1980 \\ \text { to } \\ \text { III } 1981 \end{gathered}$ |
| Private business sector: |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | -1.8 | 1.3 | -1.1 | 4.6 | 3.5 | -1.0 | -0.6 | 0.0 | 0.0 | 0.7 | 2.1 | 1.5 |
| Compensation per hour .... | 12.3 | 9.5 | 8.6 | 11.8 | 10.4 | 9.2 | 10.1 | 10.3 | 10.3 | 10.5 | 10.1 | 10.0 |
| Real compensation per hour | -0.7 | 1.6 | -3.8 | 0.4 | 3.2 | -2.4 | $-3.8$ | -2.3 | -2.0 | -0.7 | 0.3 | -0.7 |
| Unit labor costs . ........ | 14.4 | 8.1 | 9.8 | 6.9 | 6.6 | 10.3 | 10.8 | 10.3 | 10.3 | 9.7 | 7.8 | 8.4 |
| Unit nonlabor payments | 2.6 | 13.7 | 10.2 | 17.2 | 5.3 | 9.3 | 5.1 | 7.4 | 9.3 | 10.8 | 11.5 | 10.4 |
| Implicit price deflator | 10.5 | 9.8 | 9.9 | 10.0 | 6.2 | 10.0 | 9.0 | 9.4 | 10.0 | 10.1 | 9.0 | 9.0 |
| Nonfarm business sector: |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | -2.9 | 3.6 | -0.2 | 4.3 | 1.4 | -1.6 | -1.0 | 0.1 | 0.1 | 1.1 | 2.2 | 0.9 |
| Compensation per hour .... | 11.3 | 9.0 | 9.8 | 11.6 | 9.6 | 9.3 | 9.9 | 10.1 | 10.1 | 10.4 | 10.0 | 10.1 |
| Real compensation per hour | -1.6 | 1.2 | -2.7 | 0.2 | 2.4 | -2.3 | -4.0 | -2.5 | -2.2 | -0.8 | 0.2 | -0.6 |
| Unit labor costs ......... | 14.6 | 5.3 | 10.1 | 7.0 | 8.1 | 11.1 | 11.0 | 9.9 | 9.9 | 9.2 | 7.6 | 9.1 |
| Unit nonlabor payments | 4.2 | 15.0 | 9.9 | 20.3 | 3.0 | 10.3 | 6.9 | 9.1 | 10.8 | 12.2 | 11.8 | 10.7 |
| Implicit price deflator | 11.3 | 8.2 | 10.0 | 11.0 | 6.5 | 10.9 | 9.7 | 9.6 | 10.2 | 10.1 | 8.9 | 9.6 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all employees | -0.5 | 6.7 | 0.0 | 6.3 | 2.2 | -0.6 | -0.5 | 1.3 | 1.9 | 3.1 | 3.8 | 1.9 |
| Compensation per hour | 12.0 | 10.2 | 9.4 | 11.4 | 9.3 | 9.0 | 9.9 | 10.3 | 10.4 | 10.8 | 10.1 | 9.8 |
| Real compensation per hour | -1.0 | 2.2 | -3.1 | 0.0 | 2.1 | -2.6 | -3.9 | -2.2 | -1.9 | -0.5 | 0.3 | -0.9 |
| Total unit costs ......... | 17.0 | 6.2 | 9.4 | 5.6 | 8.4 | 10.4 | 12.0 | 11.0 | 10.5 | 9.5 | 7.4 | 8.4 |
| Unit labor costs | 12.6 | 3.2 | 9.4 | 4.8 | 7.0 | 9.6 | 10.5 | 8.9 | 8.4 | 7.4 | 6.1 | 7.7 |
| Unit nonlabor costs | 30.6 | 14.7 | 9.5 | 7.9 | 12.3 | 12.3 | 16.3 | 16.8 | 16.8 | 15.4 | 11.1 | 10.5 |
| Unit profits . . . . . | -41.9 | 30.3 | 15.7 | 77.9 | -13.9 | 8.9 | -17.2 | -8.6 | 0.3 | 11.8 | 23.3 | 17.9 |
| Implicit price deflator | 10.5 | 7.9 | 9.9 | 10.4 | 6.2 | 10.2 | 9.1 | 9.1 | 9.6 | 9.7 | 8.6 | 9.2 |
| Manuacturing: |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour of all persons | -4.9 | 0.0 | 10.4 | 3.3 | 4.1 | 1.3 | -1.6 | -1.3 | 1.1 | 2.1 | 4.4 | 4.7 |
| Compensation per hour | 15.5 | 12.7 | 10.5 | 11.1 | 10.8 | 9.0 | 9.6 | 11.7 | 12.2 | 12.4 | 11.3 | 10.3 |
| Real compensation per hour | 2.1 | 4.5 | -2.2 | -0.3 | 3.5 | -2.7 | -4.3 | -1.0 | -0.3 | 1.0 | 1.4 | -0.4 |
| Unit labor costs ......... | 21.4 | 12.7 | 0.1 | 7.5 | 6.4 | 7.6 | 11.3 | 13.2 | 11.0 | 10.2 | 6.6 | 5.3 |

## LABOR-MANAGEMENT DATA

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

## Definitions

Data on wage changes apply to private nonfarm industry agreements covering 1,000 workers or more. Data on wage and benefit changes combined apply only to those agreements covering 5,000 workers or more. First-year wage settlements refer to pay changes going into effect within the first 12 months after the effective date of
the agreement. Changes over the life of the agreement refer to total agreed-upon settlements (exclusive of potential cost-of-living escalator adjustments) expressed at an average annual rate. Wage-rate changes are expressed as a percent of straight-time hourly earnings, while wage and benefit changes are expressed as a percent of total compensation.

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

Work stoppages include all known strikes or lockouts involving six workers or more and lasting a full shift or longer. Data cover all workers idle one shift or more in establishments directly involved in a stoppage. They do not measure the indirect or secondary effect on other establishments whose employees are idle owing to material or service shortages.
35. Wage and benefit settlements in major collective bargaining units, 1976 to date

36. Effective wage adjustments in major collective bargaining units, 1976 to date
[lin percent]


Note: Because of rounding and compounding, the sums of individual items may not equal totals.
37. Work stoppages, 1947 to date

| Month and year |  | Number of stoppages |  | Workers involved |  | Days idle |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Beginning in month or year | In effect during month | Beginning in month or year (thousands) | In effect during month (thousands) | Number (thousands) | Percent of estimated working time |
| 1947 |  | 3,693 | . . . . . . . . . . . | 2,170 | ... | 34,600 | . 30 |
| 1948 |  | 3,419 | . . . . . . . . . . . | 1,960 | ............ | 34,100 | . 28 |
| 1949 |  | 3,606 | . . . . . . . . . . | 3,030 | . ......... | 50,500 | . 44 |
| 1950. | ............................. | 4,843 | . | 2,410 | . ........... | 38,800 | .33 |
| 1951 | . . . . . . . . . . . . . . . . . . . . . . . | 4,737 | . . . . . . . . . . . | 2,220 | ............. | 22,900 | . 18 |
| 1952 | . . . . . . . . . . . . . . . . . . . . . . | 5,117 | . . . . . . . . . . | 3,540 | ............ | 59,100 | . 48 |
| 1953 |  | 5,091 | .............. | 2,400 | ............ | 28,300 | . 22 |
| 1954 |  | 3,468 | ............. | 1,530 | . | 22,600 | . 18 |
| 1955 | . . . . . . . . . . | 4,320 | . . . . . . . . . . . | 2,650 | . ........... | 28,200 | . 22 |
| 1956 |  | 3,825 | ............. | 1,900 | . ............ | 33,100 | . 24 |
| 1957 | . . . . . . . . . . . . | 3,673 | . . . . . . . . . . . | 1,390 | $\ldots$ | 16,500 | . 12 |
| 1958 | . | 3,694 | . . . . . . . . . . | 2,060 | . | 23,900 | . 18 |
| 1959 | . | 3,708 | . ........... | 1,880 | . ........... | 69,000 | . 50 |
| 1960. | . . . | 3,333 | . ............. | 1,320 | . $\cdot . . . . . . . .$. | 19,100 | . 14 |
| 1961. | . | 3,367 | . ............. | 1,450 | . ............ | 16,300 | . 11 |
| 1962 | .......... | 3,614 | . ............ | 1,230 | $\cdots$ | 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 | $\cdots$ | 49,018 | . 28 |
| 1969 |  | 5,700 |  | 2,481 | . ........... | 42,869 | .24 37 |
| 1970 | . | 5,716 | . ............. | 3,305 | $\cdots$ | 66,414 | . 37 |
| 1971 |  | 5,138 |  | 3,280 | ............. | 47,589 | . 26 |
| 1972 | . . . . . . . . . . . . . . . . . . | 5,010 | ............. | 1,714 | . ...... | 27,066 | . 15 |
| 1973. | . . . . . . . . . . . . . . . . . . | 5,353 | . . . . . | 2,251 | . .......... | 27,948 | . 14 |
| 1974. | . . . . . . . . . . . . . . . . . . . . | 6,074 5,031 | . . . . . . . . . . | 2,778 1 | . | 47,991 | . 24 |
| 1975 ... | . . . . . . . . . . . . . . . . . . . . . . | 5,031 | . ............. | 1,746 | . . . . . . . . . | 31,237 | . 16 |
| 1976 |  | 5,648 | . ............ | 2,420 | ............. | 37,859 | . 19 |
| 1977 | . . . . . . . . . . . . . . . . . . . . . | 5,506 | . . . . . . . . . . | 2,040 | ............ | 35,822 | . 17 |
| 1978 |  | 4,230 | . . . | 1,623 | . ............. | 36,922 | . 17 |
| 1979 |  | 4,827 |  | 1,727 |  | 34,754 | . 15 |
| 1980: | November | 205 | 532 | 53 | 126 | 1,440 | . 09 |
|  | December . . . | 90 | 380 | 19 | 77 | 1,228 | . 06 |
| $1981{ }^{\circ}$ : | January | 253 | 297 | 50 | 68 | 614 | . 03 |
|  | February .... | 347 | 517 | 90 | 136 | 647 | . 04 |
|  | March . . . . . . | 314 | 545 | 271 | 336 | 1,419 | . 07 |
|  | April . | 371 | 560 | 101 | 273 | 5,117 | . 25 |
|  | May | 473 | 688 | 152 | 383 | 5,857 | . 31 |
|  | June | 421 | 682 | 186 | 499 | 3,891 | . 19 |
|  | July . . . . . . . | 391 | 659 | 127 | 190 | 2,015 | . 10 |
|  | August | 310 | 596 | 72 | 148 | 1,775 | . 09 |
|  | September . | 358 | 565 | 47 | 109 | 1,468 | . 07 |
|  | October .. | 231 | 517 | 25 | 83 | 1,182 | . 06 |
|  | November . | 200 | 385 | 23 | 27 | 422 | . 02 |

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[^1]:    'The incidence of unemployment in a single year is the number of persons who experienced some unemployment divided by the number with some labor force experience.
    ${ }^{2}$ The incidence of unemployment over the full 2 -year period refers to the number of persons who were unemployed at least once divided by the number of persons who were in the labor force at least once during the 2 years.
    ${ }^{3}$ The average duration was calculated as total weeks unemployed during the 2 -year period

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[^6]:    Fred Siskind is a labor economist in the Office of the Assistant Secretary for Policy, Evaluation and Research, U.S. Department of Labor.

[^7]:    ' Data are from unpublished SDS tables for 12 jurisdictions, and relate to workers age 16 and over by duration of employment.
    ${ }^{2}$ Data are from the 1977 Quality of Employment Survey (Ann Arbor, Mich., The University of Michigan, 1979), table 9.3. They relate to workers age 16 and over by duration of employment with present employer
    ${ }^{3}$ Data are from the 1977 Quality of Employment Survey, table 9.5, and relate to workers age 16 and over by duration of employment in present job.

[^8]:    Data are from unpublished SDS tables for 16 jurisdictions, and relate to workers age 16 and over.
    ${ }^{2}$ Data are from unpublished tables for the January 1978 CPS, and relate to all workers age 16 and over, and cover the same jurisdictions except the Virgin Islands.

[^9]:    Allyson Sherman Grossman is an economist in the Division of Labor Force Studies, Bureau of Labor Statistics.

[^10]:    ${ }^{1}$ Children are defined as "own" children of the family. Included are never-married daughters, sons, stepchildren, and adopted children. Excluded are other related children such as grandchildren, nieces, nephews, cousins, and unrelated children.
    ${ }^{2}$ Includes only divorced, separated, widowed, or never-married persons
    Note: Due to rounding, sums of individual items may not equal totals.

[^11]:    Karen S. Koziara is chairperson and a professor, Mary I. Bradley a doctoral candidate, and David A. Pierson an assistant professor, Department of Industrial Relations and Organizational Behavior, Temple University. The research in this paper was supported by a grant from the Labor Management Services Administration, U.S. Department of Labor.

[^12]:    "Developments in Industrial Relations" is prepared by George Ruben and other members of the staff of the Division of Developments in Labor-Management Relations, Bureau of Labor Statistics, and is largely based on information from secondary sources.

[^13]:    ${ }^{1}$ Affiliated with AFL-CIO except where noted as independent (Ind.).
    ${ }^{2}$ Industry area (group of companies signing same contract).

[^14]:    ${ }^{1}$ As in table 1, population figures are not seasonally adjusted.

[^15]:    Note: The industry divisions of mining; construction; tobacco manufactures (a major manufacturing group, nondurable goods); transportation and public utilities; and finance, insurance,

[^16]:    ${ }^{1}$ The unadjusted data are shown because the seasonal component is small relative to the trend-cycle, irregular components, or both, and consequently cannot be separated with sufficient precision.

[^17]:    Not available.

[^18]:    See footnotes at end of table.

[^19]:    ${ }^{5}$ Most prices for refined petroleum products are lagged 1 month
    ${ }^{6}$ Some prices for industrial chemicals are lagged 1 month.
    $\mathrm{r}=$ revised.
    $\mathrm{c}=$ corrected.

[^20]:    ' Not available.

