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*In this issue:*



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**William E. Brock,** *Secretary*

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**MONTHLY LABOR REVIEW**

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

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# Labor Month In Review

**LABOR LAW STUDY.** The Department of Labor began a study of the Nation's labor laws and collective bargaining practices to identify possible conflicts between these laws and practices and the kind of labor-management cooperation the Department is seeking to encourage. Stephen I. Schlossberg, Deputy Under Secretary for Labor-Management Cooperation, and Steven M. Fetter, his executive assistant, discuss the project in a background paper issued June 16. Here are brief excerpts:

**DOL's position.** The Department of Labor has taken a strong position in support of labor-management cooperation as an important prerequisite to America's return to preeminence in the world marketplace. Secretary of Labor William E. Brock has said that our country must develop a "solid atmosphere of cooperation, based on the concept of worker dignity and equality and grounded in a mutual respect for collective bargaining, [which] enables both unions and management to maintain individual integrity while working for the good of all."

**Experiments spread.** A 1982 survey found that at least one-third of the Fortune 500 companies, with both organized and unorganized work forces, have some form of participative management or quality of work life program in operation and that these efforts have, by and large, resulted in measurably improved employee morale and increased productivity.

While many of the more experimental efforts may have resulted from endangered corporations needing wage concessions to give them a better chance at economic survival, the programs' achievements have proved to be so attractive that they have captured the attention of other firms not in financial trouble. While noteworthy worker participation plans are in place at AT&T with the Communications Workers of America and the International Brotherhood of Electrical Workers, at Xerox with the Amalgamated Clothing and Textile Workers Union, and in several steel companies with the United Steelworkers of America, two of the most auspicious are between the UAW and the GM-Toyota joint venture at New United Motors Manufacturing, Inc. (NUMMI) in Fremont, California, and between Ford Motor Company and the UAW.

Within many companies, a new cooperative attitude is reordering labor-management priorities so that unions are more concerned about the financial health of the business and management seeks a relationship which enhances the role of workers by seeking their input and ideas. Both sides see the value of replacing distrust and hostility with equity and sharing. While the parties recognize that there are risks in altering their traditional antagonistic relationship, they are convinced that the risks are even greater if they do nothing at all. Thus, because of factors beyond their control, but also with an interest in achieving the differing yet complementary goals of increased productivity and an improved quality of work life, certain segments of the labor-management community are becoming "partners in the enterprise."

**Legal considerations.** Unfortunately, the mutual desires of labor and management to cooperate have not put an end to their problems. The new hybrids they have created—often called quality of work life, employee involvement, worker participation, labor-management participation teams or committees, or any of a number of other motivational names—do not easily fit within the framework of our existing labor laws and labor-management culture.

The history of labor relations in this country has been, and to a large degree continues to be, characterized by confrontation. In most cases, the relationship, from initial organization through contract negotiation and administration, has been driven by law and legal considerations; the motivation for action has rarely been cooperation, mutuality of interest, or principles of human relations. Rules, not goals, have set the tone.

In the past, our labor relations have exhibited a remarkable ability to adapt to the changing needs of an evolving, but flourishing, industrial economy. Now we must wait to see whether the creative steps taken by labor and management to deal with a declining industrial manufacturing base can pass muster with the agencies and courts charged with interpreting our labor laws. If they cannot, then the two sides must work together to formulate the legislative strategy necessary to modify our laws to permit such innovation.

**Working together.** The American economy can ill afford to continue the escalation of confrontation that has traditionally divided labor and management. There will always be bargaining to distribute gains and losses between the parties; but in those aspects of the relationship that clearly involve shared interests, we should emphasize mutuality rather than militancy and seek to advance a new ordering of labor relations which aligns manager and worker on the same side—working together for the common good. Clearly, cooperation and problem solving offer more promise for productive labor-management relationships than the combat of the past. If our statutes and practices are an impediment to change, we must be willing to consider reasonable alterations in that basic framework to encourage a process that will ultimately benefit society as a whole.

Copies of the 32-page paper are available from Office of Labor-Management Relations and Cooperative Programs, Room N5402, U.S. Department of Labor, Washington, DC 20210. □

# An analysis of regional employment growth, 1973–85

*Shifts in regional economic performance and job growth generally have been from the Snowbelt to the Sunbelt; however, many factors can alter regional advantage, often suddenly*

PHILIP L. RONES

Reference to the transfer of economic power from old industrial regions of the North to the South and West has become almost a cliche. The term "Sunbelt" is generally associated with population growth, economic prosperity, and a bright future, while "Snowbelt" connotes economic decline. How then do we reconcile these perceptions with the fact that New England, which a decade ago was rapidly losing population and jobs, presently has the lowest unemployment rate of any region; or that in late 1985, a considerable majority of the States in the West and South had jobless rates above the national average; or that, since the recession trough in late 1982, housing costs in Boston have risen dramatically while those in Houston, an often cited symbol of the prosperity of the new South, have declined?[1]

Such recent developments have made it clear that the situation is more complex than commonly thought. There has been, and most likely will continue to be, a shift in economic influence towards the South and West. Such movements are the expected result of historic differences in regional income, wages, and cost of living, as well as shifts in the importance of each region's geographic and resource endowments. Yet within that context, long-term changes in the structure of our economy, cyclical swings, and unanticipated "shocks" all can alter regional advantage. The economic "Power Shift,"[2] as it has been called, is clearly not as immutable as once thought.

The first section of this article describes some of the changes in regional employment over the past decade or so, with particular emphasis on the industrial components of those changes. The second section examines some of the reasons for dramatically uneven regional employment growth, focusing on such aspects as population and business migration, regional income inequality, and economic shocks. Finally, because New England has done the most in recent years to break the stereotype of the Snowbelt versus Sunbelt economies, some of the causes of the resurgence of that region's economy are examined.

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## Shift-share analysis

The technique employed in examining trends in regional job growth is called shift-share analysis, a statistical method which has been commonly used in regional analysis for several decades.[3] It can be used to allocate regional growth among three components: national share, industry mix, and regional share. National share indicates the employment change that would have occurred if a region's employment growth rate had equaled the national growth rate over the study period. Industry mix shows the amount of regional employment growth attributable to the region's initial industry mix; that is, it reflects a region's mix of fast- and slow-growth industries. Finally, regional share indicates whether a region's industries performed better or worse than the national average for each industry.[4] This last component is essentially a measure of competitive advantage—the end result of the many varied factors which can cause uneven regional growth. For analytical purposes, the industry mix and regional share statistics are the more interesting, because they relate regional changes to developments at the national level.

*The data.* This analysis uses data from the Current Employment Statistics Survey, a nationwide survey of business establishments which provides information by industry on employment, hours, and earnings of workers on nonagricultural payrolls. The survey is a cooperative effort of the State Employment Security Offices and the BLS, through which data are obtained from employer reports filed monthly with the State agencies.

For this analysis, State data were aggregated into the nine census divisions, shown in exhibit 1. (The terms region and division, in reference to geography, often are used interchangeably in this analysis.) Industry data were treated at the major division level, with manufacturing divided into its durable and nondurable goods components.[5] The exclusion of agriculture from survey coverage would have only a minor impact on most regions, but for the West North Central area, the exclusion could be critical. Certainly, poor agricultural performance would be felt throughout that region's nonagricultural sector. Even so, estimates presented here probably understate the economic difficulties in that part of the country.

**Exhibit 1. Census regions and divisions**

**Northeast**
- New England
  - Maine
  - New Hampshire
  - Vermont
  - Massachusetts
  - Rhode Island
  - Connecticut
- Middle Atlantic
  - New York
  - New Jersey
  - Pennsylvania

**Midwest**
- East North Central
  - Ohio
  - Indiana
  - Illinois
  - Michigan
  - Wisconsin
- West North Central
  - Iowa
  - Missouri
  - Nebraska
  - Kansas
  - Minnesota
  - North Dakota
  - South Dakota

**South**
- South Atlantic
  - Delaware
  - Maryland
  - District of Columbia
  - Virginia
  - West Virginia
  - North Carolina
  - South Carolina
  - Georgia
  - Florida
- East South Central
  - Kentucky
  - Tennessee
  - Alabama
  - Mississippi
- West South Central
  - Arkansas
  - Louisiana
  - Oklahoma
  - Texas

**West**
- Mountain
  - Montana
  - Wyoming
  - Colorado
  - Utah
  - Idaho
  - Arizona
  - Nevada
  - New Mexico
- Pacific
  - California
  - Hawaii
  - Washington
  - Oregon
  - Alaska

Region-by-industry employment matrices were prepared for 1973, 1975, 1979, and 1985. All years but 1975 were chosen because they represented relative high points in the business cycle. Data for 1975 were included to isolate the effects of the 1973–75 recession on regional performance.

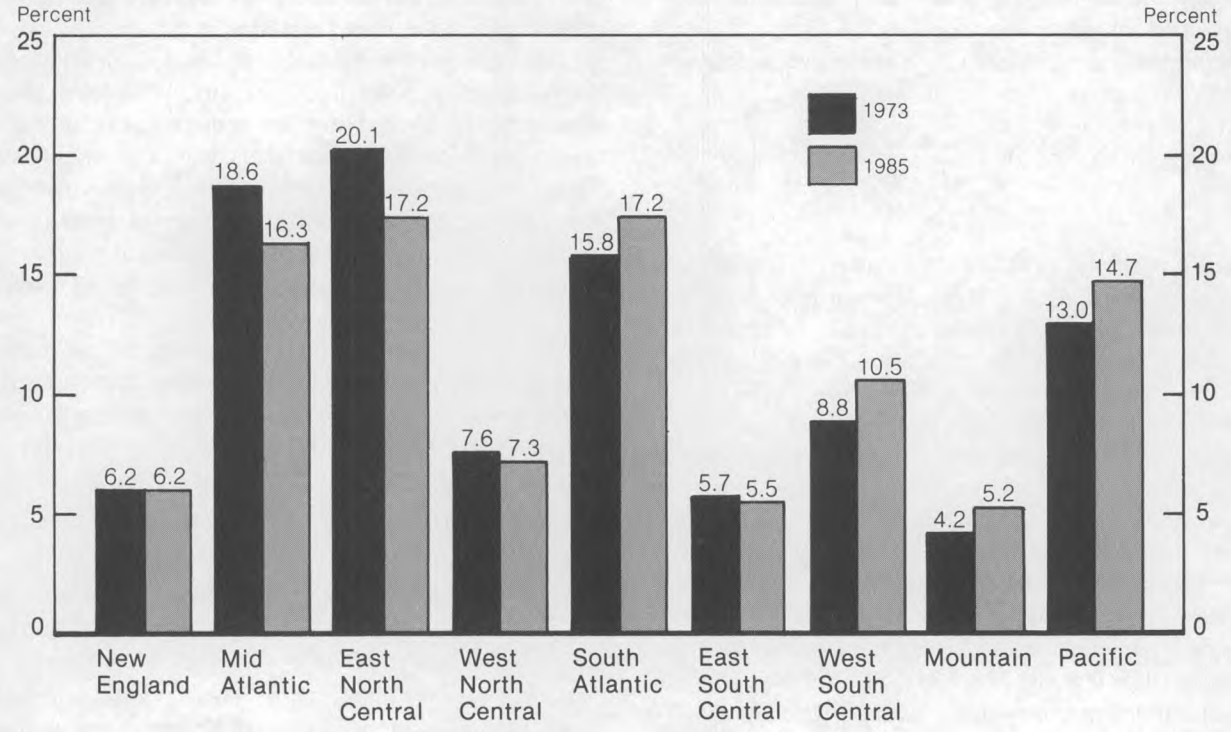
There is often quite valid concern about the usefulness of the regional aggregations, because regions are not homogeneous economic units. For instance, population and employment growth in the South Atlantic region have been well above the national average principally because a single State, Florida, has dominated the region in terms of both size and relative rate of growth. California similarly dominates the Pacific region. However, the argument of a lack of homogeneity is probably no more valid in its application to regional data than it would be to State or local data. The local economies that make up many States are as diverse in their industrial makeup and performance as are the State economies that make up any region. Hence, there is enough to gain in using any of these "aggregated" data—local, State, or regional—to warrant their use in labor market analysis.

*The results.* The first two columns in table 1 show the actual change in each region's total employment between 1973 and 1985 and the national share component of the change. The national share represents the employment growth that a region would have experienced if its number of jobs had expanded at the national average rate over the 12-year period. Where the actual change in employment is greater than the national share, a region's employment grew at a faster rate than the national average. The West South Central region, for example, grew twice as fast as the Nation as a whole. Conversely, where actual growth is less than national share, a region's jobs grew at a slower than average rate. Employment in the East North Central region, for example, grew only one-third as fast as the national average.

It is not surprising that the slowest employment growth areas were generally in the Northeast and Midwest and the fastest in the South and West. The regional variation, however, was quite dramatic. At the extremes, the East North Central region's nonfarm payroll jobs grew by only 8 percent over the study period, while employment gains of 57 percent were registered in the Mountain States. The range of employment growth performance is reflected in the changing regional distribution of national employment, shown in chart 1.

As previously stated, the industry mix column of the table reflects the advantage or disadvantage bestowed on a region by virtue of its industrial makeup in the initial year of the study. A region would stand to grow more slowly than the average if it had a relatively large share of industries with slower than average growth over the 12-year period—government, construction, and, more importantly, manufacturing, particularly nondurable goods. A region would be favored if it began the period with a higher than average

**Chart 1. Distribution of nonagricultural payroll employment by census division, 1973 and 1985**




employment concentration in mining and in any of the service-producing industries other than government. Because this statistic compares a region's industry mix to a national average, the net impact of the industry mix (and regional share, for that matter) across regions is by definition zero.

It should be kept in mind that the industry mix statistic has substantial limitations. Because manufacturing showed relatively slow growth over the study period, a region with little or no manufacturing would appear to have a positive industry mix. Manufacturing activity, however, is generally viewed as a prerequisite for strong growth in the service sector. Thus, the effect of this hypothetical industry distribution would undoubtedly show up as poor regional share performance in other industries.

As expected, the area most hurt by its poor industry mix was the East North Central region, with its initially high proportion of heavy manufacturing jobs. That region's employment would have increased by an additional 420,000 over the study period if the area had had an "average" industry mix in 1973. But in virtually all cases, the industry mix statistic is a poor second to regional share in explaining the gap between actual regional job growth and the national average. The Middle Atlantic States, for instance, experienced little industry mix impact and yet had very slow growth, while the South Atlantic region, also with a neutral industry distribution, experienced quite rapid growth. The West South Central, Mountain, and Pacific regions all prospered, in terms of the industry mix measure, from their emphasis on mining (except in recent years) or service-sector jobs and their relative lack of factory employment. However, in none of these rapid-growth regions did the 1973 industry mix explain as much as 20 percent of employment change above or below the national share.

The regional share measure explains most of the geographic differences in employment growth. The Middle Atlantic and East North Central regions combined registered 5 million fewer jobs than their industry mix alone would have predicted, while the Southern and Western gainers (minus the East South Central) added 5 million jobs more than their "fair share." The following analysis, then, will focus on the regional share component of change, identifying the industries in which regional growth has been particularly strong or weak and examining the change in regional advantage and disadvantage that occurred within three subperiods of the 1973–85 span.

The regional share component reflects how a region's industries performed compared to the national average for each industry. The interpretation of the results is simplified by the use of the indexes shown in table 2 in place of absolute numbers.[6] If an industry within a particular region grew at the same rate as that industry nationwide, then the

index figure would be 1. An index greater than 1 represents better than average performance (a figure of 1.100, for example, represents employment growth 10 percent above average), and an index of less than 1 represents below-average performance.

The regional share index, RSI, is calculated as follows:

$$RSI = \frac{E_{ir}^{t+1}}{E_{ius}^{t+1}\left(E_{ir}^{t}/E_{ius}^{t}\right)}$$

where $E_{ir}$ is employment in each industry ($i$) and each region ($r$) (or division); $E_{ius}$ is employment in each industry for the United States as a whole; and $t$ and $t+1$ are the base year and final year in any comparison—either 1973 and 1985, respectively, or some narrower time frame.

More simply, the calculation divides actual industry employment in each region in 1985 (or another target year) by what the figure would have been had the region maintained its base-year share of industry employment. The calculation ignores the rate of growth of each industry nationally, a factor that shows up in the industry mix statistic. For example, New England had 5.47 percent of U.S. construction industry employment in 1973. Had it maintained that proportion in 1985, it would have had .0547 × 4,646,000 (total 1985 construction employment), or approximately 254,000 construction jobs. Actual employment slightly exceeded that mark—258,000. Thus, the regional share index is 258,000/254,000, or 1.016.

In this presentation, the mix and share components of regional change are separated as if they were unrelated factors, but in reality, they are quite interrelated. In a study of the effects of industry mix on State unemployment rates, Robert McGee estimated that the indirect (or "spillover") effect of industry mix was, on average, about 15 percent higher than the direct effect.[7] For example, an area with an unfavorable industry mix is likely to experience above-average unemployment (or below-average employment growth) not only in its disadvantaged industries but also in its stronger ones. The measure used here identifies only the direct effects of industry mix; the spillover effects are incorporated in the regional share component. Thus, the true impact of a poor industry mix is understated in the results for that component, and the dichotomy used here to some extent oversimplifies a complex relationship.

**Table 1. Components of change in nonagricultural payroll employment by census division, 1973–85**

[Numbers in thousands]

| Census division | Employment change, 1973–85 | Components of change | | |
|---|---|---|---|---|
| | | National share | Industry mix | Regional share |
| New England | 1,317 | 1,267 | 12 | 62 |
| Middle Atlantic | 1,512 | 3,840 | 51 | −2,379 |
| East North Central | 1,252 | 4,148 | −419 | −2,477 |
| West North Central | 1,306 | 1,562 | 68 | −324 |
| South Atlantic | 4,600 | 3,249 | −60 | 1,411 |
| East South Central | 970 | 1,173 | −146 | −57 |
| West South Central | 3,475 | 1,809 | 127 | 1,539 |
| Mountain | 1,852 | 869 | 150 | 833 |
| Pacific | 4,317 | 2,677 | 234 | 1,406 |

NOTE: See text footnote 4 for description of components of change.

Table 2 shows the regional share indexes for all nonfarm payroll employees for the entire 1973–85 period and for three subperiods. The top line indicates that, at the extremes, the West South Central and Mountain divisions had competitive gains of about 20 percent, while the East North Central and Middle Atlantic had losses of more than 15 percent relative to the national average.

The RSI patterns for many regions have changed markedly over time. (For simplicity of language, RSI's significantly greater or less than 1 will be termed "gains" or "losses," although, technically, they describe movements *relative to a national average* rather than absolute changes.) Among the highlights of the RSI trend results:

- New England, formerly one of the worst performers in terms of employment growth, is now among the best.
- The Middle Atlantic States suffered their worst performance in the late 1970's; even in recent years, Pennsylvania continued to exert a downward pull on the 3-State totals.
- The failure of the East North Central to recoup manufacturing job losses has been felt in all sectors in recent years. The cumulative effects are the worst suffered by any region.
- The entire West North Central region has fared poorly in the 1980's, largely because of weakness in the agricultural sector. The exclusion of agriculture from the employment data probably serves to understate the weakness in the region's economy.
- The South Atlantic and East South Central areas both mirrored national performance through the late 1970's. Since then, the former, paced by Florida's boom, has outperformed all other regions, while its more industrialized neighbor has fared quite poorly.
- The West South Central, Mountain, and Pacific regions each experienced gains throughout the three subperiods.

The health of a region's manufacturing industries is generally regarded as the most important and most visible indicator of the area's economic performance. It is in the construction industry, however, that a region's fortunes are most dramatically reflected in the index. In all of the regions in each of the three subperiods examined, only three times (out of 27 chances) was the construction RSI closer to 1 than the region's total RSI; that is, construction almost always showed more dramatic shifts in regional advantage than did the all-employee totals. This is because construction is the industry most dependent on population growth. Many urban

**Table 2. Regional share index for nonagricultural payroll employment by major industry and census geographic divisions, selected periods, 1973–85**

| Period and industry | New England | Middle Atlantic | East North Central | West North Central | South Atlantic | East South Central | West South Central | Mountain | Pacific |
|---|---|---|---|---|---|---|---|---|---|
| **1973 to 1985** | | | | | | | | | |
| Total | 1.009 | .873 | .853 | .966 | 1.087 | .963 | 1.193 | 1.238 | 1.129 |
| Mining | — | .616 | .788 | .750 | .662 | .949 | 1.410 | .855 | 1.231 |
| Construction | 1.016 | .882 | .790 | .948 | 1.017 | .854 | 1.244 | 1.201 | 1.171 |
| Durable goods | 1.287 | .808 | .776 | 1.008 | 1.241 | 1.003 | 1.271 | 1.509 | 1.293 |
| Nondurable goods | .804 | .843 | .986 | 1.088 | 1.022 | 1.009 | 1.178 | 1.331 | 1.243 |
| Transportation and public utilities | .962 | .847 | .860 | .986 | 1.100 | 1.055 | 1.157 | 1.294 | 1.089 |
| Trade | 1.001 | .863 | .877 | .920 | 1.111 | .998 | 1.159 | 1.175 | 1.109 |
| Finance, insurance, and real estate | 1.018 | .865 | .905 | .963 | 1.031 | .954 | 1.201 | 1.244 | 1.130 |
| Services | 1.006 | .900 | .904 | .950 | 1.111 | .941 | 1.104 | 1.188 | 1.068 |
| Government | .933 | .907 | .903 | .939 | 1.090 | 1.040 | 1.175 | 1.119 | 1.003 |
| **1973 to 1975** | | | | | | | | | |
| Total | .978 | .968 | .974 | 1.020 | .991 | 1.000 | 1.063 | 1.048 | 1.037 |
| Mining | — | .949 | .963 | .896 | 1.000 | 1.172 | 1.013 | .991 | .976 |
| Construction | .872 | .927 | 1.005 | 1.151 | .891 | 1.055 | 1.186 | .948 | 1.090 |
| Durable goods | 1.040 | 1.005 | .952 | 1.023 | .989 | .966 | 1.106 | 1.043 | 1.048 |
| Nondurable goods | .959 | .942 | 1.004 | 1.033 | .986 | 1.011 | 1.089 | 1.088 | 1.078 |
| Transportation and public utilities | .956 | .962 | .980 | 1.019 | .996 | 1.014 | 1.064 | 1.065 | 1.021 |
| Trade | .976 | .957 | .991 | 1.023 | .985 | 1.007 | 1.055 | 1.036 | 1.030 |
| Finance, insurance, and real estate | 1.000 | .965 | 1.007 | 1.010 | .998 | 1.033 | 1.033 | 1.018 | 1.010 |
| Services | .995 | .959 | .999 | 1.022 | .998 | 1.002 | 1.039 | 1.049 | 1.014 |
| Government | .973 | .994 | .985 | .964 | 1.024 | 1.005 | 1.006 | 1.020 | 1.013 |
| **1975 to 1979** | | | | | | | | | |
| Total | .991 | .920 | .969 | .997 | 1.017 | 1.013 | 1.059 | 1.104 | 1.056 |
| Mining | — | .845 | .908 | .963 | .853 | .958 | 1.141 | 1.043 | .981 |
| Construction | .889 | .841 | .957 | 1.006 | .960 | .956 | 1.096 | 1.254 | 1.145 |
| Durable goods | 1.127 | .890 | .942 | 1.025 | 1.059 | 1.017 | 1.088 | 1.173 | 1.085 |
| Nondurable goods | .861 | .952 | .997 | 1.019 | 1.018 | 1.010 | 1.053 | 1.093 | 1.090 |
| Transportation and public utilities | .959 | .918 | .965 | 1.021 | 1.011 | 1.063 | 1.060 | 1.120 | 1.037 |
| Trade | .968 | .920 | .970 | .983 | 1.026 | 1.019 | 1.053 | 1.088 | 1.061 |
| Finance, insurance, and real estate | .960 | .909 | .978 | .997 | .991 | .978 | 1.051 | 1.150 | 1.131 |
| Services | .992 | .944 | .969 | .992 | 1.020 | .991 | 1.007 | 1.091 | 1.068 |
| Government | 1.011 | .929 | .976 | .986 | 1.051 | 1.071 | 1.059 | 1.036 | .972 |
| **1979 to 1985** | | | | | | | | | |
| Total | 1.041 | .980 | .903 | .950 | 1.078 | .950 | 1.059 | 1.070 | 1.031 |
| Mining | — | .776 | .897 | .882 | .779 | .843 | 1.222 | .825 | 1.280 |
| Construction | 1.310 | 1.133 | .820 | .819 | 1.190 | .851 | .956 | 1.015 | .939 |
| Durable goods | 1.098 | .904 | .865 | .962 | 1.184 | 1.021 | 1.054 | 1.235 | 1.136 |
| Nondurable goods | .973 | .940 | .985 | 1.033 | 1.017 | .988 | 1.028 | 1.119 | 1.059 |
| Transportation and public utilities | 1.050 | .960 | .911 | .947 | 1.092 | .978 | 1.027 | 1.083 | 1.028 |
| Trade | 1.061 | .981 | .912 | .914 | 1.099 | .974 | 1.044 | 1.042 | 1.016 |
| Finance, insurance, and real estate | 1.061 | .987 | .920 | .957 | 1.044 | .939 | 1.110 | 1.060 | .989 |
| Services | 1.020 | .995 | .934 | .938 | 1.092 | .949 | 1.055 | 1.037 | .986 |
| Government | .947 | .981 | .939 | .988 | 1.015 | .966 | 1.103 | 1.057 | 1.019 |

NOTE: A regional share index greater than 1 represents faster than average industry growth; a value less than 1 represents slower than average growth. See text for further explanation.

areas in the Northeast and Midwest regions have shown very slow growth or absolute declines in population in recent decades, a factor which results in excess housing stock, depressed housing prices, and vastly reduced demand for new residential construction. Likewise, substantial expansion of commercial footage would be unlikely in a stagnant local economy. Conversely, those Southern and Western regions experiencing a rapid influx of both population and business have had to provide new housing, plants, and office space for newcomers.

The RSI's reflect the relationship between construction activity and both population and job growth. For example, while construction activity nationwide was down substantially during the years 1973–75, New England's employment performance for the industry was about 13 percent worse than average, but the West South Central States experienced a relative increase of nearly 20 percent. The construction RSI's reflect the West South Central division's standing as the best performer during that recessionary period in terms of employment growth; it was second only to the Mountain region in population growth.[8]

Outside of developments in mining, the 1979–85 performance of construction in both Midwest divisions was the worst of any region-industry combination. The loss of nearly 20 percent in the regions' employment share is in marked contrast to the 30-percent gain for New England. The former is a dramatic indication of the Midwest's industrial and agricultural woes, while the latter reflects not only New England's improved overall economy but also a catching-up after years of lagging construction activity.

For the entire 1973–85 span, manufacturing is the only industry division for which a decline in regional share reflects an absolute drop in jobs. This is because nationwide manufacturing employment declined by about 800,000 during that period. Thus, the RSI's for durable and nondurable manufacturing closely reflect the regional redistribution of factory jobs. Virtually all of the durable goods job losses occurred in the Middle Atlantic and East North Central divisions. (The East South Central and West North Central's near-unity RSI's reflect a small absolute loss due to the sector's national employment decline.) Their regional share losses, in terms of jobs, were more than 400,000 and 800,000, respectively, or about 19 and 22 percent. Five regions were strong gainers, paced in relative terms by the Mountain States, followed by the Pacific, New England, West South Central, and South Atlantic.

The Middle Atlantic States were the only region to experience serious job losses in both durable and nondurable manufacturing. New England continued to suffer from the long-term decline in its textiles and apparel industries in the earlier years of the study period, but experienced little further erosion of nondurables employment after 1979. The only substantial winners in nondurables were the West South Central, Mountain, and Pacific regions.

The industries in the service-producing sector tend to follow the overall regional pattern of population and economic growth. The use of aggregated industry data limits the analysis of these industries. For example, while real estate employment probably follows the economic trends of each region, finance and insurance, which are "exportable," may follow a different pattern. The aggregated data, of course, cannot be used to address this point.

Government employment trends are interesting in that they often differ substantially from regional averages. For example, between 1979 and 1985, New England gained more than its fair share of employment in virtually every industry, but had one of the lowest rates of government employment growth. In the Pacific States, government employment also lagged total regional job growth, largely reflecting California's imposition of restrictions on State and local taxing power.

In summary, the Nation's regions have experienced virtually every pattern of job growth over the 12-year study period—consistently good, as in the Pacific, Mountain, and West South Central; consistently bad, as in the East North Central; improving, as in New England; and deteriorating, as in the East South Central. Strength in manufacturing probably has the broadest impact on regional economic well-being (with certain exceptions, such as the West North Central States where farming is so critical). However, that well-being is most dramatically reflected in construction activity, which can increase or decrease precipitously in response to changing regional fortunes. Service-sector employment most closely mirrors a region's overall population and employment patterns.

## Why these shifting fortunes?

Up to this point, the evidence presented has documented the change in regional employment performance, particularly as it relates to regions' relative competitive position in each industry. What causes these changes in regional advantage? The complexity of this question is reflected in the fact that analysts have not been successful in explaining a substantial portion of regional growth differences. Several important regional growth factors are discussed here—migration, regional income and wages, business location decisions, and economic shocks. The list obviously is not exhaustive, but only representative of the wide range of possible regional growth forces. Finally, some key elements of the economic renaissance in New England are examined.

*Migration and jobs.* The relationship between population and job growth is complex. It is perhaps best viewed as a cycle that, once begun, is self-sustaining and reinforcing. Certainly, the availability of jobs in an area is an attraction to jobseekers from other regions. Michael Greenwood and Gary Hunt have estimated that in metropolitan areas each 100 additional jobs attract about 45 employed net migrants, with local residents filling the remaining openings.[9] However, migration in and of itself results in a substantial increase in employment above and beyond the migrant's own job. These jobs can be filled by either additional migration or increased labor force participation of the indigenous population. This direction of causation—with population growth causing job expansion—would be reflected in the regional share indexes for industries providing locally consumed products.

Migrants may influence labor demand in several ways.[10] For example, they may bring with them assets or income sources above their wages. Retirees are the prime example of the indirect effect of migration on jobs because the retirees themselves have little or no direct effect on local labor markets. Migrants may cause an increase in demand for infrastructure (roads, schools, utilities, and housing). They may also transport qualities that change the human capital makeup of the sending and receiving areas, to the extent that their age, skills, education, or entrepreneurial talent may be different than the average in either area. Migration may directly affect local labor force participation rates, in that the demographic characteristics of the migrants may differ from the averages in the receiving area. In fact, migrants tend to be concentrated in the 20-to-34 age range, have the highest levels of education, and are somewhat disproportionately male.[11] Also, migrants may influence the prices and profitability of goods and services by changing demand for those items; housing would be the most common example of this.

Table 3 shows percentage changes in population and nonagricultural payroll employment by geographic division between 1973 and 1985.[12] The columns in which the regions are ranked from 1 to 9 according to those changes show that

New England and the East South Central division break an otherwise close match between population and employment change rankings. The jump in New England's employment, despite slow population growth, resulted in a 5-point increase in the region's employment-population ratio, a gain which was more than triple the national average.[13] The East South Central's employment ratio declined a percentage point, for the worst regional performance. The strong relationship between employment and population growth, with causation running in both directions, is obvious.

*Regional income and wages.* The second explanation for the shift in regional economic power towards the South and West falls under the general heading of regional income (or factor price) inequality. One common theory states that if the factors of production—labor, capital, and so forth—are free to move between regions in order to obtain their highest return, convergence of factor prices among regions will occur in the long run.[14] As an example, table 4 shows regional per capita income in relation to the national average. While per capita income changes may come from several sources, wage rates are by far the most important factor.[15]

All other things being equal, firms will tend to locate where labor costs are low. Workers, on the other hand, are attracted by high wages, but even so, there has been substantial migration from high- to low-wage areas, as from the Midwest to the South. One partial explanation for this trend is the historic regional difference in living costs, which gave wages earned in the South more real purchasing power than those earned in higher-cost regions. The key to migration is in the relationship between wages and job growth. Mancur Olson, citing his own work and that of Charles Hulten and Robert Schwab, provides a theoretical framework for such migration from high- to low-wage regions.[16] Olson proposes that regional economic growth in the United States (and worldwide) is largely dependent on the level of cartelization in each region. In this argument, cartelization refers to "any organizations or groups that lobby for favorable legislation and administrative rulings or act cartelistically to influence prices or wages."[17] Although labor unions are most often cited in this regard, the theory applies equally to producers, professional associations, and so forth.

Olson suggests that the older the region, the more established are these special interests and the more difficult it becomes for many firms to compete in the restrictive environment. One result of these forces is "supra-competitive" wages in the Midwest. Firms which do not benefit from location-specific advantages (proximity to markets or natural resources) or that are less efficient cannot compete in the high-wage environment and will fail or locate elsewhere. Hulten and Schwab conclude that this effect increases productivity and has reduced jobs in the North as employers in that region limit employment until the marginal product of labor equals the "inflated" wage.

**Table 3. Percent change in total population and nonagricultural payroll employment by census division, 1973–85**

| Census division | Percent change, 1973–85 | | Regional ranking[1] | |
|---|---|---|---|---|
| | Population | Employment | Population | Employment |
| New England | 4 | 28 | 7 | 5 |
| Middle Atlantic | −1 | 11 | 9 | 8 |
| East North Central | 2 | 8 | 8 | 9 |
| West North Central | 6 | 22 | 6 | 6 |
| South Atlantic | 22 | 38 | 4 | 4 |
| East South Central | 12 | 22 | 5 | 7 |
| West South Central | 29 | 51 | 2 | 2 |
| Mountain | 37 | 57 | 1 | 1 |
| Pacific | 26 | 43 | 3 | 3 |

[1] Based on percent change in columns 1 and 2.

SOURCE: Bureau of the Census and Bureau of Labor Statistics. See text footnote 12.

As the economic situation in the high-wage Midwest has deteriorated, particularly since 1979, the lack of adequate downward flexibility of wages in response to labor market changes has led to an outflow of jobs.[18] Thus, high wages are insufficient to attract migrants in the absence of job growth. In contrast, there has been considerable migration to the high-growth, and relatively high-wage, Pacific region.[19] Olson suggests, however, that low wages will cease to draw industry and workers to the South as the regional wage differentials disappear and as the South loses its economic and social peculiarities. The same institutional arrangements that have led to market inefficiencies in the North, he predicts, will accelerate in the South.

That a general convergence of regional incomes has occurred over time is clearly shown in table 4. During the past decade, however, regional changes have not necessarily led towards further convergence. Thus, it seems that while wage differentials have been an important factor in the location decisions of individuals and businesses, they may no longer contribute as heavily to those decisions in the future.

*Regional location—the firm.* As we have seen, many of the factors affecting an individual's decision to migrate may be similar to those that influence a firm's investment location decision. Other factors that may be as important to the firm as to the individual include climate, population density, and taxes. While the intricacies of location theory are beyond the scope of this analysis, it would be a serious omission to completely ignore the topic.

Two important conclusions can be drawn from a survey of the literature on business location: These decisions tend to be quite complex and to be firm- and industry-specific—why else would new business investment be so geographically dispersed, even within specific industries? Also, such predictable factors as wages, taxes, unionization, and energy costs fail to explain much of the differences in investment location.

Researchers are unanimous in their finding that the differences in regional employment growth rates generally are not the result of actual movement of firms out of the North and into the South and West.[20] The notion of firm relocation is

based largely on the observed migration of textiles manufacturers out of New England and into North and South Carolina in the 1940's and 1950's. In fact, regional employment growth is mostly the result of the formation of new firms and the expansion of existing ones.

How are business investment decisions made? One technique used in location factor studies is to list factors assumed to be, or identified by businesses as being, important in the location decision and to rank States according to those factors.[21] These may include taxes, wages, unionization, energy costs, and cost of living, among others. As expected, high-growth States tend to perform well in such rankings. Studies may also include such factors as supply and quality of labor and proximity to markets. Generalizations about regional advantages in the second group of measures are more difficult to make. However, the importance of such factors makes it clear that "business climate," in the low-wage, low-tax sense, is not enough to attract some investment. For example, a new firm may require certain highly technical consulting services available in only a few areas of the country. That requirement alone may make other considerations irrelevant.

Lynn Brown and fellow analysts have shown that the location factors do not overwhelmingly favor a particular region.[22] Substantial investment occurs in States with a high-wage or high-energy-cost profile, for example. In fact, the authors find that the most common factors associated with regional investment account for only a third of the regional variation. The conclusion is that States should not feel helpless in the face of uncontrollable negative business climate factors. Development strategies can be devised to attract those firms which may benefit from the State's positive attributes. As will be shown later in the discussion, New England has benefited from its historical position as a manufacturing and finance center, as well as from its history of academic excellence. Substantial economic progress has been made there in the face of other business climate factors which are not so favorable.

*Economic "shocks."* The factor that may best explain recent regional shifts in economic performance is economic "shocks," those largely unforeseen circumstances that not only change the Nation's competitive position in the world economy but also change the regional locus of economic power within the United States. Bernard Weinstein and others have described the takeoff in economic growth in the Southern and Western States in terms of W.W. Rostow's stages-of-growth model, in which sustained growth does not occur without some dramatic external stimulus.[23] Prior to World War II, the South was a relatively underdeveloped economy—the only employment shares above the national average were in the most basic sectors, agriculture and basic energy.[24] World War II saw the infusion of billions of dollars in investment into the Sunbelt, with an estimated 60 percent of the $74 billion wartime expenditures going to 15 Southern and Western States.[25] Particularly important was the birth and continued expansion of substantial high-technology and aerospace industries in the Sunbelt. This event is seen as the takeoff necessary for sustained growth according to the Rostow model. The distribution of defense funds continues to have a strong regional impact. However, as New England, another large defense contracting region, witnessed during the years following the Vietnam conflict, such dependence makes a region's economy susceptible to the vagaries of defense budgets.[26]

While not of the same magnitude as the effects of World War II on regional development, changing energy prices are generally cited as the most important shock event in the recent experience. First, rising energy prices, which prevailed throughout most of the study period, change the relative regional cost of production and transportation. To some extent, labor costs also may be affected, as workers attempt to recoup losses in their standard of living. Second, price changes affect the revenues of producers and, in effect, redistribute income from energy "have-not" to energy "have" regions. While the energy sector itself is not a large employer, the employment effects in related industries—finance, drilling equipment, and technical services, among others—can be quite large.

Regarding the first issue, table 5 suggests the effects on residential business consumers of the two large OPEC price increases during the 1970's. Hans Landsberg stresses that

**Table 4. Index of per capita income by region, selected years, 1940–85**

[National average=100]

| Year | Region | | | | | | | | | Standard deviation |
|---|---|---|---|---|---|---|---|---|---|---|
| | New England | Middle Atlantic | East North Central | West North Central | South Atlantic | East South Central | West South Central | Mountain | Pacific | |
| 1940 | 126 | 132 | 112 | 81 | 77 | 49 | 64 | 87 | 132 | 30.9 |
| 1950 | 107 | 117 | 111 | 95 | 81 | 61 | 81 | 95 | 120 | 19.5 |
| 1960 | 110 | 116 | 108 | 92 | 84 | 69 | 82 | 93 | 119 | 17.5 |
| 1970 | 109 | 113 | 104 | 94 | 91 | 75 | 85 | 91 | 111 | 13.0 |
| 1977 | 102 | 106 | 105 | 97 | 93 | 81 | 92 | 94 | 111 | 9.1 |
| 1985 | 114 | 110 | 99 | 99 | 96 | 77 | 92 | 92 | 110 | 10.9 |

SOURCE: Bureau of Economic Analysis, U.S. Department of Commerce. Data through 1977 are published in Lynn Brown, "Narrowing Regional Income Differentials," *New England Economic Review* (Federal Reserve Bank of Boston), September/October 1980, p. 37.

one must consider both actual cost levels, in that certain regions characteristically have greater energy costs, and changes in those levels.[27] The latter would be most likely to affect regional competitive positions. For example, while industrial energy users in the South paid 26 percent less than the national average in 1970, that advantage had declined to 12 percent by 1980. Landsberg indicates that "it may be much more punishing for the prosperity of an area with low energy prices to suffer drastic boosts, while still remaining *below* the national average, than for a high-cost area to undergo modest boosts and still stay *above* the national average."[28]

Residents of the Northeast may have suffered the most from energy price rises because they were triply penalized; they use more energy, they depend disproportionately on expensive fuel oil, and fuel oil prices rose faster than those for natural gas, its chief competitor. But with recent decontrol of natural gas prices, the current softness in the world oil market, and the additional cost some low-energy-price areas have faced since 1980 due to nuclear plant construction, regional advantage in the energy area has tended to narrow.[29]

While the above discussion focuses on the energy consumer, recent shifts in world oil prices have considerably altered the fortunes of energy-producing areas as well. For example, Weinstein and others have commented, not too facetiously, that "the OPEC oil embargo did more to revive Appalachia than ten years and $10 billion of federal aid."[30] Partly as a result of strong growth in its mining sector, West Virginia's jobless rate was about the national average in the late 1970's.[31] However, as weak energy prices, conservation, and concerns over pollution have lessened the demand for coal, more recent jobless rates for the State have been twice the national average. Likewise, Texas had very low jobless rates, with some labor shortages, during the late 1970's and early 1980's, and the State was relatively unaffected by the 1981–82 recession. More recently, however, lower energy prices have contributed to a deterioration in the State's job market. Jobless rates in early 1986 were above the national average, housing prices were weak, and housing foreclosure rates were the highest in the country.[32] Similar examples of energy-price induced boom and bust economies can be seen in Alaska, Wyoming, and several other States in the Mountain and West South Central regions.

While defense expenditures and energy prices may be among the most visible of shock factors which are exogenous to regional economies, many other such events occur continuously. For example, foreign exchange rates, foreign policy objectives, social expenditures, and technological discoveries all affect regions differently. Thus, while certain redistribution of regional wealth and economic growth is structural in nature, unanticipated events can render many regional "power shifts" transitory.

## New England's restructured economy

The key ingredient in the economic turnaround in New England probably has been time. While the deterioration of the economy in the industrial Midwest is fairly recent, New England had begun a period of "deindustrialization" at least four decades ago. The region's economy initially was dominated by textiles; in 1950, for example, textiles firms employed 265,000 of the region's workers.[33] By 1984, that figure had been reduced to 50,000, both because of the early outmigration of firms to the Carolinas and the long-term structural decline in the industry nationwide. However, even as the region's economic performance deteriorated, New England already had in place many of the requirements for reindustrialization. That this process has occurred is dramatically demonstrated by the regional share indexes in table 2; over the 1973–85 period, New England's performance in nondurable goods was the worst in the Nation, while that in durables was nearly the best. Time and certain other prerequisites have allowed a major industrial restructuring of the region's economy.

What were the prerequisites for the reindustrialization of New England? John Hekman and John Strong suggest that development of a high technology industrial region is most likely when three factors are at work—a strong research, or scientific, component; industrial experience; and financial resources.[34] In tracking New England's development, the authors cite the region's strong historical standing in all three areas.

The Massachusetts Institute of Technology was founded in the 19th century partly as a way of advancing industrial technology. By the early 1900's, the relationship between MIT and the area's industry was beginning to make original scientific contributions in the areas of electrical and chemical engineering. Many companies in the region were formed or expanded based on the skills and discoveries of MIT-trained scientists.

Because scientific manpower tends to be in short supply, high tech firms cluster around academic centers. Many

**Table 5. Average residential and industrial energy prices by region, 1970 and 1980**

[Dollars per billion BTU's]

| Region | 1970 | 1980 | Percentage increase, 1970–80 |
|---|---|---|---|
| Residential: | | | |
| United States | $1,403 | $4,472 | 219 |
| Northeast | 1,598 | 5,808 | 263 |
| Midwest | 1,430 | 4,388 | 207 |
| South | 1,411 | 4,136 | 193 |
| West | 1,098 | 3,603 | 228 |
| Industrial: | | | |
| United States | 628 | 3,166 | 403 |
| Northeast | 847 | 4,256 | 402 |
| Midwest | 723 | 3,130 | 333 |
| South | 462 | 2,795 | 505 |
| West | 651 | 3,167 | 386 |

SOURCE: *National and State Energy Expenditures 1970–1980* (Washington, Northeast-Midwest Institute, July 1981).

firms are then spawned from these early enterprises, and these start-ups virtually never involve relocation.[35] One reason is that new firms need access to the same limited pool of technical manpower. Thus, the regional manpower advantage of a major academic center is in product design and development, not necessarily in the production phase.

For over a century, New England has been on the cutting edge of new technology—in the manufacture of textiles, guns, and machine tools, for example, and later, in applications of electricity. Some older firms have continued their technological innovations into today's high tech fields; others can trace their lineage back to those firms.[36] Thus, to some extent it is inaccurate to describe today's high-tech firms as having "chosen" to locate in New England. To a large degree, they were already there.

One reason for the continuation of the region's tradition of industrial innovation is that it has remained a center for venture capital. Not only are the region's banks and other major financial institutions more inclined toward venture finance than those in other areas, but the region has also been a leader in the formation of venture capital firms. And, in another example of the university-business link, some academic institutions, such as Harvard and MIT, have been actively involved in risk financing.[37] Conversely, the lack of venture capital has been cited as an impediment to the growth of high tech firms in other regions, such as the Southeast.[38]

New England was hit very hard by the 1973–75 recession, in large part because of the combined effects of the oil price increases and earlier defense cutbacks. However, this overall weakness tended to obscure the fact that certain of the region's industries were expanding. Many of the budding high tech firms were little affected by the downturn. As these firms matured, they entered the production stages, in which labor costs begin to take on a greater role in profitability. While New England's per capita income levels have never fallen below the national average, its wage rates have been low and were driven lower by the 1969–70 and 1973–75 recessions.[39] (The reader should also note that the per capita income figures are inflated by the region's traditionally high labor force participation rates.) The evidence indicates that capital/labor ratios in New England have been very low over the study period, and firms have taken advantage of these relatively low labor costs.[40] Recently, New England and other regions have seen the movement of some production facilities to very low-wage foreign countries such as those in the Pacific Basin. This is to be expected in the highly cost-sensitive and labor-intensive mass production phase of the firms' growth cycle. What employment effect these movements will have in the future is unclear.

Another key factor most frequently cited in New England's resurgence is the overall quality of education in the area, from the public schools through the top levels of higher education. The region has higher than average rates of high school and college graduation and a disproportionately large cadre of scientific manpower.[41] Bernard Weinstein and Harold Gross cite educational attainment of the population as one of the key impediments to continued growth in some Sunbelt areas and the critical factor in New England's prominence.[42]

Thus, New England has benefited from the close and long-standing relationship among the business, academic, and financial communities. Employment growth has accelerated due to the combined influence of low real wages and a highly skilled and educated work force. At the same time, slow population growth has allowed much of the region's economic expansion to show up in a rapid rise in its employment-population ratio and in declining joblessness.

While the region suffered from rising energy costs and defense cutbacks in the early 1970's, energy prices have remained soft in recent years, and the region's defense contracts have grown in the 1980's. It should be pointed out that New England's economy remains susceptible to changes in those two factors.[43] The region provides clear evidence that an area can key its growth to the manufacturing sector if its industries are innovative and government is responsive.[44]

## Conclusions

Over roughly the last decade, the Nation has seen a continuation of the long-term trend of employment and population shifts from much of the Northeast and Midwest to the South and West. However, the rather poor recent performance of the East South Central region and the economic rebirth of New England demonstrate that the shift in economic power from Snowbelt to Sunbelt is far from immutable.

Many of the factors that have made the South and West so attractive to both firms and individuals are becoming less pronounced. Interregional differences in wages and cost of living have narrowed, as have differences in nonpecuniary factors of urban life—population density, pollution, crime, and congestion. Just as much of the North is affected by a declining tax base and aging infrastructure, some areas of the South have been unable to keep pace with the growing demands for new infrastructure. For example, water availability may be the "shock" factor that some day forces a halt to the Southwest's rapid growth.[45]

Other developments may place limits on growth in some rapidly expanding areas. The economies of the West South Central and Mountain regions benefited greatly from the energy boom of the 1970's and early 1980's, but have been hurt badly by the recent collapse in the price of oil. And, as mentioned earlier, the quality of education in much of the South is often perceived as a limiting factor. Also, the South's attractiveness as a low-wage area for production may be declining as the drawing power of foreign competitors increases.

None of this is to say that an economic shift back towards the North is inevitable, or even expected. Rather, the evi-

dence suggests that regional advantage is often short-lived. The lesson of New England is that it takes time to restructure a region's economy to meet the requirements of changing national and world economic environment. But the period of decline may actually create the conditions for future growth, while the forces of growth may ultimately result in a loss of competitive edge.

A decade ago, an analysis of the future of the Northern regions' economies typically read like a eulogy. Today, the scenario of continued deterioration of the Northern areas and rapid growth in the South and West seems not nearly so inevitable. □

*——FOOTNOTES——*

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[1] Unemployment data are presented in *Employment and Earnings* and Consumer Price Index data in *CPI Detailed Report*, both published monthly by the Bureau of Labor Statistics.

[2] Kirkpatrick Sale, *Power Shift* (New York, Random House, 1975).

[3] For examples of the application of shift-share analysis, see M.F. Petrulis, "Regional Manufacturing Employment Growth Patterns," *Rural Development Research Report No. 13* (U.S. Department of Agriculture, Economics, Statistics, and Cooperative Service, June 1979); and Edgar S. Dunn, Jr., "A Statistical and Analytical Technique for Regional Analysis," *Papers and Proceedings of the Regional Science Association*, Volume 6, 1960, pp. 97–112.

[4] The three components of regional change are defined as follows:

$$E^{t+1} - E^t =$$

$$E^t\left((E^{t+1}_{us}/E^t_{us}) - 1\right) \quad \text{(National share)}$$

$$+ \Sigma_i E_i \left((E^{t+1}_{ius}/E^t_{ius}) - (E^{t+1}_{us}/E^t_{us})\right) \quad \text{(Industry mix)}$$

$$+ \Sigma_i E^t_i \left((E^{t+1}_i/E^t_i) - (E^{t+1}_{ius}/E^t_{ius})\right) \quad \text{(Regional share)}$$

where:

$E$ = total regional employment;
$E_i$ = regional employment in industry $i$;
$E_{us}$ = total national employment;
$E_{ius}$ = national employment in industry $i$; and
$t$ and $t+1$ = the base and target years, respectively.

[5] The use of this technique does have several limitations. First, as applied here, the use of broad aggregate industries ignores the possible effects of industry distributions within those aggregates. For example, if a region had a higher than average proportion of durable goods industries in the base year, that would have a negative effect on the region's industry mix statistic. However, it is possible that the particular region had a very large share of employment in fast-growth durable goods industries. In that event, the industry mix statistic would paint too negative a picture of the manufacturing sector's effect on the region's industry mix. It would be unusual, however, for a region's employment mix within a broad industry group to differ so markedly from the national average as to change the sign of the industry mix statistic for that particular industry (unless, of course, if the statistic were already close to zero).

Second, because the technique must be applied over a discrete time period, the choice of the base year distribution for the industry mix statistic may bias the results. Changes in a region's industry mix over time may alter the ratio of slow- to fast-growth industries. The longer the period to which the technique is applied, the greater the effect of a change in a region's industry mix relative to a national average. A check of the data used here shows that this potential problem has little effect. The industry mix statistics for the most recent period, 1979 to 1985, show essentially the same pattern as those for the entire 1973–85 span, although the levels are much smaller because they have a much smaller regional employment growth to explain. Thus, regional industry distributions have not changed in a pattern markedly dissimilar to that of the entire Nation.

[6] Unlike individual industries, the regional totals are affected by industry mix in that they reflect the growth rates in each industry, weighted for the change in the relative size of the industry. The top line totals thus incorporate the (usually small) effects of industry mix—that is, they measure the combined effects of regional share and industry mix.

[7] Robert McGee, "State Unemployment Rates: What Explains the Differences?" *Quarterly Review* (Federal Reserve Bank of New York), Spring 1985, pp. 28–35.

[8] "Estimates of the Population of States: 1970 to 1983," *Current Population Reports, Population Estimates and Projections*, Series P–25, No. 957 (Bureau of the Census, October 1984).

[9] Michael J. Greenwood and Gary L. Hunt, "Migration and Interregional Employment Redistribution in the United States," *The American Economic Review*, December 1984, pp. 957–69. Regions are not equal in their ability to attract migrants by offering jobs. Greenwood and Hunt found that 10 jobs in the South or West would attract 1 more migrant than an equal number of jobs in the Northeast or North Central regions, indicating some nonpecuniary component to migration.

[10] Greenwood and Hunt, "Migration," p. 957.

[11] "Geographic Mobility, March 1982 to March 1983," *Current Population Reports, Population Characteristics*, Series P–20, No. 393 (Bureau of the Census, October 1984).

[12] Employment data are from the Current Employment Statistics Survey. Population data are derived from "Estimates of the Population of States: 1970 to 1983," *Current Population Reports, Population Estimates and Projections*, Series P–25, No. 957 (Bureau of the Census, October 1984) and preliminary 1985 data.

[13] Employment-population ratios for 1984 are from *Geographic Profile of Employment and Unemployment, 1984*, Bulletin 2234 (Bureau of Labor Statistics, May 1985). Employment-population ratios for 1973 are unpublished BLS data.

[14] Bernard L. Weinstein, Harold T. Gross, and John Rees, *Regional Growth and Decline in the United States* (New York, Praeger, 1985), p. 49.

[15] Lynn E. Brown, "Narrowing Regional Income Differentials: II," *New England Economic Review* (Federal Reserve Bank of Boston), November/December 1980, pp. 40–59.

[16] Mancur Olson, "The South Will Fall Again: The South as Leader and Laggard in Economic Growth," *Southern Economic Journal*, April 1983, pp. 917–32; and Charles R. Hulten and Robert M. Schwab, "Regional Productivity and Growth in U.S. Manufacturing: 1951–78," *The American Economic Review*, March 1984, pp. 152–62.

[17] Olson, "The South," p. 917.

[18] Lynn E. Brown, "How Different are Regional Wages? A Second Look," *New England Economic Review* (Federal Reserve Bank of Boston), March/April 1984, pp. 40–47.

[19] This phenomenon is discussed in Bernard Okun and Richard W. Richardson, "Regional Income Inequality and Internal Population Migration," in John Friedman and William Alonso, eds., *Regional Development and Planning, A Reader* (Cambridge, MA, the MIT Press, 1964), pp. 303–18.

[20] See, for example, James P. Miller, "Manufacturing Relocations in the United States," in Richard B. McKenzie, ed., *Plant Closing: Public or Private Choices* (Washington, Cato Institute, 1982), pp. 19–36; and Carol L. Jusenius and Larry C. Ledebur, "Where Have All the Firms Gone? An Analysis of the New England Economy," in the same volume, pp. 65–104.

[21] See, for example, Fantus Company, *Comparative Business Climate Study* (Chicago, Illinois Manufacturer's Association, 1975); and Alexander

Grant & Co., *The Fourth Study of General Manufacturing Business Climates* (Chicago, Alexander Grant & Co., 1983).

[22] Lynn E. Brown, Peter Mieszkowski, and Richard F. Syron, "Regional Investment Patterns," *New England Economic Review* (Federal Reserve Bank of Boston), July/August 1980, pp. 5–23.

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## A note on communications

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

# The revised Consumer Price Index: changes in definitions and availability

*The Consumer Price Index for January 1987 will incorporate some new series and will reflect changes in several old series; the availability of some indexes will be affected*

JOHN L. MARCOOT AND RICHARD C. BAHR

The release of the January 1987 Consumer Price Index (CPI) in February will introduce updated market baskets that reflect population distributions from the 1980 census of population and spending patterns from the 1982-84 Consumer Expenditure Survey. This release will be part of a 5-year program to update the CPI market basket and incorporate numerous technical enhancements.[1]

Although the CPI is a measure of price change for a market basket of constant quality and quantity, it also needs to retain its relevance to consumers' experience by pricing items currently purchased. New consumer purchasing patterns occur as a result of changes in a number of factors, such as relative prices, income, tastes, demographic characteristics, technological changes, and population shifts. Thus, periodic revisions of the CPI are necessary to incorporate updated versions of the market basket.

This article is one of a series that provides detailed information about the CPI revision. It highlights the changes that will occur in the availability and in the definitions of indexes. Many of the changes derive from shifts that have occurred in the spending patterns of the American public. Nearly five decades of spending patterns as reflected in the CPI expenditure weighting patterns and the corresponding relative importance of major groups are shown in table 1. A later article will discuss the new expenditure weights in detail.

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## Item indexes

One clear trend in consumer spending has been a reduction in the relative importance of expenditures for food, especially grocery food. Although it is not immediately obvious from the data in table 1, there have been corresponding increases in importance for new products and services such as video recorders and day care. To ensure the most accurate CPI possible, it has been necessary to allocate more pricing and calculation resources to these new and growing expenditure categories, with the correlative result that proportionately fewer resources will be available for items of declining importance. This means new indexes for previously unpriced products will become available. But it also means that there will be some reduction in product detail for expenditure categories with declining relative importance. The discontinuation of an index does not mean that the item is no longer priced for the CPI. All of the previously priced items will continue to be priced, but with much smaller samples. The relative proportions that these items constitute of the new combined strata (class of similar items) to which they are assigned will also be subject to annual updating through the sample rotation process.[2]

Exhibit 1 summarizes the definitions for new item indexes and explains the definitional changes that some other indexes are undergoing. These definitional changes arise from the need to combine some previously separate items, the addition of some previously unpriced items, and conceptual or coverage changes which enhance the measurement or interpretation of the index.

Some of the items that are being discontinued as separate

item strata because of their reduced relative importance have significant applications independent of their use in the CPI. To accommodate users of these indexes, BLS will continue to publish a limited number of them as special sub-strata CPI-U indexes. These sub-strata indexes will be based on extremely small samples and will be less reliable than the pre-1987 numbers. Footnote 3 lists the item strata that are being discontinued and indicates whether a corresponding sub-strata index will be available.[3]

Beginning with the CPI-U for January1983, BLS adopted an improved method—called rental equivalence—for estimating homeowner shelter costs.[4] (The change was made in January 1985 for the CPI-W.) The 1987 CPI revision continues the definitional and coverage features associated with that change. In addition, it incorporates two new refinements consistent with that change. First, the new index for materials, supplies, and equipment for home repairs, which combines three more detailed old indexes, will include for pricing only those types of items that would be purchased by tenants and exclude those typically purchased by landlords for major repairs or capital improvements. Second, the rental value of owner-used vacation property is included in lodging while out of town.

The definitional treatment of premium costs for health care insurance will have a change which will affect the structure of the expediture weights for health insurance, but not the methodology for estimating price changes affecting the costs of health insurance. Beginning with January 1987, the CPI will define the cost of health insurance as the portion of premium payments which is retained by the insurer in the form of profits and operating expenses. The portion of the premium which is either paid directly by the insurer to health care providers or as reimbursements to policyholders will no longer be defined as a health insurance expenditure, but rather as a direct medical care expenditure.

This definitional change will slightly modify the method used for estimating changes in health insurance premiums. An indirect method has been used to estimate the changes in costs of health insurance. The expenditure for health insurance has been defined as total consumer premium payments. The price change for these premiums has been estimated with a combination of the changes in cost for covered medical services and the changes in premium retained by insurers for operating costs and profit.[5]

The revised definition will result in the portion of the health insurance expenditure that is paid as benefits by the insurer being included in the directly priced medical care strata, for example, physician services, hospital room, and eye care. The result of this treatment is that the expenditure weights of these directly priced medical care strata will be increased, and they will also receive a greater proportion of the price quotations in the CPI. The expenditure weight for health insurance will represent only the portion of the premium retained by the insurers, and changes in its costs will continue to be estimated using an indirect pricing procedure that relies both on CPI changes for covered medical expenses and secondary data on premiums retained by insurers. This definitional change will result in the discontinuation of the index for "Other medical care services."

## Local area indexes

As announced in 1984, BLS has allocated the price quotation samples among the 91 pricing areas in a sample design which will produce the most accurate national CPI possible with the funds authorized. The decision to improve the national CPI estimate will reduce the frequency of publication for some areas. Beginning in 1987, semiannual average indexes will replace bimonthly indexes for 12 currently published areas. (See table 2.) These semiannual average indexes, which are the averages of the 6-month periods from January through June and from July through December, will be published with the release of the July CPI in August and the January CPI in February.

The method of calculating the averages for a semiannual average index derives from the one currently used for calculating annual average indexes which BLS publishes at the end of each year. Because monthly and bimonthly indexes are not published in those areas, the first step will be intermediate monthly and bimonthly calculations for use in the average computation. For those items which are priced monthly,

**Table 1. The Consumer Price Index market basket by major expenditure group and benchmark year**

[Percent distribution]

| Major group | Wage earners and clerical workers (CPI-W) | | | | | | All urban consumers (CPI-U) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1939[1] | 1952[2] | 1963[3] | 1977[4] | 1984[5] | 1982–84[6] | 1977[4] | 1982[5] | 1982–84[6] |
| Food and beverages | 35.4 | 32.2 | 25.2 | 20.5 | 21.3 | 20.1 | 18.8 | 20.1 | 18.0 |
| Housing | 33.7 | 33.5 | 34.9 | 40.7 | 34.9 | 39.2 | 43.9 | 37.7 | 42.2 |
| Apparel | 11.0 | 9.4 | 10.6 | 5.8 | 5.0 | 6.5 | 5.8 | 5.2 | 6.6 |
| Transportation | 8.1 | 11.3 | 14.0 | 20.2 | 24.1 | 21.2 | 18.0 | 21.8 | 18.9 |
| Medical care | 4.1 | 4.8 | 5.7 | 4.5 | 5.6 | 3.9 | 5.0 | 6.0 | 4.7 |
| Entertainment | 2.8 | 4.0 | 3.9 | 3.9 | 3.9 | 4.1 | 4.1 | 4.2 | 4.5 |
| Other goods and services | 4.9 | 4.8 | 5.7 | 4.4 | 5.2 | 5.0 | 4.4 | 5.0 | 5.1 |

[1] Relative importance for the expenditure survey period 1934–36 updated for price change.

[2] Relative importance for the expenditure survey period 1950 updated for price change.

[3] Relative importance for the expenditure survey period 1960–61 updated for price change.

[4] Relative importance for the expenditure survey period 1972–73 updated for price change.

[5] Relative importance for the expenditure survey period 1972–73 with the rental equivalence approach to homeowners' costs updated for price change. The rental equivalence approach to homeowners' costs was introduced into CPI-U effective January 1983 and into the CPI-W effective January 1985.

[6] Relative importance for the expenditure survey period 1982–84. Revised indexes which require expenditure weights updated for price change between the survey period and December 1986 will differ from those shown.

**Exhibit 1. Title and definition changes in the Consumer Price Index, beginning with January 1987 data**

| New series title | Definition change |
|---|---|
| **Food and beverages** | |
| Fresh other breads, biscuits, rolls, and muffins[1] | Combines "Other breads" and "Fresh biscuits, rolls, and muffins." |
| Cookies, fresh cakes, and cupcakes[1] | Combines "Fresh cakes and cupcakes" and "Cookies." |
| Other bakery products[1] | Combines "Fresh sweetrolls, coffeecake, and donuts" and "Frozen and refrigerated bakery products and fresh pies, tarts, and turnovers." |
| Ham[1] | Combines "Ham other than canned" and "Canned ham." |
| Other pork, including sausage[1] | Combines "Sausage" and "Other pork." |
| Other dairy products, including butter[1] | Combines "Butter" and "Other dairy products." |
| Oranges, including tangerines (Old title—Oranges) | Adds tangerines. |
| Other fresh fruits (Old title—Same) | Excludes tangerines. |
| Fruit juices and frozen fruit[1] | Combines "Frozen fruit and fruit juices" and "Fruit juices other than frozen." |
| Other processed vegetables[1] | Combines "Cut corn and canned beans except lima" and "Other canned and dried vegetables." |
| Sweets, including candy[1] | Combines "Candy and chewing gum" and "Other sweets." |
| Carbonated drinks[1] | Combines "Cola drinks, excluding diet cola" and "Carbonated drinks, including diet cola." |
| Coffee[2] | Combines "Roasted coffee" and "Freeze dried and instant coffee." |
| Seasonings, condiments, sauces, and spices[1] | Combines "Seasonings, olives, pickles, relish" and "Other condiments." |
| Miscellaneous prepared foods, including baby food[1] | Combines "Miscellaneous prepared foods" and "Other canned and packaged prepared foods." |
| Distilled spirits (at home)[1] | Combines "Whiskey (at home)" and "Other alcoholic beverages (at home)." |
| **Housing** | |
| Lodging while out of town (Old title—Same) | Adds the rental equivalence value of owner-used vacation property. |
| Materials, supplies, and equipment for home repairs | Combines "Paint and wallpaper, supplies, tools, and equipment," "Lumber, awnings, glass, and masonry," and "Plumbing, electrical, heating, and cooling supplies." Excludes capital improvements and major repair items typically provided by landlords. |
| Other maintenance and repair commodities (Old title—Miscellaneous supplies and equipment) | Adds hardsurface floor covering and landscaping items not previously priced. |
| Other household fuel commodities (Old title—Same) | Adds wood, charcoal, and peat not previously priced. |
| Other video equipment | Consists of video cameras, recorders, players, cassettes, disks, and related equipment. |
| Major household appliances | Consists of index series titles: "Refrigerator and home freezer;" "Laundry equipment;" and "Stoves, ovens, dishwashers, and air conditioners." |
| Stoves, ovens, dishwashers, and air conditioners | Combines parts of "Stoves, dishwashers, vacuums, and sewing machines" and "Office machines, small electric appliances, and air conditioners." |
| Information processing equipment | Consists of home computers, telephones, and other electronic and office equipment for nonbusiness use. |
| Other housefurnishings | Consists of index series titles: (1) "Floor and window coverings, infants', laundry, cleaning, and outdoor equipment;" (2) "Clocks, lamps, and decor items;" (3) "Tableware, serving pieces, and nonelectric kitchenware;" (4) "Lawn equipment, power tools, and other hardware;" and (5) "Sewing, floor cleaning, and small kitchen and portable heating appliances." |
| Sewing, floor cleaning, and small kitchen and portable heating appliances | Combines parts of "Stoves, dishwashers, vacuums, and sewing machines" and "Office machines, small electric appliances and air conditioners." |
| Lawn equipment, power tools, and other hardware (Old title—Same) | Adds hand tools. |
| Laundry and cleaning products including soap[1] | Combines "Soaps and detergents" and "Other laundry and cleaning products." |
| Household paper products and stationery supplies[1] | Combines "Cleansing and toilet tissue, paper towels, and napkins" and "Stationery, stationery supplies, and giftwrap." |
| Other household, lawn, and garden supplies[1] | Combines "Miscellaneous household products" and "Lawn and garden supplies." |

**Exhibit 1. Continued—Title and definition changes in the Consumer Price Index, beginning with January 1987 data**

| New series title | Definition change |
|---|---|
| Gardening and other household services | Combines "Moving, storage, freight, household laundry and dry cleaning services" with "Gardening and lawn care services," which was previously unpublished. |
| Indoor plants and fresh flowers | |
| Care of invalids, elderly and convalescents in the home | Not published initially; will be published when sample is adequate. |
| **Apparel** | |
| Men's suits, sport coats, coats, and jackets[1] | Combines "Men's suits, sportcoats, and jackets" and "Men's coats and jackets." |
| Women's underwear, nightwear, hosiery, and accessories (Old title—Women's underwear, nightwear, and hosiery) | Adds women's accessories. |
| Sewing materials, notions, and luggage | Combines "Sewing materials and notions" with part of "Jewelry and luggage." |
| Watches | Formerly was part of "Jewelry and luggage." |
| Jewelry | Formerly was part of "Jewelry and luggage." Excludes watches. |
| **Transportation** | |
| New cars (Old title—Same) | Transaction expenditure not reduced by market value of vehicle traded in. |
| New trucks[3] | Transaction expenditure not reduced by market value of vehicle traded in. |
| New motorcycles | Transaction expenditure not reduced by market value of vehicle traded in. |
| Used cars (Old title—Same) | Purchase of used cars from the business sector. Excludes value of used cars sold or traded by consumers. |
| Automobile registration, licensing; and inspection fees[1] | Combines "State registration," "Automobile inspection," "Local registration" (unpublished), and "Drivers' license." |
| Other automobile related fees (Old title—Same) | Adds rentals of vehicle equipment. |
| Other intercity public transportation[1] | Combines "Intercity bus fares" and "Intercity train fares" |
| Intracity public transportation[1] | Combines "Intracity mass transit" and "Taxi fare." |
| **Medical care** | |
| Prescription drugs (Old title—Same) | Adds benefits paid by consumer-purchased insurance. |
| Nonprescription drugs and medical supplies (Old title—Same) | Excludes eyeglasses. |
| Physicians' services (Old title—Same) | Adds benefits paid by consumer-purchased insurance. |
| Dental services (Old title—Same) | Adds benefits paid by consumer-purchased insurance. |
| Eye care | Includes all consumer out-of-pocket expenses for eye care commodities and services as well as benefits paid by consumer-purchased insurance. |
| Services by other medical professionals | Includes services rendered by therapists, nurses, and other practitioners including both out-of-pocket expenses and benefits paid by consumer purchased insurance. |
| Hospital and related services (Old title—Hospital and other medical services) | Adds previously unpriced outpatient hospital services. |
| Hospital room (Old title—Same) | Adds benefits paid by consumer-purchased insurance. |
| Other inpatient services | Consists of other hospital and inpatient services including nursing and convalescent home service, paid out of pocket as well as benefits paid by consumer-purchased insurance. |
| Outpatient services | Consists of emergency room services, laboratory fees, and x-rays, including both out-of-pocket expenses and benefits paid by consumer purchased insurance. |
| Health insurance (unpublished) (Old title—Same) | Portion of premium paid by consumer not paid out in benefits. |
| **Entertainment** | |
| Sport vehicles, including bicycles[1] | Combines "Sport vehicles" and "Bicycles." |
| Other sporting goods[1] | Combines "Indoor and warm weather sport equipment" and "Other sporting goods and equipment" as well as equipment for water sports. |
| Club memberships | Formerly part of "Fees for participant sports." |
| Fees for participant sports, excluding club memberships | Portion of "Fees for participant sports" exclusive of club membership dues and fees. |
| Fees for lessons or instructions | Formerly part of "Other entertainment services." |
| Other entertainment services (Old title—Same) | Includes film processing, photographer fees, veterinarian services, pet services, and rental of miscellaneous entertainment equipment. |

**Exhibit 1. Continued—Title and definition changes in the Consumer Price Index, beginning with January 1987 data**

| New series title | Definition change | New series title | Definition change |
|---|---|---|---|
| **Other goods, services** | | Legal fees | Consists of the legal fees portion of "Personal expenses." |
| Tobacco and smoking products (Old title—Tobacco products) | | Banking and accounting expenses | Consist of the safe deposit box rental and bank service charge portion of "Personal expenses" plus fees for accounting services not previously priced. |
| Other toilet goods and small personal care appliances, including hair and dental products[1] | Combines "Products for the hair, hairpieces, and wigs;" "Dental and shaving products;" and "Other toilet goods and small personal appliances." | Funeral expenses | Consist of the funeral services portion of "Personal expenses" plus charges for cemetery lots and vaults not previously priced. |
| Child daycare/nursery school | Not published initially; will be published when sample is adequate. | | |
| Technical and other tuition | Not published initially; will be published when sample is adequate. | | |

[1] Historical data available back to January 1978.

[2] Historical data available back to January 1967.

[3] Historical data available back to January 1984.

such as food at home, an intermediate monthly calculation will be prepared for each of the 6 months. These six calculated numbers will be summed and then divided by six to obtain the semiannual index. A similar but more complex technique is used for items priced bimonthly in each area. An intermediate calculation will be compiled for each of the 3 months that items are actually priced during the 6-month period. The monthly calculation for each of the other 3 months will be interpolated by calculating a geometric mean of the months adjacent to the one being estimated. For example, in an area priced in even-numbered months, a January interpolation would be estimated by taking the geometric mean between the indexes calculations for December and February. Interpolations would be made in a similar manner for March and May. The three intermediate numbers for February, April, and June, calculated with collected prices, would be summed with the three interpolations and divided by six to obtain the semiannual average index for the first 6 months of the calendar year.

The calculation of semiannual indexes for areas in which bimonthly items are priced only in odd-numbered months would use the same methodology except that the data for February, April, and June would be interpolated by using the geometric mean between the calculations for their adjacent months. For example, the June interpolation would be estimated from the calculations made for May and July.

Although BLS will calculate semiannual indexes for these 12 areas from intermediate estimates of monthly data, the samples are much too small to produce a reliable bimonthly or monthly estimate of price change. Estimates based on a small number of observations in a single month would be subject to extremely high volatility resulting primarily from sampling error. The averaging of 6 months of price data increases the reliability of the estimate. The new semiannual index estimates of price change will be as accurate as the old bimonthly index estimates which they replace for the 12 local areas identified in table 2.

The BLS has systematically advised users that local area CPI's (including the new semiannual averages) are subject to substantially more statistical error and variability than the national index. As a result, local indexes should not be used in escalation provisions. Some individuals may have already adopted escalation clauses using one of the local indexes that will change from bimonthly to semiannual publication. After the data for December 1986, it will not be possible to use individual monthly estimates for these 12 areas, and parties to agreements using these indexes may want to agree on some alternative. BLS does not provide contract interpretation assistance but can provide limited technical assistance for transition, if requested by both parties to an agreement.

The use of the new Consolidated Metropolitan Statistical Area (CMSA) definitions, issued by the Office of Management and Budget, resulted in a number of the published areas becoming larger in terms of their sampled geography.[6] Of the 27 local areas to be published, 5 (Anchorage, Buffalo-Niagara Falls, Honolulu, Milwaukee, and San Diego) did not have changes to the geographic coverage currently being priced by BLS. Only Dallas-Fort Worth became smaller, with Wise County being removed from the official definition.

Several areas have had significant expansions of their sampled geography. For example, the New York area now includes Danbury and other parts of Connecticut; the Philadelphia area has added Wilmington and Trenton;

**Table 2. Consumer Price Index sample areas and regions, by size classes, publication schedule, and 1980 and 1970 population weights**

| Sample areas or counties | Publication schedule | 1980 CPI population weight | | 1970 CPI population weight | |
|---|---|---|---|---|---|
| | | CPI-U | CPI-W | CPI-U | CPI-W |
| **Northeast region** | Monthly | 23.997 | 22.967 | 26.521 | 27.468 |
| Metropolitan areas of 1.2 million and above | Monthly | 16.241 | 15.150 | 16.743 | 17.452 |
| New York-Northern New Jersey-Long Island, NY-NJ-CT | Monthly | 9.252 | 8.426 | 10.006 | 10.401 |
| New York portion: Bronx, Kings, New York, Queens, Richmond, Nassau, Orange, Putnam, Rockland, Suffolk, Westchester | | | | | |
| New Jersey portion: Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union | | | | | |
| Connecticut portion: Fairfield, Litchfield (part), New Haven (part) | | | | | |
| Philadelphia-Wilmington-Trenton, PA-DE-NJ-MD | Monthly | 2.920 | 2.834 | 2.825 | 3.023 |
| Pennsylvania portion: Bucks, Chester, Delaware, Montgomery, Philadelphia | | | | | |
| New Jersey portion: Burlington, Camden, Cumberland, Gloucester, Mercer, Salem | | | | | |
| Delaware portion: New Castle | | | | | |
| Maryland portion: Cecil | | | | | |
| Boston-Lawrence-Salem, MA-NH | Bimonthly[1] | 2.141 | 1.884 | 1.737 | 1.658 |
| Massachusetts portion: Bristol (part), Essex, Middlesex (part), Norfolk (part), Plymouth (part), Suffolk, Worcester (part) | | | | | |
| New Hampshire portion: Hillsborough (part), Rockingham (part) | | | | | |
| Pittsburgh-Beaver Valley, PA | Bimonthly[2] | 1.276 | 1.327 | 1.403 | 1.510 |
| Allegheny, Beaver, Fayette, Washington, Westmoreland | | | | | |
| Buffalo-Niagara Falls, NY | Semiannually | .653 | .678 | .772 | .860 |
| Erie, Niagara | | | | | |
| Northeast metropolitan areas of 500,000 to 1.2 million | Monthly | 3.579 | 3.663 | 4.331 | 4.473 |
| Northeast metropolitan areas of 75,000 to 500,000 | Monthly | 3.098 | 3.124 | 3.688 | 3.800 |
| Northeast nonmetropolitan areas of 2,500 to 75,000 | None | 1.080 | 1.030 | 1.759 | 1.743 |
| **North Central region** | Monthly | 24.608 | 26.795 | 26.508 | 28.663 |
| Metropolitan areas of 1.2 million and above[3] | Monthly | 13.262 | 14.685 | 12.982 | 14.691 |
| Chicago-Gary-Lake County, IL-IN-WI | Monthly | 4.039 | 4.550 | 4.436 | 5.180 |
| Illinois portion: Cook, Du Page, Grundy, Kane, Kendall, Lake, McHenry, Will | | | | | |
| Indiana portion: Lake, Porter | | | | | |
| Wisconsin portion: Kenosha | | | | | |
| Detroit-Ann Arbor, MI | Bimonthly[2] | 2.363 | 2.587 | 2.497 | 2.833 |
| Lapeer, Livingston, Macomb, Oakland, St Clair, Washtenaw, Wayne | | | | | |
| St Louis-East St Louis, MO-IL | Bimonthly[1] | 1.201 | 1.208 | 1.376 | 1.511 |
| Missouri portion: Franklin, Jefferson, St Charles, St Louis, St Louis City | | | | | |
| Illinois portion: Clinton, Jersey, Madison, Monroe, St Clair | | | | | |
| Cleveland-Akron-Lorain, OH | Bimonthly[1] | 1.478 | 1.675 | 1.208 | 1.391 |
| Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, Summit | | | | | |
| Minneapolis-St Paul, MN-WI | Semiannually | 1.155 | 1.228 | 1.118 | 1.148 |
| Minnesota portion: Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Washington, Wright | | | | | |
| Wisconsin portion: St Croix | | | | | |
| Milwaukee, WI | Semiannually | .740 | .851 | .803 | .918 |
| Milwaukee, Ozaukee, Washington, Waukesha | | | | | |
| Cincinnati-Hamilton, OH-KY-IN | Semiannually | .855 | .946 | .787 | .865 |
| Ohio portion: Butler, Clermont, Hamilton, Warren | | | | | |
| Kentucky portion: Boone, Campbell, Kenton | | | | | |
| Indiana portion: Dearborn | | | | | |
| Kansas City, MO-Kansas City, KS | Semiannually | .754 | .859 | .757 | .845 |
| Missouri portion: Cass, Clay, Jackson, Lafayette, Platte, Ray | | | | | |
| Kansas portion: Johnson, Leavenworth, Miami, Wyandotte | | | | | |
| North Central metropolitan areas of 360,000 to 1.2 million | Monthly | 3.189 | 3.683 | 3.912 | 4.320 |
| North Central metropolitan areas of 75,000 to 360,000 | Monthly | 5.076 | 5.377 | 5.360 | 5.521 |
| North Central nonmetropolitan areas of 2,500 to 75,000 | Monthly | 3.081 | 3.050 | 4.254 | 4.131 |

**Table 2. Continued—Consumer Price Index sample areas and regions, by size classes, publication schedule, and 1980 and 1970 population weights**

| Sample areas or counties | Publication schedule | 1980 CPI population weight | | 1970 CPI population weight | |
|---|---|---|---|---|---|
| | | CPI-U | CPI-W | CPI-U | CPI-W |
| **Southern region** | Monthly | 30.097 | 30.287 | 27.794 | 26.289 |
| Metropolitan areas of 1.2 million and above[3] | Monthly | 10.304 | 10.279 | 7.298 | 7.477 |
| Washington, DC-MD-VA | Bimonthly[1] | 1.766 | 1.489 | 1.786 | 1.621 |
| District of Columbia portion: Washington, DC<br>Maryland portion: Calvert, Charles, Frederick, Montgomery, Prince Georges<br>Virginia portion: Arlington, Fairfax, Loudoun, Prince William, Stafford, Alexandria City, Fairfax City, Falls Church City, Manassas City, Manassas Park City | | | | | |
| Dallas-Fort Worth, TX<br>Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant | Bimonthly[2] | 1.556 | 1.793 | 1.405 | 1.538 |
| Baltimore, MD<br>Anne Arundel, Baltimore, Carroll, Harford, Howard, Queen Annes, Baltimore City | Bimonthly[1] | 1.124 | 1.164 | 1.201 | 1.316 |
| Miami-Ft. Lauderdale, FL<br>Broward, Dade | Bimonthly[1] | 1.526 | 1.267 | .831 | .783 |
| Houston-Galveston-Brazoria, TX<br>Brazoria, Fort Bend, Galveston, Harris, Liberty, Montgomery, Waller | Bimonthly[2] | 1.621 | 1.974 | 1.147 | 1.277 |
| Atlanta, GA<br>Barrow, Butts, Cherokee, Clayton, Cobb, Coweta, De Kalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Newton, Paulding, Rockdale, Spalding, Walton | Semiannually | 1.118 | 1.234 | .928 | .942 |
| Southern metropolitan areas of 450,000 to 1.2 million | Monthly | 7.938 | 8.272 | 7.883 | 7.539 |
| Southern metropolitan areas of 75,000 to 450,000 | Monthly | 7.881 | 7.813 | 7.700 | 6.662 |
| Southern nonmetropolitan areas of 2,500 to 75,000 | Monthly | 3.973 | 3.923 | 4.913 | 4.611 |
| **Western region** | Monthly | 21.299 | 19.952 | 19.177 | 17.580 |
| Metropolitan areas of 1.2 million and above[3] | Monthly | 14.116 | 13.548 | 9.319 | 8.877 |
| Los Angeles-Anaheim-Riverside, CA<br>Orange, Riverside, San Bernardino, Los Angeles, Ventura | Monthly | 6.291 | 6.201 | 5.443 | 5.362 |
| San Francisco-Oakland-San Jose, CA<br>Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma | Monthly | 3.156 | 2.855 | 2.131 | 1.984 |
| Seattle-Tacoma, WA<br>King, Pierce, Snohomish | Semiannually | 1.193 | 1.196 | .890 | .893 |
| San Diego, CA<br>San Diego | Semiannually | .987 | .803 | .855 | .638 |
| Portland-Vancouver, OR-WA<br>Oregon portion: Clackamas, Multnomah, Washington, Yamhill<br>Washington portion: Clark | Semiannually | .744 | .771 | .627 | .625 |
| Denver-Boulder, CO<br>Adams, Arapahoe, Boulder, Denver, Douglas, Jefferson | Semiannually | .929 | .945 | .750 | .725 |
| Western metropolitan areas of 330,000 to 1.2 million[3] | Monthly | 2.787 | 2.550 | 4.915 | 4.561 |
| Honolulu, HI<br>Honolulu | Semiannually | .320 | .296 | .344 | .327 |
| Western metropolitan areas of 75,000 to 330,000[3] | Monthly | 2.611 | 2.301 | 3.028 | 2.506 |
| Anchorage, AK<br>Anchorage Borough | Semiannually | .086 | .077 | .070 | .037 |
| Western nonmetropolitan areas of 2,500 to 75,000 | None | 1.785 | 1.553 | 1.915 | 1.636 |
| **All metropolitan areas over 1.2 million** | Monthly | 53.922 | 53.661 | 46.342 | 48.497 |
| Midsized metropolitan areas<br>Northeast: 500,000 to 1.2 million<br>North Central: 360,000 to 1.2 million<br>South: 450,000 to 1.2 million<br>West: 330,000 to 1.2 million | Monthly | 17.493 | 18.168 | 21.041 | 20.893 |
| Small metropolitan areas<br>Northeast: 75,000 to 500,000<br>North Central: 75,000 to 360,000<br>South: 75,000 to 450,000<br>West: 75,000 to 330,000 | Monthly | 18.666 | 18.616 | 19.776 | 18.489 |
| **All nonmetropolitan areas 2,500 to 75,000** | Monthly | 9.919 | 9.555 | 12.841 | 12.121 |

[1] Odd months (Jan., Mar., May, July, Sept., Nov.).
[2] Even months (Feb., Apr., June, Aug., Oct., Dec.).
[3] Includes areas not identified separately.

NOTE: The size class boundaries have changed since 1978. As shown above, the boundaries between the midsized and small areas are variable. Previously, the limits were 1.25 million and above; midsized—385,000 to 1.25 million; small—75,000 to 385,000; and less than 75,000.

Boston now includes some parts of New Hampshire; the Chicago area has three additional counties including Kenosha, WI; Houston has added Galveston; Los Angeles includes Riverside-San Bernardino; and San Francisco includes San Jose. Table 2 contains a complete list of counties for each local area with a published CPI.

Table 2 also shows the population for both the CPI-U and CPI-W in each of the publication areas as a percentage of their respective total U.S. 1980 urban population. If these weights are compared with the weights shown for 1970, one can ascertain the degree of relative population change in each area since 1970. For example, the weight for the CPI-U population in the Northeast region declined from 26.521 in 1970 to 23.997 in 1980. This decline reflects the faster growth rate of the population of the South and West in recent years, compared with the Northeast. Even though the New York area has expanded since 1970, its relative population weight has declined.

The population weight for the San Francisco-Oakland-San Jose area has become larger than that for the Detroit-Ann Arbor area. Based on population growth since 1970 and the expansion of its definition, the San Francisco area has superseded the Detroit area as the fifth largest area covered by the CPI indexes. For that reason, the San Francisco area, beginning with data for January 1987, will be published monthly while the Detroit area will be published bimonthly (even-numbered months). The publication of indexes for Cleveland are changing from even-numbered months to odd-numbered months, D-size (that is, urban areas with populations under 75,000) strata indexes will not be published in the Northeast and West, and indexes will no longer be published for the Scranton-Northeast Pennsylvania area.

Both the CPI-U and the CPI-W for January 1987 will be linked to the present series of each index as of December 1986 to provide a continuous series. For most indexes, the linking will be accomplished by setting the index levels of the revised CPI with the updated expenditure weights and samples equal to those published for the present series in December 1986. Each index will move upward or downward from the December 1986 level in accordance with subsequent changes in prices. The local area indexes which are calculated and published for the odd-numbered months will be linked to their present series in November 1986 and subsequent changes in prices measured from that point in time. For new items and for those items that have undergone significant definition changes, indexes will be introduced with November or December 1986=100.

As in the past, BLS will publish selected indexes using the old expenditure weights for 6 months after the issuance of the revised CPI. Unlike earlier revisions, these overlap indexes will be calculated from the updated item, outlet, and area samples and will differ from the revised indexes only by their expenditure weights. As a result of a number of enhancements made in the CPI during this and the previous revision, the costly activities of replacing the entire set of item, outlet, and area samples prior to the issuance of the revised CPI have been eliminated. Substantial cost reductions in the revision process were achieved by replacing only those item, outlet, and area samples which were necessary for estimating a CPI based on the 1980 population and the 1982–84 market basket of expenditures. In earlier revisions, the 6-month overlap old series indexes used not only the old expenditure weights but also the old item, outlet, and area samples. The base period for the revised CPI for January 1987 will be 1967=100, the same as for the present index. □

*——FOOTNOTES——*

[1] See John L. Marcoot, "Revision of the Consumer Price Index is now under way," *Monthly Labor Review*, April 1985, pp. 27–38, for a fuller description of the revision and its enhancements.

[2] See *BLS Handbook of Methods: Volume 2—The Consumer Price Index*, Bulletin 2134–2 (Bureau of Labor Statistics, 1984), p. 12, for a description of the current rotation process. The post-1986 CPI will have an even broader rotation process as described in Marcoot, "Revision of the Consumer Price Index," pp. 34–35.

[3] The following item strata are being discontinued, but a corresponding sub-strata index will be available:

- Other breads
- Fresh biscuits, rolls, and muffins
- Fresh cakes and cupcakes
- Cookies
- Crackers and bread and cracker products
- Fresh sweetrolls, coffee cake, and donuts
- Frozen and refrigerated bakery products and fresh pies, tarts, and turnovers
- Ham other than canned
- Pork sausage
- Other pork
- Frankfurters
- Bologna, liverwurst, salami
- Other lunchmeats
- Lamb and organ meats
- Butter
- Other dairy products
- Frozen fruit and fruit juices
- Other fruit juices
- Cut corn and canned beans except lima
- Other processed vegetables
- Candy and chewing gum
- Other sweets
- Margarine
- Other fats, oils, salad dressing
- Nondairy substitutes and peanut butter
- Roasted coffee
- Instant and freeze-dried coffee
- Seasonings, olives, pickles, relish
- Other condiments
- Miscellaneous prepared food and baby foods
- Other prepared foods
- Whiskey at home
- Other alcoholic beverages at home
- Household linens
- Curtains, drapes, slipcovers, sewing materials
- Soaps and detergents
- Other laundry and cleaning products
- Cleansing and toilet tissue, paper towels, and napkins
- Stationery, stationery supplies, and gift wrap
- Men's suits, sport coats, and jackets
- Men's coats and jackets
- Boys' coats, jackets, sweaters, and shirts
- Boys' suits, trousers, sport coats, and jackets
- Girls' coats, jackets, dresses, and suits
- Girls' separates and sportswear
- State automobile registration
- Products for hair, hair pieces, wigs

A sub-strata index will not be available for the following items:

- Canned ham
- Cola drinks excluding diet cola
- Other carbonated drinks
- Paint, wallpaper supplies, tools, equipment
- Lumber, awnings, glass, masonry materials
- Plumbing, electrical, heating, cooling supplies and equipment

Other property maintenance and repair commodities
Stoves, dishwashers, vacuums, and sewing machines
Office machines, small electric appliances, and air conditioners
Miscellaneous household products
Lawn and garden supplies
Moving, storage, freight, household laundry, and dry cleaning
Boys' furnishings
Girls' underwear, nightwear, hosiery and accessories
Sewing materials and notions
Driver's license
Automobile inspection
Intercity bus fares
Intercity train fares
Intracity mass transit
Taxi fare
Anti-infective drugs
Tranquilizers and sedatives
Circulatories and diuretics
Hormones, diabetic drugs, biologicals, and prescription medical supplies
Pain and symptom control drugs
Supplements, cough and cold preparations, and respiratory agents
Eyeglasses
Other professional (medical) services
Other hospital and medical care services
Sports vehicles
Bicycles
Indoor, warm weather sport equipment
Other sporting goods and equipment
Dental and shaving products
Other toilet goods and personal care appliances
Cigarettes
Other tobacco products and smoking accessories

[4] See Robert Gillingham and Walter Lane, "Changing the treatment of shelter costs for homeowners in the CPI," *Monthly Labor Review*, June 1982, pp. 9–14; and "Changing the Homeownership Component of the Consumer Price Index to Rental Equivalence," *CPI Detailed Report*, January 1983, pp. 7–11, for descriptions of the rental equivalence method.

[5] See Marcoot, "Revision of the Consumer Price Index," pp. 36–37.

[6] Because of time constraint, the CPI area samples were drawn on preliminary new Consolidated Metropolitan Statistical Area (CMSA) definitions obtained from the Office of Management and Budget (OMB). When the official definitions were issued, several had been modified slightly. The most notable difference is that Racine, WI, was sampled as a separate area in the Class C (population of 75,000 to 385,000) stratum, whereas the final OMB definition for the Milwaukee CMSA included Racine. Similarly, Monroe County, MI, was dropped by OMB from the Toledo definition and added to Detroit.

## Theories of worker satisfaction

Job satisfaction or, in its broader form, work satisfaction, is a difficult entity to define even in simplistic terms. For the individual worker, it exists when the perceived benefits of the work exceed the perceived costs by a margin deemed by the worker to be adequate under the circumstances. It is not, however, a static state and is subject to influence and modification from forces within and outside of the immediate work environment. One school of thought . . . examines the problem in terms of its extrinsic or intrinsic orientation, that is whether the worker is primarily concerned with work as a means to provide fulfillment outside of the job, or finds fulfillment in the work itself, the former perhaps tending to be more of a working-class value and the latter more of a middle-class one. Furthermore, job satisfaction is not the unitary or integrated state that the name would imply. There are multiple facets to the working state, some of which are more satisfying, or perhaps more acceptable, and others less. Job satisfaction at best describes in comparative terms some integrated mean of that state at some point in time. There is no absolute on some infinite scale. At best, we can state that at this particular time one is more satisfied with some aspect of one's job than at some other time.

—T. M. FRASER
*Human Stress, Work and Job Satisfaction: A Critical Approach* (Washington, International Labor Office, 1983), p. 24.

# Reconciling divergent trends in real income

*Growth rates in real per capita income and real family income diverged between 1970 and 1984 because the concepts and components of the two series reflected economic, social, and demographic changes in different ways*

PAUL RYSCAVAGE

The real incomes of American families have not grown very much since the early 1970's. Rather, they have varied with the swings in the business cycle, and the steady increases so evident in the 1960's have been absent. But the real incomes of *individual* Americans have continued to rise. While they too were affected by the economic slowdowns, real incomes of persons have pushed upward as they did in the 1960's. The question is: Why did these trends in real incomes diverge over the last decade and a half?

Family income data are collected every year in the Current Population Survey (CPS), conducted by the Bureau of the Census. Aggregate personal income is measured each month by the Commerce Department's Bureau of Economic Analysis (BEA), and can easily be converted into a per capita income series.[1] (Income data for individuals are also collected in the CPS and a per capita series from that survey is published by the Bureau of the Census.) Both the CPS family income data and the BEA personal income data are used extensively by economists for assessing the Nation's economic well-being. The difference in their trends in recent years is disturbing and raises questions as to what has happened to real incomes.

This article first discusses these divergent trends within the context of the economic setting and components from which they emerged. We then examine the concepts underlying each measure of real income and conclude with a reconciliation of the two. (A reconciliation of the BEA per capita series is also presented.) A technical appendix with tables is found at the end of the article.

## The setting and the trends

The 1970's and early 1980's were years of significant economic, social, and demographic change. The recessions during this period caused millions of workers to lose jobs. Inflation eroded incomes, with particularly strong price increases occurring during the recessions. Along with these economic developments, profound social and demographic changes, begun years before, continued and intensified. Women joined the labor force in record numbers; the incidence of single-parent families increased as the divorce rate soared; the birth rate dropped further and population growth slowed relative to the 1960's; and the baby-boom generation flooded the labor market and sought its place in society. Because of these changes and a weak economy, governments struggled to help the poor, the unemployed, the medically needy, and others. Personal and family earnings were, therefore, frequently supplemented by transfer payments, such as unemployment insurance, aid to families with dependent children, and food stamps. Many of these changes affected BEA personal income and CPS family income differ-

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ently and caused their trends to diverge.

The divergence can be best observed when the BEA personal income series is converted into a per capita series. As shown in chart 1 and table 1, both the real BEA per capita income series and the real CPS family income series rose at an average annual rate of slightly more than 3.0 percent between 1960 and 1970.[2] In sharp contrast, real BEA per capita income continued to grow moderately, at a 1.8-percent rate, during the next 14 years while real CPS mean family income showed little growth—only 0.3 percent a year.

Differences in the levels of these two income series can be expected, of course, because one relates to the entire population and the other only to families. In 1984, for example BEA per capita income was $13,145 and CPS mean family income was $31,052. But differences in these series' trends of the magnitude that occurred in the 1970–84 period are unsettling, especially after they behaved so similarly during the 1960's.

## Concepts and components

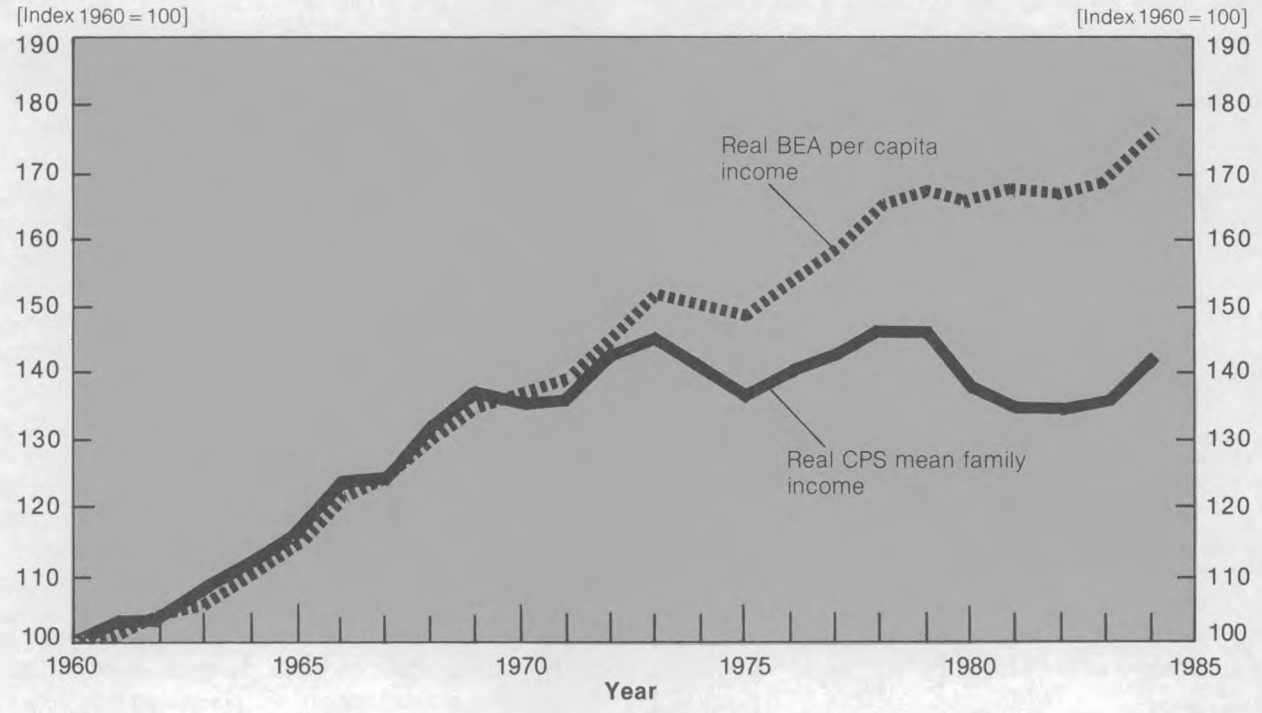
To understand why these real income measures diverged, it is important to understand the concepts behind them. As explained below, each measure has similar components, but conceptual differences exist between them.

*Aggregate income.* A major difference between the BEA and CPS income concepts is that BEA personal income relates to income from all sources, while CPS income relates only to money income.

The BEA series is developed from a variety of government statistics, the most important being the Federal tax records of the U.S. Department of the Treasury, the insurance files of the Social Security Administration, and the State unemployment records collected by the U.S. Department of Labor. Personal income comprises wages and salaries, including cash and in-kind payments; other labor income such as employer contributions to private pension, welfare, and workers' compensation funds; proprietors' income; the income from rental properties; dividends and interest; and government and business transfer payments (Social Security, food stamps, corporate cash prizes, and so forth). The sum of all these items minus the amounts paid by individuals for old age, survivors, disability, and health insurance (OASDHI), government retirement, and other social programs equals BEA's aggregate personal income.[3]

The CPS series is based on a sample of about 60,000 households designed to represent all households in the country. Each March, Census Bureau interviewers ask household respondents about their money income in the previous year. Important nonmoney income items excluded from the CPS

**Chart 1. Indexes of real BEA per capita income and real CPS mean family income, 1960-84**



series but included in the BEA series are wages received in-kind, food stamps, medicare and medicaid, the net rental value of owner-occupied homes, goods produced and consumed at home, and various fringe benefits provided by employers, such as health insurance and pension plans.[4] Most of the other income items reported in the BEA data are also collected in the CPS—money wages and salaries, self-employment income, interest and dividends, rental income, Social Security, cash transfer payments, and so on—but because this information is obtained from a sampling of households, a certain amount of income underreporting occurs.[5]

*Price deflators.* Another important conceptual difference between the BEA real income series and the CPS series concerns the price deflators used to convert nominal incomes into real incomes.[6]

CPS family income is converted into real dollars using the Consumer Price Index (CPI) produced by the Bureau of Labor Statistics. The CPI is obtained through direct price collection and measures price changes for a fixed market basket of goods and services (established in the 1972–73 period) that represents the average expenditures of urban consumers. BEA personal income is deflated by the implicit price deflator for personal consumption expenditures, hereafter referred to as the PCE Deflator. The weights for the commodities priced in this index are obtained in the period for which the index is to be computed. The PCE Deflator, unlike the CPI, is obtained by dividing current consumer expenditures by real, or constant dollar, expenditures. (To deflate current consumer expenditures, the BEA uses price indexes from the CPI for 85 of the 115 commodities included in the PCE Deflator.)

During the 1970's, many analysts suggested that the CPI was overstating the inflation rate when compared to the PCE Deflator. It was true that the homeownership component of the CPI (which consisted of house prices, mortgage interest, and the cost of maintaining a house) was very sensitive to the activity in the housing market and the wildly fluctuating mortgage interest rates. After a review of its pricing of homeownership, BLS concluded that its approach had investment and consumption aspects which were inconsistent with the principle that the CPI should focus only on current consumption. BLS therefore began experimenting with a rental equivalence approach—one similar to the one used in the PCE Deflator—and eventually adopted it beginning with publication of the January 1983 CPI.

**Table 1. Reconciliation of trends in real BEA per capita income and in real CPS income measures, 1960–70 and 1970–84**

| Series and reasons for differences | Average annual rate of change (in percent)[1] | |
|---|---|---|
| | 1960–70 | 1970–84 |
| Real BEA per capita income | 3.2 | 1.8 |
| Real CPS family income | 3.1 | 0.3 |
| Total difference | 0.1 | 1.5 |
| Percentage points of difference due to varying growth rates in: | | |
| Aggregate incomes | −0.1 | 0.8 |
| Number of recipients | 0.1 | 0.3 |
| Price deflators | 0.1 | 0.4 |
| Real BEA per capita income | 3.2 | 1.8 |
| Real CPS per capita income | 3.1 | 1.4 |
| Total difference | 0.1 | 0.4 |
| Percentage points of difference due to varying growth rates in: | | |
| Aggregate incomes | 0.0 | 0.1 |
| Number of recipients | 0.0 | −0.1 |
| Price deflators | 0.1 | 0.4 |

[1] See text footnote 2.

**Table 2. Changes in components of BEA personal income and CPS family income estimates, 1960–70 and 1970–84**

| Year or period | Aggregate income (billions of dollars) | | Income recipients (thousands) | | Income deflator | |
|---|---|---|---|---|---|---|
| | BEA personal income | CPS family income | BEA population estimate | CPS family estimate | PCE Deflator (1982=100) | Consumer Price Index (1967=100) |
| 1960 | $ 409.4 | $ 283.6 | 180,760 | 45,539 | 32.9 | 88.7 |
| 1970 | 831.8 | 580.0 | 205,089 | 52,227 | 42.9 | 116.3 |
| 1984 | 3,111.9 | 1,947.1 | 236,731 | 62,706 | 108.2 | 311.1 |
| Average annual percent change:[1] | | | | | | |
| 1960–70 | 7.1 | 7.2 | 1.3 | 1.4 | 2.7 | 2.7 |
| 1970–84 | 9.4 | 8.7 | 1.0 | 1.3 | 6.6 | 7.0 |

[1] See text footnote 2.

*Income recipients.* The income recipients, of course, are different in the BEA per capita income and the CPS family income series. One relates to the population and the other to families.

BEA per capita income is calculated using an annual estimate of population from the CPS. This annual estimate represents averages of quarterly population estimates and includes inmates of institutions and military personnel overseas or living on post in the United States. In the family income measure, an estimate of the number of families is obtained through the CPS. Families are defined as a group of two or more persons related by birth, marriage, or adoption who reside together.

## Reconciling trends

The BEA and CPS real income measures are constructed similarly. In general, they can be expressed as:

$$\overline{Y} = \frac{Y}{N \times D}$$

where $\overline{Y}$ is real mean income; $Y$ is aggregate income; $N$ is number of recipients; and $D$ is the price deflator. Differences in the growth rates of the components in both real income measures were responsible for the divergent trends in real income. Indeed, it will be shown that these differ-

ences approximately equal the overall trend differences between the measures.[7] (See the appendix for a description of the reconciliation method.)

As indicated, the difference in annual growth rates in the per capita and family income series in the 1970–84 period was 1.5 percentage points. Based on the reconciliation method used in this article, about half of the trend difference, or 0.8 percentage points, was caused by different rates of growth in the aggregate incomes used in each series. Another 0.4 percentage points was the result of differential growth rates in the price deflators—the CPI and PCE Deflator—of the series. And the remaining difference of 0.3 percentage points was due to different growth rates in population and in number of families. (See table 1.) These differences are examined in detail below.

Aggregate incomes in the BEA per capita series and the CPS family income series grew at about the same average annual rate in the 1960's, but between 1970 and 1984, the BEA aggregate rose by 9.4 percent a year, compared to an 8.7-percent growth rate in the CPS aggregate (table 2). Two factors may have been responsible for the faster growth in BEA aggregate income. First, nonmoney income (such as food stamps, medicare, medicaid, and certain fringe benefits) grew rapidly in recent years, and much of the growth occurred in nonfamily households. (As mentioned earlier, nonmoney income is included under the BEA income concept, but excluded in the CPS concept.) Second, BEA aggregate income growth was also boosted by the maturing of the baby-boom generation. Many of the individuals from this group have not married, preferring to live alone or with other unrelated individuals. (The number of unrelated individuals age 25 to 34 grew from 1.8 million in 1970 to 7.3 million by 1984.) Their income is included in the BEA aggregate, but excluded from the CPS family income aggregate.

Table 2 shows that both the PCE Deflator and CPI measured inflation at the same annual rate during the 1960's—2.7 percent. Over the 1970–84 period, however, the CPI recorded a slightly faster increase in consumer prices than did the PCE Deflator, with the largest annual differences occurring in the late 1970's and early 1980's. The homeownership component of the CPI was greatly affected by the activity in the housing and money markets, and analysts have identified this component as responsible for the disparate inflation rates.[8] Consequently, use of the PCE Deflator in the BEA series would, other things equal, have less of an eroding effect on income than would the CPI in the CPS family income series.

Differences in the rates of growth of the Nation's population and families also affected the trends. As presented in table 2, the BEA estimate of population growth and CPS estimate of growth in numbers of families were very similar in the 1960–70 period—about 1.3 to 1.4 percent. But between 1970 and 1984, the number of families continued to grow by about 1.3 percent a year while population growth slackened to a 1.0-percent rate.

*BEA and CPS per capita income.* Income data are also collected for individuals in the CPS, and this information is published at the same time as the family income data.[9] The level of CPS real per capita income is slightly lower than the BEA estimate (as shown in appendix table A-3) because the CPS aggregate income estimate is less inclusive than the BEA estimate. Both series exhibited similar trends in the 1960's but then diverged slightly toward the end of the 1970–84 period. As shown in table 1, the trend difference was 0.1 percentage points a year between 1960 and 1970, but then widened to 0.4 points annually between 1970 and 1984. According to the reconciliation methodology used in this article, all of the difference in the growth rates of these two series was caused by the different price deflators. As mentioned earlier, the CPI rose much faster than the PCE Deflator at the end of the 1970's and beginning of the 1980's.

THE DIVERGENT TRENDS in real BEA per capita income and real CPS family income between 1970 and 1984 are reconcilable. Each measure reflected the economic, social, and demographic changes of the period to the extent that its concepts and components allowed. And this illustrates an important point: During times of rapid economic, social, and demographic changes, a single income measure may give a less than complete picture of what has happened because of the way in which it is constructed. In the case just discussed, a global measure of real income indicated that real incomes were rising in the 1970's and 1980's, while a narrower measure showed little growth taking place. Once the concepts and components of each measure were understood, however, it could be shown that both trends were compatible. □

*FOOTNOTES*

[1] BEA publishes a series on per capita "disposable" income (personal income minus tax and nontax payments, divided by the population). The population estimates used in that series were used in deriving the per capita personal income series discussed in this article. Statistics on per capita personal income have been published before. For example, see *Social Indicators III* (Bureau of the Census, December 1980), pp. 474–75.

[2] The average annual rates of change in this report have been calculated by the following formula:

$$r = \ln \frac{P_1}{P_0} \div N \times 100$$

where *ln* is the natural logarithm of the ratio; $P_1$ is a number at the end of some time interval; $P_0$ is a number at the beginning of the interval; $N$ is the number of years in the interval; and $r$ is the average annual rate of percent change.

[3] For a thorough discussion of the BEA income concept, see *Business Statistics 1979* (U.S. Department of Commerce, Bureau of Economic Analysis, 1981).

[4] For a full discussion of the CPS money income concept, see *Money Income of Households, Families, and Persons in the United States: 1983*, Current Population Reports, Series P-60, No. 146 (Bureau of the Census,

1985), pp. 207–19.

[5] In 1983 (the last year for which such data are available), the CPS collected 90.1 percent of an independent estimate of aggregate income adjusted to the CPS money income concept. See *Money Income of Households*, p. 219.

[6] The discussion in this section is based on two articles: Jack E. Triplett, "Reconciling the CPI and the PCE Deflator," *Monthly Labor Review*, September 1981, pp. 3–15; and Robert Gillingham and Walter Lane, "Changing the treatment of shelter costs for homeowners in the CPI," *Monthly Labor Review*, June 1982, pp. 9–14.

[7] The same methodology was used by the author in reconciling trends in real per capita disposable income and real net spendable earnings. See Paul Ryscavage, "Two divergent measures of purchasing power," *Monthly Labor Review*, August 1979, pp. 25–30.

[8] Triplett, "Reconciling the CPI and PCE Deflator," p. 4.

[9] *Money Income of Households*, p. 121.

## APPENDIX: Reconciliation method

The method used to reconcile the trends in real BEA per capita income and real CPS mean family income proceeds as follows. Let the change in real BEA per capita income be defined as:

$$\frac{\overline{Y}_1}{\overline{Y}_0} = \frac{\dfrac{Y_1}{N_1 \times D_1}}{\dfrac{Y_o}{N_o \times D_o}}$$

where in periods 0 and 1, $\overline{Y}$ equals real per capita income, $Y$ the aggregate personal income, $N$ the population of recipients, and $D$ the implicit price deflator for personal consumption expenditures. This expression can then be written as:

$$\frac{\overline{Y}_1}{\overline{Y}_0} = \frac{Y_1}{Y_0} \times \frac{N_0}{N_1} \times \frac{D_0}{D_1}$$

**Table A-1. Components of the real BEA personal income per capita series, 1960–84**

| Year | Real BEA per capita income (1982 dollars) | BEA per capita income | BEA aggregate personal income (billions) | BEA population[1] (thousands) | PCE Deflator (1982=100) |
|---|---|---|---|---|---|
| 1960 | $ 6,884 | $ 2,265 | $ 409.4 | 180,760 | 32.9 |
| 1961 | 6,961 | 2,318 | 426.0 | 183,742 | 33.3 |
| 1962 | 7,165 | 2,429 | 453.2 | 186,590 | 33.9 |
| 1963 | 7,314 | 2,516 | 476.3 | 189,300 | 34.4 |
| 1964 | 7,594 | 2,658 | 510.2 | 191,927 | 35.0 |
| 1965 | 7,978 | 2,840 | 552.0 | 194,347 | 35.6 |
| 1966 | 8,327 | 3,056 | 600.8 | 196,599 | 36.7 |
| 1967 | 8,625 | 3,243 | 644.5 | 198,752 | 37.6 |
| 1968 | 8,964 | 3,523 | 707.2 | 200,745 | 39.3 |
| 1969 | 9,298 | 3,812 | 772.9 | 202,736 | 41.0 |
| 1970 | 9,455 | 4,056 | 831.8 | 205,089 | 42.9 |
| 1971 | 9,586 | 4,304 | 894.0 | 207,692 | 44.9 |
| 1972 | 10,013 | 4,676 | 981.6 | 209,924 | 46.7 |
| 1973 | 10,480 | 5,198 | 1,101.7 | 211,939 | 49.6 |
| 1974 | 10,323 | 5,657 | 1,210.1 | 213.898 | 54.8 |
| 1975 | 10,272 | 6,081 | 1,313.4 | 215,981 | 59.2 |
| 1976 | 10,631 | 6,655 | 1,451.4 | 218,086 | 62.6 |
| 1977 | 10,924 | 7,297 | 1,607.5 | 220,289 | 66.7 |
| 1978 | 11,370 | 8,141 | 1,812.4 | 222,629 | 71.6 |
| 1979 | 11,554 | 9,036 | 2,034.0 | 225,106 | 78.2 |
| 1980 | 11,452 | 9,917 | 2,258.5 | 227,732 | 86.6 |
| 1981 | 11,581 | 10,956 | 2,520.9 | 230,087 | 94.6 |
| 1982 | 11,493 | 11,493 | 2,670.8 | 232,376 | 100.0 |
| 1983 | 11,637 | 12,091 | 2,836.4 | 234.579 | 103.9 |
| 1984 | 12,149 | 13,145 | 3,111.9 | 236,731 | 108.2 |

[1] Includes members of the Armed Forces living abroad.

**Table A-2. Components of the real CPS mean family income series, 1960–84**

| Year | Real CPS mean family income (1984 dollars) | CPS mean family income | CPS aggregate family income (billions) | Families (thousands) | Consumer Price Index (1967 = 100) |
|---|---|---|---|---|---|
| 1960 | $21,840 | $ 6,227 | $ 283.6 | 45,539 | 88.7 |
| 1961 | 22,468 | 6,471 | 300.4 | 46,418 | 89.6 |
| 1962 | 22,903 | 6,670 | 313.9 | 47,059 | 90.6 |
| 1963 | 23,741 | 6,998 | 332.7 | 47,540 | 91.7 |
| 1964 | 24,567 | 7,336 | 351.8 | 47,956 | 92.9 |
| 1965 | 25,362 | 7,704 | 373.7 | 48,509 | 94.5 |
| 1966 | 26,869 | 8,395 | 413.2 | 49,214 | 97.2 |
| 1967 | 27,380 | 8,801 | 441.0 | 50,111 | 100.0 |
| 1968 | 28,871 | 9,670 | 491.5 | 50,823 | 104.2 |
| 1969 | 29,968 | 10,577 | 545.6 | 51,586 | 109.8 |
| 1970 | 29,708 | 11,106 | 580.0 | 52,227 | 116.3 |
| 1971 | 29,707 | 11,583 | 617.3 | 53,296 | 121.3 |
| 1972 | 31,346 | 12,625 | 686.5 | 54,373 | 125.3 |
| 1973 | 31,839 | 13,622 | 749.9 | 55,053 | 133.1 |
| 1974 | 30,986 | 14,711 | 819.4 | 55.698 | 147.7 |
| 1975 | 30,002 | 15,546 | 874.4 | 56,245 | 161.2 |
| 1976 | 30,782 | 16,870 | 956.7 | 56,710 | 170.5 |
| 1977 | 31,305 | 18,264 | 1,045.0 | 57,215 | 181.5 |
| 1978 | 31,987 | 20,091 | 1,161.3 | 57,804 | 195.4 |
| 1979 | 31,934 | 22,316 | 1,328.9 | 59,550 | 217.4 |
| 1980 | 30,220 | 23,974 | 1,445.8 | 60,309 | 246.8 |
| 1981 | 29,509 | 25,838 | 1,576.6 | 61,019 | 272.4 |
| 1982 | 29,475 | 27,391 | 1,681.6 | 61,393 | 289.1 |
| 1983 | 29,826 | 28,608 | 1,774.1 | 62,015 | 298.4 |
| 1984 | 31,052 | 31,052 | 1,947.1 | 62,706 | 311.1 |

Taking the natural logarithms of each side yields the following equation:

$$\ln \frac{\overline{Y}_1}{\overline{Y}_0} = \ln \frac{Y_1}{Y_0} + \ln \frac{N_0}{N_1} + \ln \frac{D_0}{D_1}$$

and when the deflator and recipient components are inverted for the purpose of the reconciliation, the equation becomes:

$$\ln \frac{\overline{Y}_1}{\overline{Y}_0} = \ln \frac{Y_1}{Y_0} - \ln \frac{N_1}{N_0} - \ln \frac{D_1}{D_0}$$

The same procedure is used with real CPS family income, and for the purposes of this description, components are notated in the same, but lower case, letters. That is, $\bar{y}$ equals mean family income, $y$ the aggregate family income, $n$ the number of families, and $d$ the Consumer Price Index (CPI). Consequently, the difference in growth rates between real

**Table A-3. Components of the real CPS per capita income series, 1960–84**

| Year | Real CPS per capita income (1984 dollars) | CPS per capita income | CPS aggregate income (billions) | CPS population[1] | Consumer Price Index (1967 = 100) |
|---|---|---|---|---|---|
| 1960 | $ 6,204 | $ 1,769 | $ 320.6 | 181,252 | 88.7 |
| 1961 | 6,528 | 1,880 | 345.3 | 183,682 | 89.6 |
| 1962 | 6,569 | 1,913 | 357.1 | 186,695 | 90.6 |
| 1963 | 6,738 | 1,986 | 394.0 | 189,400 | 91.7 |
| 1964 | 6,989 | 2,087 | 400.6 | 191,967 | 92.9 |
| 1965 | 7,275 | 2,210 | 428.8 | 194,013 | 94.5 |
| 1966 | 7,569 | 2,365 | 463.2 | 195,855 | 97.2 |
| 1967 | 7,666 | 2,464 | 488.2 | 198,120 | 100.0 |
| 1968 | 8,154 | 2,731 | 546.6 | 200,139 | 104.2 |
| 1969 | 8,520 | 3,007 | 608.0 | 202.189 | 109.8 |
| 1970 | 8,498 | 3,177 | 652,0 | 205.214 | 116.3 |
| 1971 | 8,764 | 3,417 | 699.9 | 204,840 | 121.3 |
| 1972 | 9,358 | 3,769 | 777.6 | 206,302 | 125.3 |
| 1973 | 9,679 | 4,141 | 861.1 | 207,949 | 133.1 |
| 1974 | 9,362 | 4,445 | 931.5 | 209,572 | 147.7 |
| 1975 | 9,298 | 4,818 | 1,017.3 | 211,140 | 161.2 |
| 1976 | 9,618 | 5,271 | 1,120.4 | 212,566 | 170.5 |
| 1977 | 9,916 | 5,785 | 1,238.9 | 214,159 | 181.5 |
| 1978 | 10,277 | 6,455 | 1,393.9 | 215,935 | 195.4 |
| 1979 | 10,257 | 7,168 | 1,599.6 | 223,160 | 217.4 |
| 1980 | 9,816 | 7,787 | 1,754.0 | 225.242 | 246.8 |
| 1981 | 9,680 | 8,476 | 1,927.2 | 227,375 | 272.4 |
| 1982 | 9,663 | 8,980 | 2,061.7 | 229,587 | 289.1 |
| 1983 | 9,954 | 9,548 | 2,214.5 | 231,938 | 298.4 |
| 1984 | 10,328 | 10,328 | 2,417.4 | 234,066 | 311.1 |

[1] The population estimates are as of March of the following year. They represent the civilian noninstitutional population plus the Armed Forces personnel living off post or with their families on post in the United States.

BEA per capita income and real CPS mean family income is:

$$\text{DIFFERENCE} = \ln \frac{\overline{Y}_1}{\overline{Y}_0} - \ln \frac{\overline{y}_1}{\overline{y}_0}$$

or

$$\text{DIFFERENCE} = \ln \frac{Y_1}{Y_0} - \ln \frac{N_1}{N_0} - \ln \frac{D_1}{D_0} - \ln \frac{y_1}{y_0} + \ln \frac{n_1}{n_0} + \ln \frac{d_1}{d_0}$$

The terms in the above expression can be rearranged to define the following effects, all of which approximately add to the difference in growth rates between the real income measures:

$$\text{Aggregate income effect} = \ln \frac{Y_1}{Y_0} - \ln \frac{y_1}{y_0}$$

$$\text{Recipient effect} = -\ln \frac{N_1}{N_0} + \ln \frac{n_1}{n_0}$$

$$\text{Deflator effect} = -\ln \frac{D_1}{D_0} + \ln \frac{d_1}{d_0}$$

Appendix tables A-1, A-2, and A-3 contain the basic data to which this reconciliation method was applied.

*Keeper of the gate*

# Ellis Island a welcome site? Only after years of reform

*With the reopening of the immigration center as a historic landmark, it may surprise many to learn that the Labor Department operated the complex for years; administrators struggled to end corruption and the exploitation of aliens*

HENRY P. GUZDA

Between 1903 and 1920, 10 million people emigrated to the United States by passing through the portals of the receiving station on Ellis Island. During that period, the U.S. Department of Labor and its predecessor agency, the Department of Commerce and Labor, administered the immigration laws of the country, including those providing for the operation of Ellis Island.

The island lies just a short distance from the New Jersey shoreline in New York Harbor. The Federal Government, over many years, expanded the land area from 7.5 acres to a landfilled 27.5 acres for new buildings, park areas, and other facilities. The main hall, a spacious brick building with white limestone trim, in French Renaissance style, is the most striking landmark on the island and the site where immigrants first entered for processing. Kitchen facilities, dormitories, a hospital, and a power plant also occupied island space. Docks to receive passenger and cargo vessels expanded in proportion to the island's growth.[1]

Men, women, and children segregated by sex, stood in lines on Ellis Island awaiting a barrage of questions on their potential destinations, intentions for going there, and job prospects upon arrival. Prearranged labor contracting was illegal and would mean deportation. Inspectors often had limited comprehension of certain languages, especially Slavic ones, and misinterpretations were common. The newcomers faced assembly-line medical exams and if doctors or nurses put certain chalk letters on an immigrant's outergarment it meant detention and possible deportation. (The letter T signified suspected trachoma, H meant a possible heart condition, and LCD translated as loathsome contagious disease. Nonmedical examiners could put LPC (likely to become a public charge) on a person's coat, which also could result in deportation.) One of the island's Public Health Service physicians commented, "these methods, crude as they seem, had to be used because of the great numbers [of immigrants] and the language difficulties."[2]

Detention could last weeks, even years in wartime. During detention the immigrants fell prey to the avarice of contractors handling food concessions, money exchanges, and other personal services. Federal employees of Ellis Island extorted money from detained immigrants by threatening them with deportation. Finally, a special board of inquiry determined whether a detainee was admissible or deportable, the latter was subject to approval by the Secretary of Labor. It was not incomprehensible why the immigrants referred to Ellis Island as the "Isle of Tears."

Processing millions of people, however, was a tedious and taxing chore. The Labor Department and Public Health

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Service employees, grossly understaffed and overworked, faced difficult problems even during the ebb of immigration. During the peak year of 1907, an average 5,000 immigrants arrived daily and 11,747 landed on a recordbreaking day. Inspectors with command of certain languages were in demand, but the supply was always low. To compound these problems, the immigration laws were complex—defying interpretation even by some legal authorities—yet only 1.5 percent of all immigrants were excluded.[3]

## Commerce and Labor: the first 10 years

When the Department of Commerce and Labor assumed responsibility for administration of the island from the Treasury Department in 1903, it received a rather sordid legacy. Both the friends of immigration and those favoring immigration restriction viewed the islands operation as disgraceful. President Theodore Roosevelt, who created the Department of Commerce and Labor in 1903, wanted the agency to reform conditions without delay.

*William Williams to lead.* Roosevelt chose the new Commissioner of Ellis Island, William Williams, a corporation lawyer from New York. He was an unlikely choice because of his jaundiced views on immigrants from Southern and Eastern Europe.

But Williams was honest, humane, and very concerned about reports from undercover agents on the conditions allowed by the former commissioner, Thomas Fitchie. Those reports illustrated that the depth of graft and corruption extended from the immigrant inspectors, who extorted bribes from aliens, to aldermen at New York's City Hall, who performed marriage ceremonies for exorbitant fees and "kicked back" commissions to Fitchie. Graft was so well-woven into the administrative fabric of the island's operations that the undercover agents feared for their lives if exposed.[4]

Williams acted quickly; his first official order was for employees to treat immigrants with "kindness and decency" or face dismissal. Several workers were fired after they tried to remove information on the confinement and isolation of immigrants into "pens" from official files. Williams told the President that the term "pen" intimated the kind of treatment the immigrants received, and that Fitchie was aware of the abuse and exploitation.

The food concession on Ellis Island particularly upset the new commissioner. Williams reported:

> "I witnessed with my own eyes the fact that immigrants were often fed without knives, forks, or spoons, and I saw them extract boiled beef from their bowls of soup with their fingers . . . (the meat was tainted) and the floors were covered with grease, bones, and other remnants of food for days at a time."

He canceled the existing food contract and awarded one to a different firm at a savings of 15 percent. In his annual report Williams noted that such reforms were gratifying, "but that numerous other instances of abuses or lack of system could be cited."[5]

**Table 1. Immigration to the United States through Ellis Island and all entry ports, 1903–24**

| Year | Ellis Island | All entry ports |
|---|---|---|
| 1903 | 631,835 | 857,046 |
| 1904 | 606,019 | 812,870 |
| 1905 | 788,219 | 1,026,499 |
| 1906 | 880,036 | 1,100,735 |
| 1907 | 1,004,756 | 1,285,349 |
| 1908 | 585,970 | 782,870 |
| 1909 | 580,617 | 751,786 |
| 1910 | 786,094 | 1,041,570 |
| 1911 | 637,003 | 878,587 |
| 1912 | 605,151 | 838,172 |
| 1913 | 892,653 | 1,197,892 |
| 1914 | 878,052 | 1,218,480 |
| 1915 | 178,416 | 326,700 |
| 1916 | 141,390 | 298,826 |
| 1917 | 129,446 | 295,403 |
| 1918 | 28,867 | 110,618 |
| 1919 | 26,731 | 141,132 |
| 1920 | 225,206 | 430,001 |
| 1921 | 560,971 | 805,228 |
| 1922 | 209,778 | 309,556 |
| 1923 | 295,473 | 522,919 |
| 1924 | 315,587 | 706,896 |
| Total | 10,988,270 | 15,739,135 |

SOURCE: Bureau of Immigration and Naturalization, Historical Study, 1935.

Reforming the deeply embedded corruption of many years took time, and it appeared too slow for some interested parties. Foreign language newspapers and immigrant aide societies, in particular, accused the Department of Commerce and Labor of countenancing exploitation of the immigrants. The *New York Staats Zeitung* so severely complained that Roosevelt appointed a special investigatory commission in September 1903. Its report illustrated that the drive for reform had taken hold very quickly. Buildings were clean and immigrants were well-fed, and treated with decency. Delays in processing functions and overcrowding resulted, the report concluded, from insufficient staffing and poor facilities, not mistreatment.[6]

By 1905, the island's operation ran very smoothly. Williams believed his job had been completed and returned to private law practice. Reforms continued, however, under his successor Robert Watchorn.

*Robert Watchorn's administration.* Watchorn, like many immigration officials, came from the labor movement, having served as an official of the United Mine Workers union. Unlike many of his labor colleagues, Watchorn was not an immigration restrictionist.[7]

Watchorn had a kindred spirit in Secretary of Commerce and Labor Oscar Straus. Straus, an immigrant and the first Jewish person to serve in a presidential cabinet, believed in an open-door policy for immigration. Whereas previous Secretaries of Commerce and Labor had viewed Ellis Island as an administrative headache, Straus took greater interest in immigration than his predecessors and gave full support to the views of the new commissioner.

The Straus-Watchorn tandem served during the "high tide" of immigration, 1905-09. In the peak year of 1907, 1.3

million people came to the United States. (See table 1 for immigration totals.) Delays in processing and admissions increased despite Watchorn's efforts to streamline operations. He abolished the "temporarily detained" category for immigrants suspected of a minor infraction of law or unable to produce a $10 minimum reserve before being allowed entry to the mainland. Steamship lines had to provide island officials with informational lists of all passengers before disembarking them. Nonetheless, immigrant inspectors worked 7 days a week from 9 a.m. to 9 p.m. for 31 consecutive days in which more than 5,000 persons arrived daily in 1907.[8]

Working conditions for Ellis Island employees worsened considerably during this period. The close proximity of so many people and unsanitary conditions on passenger ships, especially for the bulk of immigrants traveling in steerage, spread vermin and disease among both immigrants and Federal employees. To compensate for long hours and poor conditions, Watchorn petitioned the Congress to raise employees' wages, add staff positions, and appropriate funds for other morale-building efforts. But his endeavor was fruitless, and between 1905 and 1907 there was a turnover rate of approximately 40 percent. Immigration inspector Fiorello LaGuardia, who later became Mayor of New York, commented, "At best, the work was an ordeal. Our compensation, besides our salaries, for the heartbreaking scenes we witness (sic) was the realization that a large percentage of these people pouring into Ellis Island would probably make good and enjoy a better life than they had been accustomed to."[9]

Under Watchorn and Straus, general improvement in the prevention of immigrant exploitation accelerated. Watchorn assigned undercover agents to find abuses, and their reports confirmed his suspicions. For example, steamship companies made $39 of profit from the $42 charged to immigrants for transportation from Europe. Agents for employment services conducted an illicit business in contract labor and cooperated with both steamship lines and railroad interests to fleece the aliens. For example, one employment agent charged 50¢ for a short ride from the Ellis Island debarkation point to Grand Central Station and received an additional 45-cent commission for placing them on the New York, New Haven, and Hartford line, regardless of a passenger's actual destination. Railroads re-routed passenger service in order to maximize fares; immigrants bound for Chicago, therefore, often traveled a circuitous route through Norfolk, Virginia. "I am shocked and outraged," said Watchorn, "by the many pretexts resorted to by the opulent and powerful, and by petty grafters to squeeze the last dollars out of the immigrant in quest of work and wages. . . ." In 1907, Watchorn filed charges against railroad and steamship companies with the Interstate Commerce Commission and achieved some success in eliminating the worst abuses.[10]

Watchorn's crusade was noticed. Food contractors, transportation concerns, and employment agencies pressured Straus, the Congress, and President Roosevelt to remove the commissioner from office. In addition, organized labor complained that the new Ellis Island policies had swamped the U.S. work force with undesirables willing to work for below minimum wages. Even some Federal employees on Ellis Island protested that Watchorn had exceeded his authority by disregarding laws and longstanding work rules.[11] In response, Straus sent an investigatory commission to the island. This commission, headed by popular reformer and intellectual Washington Gladden, and consisting of other ministers and rabbis, found conditions to be exemplary. Gladden reported:[12]

> "I am sure that anyone who visits Ellis Island, and intelligently observes what is going on there; who sees the cleanliness and convenience and comfort by which the immigrants are surrounded when they first set foot upon our soil; the ample and beautiful dining room where good food is served to them; the commodious and comfortable sleeping apartments, the roof garden where, in the summer, they may breathe the cool air in the evening; the small army of intelligent and kindly men and women who speak to them in their own languages, and administer to all their wants; the vigilance with which they are safeguarded from the wolves and harpies which in former times were wont to make them a prey . . . I am sure that anyone who sees all this will feel that he has witnessed one of the triumphs of civilization."

Straus also ordered the Commissioner of Corporations to conduct an internal investigation of the island's operations. While not as ebullient and optimistic as the Gladden report, this study gave Watchorn and his administration a good rating. The facilities at the complex, it stated, were clean, sanitary, and well-organized. Watchorn, despite criticisms to the contrary, had deported more immigrants during his years than had Commissioner Williams and was not lax in law enforcement.[13]

Yet the very controversial nature of the immigration question eventually contributed to Watchorn's departure. His former colleagues in the labor movement vehemently opposed "open door" immigration policies, including redistribution of immigration away from labor surplus areas on the eastern seaboard and in the industrial north. Watchorn tried to explain that redistribution could work, at a Labor Department conference on the immigration issue, but ran into criticism from his agency associate, Commissioner of Labor Charles Neill, who argued that the plan wouldn't work.[14]

Such controversy illuminated the serious impediments to a reconfirmation of Watchorn as commissioner. Straus engaged an intensive campaign to have his friend reconfirmed. The Immigrant Protective League and other ethnic organizations joined the campaign, but there were just as many groups, the American Federation of Labor, for example, that opposed a second term. On March 4, 1909, the newly inaugurated President, William Howard Taft, withdrew Watchorn's name from consideration.[15]

*Williams returns.* Taft's Secretary of Commerce and Labor, Charles Nagel, also chose to avoid controversy by persuading William Williams to return as Ellis Island Commissioner in the role of a compromise appointment.

Williams' second term paralleled the first and mirrored that of Watchorn's in attacking corruption. For example, in December 1910, he had the Hellenic Transatlantic Steamship Company prosecuted for willfully smuggling diseased aliens through the island and attempting to bribe immigration officials; 15 company officials went to jail as a result. Williams also withdrew privileges for operating services on the island from some immigrant aid societies which ran unclean boarding houses on the mainland. Thus, Williams received criticism from both sides of the immigration question. Ironically, despite his own restrictive beliefs, he was criticized for lax administration of the immigration laws. Williams voluntarily resigned in 1913, leaving a fairly well-run and efficient operation.[16]

## New problems

As World War I erupted in 1914, an ideological movement swept across the United States. Racial and ethnic stereotyping and eugenics were popularly discussed as an exact science. The president of the New York Zoological Society, Madison Grant, published *Passing of the Great Race*, which called for "Nordic supremacy;" Grant compared old immigration from Northern and Western Europe to the strong species of the animal kingdom and relegated new immigration from Southern and Eastern Europe to the weakest species. In addition, Majority Whip Harold Knutson complained about the "mongrelizing" effect the new immigration had on American society and the Eugenicist for the Congressional Committee on Immigration, Harry Laughlin, theorized that the recent immigration possessed a high percentage of inborn socially deviant qualities based on empirical data.[17]

These attitudes were prevalent when the newly created Department of Labor assumed responsibility for Ellis Island in 1913. The labor function in the Department of Commerce and Labor had been secondary in the organization and many interests, especially Samuel Gompers and the American Federation of Labor, wanted it removed and elevated to Cabinet status without nonrelated encumberances. Organized labor did not particularly want the immigration function placed in the Department of Labor but believed it could be monitored better under friends than in the employer-oriented Department of Commerce.[18]

The first Secretary of Labor, William B. Wilson, a longtime official of the United Mine Workers union, however, did not have the animus toward immigrants held by many labor leaders. His Commissioner of Ellis Island, Frederick C. Howe, was a philosophical ally of Robert Watchorn. While Howe did not have views concurrent with some other Labor Department officials, including his immediate superior Commissioner General of Immigration Anthony Caminetti, he had the support of Wilson and Assistant Secretary of Labor Louis Post.

*Frederick C. Howe's efforts.* Howe's goal was the complete "humanization" of Ellis Island. The temporary occupants of the station, he said, were human beings, not digits in an annual report. He ordered the employees of the island to treat immigrants with respect and, as one of his first acts, ordered the construction of playgrounds for children and opened restricted grassy areas for adults. His two predecessors, Howe noted, had done a fine job improving conditions of Ellis Island, and now it was time to refine their efforts. But World War I immediately altered his plans.[19]

The war severely restricted the flow of immigration. By late 1915, the island's staff faced a turnabout in their work environment. Almost 900,000 people passed through the island during fiscal year 1914, but the number declined to less than 200,000 in 1915 and to less than 30,000 by 1919. During the harsh winter of 1915, Howe provided sleeping quarters on the island to the indigent of New York, but this did not affect the staff. The previously overworked employees now faced Federal reductions-in-force. Howe complained that personnel reductions were harmful and would impair efficiency by decreasing morale. The previously excessive workloads would become normal because of a slack in immigration, he said, so the staff levels should be maintained. "Should immigration materially increase (following the war)," he told Secretary Wilson, "it will require considerable time to restore the staff operations to its former degree of efficiency." Immigration remained low until 1919, but personnel cutbacks resulted in Howe working many of the 400-person staff (650 was the pre-war level) overtime and in functions unfamiliar to employees.[20]

One of the war-related problems was that the island became a domicile for detained and potentially deportable immigrants unable to return to their conflict-ridden homelands. Detention periods extended from weeks to years, and Howe ordered the creation of schools and recreational areas. When some immigration employees protested that the grass and shrubs would be ruined, Howe answered that live babies took precedence over live grass. Buildings received fresh coats of colorful paint and plants were hung in all buildings; some members of the press criticized Federal expenditures for plants until they discovered Howe had paid for them from his own salary.[21]

Special efforts were made to provide for a healthy environment. Island staffers coordinated immigrant recreational events such as baseball games and sewing bees. Immigrant benevolent societies arranged for ethnic celebrations: and Americanization themes dominated events such as patriotic concerts. Immigrant children competed in essay contests describing the American way of life and were rewarded by raising the American flag in special ceremonies. Mrs. Harry Payne Whitney, of Whitney museum fame, donated over 30 paintings and statuary depicting immigrant contributions to America to adorn the grounds and the buildings of Ellis Island.[22]

Critics asked why the Ellis Island commissioner devoted so much time and effort to Americanize potentially deportable immigrants? Howe answered them by releasing some detainees labeled "likely to become a public charge"

to sponsors on the mainland providing homes and employment. He conducted similar "work-release" programs for women charged with "moral turpitude," believing that such crimes were the results of poverty and lack of opportunity, not innate proclivities. In one 18-month period, only 6 of 340 people released had failed the program and other release groups had similar success ratios.[23]

Howe also tried to improve conditions for the Federal employees of Ellis Island. He persuaded the Secretary of Labor to give promotions to deserving employees and arranged for a guest lecture series for the staff; Secretary Wilson and former President William Howard Taft were among the speakers in this forum. Howe also published a series of articles on the competency and integrity of the workers at the complex. "I have never known a group of 500 men and women," he said in one article, "either in public or private work, who were more devoted to their employment or more willing to be of personal service than the government employees stationed at Ellis Island."[24]

*Efforts turn to controversy.* It was the promotion of Howe's own employees over the interests of private contractors that engulfed him in a major controversy. The private concession for feeding immigrants and operating the public restaurant on Ellis Island had been a source of anguish to all commissioners. When the contract for Hudgins and Dumas Co. expired in 1916, Howe did not renew it, operating the concession "in house" with Federal employees. The constant temptation for contractors to reduce food quality and quantity, he said, made such an action necessary. This step, however, aroused much protest from New York businessmen and especially from Congressman William Bennet, a former attorney for Hudgins and Dumas. Secretary Wilson feared a major political problem would develop and ordered Howe to award a contract to a concessionaire.[25]

This was not the sole controversy of Howe's administration. Many immigrants were taken advantage of by employment agents, transportation companies, boardinghouse operators, and other commercial interests. Howe proposed the creation of an Immigration Bureau to oversee the process of relocating aliens away from congested labor surplus areas. Even though he only got an immigration information division similar to the one Robert Watchorn created, it raised protest from businessmen who earned considerable profit from the immigration trade. When Howe broke up a pooling arrangement between steamship lines and railroads, stating, "immigrants should not be sent around Robin Hood's barn because the railroads decreed no single road should get the bulk of traffic," it spawned a letter-writing campaign to the Congress for his removal. Howe also disguised Federal employees as immigrants and uncovered fraud of up to $12 million propogated by area bankers; this, of course, drew the wrath of the less than honest members of the financial community.[26]

Cries for Howe's removal escalated inversely to the level of world-wide conflict. As the war waned, his critics, especially steamship lines, increased pressure on their lobbyists to persuade the Congress to restrict the commissioner's activities. Some officials of several steamship lines even paid an immigrant woman $500 to accuse Howe of engaging in illicit relationships with her and other immigrant women on Ellis Island. Secretary Wilson investigated and found all such charges against Howe were false, but pressure for removal from office did not abate until he resigned in September of 1919—10 months after the war terminated.[27]

Several other problems plagued the administration of Ellis Island during and after Howe's departure. On July 30, 1916, German saboteurs dynamited a munitions storage area near the island, and, while the only serious casualty of the "Black Tom Explosion" was a cat, property damage to the buildings and grounds was extensive. The military commandeered part of the complex to detain prisoners of war following America's entry into the conflict in 1917, and the detainees, confined to overcrowded facilities, conducted several mini-riots in protest. Conditions deteriorated to the point that the local chapter of the National Federation of Federal Employees filed an official protest over wage and working conditions with Howe's successor, Acting Commissioner Byron Uhl. Soon afterward, Secretary Wilson told Assistant Secretary Louis Post and Immigration Commissioner General Anthony Caminetti to "visit Ellis Island and clean up the mess."[28]

## Immigrant radicals

With the end of World War I came one of the most controversial and notorious events in the history of civil rights, and Ellis Island was an integral part of the drama. War hysteria, fueled by yellow journal newspapers and eugenical publications, promoted the postwar phenomenon called the "red scare." The ghost of Bolshevism seemed, to many Americans, to haunt the land in the specter of immigrant radicals, especially after the 1919 wave of industrial unrest in immigrant-dominated work forces of the coal, steel, meatpacking, and transportation industries. In 1919, an anarchist placed a bomb on the doorstep of Attorney General A. Mitchell Palmer, and, while the blast's only victim was the would-be terrorist, it sparked Palmer and his assistant, J. Edgar Hoover, into a crusade to deport all alien "reds."

Department of Justice marshals swept into immigrant union halls, fraternal society meeting houses, dance halls, and saloons, arresting aliens en masse, often without warrants or concern for due process, under Palmer's orders. While Howe was commissioner only 60 of the 697 arrested aliens were actually deported for willful advocacy of the overthrow of the Federal Government (including membership in the Communist Party). But when Howe was away, and again after his departure, Acting Commissioner Uhl and Commissioner General Caminetti enthusiastically assisted the Justice Department. Ellis Island became a jail for the potential deportees and disembarkation point for shipment overseas.[29]

A heated political and administrative conflict occurred when Justice Department and Labor Department leaders interpreted the immigration laws differently. Secretary of Labor Wilson and Assistant Secretary Post believed the laws, which denied juridical rights to aliens and left their fate in the administrative hands of the Secretary of Labor, were poorly written and ambiguous. They believed that aliens should only face deportation if they openly advocated violent overthrow of the Government. Justice officials viewed membership in a radical organization as a deportable offense. When these officials arrested and scheduled deportation for more than 300 aliens in December 1919, Wilson, who believed some of the detainees were deportable, ordered a stay of deportation for aliens having families (who could not be deported even voluntarily under the immigration laws). All aliens arrested and taken to immigrant stations other than Ellis Island were spared, but Uhl, collaborating with Palmer and Hoover, ignored his superior's order and allowed 249 persons, including anarchists Emma Goldman and Alexander Berkman, to be deported.[30]

Apparently encouraged by their success, Hoover and Palmer ordered a massive arrest program in January 1920. Thousands of aliens, many of whom had attained U.S. citizenship, were arrested without warrants and placed in temporary jails to await transportation to Ellis Island. Immigration Commissioner Caminetti approved of *ex post facto* warrants and held special boards of inquiry to process deportation papers without notifying the Secretary of Labor, with whom responsibility for such a procedure rested.

After Wilson became ill, Assistant Secretary Post took immediate steps to correct the illegal and unethical actions of his subordinate. He ordered Caminetti to forward all cases to him and release all detainees on bail until the review process was complete. Post also told J. Edgar Hoover to cease interrogating aliens detained at Ellis Island unless approved by an official board of inquiry sanctioned by the Secretary of Labor or himself. Immigration officials, citing lack of evidence and a low percentage of "guilty" findings of those arrested previously, began refusing warrant requests from Justice officials.[31]

This battle between the two departments continued into the summer of 1920, but it was clear that the Labor Department would not let Ellis Island become a court of star chamber. When Attorney General Palmer ordered his agents to censor the mail of detained aliens on Ellis Island, Labor Department Solicitor Rowland B. Mahany informed him that censorship in peacetime would not be tolerated. Palmer withdrew all but a token force of agents from Ellis Island and other immigrant stations. By mid-1920 the "red scare" had abated, and Post, who faced a Congressional impeachment hearing for his stand against injustice, commented, "We have been going through a state of hysteria. Folks will look back with regret for having made fools of themselves, but there is nothing like a panic to make fools of us all."[32]

## Restrictions begin, Island closes

Historian John Higham contends that the notion of 100 percent Americanism emerged from World War I and manifested itself in measures to restrict immigration. Ellis Island witnessed an immediate surge in postwar immigration, but soon afterward experienced a decline attributable to xenophobia. President Woodrow Wilson pocket-vetoed an immigration restriction bill in February 1921; however, the Congress reintroduced and passed it in April. President Warren G. Harding signed the Quota Act of 1921 into law on May 19th. The new Secretary of Labor, James J. Davis, approved of restrictive ideology stating, "I would say that the regulation of immigration is about the most important (issue facing him)". Davis even wrote a book entitled *Selective Immigration* in which he lamented the "mongrelizing" influences on American society wrought by the new immigrants.[33]

But the Quota Act of 1921 would have affected Ellis Island regardless of the philosophical leanings of the Secretary of Labor. It limited the number of foreign nationals allowed entry to 3 percent of their compatriots in the United States, according to the census of 1910; no more than 20 percent of the admissible number could arrive in a single month. The Quota Act of 1924 limited the number further by basing entry quotas on the census of 1890, when even fewer immigrants from Eastern and Southern Europe lived in the United States. Ellis Island assumed the role of a detention center for potential deportations more than of an entry-processing center because immigrant inspections began to occur to an increasing degree in Europe, and also because of the policies of the next Secretary of Labor, William N. Doak (1930–33). Doak so intently wanted to relieve the United States of a perceived foreign menace that he resurrected the Hooverian practice of mass arrests and deportations; this earned for Doak the nicknames "Secretary of Sedition" and "Deportation Chief." While several thousands of immigrants still passed through the station at the Port of New York, totals would never again approach those of 1903–14. And, conditions on the island during the Doak-Depression years reverted to those of the corrupt Fitchie administration, not to improve until 1934. In 1940, the responsibility for administering the immigration laws was transferred to the Department of Justice along with the responsibility for Ellis Island.[34]

The days of massive immigration, however, had passed. Ellis Island served its primary function for only 14 more years, and decay and disrepair had already set in when the doors closed in 1954. But the new historic site has generated considerable attention and enthusiasm; plans for reenactments of the immigrant experience—living history—have already been formulated. The administrative and institutional details of that experience, one hopes, will not be lost, and the roles played by both the Department of Commerce and Labor and the Department of Labor will not be forgotten. □

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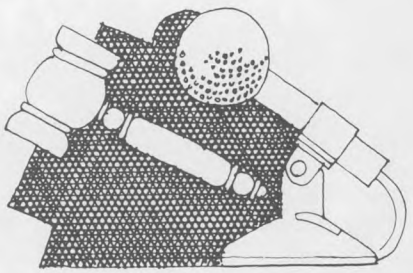

# Conventions

## Communications Workers focus on bargaining with AT&T

STEVEN M. DONAHUE

With the theme, "we're union, family, and proud," and promises that no concessions will be given to profitable companies, the Communications Workers of America (CWA) met in Washington, DC, for their 48th annual convention. Convention activities centered on current and pending negotiations, organizing, the union's finances, and the election of officers. In most of these actions, the influence of CWA's Committee on the Future and the effects of corporate divestiture were apparent. Gaveling the convention to order for the first time was Morton Bahr, who replaced Glenn Watts as president when the latter retired in 1985.

*Bargaining*. For the CWA, 1986 will be filled with critical bargaining activity. For the first time, the union will negotiate with an American Telephone and Telegraph Co. (AT&T) divested of its operating arms, which have become the Regional Bell Operating Companies. Also scheduled for negotiations are agreements at the General Telephone Co. subsidiaries across the United States, the ALLTEL system, four units of the Continental System, and public sector workers in a number of States, most importantly, New Jersey.

AT&T negotiations began April 2 after the union and the company agreed to move the scheduled August 9, 1986, contract expiration date to May 31. Expiration of the Regional Bell Operating Companies' contracts will remain August 9. President Bahr noted that the early negotiations at AT&T ". . . allow us to concentrate our resources and energies on these talks so that in turn, we can focus better on the task of bargaining with the Regional Bell companies later on." In support of bargaining, the Executive Board authorized the transfer of $1 million from the general fund to the defense fund, permitting Communication Workers to strike June 1 in the event an agreement is not reached. The negotiations will be conducted on behalf of 155,000 employees. In concurrent bargaining, the International Brotherhood of Electrical Workers will represent an additional 40,000 workers, making this round of negotiations the largest single-employer talks to be held during 1986.

Negotiations with General Telephone began in March at General of California and will continue through December at nine other sites. At ALLTEL, another independent system, talks also run through the end of 1986, while bargaining with the four units of Continental will take place in September and November.

Citing increased profits and continued growth in the telecommunications industry, in particular, at AT&T and the regionals, Bahr told the convention that the union will seek a base wage increase and will oppose a two-tiered wage structure. In the California negotiations with General Telephone, union leaders rejected a two-tiered proposal that would have downgraded jobs held predominantly by women. In the AT&T negotiations, said Bahr, the union's goal is to obtain a fair settlement which would also keep the company financially healthy without the need for a two-tiered wage structure. In justification, Bahr noted that telecommunications worker productivity had increased at an average rate of 6 percent per year for the past 10 years, a period when U.S. industry overall experienced negative productivity growth rates. In addition, he cited financial reports which stated that AT&T had net profits of $1.56 billion in 1985, and quoted forecasts for an additional 8 percent profit increase during 1986. Moreover, all seven regional companies reported higher profits in 1985.

According to CWA officials, the divestiture of AT&T has cost union members 53,000 jobs over the past 12 months. Decrying the increased contracting out of union jobs to nonunion subsidiaries and outside contractors, the union has made establishment of a training and retraining program for CWA employees at AT&T a major goal. The retraining program, Bahr said, could be designed to parallel the Ford–UAW training and development program currently in place. Ford has established a fund for the purpose of training and retraining to be used by all employees, including those facing layoff. It is funded by a 5-cent-per-hour setaside paid for by Ford. A similar program at AT&T would enable CWA members to fill job openings in other parts of the company. The union is also seeking comparable jobs within the company for employees affected by work force adjustments and plant and office closings. Bahr noted that his members will have to become more mobile as jobs and opportunities emerge in various parts of the country.

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The convention was told that a major change in bargaining being introduced this year employs much of the same technology currently causing layoffs in the telecommunications industry. An electronic hookup using 'Easylink' satellite services will allow local unions to receive up-to-date information pertaining to AT&T district bargaining matters anywhere in the country. In addition to this daily hook-up, a nationwide conference is planned via the PBS TV network which will be beamed into closed door meetings on PBS' private downlinks. CWA's nationwide conference will allow stewards across the country to communicate face-to-face and will expedite the free exchange of necessary information on a more timely basis. The resulting rapid communication should forestall, said the Committee on the Future in its 1983 report, Regional Bell management from using whipsaw strategies and would limit internal dissent over perceived contract inequities among regions. The May 24 meeting was attended by local stewards in more than 40 cities.

Another concern of the CWA centers on health care cost containment. Bahr noted that health care costs have escalated dramatically in the past few years and that the union intends to work with AT&T to control them. The union, however, will not allow AT&T to control its costs by shifting the burden to union members and other employees, Bahr said. Such a strategy was attempted at General Telephone in early 1986 negotiations. Delegates also passed a resolution which called for the union to work for enactment of a national health care cost containment bill and to support multiunion and coalition attempts (including labor-management cooperative programs) to control costs.

In conjunction with the opening of the 1986 bargaining round, the CWA unveiled an extensive public relations compaign aimed at the Nation's decisionmakers and the general public. The program began in April with a full-page ad in a major U.S. newspaper. The cost to the national union for the overall program is expected to be approximately $1 million and does not include local participation in the program. The advertising, which will also be in broadcast form, revolves around the theme of "fair settlements from profitable companies." In addition to this ongoing campaign, there were special advertisements on Mother's Day, one of the largest phone calling days of the year. This Mother's Day campaign provided free phone calls, special local newspaper supplements, and Mother's Day cards for specified AT&T and Regional Bell employees, and revolved around the theme, "Ma Bell's gone but the CWA family lives on." Both campaigns were designed to draw positive public attention to the work of CWA members during national bargaining. The campaign arose from a recommendation of the Committee on the Future.

In public sector developments, the union noted job losses as work, formerly done by members, is contracted out by many local governments. Delegates passed a resolution which resolved to fight privatization of public sector work and to make any nonunion firm which accepts privatized work a target of union organizing drives.

*Organizing.* Faced with the continuing erosion of membership in an industry which has dropped from 100 percent unionization to 38 percent, organizing has become a major goal of the CWA. Delegates were notified of recent successful organizing campaigns and amalgamation agreements. In the public sector, major representation elections were won in New Jersey at Passaic County's Board of Social Services, at the University of Toledo (OH), and among environmental protection employees in western New York. The 5,800-member Union of Telegraph Employees voted to recommend a merger with the CWA, and 10,000 members of the Telephone Traffic Union in upstate New York have already merged.

In keeping with the recommendations of the Committee on the Future, CWA is targeting public sector workers as a major component of organizing campaigns. The Committee recommended that external growth be centered mainly on the information/service sectors, which is one of the fastest growing segments of the American economy. The establishment of a national vice president for public workers was the first step in this strategy. To date, the CWA is the bargaining agent for more than 80,000 public sector workers. "In addition," said Bahr, "we are establishing new lines of cooperation with the American Federation of State, County and Municipal Employees International Union and others that will lead to a cooperative effort to organize millions of unorganized government and service workers in this country."

Future organizing campaigns are being undertaken, the convention delegates were told, as part of AFL–CIO coordinated campaigns at both Northern Telecom and Blue Cross/Blue Shield. In the Blue Cross coordinated campaign, the CWA has been awarded jurisdiction in New York City and Denver. The union has already negotiated a neutrality agreement with Blue Cross of New York City under which the company agreed not to oppose CWA. The organizing campaign at the 29 plants of Northern Telecom is being coordinated by the AFL–CIO's Industrial Union Department. Northern Telecom is one of AT&T's largest U.S. telecommunications equipment competitors.

In addition, organizers for CWA have laid the groundwork for a campaign at the IBM Corp., long a bastion of nonunion work forces. While no details were given pertaining to the IBM campaign to ensure needed secrecy, delegates were told that IBM employees had been contacted. Said Bahr, "IBM Workers United has been born and has chapters around the United States. We are providing assistance and encouragement to this fledgling organization." CWA is also meeting with labor leaders around the world to extend IBM organizing to other countries.

The CWA has also targeted AT&T competitors in the telecommunications industry for organizing. Bahr stated

that organizers already are actively contacting MCI employees.

*Finances.* Secretary–Treasurer James Booe noted in an addendum to the financial committee's report that the union was experiencing a cash flow shortage which, if not treated, would entail cutbacks or dues increases by the 1987 convention. According to the *Report of the Finance Committee,* it expects a cash shortage of approximately $3.5 million by 1987. Booe blamed the revenue shrinkage on new losses averaging an additional 1,500 dues units each month, most arising from divestiture.

Delegates to the convention rejected a proposal by the union's officers to make the convention biennial as a cost-saving measure. Citing increased expenses at a time of constricting membership, executive board officers estimated substantial annual savings if biennial conventions were to start in 1989. But delegates maintained that the union needed to continue the tradition of democracy which the CWA had built up over the years. A second amendment to hold conventions every 18 months was also rejected by convention delegates.

*Elections and other activities.* The completion of the CWA restructuring program reduced the number of districts from 13 to 8, resulting in the displacement of 5 incumbent district directors. The new districts were designed to parallel the Regional Bell Operating Companies' geographical structure. Elected as district vice presidents were: Jan D. Pierce, R. Ben Porch, Martin J. Hughes, Walter Maulis, Harry Ibsen, Pete Catucci, T.O. Parsons, and Vincent Maisano. In addition, M.E. Nichols and John C. Carroll were both reelected unanimously as executive vice presidents. In the national bargaining unit elections, James Irving was named AT&T communications vice president, Ronald J. Allen was elected vice president for AT&T technologies, John Browning retained his seat as vice president for communications, and Connie Bryant was elected as the first vice president for public workers. The addition of two national bargaining unit vice presidents and the transformation of two national directors into bargaining unit vice presidents arose from recommendations of the CWA's Committee on the Future, which suggested that strategy centers be created to allow the union to deal creatively and directly with external power centers (that is, AT&T).

Delegates to the convention passed a resolution supporting the AFL–CIO boycott of Royal Dutch Shell and its subsidiaries. The boycott was called because of Shell's mining and exploration activities in South Africa. In a related matter, delegates also called for complete removal of Bierne Foundation funds which are invested in South Africa. It was noted that the Foundation still had investments in two companies which do business in South Africa.

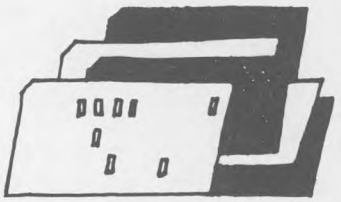
Speakers at the convention included Senator Edward Kennedy of Massachusetts, Representative James Wright of Texas, Washington, DC Mayor Marion Barry, United Farm Workers President Cesar Chavez, and AFL–CIO President Lane Kirkland. □

**Postscript: CWA workers strike**

A nationwide strike by 155,000 CWA members at AT&T began when the existing contract expired on May 31. However, the parties continued to negotiate on issues involving wages, job security, and changes in job classifications and pay levels.

Further information on the talks will be reported in the "Developments in Industrial Relations" section of future issues of the *Review*.

# Research Summaries



## Displaced workers: one year later

RICHARD M. DEVENS, JR.

In January 1984, a special supplement to the Current Population Survey (CPS) focused on the extent of worker displacement in the labor force.[1] Using the data collected in that supplement, the Bureau of Labor Statistics defined displaced workers as those adults who, after holding a job for 3 years or more, lost or left that job because of plant shutdown or relocation, slack work, or abolishment of shift or job during January 1979 to January 1984. In several reports, BLS determined that 5.1 million persons were categorized as displaced under that definition in January 1984.[2] At the time of the survey, about three-fifths of those persons identified as displaced were employed again, about a quarter were unemployed, and the remainder were not in the labor force. About one-fourth of those displaced from a private nonagricultural job were reemployed in the same broad industrial classification as the job they had lost, while one-third returned to the same broad occupational group. Among workers who had been displaced from full-time wage and salary jobs and were reemployed in such positions, about half had weekly earnings at least as high as they had on the prior job, while more than one-fourth experienced earnings losses of 20 percent or more. What happened to these workers subsequently? Did the unemployed find jobs? Did the employed upgrade their status?

Using the longitudinal potential of the CPS, this report provides information on changes in the labor market status of displaced workers between January 1984 and January 1985. It must be noted at the outset that the use and analysis of longitudinal CPS data have technical limitations which have received much attention in the statistical community. The results of this research suggest that these types of data be treated with some circumspection and that analyses from such data be made with caution.[3] (See box.) The following sections report on the January 1985 status of workers identified in January 1984 as displaced whose CPS micro-record could be matched with a January 1985 CPS record, and on the changes in that group's labor force status.

In January 1985, workers displaced between January 1979 and January 1984 were more likely to be working and less likely to be unemployed than they had been a year earlier. Seventy-one percent of the displaced men were employed in January 1985, compared with 64 percent a year earlier and 61 percent of the women, compared with 53 percent in 1984. (See table 1.) Overall, about 30 percent of displaced workers had changed status over the year, compared with about half that change for the rest of the working-age population. Displaced workers in all labor force categories were more likely to have moved into employment and less likely to have left the labor force than comparable workers who were not displaced. (See table 2.)

A little more than half the displaced workers who were unemployed in January 1984 had jobs in 1985; among men, the remainder were more likely to still be unemployed, while women were more likely to be out of the labor force. (See table 2.) There were divergent developments in the labor market status of displaced workers of the various racial and ethnic groups. Among both blacks and whites, about 88 percent of those employed in January 1984 also were employed in 1985, while among Hispanics, that proportion was about 81 percent.[4] Hispanic workers who had been employed in 1984 were somewhat more likely to be unemployed in January 1985 than were whites or blacks. (See table 2.)

Among the unemployed of January 1984, 50 percent or more of both white and Hispanic workers were employed in

**Table 1. Employment status of displaced workers by sex, race, and Hispanic origin, January 1985**

[Percent distribution]

| Characteristic | Total | Employed | Unemployed | Not in the labor force |
|---|---|---|---|---|
| Total | 100.0 | 67.3 | 12.4 | 20.4 |
| Men | 100.0 | 71.0 | 15.2 | 13.8 |
| Women | 100.0 | 61.0 | 7.5 | 31.6 |
| White | 100.0 | 69.2 | 11.1 | 19.7 |
| Black | 100.0 | 51.2 | 22.0 | 26.7 |
| Hispanic origin[1] | 100.0 | 66.5 | 11.2 | 22.3 |

[1] Hispanics are included in both the white and black population groups.

NOTE: Data refer to persons age 20 and over with tenure of 3 years or more who lost or left a job between January 1979 and January 1984 because of plant closings or moves, slack work, or the abolishment of their positions or shifts.

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## Table 2. Labor force transition rates for displaced workers by sex, race, and Hispanic origin, January 1984 to January 1985

[Percent]

| Labor force category | Displaced workers, 20 years and over[1] | | | | | | Others, 20 years and over |
|---|---|---|---|---|---|---|---|
| | Total | Men | Women | White | Black | Hispanic origin[2] | |
| From employed to— | | | | | | | |
| Employed | 87.9 | 88.8 | 85.9 | 87.8 | 89.1 | 80.8 | 89.4 |
| Unemployed | 7.8 | 9.2 | 4.6 | 7.7 | 8.4 | 11.5 | 3.0 |
| Not in labor force | 4.3 | 1.8 | 9.5 | 4.5 | 3.5 | 8.5 | 7.6 |
| From not in labor force to— | | | | | | | |
| Employed | 53.0 | 53.5 | 52.1 | 55.3 | 42.4 | 50.0 | 47.8 |
| Unemployed | 27.5 | 31.8 | 18.7 | 24.3 | 42.4 | 15.0 | 26.3 |
| Not in labor force | 19.5 | 14.6 | 28.8 | 20.3 | 15.2 | 35.0 | 25.9 |
| From unemployed to— | | | | | | | |
| Employed | 19.8 | 17.1 | 21.8 | 19.5 | 15.3 | 32.0 | 10.8 |
| Unemployed | 5.5 | 8.9 | 2.7 | 4.2 | 12.6 | 4.0 | 2.5 |
| Not in labor force | 74.6 | 73.7 | 75.5 | 76.3 | 72.1 | 64.0 | 86.7 |

[1] Data refer to persons age 20 and over with tenure of 3 years or more who lost or left a job between January 1979 and January 1984 because of plant closings or moves, slack work, or the abolishment of their positions or shifts.

[2] Hispanics are included in both the white and black population groups.

NOTE: The transition rate represents the proportion of workers in the first labor force category in January 1984 who were in the second labor force category in January 1985.

## Table 3. Reemployed wage and salary workers by industry of lost job and industry of job held in January 1985

[Percent distribution]

| Industry of job lost | Total displaced workers | Industry of job held in January 1985 | | | | | | | | | | | Percent not employed[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mining | Construction | Manufacturing | | Transportation and public utilities | Wholesale trade | Retail trade | Finance, insurance, and real estate | Services | | Public administration | Farming, forestry, and fisheries | |
| | | | | Durable | Nondurable | | | | | Professional services | Other services | | | |
| Minining | 100.0 | 19.8 | 10.4 | 0.9 | — | 10.4 | 4.7 | 6.6 | 2.8 | 6.6 | 10.4 | — | — | 27.4 |
| Construction | 100.0 | .3 | 36.4 | 3.7 | 0.3 | 2.4 | 1.4 | 7.1 | 2.4 | 14.6 | 7.5 | 8.2 | — | 15.7 |
| Manufacturing | 100.0 | .1 | 3.4 | 21.3 | 10.8 | 5.0 | 4.1 | 7.1 | 2.0 | 6.1 | 5.1 | 1.4 | .2 | 33.4 |
| Durable goods | 100.0 | .1 | 4.0 | 27.4 | 4.5 | 5.7 | 4.2 | 7.3 | 1.3 | 3.6 | 5.3 | 1.5 | .3 | 34.8 |
| Nondurable goods | 100.0 | — | 2.2 | 8.2 | 24.6 | 3.5 | 3.7 | 6.7 | 3.5 | 11.4 | 4.8 | 1.1 | — | 30.3 |
| Transportation and public utilities | 100.0 | — | 11.1 | 5.1 | 3.7 | 25.5 | 3.7 | 6.9 | .9 | 3.7 | 1.9 | 1.4 | 1.9 | 34.2 |
| Wholesale | 100.0 | — | 1.7 | 9.9 | 3.9 | 11.0 | 20.4 | 5.5 | 9.4 | .6 | 3.9 | — | 3.3 | 30.1 |
| Retail trade | 100.0 | — | 0.3 | 5.5 | 1.2 | 0.9 | 7.6 | 35.9 | 2.0 | 7.0 | 6.4 | — | — | 33.2 |
| Finance, insurance, and real estate | 100.0 | — | 5.8 | — | — | 13.5 | — | — | 17.3 | 15.4 | 36.5 | 5.8 | — | 5.7 |
| Services | 100.0 | — | 4.7 | 5.9 | 2.8 | 1.2 | 4.3 | 13.7 | 1.6 | 20.5 | 20.5 | 2.8 | — | 22.0 |
| Professional services | 100.0 | — | 3.9 | 6.8 | 8.7 | — | — | 16.5 | 1.0 | 39.8 | 6.8 | 1.0 | — | 15.5 |
| Other services | 100.0 | — | 5.5 | 5.5 | — | 1.8 | 6.4 | 12.3 | 1.8 | 11.0 | 26.9 | 3.7 | — | 25.1 |

[1] Data for 1984 include nonagricultural workers in private industry.

[2] Includes displaced persons who are considered out of the labor force as well as those unemployed.

NOTE: Data refer to persons age 20 and over with tenure of 3 years or more who lost or left a job between January 1979 and January 1984 because of plant closings or moves, slack work, or the abolishment of their positions or shifts.

## Table 4. Reemployed workers by occupation of lost job and occupation of job held in January 1985

[Percent distribution]

| Occupation of lost job | Total displaced workers | Occupation of job held in January 1985 | | | | | | Percent not employed[1] |
|---|---|---|---|---|---|---|---|---|
| | | Managerial and professional specialty | Technical, sales, and administrative support | Service occupations | Precision production, craft, and repair | Operators, fabricators, and laborers | Farming, forestry, and fishing | |
| Managerial and professional specialty | 100.0 | 29.5 | 29.1 | 6.4 | 7.9 | 4.9 | — | 22.2 |
| Technical, sales, and administrative support | 100.0 | 10.6 | 42.5 | 5.1 | 8.0 | 4.0 | — | 29.8 |
| Service occupations | 100.0 | 4.8 | 9.6 | 33.5 | 5.9 | 6.4 | — | 39.8 |
| Precision production, craft, and repair | 100.0 | 5.6 | 6.8 | 6.6 | 30.9 | 18.7 | .3 | 31.1 |
| Operators, fabicators, and laborers | 100.0 | 1.3 | 6.9 | 7.6 | 9.1 | 35.0 | 1.0 | 39.1 |
| Farming, forestry, and fishing | 100.0 | 21.2 | 5.8 | — | 9.6 | 26.9 | 7.7 | 28.8 |

[1] Includes displaced persons who are considered out of the labor force as well as those unemployed.

NOTE: Data refer to persons age 20 and over with tenure of 3 years or more who lost or left a job between January 1979 and January 1984 because of plant closings or moves, slack work, or the abolishment of their positions or shifts.

1985, compared with 4 percent of black workers. Hispanic workers were far more likely than white or black to have moved from unemployed to not in the labor force.

Displaced workers not in the labor force in January 1984 tended to remain in that category, in large part because they were concentrated in the older age groups. Overall, about three-quarters of those not in the labor force in January 1984 were also out of the labor force a year later. This tendency was most pronounced among whites and least among persons of Hispanic origin. Hispanics were the most likely of the three major racial and ethnic groups to have moved from not in the labor force to employed, and black workers were the most likely to have moved from out of the labor force to unemployed.

A useful indicator of the degree to which displaced workers are reintegrated in the labor force is the proportion who return to the same industry or occupation.[5] In January 1985, the proportion of displaced workers who were reemployed in a private nonagricultural industrial group broadly similar to that of the job they lost was 28 percent. In January 1984, the corresponding proportion was 23 percent. The industries with the highest rate of rehiring were professional services (40 percent) and retail trade (36 percent); the lowest rate was in finance, insurance, and real estate, in which many workers, displaced from the industry, had found jobs in the services field. (See table 3.)

Among occupational groups, workers in technical, sales, and administrative support occupations were most likely to be reemployed in a broadly similar occupation; farming, forestry, and fishing workers were least likely. In all, by January 1985, 34.5 percent of displaced workers were reemployed in the same broad occupational group as they worked in at the job they lost. (See table 4.) This proportion is a slight change from that of a year earlier.

Another useful comparison to make in assessing the labor market experience of reemployed workers is to examine current earnings relative to previous earnings.[6] To minimize the effect of differences in hours worked on weekly earnings, the earnings data were compared only for persons who lost a full-time wage and salary position and were similarly reemployed. Among such workers, almost 60 percent earned as much or more in the January 1985 job as they had in the lost job. However, about 18 percent earned substantially less—20 percent or more—in their new job than they had earned in their previous employment. (See table 5.) In January 1984, only about half of the reemployed full-time wage earners made as much, or more, than they had in their old jobs and more than a quarter had suffered losses of 20 percent or more.

Overall, persons displaced during the 1979–83 period appeared to be generally better off in January 1985 than they had been in January 1984. Individuals were more likely to be working and, when employed in full-time jobs, were more likely to have matched their former earnings. A sizable group, however, continued to have difficulty in the labor

### Limitations of the data base

The 59,500 households that are interviewed in the monthly Current Population Survey (CPS) comprise eight national subsamples or rotation groups. One new group is introduced each month, is interviewed for 4 consecutive months, is out of the sample for 8 months, and is returned for 4 more months of interviews. Thus, in any 2 consecutive months, 75 percent of the addresses are common to each month, and, in months a year apart, January to January, for instance, 50 percent of the addresses are common. This sample rotation scheme gives the CPS its longitudinal flavor.

In all phases of administration of the CPS—sampling, interviewing, data preparation and processing—there are factors that affect the survey's usefulness as a longitudinal data base. For example, because the interviewer goes to a sample address, not to a household or specific persons living at an address, those who move into, or out of, a sample address between interviews cannot be matched. Other sources of difficulty include respondent bias (answering identical questions differently when there is no change in status), interviewer error, transcription mistakes, processing problems, and noninterviews.

The CPS is designed to provide accurate estimates of labor market activity in a particular month. Longitudinal aspects of the survey are a byproduct and, as such, are subject to defects and limitations that must be fully considered in any application of the data.

—Adapted from Ronald Dopkowski, "Practical Limitations on Using the CPS as a Longitudinal Survey," *Using the Current Population Survey as a Longitudinal Data Base,* Report 608 (Bureau of Labor Statistics, 1980), pp. 3–4.

**Table 5. Current earnings relative to previous earnings of displaced workers reemployed in full-time wage and salary jobs by industry of lost job, January 1985**

[Percent distribution]

| Industry of lost job | Earnings in January 1985 relative to those of lost job | | | | |
|---|---|---|---|---|---|
| | Total | 20 percent or more below | Below, but within 20 percent | Equal or above, but within 20 percent | 20 percent or more above |
| Total[1] | 100.0 | 17.9 | 15.6 | 24.5 | 34.9 |
| Construction | 100.0 | — | 11.1 | 33.3 | 55.6 |
| Manufacturing | 100.0 | 23.0 | 17.9 | 22.8 | 30.9 |
| Durable goods | 100.0 | 24.9 | 21.5 | 18.6 | 29.3 |
| Nondurable goods | 100.0 | 19.9 | 11.7 | 30.0 | 33.6 |
| Transportation and public utilities | 100.0 | — | 25.7 | 47.3 | 20.3 |
| Wholesale and retail trade | 100.0 | 10.5 | — | 38.9 | 40.7 |
| Finance and service industries | 100.0 | — | 17.3 | 15.4 | 67.3 |
| Public administration | 100.0 | 52.8 | — | — | 44.4 |

[1] Includes mining, not shown separately.

NOTE: Data refer to persons age 20 and over with tenure of 3 years or more who lost or left a job between January 1979 and January 1984 because of plant closings or moves, slack work, or the abolishment of their positions or shifts. Includes workers who did not report earnings on lost job.

market. For the most part, those with continuing difficulty were blacks, blue-collar workers, and persons formerly employed in manufacturing. More information on displaced workers will be available by the end of the 1986, when information from a second survey of displaced workers becomes available.[7] □

——*FOOTNOTES*——

[1]The displaced worker supplement was administered to all adult (20 years and older) respondents to the January 1984 Current Population Survey which is conducted by the Bureau of the Census for the Bureau of Labor Statistics. Those who answered in the affirmative to the question, "In the past 5 years, that is, since January 1979, has (name of respondent) lost or left a job because of a plant closing, an employer going out of business, a layoff from which (name of respondent) was not recalled, or other similar reasons?", were asked a series of more detailed questions about that job loss.

[2]"BLS Reports on Displaced Workers," USDL 84–492, Nov. 30, 1984; Paul O. Flaim and Ellen Sehgal, "Displaced workers of 1979–83: how well have they fared?" *Monthly Labor Review*, June 1985, pp. 3–16; and *Displaced Workers: 1979–83*, Bulletin 2240 (Bureau of Labor Statistics 1985).

[3]Robert W. Bednarzik and Richard M. Devens, Jr., eds., *Using the Current Population Survey as a Longitudinal Data Base*, Report 608 (Bureau of Labor Statistics, 1980); and *Proceedings of the Conference on Gross Flows in Labor Force Statistics* (Bureau of the Census and Bureau of Labor Statistics, June 1985).

[4]Hispanic origin includes both the white and black population groups.

[5]Michael Podgursky and Paul Swaim, "Labor Market Adjustment and Job Displacement: Evidence from the January 1984 Displaced Worker Survey" (Washington, Bureau of International Labor Affairs, November 1985), pp. 12 ff.

[6]*Ibid*.

[7]In January 1986, a second displaced workers supplement to the Current Population Survey was administered by the Census Bureau, sponsored jointly by the Employment and Training Administration and the Bureau of Labor Statistics. The data from the survey cover displacements over the January 1981–86 period.

## Occupational pay structure in petroleum refineries

Hourly earnings of production workers in the Nation's petroleum refineries averaged $14.20 in June 1985, according to a Bureau of Labor Statistics wage survey.[1] Just over nine-tenths of the 51,203 workers covered by the survey earned between $12 and $16 an hour; about one-half had earnings within a $1 range—$14.50 to $15.50. The number of refineries paying single rates for individual occupations contributed substantially to this narrow spread, as did the relatively large proportion of skilled workers in the industry, the concentrations of employment in relatively few large companies, and the high degree of collective bargaining with a single union (the Oil, Chemical and Atomic Workers International Union, AFL–CIO).

Refinery workers averaged 23 percent more in June 1985 than in May 1981, when the last survey was conducted.[2] This increase compares with a 22-percent rise in the wage and salary component of the Bureau's Employment Cost Index for all manufacturing industries between the second quarters of 1981 and 1985. The petroleum industry's wage change largely reflected increases granted to nearly seven-eighths of the workers under collective bargaining agreements. Provisions for automatic cost-of-living adjustments (COLA), triggered primarily by specified changes in the BLS Consumer Price Index, applied to less than 5 percent of the work force.

Among the eight geographic regions studied in 1985, pay levels for six fell within 4 percent of the industry's nationwide average ($14.20 an hour). Averages were about 10 percent below this mark in the Western Pennsylvania-West Virginia region and in the Texas Inland-North Louisiana-Arkansas region. Regionally, pay levels of production and related workers ranged from $12.65 in Western Pennsylvania-West Virginia to $14.62 in the East Coast region. Workers in the Texas-Louisiana-Gulf Coast region, where two-fifths of the industry's work force was concentrated, averaged $14.50 an hour.

Twenty-six occupations, accounting for nearly four-fifths of the production workers, were selected to represent the wage structure and activities of production and related workers in the industry. (See table 1.) Among these jobs, average hourly earnings ranged from $11.41 for laborers to $15.38 for chief operators of stills. Assistant operators, who help chief operators maintain stills, accounted for one-fifth of the industry's work force and averaged $14.45 an hour. Chief operators' helpers, who maintain required temperatures in furnaces of stills and pumpers, averaged $13.65 and $14.49 an hour, respectively.

Average hourly earnings of the nine journeyman maintenance trades studied were closely grouped—ranging from $14.07 for machinery mechanics to $14.82 for boilermakers. General mechanics, the most numerous of these workers, averaged $14.60 an hour. General mechanic includes skilled workers operating under maintenance craft consolidation plans (which combine two crafts or more into a single job), and mechanics working in small refineries where specialization in maintenance work is impractical. Maintenance trades helpers averaged $12.77—9 percent below the lowest paid journeyman trade studied.

Paid holidays, usually 10 days annually, were provided to all production workers in the industry. All refineries studied also provided paid vacations to their production workers after qualifying periods of service. Typically, workers received 2 weeks of vacation pay after 1 year of service, 3 weeks after 5 years, 4 weeks after 10 years, 5 weeks after 15 years, and 6 weeks after 30 years. Virtually all refinery workers were provided at least part of the cost of life, hospitalization, surgical, basic medical, and major medical insurance, as well as retirement plans. Dental insurance and full or partial paid sick leave were provided to just over nine-tenths of the workers. Accidental death and dismemberment insurance was available to slightly more than four-

**Table 1. Average straight-time hourly earnings and number of production and related workers in selected occupations, petroleum refineries, United States, June 1985**

| Occupation | Number of workers | Average (mean) hourly earnings[1] |
|---|---|---|
| Maintenance: | | |
| Boilermakers | 756 | $14.82 |
| Carpenters | 370 | 14.63 |
| Electricians | 1,316 | 14.69 |
| Helpers, maintenance trades | 717 | 12.77 |
| Instrument repairers | 1,490 | 14.74 |
| Machinists | 1,905 | 14.74 |
| Mechanics, general | 4,848 | 14.60 |
| Mechanics (machinery) | 534 | 14.07 |
| Pipefitters | 1,563 | 14.61 |
| Welders, hand | 783 | 14.58 |
| Processing: | | |
| Assistant operators | 10,513 | 14.45 |
| Chief operators | 6,063 | 15.38 |
| Chief operators' helpers | 2,135 | 13.65 |
| Compounders | 157 | 14.14 |
| Laborers | 1,252 | 11.41 |
| Loaders, tank cars or trucks | 539 | 13.20 |
| Package fillers, machine | 198 | 11.63 |
| Pumpers | 1,155 | 14.49 |
| Pumpers' helpers | 374 | 13.96 |
| Treaters, oils | 324 | 13.09 |
| Inspecting and testing: | | |
| Routine testers, laboratory | 1,904 | 14.13 |
| Recording and control: | | |
| Stock clerks | 561 | 13.92 |
| Material movement: | | |
| Truckdrivers[2] | 40 | 13.00 |
| Truckdrivers, medium truck | 12 | 12.74 |
| Truckdrivers, tractor-trailer | 96 | 12.57 |
| Power-truck operators[2] | 127 | 12.43 |
| Forklift | 120 | 12.43 |
| Custodial: | | |
| Guards[2] | 281 | 12.64 |
| Guards I | 71 | 12.22 |
| Janitors | 78 | 11.98 |

[1] Wage data are straight-time earnings which exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Cost-of-living pay increases (but not bonuses) were included as part of the workers' regular pay. Excluded were performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries as well as profit-sharing payments, attendance bonuses, Christmas or yearend bonuses, and other nonproduction bonuses.

[2] Includes data for subcategories not shown separately.

fifths of the work force; long-term disability insurance, to nearly three-fifths; and sickness and accident insurance, to two-fifths. Health plan coverage was usually financed jointly by the employer and employee.

The petroleum refining industry includes establishments engaged primarily in producing gasoline, kerosene, distillate fuel oil, residual fuel oils, lubricants, and other products from crude petroleum and its fractionation products. Production is accomplished through straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking, or other processes as defined in the *Standard Industrial Classification Manual, 1972,* prepared by the U.S. Office of Management and Budget.

The 142 refineries within scope of the survey (those with at least 100 workers) employed 51,203 production and related workers in June 1985, down 22 percent from the 65,566 recorded in May 1981. Employment declines among the eight regions studied ranged from 2 percent in the West Coast to 40 percent in the East Coast, but typically ranged from about 20 to 30 percent among the other six regions. Much of this employment loss resulted from a lesser demand for petroleum products and the increased use of computerized processing equipment and other technological innovations.

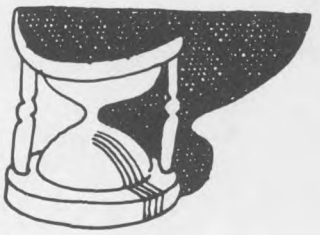
Gasoline—including naphtha—was the major product of refineries employing more than nine-tenths of the production workers covered by the survey. Other products included distillated fuel oil, residual fuel oil, jet fuel, lubricating oil, and asphalt. Most workers in the Western Pennsylvania–West Virginia region were employed in refineries that were primarily manufacturing products other than gasoline, usually lubricating oil or distillate fuel oil. Refineries employing nearly three-fifths of the industry's workers were also processing petrochemicals.

A comprehensive report on the survey findings of *Industry Wage Survey: Petroleum Refining, June 1985* (Bulletin 2255), may be purchased from the Superintendent of Documents, Washington, DC 20402, or from the Bureau of Labor Statistics, Publications Sales Center, P.O. Box 2145, Chicago, IL 60690. □

*FOOTNOTES*

[1] Wage data are straight-time earnings which exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Cost-of-living pay increases (but not bonuses) were included as part of the worker's regular pay. Excluded were performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries, as well as profit-sharing payments, attendance bonuses, Christmas or yearend bonuses, and other nonproduction bonuses.

[2] For summary findings of the May 1981 study, see "Pay in petroleum refineries outpaces manufacturing rise," *Monthly Labor Review,* February 1983, pp. 42–43.



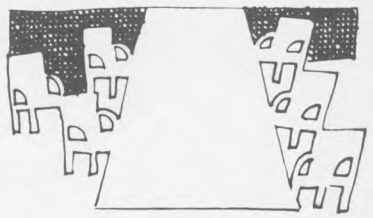
# Major Agreements Expiring Next Month

**This list of selected collective bargaining agreements expiring in August is based on information collected by the Bureau's Office of Wages and Industrial Relations. The list includes agreements covering 1,000 workers or more. Private industry is arranged in order of Standard Industrial Classification.**

| Industry or activity | Employer and location | Labor organization[1] | Number of workers |
|---|---|---|---|
| **Private** | | | |
| Construction | National Electrical Contractors Association, Inc., Southeast Texas Chapter, Houston Division (Texas) | Electrical Workers | 3,700 |
| | Roofing Contractors Association of Southern California, Inc., and others (California) | Roofers | 1,000 |
| Apparel | National Neckwear Conference (New York, NY) | Clothing and Textile Workers | 1,600 |
| Chemicals | Avtex Fibers Inc. (Interstate) | Clothing and Textile Workers | 1,500 |
| Leather | Massachusetts Leather Manufacturers Association (Massachusetts) | Leather Workers | 1,000 |
| Stone, clay, and glass products | Wheaton Industries (Millville, NJ) | Glass, Pottery, Plastics | 1,500 |
| Primary metals | Armco Steel Corp. (Interstate) | Steelworkers | 14,000 |
| | Jones & Laughlin Steel Corp. (Interstate) | Steelworkers | 32,000 |
| | Republic Steel Corp. (Interstate) | Steelworkers | 30,000 |
| | Sharon Steel Corp. (Interstate) | Steelworkers | 2,850 |
| | Bethlehem Steel Co. (Interstate) | Steelworkers | 49,000 |
| | United States Steel Corp. (Interstate) | Steelworkers | 102,000 |
| | Babcock & Wilcox Co., Tubular Products Division (Beaver Falls, PA) | Steelworkers | 4,500 |
| | National Steel Corp. (Interstate) | Steelworkers | 15,000 |
| | Inland Steel Co. (Interstate) | Steelworkers | 21,100 |
| | Northwestern Steel and Wire Co. (Sterling, IL) | Steelworkers | 1,600 |
| Fabricated metal products | Fisher Controls Co. (Marshalltown, IA) | Auto Workers | 1,300 |
| Machinery | Cameron Iron Works, Inc. (Houston, TX) | Machinists | 1,700 |
| | Timken Co. (Canton, OH) | Steelworkers | 8,000 |
| Communication | Regional telephone companies: Ameritech, Bell Atlantic, Bell South, Nynex, Pacific Telesis, Southwestern Bell, and U.S. West | Communications Workers; Electrical Workers (IBEW); and others | 375,000 |
| Utilities | Alabama Power Co. (Alabama) | Electrical Workers (IBEW) | 3,950 |
| | Wisconsin Electric Power Co. (Wisconsin) | Electrical Workers (IBEW) | 2,050 |
| Restaurants | East Bay Restaurant Association (Alameda, CA) | Hotel Employees and Restaurant Employees | 2,300 |
| | Hotel Employers Association of San Francisco (California) | Hotel Employees and Restaurant Employees | 5,000 |
| **Public** | | | |
| Education | Florida: Broward County teachers | Teachers | 7,700 |
| | Florida: Brevard County Board of Education, teachers | Teachers | 2,900 |
| | Illinois: University of Illinois (Chicago), clerical | Service Employees | 1,300 |
| | Illinois: Peoria Board of Education, teachers | Teachers | 1,050 |
| | Indiana: Fort Wayne Board of Education, teachers | Education Association (Ind.) | 1,500 |
| | Kansas: Kansas City teachers | Education Association (Ind.) | 1,500 |
| | Michigan: Warren Consolidated School District, teachers | Education Association (Ind.) | 1,100 |
| | New Mexico: Albuquerque Board of Education, teachers | Teachers | 4,800 |
| | Ohio: Columbus Board of Education, teachers | Education Association (Ind.) | 4,500 |
| | Pennsylvania: Philadelphia Board of Education, blue collar | Firemen and Oilers | 5,000 |
| General government | Ohio: Cincinnati general unit | Service Employees | 2,800 |

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

# Developments in Industrial Relations



## High court backs laid-off white teachers

The Supreme Court rejected an affirmative action plan that permitted black teachers in Jackson, MI, to retain their jobs while more senior white teachers were laid off. The plan had been instituted by the Jackson school board and the teachers' union after they had determined that the percentage of black teachers in the school system was substantially less than the percentage of black students. Despite the Court's ruling, it appears that the validity of using employment goals and quotas to equalize employment opportunities must await clarification in two cases scheduled to be heard by the Court this term. This is apparent from the fact that the Court was sharply divided in the Jackson case: there were three opinions by the five-member majority and two by the minority.

Not surprisingly, both proponents and opponents of the use of goal and quota systems claimed that the decision strengthened or at least did not nullify their positions. Terry Eastland, spokesman for the Department of Justice, said the decision "leaves for another case the bottom-line gut issue of when race may be taken into account in employment." During the arguments before the Court, Assistant Attorney General William Bradford Reynolds had expressed the Reagan Administration's position that affirmative action plans may not use quotas or goals and that the Government should intervene only on behalf of individuals who can prove that they are victims of specific acts of discrimination, rather than on behalf of groups or classes of people seeking redress of alleged broad patterns of discrimination.

The events leading to the decision began in 1973, when the school board and the Jackson Education Association revised the seniority provisions in their contract by providing that "at no time will there be a greater percentage of minority personnel laid off than the current percentage of minority personnel at the time of layoff." This change was based on a finding that in 1969, 15.2 percent of the students but only 3.9 percent of the teachers were black. When Jackson was forced to lay off teachers in 1981 and 1982, the contract requirement was followed and some black teachers were retained while several white teachers with more service were terminated. Eight of the laid-off white teachers then sued the school board, contending that the action violated their rights to equal protection under the Fourteenth Amendment to the Constitution. A Federal district judge ruled in favor of the school district, and his decision was upheld by the U.S. Court of Appeals for the Sixth Circuit.

In reversing the Court of Appeals' decision, the Supreme Court said that the board of education did, in fact, violate the equal protection clause of the Fourteenth Amendment. Writing for four members of the Court, Justice Lewis Powell rejected the Court of Appeals' position that the school board's efforts to provide "role models" for minority students or its efforts to reduce the effects of broad "societal discrimination" justified race-based layoffs. Justice Powell said, "This Court has never held that societal discrimination alone is enough to justify a racial classification. Rather, the Court has insisted upon some showing of prior discrimination by the governmental unit involved before allowing limited use of racial classifications to remedy such discrimination." In this case, Justice Powell said, there was no evidence that the school board had determined that prior discrimination in hiring teachers had actually occurred. In another aspect of the ruling, Justice Powell said the Court's 1977 ruling in *Hazelwood School District* vs. *United States* established that the proper statistical measure the school board should have used in assessing the makeup of the system's staff of teachers was the percentage of black teachers relative to the pool of available teachers, rather than relative to the racial composition of the student body.

In a concurring opinion, Justice Sandra Day O'Connor said that the petitioner had proved that the"layoff provision is 'not narrowly' tailored to achieve its asserted remedial purpose by demonstrating that the provision is keyed to a hiring goal that itself has no relation to the remedying of employment discrimination."

In another concurring opinion, Justice Byron White said the board's action clearly violated the equal protection clause of the Fourteenth Amendment, adding, "Whatever the legitimacy of hiring goals or quotas may be, the discharge of white teachers to make room for blacks, none of whom has been shown to be a victim of any racial discrimination, is quite a different matter. I cannot believe that in order to integrate a work force, it would be permissible to discharge whites and hire blacks until the latter comprised a suitable percentage of the work force."

In a dissenting opinion, Justice Thurgood Marshall, joined by Justices William Brennan and Harry Blackmun, said the Fourteenth Amendment does not prohibit "a union

"Developments in Industrial Relations" is prepared by George Ruben of the Division of Developments in Labor-Management Relations, Bureau of Labor Statistics, and is largely based on information from secondary sources.

and a local school board from negotiating a collective bargaining agreement that apportions layoffs between two racially determined groups as a means of preserving the effects of an affirmative hiring policy, the constitutionality of which is unchallenged." Justice Marshall accused the Court majority of overlooking the racial tensions and threats of litigation that prevailed when the job retention preference was adopted and concluded, "a public employer, with the full agreement of its employees, should be permitted to preserve the benefits of a legitimate affirmative-action hiring plan even while reducing its work force."

In a separate dissent, Justice John Paul Stevens said the board's efforts to attain "multi-ethnic representation" on the faculty were permissible under the Fourteenth Amendment.

## Eastern Airlines update

The travails of Eastern Airlines continue, but there was some hope for improvement in the financial condition of the carrier when the U.S. Department of Justice dropped its objections to Texas Air Corp.'s acquisition of Eastern (approval is still required from the Department of Transportation). In another unsettled matter, Eastern was continuing a court case to force the Machinists union to reopen its contract and negotiate wage and benefit reductions and changes in work rules similar to those negotiated by the Air Line Pilots and Transport Workers unions.

The latest series of crises at Eastern began in late 1985, when company chairman Frank Borman and president Joseph Leonard notified employees that, "the temporary [wage concession] programs that we have participated in since 1983 simply will not permit us to prosper in the new economic environment of our industry. . . . We must design and implement a restructuring of our employment costs that will allow us to resume the success of early 1985." During the first half of 1985, Eastern—which had not showed an annual profit since 1979—earned $46.4 million, but prospects for a full-year profit were dimmed by intensifying fare wars. (In fact, Eastern did show a profit of $6.3 million for the year.)

Following this announcement, Eastern informed the unions that its survival required a permanent pay cut of 22 percent; two-tier pay systems; changes in work rules, including more monthly flying time by plane crews; and some reduction in benefits. The proposed 22-percent pay cut would be only a few percentage points more than the temporary cuts the unions had negotiated in 1983. The temporary cuts—to apply only during 1984—were 20 percent for the 4,000 pilots represented by the Air Line Pilots Association; and 18 percent for the 6,800 flight attendants represented by the Transport Workers and for the 13,000 mechanics and related ground service employees represented by the Machinists union. In 1985, the Air Line Pilots and the Machinists had negotiated agreements with the carrier to restore the temporary cuts in January 1986. The Machinists contract, extending through 1987, also provided for pay increases in 1986 and 1987. The Transport Workers did not settle at the same time as the other unions, contending that Eastern refused to offer the same terms as those accepted by the other unions, and that Eastern's extension of the pay reduction into 1985 violated the 1983 agreement.

At yearend, the pressure on Eastern and the unions increased when the company's lenders set a March 31 deadline for negotiation and ratification of cost-reducing labor contracts. If the parties were unable to agree, the lenders could have seized Eastern's assets because the company would have been in default on it $2.5 billion in debts.

In mid-January, Eastern announced it was cutting 1,010 flight attendants from the payroll and was reducing the pay of the remaining attendants by 20 percent and increasing their flight hours to about 63 per month (from 52). Finally, the company said that it would institute a two-tier pay system. Eastern's action came after the expiration of a 30-day "cooling off" period declared by the National Mediation Board under the Railway Labor Act. The end of the 30-day period freed the union to strike and the company to impose contract changes or to lock out employees.

In late February, Frank Lorenzo, Chairman of Texas Air Corp., offered to buy Eastern. This impelled the unions to intensify efforts to settle on cost reductions and thus end the carrier's need for assistance from Lorenzo, who is viewed with disfavor by the unions because of his 1983 acquisition of Continental Airlines and subsequent dismissal of the union-represented employees, followed by resumption of operation at reduced pay levels. The Air Line Pilots settled as Eastern's board of directors was meeting to consider Lorenzo's offer. The Transport Workers claimed that it also settled at that time, but Eastern said that the document was never properly completed. Eastern rejected the Machinists' offer of a 15-percent pay cut because the union made it contingent on the resignation of company chairman Frank Borman. (Later, the airline initiated a lawsuit against the Machinists in an effort to force the union to negotiate on cost reduction measures, contending that the offer to cut pay in exchange for the resignation of Borman was a valid reopening of the contract.)

The 28-month Air Line Pilots accord calls for a 20-percent permanent pay cut that could be offset by a possible 1988 distribution to employees from an allocation equal to 5 percent of any 1987 profits. Other terms included increased flying hours; a two-tier pay system under which new employees receive 20 percent lower pay during their first 5 years on the job; a cut in vacation time; and a requirement that workers begin paying part of their medical insurance premiums.

The Transport Workers also negotiated a 33-month contract containing similar terms. It also provides for binding arbitration of several issues which arose during the workers balloting and threatened the entire accord.

In conjunction with the Transport Workers settlement,

Eastern also agreed to recall the laid-off flight attendants and to pay employees part of the money they lost because the company extended the pay cut through 1985. The payment was calculated at 6 percent of earnings from February 1, 1985, through January 20, 1986.

## Flight attendants at TWA end strike

At TWA, the Independent Federation of Flight Attendants ended its 2½-month strike but rejected the carrier's last offer. Return-to-work prospects were uncertain for the 6,000 employees. Apparently, the union decided to end the stoppage because TWA was hiring replacements—and some strikers had returned to work—permitting the airline to attain nearly full operation. Just before the employees voted to accept the offer, TWA announced that all but 600 of their jobs had been filled.

In May 1985, financier Carl Icahn began a drive to gain control of the financially stricken TWA. In August, the Air Line Pilots and the Machinists agreed to cuts in compensation and changes in work rules to aid Icahn in gaining control. To some extent, the unions were impelled to cooperate because they feared that Frank Lorenzo of Texas Air Corp. might outbid Icahn for control of the airlines.

At yearend, Icahn was encountering difficulties in gaining the financial backing necessary to complete the acquisition, leading the unions to agree to modifications of the original accords. Reportedly, the combined cut in compensation resulting from the settlements amounted to 23 percent for employees represented by the Air Line Pilots and 17 percent for those represented by the Machinists.

The Flight Attendants did not settle with TWA in 1985. Instead, it continued bargaining into 1986. Talks became increasingly difficult, with the union contending that TWA was seeking larger cuts in compensation than those accepted by the other unions. Finally, the union struck in March, but as time passed, the stoppage became less and less effective, leading to the union members' decision to end the strike.

## Illinois State workers; firefighters accords

About 40,000 employees of the State of Illinois were covered by a 3-year contract negotiated by the State, County and Municipal Employees. The agreement, effective July 1, provides for general wage increases of 4 percent on October 1, 1986, 4.5 percent on July 1, 1987, and 5 percent on July 1, 1988. Employees at the top of their rate range—about half of those in the unit—received an additional 2-percent increase on July 1, 1986. The State also agreed to provide $4 million for special pay increases to employees the parties agree are underpaid.

The accord, which covered workers in a variety of State agencies, also provides for negotiations on the impact on employees of the closing of any facilities; a new State-financed dental plan; and reduced deductibles and copayments for workers who use preferred provider medical care organizations.

Also in Illinois, 4,500 Chicago firefighters were covered by a 3-year arbitration award. Martin O. Holland, President of Local 2 of the International Association of Fire Fighters, said the award "was worth the wait," while Carl S. Tomnberg, the city's counsel for the negotiations, said the award gives back "operational control of the fire department to the city." The parties' contract expired on December 31, 1983, and the arbitration period was concluded in March 1986, when arbitrator Irwin M. Lieberman issued his findings.

The union won its demand for five person staffing of fire companies, but the city won the right to 15 staffing variances per day, meaning that 15 companies can be comprised of four firefighters.

Other terms included, a reduction in the workweek to an average of 44.8 hours, from 46.7; 12 paid furlough days (formerly 10); 13 paid holidays (formerly 12); $15,000 city-financed life insurance (formerly $5,000); and elimination of the annual clothing allowance, with the city now required to open a commissary to provide uniforms and work clothes and to give each employee $50 a year for maintenance.

The settlement was financed by a $45.4 million a year increase in property taxes voted by the city council, which also appropriated $500,000 to aid employees who retired or became disabled during the arbitration period or to aid the survivors of firefighters who died.

## Oscar Mayer plant shutdown averted

A shutdown of Oscar Mayer Food Corp.'s hog slaughtering plant in Perry, IA, was averted when employees approved a new 3-year contract. Included was a company guarantee that it will not shut down the facility for 18 months and will give a 90-day notice of any intention to shut down. The workers had turned down an earlier offer because it did not include these provisions.

The accord also raised the base pay rate to $9 an hour, from $8.69, effective immediately, and to $9.10 in April 1987. According to a company official, the new rates will be among the highest in the slaughtering industry.

## UAW ends strike at Champion Spark Plugs

In the automobile parts industry, Champion Spark Plug Co. and the Auto Workers settled, ending a 10-week strike. The settlement covered 2,400 active and 600 laid-off workers at two plants in Ohio and one each in Michigan, Iowa, and Ontario, Canada.

The workers will receive $500 lump-sum payments in the first and second years and a 2.25-percent wage increase in the final year. The cost-of-living clause was continued, but 3 cents an hour will be diverted from each resulting quarterly pay adjustment.

The contract, running to February 1, 1989, also provided

for benefit changes: adoption of health care cost containment requirements such as precertification for hospital admissions and second opinions on surgery; increased life insurance for retirees; a pension rate of $22.50 a month (was $18.95) for each year of credited service, a $1,205 a month pension (was $935) for employees retiring under the 30-year-and-out provision, and two payments of up to $200 each for current retirees.

### UAW settle at former Bendix plants

The Auto Workers and Allied Corp. settled for 4,800 workers at former Bendix Corp. plants that were acquired by Allied in 1983. The plants, located in Michigan, Indiana, New Jersey, New York, and California, produce parts for the automobile, truck, aerospace, and shipbuilding industries.

The 3-year contract, scheduled to expire on May 3, 1989, does not provide for specified wage increases but the employees will receive $700 lump-sum payments in May of each year. The cost-of-living provision was continued, subject to a 2-cent-an-hour diversion from each of the first eight possible quarterly adjustments. There will be no diversion from the last three possible adjustments, which will be accrued and paid in lump sums at the end of the 3-month periods, rather than being paid immediately in regular weekly pay checks.

In other changes, the pension rate was increased to $20.50 a month for each year of credited service (from $18.45), and the 30-and-out pension was increased to $1,100 a month (from $935). □

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### 'Solidarity' ends at the border

It seems very clear that employee interest in multinational union action is probably close to being nonexistent. The idea that workers of one country will enthusiastically, or even reluctantly, support the cause of their brothers and sisters in another country simply lacks credible evidence. Typical is the case of rubber workers. Members of the same union in the United States and Canada supplied each other's markets in the Canadian strike of 1974 and the U.S. strike 2 years later. In the latter stoppage, the companies sent molds to European plants for manufacture there and imported tires from these plants to the United States without any interference, despite calls for boycotts by American and multinational union organizations. This is typical of most such situations. Claims of international solidarity actions during such strikes rarely amount to more than leaflets promising support, statements of "solidarity" by union officials, or letters from foreign unions to company headquarters' officials "demanding" that they agree to the striking union's terms.

—Gordan F. Bloom and Herbert R. Northrup
*Economics of Labor Relations*
9th ed. (Homewood, Ill., Richard D. Irwin, Inc., 1981), pp. 170–71.

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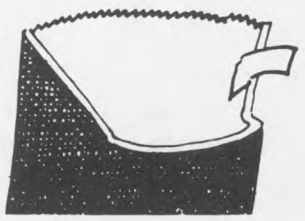
# Book Reviews



## A familiar cure

*The Economics of Unemployment: A Comparative Analysis of Britain and the United States.* By James J. Hughes and Richard Perlman. New York, Cambridge University Press, 1984. 258 pp.

The main theme of this book is that unemployment is mainly a consequence of inadequate demand, the only cure therefore being stimulation of aggregate demand. Through this work, James J. Hughes and Richard Perlman attempt to spark renewed interest in the subject, which they feel has been given short shrift in the two countries studied.

The reader is asked to accept at face value the premise that demand is indeed inadequate. Many, however, will find that a difficult idea to accept. In the United States, for example, we have the following phenomena: consumer debt per capita continues to break records; ditto government spending; the dollar is too strong for its own good, as spending on foreign goods skyrockets. In addition, the economy has performed remarkably well in employing the legions of baby-boomers, and their spouses. Indeed, the proportion of the population which is in the labor force has continually been increasing. If demand needs to be expanded, just where will it come from? Unfortunately, this question is not addressed by the authors.

It should by now surprise no one that the authors are of the Keynesian persuasion, a gutsy proposition these days. They feel that ". . . there needs to be a renewed attempt to develop a spirit of international Keynesianism . . ." And they come to bat for the beleaguered Phillips curve.

The authors of *The Economics of Unemployment* provide an excellent consolidation of recent research, presented in their theoretical frameworks. Opposing viewpoints are aired. There are separate chapters on unemployment statistics, unemployment categories, macroeconomic issues, relationship with inflation, effect of minimum wage legislation, unemployment insurance, experience since World War II, high-incidence population groups, costs, and the authors' prescription. The book suffers from a paucity of punctuation, which makes the going rough in some places. Also evident is the authors' penchant for the use of both tautology and understatement.

The reader will find *The Economics of Unemployment* heavier with polemic and politics than the title would indicate. The current U.S. and UK administrations are accused of ". . . creating unemployment to dampen down wage inflation . . . ," for example. To a large extent, the book is a call for the revival of Keynesianism, which leads one to question the objectivity of the analysis.

The book concludes by advocating an expanded scope for the Federal Government. The authors' program features expansionary demand policies, together with a flexible incomes policy and an active manpower policy. No evidence or argument is presented to support central government's increased role in economic decisionmaking. Apparently, the authors assume that the reader shares their distrust of free markets.

—MICHAEL WEINERT
Bureau of Labor Statistics
Chicago Regional Office

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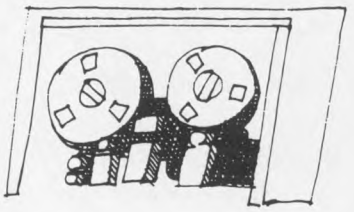
# Current Labor Statistics



## Contents—Continued



**Schedule of release dates for BLS statistical series**

| Series | Release date | Period covered | Release date | Period covered | Release date | Period covered | MLR table number |
|---|---|---|---|---|---|---|---|
| Employment situation | July 3 | June | August 1 | July | September 5 | August | 1; 4–21 |
| Producer Price Index | July 11 | June | August 15 | July | September 12 | August | 2; 33–35 |
| Consumer Price Index | July 23 | June | August 21 | July | September 23 | August | 2; 30–32 |
| Real earnings | July 23 | June | August 21 | July | September 23 | August | 14–17 |
| Major collective bargaining settlements | July 28 | 1st half | ..... | ..... | ..... | ..... | 3; 25–28 |
| Employment Cost Index | July 29 | 2nd quarter | ..... | ..... | ..... | ..... | 1–3; 22–24 |
| Productivity and costs: Nonfarm business and manufacturing | July 30 | 2nd quarter | ..... | ..... | ..... | ..... | 2; 42–44 |
| Nonfinancial corporations | ..... | ..... | August 27 | 2nd quarter | ..... | ..... | 2; 42–44 |
| U.S. Import and Export Price Indexes | July 31 | 2nd quarter | ..... | ..... | ..... | ..... | 2; 36–41 |

# NOTES ON CURRENT LABOR STATISTICS

This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics: series on labor force, employment, unemployment, collective bargaining settlements, consumer, producer, and international prices, productivity, international comparisons, and injury and illness statistics. In the notes that follow, the data in each group of tables is briefly described, key definitions are given, notes on the data are set forth, and sources of additional information are cited.

## General notes

The following notes apply to several tables in this section:

**Seasonal adjustment.** Certain monthly and quarterly data are adjusted to eliminate the effect on the data of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might prevent short-term evaluation of the statistical series. Tables containing data that have been adjusted are identified as "seasonally adjusted." (All other data are not 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 data appear in tables 1–3, 4–10, 13, 14, 17 and 18.) Beginning in January 1980, the BLS introduced two major modifications in the seasonal adjustment methodology for labor force data. First, the data are seasonally adjusted with a procedure called X–11 ARIMA, which was developed at Statistics Canada as an extension of the standard X–11 method previously used by BLS. A detailed description of the procedure appears in *The X–11 ARIMA Seasonal Adjustment Method* by Estela Bee Dagum (Statistics Canada, Catalogue No. 12–564E, February 1980). The second change is that seasonal factors are 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. However, revisions of historical data continue to be made only at the end of each calendar year.

Seasonally adjusted labor force data in tables 1 and 4–10 were revised in the February 1986 issue of the *Review*, to reflect experience through 1985.

Annual revisions of the seasonally adjusted payroll data shown in tables 13, 14, and 18 were made in the July 1986 *Review* using the X–11 ARIMA seasonal adjustment methodology. New seasonal factors for productivity data in table 42 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—such as the Hourly Earnings Index in table 17—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 × 100 = $2). The $2 (or any other resulting values) are described as "real," "constant," or "1967" dollars.

## Additional information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. News releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule preceding these general notes. More information about labor force, employment, and unemployment data and the household and establishment surveys underlying the data are available in *Employment and Earnings*, a monthly publication of the Bureau. More data from the household survey is published in the two-volume data book—*Labor Force Statistics Derived From the Current Population Survey*, Bulletin 2096. More data from the establishment survey appears in two data books—*Employment, Hours, and Earnings, United States*, and *Employment, Hours, and Earnings, States and Areas*, and the annual supplements to these data books. More detailed information on employee compensation and collective bargaining settlements is published in the monthly periodical, *Current Wage Developments*. More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report*, and *Producer Prices and Price Indexes*. Detailed data on all of the series in this section are provided in the *Handbook of Labor Statistics*, which is published biennally by the Bureau. BLS bulletins are issued covering productivity, injury and illness, and other data in this section. Finally, the *Monthly Labor Review* carries analytical articles on annual and longer term developments in labor force, employment and unemployment; employee compensation and collective bargaining; prices; productivity; international comparisons; and injury and illness data.

## Symbols

p = preliminary. To increase 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.
n.e.s. = not elsewhere specified.

# COMPARATIVE INDICATORS
## (Tables 1–3)

Comparative indicators tables provide an overview and comparison of major BLS statistical series. Consequently, although many of the included series are available monthly, all measures in these comparative tables are presented quarterly and annually.

**Labor market indicators** include employment measures from two major surveys and information on rates of change in compensation provided by the Employment Cost Index (ECI) program. The labor force participation rate, the employment-to-population ratio, and unemployment rates for major demographic groups based on the Current Population ("household") Survey are presented, while measures of employment and average weekly hours by major industry sector are given using nonagricultural payroll data. The Employment Cost Index (compensation), by major sector and by bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation, prices, and productivity** are presented in table 2. Measures of rates of change of compensation and wages from the Employment Cost Index program are provided for all civilian

nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in: consumer prices for all urban consumers; producer prices by stage of processing; and the overall export and import price indexes are given. Measures of productivity (output per hour of all persons) are provided for major sectors.

**Alternative measures of wage and compensation rates of change,** which reflect the overall trend in labor costs, are summarized in table 3. Differences in concepts and scope, related to the specific purposes of the series, contribute to the variation in changes among the individual measures.

### Notes on the data

Definitions of each series and notes on the data are contained in later sections of these notes describing each set of data. For detailed descriptions of each data series, see *BLS Handbook of Methods,* Volumes I and II, Bulletins 2134–1 and 2134–2 (Bureau of Labor Statistics, 1982 and 1984, respectively), as well as the additional bulletins, articles, and other publications noted in the separate sections of the *Review*'s "Current Labor Statistics Notes." Historical data for many series are provided in the *Handbook of Labor Statistics, Bulletin 2217* (Bureau of Labor Statistics, 1985). Users may also wish to consult *Major Programs, Bureau of Labor Statistics,* Report 718 (Bureau of Labor Statistics, 1985).

## EMPLOYMENT DATA
## (Tables 1; 4–21)

### Household survey data

### Description of the series

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 59,500 households 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** include (1) all civilians who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. Members of the Armed Forces stationed in the United States are also included in the employed total. 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 **overall unemployment rate** represents the number unemployed as a percent of the labor force, including the resident Armed Forces. The **civilian unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **labor force** consists of all employed or unemployed civilians plus members of the Armed Forces stationed in the United States. Persons **not in the labor force** are those not classified as employed or unemployed; this group includes persons who are 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, and members of the Armed Forces stationed in the United States. The **labor force participation rate** is the proportion of the noninstitutional populaton that is in the labor force. The **employment-population ratio** is total employment (including the resident Armed Forces) as a percent of the noninstitutional population.

### 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. 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 4–10 are seasonally adjusted, based on the seasonal experience through December 1985.

### Additional sources of information

For detailed explanations of the data, see *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 1, and for additional data, *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985). A detailed description of the Current Population Survey as well as additional data are available in the monthly Bureau of Labor Statistics periodical, *Employment and Earnings*. Historical data from 1948 to 1981 are available in *Labor Force Statistics Derived from the Current Population Survey: A Databook*, Vols. I and II, Bulletin 2096 (Bureau of Labor Statistics, 1982).

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.

### Establishment survey data

### Description of the series

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 more than 250,000 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.

### Definitions

An **establishment** is an economic unit which produces goods or services (such as a factory or store) at a single location and is engaged in one type of economic activity.

**Employed persons** are all persons who received pay (including holiday

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

**Production workers** in manufacturing include working supervisors and all nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 12–17 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in the following industries: transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for about four-fifths of the total employment on private nonagricutural 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 reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earner and Clerical Workers (CPI–W). The **Hourly Earnings Index** is calculated from average hourly earnings data adjusted to exclude the effects of two types of changes that are unrelated to underlying wage-rate developments: fluctuations in overtime premiums in manufacturing (the only sector for which overtime data are available) and the effects of changes and seasonal factors in the proportion of workers in high-wage and low-wage industries.

**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.

**The Diffusion Index,** introduced in the May 1983 *Review*, represents the percent of 185 nonagricultural industries in which employment was rising over the indicated period. One-half of the industries with unchanged employment are counted as rising. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. The diffusion index is useful for measuring the dispersion of economic gains or losses and is also an economic indicator.

### 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 May 1986 data, published in the July 1986 issue of the *Review*. Consequently, data published in the *Review* prior to that issue are not necessarily comparable to current data. Unadjusted data have been revised back to April 1984; seasonally adjusted data have been revised back to January 1981. These revisions were published in the *Supplement to Employment and Earnings* (Bureau of Labor Statistics, 1986). Unadjusted data from April 1985 forward, and seasonally adjusted data from January 1982 forward are subject to revision in future benchmarks.

### Additional sources of information

Detailed data from the establishment survey are published monthly in the BLS periodical, *Employment and Earnings*. Earlier comparable unadjusted and seasonally adjusted data are published in *Employment, Hours, and Earnings, United States, 1909–84*, Bulletin 1312–12 (Bureau of Labor Statistics, 1985) and its annual supplement. For a detailed discussion of the methodology of the survey, see *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 2. For additional data, see *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

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.

## Unemployment data by State

### Description of the series

Data presented in this section are obtained from two major sources—the Current Population Survey (CPS) and the Local Area Unemployment Statistics (LAUS) program, which is conducted in cooperation with State employment security agencies.

Monthly estimates of the labor force, employment, and unemployment for States and sub-State areas are a key indicator of local economic conditions and form the basis for determining the eligibility of an area for benefits under Federal economic assistance programs such as the Job Training Partnership Act and the Public Works and Economic Development Act. Insofar as possible, the concepts and definitions underlying these data are those used in the national estimates obtained from the CPS.

### Notes on the data

Data refer to State of residence. Monthly data for 11 States—California, Florida, Illinois, Massachusetts, Michigan, New York, New Jersey, North Carolina, Ohio, Pennsylvania, and Texas—are obtained directly from the CPS, because the size of the sample is large enough to meet BLS standards of reliability. Data for the remaining 39 States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates for the 11 States are revised to new population controls. For the remaining States and the District of Columbia, data are benchmarked to annual average CPS levels.

### Additional sources of information

Information on the concepts, definitions, and technical procedures used to develop labor force data for States and sub-State areas as well as additional data on sub-States are provided in the monthly Bureau of Labor Statistics periodical, *Employment and Earnings*, and the annual report, *Geographic Profile of Employment and Unemployment* (Bureau of Labor Statistics). See also *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 4.

# COMPENSATION AND WAGE DATA

**(Tables 1–3; 22–29)**

COMPENSATION AND WAGE DATA are gathered by the Bureau from business establishments, State and local governments, labor unions, collective bargaining agreements on file with the Bureau, and secondary sources.

## Employment Cost Index

### Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It uses a fixed market basket of labor—similar in concept to the Consumer Price Index's fixed market basket of goods and services—to measure change over time in employer costs of employing labor. The index is not seasonally adjusted.

Statistical series on total compensation costs and on wages and salaries are available for private nonfarm workers excluding proprietors, the self-employed, and household workers. Both series are also available for State and local government workers and for the civilian nonfarm economy, which consists of private industry and State and local government workers combined. Federal workers are excluded.

The Employment Cost Index probability sample consists of about 2,200 private nonfarm establishments providing about 12,000 occupational observations and 700 State and local government establishments providing

3,500 occupational observations selected to represent total employment in each sector. On average, each reporting unit provides wage and compensation information on five well-specified occupations. Data are collected each quarter for the pay period including the 12th day of March, June, September, and December.

Fixed employment weights from the 1970 Census of Population are used each quarter to calculate the indexes for civilian, private, and State and local governments. These fixed weights, also used to derive all of the industry and occupation series indexes, ensure that changes in these indexes reflect only changes in compensation, not employment shifts among industries or occupations with different levels of wages and compensation. For the bargaining status, region, and metropolitan/nonmetropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1970 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

### Definitions

**Total compensation** costs include wages, salaries, and the employer costs for employee benefits.

**Wages and salaries** consist of earnings before payroll deductions, including production bonuses, incentive earnings, commissions, and cost-of-living adjustments.

**Benefits** include the cost to employers for paid leave, supplemental pay (including nonproduction bonuses), insurance, retirement and savings plans, and legally required benefits (such as social security, workers' compensation, and unemployment insurance).

Excluded from wages and salaries and employee benefits are such items as payment-in-kind, free room and board, and tips.

### Notes on the data

The Employment Cost Index data series began in the fourth quarter of 1975, with the quarterly percent change in wages and salaries in the private nonfarm sector. Data on employer costs for employee benefits were included in 1980 to produce, when combined with the wages and salaries series, a measure of the percent change in employer costs for employee total compensation. State and local government units were added to the ECI coverage in 1981, providing a measure of total compensation change in the *civilian* nonfarm economy (excluding Federal employees). Historical indexes (June 1981=100) of the quarterly rates of change are presented in the May issue of the BLS monthly periodical, *Current Wage Developments*.

### Additional sources of information

For a more detailed discussion of the Employment Cost Index, see Chapter 11, "The Employment Cost Index," in the *Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 11, and the following *Monthly Labor Review* articles: "Employment Cost Index: a measure of change in the 'price of labor'," July 1975; "How benefits will be incorporated into the Employment Cost Index," January 1978; "Estimation procedures for the Employment Cost Index," May 1982; and "Introducing new weights for the Employment Cost Index," June 1985.

Data on the ECI are also available in BLS quarterly press releases issued in the month following the reference months of March, June, September, and December; and from the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

## Collective bargaining settlements

### Description of the series

**Collective bargaining settlements** data provide statistical measures of negotiated adjustments (increases, decreases, and freezes) in compensation (wages and benefits costs) and wages alone, quarterly for private industry and semiannually for State and local government. Compensation measures cover all collective bargaining situations involving 5,000 workers or more and wage measures cover all situations involving 1,000 workers or more. These data, covering private nonagricultural industries and State and local governments, are calculated using information obtained from bargaining agreements on file with the Bureau, parties to the agreements, and secondary sources, such as newspaper accounts. The data are not seasonally adjusted.

Settlement data are measured in terms of future specified adjustments: those that will occur within 12 months after contract ratification—first year—and all adjustments that will occur over the life of the contract expressed as an average annual rate. Adjustments are worker weighted. Both first-year and over-the-life measures exclude wage changes that may occur under cost-of-living clauses that are triggered by future movements in the Consumer Price Index.

**Effective wage adjustments** measure all adjustments occurring in the reference period, regardless of the settlement date. Included are changes from settlements reached during the period, changes deferred from contracts negotiated in earlier periods, and changes under cost-of-living adjustment clauses. Each wage change is worker weighted. The changes are prorated over all workers under agreements during the reference period yielding the average adjustment.

### Definitions

**Wage rate changes** are calculated by dividing newly negotiated wages by the average hourly earnings, excluding overtime, at the time the agreement is reached. Compensation changes are calculated by dividing the change in the value of the newly negotiated wage and benefit package by existing average hourly compensation, which includes the cost of previously negotiated benefits, legally required social insurance programs, and average hourly earnings.

**Compensation changes** are calculated by placing a value on the benefit portion of the settlements at the time they are reached. The cost estimates are based on the assumption that conditions existing at the time of settlement (for example, methods of financing pensions or composition of labor force) will remain constant. The data, therefore, are measures of negotiated changes and not of total changes in employer cost.

**Contract duration** runs from the effective date of the agreement to the expiration date or first wage reopening date, if applicable. Average annual percent changes over the contract term take account of the compounding of successive changes.

### Notes on the data

Care should be exercised in comparing the size and nature of the settlements in State and local government with those in the private sector because of differences in bargaining practices and settlement characteristics. A principal difference is the incidence of cost-of-living adjustment (COLA) clauses which cover only about 2 percent of workers under a few local government settlements, but cover 50 percent of workers under private sector settlements. Agreements without COLA's tend to provide larger specified wage increases than those with COLA's. Another difference is that State and local government bargaining frequently excludes pension benefits which are often prescribed by law. In the private sector, in contrast, pensions are typically a bargaining issue.

### Additional sources of information

For a more detailed discussion on the series, see of the *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 10. Comprehensive data are published in press releases issued quarterly (in January, April, July, and October) for private industry, and semi-

annually (in February and August) for State and local government. Historical data and additional detailed tabulations for the prior calendar year appear in the April issue of the BLS monthly periodical, *Current Wage Developments*.

## Work stoppages

### Description of the series

Data on **work stoppages** measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of time lost because of stoppage.

Data are largely from newspaper accounts and cover only establishments directly involved in a stoppage. They do not measure the indirect or secondary effect of stoppages on other establishments whose employees are idle owing to material shortages or lack of service.

### Definitions

**Number of stoppages:** The number of strikes and lockouts involving 1,000 workers or more and lasting a full shift or longer.

**Workers involved:** The number of workers directly involved in the stoppage.

**Number of days idle:** The aggregate number of work days lost by workers involved in the stoppages.

**Days of idleness as a percent of estimated working time:** Aggregate work days lost as a percent of the aggregate number of standard work days in the period multiplied by total employment in the period.

### Notes on the data

This series is not comparable with the one terminated in 1981 that covered strikes involving six workers or more.

### Additional sources of information

Data for each calendar year are reported in a BLS press release issued in the first quarter of the following year. Monthly data appear in the BLS monthly periodical, *Current Wage Developments*. Historical data appear in the *BLS Handbook of Labor Statistics*.

## Other compensation data

Other BLS data on pay and benefits, not included in the Current Labor Statistics section of the *Monthly Labor Review,* appear in and consist of the following:

*Industry Wage Surveys* provide data for specific occupations selected to represent an industry's wage structure and the types of activities performed by its workers. The Bureau collects information on weekly work schedules, shift operations and pay differentials, paid holiday and vacation practices, and information on incidence of health, insurance, and retirement plans. Reports are issued throughout the year as the surveys are completed. Summaries of the data and special analyses also appear in the *Monthly Labor Review*.

*Area Wage Surveys* annually provide data for selected office, clerical, professional, technical, maintenance, toolroom, powerplant, material movement, and custodial occupations common to a wide variety of industries in the areas (labor markets) surveyed. Reports are issued throughout the year as the surveys are completed. Summaries of the data and special analyses also appear in the *Review*.

*The National Survey of Professional, Administrative, Technical, and Clerical Pay* provides detailed information annually on salary levels and distributions for the types of jobs mentioned in the survey's title in private employment. Although the definitions of the jobs surveyed reflect the duties and responsibilities in private industry, they are designed to match specific pay grades of Federal white-collar employees under the General Schedule pay system. Accordingly, this survey provides the legally required information for comparing the pay of salaried employees in the Federal civil service with pay in private industry. (See Federal Pay Comparability Act of 1970, 5 U.S.C. 5305.) Data are published in a BLS news release issued in the summer and in a bulletin each fall; summaries and analytical articles also appear in the *Review*.

*Employee Benefits Survey* provides nationwide information on the incidence and characteristics of employee benefit plans in medium and large establishments in the United States, excluding Alaska and Hawaii. Data are published in an annual BLS news release and bulletin, as well as in special articles appearing in the *Review*.

# PRICE DATA
## (Tables 2; 30–41)

**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).

## Consumer Price Indexes

### Description of the series

The **Consumer Price Index** (CPI) is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner index (CPI–W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all urban consumer index (CPI–U) introduced in 1978 is representative of the 1972–73 buying habits of about 80 percent of the noninstitutional population of the United States at that time, compared with 40 percent represented in the CPI–W. In addition to wage earners and clerical workers, the CPI–U covers 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, doctors' and dentists' fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items are kept essentially unchanged between major revisions so that only price changes will be measured. All taxes directly associated with the purchase and use of items are included in the index.

Data collected from more than 24,000 retail establishments and 24,000 tenants in 85 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 28 major urban centers are presented in table 31. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

### Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are measured for the CPI–U. A rental equivalence method replaced the

asset-price approach to homeownership costs for that series. In January 1985, the same change was made in the CPI-W. The central purpose of the change was to separate shelter costs from the investment component of homeownership so that the index would reflect only the cost of shelter services provided by owner-occupied homes.

### Additional sources of information

For a discussion of the general method for computing the CPI, see *BLS Handbook of Methods, Volume II, The Consumer Price Index*, Bulletin 2134–2 (Bureau of Labor Statistics, 1984). The recent change in the measurement of homeownership costs is discussed in Robert Gillingham and Walter Lane, "Changing the treatment of shelter costs for homeowners in the CPI," *Monthly Labor Review*, June 1982, pp. 9–14.

Additional detailed CPI data and regular analyses of consumer price changes are provided in the *CPI Detailed Report*, a monthly publication of the Bureau. Historical data for the overall CPI and for selected groupings may be found in the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

## Producer price indexes

### Description of the series

**Producer Price Indexes** (PPI) 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 currently contains about 3,200 commodities and about 60,000 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 stage of processing structure of Producer Price Indexes organizes products by class of buyer and degree of fabrication (that is, finished goods, intermediate goods, and crude materials). The traditional commodity structure of PPI 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.

Since January 1976, price changes for the various commodities have been 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 groups. All Producer Price Index data are subject to revision 4 months after original publication.

### Notes on the data

Beginning with the January 1986 issue, the *Review* is no longer presenting tables of Producer Price Indexes for commodity groupings, special composite groups, or SIC industries. However, these data will continue to be presented in the Bureau's monthly publication *Producer Price Indexes*. Series on the net output of major mining and manufacturing industry groups will appear in the *Review* starting with data for July 1986.

The Bureau has completed the first major stage of its comprehensive overhaul of the theory, methods, and procedures used to construct the Producer Price Indexes. Changes include the replacement of judgment sampling with probability sampling techniques; expansion to systematic coverage of the net output of virtually all industries in the mining and manufacturing sectors; a shift from a commodity to an industry orientation; the exclusion of imports from, and the inclusion of exports in, the survey universe; and the respecification of commodities priced to conform to Bureau of the Census definitions. These and other changes have been phased in gradually since 1978. The result is a system of indexes that is easier to use in conjunction with data on wages, productivity, and employment and other series that are organized in terms of the Standard Industrial Classification and the Census product class designations.

### Additional sources of information

For a discussion of the methodology for computing Producer Price Indexes, see *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 7.

Additional detailed data and analyses of price changes are provided monthly in *Producer Price Indexes*. Selected historical data may be found in the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

## International price indexes

### Description of the series

The BLS **International Price Program** produces quarterly export and import price indexes for nonmilitary goods traded between the United States and the rest of the world. The export price index provides a measure of price change for all products sold by U.S. residents to foreign buyers. ("Residents" is defined as in the national income accounts: it includes corporations, businesses, and individuals but does not require the organizations to be U.S. owned nor the individuals to have U.S. citizenship.) The import price index provides a measure of price change for goods purchased from other countries by U.S. residents. With publication of an all-import index in February 1983 and an all-export index in February 1984, all U.S. merchandise imports and exports now are represented in these indexes. The reference period for the indexes is 1977 = 100, unless otherwise indicated.

The product universe for both the import and export indexes includes raw materials, agricultural products, semifinished manufactures, and finished manufactures, including both capital and consumer goods. Price data for these items are collected quarterly by mail questionnaire. In nearly all cases, the data are collected directly from the exporter or importer, although in a few cases, prices are obtained from other sources.

To the extent possible, the data gathered refer to prices at the U.S. border for exports and at either the foreign border or the U.S. border for imports. For nearly all products, the prices refer to transactions completed during the first 2 weeks of the third month of each calendar quarter—March, June, September, and December. Survey respondents are asked to indicate all discounts, allowances, and rebates applicable to the reported prices, so that the price used in the calculation of the indexes is the actual price for which the product was bought or sold.

In addition to general indexes of prices for U.S. exports and imports, indexes are also published for detailed product categories of exports and imports. These categories are defined by the 4- and 5-digit level of detail of the Standard Industrial Trade Classification System (SITC). The calculation of indexes by SITC category facilitates the comparison of U.S. price trends and sector production with similar data for other countries. Detailed indexes are also computed and published on a Standard Industrial Classification (SIC-based) basis, as well as by end-use class.

### Notes on the data

The export and import price indexes are weighted indexes of the Laspeyeres type. Price relatives are assigned equal importance within each weight category and are then aggregated to the SITC level. The values assigned to each weight category are based on trade value figures compiled

by the Bureau of the Census. The trade weights currently used to compute both indexes relate to 1980.

Because a price index depends on the same items being priced from period to period, it is necessary to recognize when a product's specifications or terms of transaction have been modified. For this reason, the Bureau's quarterly questionnaire requests detailed descriptions of the physical and functional characteristics of the products being priced, as well as information on the number of units bought or sold, discounts, credit terms, packaging, class of buyer or seller, and so forth. When there are changes in either the specifications or terms of transaction of a product, the dollar value of each change is deleted from the total price change to obtain the "pure" change. Once this value is determined, a linking procedure is employed which allows for the continued repricing of the item.

For the export price indexes, the preferred pricing basis is f.a.s. (free alongside ship) U.S. port of exportation. When firms report export prices f.o.b. (free on board), production point information is collected which enables the Bureau to calculate a shipment cost to the port of exportation. An attempt is made to collect two prices for imports. The first is the import price f.o.b. at the foreign port of exportation, which is consistent with the basis for valuation of imports in the national accounts. The second is the import price c.i.f. (cost, insurance, and freight) at the U.S. port of importation, which also includes the other costs associated with bringing the product to the U.S. border. It does not, however, include duty charges.

### Additional sources of information

For a discussion of the general method of computing International Price Indexes, see *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 8.

Additional detailed data and analyses of international price developments are presented in the Bureau's quarterly publication *U.S. Import and Export Price Indexes* and in occasional *Monthly Labor Review* articles prepared by BLS analysts. Selected historical data may be found in the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

## PRODUCTIVITY DATA
## (Tables 2; 42–47)

### U. S. productivity and related data

### Description of the series

The productivity measures relate real physical output to real input. As such, they encompass a family of measures which include single factor input measures, such as output per unit of labor input (output per hour) or output per unit of capital input, as well as measures of multifactor productivity (output per unit of labor and capital inputs combined). The Bureau indexes show the change in output relative to changes in the various inputs. The measures cover the business, nonfarm business, manufacturing, and nonfinancial corporate sectors.

Corresponding indexes of hourly compensation, unit labor costs, unit nonlabor payments, and prices are also provided.

### Definitions

**Output per hour of all persons** (labor productivity) is the value of goods and services in constant prices produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the value of goods and services in constant dollars produced per unit of capital services input.

**Multifactor productivity** is the ratio output per unit of labor and capital inputs combined. Changes in this measure reflect changes in a number of factors which affect the production process such as changes in technology, shifts in the composition of the labor force, changes in capacity utilization, research and development, skill and efforts of the work force, management, and so forth. Changes in the output per hour measures reflect the impact of these factors as well as the substitution of capital for labor.

**Compensation per hour** is the wages and salaries of employees plus employers' contributions for social insurance and private benefit plans, and the wages, salaries, and supplementary payments for the self-employed (except for nonfinancial corporations in which there are no self-employed)—the sum divided by hours paid for. **Real compensation per hour** is compensation per hour deflated by the change in the Consumer Price Index for All Urban Consumers.

**Unit labor costs** is the labor compensation costs expended in the production of a 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 current dollar value of output and dividing by output. **Unit nonlabor costs** contain all the components of unit nonlabor payments *except* unit profits.

**Unit profits** include corporate profits and the value of inventory adjustments per unit of output.

**Hours of all persons** are the total hours paid of payroll workers, self-employed persons, and unpaid family workers.

**Capital services** is the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset.

**Labor and capital inputs** combined are derived by combining changes in labor and capital inputs with weights which represent each component's share of total output. The indexes for capital services and combined units of labor and capital are based on changing weights which are averages of the shares in the current and preceding year (the Tornquist index-number formula).

### Notes on the data

Output measures for the business sector and the nonfarm businesss sector exclude the constant dollar value of owner-occupied housing, rest of world, households and institutions, and general government output from the constant dollar value of gross national product. The measures are derived from data 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 developed from data of the Bureau of Labor Statistics and the Bureau of Economic Analysis.

The productivity and associated cost measures in tables 42–44 describe the relationship between output in real terms and the labor time and capital services involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input. Although these measures relate output to hours and capital services, they do not measure the contributions of labor, capital, or any other specific factor of production. Rather, they reflect the joint effect of many influences, including changes in technology; capital investment; level of output; utilization of capacity, energy, and materials; the organization of production; managerial skill; and the characteristics and efforts of the work force.

### Additional sources of information

Descriptions of methodology underlying the measurement of output per hour and multifactor productivity are found in the *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 13. Historical data for selected industries are provided in the Bureau's *Handbook of Labor Statistics*, 1985, Bulletin 2217.

## International comparisons

### Description of the series

Comparative measures of labor force, employment, and unemployment (tables 45 and 46) are prepared regularly for the United States, Canada, Australia, Japan, France, Germany, Great Britain, Italy, the Netherlands, and Sweden. Unemployment rates, approximating U.S. concepts, are prepared monthly for most of the countries; the other measures, annually.

The Bureau of Labor Statistics also prepares international comparisons of manufacturing labor productivity and labor costs (table 47) that cover the United States and 11 foreign countries—those listed above plus Belgium and Norway. These measures are limited to trend comparisons; that is, intercountry series of changes over time, rather than level comparisons because reliable international comparisons of the levels of manufacturing are unavailable. The U.S. measures are described in the notes on U.S. productivity measurement; the measures for foreign countries are compiled from various national and international data sources.

### Definitions

**Output** measures are constant value output (value added) from the national accounts of each country, except for those for Japan prior to 1970 and for the Netherlands for 1969 forward, which are indexes of industrial production. The national accounting methods for measuring real output differ considerably among the 12 countries, but the use of different procedures does not, in itself, connote lack of comparability—rather, it reflects differences among countries in the availability and reliability of underlying data series.

**Hours and compensation** measures refer to all employed persons including the self-employed in the United States and Canada, and to all wage and salary employees in the other countries. *Hours* refer to hours *paid* in the United States, hours *worked* in the other countries. *Compensation (labor costs)* includes not only all payments made directly to employees and employer expenditures for social insurance and private benefit plans, but changes in significant employment or payroll taxes that are not compensation to employees but are labor costs to employers (France, Sweden, and the United Kingdom). Self-employed workers are included in the U.S. and Canadian figures by assuming that their hourly compensation is equal to the average for wage and salary employees.

### Notes on the data

The data for the foreign countries in tables 45 and 46 have been adjusted, where necessary, for greater comparability with U.S. definitions of employment and unemployment. The adjusted statistics have been adapted to the age at which compulsory schooling ends in each country. Therefore, the adjusted statistics relate to the civilian population age 16 and over in the United States, France, and Sweden, and from 1973 forward, Great Britain; 15 and over in Canada, Australia, Japan, Germany, and the Netherlands; and 14 and over in Italy. Prior to 1973, the data for Great Britain related to persons age 15 and over. The institutional population is included in the denominator of the labor force participation rates and employment-population ratios for Japan and Germany.

For most of the countries in table 47, the measures refer to total manufacturing as defined by the International Standard Industrial Classification. However, the measures for France (beginning 1959), Italy (beginning 1970), and the United Kingdom (beginning 1976) refer to manufacturing and mining less energy-related products. For all countries, manufacturing includes the activities of government enterprises.

In addition, for all countries, preliminary estimates for recent years are generally based on current indicators of manufacturing output, employment and hours, and hourly compensation until national accounts and other statistics used for the long-term measures become available.

### Additional sources of information

For further information, see *International Comparisons of Unemployment*, Bulletin 1979 (Bureau of Labor Statistics, 1978), Appendix B and Supplements to Appendix B. Additional detail is also found in the *BLS Handbook of Methods*, Bulletin 2134–1, (Bureau of Labor Statistics, 1982), chapter 16. Additional international comparison statistics are available in the *Handbook of Labor Statistics* Bulletin 2217 (Bureau of Labor Statistics, 1985). The most recent statistics are presented and analyzed annually in the *Monthly Labor Review*, typically in the December issue (for the previous year) and in February.

## OCCUPATIONAL INJURY AND ILLNESS DATA

**(Table 48)**

### Description of the series

The Annual Survey of Occupational Injuries and Illnesses is designed to collect data on injuries and illnesses based on records which employers in the following industries maintain under the Occupational Safety and Health Act of 1970: agriculture, forestry, and fishing; oil and gas extraction; construction; manufacturing; transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. Excluded from the survey are self-employed individuals, farmers with fewer than 11 employees, employers regulated by other Federal safety and health laws, and Federal, State, and local government agencies.

Because the survey is a Federal–State cooperative program and the data must meet the needs of participating State agencies, an independent sample is selected for each State. The sample is selected to represent all private industries in the States and territories. The sample size for the survey is dependent upon (1) the characteristics for which estimates are needed; (2) the industries for which estimates are desired; (3) the characteristics of the population being sampled; (4) the target reliability of the estimates; and (5) the survey design employed.

While there are many characteristics upon which the sample design could be based, the total recorded case incidence rate is used because it is one of the most important characteristics and the least variable; therefore, it requires the smallest sample size.

The survey is based on stratified random sampling with a Neyman allocation and a ratio estimator. The characteristics used to stratify the establishments are the Standard Industrial Classification (SIC) code and size of employment.

### Definitions

**Recordable occupational injuries and illnesses** are: (1) occupational deaths, regardless of the time between injury and death, or the length of the illness; or (2) nonfatal occupational illnesses; or (3) nonfatal occupational injuries which involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment (other than first aid).

**Occupational injury** is any injury such as a cut, fracture, sprain, amputation, and so forth, which results from a work accident or from exposure involving a single incident in the work environment.

**Occupational illness** is an abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. It includes acute and chronic illnesses or disease which may be caused by inhalation, absorption, ingestion, or direct contact.

**Lost workday cases** are cases which involve days away from work, or days of restricted work activity, or both.

**Lost workday cases involving restricted work activity** are those cases which result in restricted work activity only.

**Lost workdays away from work** are the number of workdays (consecutive or not) on which the employee would have worked but could not because of occupational injury or illness.

**Lost workdays—restricted work activity** are the number of workdays (consecutive or not) on which, because of injury or illness: (1) the employee was assigned to another job on a temporary basis; or (2) the employee worked at a permanent job less than full time; or (3) the employee worked at a permanently assigned job but could not perform all duties normally connected with it.

**The number of days away from work or days of restricted work activity** does not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.

**Incidence rates** represent the number of injuries and/or illnesses or lost workdays per 100 full-time workers.

## Notes on the data

Estimates are made for industries and employment-size classes and for severity classification: fatalities, lost workday cases, and nonfatal cases without lost workdays. Lost workday cases are separated into those where the employee would have worked but could not and those in which work activity was restricted. Estimates of the number of cases and the number of days lost are made for both categories.

Most of the estimates are in the form of incidence rates, defined as the number of injuries and illnesses, or lost workdays, per 100 full-time employees. For this purpose, 200,000 employee hours represent 100 employee years (2,000 hours per employee). Only a few of the available measures are included in the *Handbook of Labor Statistics*. Full detail is presented in the annual bulletin, *Occupational Injuries and Illnesses in the United States, by Industry*.

Comparable data for individual States are available from the BLS Office of Occupational Safety and Health Statistics.

Mining and railroad data are furnished to BLS by the Mine Safety and Health Administration and the Federal Railroad Administration, respectively. Data from these organizations are included in BLS and State publications. Federal employee experience is compiled and published by the Occupational Safety and Health Administration. Data on State and local government employees are collected by about half of the States and territories; these data are not compiled nationally.

## Additional sources of information

The Supplementary Data System provides detailed information describing various factors associated with work-related injuries and illnesses. These data are obtained from information reported by *employers* to State workers' compensation agencies. The Work Injury Report program examines selected types of accidents through an employee survey which focuses on the circumstances surrounding the injury. These data are not included in the *Handbook of Labor Statistics* but are available from the BLS Office of Occupational Safety and Health Statistics.

The definitions of occupational injuries and illnesses and lost workdays are from *Recordkeeping Requirements under the Occupational Safety and Health Act of 1970*. For additional data, see *Occupational Injuries and Illnesses in the United States, by Industry*, annual Bureau of Labor Statistics bulletin; BLS *Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 17; *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985), pp. 411–14; annual reports in the *Monthly Labor Review*; and annual U.S. Department of Labor press releases.

## 1. Labor market indicators

| Selected indicators | 1984 | 1985 | 1984 | | | 1985 | | | | 1986 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | II | III | IV | I | II | III | IV | I |
| **Employment data** | | | | | | | | | | |
| Employment status of the civilian noninstitutionalized population (household survey)[1] | | | | | | | | | | |
| Labor force participation rate | 64.4 | 64.8 | 64.5 | 64.4 | 64.5 | 64.8 | 64.7 | 64.7 | 64.9 | 65.1 |
| Employment-population ratio | 59.5 | 60.1 | 59.6 | 59.7 | 59.8 | 60.1 | 60.0 | 60.1 | 60.4 | 60.5 |
| Unemployment rate | 7.5 | 7.2 | 7.5 | 7.4 | 7.2 | 7.3 | 7.3 | 7.2 | 7.0 | 7.1 |
| Men | 7.4 | 7.0 | 7.4 | 7.3 | 7.1 | 7.1 | 7.1 | 7.0 | 6.9 | 6.8 |
| 16 to 24 years | 14.4 | 14.1 | 14.3 | 14.5 | 13.8 | 14.1 | 14.2 | 14.0 | 14.0 | 13.3 |
| 25 years and over | 5.7 | 5.3 | 5.7 | 5.5 | 5.4 | 5.4 | 5.4 | 5.3 | 5.2 | 5.3 |
| Women | 7.6 | 7.4 | 7.6 | 7.6 | 7.5 | 7.6 | 7.5 | 7.4 | 7.2 | 7.3 |
| 16 to 24 years | 13.3 | 13.0 | 13.5 | 13.1 | 12.9 | 13.1 | 13.0 | 12.7 | 13.1 | 13.2 |
| 25 years and over | 6.0 | 5.9 | 5.9 | 6.0 | 5.9 | 6.0 | 6.0 | 5.9 | 5.5 | 5.7 |
| Unemployment rate, 15 weeks and over | 2.4 | 2.0 | 2.5 | 2.3 | 2.1 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 |
| Employment, nonagricultural (payroll data):[1, 2] | | | | | | | | | | |
| Total | 94,496 | 97,614 | 94,064 | 94,977 | 95,907 | 96,581 | 97,295 | 97,897 | 98,668 | 99,403 |
| Private sector | 78,472 | 81,199 | 78,096 | 78,914 | 79,736 | 80,341 | 80,958 | 81,414 | 82,069 | 82,731 |
| Goods-producing | 24,727 | 24,930 | 24,690 | 24,891 | 24,943 | 24,970 | 24,947 | 24,866 | 24,937 | 25,028 |
| Manufacturing | 19,378 | 19,314 | 19,381 | 19,489 | 19,486 | 19,439 | 19,323 | 19,241 | 19,261 | 19,284 |
| Service-producing | 69,769 | 72,684 | 69,374 | 70,086 | 70,964 | 71,611 | 72,347 | 73,031 | 73,731 | 74,375 |
| Average hours: | | | | | | | | | | |
| Private sector | 35.2 | 34.9 | 35.2 | 35.1 | 35.1 | 35.0 | 34.9 | 34.9 | 34.9 | 34.9 |
| Manufacturing | 40.7 | 40.5 | 40.8 | 40.6 | 40.5 | 40.4 | 40.4 | 40.6 | 40.8 | 40.7 |
| Overtime | 3.4 | 3.3 | 3.5 | 3.3 | 3.4 | 3.3 | 3.2 | 3.3 | 3.5 | 3.4 |
| **Employment Cost Index** | | | | | | | | | | |
| Percent change in the ECI, compensation:[3] | | | | | | | | | | |
| All workers (excluding farm, household, and Federal workers) | – | – | .8 | 1.3 | 1.2 | 1.3 | .7 | 1.6 | .6 | 1.1 |
| Private industry workers | – | – | .9 | .8 | 1.3 | 1.2 | .8 | 1.3 | .6 | 1.1 |
| Goods-producing[4] | – | – | .9 | .9 | 1.1 | 1.5 | .7 | .6 | .6 | 1.1 |
| Servicing-producing[4] | – | – | 1.0 | .7 | 1.4 | 1.0 | 1.0 | 1.8 | .5 | 1.1 |
| State and local government workers | – | – | .4 | 3.5 | 1.0 | 1.2 | .2 | 3.4 | .7 | 1.0 |
| Workers by bargaining status (private industry) | | | | | | | | | | |
| Union | – | – | .9 | .7 | 1.1 | .7 | .6 | .8 | .5 | 1.0 |
| Nonunion | – | – | 1.0 | .9 | 1.3 | 1.6 | 1.0 | 1.4 | .6 | 1.2 |

[1] Quarterly data seasonally adjusted.
[2] Data for final quarter are preliminary.
[3] Quarterly changes calculated using the last month of each quarter.
[4] Goods-producing industries include mining, construction, and manufacturing. Service-producing industries include all other private sector industries.
– Data not available.

## 2. Annual and quarterly percent changes in compensation, prices, and productivity

| Selected measures | 1984 | 1985 | 1984 | | | 1985 | | | | 1986 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | II | III | IV | I | II | III | IV | I |
| **Compensation data:** [1, 2] | | | | | | | | | | |
| Employment Cost Index--Compensation (wages, salaries, benefits) | | | | | | | | | | |
| Civilian nonfarm | – | – | 0.8 | 1.3 | 1.2 | 1.3 | 0.7 | 1.6 | 0.6 | 1.1 |
| Private nonfarm | – | – | .9 | .8 | 1.3 | 1.2 | .8 | 1.3 | .6 | 1.1 |
| Employment Cost Index--Wages and Salaries | | | | | | | | | | |
| Civilian nonfarm | – | – | .8 | 1.3 | 1.2 | 1.2 | .9 | 1.7 | .6 | 1.0 |
| Private nonfarm | – | – | .9 | .8 | 1.2 | 1.2 | 1.1 | 1.3 | .6 | 1.0 |
| **Price data**[1] | | | | | | | | | | |
| Consumer Price Index (All urban consumers): All items | 4.0 | 3.8 | 1.1 | 1.2 | .3 | 1.0 | 1.1 | .7 | .9 | –.4 |
| Producer Price Index | | | | | | | | | | |
| Finished goods | 1.7 | 1.8 | –.2 | –.5 | .9 | .0 | .7 | –1.4 | 2.5 | –3.1 |
| Finished consumer goods | 1.6 | 1.5 | –.3 | –.5 | .8 | –.3 | .7 | –1.4 | 2.5 | –4.0 |
| Capital equipment | 1.8 | 2.7 | .5 | –.5 | 1.1 | 1.3 | .4 | –1.4 | 2.5 | .2 |
| Intermediate materials, supplies, components | 1.3 | –.3 | .6 | –.4 | –.1 | –.4 | .2 | –.5 | .4 | –3.0 |
| Crude materials | –1.6 | –5.6 | –1.7 | –2.0 | –1.2 | –3.1 | –2.1 | –4.5 | 4.3 | –7.7 |
| U.S. Export Price Index | – | – | – | – | – | – | – | – | – | – |
| U.S. Import Price Index | – | – | – | – | – | – | – | – | – | – |
| **Productivity data**[1] | | | | | | | | | | |
| Output per hour of all persons: | | | | | | | | | | |
| Business sector | 4.0 | .2 | 4.5 | 1.0 | .0 | 1.3 | .7 | 2.1 | –4.0 | 2.7 |
| Nonfarm business sector | 3.0 | –.6 | 3.9 | –.5 | –.5 | 1.1 | –.2 | .5 | –4.7 | 3.6 |
| Nonfinancial corporations [3] | 4.2 | –.4 | 5.0 | –.8 | –.3 | –.2 | –1.1 | 3.2 | –2.3 | –.2 |

[1] Annual changes are December-to-December change. Quarterly changes are calculated using the last month of each quarter. Compensation and Price data are not seasonally adjusted and the price data are not compounded. Productivity data are seasonally adjusted.

[2] Excludes Federal and private household workers.

[3] Output per hour of all employees.

– Data not available.

## 3. Alternative measures of wage and compensation changes

| Components | Quarterly average | | | | | | Four quarters ended in-- | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | | | | 1986 | 1984 | 1985 | | | | 1986 |
| | IV | I | II | III | IV | I | IV | I | II | III | IV | I |
| Average hourly compensation:[1] | | | | | | | | | | | | |
| All persons, business sector | – | – | – | – | – | – | – | – | – | – | – | – |
| All employees, nonfarm business sector | – | – | – | – | – | – | – | – | – | – | – | – |
| Hourly earnings Index:[2] | | | | | | | | | | | | |
| All private nonfarm | – | – | – | – | – | – | – | – | – | – | – | – |
| Employment Cost Index--compensation: | | | | | | | | | | | | |
| Civilian nonfarm [3] | 1.2 | 1.3 | 0.7 | 1.6 | 0.6 | 1.1 | 5.2 | 4.8 | 4.6 | 4.9 | 4.3 | 4.1 |
| Private nonfarm | 1.3 | 1.2 | .8 | 1.3 | .6 | 1.1 | 4.9 | 4.4 | 4.2 | 4.7 | 3.9 | 3.8 |
| Union | 1.1 | .7 | .6 | .8 | .5 | 1.0 | 4.3 | 3.5 | 3.1 | 3.2 | 2.6 | 2.9 |
| Nonunion | 1.3 | 1.6 | 1.0 | 1.4 | .6 | 1.2 | 5.2 | 4.9 | 4.9 | 5.4 | 4.6 | 4.2 |
| State and local governments | 1.0 | 1.2 | .2 | 3.4 | .7 | 1.0 | 6.6 | 6.3 | 6.1 | 6.0 | 5.7 | 5.5 |
| Employment Cost Index--wages and salaries: | | | | | | | | | | | | |
| Civilian nonfarm[3] | 1.2 | 1.2 | .9 | 1.7 | .6 | 1.0 | 4.5 | 4.4 | 4.5 | 5.0 | 4.4 | 4.2 |
| Private nonfarm | 1.2 | 1.2 | 1.1 | 1.3 | .6 | 1.0 | 4.1 | 4.1 | 4.3 | 4.8 | 4.1 | 3.9 |
| Union | .9 | .7 | 1.1 | .9 | .5 | .7 | 3.4 | 3.0 | 3.4 | 3.6 | 3.1 | 3.2 |
| Nonunion | 1.3 | 1.4 | 1.1 | 1.5 | .6 | 1.1 | 4.5 | 4.6 | 4.8 | 5.4 | 4.6 | 4.3 |
| State and local governments | .8 | 1.0 | .2 | 3.5 | .8 | 1.0 | 5.9 | 5.6 | 5.5 | 5.6 | 5.6 | 5.5 |
| Total effective wage adjustments[4] | .7 | .7 | .8 | 1.2 | .5 | .6 | 3.7 | 3.6 | 3.5 | 3.5 | 3.3 | 3.1 |
| From current settlements | .3 | .1 | .2 | .2 | .1 | .0 | .8 | .7 | .9 | .9 | .7 | .6 |
| From prior settlements | .2 | .6 | .5 | .5 | .2 | .4 | 2.0 | 2.2 | 1.9 | 1.8 | 1.8 | 1.7 |
| From cost-of-living provision | .2 | .1 | .1 | .4 | .1 | .2 | .9 | .7 | .7 | .8 | .7 | .8 |
| Negotiated wage adjustments from settlements[4] | | | | | | | | | | | | |
| First-year adjustments | 2.3 | 3.3 | 2.5 | 2.0 | 2.1 | .8 | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.0 |
| Annual rate over life of contract | 1.5 | 3.2 | 2.8 | 3.1 | 1.9 | 1.6 | 2.4 | 2.3 | 2.4 | 2.5 | 2.7 | 2.5 |
| Negotiated wage and benefit adjustments from settlements:[5] | | | | | | | | | | | | |
| First-year adjustment | 3.7 | 3.6 | 3.5 | 2.0 | 2.0 | .3 | 3.6 | 3.4 | 3.4 | 3.1 | 2.6 | 2.3 |
| Annual rate over life of contract | 2.0 | 2.7 | 3.4 | 3.0 | 1.4 | 1.2 | 2.8 | 2.6 | 2.7 | 2.7 | 2.7 | 2.6 |

[1] Seasonally adjusted.

[2] Production or nonsupervisory workers.

[3] Excludes Federal and household workers.

[4] Limited to major collective bargaining units of 1,000 workers or more. The most recent data are preliminary.

[5] Limited to major collective bargaining units of 5,000 workers or more. The most recent data are preliminary.

– Data not available.

## 4. Employment status of the total population, by sex, monthly data seasonally adjusted

(Numbers in thousands)

| Employment status | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| **TOTAL** | | | | | | | | | | | | | | | |
| Noninstitutional population [1, 2] | 178,080 | 179,912 | 179,649 | 179,798 | 179,967 | 180,131 | 180,304 | 180,470 | 180,642 | 180,810 | 181,361 | 181,512 | 181,678 | 181,843 | 181,998 |
| Labor force [2] | 115,241 | 117,167 | 117,044 | 116,726 | 116,976 | 117,069 | 117,522 | 117,814 | 117,832 | 117,927 | 118,477 | 118,779 | 118,900 | 118,929 | 119,351 |
| Participation rate [3] | 64.7 | 65.1 | 65.2 | 64.9 | 65.0 | 65.0 | 65.2 | 65.3 | 65.2 | 65.2 | 65.3 | 65.4 | 65.4 | 65.4 | 65.6 |
| Total employed [2] | 106,702 | 108,856 | 108,644 | 108,303 | 108,575 | 108,936 | 109,251 | 109,513 | 109,671 | 109,904 | 110,646 | 110,252 | 110,481 | 110,587 | 110,797 |
| Employment-population ratio [4] | 59.9 | 60.5 | 60.5 | 60.2 | 60.3 | 60.5 | 60.6 | 60.7 | 60.7 | 60.8 | 61.0 | 60.7 | 60.8 | 60.8 | 60.9 |
| Resident Armed Forces [1] | 1,697 | 1,706 | 1,705 | 1,702 | 1,704 | 1,726 | 1,732 | 1,700 | 1,702 | 1,698 | 1,691 | 1,691 | 1,693 | 1,695 | 1,687 |
| Civilian employed | 105,005 | 107,150 | 106,939 | 106,601 | 106,871 | 107,210 | 107,519 | 107,813 | 107,969 | 108,206 | 108,955 | 108,561 | 108,788 | 108,892 | 109,110 |
| Agriculture | 3,321 | 3,179 | 3,284 | 3,140 | 3,120 | 3,095 | 3,017 | 3,058 | 3,070 | 3,151 | 3,299 | 3,096 | 3,285 | 3,222 | 3,160 |
| Nonagricultural industries | 101,685 | 103,971 | 103,655 | 103,461 | 103,751 | 104,115 | 104,502 | 104,755 | 104,899 | 105,055 | 105,655 | 105,465 | 105,503 | 105,670 | 105,950 |
| Unemployed | 8,539 | 8,312 | 8,400 | 8,423 | 8,401 | 8,133 | 8,271 | 8,301 | 8,161 | 8,023 | 7,831 | 8,527 | 8,419 | 8,342 | 8,554 |
| Unemployment rate [5] | 7.4 | 7.1 | 7.2 | 7.2 | 7.2 | 6.9 | 7.0 | 7.0 | 6.9 | 6.8 | 6.6 | 7.2 | 7.1 | 7.0 | 7.2 |
| Not in labor force | 62,839 | 62,744 | 62,605 | 63,072 | 62,991 | 63,062 | 62,782 | 62,656 | 62,810 | 62,883 | 62,885 | 62,733 | 62,778 | 62,914 | 62,647 |
| **Men, 16 years and over** | | | | | | | | | | | | | | | |
| Noninstitutional population [1, 2] | 85,156 | 86,025 | 85,898 | 85,970 | 86,052 | 86,132 | 86,217 | 86,293 | 86,374 | 86,459 | 86,882 | 86,954 | 87,035 | 87,120 | 87,195 |
| Labor force [2] | 65,386 | 65,967 | 66,012 | 65,808 | 65,884 | 65,945 | 66,074 | 66,227 | 66,176 | 66,139 | 66,679 | 66,838 | 66,864 | 66,757 | 66,943 |
| Participation rate [3] | 76.8 | 76.7 | 76.8 | 76.5 | 76.6 | 76.6 | 76.6 | 76.7 | 76.6 | 76.5 | 76.7 | 76.9 | 76.8 | 76.6 | 76.8 |
| Total employed [2] | 60,642 | 61,447 | 61,498 | 61,175 | 61,273 | 61,510 | 61,629 | 61,656 | 61,731 | 61,793 | 62,458 | 62,243 | 62,288 | 62,254 | 62,190 |
| Employment-population ratio [4] | 71.2 | 71.4 | 71.6 | 71.2 | 71.2 | 71.4 | 71.5 | 71.4 | 71.5 | 71.5 | 71.9 | 71.6 | 71.6 | 71.5 | 71.3 |
| Resident Armed Forces [1] | 1,551 | 1,556 | 1,556 | 1,552 | 1,554 | 1,574 | 1,580 | 1,551 | 1,552 | 1,549 | 1,539 | 1,539 | 1,540 | 1,541 | 1,533 |
| Civilian employed | 59,091 | 59,891 | 59,942 | 59,623 | 59,719 | 59,936 | 60,049 | 60,105 | 60,179 | 60,244 | 60,919 | 60,704 | 60,748 | 60,713 | 60,657 |
| Unemployed | 4,744 | 4,521 | 4,514 | 4,633 | 4,611 | 4,435 | 4,445 | 4,571 | 4,445 | 4,346 | 4,221 | 4,595 | 4,577 | 4,503 | 4,754 |
| Unemployment rate [5] | 7.3 | 6.9 | 6.8 | 7.0 | 7.0 | 6.7 | 6.7 | 6.9 | 6.7 | 6.6 | 6.3 | 6.9 | 6.8 | 6.7 | 7.1 |
| **Women, 16 years and over** | | | | | | | | | | | | | | | |
| Noninstitutional population [1, 2] | 92,924 | 93,886 | 93,751 | 93,828 | 93,915 | 93,999 | 94,087 | 94,177 | 94,266 | 94,351 | 94,479 | 94,558 | 94,643 | 94,723 | 94,803 |
| Labor force [2] | 49,855 | 51,200 | 51,032 | 50,918 | 51,092 | 51,124 | 51,448 | 51,587 | 51,655 | 51,788 | 51,797 | 51,941 | 52,036 | 52,172 | 52,408 |
| Participation rate [3] | 53.7 | 54.5 | 54.4 | 54.3 | 54.4 | 54.4 | 54.7 | 54.8 | 54.8 | 54.9 | 54.8 | 54.9 | 55.0 | 55.1 | 55.3 |
| Total employed [2] | 46,061 | 47,409 | 47,146 | 47,128 | 47,302 | 47,426 | 47,622 | 47,857 | 47,939 | 48,111 | 48,187 | 48,009 | 48,194 | 48,333 | 48,608 |
| Employment-population ratio [4] | 49.6 | 50.5 | 50.3 | 50.2 | 50.4 | 50.5 | 50.6 | 50.8 | 50.9 | 51.0 | 51.0 | 50.8 | 50.9 | 51.0 | 51.3 |
| Resident Armed Forces [1] | 146 | 150 | 149 | 150 | 150 | 152 | 152 | 149 | 149 | 149 | 152 | 152 | 153 | 154 | 154 |
| Civilian employed | 45,915 | 47,259 | 46,997 | 46,978 | 47,152 | 47,274 | 47,470 | 47,708 | 47,790 | 47,962 | 48,035 | 47,857 | 48,041 | 48,179 | 48,454 |
| Unemployed | 3,794 | 3,791 | 3,886 | 3,790 | 3,790 | 3,698 | 3,826 | 3,730 | 3,716 | 3,677 | 3,610 | 3,932 | 3,842 | 3,839 | 3,800 |
| Unemployment rate [5] | 7.6 | 7.4 | 7.6 | 7.4 | 7.4 | 7.2 | 7.4 | 7.2 | 7.2 | 7.1 | 7.0 | 7.6 | 7.4 | 7.4 | 7.3 |

[1] The population and Armed Forces figures are not adjusted for seasonal variation.
[2] Includes members of the Armed Forces stationed in the United States.
[3] Labor force as a percent of the noninstitutional population.
[4] Total employed as a percent of the noninstitutional population.
[5] Unemployment as a percent of the labor force (including the resident Armed Forces).

## 5. Employment status of the civilian population, by sex, age, race and Hispanic origin, monthly data seasonally adjusted

(Numbers in thousands)

| Employment status | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| **TOTAL** | | | | | | | | | | | | | | | |
| Civilian noninstitutional population[1] | 176,383 | 178,206 | 177,944 | 178,096 | 178,263 | 178,405 | 178,572 | 178,770 | 178,940 | 179,112 | 179,670 | 179,821 | 179,985 | 180,148 | 180,311 |
| Civilian labor force | 113,544 | 115,461 | 115,339 | 115,024 | 115,272 | 115,343 | 115,790 | 116,114 | 116,130 | 116,229 | 116,786 | 117,088 | 117,207 | 117,234 | 117,664 |
| Participation rate | 64.4 | 64.8 | 64.8 | 64.6 | 64.7 | 64.7 | 64.8 | 65.0 | 64.9 | 64.9 | 65.0 | 65.1 | 65.1 | 65.1 | 65.3 |
| Employed | 105,005 | 107,150 | 106,939 | 106,601 | 106,871 | 107,210 | 107,519 | 107,813 | 107,969 | 108,206 | 108,955 | 108,561 | 108,788 | 108,892 | 109,110 |
| Employment-population ratio[2] | 59.5 | 60.1 | 60.1 | 59.9 | 60.0 | 60.1 | 60.2 | 60.3 | 60.3 | 60.4 | 60.6 | 60.4 | 60.4 | 60.4 | 60.5 |
| Unemployed | 8,539 | 8,312 | 8,400 | 8,423 | 8,401 | 8,133 | 8,271 | 8,301 | 8,161 | 8,023 | 7,831 | 8,527 | 8,419 | 8,342 | 8,554 |
| Unemployment rate | 7.5 | 7.2 | 7.3 | 7.3 | 7.3 | 7.1 | 7.1 | 7.1 | 7.0 | 6.9 | 6.7 | 7.3 | 7.2 | 7.1 | 7.3 |
| Not in labor force | 62,839 | 62,744 | 62,605 | 63,072 | 62,991 | 63,062 | 62,782 | 62,656 | 62,810 | 62,883 | 62,885 | 62,733 | 62,778 | 62,914 | 62,647 |
| **Men, 20 years and over** | | | | | | | | | | | | | | | |
| Civilian noninstitutional population[1] | 76,219 | 77,195 | 77,068 | 77,135 | 77,243 | 77,306 | 77,389 | 77,498 | 77,566 | 77,651 | 78,101 | 78,171 | 78,236 | 78,309 | 78,387 |
| Civilian labor force | 59,701 | 60,277 | 60,240 | 60,246 | 60,158 | 60,269 | 60,407 | 60,526 | 60,553 | 60,548 | 61,212 | 61,183 | 61,268 | 61,053 | 61,208 |
| Participation rate | 78.3 | 78.1 | 78.2 | 78.1 | 77.9 | 78.0 | 78.1 | 78.1 | 78.1 | 78.0 | 78.4 | 78.3 | 78.3 | 78.0 | 78.1 |
| Employed | 55,769 | 56,562 | 56,544 | 56,384 | 56,403 | 56,636 | 56,751 | 56,849 | 56,897 | 56,982 | 57,706 | 57,384 | 57,459 | 57,391 | 57,312 |
| Employment-population ratio[2] | 73.2 | 73.3 | 73.4 | 73.1 | 73.0 | 73.3 | 73.3 | 73.4 | 73.4 | 73.4 | 73.9 | 73.4 | 73.4 | 73.3 | 73.1 |
| Agriculture | 2,418 | 2,278 | 2,352 | 2,260 | 2,230 | 2,231 | 2,171 | 2,188 | 2,210 | 2,278 | 2,349 | 2,258 | 2,411 | 2,347 | 2,278 |
| Nonagricultural industries | 53,351 | 54,284 | 54,192 | 54,124 | 54,173 | 54,405 | 54,580 | 54,661 | 54,687 | 54,704 | 55,356 | 55,127 | 55,048 | 55,043 | 55,034 |
| Unemployed | 3,932 | 3,715 | 3,696 | 3,862 | 3,755 | 3,633 | 3,656 | 3,677 | 3,656 | 3,566 | 3,507 | 3,799 | 3,809 | 3,663 | 3,897 |
| Unemployment rate | 6.6 | 6.2 | 6.1 | 6.4 | 6.2 | 6.0 | 6.1 | 6.1 | 6.0 | 5.9 | 5.7 | 6.2 | 6.2 | 6.0 | 6.4 |
| **Women, 20 years ond over** | | | | | | | | | | | | | | | |
| Civilian noninstitutional population[1] | 85,429 | 86,506 | 86,380 | 86,477 | 86,575 | 86,652 | 86,727 | 86,810 | 86,901 | 86,988 | 87,112 | 87,185 | 87,263 | 87,355 | 87,444 |
| Civilian labor force | 45,900 | 47,283 | 47,082 | 47,185 | 47,190 | 47,340 | 47,558 | 47,663 | 47,713 | 47,870 | 47,895 | 47,921 | 47,952 | 48,107 | 48,409 |
| Participation rate | 53.7 | 54.7 | 54.5 | 54.6 | 54.5 | 54.6 | 54.8 | 54.9 | 54.9 | 55.0 | 55.0 | 55.0 | 55.0 | 55.1 | 55.4 |
| Employed | 42,793 | 44,154 | 43,883 | 44,033 | 44,070 | 44,197 | 44,363 | 44,609 | 44,656 | 44,882 | 44,980 | 44,710 | 44,797 | 45,009 | 45,284 |
| Employment-population ratio[2] | 50.1 | 51.0 | 50.8 | 50.9 | 50.9 | 51.0 | 51.2 | 51.4 | 51.4 | 51.6 | 51.6 | 51.3 | 51.3 | 51.5 | 51.8 |
| Agriculture | 595 | 596 | 600 | 572 | 596 | 581 | 557 | 609 | 591 | 597 | 696 | 593 | 598 | 576 | 609 |
| Nonagricultural industries | 42,198 | 43,558 | 43,283 | 43,461 | 43,474 | 43,616 | 43,806 | 44,000 | 44,065 | 44,285 | 44,284 | 44,117 | 44,199 | 44,433 | 44,675 |
| Unemployed | 3,107 | 3,129 | 3,199 | 3,152 | 3,120 | 3,143 | 3,195 | 3,054 | 3,057 | 2,988 | 2,915 | 3,211 | 3,155 | 3,097 | 3,125 |
| Unemployment rate | 6.8 | 6.6 | 6.8 | 6.7 | 6.6 | 6.6 | 6.7 | 6.4 | 6.4 | 6.2 | 6.1 | 6.7 | 6.6 | 6.4 | 6.5 |
| **Both sexes, 16 to 19 years** | | | | | | | | | | | | | | | |
| Civilian noninstitutional population[1] | 14,735 | 14,506 | 14,496 | 14,483 | 14,445 | 14,448 | 14,456 | 14,463 | 14,472 | 14,474 | 14,458 | 14,465 | 14,485 | 14,484 | 14,480 |
| Civilian labor force | 7,943 | 7,901 | 8,017 | 7,593 | 7,924 | 7,734 | 7,825 | 7,925 | 7,864 | 7,811 | 7,678 | 7,984 | 7,987 | 8,074 | 8,047 |
| Participation rate | 53.9 | 54.5 | 55.3 | 52.4 | 54.9 | 53.5 | 54.1 | 54.8 | 54.3 | 54.0 | 53.1 | 55.2 | 55.1 | 55.7 | 55.6 |
| Employed | 6,444 | 6,434 | 6,512 | 6,184 | 6,398 | 6,377 | 6,405 | 6,355 | 6,416 | 6,342 | 6,269 | 6,467 | 6,532 | 6,492 | 6,515 |
| Employment-population ratio[2] | 43.7 | 44.4 | 44.9 | 42.7 | 44.3 | 44.1 | 44.3 | 43.9 | 44.3 | 43.8 | 43.4 | 44.7 | 45.1 | 44.8 | 45.0 |
| Agriculture | 309 | 305 | 332 | 308 | 294 | 283 | 289 | 261 | 269 | 276 | 254 | 246 | 276 | 298 | 274 |
| Nonagricultural industries | 6,135 | 6,129 | 6,180 | 5,876 | 6,104 | 6,094 | 6,116 | 6,094 | 6,147 | 6,066 | 6,015 | 6,221 | 6,256 | 6,194 | 6,241 |
| Unemployed | 1,499 | 1,468 | 1,505 | 1,409 | 1,526 | 1,357 | 1,420 | 1,570 | 1,448 | 1,469 | 1,409 | 1,517 | 1,455 | 1,582 | 1,532 |
| Unemployment rate | 18.9 | 18.6 | 18.8 | 18.6 | 19.3 | 17.5 | 18.1 | 19.8 | 18.4 | 18.8 | 18.4 | 19.0 | 18.2 | 19.6 | 19.0 |
| **White** | | | | | | | | | | | | | | | |
| Civilian noninstitutional population[1] | 152,347 | 153,679 | 153,489 | 153,597 | 153,717 | 153,819 | 153,938 | 154,082 | 154,203 | 154,327 | 154,784 | 154,889 | 155,005 | 155,122 | 155,236 |
| Civilian labor force | 98,492 | 99,926 | 99,771 | 99,527 | 99,705 | 99,817 | 100,179 | 100,533 | 100,478 | 100,533 | 100,961 | 101,232 | 101,248 | 101,249 | 101,515 |
| Participation rate | 64.6 | 65.0 | 65.0 | 64.8 | 64.9 | 64.9 | 65.1 | 65.2 | 65.2 | 65.1 | 65.2 | 65.4 | 65.3 | 65.3 | 65.4 |
| Employed | 92,120 | 93,736 | 93,574 | 93,132 | 93,378 | 93,684 | 94,055 | 94,369 | 94,507 | 94,585 | 95,165 | 94,803 | 94,958 | 95,081 | 95,180 |
| Employment-population ratio[2] | 60.5 | 61.0 | 61.0 | 60.6 | 60.7 | 60.9 | 61.1 | 61.2 | 61.3 | 61.3 | 61.5 | 61.2 | 61.3 | 61.3 | 61.3 |
| Unemployed | 6,372 | 6,191 | 6,197 | 6,395 | 6,327 | 6,133 | 6,124 | 6,164 | 5,971 | 5,948 | 5,796 | 6,429 | 6,290 | 6,168 | 6,335 |
| Unemployment rate | 6.5 | 6.2 | 6.2 | 6.4 | 6.3 | 6.1 | 6.1 | 6.1 | 5.9 | 5.9 | 5.7 | 6.4 | 6.2 | 6.1 | 6.2 |
| **Black** | | | | | | | | | | | | | | | |
| Civilian noninstitutional population[1] | 19,348 | 19,664 | 19,620 | 19,646 | 19,675 | 19,700 | 19,728 | 19,761 | 19,790 | 19,819 | 19,837 | 19,863 | 19,889 | 19,916 | 19,943 |
| Civilian labor force | 12,033 | 12,364 | 12,372 | 12,317 | 12,354 | 12,289 | 12,378 | 12,412 | 12,457 | 12,522 | 12,548 | 12,545 | 12,656 | 12,740 | 12,781 |
| Participation rate | 62.2 | 62.9 | 63.1 | 62.7 | 62.8 | 62.4 | 62.7 | 62.8 | 62.9 | 63.2 | 63.3 | 63.2 | 63.6 | 64.0 | 64.1 |
| Employed | 10,119 | 10,501 | 10,466 | 10,538 | 10,499 | 10,560 | 10,500 | 10,566 | 10,518 | 10,657 | 10,737 | 10,690 | 10,791 | 10,856 | 10,889 |
| Employment-population ratio[2] | 52.3 | 53.4 | 53.3 | 53.6 | 53.4 | 53.6 | 53.2 | 53.5 | 53.1 | 53.8 | 54.1 | 53.8 | 54.3 | 54.5 | 54.6 |
| Unemployed | 1,914 | 1,864 | 1,906 | 1,779 | 1,855 | 1,729 | 1,878 | 1,846 | 1,939 | 1,865 | 1,810 | 1,855 | 1,865 | 1,884 | 1,892 |
| Unemployment rate | 15.9 | 15.1 | 15.4 | 14.4 | 15.0 | 14.1 | 15.2 | 14.9 | 15.6 | 14.9 | 14.4 | 14.8 | 14.7 | 14.8 | 14.8 |

See footnotes at end of table.

### 5. Continued— Employment status of the civilian population, by sex, age, race and Hispanic origin, monthly data seasonally adjusted

(Numbers in thousands)

| Employment status | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| **Hispanic origin** | | | | | | | | | | | | | | | |
| Civilian noninstitutional population[1] | 11,478 | 11,915 | 11,862 | 11,897 | 11,933 | 11,969 | 12,004 | 12,040 | 12,075 | 12,111 | 12,148 | 12,184 | 12,219 | 12,255 | 12,290 |
| Civilian labor force | 7,451 | 7,698 | 7,616 | 7,669 | 7,713 | 7,781 | 7,844 | 7,854 | 7,782 | 7,772 | 7,787 | 7,943 | 7,920 | 7,975 | 8,002 |
| Participation rate | 64.9 | 64.6 | 64.2 | 64.5 | 64.6 | 65.0 | 65.3 | 65.2 | 64.4 | 64.2 | 64.1 | 65.2 | 64.8 | 65.1 | 65.1 |
| Employed | 6,651 | 6,888 | 6,806 | 6,856 | 6,870 | 6,973 | 7,026 | 6,982 | 6,953 | 6,962 | 6,998 | 6,969 | 7,105 | 7,144 | 7,123 |
| Employment-population ratio[2] | 57.9 | 57.8 | 57.4 | 57.6 | 57.6 | 58.3 | 58.5 | 58.0 | 57.6 | 57.5 | 57.6 | 57.2 | 58.2 | 58.3 | 58.0 |
| Unemployed | 800 | 811 | 810 | 813 | 843 | 808 | 818 | 872 | 829 | 810 | 789 | 974 | 815 | 832 | 878 |
| Unemployment rate | 10.7 | 10.5 | 10.6 | 10.6 | 10.9 | 10.4 | 10.4 | 11.1 | 10.7 | 10.4 | 10.1 | 12.3 | 10.3 | 10.4 | 11.0 |

[1] The population figures are not seasonally adjusted.
[2] Civilian employment as a percent of the civilian noninstitutional population.
NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" groups are not presented and Hispanics are included in both the white and black population groups.

### 6. Selected employment indicators, monthly data seasonally adjusted

(In thousands)

| Selected categories | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| **CHARACTERISTIC** | | | | | | | | | | | | | | | |
| Civilian employed, 16 years and over | 105,005 | 107,150 | 106,939 | 106,601 | 106,871 | 107,210 | 107,519 | 107,813 | 107,969 | 108,206 | 108,955 | 108,561 | 108,788 | 108,892 | 109,110 |
| Men | 59,091 | 59,891 | 59,942 | 59,623 | 59,719 | 59,936 | 60,049 | 60,105 | 60,179 | 60,244 | 60,919 | 60,704 | 60,748 | 60,713 | 60,657 |
| Women | 45,915 | 47,259 | 46,997 | 46,978 | 47,152 | 47,274 | 47,470 | 47,708 | 47,790 | 47,962 | 48,035 | 47,857 | 48,041 | 48,179 | 48,454 |
| Married men, spouse present | 39,056 | 39,248 | 39,260 | 38,966 | 39,096 | 39,142 | 39,103 | 39,272 | 39,314 | 39,278 | 39,615 | 39,382 | 39,365 | 39,555 | 39,614 |
| Married women, spouse present | 25,636 | 26,336 | 26,036 | 26,174 | 26,316 | 26,392 | 26,531 | 26,702 | 26,721 | 26,804 | 26,958 | 26,593 | 26,656 | 26,802 | 26,920 |
| Women who maintain families | 5,465 | 5,597 | 5,626 | 5,643 | 5,607 | 5,627 | 5,556 | 5,514 | 5,605 | 5,693 | 5,702 | 5,733 | 5,771 | 5,812 | 5,718 |
| **MAJOR INDUSTRY AND CLASS OF WORKER** | | | | | | | | | | | | | | | |
| Agriculture: | | | | | | | | | | | | | | | |
| Wage and salary workers | 1,555 | 1,535 | 1,582 | 1,530 | 1,479 | 1,456 | 1,438 | 1,465 | 1,537 | 1,572 | 1,673 | 1,519 | 1,689 | 1,587 | 1,480 |
| Self-employed workers | 1,553 | 1,458 | 1,498 | 1,451 | 1,474 | 1,444 | 1,414 | 1,436 | 1,361 | 1,409 | 1,492 | 1,444 | 1,453 | 1,475 | 1,486 |
| Unpaid family workers | 213 | 185 | 196 | 159 | 170 | 176 | 179 | 172 | 158 | 164 | 163 | 156 | 172 | 180 | 186 |
| Nonagricultural industries: | | | | | | | | | | | | | | | |
| Wage and salary workers | 93,565 | 95,871 | 95,660 | 95,391 | 95,523 | 95,791 | 96,546 | 96,530 | 96,676 | 96,921 | 97,911 | 97,516 | 97,698 | 97,831 | 97,994 |
| Government | 15,770 | 16,031 | 15,936 | 16,000 | 15,949 | 16,075 | 16,145 | 16,213 | 16,157 | 16,194 | 16,418 | 16,104 | 16,095 | 16,187 | 16,325 |
| Private industries | 77,794 | 79,841 | 79,724 | 79,391 | 79,574 | 79,716 | 80,401 | 80,317 | 80,519 | 80,727 | 81,494 | 81,412 | 81,604 | 81,643 | 81,669 |
| Private households | 1,238 | 1,249 | 1,255 | 1,228 | 1,251 | 1,295 | 1,266 | 1,271 | 1,197 | 1,131 | 1,256 | 1,197 | 1,213 | 1,321 | 1,275 |
| Other | 76,556 | 78,592 | 78,469 | 78,163 | 78,323 | 78,421 | 79,135 | 79,046 | 79,322 | 79,596 | 80,238 | 80,216 | 80,390 | 80,322 | 80,394 |
| Self-employed workers | 7,785 | 7,811 | 7,711 | 7,728 | 7,724 | 7,874 | 7,846 | 7,991 | 8,013 | 7,903 | 7,655 | 7,669 | 7,644 | 7,571 | 7,757 |
| Unpaid family workers | 335 | 289 | 290 | 292 | 277 | 303 | 266 | 248 | 249 | 250 | 273 | 270 | 240 | 253 | 229 |
| **PERSONS AT WORK PART TIME[1]** | | | | | | | | | | | | | | | |
| All industries: | | | | | | | | | | | | | | | |
| Part time for economic reasons | 5,744 | 5,590 | 5,876 | 5,544 | 5,596 | 5,680 | 5,554 | 5,475 | 5,498 | 5,494 | 5,543 | 5,377 | 5,538 | 5,923 | 5,980 |
| Slack work | 2,430 | 2,430 | 2,607 | 2,524 | 2,414 | 2,480 | 2,433 | 2,251 | 2,306 | 2,303 | 2,364 | 2,369 | 2,330 | 2,603 | 2,659 |
| Could only find part-time work | 2,948 | 2,819 | 2,871 | 2,751 | 2,766 | 2,835 | 2,815 | 2,897 | 2,883 | 2,864 | 2,883 | 2,703 | 2,953 | 2,974 | 2,893 |
| Voluntary part time | 13,169 | 13,489 | 13,078 | 13,439 | 13,634 | 13,622 | 13,496 | 13,713 | 13,645 | 13,556 | 13,958 | 13,817 | 13,754 | 13,933 | 13,638 |
| Nonagricultural industries: | | | | | | | | | | | | | | | |
| Part time for economic reasons | 5,512 | 5,334 | 5,550 | 5,278 | 5,328 | 5,413 | 5,299 | 5,241 | 5,295 | 5,294 | 5,275 | 5,158 | 5,301 | 5,621 | 5,673 |
| Slack work | 2,291 | 2,273 | 2,418 | 2,334 | 2,251 | 2,319 | 2,292 | 2,115 | 2,196 | 2,195 | 2,208 | 2,224 | 2,159 | 2,430 | 2,523 |
| Could only find part-time work | 2,866 | 2,730 | 2,785 | 2,675 | 2,686 | 2,740 | 2,730 | 2,801 | 2,784 | 2,760 | 2,776 | 2,636 | 2,861 | 2,849 | 2,790 |
| Voluntary part time | 12,704 | 13,038 | 12,612 | 12,995 | 13,235 | 13,179 | 13,053 | 13,277 | 13,194 | 13,122 | 13,441 | 13,369 | 13,285 | 13,599 | 13,191 |

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

## 7. Selected unemployment indicators, monthly data seasonally adjusted

(Unemployment rates)

| Selected categories | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| **CHARACTERISTIC** | | | | | | | | | | | | | | | |
| Total, all civilian workers | 7.5 | 7.2 | 7.3 | 7.3 | 7.3 | 7.1 | 7.1 | 7.1 | 7.0 | 6.9 | 6.7 | 7.3 | 7.2 | 7.1 | 7.3 |
| Both sexes, 16 to 19 years | 18.9 | 18.6 | 18.8 | 18.6 | 19.3 | 17.5 | 18.1 | 19.8 | 18.4 | 18.8 | 18.4 | 19.0 | 18.2 | 19.6 | 19.0 |
| Men, 20 years and over | 6.6 | 6.2 | 6.1 | 6.4 | 6.2 | 6.0 | 6.1 | 6.1 | 6.0 | 5.9 | 5.7 | 6.2 | 6.2 | 6.0 | 6.4 |
| Women, 20 years and over | 6.8 | 6.6 | 6.8 | 6.7 | 6.6 | 6.6 | 6.7 | 6.4 | 6.4 | 6.2 | 6.1 | 6.7 | 6.6 | 6.4 | 6.5 |
| White, total | 6.5 | 6.2 | 6.2 | 6.4 | 6.3 | 6.1 | 6.1 | 6.1 | 5.9 | 5.9 | 5.7 | 6.4 | 6.2 | 6.1 | 6.2 |
| Both sexes, 16 to 19 years | 16.0 | 15.7 | 16.0 | 16.0 | 16.1 | 15.2 | 15.3 | 17.0 | 15.5 | 15.9 | 14.9 | 16.2 | 14.5 | 16.4 | 16.0 |
| Men, 16 to 19 years | 16.8 | 16.5 | 16.7 | 16.7 | 17.1 | 17.2 | 16.2 | 18.5 | 15.8 | 16.2 | 14.7 | 16.5 | 15.3 | 17.2 | 17.3 |
| Women, 16 to 19 years | 15.2 | 14.8 | 15.1 | 15.2 | 15.0 | 13.0 | 14.4 | 15.3 | 15.1 | 15.5 | 15.1 | 15.8 | 13.7 | 15.6 | 14.7 |
| Men, 20 years and over | 5.7 | 5.4 | 5.2 | 5.7 | 5.6 | 5.3 | 5.2 | 5.2 | 5.2 | 5.1 | 5.0 | 5.4 | 5.5 | 5.2 | 5.5 |
| Women, 20 years and over | 5.8 | 5.7 | 5.8 | 5.8 | 5.7 | 5.7 | 5.7 | 5.5 | 5.4 | 5.4 | 5.3 | 5.9 | 5.8 | 5.5 | 5.5 |
| Black, total | 15.9 | 15.1 | 15.4 | 14.4 | 15.0 | 14.1 | 15.2 | 14.9 | 15.6 | 14.9 | 14.4 | 14.8 | 14.7 | 14.8 | 14.8 |
| Both sexes, 16 to 19 years | 42.7 | 40.2 | 40.4 | 39.5 | 41.2 | 35.3 | 38.8 | 39.7 | 40.8 | 41.6 | 41.9 | 39.1 | 43.7 | 42.6 | 40.8 |
| Men, 16 to 19 years | 42.7 | 41.0 | 39.3 | 41.0 | 43.1 | 34.9 | 41.1 | 41.0 | 45.2 | 41.0 | 41.3 | 38.7 | 44.1 | 41.4 | 40.8 |
| Women, 16 to 19 years | 42.6 | 39.2 | 41.5 | 37.8 | 39.0 | 35.9 | 36.1 | 38.2 | 36.0 | 42.3 | 42.4 | 39.5 | 43.4 | 43.7 | 40.8 |
| Men, 20 years and over | 14.3 | 13.2 | 13.4 | 12.5 | 12.8 | 11.9 | 13.3 | 13.7 | 13.7 | 13.1 | 12.7 | 13.3 | 12.6 | 12.6 | 12.7 |
| Women, 20 years and over | 13.5 | 13.1 | 13.5 | 12.7 | 13.1 | 13.1 | 13.5 | 12.1 | 13.6 | 12.6 | 12.0 | 12.5 | 12.2 | 12.5 | 12.8 |
| Hispanic origin, total | 10.7 | 10.5 | 10.6 | 10.6 | 10.9 | 10.4 | 10.4 | 11.1 | 10.7 | 10.4 | 10.1 | 12.3 | 10.3 | 10.4 | 11.0 |
| Married men, spouse present | 4.6 | 4.3 | 4.0 | 4.6 | 4.4 | 4.1 | 4.3 | 4.2 | 4.3 | 4.3 | 4.3 | 4.5 | 4.5 | 4.2 | 4.5 |
| Married women, spouse present | 5.7 | 5.6 | 5.7 | 5.8 | 5.7 | 5.4 | 5.6 | 5.3 | 5.5 | 5.3 | 5.1 | 5.5 | 5.6 | 5.3 | 5.4 |
| Women who maintain families | 10.3 | 10.4 | 10.8 | 9.9 | 10.3 | 10.8 | 11.3 | 10.4 | 10.0 | 9.4 | 9.9 | 9.9 | 10.1 | 9.4 | 10.2 |
| Full-time workers | 7.2 | 6.8 | 6.9 | 6.9 | 7.0 | 6.8 | 6.8 | 6.8 | 6.7 | 6.6 | 6.4 | 6.9 | 6.9 | 6.7 | 7.0 |
| Part-time workers | 9.3 | 9.3 | 10.0 | 9.5 | 9.4 | 9.0 | 9.3 | 9.6 | 8.8 | 9.0 | 8.4 | 9.4 | 9.1 | 9.6 | 9.2 |
| Unemployed 15 weeks and over | 2.4 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.8 | 2.0 | 1.9 | 1.8 | 1.9 |
| Labor force time lost[1] | 8.6 | 8.1 | 8.3 | 8.2 | 8.2 | 8.1 | 8.1 | 7.9 | 7.9 | 7.8 | 7.6 | 8.1 | 8.1 | 8.1 | 8.3 |
| **INDUSTRY** | | | | | | | | | | | | | | | |
| Nonagricultural private wage and salary workers | 7.4 | 7.2 | 7.2 | 7.3 | 7.3 | 7.1 | 7.2 | 7.1 | 7.0 | 6.9 | 6.7 | 7.2 | 7.2 | 7.2 | 7.3 |
| Mining | 10.0 | 9.5 | 7.5 | 10.9 | 9.9 | 8.6 | 8.9 | 7.7 | 7.3 | 10.3 | 10.9 | 9.2 | 10.4 | 12.8 | 13.7 |
| Construction | 14.3 | 13.1 | 11.0 | 13.5 | 13.4 | 13.1 | 13.6 | 13.5 | 13.4 | 12.6 | 12.9 | 13.2 | 13.0 | 12.0 | 13.3 |
| Manufacturing | 7.5 | 7.7 | 7.8 | 7.7 | 7.9 | 7.8 | 7.7 | 7.5 | 7.7 | 7.3 | 7.0 | 7.2 | 7.2 | 6.8 | 7.5 |
| Durable goods | 7.2 | 7.6 | 7.8 | 7.9 | 7.9 | 7.9 | 7.7 | 7.3 | 7.6 | 7.3 | 7.0 | 7.4 | 6.8 | 6.8 | 7.3 |
| Nondurable goods | 7.8 | 7.8 | 7.8 | 7.5 | 7.9 | 7.6 | 7.8 | 7.8 | 7.8 | 7.3 | 7.1 | 7.0 | 7.7 | 6.8 | 7.7 |
| Transportation and public utilities | 5.5 | 5.1 | 5.2 | 5.3 | 5.7 | 4.5 | 5.3 | 5.1 | 5.1 | 5.0 | 4.3 | 5.3 | 6.1 | 5.6 | 5.3 |
| Wholesale and retail trade | 8.0 | 7.6 | 7.8 | 7.7 | 7.6 | 7.7 | 7.8 | 7.7 | 7.5 | 7.6 | 7.2 | 7.8 | 7.6 | 8.1 | 8.1 |
| Finance and service industries | 5.9 | 5.6 | 6.1 | 5.7 | 5.6 | 5.5 | 5.5 | 5.4 | 5.4 | 5.3 | 5.2 | 5.9 | 5.7 | 5.9 | 5.5 |
| Government workers | 4.5 | 3.9 | 3.9 | 3.9 | 4.0 | 3.9 | 3.8 | 3.9 | 3.6 | 3.8 | 3.4 | 3.8 | 4.0 | 3.5 | 3.7 |
| Agricultural wage and salary workers | 13.5 | 13.2 | 11.9 | 12.5 | 14.0 | 14.0 | 13.3 | 12.9 | 12.5 | 10.6 | 10.9 | 14.3 | 11.9 | 13.4 | 15.8 |

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

## 8. Unemployment rates by sex and age, monthly data seasonally adjusted

(Civilian workers)

| Sex and age | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| Total, 16 years and over | 7.5 | 7.2 | 7.3 | 7.3 | 7.3 | 7.1 | 7.1 | 7.1 | 7.0 | 6.9 | 6.7 | 7.3 | 7.2 | 7.1 | 7.3 |
| 16 to 24 years | 13.9 | 13.6 | 14.0 | 13.6 | 13.9 | 13.0 | 13.3 | 13.9 | 13.5 | 13.3 | 13.0 | 13.6 | 13.2 | 13.9 | 14.2 |
| 16 to 19 years | 18.9 | 18.6 | 18.8 | 18.6 | 19.3 | 17.5 | 18.1 | 19.8 | 18.4 | 18.8 | 18.4 | 19.0 | 18.2 | 19.6 | 19.0 |
| 16 to 17 years | 21.2 | 21.0 | 21.2 | 21.6 | 21.7 | 19.1 | 20.3 | 22.7 | 21.4 | 21.1 | 20.9 | 21.8 | 19.4 | 20.9 | 21.1 |
| 18 to 19 years | 17.4 | 17.0 | 17.1 | 16.4 | 17.3 | 16.8 | 16.7 | 17.8 | 16.9 | 17.5 | 16.4 | 17.2 | 17.1 | 18.9 | 17.5 |
| 20 to 24 years | 11.5 | 11.1 | 11.6 | 11.2 | 11.2 | 10.8 | 10.9 | 10.9 | 11.0 | 10.6 | 10.4 | 10.8 | 10.6 | 10.9 | 11.7 |
| 25 years and over | 5.8 | 5.6 | 5.5 | 5.8 | 5.6 | 5.5 | 5.6 | 5.4 | 5.4 | 5.3 | 5.1 | 5.7 | 5.7 | 5.4 | 5.5 |
| 25 to 54 years | 6.1 | 5.8 | 5.8 | 6.0 | 5.9 | 5.8 | 5.8 | 5.7 | 5.6 | 5.5 | 5.4 | 5.9 | 5.9 | 5.8 | 5.9 |
| 55 years and over | 4.5 | 4.1 | 4.3 | 4.3 | 4.4 | 4.1 | 4.1 | 3.9 | 3.8 | 3.9 | 3.9 | 4.4 | 4.3 | 3.9 | 3.6 |
| Men, 16 years and over | 7.4 | 7.0 | 7.0 | 7.2 | 7.2 | 6.9 | 6.9 | 7.1 | 6.9 | 6.7 | 6.5 | 7.0 | 7.0 | 6.9 | 7.3 |
| 16 to 24 years | 14.4 | 14.1 | 14.7 | 14.2 | 14.6 | 13.8 | 13.8 | 14.6 | 13.9 | 13.5 | 12.8 | 13.6 | 13.6 | 14.5 | 15.0 |
| 16 to 19 years | 19.6 | 19.5 | 19.4 | 19.2 | 20.5 | 19.6 | 19.3 | 21.5 | 19.4 | 19.3 | 18.2 | 19.3 | 18.9 | 20.2 | 20.4 |
| 16 to 17 years | 21.9 | 21.9 | 22.2 | 23.2 | 22.1 | 21.9 | 20.7 | 24.0 | 20.9 | 21.6 | 20.9 | 23.2 | 20.0 | 21.2 | 21.6 |
| 18 to 19 years | 18.3 | 17.9 | 17.6 | 16.4 | 18.7 | 18.1 | 18.3 | 19.9 | 18.7 | 18.0 | 16.2 | 16.6 | 17.8 | 19.7 | 19.6 |
| 20 to 24 years | 11.9 | 11.4 | 12.3 | 11.7 | 11.6 | 10.9 | 11.0 | 11.1 | 11.2 | 10.6 | 10.3 | 10.7 | 11.0 | 11.6 | 12.2 |
| 25 years and over | 5.7 | 5.3 | 5.1 | 5.6 | 5.4 | 5.3 | 5.3 | 5.3 | 5.2 | 5.1 | 5.0 | 5.5 | 5.5 | 5.2 | 5.4 |
| 25 to 54 years | 5.9 | 5.6 | 5.3 | 5.8 | 5.6 | 5.6 | 5.5 | 5.5 | 5.4 | 5.4 | 5.3 | 5.7 | 5.7 | 5.5 | 5.8 |
| 55 years and over | 4.6 | 4.1 | 4.1 | 4.4 | 4.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 | 3.9 | 4.4 | 4.3 | 3.9 | 3.8 |
| Women, 16 years and over | 7.6 | 7.4 | 7.6 | 7.5 | 7.4 | 7.3 | 7.5 | 7.3 | 7.2 | 7.1 | 7.0 | 7.6 | 7.4 | 7.4 | 7.3 |
| 16 to 24 years | 13.3 | 13.0 | 13.3 | 12.9 | 13.1 | 12.2 | 12.9 | 13.1 | 13.1 | 13.2 | 13.2 | 13.6 | 12.7 | 13.2 | 13.3 |
| 16 to 19 years | 18.0 | 17.6 | 18.1 | 17.8 | 17.9 | 15.3 | 16.9 | 17.9 | 17.4 | 18.3 | 18.5 | 18.6 | 17.5 | 19.0 | 17.6 |
| 16 to 17 years | 20.4 | 20.0 | 20.1 | 19.9 | 21.2 | 15.8 | 19.8 | 21.2 | 22.0 | 20.6 | 20.8 | 20.2 | 18.7 | 20.5 | 20.5 |
| 18 to 19 years | 16.6 | 16.0 | 16.5 | 16.4 | 15.7 | 15.3 | 14.9 | 15.5 | 15.1 | 16.9 | 16.5 | 17.7 | 16.3 | 18.1 | 15.3 |
| 20 to 24 years | 10.9 | 10.7 | 10.8 | 10.6 | 10.7 | 10.7 | 10.9 | 10.7 | 10.8 | 10.6 | 10.5 | 11.0 | 10.1 | 10.0 | 11.1 |
| 25 years and over | 6.0 | 5.9 | 6.1 | 6.0 | 5.9 | 5.8 | 6.0 | 5.6 | 5.6 | 5.4 | 5.3 | 5.9 | 5.9 | 5.8 | 5.7 |
| 25 to 54 years | 6.3 | 6.2 | 6.4 | 6.3 | 6.2 | 6.1 | 6.2 | 5.9 | 5.9 | 5.7 | 5.6 | 6.2 | 6.3 | 6.2 | 6.1 |
| 55 years and over | 4.2 | 4.1 | 4.4 | 4.1 | 4.2 | 4.5 | 4.2 | 3.7 | 3.6 | 3.9 | 3.8 | 4.4 | 4.4 | 3.8 | 3.4 |

## 9. Unemployed persons by reason for unemployment, monthly data seasonally adjusted

(Numbers in thousands)

| Reason for unemployment | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| Job losers | 4,421 | 4,139 | 3,994 | 4,167 | 4,206 | 4,144 | 4,142 | 4,040 | 4,081 | 3,933 | 3,776 | 4,162 | 4,246 | 4,034 | 4,311 |
| On layoff | 1,171 | 1,157 | 1,068 | 1,135 | 1,134 | 1,112 | 1,167 | 1,161 | 1,175 | 1,132 | 1,163 | 1,152 | 1,164 | 1,028 | 1,133 |
| Other job losers | 3,250 | 2,982 | 2,926 | 3,032 | 3,072 | 3,032 | 2,975 | 2,879 | 2,906 | 2,801 | 2,613 | 3,010 | 3,082 | 3,006 | 3,178 |
| Job leavers | 823 | 877 | 870 | 983 | 894 | 875 | 852 | 911 | 808 | 876 | 996 | 1,001 | 1,002 | 1,110 | 975 |
| Reentrants | 2,184 | 2,256 | 2,378 | 2,233 | 2,184 | 2,191 | 2,335 | 2,237 | 2,226 | 2,225 | 2,066 | 2,292 | 2,197 | 2,191 | 2,217 |
| New entrants | 1,110 | 1,039 | 1,142 | 1,018 | 1,098 | 941 | 918 | 1,045 | 1,055 | 1,033 | 1,025 | 1,097 | 1,000 | 1,059 | 1,062 |
| **PERCENT OF UNEMPLOYED** | | | | | | | | | | | | | | | |
| Job losers | 51.8 | 49.8 | 47.6 | 49.6 | 50.2 | 50.8 | 50.2 | 49.1 | 50.0 | 48.8 | 48.0 | 48.7 | 50.3 | 48.1 | 50.3 |
| On layoff | 13.7 | 13.9 | 12.7 | 13.5 | 13.5 | 13.6 | 14.2 | 14.1 | 14.4 | 14.0 | 14.8 | 13.5 | 13.8 | 12.2 | 13.2 |
| Other job losers | 38.1 | 35.9 | 34.9 | 36.1 | 36.6 | 37.2 | 36.1 | 35.0 | 35.6 | 34.7 | 33.2 | 35.2 | 36.5 | 35.8 | 37.1 |
| Job leavers | 9.6 | 10.6 | 10.4 | 11.7 | 10.7 | 10.7 | 10.3 | 11.1 | 9.9 | 10.9 | 12.7 | 11.7 | 11.9 | 13.2 | 11.4 |
| Reentrants | 25.6 | 27.1 | 28.4 | 26.6 | 26.1 | 26.9 | 28.3 | 27.2 | 27.2 | 27.6 | 26.3 | 26.8 | 26.0 | 26.1 | 25.9 |
| New entrants | 13.0 | 12.5 | 13.6 | 12.1 | 13.1 | 11.5 | 11.1 | 12.7 | 12.9 | 12.8 | 13.0 | 12.8 | 11.8 | 12.6 | 12.4 |
| **PERCENT OF CIVILIAN LABOR FORCE** | | | | | | | | | | | | | | | |
| Job losers | 3.9 | 3.6 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 | 3.5 | 3.5 | 3.4 | 3.2 | 3.6 | 3.6 | 3.4 | 3.7 |
| Job leavers | .7 | .8 | .8 | .9 | .8 | .8 | .7 | .8 | .7 | .8 | .9 | .9 | .9 | .9 | .8 |
| Reentrants | 1.9 | 2.0 | 2.1 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 | 1.9 | 1.9 | 1.8 | 2.0 | 1.9 | 1.9 | 1.9 |
| New entrants | 1.0 | .9 | 1.0 | .9 | 1.0 | .8 | .8 | .9 | .9 | .9 | .9 | .9 | .9 | .9 | .9 |

## 10. Duration of unemployment, monthly data seasonally adjusted

(Numbers in thousands)

| Weeks of unemployment | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| Less than 5 weeks | 3,350 | 3,498 | 3,607 | 3,466 | 3,525 | 3,422 | 3,484 | 3,430 | 3,465 | 3,374 | 3,311 | 3,562 | 3,589 | 3,628 | 3,705 |
| 5 to 14 weeks | 2,451 | 2,509 | 2,594 | 2,536 | 2,514 | 2,508 | 2,505 | 2,536 | 2,448 | 2,460 | 2,441 | 2,622 | 2,640 | 2,685 | 2,737 |
| 15 weeks and over | 2,737 | 2,305 | 2,274 | 2,328 | 2,329 | 2,274 | 2,307 | 2,277 | 2,205 | 2,188 | 2,056 | 2,340 | 2,258 | 2,135 | 2,209 |
| 15 to 26 weeks | 1,104 | 1,025 | 1,063 | 1,033 | 1,078 | 1,047 | 1,035 | 1,057 | 894 | 973 | 969 | 1,149 | 1,099 | 1,001 | 1,072 |
| 27 weeks and over | 1,634 | 1,280 | 1,211 | 1,295 | 1,251 | 1,227 | 1,272 | 1,220 | 1,311 | 1,215 | 1,087 | 1,191 | 1,159 | 1,134 | 1,137 |
| Mean duration in weeks | 18.2 | 15.6 | 15.0 | 15.5 | 15.5 | 15.5 | 15.5 | 15.4 | 15.7 | 15.4 | 14.9 | 15.3 | 14.4 | 14.3 | 14.4 |
| Median duration in weeks | 7.9 | 6.8 | 6.7 | 6.8 | 7.1 | 7.2 | 6.9 | 7.0 | 6.9 | 6.9 | 6.8 | 6.9 | 6.8 | 6.5 | 6.6 |

## 11. Unemployment rates of civilian workers by State, data not seasonally adjusted

| State | Apr. 1985 | Apr. 1986[p] | State | Apr. 1985 | Apr. 1986[p] |
|---|---|---|---|---|---|
| Alabama | 8.5 | 9.0 | Montana | 8.6 | 8.3 |
| Alaska | 10.7 | 11.4 | Nebraska | 5.3 | 5.2 |
| Arizona | 6.4 | 6.4 | Nevada | 8.1 | 6.6 |
| Arkansas | 8.9 | 8.2 | New Hampshire | 4.4 | 3.4 |
| California | 7.3 | 6.7 | New Jersey | 5.9 | 4.7 |
| Colorado | 5.9 | – | New Mexico | 8.9 | 9.1 |
| Connecticut | 4.9 | 3.6 | New York | 6.6 | 6.7 |
| Delaware | 5.6 | 5.1 | North Carolina | 5.2 | 5.1 |
| District of Columbia | 8.4 | 6.5 | North Dakota | 6.9 | 7.3 |
| Florida | 6.1 | 5.4 | Ohio | 8.9 | 7.9 |
| Georgia | 6.4 | 5.5 | Oklahoma | 7.1 | 8.1 |
| Hawaii | 5.6 | 5.9 | Oregon | 9.6 | 9.6 |
| Idaho | 8.6 | 9.0 | Pennsylvania | 8.2 | 7.0 |
| Illinois | 9.3 | 8.2 | Rhode Island | 5.4 | 3.9 |
| Indiana | 8.1 | 6.7 | South Carolina | 6.9 | 6.8 |
| Iowa | 8.4 | 7.4 | South Dakota | 4.9 | 4.1 |
| Kansas | 4.9 | 5.2 | Tennessee | 8.0 | 7.8 |
| Kentucky | 9.4 | 10.0 | Texas | 6.3 | 8.2 |
| Louisiana | 11.5 | 13.2 | Utah | 6.1 | 5.3 |
| Maine | 6.2 | 6.3 | Vermont | 5.4 | 5.0 |
| Maryland | 4.5 | 4.0 | Virginia | 5.5 | 5.2 |
| Massachusetts | 3.7 | 3.8 | Washington | 8.3 | 7.8 |
| Michigan | 10.3 | 9.1 | West Virginia | 13.4 | 10.8 |
| Minnesota | 6.2 | 6.2 | Wisconsin | 7.7 | 7.3 |
| Mississippi | 10.1 | 10.9 | Wyoming | 7.7 | 10.8 |
| Missouri | 6.3 | 5.3 | | | |

– Data not available.
NOTE: Some data in this table may differ from data published elsewhere because of the continual updating of the database.

## 12. Employment of workers on nonagricultural payrolls by State, data not seasonally adjusted

(In thousands)

| State | Apr. 1985 | Mar. 1986 | Apr. 1986[p] | State | Apr. 1985 | Mar. 1986 | Apr. 1986[p] |
|---|---|---|---|---|---|---|---|
| Alabama | 1,423.1 | 1,428.3 | 1,443.6 | Nebraska | 648.8 | 647.7 | 652.9 |
| Alaska | 225.3 | 220.6 | 225.0 | Nevada | 440.4 | 453.5 | 458.3 |
| Arizona | 1,278.7 | 1,335.0 | 1,343.3 | New Hampshire | 453.9 | 473.6 | 480.2 |
| Arkansas | 795.4 | 814.3 | 820.9 | New Jersey | 3,384.8 | 3,443.5 | 3,484.7 |
| California | 10,879.5 | 11,120.7 | 11,155.5 | New Mexico | 516.1 | 520.9 | 521.1 |
| Colorado | 1,416.1 | 1,441.1 | 1,445.8 | New York | 7,669.9 | 7,793.5 | 7,836.6 |
| Connecticut | 1,557.3 | 1,581.1 | 1,597.6 | North Carolina | 2,639.7 | 2,698.1 | 2,708.9 |
| Delaware | 289.1 | 292.1 | 294.2 | North Dakota | 249.2 | 244.7 | 247.4 |
| District of Columbia | 619.2 | 639.8 | 641.3 | Ohio | 4,347.0 | 4,418.5 | 4,481.6 |
| Florida | 4,420.3 | 4,569.4 | 4,565.1 | Oklahoma | 1,185.6 | 1,160.7 | 1,161.4 |
| Georgia | 2,549.1 | 2,607.0 | 2,612.9 | Oregon | 1,014.3 | 1,030.5 | 1,037.6 |
| Hawaii | 422.5 | 430.0 | 428.9 | Pennsylvania | 4,713.7 | 4,739.1 | 4,786.2 |
| Idaho | 333.0 | 330.6 | 331.5 | Rhode Island | 422.8 | 422.2 | 424.9 |
| Illinois | 4,757.7 | 4,727.6 | 4,756.0 | South Carolina | 1,295.4 | 1,327.6 | 1,339.6 |
| Indiana | 2,159.9 | 2,203.2 | 2,230.6 | South Dakota | 246.1 | 244.5 | 247.0 |
| Iowa | 1,078.5 | 1,069.6 | 1,080.0 | Tennessee | 1,848.8 | 1,898.5 | 1,917.6 |
| Kansas | 974.4 | 979.6 | 989.9 | Texas | 6,664.4 | 6,718.5 | 6,702.4 |
| Kentucky | 1,249.2 | 1,262.2 | 1,270.8 | Utah | 618.7 | 631.9 | 634.2 |
| Louisiana | 1,597.6 | 1,569.2 | 1,553.1 | Vermont | 220.2 | 229.8 | 224.3 |
| Maine | 448.2 | 456.3 | 462.2 | Virginia | 2,418.2 | 2,496.4 | 2,515.7 |
| Maryland | 1,868.4 | 1,892.1 | 1,913.4 | Washington | 1,693.5 | 1,731.0 | 1,745.6 |
| Massachusetts | 2,909.0 | 2,937.0 | 2,968.5 | West Virginia | 593.5 | 589.4 | 594.7 |
| Michigan | 3,461.1 | 3,530.0 | 3,564.2 | Wisconsin | 1,950.4 | 1,967.2 | 1,993.1 |
| Minnesota | 1,849.3 | 1,849.9 | 1,876.1 | Wyoming | 198.8 | 196.5 | 196.3 |
| Mississippi | 834.3 | 846.0 | 849.9 | Puerto Rico | 687.5 | 700.8 | 702.6 |
| Missouri | 2,081.5 | 2,109.2 | 2,138.3 | Virgin Islands | 37.3 | 37.0 | 36.8 |
| Montana | 276.4 | 273.2 | 275.3 | | | | |

[p] = preliminary
NOTE: Some data in this table may differ from data published elsewhere because of the continual updating of the database.

## 13. Employment of workers on nonagricultural payrolls by industry, monthly data seasonally adjusted

(In thousands)

| Industry | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr.[p] | May[p] |
| **TOTAL** | 94,496 | 97,614 | 97,338 | 97,442 | 97,672 | 97,890 | 98,128 | 98,428 | 98,666 | 98,910 | 99,296 | 99,429 | 99,484 | 99,797 | 99,946 |
| **PRIVATE SECTOR** | 78,472 | 81,199 | 80,991 | 81,082 | 81,222 | 81,428 | 81,592 | 81,853 | 82,073 | 82,281 | 82,659 | 82,748 | 82,785 | 83,077 | 83,205 |
| **GOODS PRODUCING** | 24,727 | 24,930 | 24,949 | 24,897 | 24,875 | 24,880 | 24,843 | 24,903 | 24,931 | 24,977 | 25,101 | 25,038 | 24,945 | 25,038 | 24,988 |
| **Mining** | 966 | 930 | 944 | 936 | 928 | 922 | 917 | 913 | 907 | 901 | 897 | 880 | 852 | 821 | 789 |
| Oil and gas extraction | 607 | 585 | 597 | 590 | 585 | 581 | 577 | 571 | 565 | 560 | 556 | 541 | 518 | 489 | 461 |
| **Construction** | 4,383 | 4,687 | 4,682 | 4,671 | 4,679 | 4,702 | 4,728 | 4,754 | 4,765 | 4,787 | 4,901 | 4,864 | 4,838 | 4,970 | 4,991 |
| General building contractors | 1,161 | 1,251 | 1,244 | 1,241 | 1,246 | 1,257 | 1,267 | 1,276 | 1,283 | 1,287 | 1,330 | 1,320 | 1,298 | 1,315 | 1,314 |
| **Manufacturing** | 19,378 | 19,314 | 19,323 | 19,290 | 19,268 | 19,256 | 19,198 | 19,236 | 19,259 | 19,289 | 19,303 | 19,294 | 19,255 | 19,247 | 19,208 |
| Production workers | 13,285 | 13,130 | 13,135 | 13,105 | 13,079 | 13,078 | 13,029 | 13,059 | 13,074 | 13,100 | 13,111 | 13,097 | 13,061 | 13,067 | 13,036 |
| **Durable goods** | 11,505 | 11,516 | 11,542 | 11,517 | 11,483 | 11,473 | 11,421 | 11,447 | 11,453 | 11,461 | 11,466 | 11,455 | 11,418 | 11,416 | 11,385 |
| Production workers | 7,739 | 7,660 | 7,683 | 7,654 | 7,621 | 7,619 | 7,572 | 7,594 | 7,594 | 7,595 | 7,595 | 7,579 | 7,545 | 7,554 | 7,526 |
| Lumber and wood products | 704 | 700 | 697 | 696 | 698 | 700 | 702 | 705 | 708 | 710 | 716 | 716 | 715 | 720 | 721 |
| Furniture and fixtures | 487 | 493 | 490 | 491 | 492 | 495 | 491 | 493 | 493 | 494 | 494 | 494 | 493 | 494 | 497 |
| Stone, clay, and glass products | 593 | 591 | 590 | 589 | 589 | 591 | 590 | 591 | 591 | 593 | 596 | 597 | 594 | 600 | 599 |
| Primary metal industries | 857 | 813 | 818 | 814 | 807 | 798 | 795 | 797 | 801 | 803 | 798 | 795 | 787 | 785 | 779 |
| Blast furnaces and basic steel products | 334 | 305 | 308 | 307 | 305 | 302 | 304 | 304 | 302 | 303 | 300 | 299 | 293 | 292 | 288 |
| Fabricated metal products | 1,463 | 1,468 | 1,472 | 1,468 | 1,465 | 1,463 | 1,459 | 1,460 | 1,459 | 1,456 | 1,455 | 1,452 | 1,450 | 1,450 | 1,447 |
| Machinery, except electrical | 2,198 | 2,182 | 2,202 | 2,190 | 2,176 | 2,164 | 2,147 | 2,146 | 2,139 | 2,133 | 2,137 | 2,127 | 2,118 | 2,108 | 2,101 |
| Electrical and electronic equipment | 2,208 | 2,207 | 2,216 | 2,207 | 2,196 | 2,195 | 2,179 | 2,181 | 2,179 | 2,182 | 2,182 | 2,181 | 2,177 | 2,178 | 2,174 |
| Transportation equipment | 1,901 | 1,971 | 1,965 | 1,970 | 1,970 | 1,977 | 1,970 | 1,987 | 1,993 | 1,998 | 1,996 | 1,998 | 1,989 | 1,988 | 1,974 |
| Motor vehicles and equipment | 862 | 876 | 879 | 879 | 874 | 876 | 871 | 873 | 870 | 872 | 867 | 864 | 858 | 856 | 840 |
| Instruments and related products | 714 | 723 | 723 | 724 | 724 | 724 | 723 | 722 | 723 | 725 | 724 | 725 | 726 | 724 | 725 |
| Miscellaneous manufacturing industries | 382 | 369 | 369 | 368 | 366 | 366 | 365 | 365 | 367 | 367 | 368 | 370 | 369 | 369 | 368 |
| **Nondurable goods** | 7,873 | 7,798 | 7,781 | 7,773 | 7,785 | 7,783 | 7,777 | 7,789 | 7,806 | 7,828 | 7,837 | 7,839 | 7,837 | 7,831 | 7,823 |
| Production workers | 5,546 | 5,470 | 5,452 | 5,451 | 5,458 | 5,459 | 5,457 | 5,465 | 5,480 | 5,505 | 5,516 | 5,518 | 5,516 | 5,513 | 5,510 |
| Food and kindred products | 1,612 | 1,608 | 1,604 | 1,611 | 1,604 | 1,608 | 1,607 | 1,610 | 1,612 | 1,623 | 1,623 | 1,631 | 1,632 | 1,632 | 1,634 |
| Tobacco manufactures | 64 | 65 | 65 | 65 | 64 | 64 | 65 | 64 | 65 | 64 | 64 | 63 | 63 | 63 | 62 |
| Textile mill products | 746 | 704 | 703 | 700 | 698 | 698 | 697 | 699 | 701 | 702 | 702 | 705 | 707 | 703 | 706 |
| Apparel and other textile products | 1,185 | 1,125 | 1,119 | 1,109 | 1,122 | 1,117 | 1,121 | 1,121 | 1,122 | 1,130 | 1,133 | 1,122 | 1,117 | 1,120 | 1,117 |
| Paper and allied products | 681 | 683 | 681 | 682 | 683 | 682 | 682 | 683 | 687 | 686 | 687 | 687 | 688 | 689 | 689 |
| Printing and publishing | 1,376 | 1,435 | 1,429 | 1,433 | 1,440 | 1,442 | 1,442 | 1,447 | 1,454 | 1,457 | 1,461 | 1,467 | 1,469 | 1,472 | 1,474 |
| Chemicals and allied products | 1,049 | 1,046 | 1,048 | 1,046 | 1,045 | 1,043 | 1,042 | 1,040 | 1,037 | 1,035 | 1,034 | 1,032 | 1,031 | 1,028 | 1,025 |
| Petroleum and coal products | 189 | 178 | 181 | 179 | 178 | 177 | 171 | 171 | 170 | 169 | 168 | 167 | 166 | 166 | 165 |
| Rubber and misc. plastics products | 780 | 790 | 786 | 784 | 784 | 787 | 785 | 790 | 794 | 798 | 802 | 803 | 804 | 801 | 797 |
| Leather and leather products | 189 | 166 | 165 | 164 | 167 | 165 | 165 | 164 | 164 | 164 | 163 | 162 | 160 | 157 | 154 |
| **SERVICE-PRODUCING** | 69,769 | 72,684 | 72,389 | 72,545 | 72,797 | 73,010 | 73,285 | 73,525 | 73,735 | 73,933 | 74,195 | 74,391 | 74,539 | 74,759 | 74,958 |
| **Transportation and public utilities** | 5,159 | 5,242 | 5,241 | 5,238 | 5,241 | 5,219 | 5,257 | 5,260 | 5,272 | 5,277 | 5,286 | 5,277 | 5,280 | 5,244 | 5,240 |
| Transportation | 2,917 | 3,006 | 3,003 | 3,001 | 3,006 | 2,983 | 3,023 | 3,026 | 3,040 | 3,046 | 3,056 | 3,048 | 3,053 | 3,019 | 3,014 |
| Communication and public utilities | 2,242 | 2,236 | 2,238 | 2,237 | 2,235 | 2,236 | 2,234 | 2,234 | 2,232 | 2,231 | 2,230 | 2,229 | 2,227 | 2,225 | 2,226 |
| **Wholesale trade** | 5,555 | 5,740 | 5,721 | 5,736 | 5,740 | 5,762 | 5,777 | 5,796 | 5,796 | 5,809 | 5,830 | 5,843 | 5,841 | 5,857 | 5,868 |
| Durable goods | 3,276 | 3,409 | 3,395 | 3,408 | 3,416 | 3,424 | 3,432 | 3,442 | 3,451 | 3,460 | 3,470 | 3,482 | 3,480 | 3,488 | 3,490 |
| Nondurable goods | 2,279 | 2,331 | 2,326 | 2,328 | 2,324 | 2,338 | 2,345 | 2,354 | 2,345 | 2,349 | 2,360 | 2,361 | 2,361 | 2,369 | 2,378 |
| **Retail trade** | 16,545 | 17,360 | 17,329 | 17,379 | 17,404 | 17,464 | 17,489 | 17,543 | 17,589 | 17,622 | 17,734 | 17,795 | 17,828 | 17,853 | 17,897 |
| General merchandise stores | 2,267 | 2,320 | 2,335 | 2,329 | 2,325 | 2,328 | 2,326 | 2,329 | 2,326 | 2,317 | 2,328 | 2,333 | 2,333 | 2,344 | 2,350 |
| Food stores | 2,637 | 2,779 | 2,762 | 2,781 | 2,795 | 2,805 | 2,813 | 2,828 | 2,845 | 2,870 | 2,880 | 2,891 | 2,901 | 2,908 | 2,911 |
| Automotive dealers and service stations | 1,799 | 1,892 | 1,891 | 1,894 | 1,897 | 1,904 | 1,910 | 1,916 | 1,918 | 1,922 | 1,929 | 1,938 | 1,939 | 1,941 | 1,944 |
| Eating and drinking places | 5,388 | 5,715 | 5,700 | 5,728 | 5,734 | 5,749 | 5,761 | 5,772 | 5,783 | 5,801 | 5,831 | 5,854 | 5,868 | 5,859 | 5,889 |
| **Finance, insurance, and real estate** | 5,689 | 5,953 | 5,913 | 5,939 | 5,964 | 5,988 | 6,014 | 6,038 | 6,070 | 6,095 | 6,123 | 6,157 | 6,184 | 6,231 | 6,259 |
| Finance | 2,854 | 2,979 | 2,957 | 2,970 | 2,985 | 2,998 | 3,011 | 3,024 | 3,039 | 3,053 | 3,066 | 3,082 | 3,095 | 3,121 | 3,134 |
| Insurance | 1,757 | 1,830 | 1,820 | 1,827 | 1,832 | 1,839 | 1,846 | 1,852 | 1,862 | 1,868 | 1,878 | 1,889 | 1,900 | 1,911 | 1,915 |
| Real estate | 1,078 | 1,144 | 1,136 | 1,142 | 1,147 | 1,151 | 1,157 | 1,162 | 1,169 | 1,174 | 1,179 | 1,186 | 1,189 | 1,199 | 1,210 |
| **Services** | 20,797 | 21,974 | 21,838 | 21,893 | 21,998 | 22,115 | 22,212 | 22,313 | 22,415 | 22,501 | 22,585 | 22,638 | 22,707 | 22,854 | 22,953 |
| Business services | 4,057 | 4,452 | 4,407 | 4,433 | 4,462 | 4,504 | 4,542 | 4,567 | 4,604 | 4,631 | 4,660 | 4,687 | 4,698 | 4,756 | 4,774 |
| Health services | 6,122 | 6,310 | 6,284 | 6,291 | 6,301 | 6,333 | 6,350 | 6,375 | 6,401 | 6,424 | 6,447 | 6,471 | 6,497 | 6,510 | 6,546 |
| **Government** | 16,024 | 16,415 | 16,347 | 16,360 | 16,450 | 16,462 | 16,536 | 16,575 | 16,593 | 16,629 | 16,637 | 16,681 | 16,699 | 16,720 | 16,741 |
| Federal | 2,807 | 2,875 | 2,869 | 2,872 | 2,879 | 2,886 | 2,899 | 2,895 | 2,904 | 2,913 | 2,918 | 2,918 | 2,923 | 2,921 | 2,923 |
| State | 3,734 | 3,848 | 3,831 | 3,835 | 3,851 | 3,855 | 3,878 | 3,895 | 3,901 | 3,904 | 3,916 | 3,924 | 3,927 | 3,938 | 3,951 |
| Local | 9,482 | 9,692 | 9,647 | 9,653 | 9,720 | 9,721 | 9,759 | 9,785 | 9,788 | 9,812 | 9,803 | 9,839 | 9,849 | 9,861 | 9,867 |

[p] = preliminary

NOTE: See notes on the data for a description of the most recent benchmark revision.

## 14. Average weekly hours of production or nonsupervisory workers on private nonagricultural payrolls by industry, monthly data seasonally adjusted

| Industry | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr.[p] | May[p] |
| **PRIVATE SECTOR** | 35.2 | 34.9 | 35.0 | 34.9 | 34.8 | 34.9 | 34.9 | 34.9 | 34.8 | 34.9 | 35.0 | 34.9 | 34.9 | 34.8 | 34.7 |
| **CONSTRUCTION** | 37.8 | 37.7 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **MANUFACTURING** | 40.7 | 40.5 | 40.4 | 40.5 | 40.4 | 40.6 | 40.7 | 40.7 | 40.7 | 40.9 | 40.8 | 40.7 | 40.7 | 40.7 | 40.6 |
| Overtime hours | 3.4 | 3.3 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.4 | 3.4 | 3.6 | 3.5 | 3.4 | 3.4 | 3.4 | 3.4 |
| **Durable goods** | 41.4 | 41.2 | 41.1 | 41.2 | 41.1 | 41.3 | 41.3 | 41.3 | 41.3 | 41.6 | 41.5 | 41.4 | 41.4 | 41.3 | 41.2 |
| Overtime hours | 3.6 | 3.5 | 3.3 | 3.4 | 3.4 | 3.4 | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.6 | 3.5 | 3.4 |
| Lumber and wood products | 39.9 | 39.9 | 39.8 | 40.1 | 39.8 | 40.1 | 40.1 | 40.2 | 39.9 | 40.2 | 40.4 | 40.0 | 40.2 | 40.3 | 40.1 |
| Furniture and fixtures | 39.7 | 39.4 | 39.0 | 39.1 | 39.0 | 39.3 | 39.4 | 39.5 | 39.4 | 39.9 | 40.0 | 39.7 | 39.4 | 39.1 | 39.3 |
| Stone, clay, and glass products | 42.0 | 41.9 | 42.0 | 41.9 | 41.9 | 42.0 | 42.0 | 42.1 | 41.8 | 41.8 | 42.7 | 41.9 | 41.9 | 42.5 | 42.4 |
| Primary metal industries | 41.7 | 41.5 | 41.3 | 41.5 | 41.4 | 41.7 | 41.5 | 41.8 | 41.9 | 42.1 | 41.9 | 42.1 | 41.9 | 41.2 | 41.9 |
| Blast furnaces and basic steel products | 40.7 | 41.1 | 40.8 | 41.1 | 41.2 | 41.5 | 41.1 | 41.6 | 41.9 | 41.9 | 41.7 | 41.8 | 41.7 | 40.5 | 41.7 |
| Fabricated metal products | 41.4 | 41.3 | 41.2 | 41.4 | 41.4 | 41.4 | 41.5 | 41.5 | 41.5 | 41.6 | 41.5 | 41.5 | 41.4 | 41.2 | 41.0 |
| Machinery except electrical | 41.9 | 41.5 | 41.4 | 41.6 | 41.4 | 41.6 | 41.6 | 41.5 | 41.6 | 41.7 | 41.6 | 41.6 | 41.6 | 41.8 | 41.8 |
| Electrical and electronic equipment | 41.0 | 40.6 | 40.4 | 40.6 | 40.4 | 40.7 | 40.5 | 40.6 | 40.9 | 41.1 | 41.0 | 40.9 | 41.0 | 41.1 | 40.8 |
| Transportation equipment | 42.7 | 42.6 | 42.6 | 42.4 | 42.6 | 42.9 | 42.9 | 42.8 | 42.7 | 43.0 | 42.8 | 42.7 | 42.7 | 42.1 | 41.8 |
| Motor vehicles and equipment | 43.8 | 43.5 | 43.5 | 42.9 | 43.4 | 43.7 | 43.6 | 43.7 | 43.6 | 44.0 | 43.6 | 43.4 | 43.3 | 41.8 | 41.6 |
| Instruments and related products | 41.3 | 41.0 | 40.9 | 41.1 | 40.8 | 40.9 | 40.9 | 40.9 | 41.0 | 41.6 | 41.1 | 41.2 | 41.3 | 41.3 | 41.0 |
| Miscellaneous manufacturing | 39.4 | 39.4 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **Nondurable goods** | 39.7 | 39.6 | 39.5 | 39.5 | 39.4 | 39.6 | 39.8 | 39.8 | 39.8 | 40.0 | 39.9 | 39.7 | 39.8 | 39.9 | 39.9 |
| Overtime hours | 3.1 | 3.1 | 3.0 | 3.0 | 3.0 | 3.1 | 3.1 | 3.2 | 3.2 | 3.4 | 3.3 | 3.2 | 3.2 | 3.3 | 3.4 |
| Food and kindred products | 39.8 | 40.0 | 40.1 | 39.8 | 40.0 | 40.0 | 40.1 | 40.2 | 40.0 | 40.1 | 40.1 | 39.8 | 39.9 | 40.2 | 40.3 |
| Tobacco manufactures | 38.9 | 37.2 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Textile mill products | 39.9 | 39.7 | 39.2 | 39.5 | 39.2 | 40.0 | 40.5 | 40.7 | 40.8 | 41.0 | 40.8 | 40.6 | 40.7 | 41.2 | 41.0 |
| Apparel and other textile products | 36.4 | 36.4 | 36.2 | 36.3 | 36.4 | 36.4 | 36.6 | 36.6 | 36.8 | 36.8 | 36.7 | 36.3 | 36.5 | 36.9 | 36.5 |
| Paper and allied products | 43.1 | 43.1 | 43.0 | 42.9 | 42.9 | 43.1 | 43.1 | 43.2 | 43.3 | 43.5 | 43.6 | 43.5 | 43.5 | 43.0 | 43.0 |
| Printing and publishing | 37.9 | 37.8 | 37.5 | 37.6 | 37.5 | 37.9 | 37.9 | 37.9 | 37.9 | 38.1 | 38.0 | 38.0 | 38.0 | 38.0 | 38.0 |
| Chemicals and allied products | 41.9 | 41.9 | 41.9 | 41.9 | 41.8 | 41.9 | 41.7 | 41.8 | 41.9 | 42.0 | 41.9 | 41.8 | 41.9 | 41.9 | 42.2 |
| Petroleum and coal products | 43.7 | 43.0 | 41.9 | 42.7 | 43.0 | 43.3 | 43.3 | 44.2 | 43.2 | 43.6 | 43.5 | 43.7 | 43.8 | 43.5 | 43.0 |
| Leather and leather products | 36.8 | 37.2 | – | – | – | – | – | – | – | – | – | – | – | – | – |
| **TRANSPORTATION AND PUBLIC UTILITIES** | 39.4 | 39.5 | 39.5 | 39.5 | 39.3 | 39.5 | 39.5 | 39.5 | 39.4 | 39.5 | 39.4 | 39.5 | 39.6 | 39.3 | 39.3 |
| **WHOLESALE TRADE** | 38.5 | 38.4 | 38.5 | 38.5 | 38.4 | 38.4 | 38.4 | 38.4 | 38.4 | 38.4 | 38.5 | 38.4 | 38.5 | 38.5 | 38.4 |
| **RETAIL TRADE** | 29.8 | 29.4 | 29.6 | 29.5 | 29.4 | 29.4 | 29.4 | 29.3 | 29.3 | 29.2 | 29.3 | 29.3 | 29.3 | 29.2 | 29.1 |
| **SERVICES** | 32.6 | 32.5 | 32.5 | 32.5 | 32.4 | 32.5 | 32.4 | 32.5 | 32.4 | 32.5 | 32.6 | 32.6 | 32.5 | 32.5 | 32.5 |

– Data not available.
[p] = preliminary

NOTE: See "Notes on the data" for a description of the most recent benchmark adjustment.

**15. Average hourly earnings of production or nonsupervisory workers on private nonagricultural payrolls by industry**

| Industry | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr.[p] | May[p] |
| **PRIVATE SECTOR** | $8.32 | $8.57 | $8.51 | $8.54 | $8.52 | $8.52 | $8.67 | $8.64 | $8.66 | $8.71 | $8.72 | $8.74 | $8.73 | $8.72 | $8.72 |
| Seasonally adjusted | – | – | 8.53 | 8.57 | 8.55 | 8.59 | 8.62 | 8.63 | 8.65 | 8.70 | 8.68 | 8.71 | 8.73 | 8.71 | 8.74 |
| **MINING** | 11.63 | 11.98 | 11.88 | 12.02 | 11.92 | 11.99 | 12.05 | 12.00 | 12.07 | 12.27 | 12.24 | 12.32 | 12.35 | 12.43 | 12.41 |
| **CONSTRUCTION** | 12.13 | 12.31 | 12.24 | 12.17 | 12.21 | 12.28 | 12.46 | 12.42 | 12.28 | 12.47 | 12.34 | 12.35 | 12.22 | 12.28 | 12.36 |
| **MANUFACTURING** | 9.19 | 9.53 | 9.49 | 9.52 | 9.55 | 9.49 | 9.57 | 9.56 | 9.63 | 9.74 | 9.70 | 9.70 | 9.72 | 9.70 | 9.71 |
| **Durable goods** | 9.74 | 10.10 | 10.05 | 10.08 | 10.10 | 10.06 | 10.15 | 10.15 | 10.22 | 10.34 | 10.27 | 10.29 | 10.30 | 10.28 | 10.28 |
| Lumber and wood products | 8.03 | 8.22 | 8.14 | 8.26 | 8.22 | 8.27 | 8.33 | 8.30 | 8.29 | 8.35 | 8.30 | 8.36 | 8.33 | 8.33 | 8.36 |
| Furniture and fixtures | 6.84 | 7.17 | 7.09 | 7.17 | 7.20 | 7.20 | 7.27 | 7.29 | 7.32 | 7.38 | 7.36 | 7.31 | 7.35 | 7.35 | 7.39 |
| Stone, clay, and glass products | 9.57 | 9.84 | 9.81 | 9.85 | 9.90 | 9.87 | 9.91 | 9.87 | 9.91 | 9.95 | 9.96 | 9.94 | 9.93 | 10.00 | 10.04 |
| Primary metal industries | 11.47 | 11.68 | 11.64 | 11.65 | 11.78 | 11.63 | 11.69 | 11.61 | 11.77 | 11.84 | 11.81 | 11.96 | 11.99 | 12.00 | 12.03 |
| Blast furnaces and basic steel products | 12.98 | 13.34 | 13.29 | 13.28 | 13.49 | 13.36 | 13.43 | 13.32 | 13.43 | 13.44 | 13.48 | 13.81 | 13.80 | 13.81 | 13.81 |
| Fabricated metal products | 9.40 | 9.70 | 9.66 | 9.68 | 9.70 | 9.64 | 9.74 | 9.71 | 9.76 | 9.91 | 9.85 | 9.85 | 9.88 | 9.84 | 9.82 |
| Machinery, except electrical | 9.96 | 10.29 | 10.22 | 10.28 | 10.31 | 10.26 | 10.38 | 10.41 | 10.48 | 10.55 | 10.50 | 10.53 | 10.58 | 10.55 | 10.55 |
| Electrical and electronic equipment | 9.04 | 9.47 | 9.39 | 9.46 | 9.47 | 9.50 | 9.54 | 9.55 | 9.61 | 9.68 | 9.60 | 9.60 | 9.62 | 9.61 | 9.63 |
| Transportation equipment | 12.20 | 12.72 | 12.63 | 12.66 | 12.65 | 12.65 | 12.78 | 12.78 | 12.85 | 13.06 | 12.91 | 12.87 | 12.90 | 12.87 | 12.85 |
| Motor vehicles and equipment | 12.73 | 13.42 | 13.35 | 13.36 | 13.35 | 13.31 | 13.48 | 13.44 | 13.52 | 13.81 | 13.66 | 13.59 | 13.66 | 13.59 | 13.58 |
| Instruments and related products | 8.84 | 9.16 | 9.10 | 9.12 | 9.17 | 9.19 | 9.25 | 9.24 | 9.27 | 9.39 | 9.32 | 9.39 | 9.41 | 9.40 | 9.38 |
| Miscellaneous manufacturing | 7.05 | 7.30 | 7.30 | 7.30 | 7.32 | 7.28 | 7.33 | 7.32 | 7.37 | 7.48 | 7.48 | 7.50 | 7.51 | 7.48 | 7.48 |
| **Nondurable goods** | 8.38 | 8.71 | 8.67 | 8.69 | 8.75 | 8.70 | 8.73 | 8.72 | 8.79 | 8.87 | 8.86 | 8.86 | 8.88 | 8.88 | 8.90 |
| Food and kindred products | 8.39 | 8.57 | 8.61 | 8.58 | 8.57 | 8.50 | 8.53 | 8.51 | 8.61 | 8.71 | 8.72 | 8.71 | 8.74 | 8.75 | 8.79 |
| Tobacco manufactures | 11.22 | 11.94 | 12.56 | 12.76 | 12.83 | 12.34 | 11.34 | 11.31 | 11.97 | 11.78 | 11.89 | 12.38 | 12.76 | 12.84 | 13.38 |
| Textile mill products | 6.46 | 6.71 | 6.68 | 6.68 | 6.69 | 6.72 | 6.75 | 6.76 | 6.79 | 6.83 | 6.85 | 6.83 | 6.86 | 6.88 | 6.90 |
| Apparel and other textile products | 5.55 | 5.73 | 5.70 | 5.71 | 5.70 | 5.69 | 5.75 | 5.74 | 5.75 | 5.80 | 5.82 | 5.79 | 5.80 | 5.80 | 5.77 |
| Paper and allied products | 10.41 | 10.82 | 10.75 | 10.79 | 10.91 | 10.86 | 10.91 | 10.91 | 10.97 | 11.07 | 11.02 | 10.99 | 11.03 | 11.05 | 11.10 |
| Printing and publishing | 9.41 | 9.71 | 9.62 | 9.63 | 9.69 | 9.76 | 9.81 | 9.78 | 9.83 | 9.92 | 9.85 | 9.86 | 9.90 | 9.87 | 9.90 |
| Chemicals and allied products | 11.07 | 11.56 | 11.44 | 11.51 | 11.59 | 11.60 | 11.65 | 11.70 | 11.80 | 11.85 | 11.86 | 11.81 | 11.78 | 11.83 | 11.85 |
| Petroleum and coal products | 13.44 | 14.06 | 14.02 | 13.99 | 14.05 | 14.02 | 14.09 | 13.99 | 14.07 | 14.24 | 14.26 | 14.21 | 14.22 | 14.15 | 13.89 |
| Rubber and miscellaneous plastics products | 8.29 | 8.54 | 8.47 | 8.51 | 8.55 | 8.52 | 8.56 | 8.54 | 8.63 | 8.73 | 8.69 | 8.69 | 8.72 | 8.68 | 8.77 |
| Leather and leather products | 5.71 | 5.82 | 5.83 | 5.83 | 5.84 | 5.81 | 5.83 | 5.77 | 5.83 | 5.83 | 5.86 | 5.83 | 5.86 | 5.89 | 5.88 |
| **TRANSPORTATION AND PUBLIC UTILITIES** | 11.12 | 11.40 | 11.25 | 11.34 | 11.37 | 11.42 | 11.54 | 11.48 | 11.59 | 11.61 | 11.59 | 11.64 | 11.62 | 11.58 | 11.57 |
| **WHOLESALE TRADE** | 8.89 | 9.16 | 9.13 | 9.16 | 9.14 | 9.12 | 9.22 | 9.16 | 9.23 | 9.33 | 9.28 | 9.36 | 9.33 | 9.29 | 9.30 |
| **RETAIL TRADE** | 5.85 | 5.94 | 5.93 | 5.91 | 5.90 | 5.88 | 5.98 | 5.95 | 5.97 | 5.99 | 6.03 | 6.04 | 6.03 | 6.01 | 6.01 |
| **FINANCE, INSURANCE, AND REAL ESTATE** | 7.63 | 7.94 | 7.85 | 7.96 | 7.88 | 7.91 | 8.04 | 8.01 | 8.06 | 8.15 | 8.14 | 8.28 | 8.30 | 8.28 | 8.29 |
| **SERVICES** | 7.59 | 7.89 | 7.82 | 7.85 | 7.80 | 7.82 | 7.99 | 7.99 | 8.05 | 8.12 | 8.12 | 8.17 | 8.18 | 8.12 | 8.10 |

– Data not available.
[p] = preliminary

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

## 16. Average weekly earnings of production or nonsupervisory workers on private nonagricultural payrolls by industry

| Industry | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr.[p] | May[p] |
| **PRIVATE SECTOR** | | | | | | | | | | | | | | | |
| Current dollars | $292.86 | $299.09 | $297.00 | $300.61 | $299.05 | $299.90 | $303.45 | $301.54 | $301.37 | $306.59 | $302.58 | $300.66 | $302.93 | $302.58 | $302.58 |
| Seasonally adjusted | – | – | 298.55 | 299.09 | 297.54 | 299.79 | 300.84 | 301.19 | 301.02 | 303.63 | 303.80 | 303.98 | 304.68 | 303.11 | 303.28 |
| Constant (1977) dollars | 172.78 | 170.42 | 169.62 | 171.19 | 170.11 | 170.30 | 171.83 | 170.36 | 169.59 | 172.05 | 169.32 | 168.82 | 171.05 | 171.43 | – |
| **MINING** | 503.58 | 519.93 | 516.78 | 525.27 | 510.18 | 519.17 | 526.59 | 518.40 | 521.42 | 537.43 | 543.46 | 522.37 | 522.41 | 520.82 | 512.53 |
| **CONSTRUCTION** | 458.51 | 464.09 | 466.34 | 462.46 | 471.31 | 471.55 | 479.71 | 475.69 | 450.68 | 460.14 | 459.05 | 434.72 | 444.81 | 460.50 | 468.44 |
| **MANUFACTURING** | | | | | | | | | | | | | | | |
| Current dollars | 374.03 | 385.97 | 382.45 | 387.46 | 382.96 | 384.35 | 390.46 | 390.05 | 393.87 | 406.16 | 394.79 | 390.91 | 395.60 | 392.85 | 394.23 |
| Constant (1977) dollars | 220.67 | 219.93 | 218.42 | 220.65 | 217.84 | 218.26 | 221.10 | 220.37 | 221.65 | 227.92 | 220.92 | 219.49 | 223.38 | 222.58 | – |
| **Durable goods** | 403.24 | 416.12 | 413.06 | 417.31 | 410.06 | 412.46 | 420.21 | 419.20 | 424.13 | 439.45 | 425.18 | 421.89 | 426.42 | 423.54 | 422.51 |
| Lumber and wood products | 320.40 | 327.98 | 326.41 | 337.01 | 326.33 | 334.94 | 338.20 | 335.32 | 327.46 | 335.67 | 329.51 | 328.55 | 333.20 | 334.87 | 336.91 |
| Furniture and fixtures | 271.55 | 282.50 | 274.38 | 281.06 | 275.76 | 283.68 | 289.35 | 291.60 | 291.34 | 303.32 | 289.98 | 284.36 | 288.12 | 285.92 | 287.47 |
| Stone, clay, and glass products | 401.94 | 412.30 | 415.94 | 418.63 | 418.77 | 418.49 | 421.18 | 419.48 | 414.24 | 414.92 | 414.34 | 403.56 | 412.10 | 426.00 | 429.71 |
| Primary metal industries | 478.30 | 484.72 | 480.73 | 486.97 | 485.34 | 480.32 | 486.30 | 480.65 | 491.99 | 504.38 | 493.66 | 503.52 | 504.78 | 498.00 | 504.06 |
| Blast furnaces and basic steel products | 528.29 | 548.27 | 543.56 | 552.45 | 558.49 | 550.43 | 553.32 | 544.79 | 557.35 | 564.48 | 556.72 | 578.64 | 576.84 | 568.97 | 577.26 |
| Fabricated metal products | 389.16 | 400.61 | 397.99 | 402.69 | 395.76 | 397.17 | 405.18 | 403.94 | 406.02 | 422.17 | 407.79 | 403.85 | 409.03 | 403.44 | 402.62 |
| Machinery, except electrical | 417.32 | 427.04 | 421.06 | 427.65 | 420.65 | 422.71 | 431.81 | 430.97 | 438.06 | 452.60 | 437.85 | 437.00 | 442.24 | 437.83 | 437.83 |
| Electrical and electronic equipment | 370.64 | 384.48 | 377.48 | 385.02 | 376.91 | 383.80 | 387.32 | 387.73 | 396.89 | 408.50 | 394.56 | 389.76 | 395.38 | 392.09 | 390.98 |
| Transportation equipment | 520.94 | 541.87 | 539.30 | 539.32 | 531.30 | 530.04 | 544.43 | 545.71 | 551.27 | 577.25 | 555.13 | 545.69 | 552.12 | 544.40 | 538.42 |
| Motor vehicles and equipment | 557.57 | 583.77 | 586.07 | 578.49 | 571.38 | 565.68 | 585.03 | 585.98 | 588.12 | 625.59 | 595.58 | 583.01 | 592.84 | 574.86 | 569.00 |
| Instruments and related products | 365.09 | 375.56 | 370.37 | 374.83 | 369.55 | 373.11 | 380.18 | 376.07 | 382.85 | 400.01 | 383.05 | 384.99 | 389.57 | 385.40 | 382.70 |
| Miscellaneous manufacturing | 277.77 | 287.62 | 286.16 | 287.62 | 282.55 | 284.65 | 293.20 | 295.00 | 296.27 | 304.44 | 297.70 | 294.75 | 299.65 | 296.96 | 294.71 |
| **Nondurable goods** | 332.69 | 344.92 | 340.73 | 344.12 | 343.88 | 345.39 | 349.20 | 347.93 | 351.60 | 359.24 | 352.63 | 347.31 | 352.54 | 351.65 | 354.22 |
| Food and kindred products | 333.92 | 342.80 | 344.40 | 342.34 | 342.80 | 342.55 | 348.02 | 343.80 | 346.12 | 354.50 | 347.93 | 339.69 | 344.36 | 346.50 | 353.36 |
| Tobacco manufactures | 436.46 | 444.17 | 465.98 | 481.05 | 434.94 | 457.81 | 434.32 | 444.48 | 435.71 | 448.82 | 448.25 | 453.11 | 478.50 | 469.94 | 509.78 |
| Textile mill products | 257.75 | 266.39 | 261.19 | 266.53 | 258.23 | 270.14 | 275.40 | 276.48 | 279.75 | 283.45 | 278.80 | 274.57 | 278.52 | 278.64 | 282.21 |
| Apparel and other textile products | 202.02 | 208.57 | 206.34 | 209.56 | 206.34 | 208.25 | 210.45 | 211.23 | 212.75 | 215.18 | 213.01 | 207.28 | 211.70 | 211.12 | 210.61 |
| Paper and allied products | 448.67 | 466.34 | 460.10 | 463.97 | 465.86 | 465.89 | 473.49 | 472.40 | 477.20 | 490.40 | 479.37 | 472.57 | 477.60 | 474.05 | 476.19 |
| Printing and publishing | 356.64 | 367.04 | 358.83 | 359.20 | 361.44 | 370.88 | 374.74 | 371.64 | 375.51 | 384.90 | 371.35 | 370.74 | 377.19 | 374.07 | 374.22 |
| Chemicals and allied products | 463.83 | 484.36 | 479.34 | 484.57 | 482.14 | 482.56 | 486.97 | 486.72 | 495.60 | 503.63 | 495.75 | 492.48 | 494.76 | 495.68 | 500.07 |
| Petroleum and coal products | 587.33 | 604.58 | 584.63 | 597.37 | 606.96 | 607.07 | 621.37 | 619.76 | 610.64 | 622.29 | 616.03 | 612.45 | 621.41 | 614.11 | 594.49 |
| Rubber and miscellaneous plastics products | 345.69 | 350.99 | 346.42 | 350.61 | 347.13 | 346.76 | 351.82 | 350.99 | 356.42 | 366.66 | 359.77 | 356.29 | 360.14 | 355.88 | 362.20 |
| Leather and leather products | 210.13 | 216.50 | 218.04 | 220.96 | 219.00 | 216.71 | 219.21 | 216.95 | 219.21 | 220.96 | 217.41 | 209.88 | 212.72 | 214.40 | 216.38 |
| **TRANSPORTATION AND PUBLIC UTILITIES** | 438.13 | 450.30 | 442.13 | 451.33 | 449.12 | 454.52 | 458.14 | 453.46 | 457.81 | 460.92 | 452.01 | 456.29 | 457.83 | 452.78 | 452.39 |
| **WHOLESALE TRADE** | 342.27 | 351.74 | 351.51 | 353.58 | 352.80 | 351.12 | 354.97 | 351.74 | 355.36 | 360.14 | 355.42 | 355.68 | 357.34 | 355.81 | 357.12 |
| **RETAIL TRADE** | 174.33 | 174.64 | 174.94 | 176.71 | 177.59 | 176.99 | 175.81 | 173.74 | 173.73 | 178.50 | 173.06 | 172.74 | 174.27 | 173.69 | 174.29 |
| **FINANCE, INSURANCE, AND REAL ESTATE** | 278.50 | 289.02 | 285.74 | 292.13 | 286.04 | 287.13 | 293.46 | 290.76 | 291.77 | 299.11 | 296.30 | 304.70 | 304.61 | 301.39 | 300.93 |
| **SERVICES** | 247.43 | 256.43 | 253.37 | 256.70 | 255.84 | 256.50 | 258.88 | 259.68 | 260.02 | 263.90 | 263.09 | 264.71 | 265.03 | 263.09 | 262.44 |

– Data not available.
[p] = preliminary

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

## 17. The Hourly Earnings Index for production or nonsupervisory workers on private nonagricultural payrolls by industry

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | May 1985 | Mar. 1986 | Apr. 1986[p] | May 1986[p] | May 1985 | Jan. 1986 | Feb. 1986 | Mar. 1986 | Apr. 1986 | May 1986[p] |
| **PRIVATE SECTOR (in current dollars)** | 164.4 | 168.5 | 168.4 | 168.7 | 164.4 | 167.3 | 168.2 | 168.5 | 168.4 | 168.8 |
| Mining[1] | 177.9 | 180.1 | 181.0 | 180.6 | – | – | – | – | – | – |
| Construction | 149.8 | 148.3 | 149.8 | 151.0 | 150.2 | 149.7 | 149.7 | 149.2 | 150.6 | 151.3 |
| Manufacturing | 168.2 | 171.9 | 172.2 | 172.5 | 168.2 | 170.7 | 171.3 | 171.8 | 172.0 | 172.4 |
| Transportation and public utilities | 164.3 | 169.8 | 169.4 | 169.3 | 165.3 | 168.6 | 169.6 | 170.2 | 169.8 | 170.3 |
| Wholesale trade[1] | 168.5 | 171.9 | 171.3 | 171.6 | – | – | – | – | – | – |
| Retail trade | 155.8 | 157.7 | 157.7 | 158.1 | 155.2 | 157.0 | 157.3 | 157.4 | 157.2 | 157.4 |
| Finance, insurance, and real estate[1] | 170.0 | 179.2 | 178.6 | 178.9 | – | – | – | – | – | – |
| Services | 166.8 | 174.0 | 173.1 | 173.1 | 167.0 | 171.7 | 173.1 | 174.0 | 173.1 | 173.2 |
| **PRIVATE SECTOR (in constant dollars)** | 93.9 | 95.2 | 95.4 | – | 94.1 | 93.5 | 94.4 | 95.1 | 95.4 | – |

[1] This series is not seasonally adjusted because the seasonal component is small relative to the trend-cycle, irregular components, or both, and consequently cannot be separated with sufficient precision.
– Data not available.

[p] = preliminary.
NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

### 18. Indexes of diffusion: industries in which employment increased, data seasonally adjusted

(In percent)

| Time span and year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Over 1-month span | | | | | | | | | | | | |
| 1984 | 67.8 | 72.7 | 67.6 | 67.6 | 62.4 | 65.4 | 62.2 | 55.9 | 50.5 | 63.0 | 53.5 | 57.0 |
| 1985 | 52.4 | 47.8 | 53.8 | 49.2 | 51.6 | 47.0 | 56.2 | 56.8 | 50.8 | 61.9 | 57.6 | 59.5 |
| 1986 | 59.7 | 53.5 | 45.1 | 54.6 | 48.9 | – | – | – | – | – | – | – |
| Over 3-month span | | | | | | | | | | | | |
| 1984 | 76.5 | 75.1 | 75.9 | 71.4 | 71.6 | 68.1 | 63.2 | 58.1 | 56.8 | 53.5 | 58.1 | 53.0 |
| 1985 | 51.1 | 49.7 | 46.2 | 46.2 | 45.1 | 51.4 | 49.7 | 51.1 | 55.1 | 55.9 | 61.4 | 60.5 |
| 1986 | 58.1 | 54.3 | 52.2 | 48.1 | – | – | – | – | – | – | – | – |
| Over 6-month span | | | | | | | | | | | | |
| 1984 | 78.1 | 76.5 | 77.0 | 75.1 | 69.2 | 65.1 | 63.2 | 59.2 | 58.6 | 53.2 | 49.7 | 54.9 |
| 1985 | 49.2 | 47.8 | 43.0 | 45.9 | 44.3 | 44.3 | 48.9 | 50.8 | 54.1 | 57.0 | 57.0 | 55.9 |
| 1986 | 55.4 | 53.0 | – | – | – | – | – | – | – | – | – | – |
| Over 12-month span | | | | | | | | | | | | |
| 1984 | 81.1 | 78.1 | 72.2 | 72.2 | 68.9 | 67.8 | 65.7 | 62.7 | 59.7 | 54.6 | 51.4 | 48.6 |
| 1985 | 46.2 | 45.7 | 46.8 | 43.8 | 44.9 | 47.3 | 47.6 | 48.9 | 47.3 | 48.6 | 48.9 | – |
| 1986 | – | – | – | – | – | – | – | – | – | – | – | – |

– Data not available.

NOTE: Figures are the percent of industries with employment rising. (Half of the unchanged components are counted as rising.) Data are centered within the spans. See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

### 19. Annual data: Employment status of the noninstitutional population

(Numbers in thousands)

| Employment status | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|---|
| Noninstitutional population | 160,689 | 163,541 | 166,460 | 169,349 | 171,775 | 173,939 | 175,891 | 178,080 | 179,912 |
| Labor force | | | | | | | | | |
| Total (number) | 100,665 | 103,882 | 106,559 | 108,544 | 110,315 | 111,872 | 113,226 | 115,241 | 117,167 |
| Percent of population | 62.6 | 63.5 | 64.0 | 64.1 | 64.2 | 64.3 | 64.4 | 64.7 | 65.1 |
| Employed | | | | | | | | | |
| Total (number) | 93,673 | 97,679 | 100,421 | 100,907 | 102,042 | 101,194 | 102,510 | 106,702 | 108,856 |
| Percent of population | 58.3 | 59.7 | 60.3 | 59.6 | 59.4 | 58.2 | 58.3 | 59.9 | 60.5 |
| Resident Armed Forces | 1,656 | 1,631 | 1,597 | 1,604 | 1,645 | 1,668 | 1,676 | 1,697 | 1,706 |
| Civilian | | | | | | | | | |
| Total | 92,017 | 96,048 | 98,824 | 99,303 | 100,397 | 99,526 | 100,834 | 105,005 | 107,150 |
| Agriculture | 3,283 | 3,387 | 3,347 | 3,364 | 3,368 | 3,401 | 3,383 | 3,321 | 3,179 |
| Nonagricultural industries | 88,734 | 92,661 | 95,477 | 95,938 | 97,030 | 96,125 | 97,450 | 101,685 | 103,971 |
| Unemployed | | | | | | | | | |
| Total (number) | 6,991 | 6,202 | 6,137 | 7,637 | 8,273 | 10,678 | 10,717 | 8,539 | 8,312 |
| Percent of labor force | 6.9 | 6.0 | 5.8 | 7.0 | 7.5 | 9.5 | 9.5 | 7.4 | 7.1 |
| Not in labor force (number) | 60,025 | 59,659 | 59,900 | 60,806 | 61,460 | 62,067 | 62,665 | 62,839 | 62,744 |

### 20. Annual data: Employment levels by industry

(Numbers in thousands)

| Industry | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|---|
| Total employment | 82,471 | 86,697 | 89,823 | 90,406 | 91,156 | 89,566 | 90,200 | 94,496 | 97,614 |
| Private sector | 67,344 | 71,026 | 73,876 | 74,166 | 75,126 | 73,729 | 74,330 | 78,472 | 81,199 |
| Goods-producing | 24,346 | 25,585 | 26,461 | 25,658 | 25,497 | 23,813 | 23,334 | 24,727 | 24,930 |
| Mining | 813 | 851 | 958 | 1,027 | 1,139 | 1,128 | 952 | 966 | 930 |
| Construction | 3,851 | 4,229 | 4,463 | 4,346 | 4,188 | 3,905 | 3,948 | 4,383 | 4,687 |
| Manufacturing | 19,682 | 20,505 | 21,040 | 20,285 | 20,170 | 18,781 | 18,434 | 19,378 | 19,314 |
| Service-producing | 58,125 | 61,113 | 63,363 | 64,748 | 65,659 | 65,753 | 66,866 | 69,769 | 72,684 |
| Transportation and public utilities | 4,713 | 4,923 | 5,136 | 5,146 | 5,165 | 5,082 | 4,954 | 5,159 | 5,242 |
| Wholesale trade | 4,708 | 4,969 | 5,204 | 5,275 | 5,358 | 5,278 | 5,268 | 5,555 | 5,740 |
| Retail trade | 13,808 | 14,573 | 14,999 | 15,035 | 15,189 | 15,179 | 15,613 | 16,545 | 17,360 |
| Finance, insurance, and real estate | 4,467 | 4,724 | 4,975 | 5,160 | 5,298 | 5,341 | 5,468 | 5,689 | 5,953 |
| Services | 15,303 | 16,252 | 17,112 | 17,890 | 18,619 | 19,036 | 19,694 | 20,797 | 21,974 |
| Government | 15,127 | 15,672 | 15,947 | 16,241 | 16,031 | 15,837 | 15,869 | 16,024 | 16,415 |
| Federal | 2,727 | 2,753 | 2,773 | 2,866 | 2,772 | 2,739 | 2,774 | 2,807 | 2,875 |
| State | 3,377 | 3,474 | 3,541 | 3,610 | 3,640 | 3,640 | 3,662 | 3,734 | 3,848 |
| Local | 9,023 | 9,446 | 9,633 | 9,765 | 9,619 | 9,458 | 9,434 | 9,482 | 9,692 |

NOTE: Data include Alaska and Hawaii beginning in 1959. See "Notes on the data" for a description of the most recent benchmark revision.

## 21. Annual data: Average hours and earnings of production or nonsupervisory workers on nonagricultural payrolls, by industry

| Industry | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|---|
| **Private sector** | | | | | | | | | |
| Average weekly hours | 36.0 | 35.8 | 35.7 | 35.3 | 35.2 | 34.8 | 35.0 | 35.2 | 34.9 |
| Average hourly earnings | 5.25 | 5.69 | 6.16 | 6.66 | 7.25 | 7.68 | 8.02 | 8.32 | 8.57 |
| Average weekly earnings | 189.00 | 203.70 | 219.91 | 235.10 | 255.20 | 267.26 | 280.70 | 292.86 | 299.09 |
| **Mining** | | | | | | | | | |
| Average weekly hours | 43.4 | 43.4 | 43.0 | 43.3 | 43.7 | 42.7 | 42.5 | 43.3 | 43.4 |
| Average hourly earnings | 6.94 | 7.67 | 8.49 | 9.17 | 10.04 | 10.77 | 11.28 | 11.63 | 11.98 |
| Average weekly earnings | 301.20 | 332.88 | 365.07 | 397.06 | 438.75 | 459.88 | 479.40 | 503.58 | 519.93 |
| **Construction** | | | | | | | | | |
| Average weekly hours | 36.5 | 36.8 | 37.0 | 37.0 | 36.9 | 36.7 | 37.1 | 37.8 | 37.7 |
| Average hourly earnings | 8.10 | 8.66 | 9.27 | 9.94 | 10.82 | 11.63 | 11.94 | 12.13 | 12.31 |
| Average weekly earnings | 295.65 | 318.69 | 342.99 | 367.78 | 399.26 | 426.82 | 442.97 | 458.51 | 464.09 |
| **Manufacturing** | | | | | | | | | |
| Average weekly hours | 40.3 | 40.4 | 40.2 | 39.7 | 39.8 | 38.9 | 40.1 | 40.7 | 40.5 |
| Average hourly earnings | 5.68 | 6.17 | 6.70 | 7.27 | 7.99 | 8.49 | 8.83 | 9.19 | 9.53 |
| Average weekly earnings | 228.90 | 249.27 | 269.34 | 288.62 | 318.00 | 330.26 | 354.08 | 374.03 | 385.97 |
| **Transportation and public utilities** | | | | | | | | | |
| Average weekly hours | 39.9 | 40.0 | 39.9 | 39.6 | 39.4 | 39.0 | 39.0 | 39.4 | 39.5 |
| Average hourly earnings | 6.99 | 7.57 | 8.16 | 8.87 | 9.70 | 10.32 | 10.79 | 11.12 | 11.40 |
| Average weekly earnings | 278.90 | 302.80 | 325.58 | 351.25 | 382.18 | 402.48 | 420.81 | 438.13 | 450.30 |
| **Wholesale trade** | | | | | | | | | |
| Average weekly hours | 38.8 | 38.8 | 38.8 | 38.5 | 38.5 | 38.3 | 38.5 | 38.5 | 38.4 |
| Average hourly earnings | 5.39 | 5.88 | 6.39 | 6.96 | 7.56 | 8.09 | 8.55 | 8.89 | 9.16 |
| Average weekly earnings | 209.13 | 228.14 | 247.93 | 267.96 | 291.06 | 309.85 | 329.18 | 342.27 | 351.74 |
| **Retail trade** | | | | | | | | | |
| Average weekly hours | 31.6 | 31.0 | 30.6 | 30.2 | 30.1 | 29.9 | 29.8 | 29.8 | 29.4 |
| Average hourly earnings | 3.85 | 4.20 | 4.53 | 4.88 | 5.25 | 5.48 | 5.74 | 5.85 | 5.94 |
| Average weekly earnings | 121.66 | 130.20 | 138.62 | 147.38 | 158.03 | 163.85 | 171.05 | 174.33 | 174.64 |
| **Finance, insurance, and real estate** | | | | | | | | | |
| Average weekly hours | 36.4 | 36.4 | 36.2 | 36.2 | 36.3 | 36.2 | 36.2 | 36.5 | 36.4 |
| Average hourly earnings | 4.54 | 4.89 | 5.27 | 5.79 | 6.31 | 6.78 | 7.29 | 7.63 | 7.94 |
| Average weekly earnings | 165.26 | 178.00 | 190.77 | 209.60 | 229.05 | 245.44 | 263.90 | 278.50 | 289.02 |
| **Services** | | | | | | | | | |
| Average weekly hours | 33.0 | 32.8 | 32.7 | 32.6 | 32.6 | 32.6 | 32.7 | 32.6 | 32.5 |
| Average hourly earnings | 4.65 | 4.99 | 5.36 | 5.85 | 6.41 | 6.92 | 7.31 | 7.59 | 7.89 |
| Average weekly earnings | 153.45 | 163.67 | 175.27 | 190.71 | 208.97 | 225.59 | 239.04 | 247.43 | 256.43 |

## 22. Employment Cost Index, compensation,[1] by occupation and industry group

(June 1981=100)

| Series | 1984 | | | | 1985 | | | | 1986 | Percent change | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mar. | June | Sept. | Dec. | Mar. | June | Sept. | Dec. | Mar. | 3 months ended | 12 months ended |
| | | | | | | | | | | Mar. 1986 | |
| **Civilian workers** [2] | 119.8 | 120.8 | 122.4 | 123.9 | 125.5 | 126.4 | 128.4 | 129.2 | 130.6 | 1.1 | 4.1 |
| Workers, by occupational group: | | | | | | | | | | | |
| White-collar workers | 120.9 | 122.1 | 124.0 | 125.5 | 127.3 | 128.3 | 130.7 | 131.6 | 133.1 | 1.1 | 4.6 |
| Blue-collar workers | 117.7 | 118.6 | 119.6 | 120.9 | 122.2 | 123.1 | 124.4 | 124.9 | 126.2 | 1.0 | 3.3 |
| Service workers | 122.0 | 122.1 | 124.6 | 126.8 | 127.8 | 128.0 | 130.9 | 131.8 | 133.1 | 1.0 | 4.1 |
| Workers, by industry division: | | | | | | | | | | | |
| Manufacturing | 117.9 | 119.1 | 120.4 | 122.0 | 123.9 | 124.6 | 125.5 | 126.0 | 127.7 | 1.3 | 3.1 |
| Nonmanufacturing | 120.7 | 121.6 | 123.3 | 124.8 | 126.2 | 127.2 | 129.7 | 130.6 | 131.9 | 1.0 | 4.5 |
| Services | 125.0 | 125.5 | 128.8 | 130.9 | 131.9 | 132.6 | 136.4 | 137.1 | 138.8 | 1.2 | 5.2 |
| Public administration [3] | 122.9 | 123.7 | 126.9 | 128.6 | 130.1 | 130.3 | 134.2 | 134.8 | 136.8 | 1.5 | 5.1 |
| **Private industry workers** | 119.0 | 120.1 | 121.1 | 122.7 | 124.2 | 125.2 | 126.8 | 127.5 | 128.9 | 1.1 | 3.8 |
| Workers, by occupational group: | | | | | | | | | | | |
| White-collar workers | 119.9 | 121.4 | 122.4 | 123.9 | 125.8 | 127.1 | 128.8 | 129.8 | 131.3 | 1.2 | 4.4 |
| Blue-collar workers | 117.5 | 118.4 | 119.3 | 120.6 | 121.9 | 122.8 | 124.0 | 124.4 | 125.7 | 1.0 | 3.1 |
| Service workers | 121.5 | 121.2 | 123.2 | 125.7 | 126.3 | 126.5 | 128.8 | 129.5 | 130.9 | 1.1 | 3.6 |
| Workers, by industry division: | | | | | | | | | | | |
| Manufacturing | 117.9 | 119.1 | 120.4 | 122.0 | 123.9 | 124.6 | 125.5 | 126.0 | 127.7 | 1.3 | 3.1 |
| Nonmanufacturing | 119.6 | 120.7 | 121.6 | 123.1 | 124.4 | 125.6 | 127.6 | 128.4 | 129.7 | 1.0 | 4.3 |
| **State and local government workers** | 123.9 | 124.4 | 128.8 | 130.1 | 131.7 | 132.0 | 136.5 | 137.5 | 138.9 | 1.0 | 5.5 |
| Workers, by occupational group: | | | | | | | | | | | |
| White-collar workers | 124.5 | 125.0 | 129.7 | 131.1 | 132.5 | 132.9 | 137.6 | 138.6 | 140.0 | 1.0 | 5.7 |
| Blue-collar workers | 121.9 | 122.3 | 125.0 | 125.9 | 128.1 | 128.5 | 131.9 | 132.7 | 134.7 | 1.5 | 5.2 |
| Workers, by industry division: | | | | | | | | | | | |
| Services | 124.5 | 125.0 | 129.9 | 131.3 | 132.8 | 133.2 | 137.9 | 139.1 | 140.4 | .9 | 5.7 |
| Schools | 124.5 | 124.7 | 130.6 | 132.0 | 133.4 | 133.7 | 139.1 | 140.3 | 141.5 | .9 | 6.1 |
| Elementary and secondary | 125.4 | 125.7 | 132.1 | 133.5 | 134.4 | 134.6 | 140.9 | 142.0 | 143.0 | .7 | 6.4 |
| Hospitals and other services[4] | 124.4 | 125.7 | 127.9 | 129.2 | 131.1 | 131.5 | 134.1 | 135.2 | 136.8 | 1.2 | 4.3 |
| Public administration[3] | 122.9 | 123.7 | 126.9 | 128.6 | 130.1 | 130.3 | 134.2 | 134.8 | 136.8 | 1.5 | 5.1 |

[1] Cost (cents-per-hour worked) measured in the Employment Cost Index consists of wages, salaries, and employer cost of employee benefits.

[2] Consist of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[3] Consists of legislative, judicial, administrative, and regulatory activities.

[4] Includes, for example, library, social, and health services.

## 23. Employment Cost Index, wages and salaries, by occupation and industry group

(June 1981=100)

| Series | 1984 | | | | 1985 | | | | 1986 | Percent change | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mar. | June | Sept. | Dec. | Mar. | June | Sept. | Dec. | Mar. | 3 months ended | 12 months ended |
| | | | | | | | | | | Mar., 1986 | |
| **Civilian workers** [1] | 117.9 | 118.8 | 120.3 | 121.7 | 123.1 | 124.2 | 126.3 | 127.0 | 128.3 | 1.0 | 4.2 |
| Workers, by occupational group: | | | | | | | | | | | |
| White-collar workers | 119.3 | 120.4 | 122.2 | 123.5 | 125.2 | 126.4 | 128.8 | 129.8 | 131.2 | 1.1 | 4.8 |
| Blue-collar workers | 115.3 | 116.1 | 117.0 | 118.2 | 119.3 | 120.5 | 122.0 | 122.3 | 123.4 | .9 | 3.4 |
| Service workers | 120.0 | 119.8 | 122.3 | 124.3 | 124.8 | 125.3 | 128.0 | 128.6 | 129.8 | .9 | 4.0 |
| Workers, by industry division | | | | | | | | | | | |
| Manufacturing | 115.7 | 116.8 | 118.0 | 119.5 | 121.0 | 122.3 | 123.2 | 123.8 | 125.3 | 1.2 | 3.6 |
| Nonmanufacturing | 118.9 | 119.7 | 121.3 | 122.6 | 123.9 | 125.0 | 127.6 | 128.4 | 129.6 | .9 | 4.6 |
| Services | 123.3 | 123.8 | 127.2 | 128.9 | 129.7 | 130.5 | 134.2 | 134.8 | 136.4 | 1.2 | 5.2 |
| Public administration [2] | 120.4 | 121.3 | 124.4 | 125.7 | 127.0 | 127.2 | 131.4 | 132.0 | 133.8 | 1.4 | 5.4 |
| **Private industry workers** | 117.2 | 118.2 | 119.2 | 120.6 | 122.0 | 123.3 | 124.9 | 125.6 | 126.8 | 1.0 | 3.9 |
| Workers, by occupational group: | | | | | | | | | | | |
| White-collar workers | 118.5 | 119.9 | 120.9 | 122.3 | 124.0 | 125.5 | 127.3 | 128.3 | 129.6 | 1.0 | 4.5 |
| Professional and technical | 122.2 | 123.8 | 125.2 | 127.3 | 127.7 | 128.7 | 131.2 | 131.5 | 132.7 | .9 | 3.9 |
| Managers and administrators | 118.0 | 119.2 | 121.0 | 122.2 | 123.8 | 126.5 | 127.7 | 128.4 | 130.5 | 1.6 | 5.4 |
| Salesworkers | 110.2 | 111.9 | 110.5 | 111.6 | 116.3 | 117.4 | 119.3 | 122.5 | 122.4 | -.1 | 5.2 |
| Clerical workers | 119.8 | 120.7 | 122.0 | 122.9 | 124.7 | 125.6 | 127.1 | 127.9 | 129.6 | 1.3 | 3.9 |
| Blue-collar workers | 115.1 | 115.9 | 116.7 | 118.0 | 119.1 | 120.3 | 121.7 | 122.0 | 123.1 | .9 | 3.4 |
| Craft and kindred workers | 116.5 | 117.3 | 118.0 | 119.4 | 120.8 | 122.0 | 123.7 | 123.8 | 125.3 | 1.2 | 3.7 |
| Operatives, except transport | 114.9 | 115.8 | 116.6 | 117.9 | 118.9 | 120.1 | 121.1 | 121.6 | 122.6 | .8 | 3.1 |
| Transport equipment operatives | 111.7 | 112.7 | 113.4 | 114.0 | 114.5 | 115.7 | 117.7 | 117.8 | 118.0 | .2 | 3.1 |
| Nonfarm laborers | 112.9 | 114.1 | 114.7 | 115.9 | 116.7 | 118.5 | 118.6 | 119.8 | 120.0 | .2 | 2.8 |
| Service workers | 119.8 | 119.3 | 121.2 | 123.7 | 123.8 | 124.4 | 126.3 | 126.6 | 128.0 | 1.1 | 3.4 |
| Workers, by industry division: | | | | | | | | | | | |
| Manufacturing | 115.7 | 116.8 | 118.0 | 119.5 | 121.0 | 122.3 | 123.2 | 123.8 | 125.3 | 1.2 | 3.6 |
| Durables | 115.7 | 116.6 | 117.7 | 119.1 | 120.6 | 122.0 | 122.7 | 123.4 | 124.8 | 1.1 | 3.5 |
| Nondurables | 115.8 | 117.1 | 118.6 | 120.2 | 121.6 | 122.6 | 124.0 | 124.6 | 126.1 | 1.2 | 3.7 |
| Nonmanufacturing | 118.0 | 119.0 | 119.9 | 121.2 | 122.6 | 123.9 | 125.9 | 126.6 | 127.7 | .9 | 4.2 |
| Construction | 113.3 | 114.0 | 114.3 | 114.4 | 115.5 | 116.6 | 117.3 | 117.9 | 118.3 | .3 | 2.4 |
| Transportation and public utilities | 118.5 | 119.3 | 119.9 | 120.7 | 121.7 | 122.8 | 124.8 | 125.2 | 126.3 | .9 | 3.8 |
| Wholesale and retail trade | 114.3 | 116.0 | 116.5 | 118.1 | 118.8 | 121.1 | 122.7 | 123.7 | 124.5 | .6 | 4.8 |
| Wholesale trade | 118.2 | 120.0 | 120.7 | 122.9 | 123.7 | 126.8 | 127.7 | 128.3 | 129.7 | 1.1 | 4.9 |
| Retail trade | 112.8 | 114.4 | 114.9 | 116.2 | 116.9 | 118.9 | 120.8 | 121.9 | 122.5 | .5 | 4.8 |
| Finance, insurance, and real estate | 116.1 | 116.9 | 115.3 | 115.8 | 122.0 | 121.7 | 124.1 | 126.5 | 126.6 | .1 | 3.8 |
| Services | 124.2 | 124.7 | 127.1 | 129.5 | 129.9 | 131.0 | 133.9 | 134.1 | 136.2 | 1.6 | 4.8 |
| **State and local government workers** | 121.6 | 122.0 | 126.1 | 127.1 | 128.4 | 128.7 | 133.2 | 134.2 | 135.5 | 1.0 | 5.5 |
| Workers, by occupational group | | | | | | | | | | | |
| White-collar workers | 122.2 | 122.5 | 127.1 | 128.0 | 129.3 | 129.6 | 134.3 | 135.3 | 136.6 | 1.0 | 5.6 |
| Blue-collar workers | 119.1 | 119.6 | 121.9 | 122.5 | 124.2 | 124.5 | 127.9 | 128.4 | 130.4 | 1.6 | 5.0 |
| Workers, by industry division | | | | | | | | | | | |
| Services | 122.2 | 122.5 | 127.2 | 128.1 | 129.4 | 129.7 | 134.5 | 135.6 | 136.8 | .9 | 5.7 |
| Schools | 122.2 | 122.3 | 127.8 | 128.7 | 129.9 | 130.2 | 135.8 | 137.0 | 138.0 | .7 | 6.2 |
| Elementary and secondary | 122.9 | 123.0 | 129.3 | 130.2 | 130.8 | 131.1 | 137.5 | 138.5 | 139.4 | .6 | 6.6 |
| Hospitals and other services [3] | 121.9 | 123.1 | 125.1 | 125.9 | 127.7 | 128.0 | 130.2 | 130.9 | 132.4 | 1.1 | 3.7 |
| Public administration [2] | 120.4 | 121.3 | 124.4 | 125.7 | 127.0 | 127.2 | 131.4 | 132.0 | 133.8 | 1.4 | 5.4 |

[1] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[2] Consists of legislative, judicial, administrative, and regulatory activities.

[3] Includes, for example, library, social and health services.

## 24. Employment Cost Index, private nonfarm workers, by bargaining status, region, and area size

(June 1981=100)

| Series | 1984 | | | | 1985 | | | | 1986 | Percent change | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mar. | June | Sept. | Dec. | Mar. | June | Sept. | Dec. | Mar. | 3 months ended | 12 months ended |
| | | | | | | | | | | Mar. 1986 | |
| **COMPENSATION** | | | | | | | | | | | |
| **Workers, by bargaining status[1]** | | | | | | | | | | | |
| Union | 120.6 | 121.7 | 122.6 | 123.9 | 124.8 | 125.5 | 126.5 | 127.1 | 128.4 | 1.0 | 2.9 |
| Manufacturing | 119.3 | 120.5 | 121.6 | 123.2 | 124.2 | 124.2 | 125.0 | 125.5 | 127.0 | 1.2 | 2.3 |
| Nonmanufacturing | 121.9 | 122.8 | 123.6 | 124.5 | 125.3 | 126.6 | 127.8 | 128.6 | 129.7 | .9 | 3.5 |
| Nonunion | 118.0 | 119.2 | 120.3 | 121.9 | 123.8 | 125.0 | 126.8 | 127.5 | 129.0 | 1.2 | 4.2 |
| Manufacturing | 116.6 | 117.9 | 119.3 | 120.8 | 123.6 | 124.8 | 125.7 | 126.3 | 128.1 | 1.4 | 3.6 |
| Nonmanufacturing | 118.6 | 119.8 | 120.7 | 122.4 | 123.9 | 125.1 | 127.3 | 128.1 | 129.5 | 1.1 | 4.5 |
| **Workers, by region [1]** | | | | | | | | | | | |
| Northeast | 118.9 | 120.7 | 122.4 | 123.8 | 125.1 | 126.4 | 128.8 | 129.9 | 131.6 | 1.3 | 5.2 |
| South | 119.7 | 120.7 | 120.7 | 122.2 | 124.2 | 125.2 | 126.5 | 127.2 | 128.7 | 1.2 | 3.6 |
| Midwest (formerly North Central) | 117.2 | 117.9 | 119.7 | 120.8 | 122.0 | 122.7 | 124.2 | 124.6 | 125.9 | 1.0 | 3.2 |
| West | 121.0 | 122.2 | 122.5 | 124.9 | 126.8 | 127.9 | 129.1 | 129.8 | 130.8 | .8 | 3.2 |
| **Workers, by area size [1]** | | | | | | | | | | | |
| Metropolitan areas | 119.4 | 120.6 | 121.5 | 123.2 | 124.7 | 125.7 | 127.3 | 128.1 | 129.5 | 1.1 | 3.8 |
| Other areas | 116.7 | 117.4 | 119.0 | 119.8 | 121.4 | 122.5 | 123.9 | 123.9 | 125.5 | 1.3 | 3.4 |
| **WAGES AND SALARIES** | | | | | | | | | | | |
| **Workers, by bargaining status [1]** | | | | | | | | | | | |
| Union | 118.1 | 119.0 | 119.8 | 120.9 | 121.7 | 123.0 | 124.1 | 124.7 | 125.6 | .7 | 3.2 |
| Manufacturing | 116.1 | 117.1 | 118.1 | 119.5 | 120.4 | 121.7 | 122.8 | 123.3 | 124.2 | .7 | 3.2 |
| Nonmanufacturing | 120.1 | 120.7 | 121.3 | 122.1 | 122.8 | 124.1 | 125.3 | 125.9 | 126.9 | .8 | 3.3 |
| Nonunion | 116.7 | 117.8 | 118.8 | 120.4 | 122.1 | 123.4 | 125.2 | 125.9 | 127.3 | 1.1 | 4.3 |
| Manufacturing | 115.4 | 116.5 | 117.9 | 119.5 | 121.5 | 122.8 | 123.7 | 124.4 | 126.1 | 1.4 | 3.8 |
| Nonmanufacturing | 117.2 | 118.3 | 119.2 | 120.7 | 122.3 | 123.6 | 125.9 | 126.6 | 127.8 | .9 | 4.5 |
| **Workers, by region [1]** | | | | | | | | | | | |
| Northeast | 117.4 | 118.9 | 120.5 | 121.9 | 123.0 | 124.6 | 126.8 | 128.1 | 129.2 | .9 | 5.0 |
| South | 117.9 | 119.0 | 119.0 | 120.2 | 122.3 | 123.4 | 124.8 | 125.4 | 126.8 | 1.1 | 3.7 |
| Midwest (formerly North Central) | 115.5 | 116.0 | 117.8 | 118.7 | 119.6 | 121.1 | 122.5 | 122.9 | 124.2 | 1.1 | 3.8 |
| West | 118.8 | 119.6 | 120.0 | 122.5 | 124.0 | 125.1 | 126.6 | 127.1 | 128.1 | .8 | 3.3 |
| **Workers, by area size[1]** | | | | | | | | | | | |
| Metropolitan areas | 117.6 | 118.6 | 119.5 | 121.0 | 122.4 | 123.8 | 125.5 | 126.3 | 127.4 | .9 | 4.1 |
| Other areas | 115.1 | 116.0 | 117.5 | 118.3 | 119.6 | 120.6 | 121.9 | 122.0 | 123.6 | 1.3 | 3.3 |

[1] The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see the *Monthly Labor Review* Technical Note, "Estimation procedures for the Employment Cost Index," May 1982.

## 25. Specified compensation and wage adjustments from contract settlements, and effective wage adjustments, private industry collective bargaining situations covering 1,000 workers or more (in percent)

| Measure | Annual average | | Quarterly average | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | 1984 | | | 1985 | | | | 1986 |
| | | | II | III | IV | I | II | III | IV | Ip |
| **Specified adjustments:** | | | | | | | | | | |
| Total compensation [1] adjustments, [2] settlements covering 5,000 workers or more: | | | | | | | | | | |
| First year of contract | 3.6 | 2.6 | 3.5 | 2.7 | 3.7 | 3.6 | 3.5 | 2.0 | 2.0 | 0.3 |
| Annual rate over life of contract | 2.8 | 2.7 | 3.2 | 3.1 | 2.0 | 2.7 | 3.4 | 3.0 | 1.4 | 1.2 |
| Wage adjustments, settlements covering 1,000 workers or more: | | | | | | | | | | |
| First year of contract | 2.4 | 2.3 | 2.6 | 2.1 | 2.3 | 3.3 | 2.5 | 2.0 | 2.1 | .8 |
| Annual rate over life of contract | 2.4 | 2.7 | 2.7 | 2.6 | 1.5 | 3.2 | 2.8 | 3.1 | 1.9 | 1.6 |
| **Effective adjustments:** | | | | | | | | | | |
| Total effective wage adjustment [3] | 3.7 | 3.3 | .9 | 1.2 | .7 | .7 | .8 | 1.2 | .5 | .6 |
| From settlements reached in period | .8 | .7 | .1 | .2 | .3 | .1 | .2 | .2 | .1 | .0 |
| Deferred from settlements reached in earlier periods | 2.0 | 1.8 | .7 | .7 | .2 | .6 | .5 | .5 | .2 | .4 |
| From cost-of-living-adjustments clauses | .9 | .7 | .2 | .3 | .2 | .1 | .1 | .4 | .1 | .2 |

[1] Compensation includes wages, salaries, and employers' cost of employee benefits when contract is negotiated.

[2] Adjustments are the net result of increases, decreases, and no changes in compensation or wages.

[3] Because of rounding total may not equal sum of parts.

p = preliminary.

## 26. Average specified compensation and wage adjustments, major collective bargaining settlements in private industry situations covering 1,000 workers or more during 4-quarter periods (in percent)

| Measure | Average for four quarters ending-- | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1984 | | | 1985 | | | | 1986 |
| | II | III | IV | I | II | III | IV | Ip |
| Specified total compensation adjustments, settlements covering 5,000 workers or more, all industries: | | | | | | | | |
| First year of contract | 4.7 | 4.2 | 3.6 | 3.4 | 3.4 | 3.1 | 2.6 | 2.3 |
| Annual rate over life of contract | 3.5 | 3.2 | 2.8 | 2.6 | 2.7 | 2.7 | 2.7 | 2.6 |
| Specified wage adjustments, settlements covering 1,000 workers or more: | | | | | | | | |
| All industries | | | | | | | | |
| First year of contract | 3.5 | 3.2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.0 |
| Contracts with COLA clauses | 4.6 | 4.5 | 2.9 | 2.5 | 2.3 | 1.9 | 1.6 | 1.6 |
| Contracts without COLA clauses | 2.7 | 2.3 | 2.1 | 2.4 | 2.4 | 2.7 | 2.7 | 2.2 |
| Annual rate over life of contract | 3.1 | 2.8 | 2.4 | 2.3 | 2.4 | 2.5 | 2.7 | 2.5 |
| Contracts with COLA clauses | 2.9 | 2.8 | 1.8 | 1.3 | 1.5 | 1.8 | 2.5 | 2.6 |
| Contracts without COLA clauses | 3.2 | 2.8 | 2.7 | 2.8 | 2.8 | 3.0 | 2.8 | 2.5 |
| Manufacturing | | | | | | | | |
| First year of contract | 3.0 | 2.6 | 2.3 | 2.1 | 2.0 | 1.5 | .8 | .8 |
| Contracts with COLA clauses | 3.2 | 1.5 | 2.1 | 2.0 | 1.9 | 1.5 | .8 | .8 |
| Contracts without COLA clauses | 2.8 | 3.7 | 2.9 | 2.5 | 2.2 | 1.5 | .9 | .9 |
| Annual rate over life of contract | 3.1 | 2.8 | 1.5 | 1.4 | 1.5 | 1.6 | 1.8 | 1.8 |
| Contracts with COLA clauses | 2.8 | 1.8 | 1.0 | .9 | 1.0 | 1.4 | 2.1 | 2.1 |
| Contracts without COLA clauses | 3.6 | 3.8 | 3.3 | 3.2 | 3.0 | 2.4 | 1.6 | 1.5 |
| Nonmanufacturing | | | | | | | | |
| First year of contract | 3.7 | 3.3 | 2.5 | 2.6 | 2.7 | 3.2 | 3.3 | 2.8 |
| Contracts with COLA clauses | 5.2 | 5.4 | 5.5 | 5.1 | 4.3 | 4.0 | 3.6 | 3.5 |
| Contracts without COLA clauses | 2.6 | 2.1 | 2.0 | 2.4 | 2.5 | 3.0 | 3.3 | 2.7 |
| Annual rate over life of contract | 3.0 | 2.8 | 2.9 | 2.8 | 2.9 | 3.3 | 3.3 | 3.0 |
| Contracts with COLA clauses | 3.0 | 3.1 | 4.8 | 4.0 | 3.8 | 3.9 | 3.6 | 3.6 |
| Contracts without COLA clauses | 3.0 | 2.6 | 2.6 | 2.7 | 2.8 | 3.2 | 3.3 | 2.9 |
| Construction | | | | | | | | |
| First year of contract | .8 | .9 | .5 | .9 | 1.1 | 1.0 | 1.5 | 1.7 |
| Contracts with COLA clauses | -.4 | 4.0 | 4.0 | 4.6 | 9.2 | (1) | (1) | (1) |
| Contracts without COLA clauses | .9 | .9 | .4 | .8 | 1.0 | (1) | (1) | (1) |
| Annual rate over life of contract | 1.7 | 1.4 | 1.0 | 1.4 | 1.7 | 1.7 | 2.1 | 2.2 |
| Contracts with COLA clauses | .0 | 1.4 | 1.4 | 1.7 | 4.6 | (1) | (1) | (1) |
| Contracts without COLA clauses | 1.8 | 1.4 | 1.0 | 1.4 | 1.7 | (1) | (1) | (1) |

[1] Data do not meet publication standards.

p = preliminary.

### 27. Average effective wage adjustments, private industry collective bargaining situations covering 1,000 workers or more during 4-quarter periods (in percent)

| Effective wage adjustment | Average for four quarters ending-- | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1984 | | 1985 | | | | 1986 |
| | III | IV | I | II | III | IV | I[p] |
| **For all workers:**[1] | | | | | | | |
| Total | 4.2 | 3.7 | 3.6 | 3.5 | 3.5 | 3.3 | 3.1 |
| From settlements reached in period | 1.0 | .8 | .7 | .9 | .9 | .7 | .6 |
| Deferred from settlements reached in earlier period | 2.1 | 2.0 | 2.2 | 1.9 | 1.8 | 1.8 | 1.7 |
| From cost-of-living-adjustments clauses | 1.2 | .9 | .7 | .7 | .8 | .7 | .8 |
| **For workers receiving changes:** | | | | | | | |
| Total | 5.0 | 4.4 | 4.5 | 4.2 | 4.3 | 4.1 | 4.0 |
| From settlements reached in period | 3.7 | 3.0 | 2.9 | 2.9 | 2.8 | 3.4 | 2.9 |
| Deferred from settlements reached in earlier period | 4.2 | 4.0 | 4.2 | 3.9 | 3.7 | 3.7 | 3.5 |
| From cost-of-living-adjustments clauses | 3.2 | 2.7 | 2.3 | 2.3 | 2.8 | 2.2 | 2.5 |

[1] Because of rounding total may not equal sum of parts.

[p] = preliminary.

### 28. Specified compensation and wage adjustments from contract settlements, and effective wage adjustments, State and local government collective bargaining situations covering 1,000 workers or more (in percent)

| Measure | Annual average | | Second 6 months 1985[p] |
|---|---|---|---|
| | 1984 | 1985 | |
| Specified adjustments: | | | |
| Total compensation [1] adjustments, [2] settlements covering 5,000 workers or more: | | | |
| First year of contract | 5.2 | 4.2 | 3.8 |
| Annual rate over life of contract | 5.4 | 5.1 | 5.3 |
| Wage adjustments, settlements covering 1,000 workers or more: | | | |
| First year of contract | 4.8 | 4.6 | 4.4 |
| Annual rate over life of contract | 5.1 | 5.4 | 5.6 |
| Effective adjustments: | | | |
| Total effective wage adjustment [3] | 5.0 | 5.7 | 4.1 |
| From settlements reached in period | 1.9 | 4.1 | 3.2 |
| Deferred from settlements reached in earlier periods | 3.1 | 1.6 | .9 |
| From cost-of-living-adjustment clauses | ([4]) | ([4]) | ([4]) |

[1] Compensation includes wages, salaries, and employers' cost of employee benefits when contract is negotiated.

[2] Adjustments are the net result of increases, decreases, and no changes in compensation or wages.

[3] Because of rounding total may not equal sum of parts.

[4] Less than 0.05 percent.

[p] = preliminary.

### 29. Work stoppages involving 1,000 workers or more

| Measure | Annual totals | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan.[p] | Feb.[p] | Mar.[p] | Apr.[p] | May[p] |
| Number of stoppages: | | | | | | | | | | | | | | | |
| Beginning in period | 62 | 54 | 2 | 2 | 9 | 6 | 11 | 6 | 3 | 2 | 4 | 3 | 3 | 4 | 5 |
| In effect during period | 68 | 61 | 8 | 8 | 13 | 18 | 20 | 20 | 13 | 9 | 7 | 7 | 9 | 9 | 10 |
| Workers involved: | | | | | | | | | | | | | | | |
| Beginning in period (in thousands) | 376.0 | 323.9 | 6.9 | 15.7 | 50.1 | 15.3 | 69.5 | 76.6 | 26.2 | 8.2 | 7.6 | 24.0 | 12.3 | 7.2 | 26.7 |
| In effect during period (in thousands) | 391.0 | 584.1 | 15.1 | 28.5 | 56.9 | 66.8 | 93.9 | 119.3 | 47.0 | 38.0 | 120 | 284 | 397 | 187 | 393 |
| Days idle: | | | | | | | | | | | | | | | |
| Number (in thousands) | 8,499.0 | 7,079.0 | 203.3 | 454.3 | 500.2 | 869.7 | 931.4 | 1,433.0 | 651.2 | 665.4 | 1,700 | 3,095 | 3,906 | 3,215 | 3,646 |
| Percent of estimated working time[1] | .04 | .03 | .01 | .02 | .02 | .04 | .04 | .06 | .04 | .03 | 1 | 2 | 2 | 2 | 2 |

[1] Agricultural and government employees are included in the total employed and total working time: private household, forestry, and fishery employees are excluded. An explanation of the measurement of idleness as a percentage of the total time worked is found in "'Total economy' measure of strike idleness," *Monthly Labor Review,* October 1968, pp. 54-56.

[p] = preliminary

## 30. Consumer Price Index for All Urban Consumers: U.S. city average, by expenditure category and commodity or service group; and CPI for Urban Wage Earners and Clerical Workers, all items

(1967=100, unless otherwise indicated)

| Series | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| **CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS:** | | | | | | | | | | | | | | | |
| All items | 311.1 | 322.2 | 321.3 | 322.3 | 322.8 | 323.5 | 324.5 | 325.5 | 326.6 | 327.4 | 328.4 | 327.5 | 326.0 | 325.3 | 326.3 |
| All items (1957-59=100) | 361.9 | 374.7 | 373.7 | 374.8 | 375.5 | 376.2 | 377.4 | 378.5 | 379.9 | 380.8 | 381.9 | 380.8 | 379.1 | 378.3 | 379.5 |
| Food and beverages | 295.1 | 302.0 | 301.0 | 301.4 | 301.6 | 301.8 | 302.1 | 302.5 | 303.6 | 305.6 | 307.9 | 307.7 | 307.8 | 308.5 | 309.4 |
| Food | 302.9 | 309.8 | 308.9 | 309.3 | 309.5 | 309.7 | 309.9 | 309.8 | 311.0 | 313.2 | 315.6 | 315.3 | 315.4 | 316.1 | 317.0 |
| Food at home | 292.6 | 296.8 | 296.2 | 296.0 | 296.2 | 295.9 | 295.6 | 295.3 | 296.6 | 299.3 | 302.5 | 301.5 | 301.2 | 301.5 | 302.1 |
| Cereals and bakery products | 305.3 | 317.0 | 315.9 | 317.3 | 317.3 | 318.5 | 319.2 | 318.9 | 319.9 | 321.9 | 322.0 | 322.5 | 322.7 | 322.5 | 323.8 |
| Meats, poultry, fish, and eggs | 266.6 | 263.4 | 259.8 | 259.8 | 260.5 | 259.7 | 260.6 | 261.1 | 266.1 | 269.9 | 271.5 | 268.4 | 267.7 | 264.2 | 263.4 |
| Dairy products | 253.2 | 258.0 | 258.4 | 257.8 | 257.8 | 257.4 | 258.0 | 257.1 | 257.1 | 256.9 | 257.2 | 257.3 | 256.8 | 256.8 | 257.1 |
| Fruits and vegetables | 317.4 | 325.7 | 330.3 | 329.0 | 328.9 | 326.3 | 319.9 | 317.1 | 314.3 | 323.9 | 334.4 | 320.7 | 319.2 | 329.5 | 336.5 |
| Other foods at home | 352.2 | 361.1 | 361.3 | 360.8 | 360.6 | 361.7 | 362.6 | 363.0 | 362.2 | 361.3 | 365.7 | 375.1 | 375.7 | 376.1 | 374.6 |
| Sugar and sweets | 389.1 | 398.8 | 397.6 | 398.3 | 400.2 | 401.8 | 401.1 | 402.6 | 401.4 | 402.2 | 405.1 | 408.6 | 408.4 | 411.4 | 411.2 |
| Fats and oils | 288.0 | 294.4 | 294.0 | 296.0 | 297.8 | 297.1 | 294.8 | 291.2 | 292.1 | 290.3 | 292.1 | 291.4 | 290.2 | 288.5 | 287.2 |
| Nonalcoholic beverages | 443.0 | 451.7 | 454.1 | 451.5 | 448.2 | 449.6 | 452.8 | 454.1 | 451.7 | 448.8 | 459.7 | 485.3 | 488.0 | 487.4 | 481.9 |
| Other prepared foods | 284.9 | 294.2 | 293.4 | 293.4 | 294.5 | 295.8 | 296.3 | 296.8 | 296.8 | 297.3 | 298.0 | 299.5 | 299.3 | 300.2 | 301.4 |
| Food away from home | 333.4 | 346.6 | 345.1 | 346.9 | 347.3 | 348.4 | 349.9 | 350.3 | 351.3 | 352.1 | 353.1 | 354.2 | 355.5 | 357.0 | 358.8 |
| Alcoholic beverages | 222.1 | 229.5 | 227.7 | 227.8 | 227.8 | 228.9 | 229.3 | 236.4 | 236.2 | 236.2 | 237.5 | 238.3 | 238.8 | 239.5 | 239.4 |
| Housing | 336.5 | 349.9 | 348.5 | 350.4 | 351.6 | 352.9 | 353.8 | 354.4 | 355.0 | 355.8 | 356.8 | 356.5 | 357.0 | 358.0 | 358.5 |
| Shelter | 361.7 | 382.0 | 379.5 | 381.0 | 383.2 | 385.9 | 386.9 | 389.1 | 391.3 | 392.3 | 393.8 | 394.8 | 397.0 | 400.1 | 400.9 |
| Renters' costs (12/82=100) | 108.6 | 115.4 | 114.5 | 115.1 | 115.8 | 116.6 | 117.0 | 117.9 | 118.4 | 118.3 | 118.8 | 119.0 | 119.6 | 120.9 | 121.1 |
| Rent, residential | 249.3 | 264.6 | 262.6 | 263.6 | 265.0 | 266.6 | 267.7 | 269.9 | 271.7 | 272.4 | 273.4 | 273.7 | 275.0 | 277.9 | 278.4 |
| Other renters' costs | 373.4 | 398.4 | 396.5 | 401.6 | 405.1 | 409.9 | 410.7 | 412.5 | 408.7 | 398.1 | 401.1 | 404.1 | 405.5 | 410.8 | 411.3 |
| Homeowners' costs (12/82=100) | 107.3 | 113.1 | 112.4 | 112.8 | 113.5 | 114.3 | 114.6 | 115.1 | 115.8 | 116.3 | 116.7 | 117.0 | 117.9 | 118.7 | 118.9 |
| Owners' equivalent rent (12/82=100) | 107.3 | 113.2 | 112.5 | 112.8 | 113.5 | 114.3 | 114.6 | 115.1 | 115.9 | 116.3 | 116.7 | 117.0 | 117.9 | 118.7 | 118.9 |
| Household insurance (12/82=100) | 107.5 | 112.4 | 112.0 | 112.7 | 112.7 | 113.0 | 113.7 | 114.6 | 114.5 | 115.0 | 115.7 | 117.4 | 118.0 | 118.3 | 118.8 |
| Maintenance and repairs | 359.2 | 368.9 | 366.2 | 367.6 | 367.8 | 370.6 | 368.7 | 368.5 | 372.7 | 373.7 | 379.1 | 379.6 | 367.5 | 367.6 | 367.1 |
| Maintenance and repair services | 409.7 | 421.1 | 416.0 | 423.2 | 421.1 | 425.1 | 421.9 | 422.2 | 426.4 | 426.2 | 432.6 | 432.8 | 422.4 | 424.6 | 425.5 |
| Maintenance and repair commodities | 262.7 | 269.6 | 269.2 | 265.7 | 267.8 | 269.2 | 268.6 | 268.0 | 271.5 | 273.3 | 277.1 | 277.8 | 266.1 | 264.5 | 262.9 |
| Fuel and other utilities | 387.3 | 393.6 | 393.0 | 399.4 | 399.9 | 398.9 | 400.5 | 395.6 | 392.1 | 393.3 | 394.6 | 390.0 | 385.5 | 381.8 | 382.5 |
| Fuels | 485.5 | 488.1 | 490.0 | 497.7 | 497.3 | 494.4 | 496.8 | 488.4 | 481.5 | 483.6 | 484.7 | 476.3 | 467.6 | 459.6 | 460.6 |
| Fuel oil, coal, and bottled gas | 641.8 | 619.5 | 620.8 | 612.0 | 601.9 | 594.6 | 601.7 | 615.3 | 641.6 | 657.3 | 650.3 | 591.2 | 549.9 | 518.3 | 496.8 |
| Gas (piped) and electricity | 445.2 | 452.7 | 454.7 | 465.6 | 467.1 | 465.1 | 466.5 | 453.9 | 440.5 | 439.9 | 442.6 | 444.5 | 442.3 | 439.2 | 444.6 |
| Other utilities and public services | 230.2 | 240.7 | 236.8 | 241.1 | 242.8 | 244.2 | 244.6 | 244.7 | 245.9 | 245.8 | 247.3 | 247.9 | 249.0 | 251.3 | 251.5 |
| Household furnishings and operations | 242.5 | 247.2 | 247.6 | 247.1 | 246.5 | 247.0 | 247.1 | 248.4 | 248.9 | 248.8 | 248.8 | 249.0 | 249.8 | 249.6 | 249.9 |
| Housefurnishings | 199.1 | 200.1 | 201.2 | 200.0 | 198.8 | 199.1 | 199.0 | 200.3 | 200.8 | 200.1 | 199.8 | 199.7 | 201.0 | 200.4 | 200.8 |
| Housekeeping supplies | 303.2 | 313.6 | 312.9 | 313.6 | 313.1 | 313.5 | 313.9 | 315.7 | 316.4 | 317.7 | 318.3 | 318.6 | 317.9 | 318.5 | 318.3 |
| Housekeeping services | 327.5 | 338.9 | 338.0 | 338.3 | 339.8 | 340.7 | 341.5 | 342.2 | 342.7 | 343.2 | 343.9 | 344.5 | 345.1 | 345.4 | 345.8 |
| Apparel and upkeep | 200.2 | 206.0 | 205.3 | 204.6 | 202.8 | 205.3 | 209.6 | 211.1 | 211.2 | 209.0 | 205.0 | 204.1 | 206.3 | 207.3 | 206.4 |
| Apparel commodities | 187.0 | 191.6 | 191.0 | 190.2 | 188.0 | 190.6 | 195.3 | 196.7 | 196.8 | 194.2 | 189.5 | 188.5 | 190.8 | 191.7 | 190.7 |
| Men's and boys' apparel | 192.4 | 197.9 | 197.8 | 196.4 | 194.5 | 197.2 | 201.5 | 203.2 | 203.6 | 202.0 | 198.6 | 196.8 | 198.3 | 199.7 | 200.2 |
| Women's and girls' apparel | 163.6 | 169.5 | 168.0 | 166.5 | 163.4 | 167.7 | 176.1 | 177.9 | 176.5 | 172.6 | 164.4 | 163.4 | 167.6 | 168.0 | 164.9 |
| Infants' and toddlers' apparel | 287.0 | 299.7 | 298.3 | 300.7 | 294.5 | 300.6 | 302.0 | 302.1 | 307.0 | 304.1 | 313.9 | 311.6 | 313.1 | 316.6 | 318.5 |
| Footwear | 209.5 | 212.1 | 213.2 | 213.9 | 211.4 | 210.3 | 210.9 | 212.3 | 215.5 | 213.1 | 209.1 | 207.9 | 210.1 | 211.4 | 211.5 |
| Other apparel commodities | 216.4 | 215.5 | 215.1 | 216.3 | 216.7 | 217.5 | 215.2 | 214.9 | 214.9 | 214.6 | 215.5 | 216.1 | 214.6 | 215.3 | 215.4 |
| Apparel services | 305.0 | 320.9 | 319.4 | 319.9 | 321.4 | 322.9 | 324.1 | 325.7 | 326.3 | 326.9 | 329.8 | 330.7 | 331.5 | 332.9 | 333.6 |
| Transportation | 311.7 | 319.9 | 321.4 | 321.8 | 321.8 | 320.7 | 319.7 | 320.9 | 323.2 | 324.0 | 323.9 | 319.2 | 309.6 | 303.3 | 305.7 |
| Private transportation | 306.6 | 314.2 | 316.0 | 316.3 | 316.1 | 314.9 | 313.6 | 314.7 | 317.0 | 317.8 | 317.3 | 312.2 | 302.1 | 295.3 | 297.8 |
| New vehicles | 208.0 | 214.9 | 214.2 | 214.3 | 214.3 | 214.2 | 214.2 | 215.9 | 218.2 | 219.2 | 219.7 | 220.2 | 220.1 | 221.0 | 222.8 |
| New cars | 208.5 | 215.2 | 214.5 | 214.7 | 214.7 | 214.6 | 214.5 | 216.2 | 218.4 | 219.4 | 219.9 | 220.4 | 220.3 | 221.2 | 223.0 |
| Used cars | 375.7 | 379.7 | 384.2 | 380.3 | 376.7 | 374.0 | 374.3 | 375.3 | 376.4 | 375.6 | 374.1 | 370.7 | 367.2 | 364.8 | 363.6 |
| Motor fuel | 370.7 | 373.8 | 381.6 | 384.7 | 385.5 | 381.9 | 377.7 | 374.6 | 376.7 | 377.5 | 373.3 | 351.5 | 308.5 | 279.5 | 289.3 |
| Gasoline | 370.2 | 373.3 | 381.4 | 384.5 | 385.3 | 381.8 | 377.4 | 374.2 | 376.1 | 376.8 | 372.5 | 350.8 | 307.7 | 278.6 | 288.7 |
| Maintenance and repair | 341.5 | 351.4 | 349.6 | 350.4 | 351.1 | 351.9 | 353.5 | 355.7 | 355.8 | 357.5 | 357.9 | 358.9 | 359.3 | 360.6 | 361.3 |
| Other private transportation | 273.3 | 287.6 | 285.6 | 286.6 | 287.6 | 287.7 | 285.8 | 289.6 | 293.9 | 295.2 | 297.7 | 299.2 | 301.5 | 301.6 | 301.3 |
| Other private transportation commodities | 201.5 | 202.6 | 201.3 | 203.9 | 202.2 | 202.8 | 203.4 | 202.8 | 201.6 | 202.1 | 203.4 | 202.9 | 203.6 | 202.2 | 202.4 |
| Other private transportation services | 295.0 | 312.8 | 310.7 | 311.3 | 313.0 | 313.0 | 310.4 | 315.4 | 321.2 | 322.7 | 325.5 | 327.6 | 330.3 | 330.9 | 330.4 |
| Public transportation | 385.2 | 402.8 | 398.4 | 399.3 | 402.4 | 403.7 | 408.0 | 411.5 | 412.8 | 412.9 | 419.6 | 422.2 | 421.2 | 422.2 | 423.7 |
| Medical care | 379.5 | 403.1 | 399.5 | 401.7 | 404.0 | 406.6 | 408.3 | 410.5 | 413.0 | 414.7 | 418.2 | 422.3 | 425.8 | 428.0 | 429.7 |
| Medical care commodities | 239.7 | 256.7 | 255.2 | 257.0 | 257.8 | 259.3 | 260.2 | 261.3 | 262.7 | 262.9 | 264.5 | 267.4 | 269.4 | 271.3 | 272.3 |
| Medical care services | 410.3 | 435.1 | 430.9 | 433.0 | 435.8 | 438.6 | 440.5 | 443.0 | 445.8 | 448.0 | 451.9 | 456.2 | 460.1 | 462.3 | 464.2 |
| Professional services | 346.1 | 367.3 | 364.5 | 366.4 | 368.1 | 370.0 | 371.7 | 373.2 | 375.5 | 377.1 | 378.9 | 381.6 | 385.0 | 386.9 | 388.3 |
| Other medical care services | 488.0 | 517.0 | 511.2 | 513.6 | 517.6 | 521.6 | 523.9 | 527.4 | 530.8 | 533.6 | 540.3 | 546.4 | 550.8 | 553.5 | 555.9 |
| Entertainment | 255.1 | 265.0 | 263.6 | 264.8 | 265.7 | 265.7 | 266.8 | 268.4 | 269.0 | 268.3 | 270.8 | 272.0 | 271.9 | 272.3 | 272.9 |
| Entertainment commodities | 253.3 | 260.6 | 259.5 | 260.1 | 260.8 | 260.5 | 262.5 | 264.0 | 264.0 | 262.5 | 264.7 | 265.2 | 265.0 | 264.8 | 265.3 |
| Entertainment services | 258.3 | 271.8 | 269.9 | 272.0 | 273.3 | 273.6 | 273.3 | 275.2 | 276.6 | 277.1 | 279.9 | 282.1 | 282.2 | 283.5 | 284.2 |
| Other goods and services | 307.7 | 326.6 | 322.3 | 323.0 | 325.0 | 326.0 | 333.3 | 334.9 | 335.3 | 336.5 | 339.1 | 340.3 | 341.1 | 341.8 | 342.1 |
| Tobacco products | 310.0 | 328.5 | 324.1 | 324.8 | 330.0 | 331.5 | 332.8 | 334.4 | 334.7 | 337.4 | 342.7 | 344.7 | 345.6 | 346.5 | 346.5 |
| Personal care | 271.4 | 281.9 | 280.9 | 281.7 | 282.3 | 283.3 | 284.1 | 285.0 | 285.4 | 286.3 | 288.1 | 289.1 | 290.3 | 290.5 | 290.9 |
| Toilet goods and personal care appliances | 269.6 | 278.5 | 277.5 | 277.9 | 278.9 | 279.4 | 280.6 | 281.4 | 281.1 | 282.5 | 285.3 | 286.0 | 287.3 | 287.7 | 287.9 |
| Personal care services | 274.1 | 286.0 | 285.0 | 286.1 | 286.3 | 287.7 | 288.2 | 289.2 | 290.2 | 290.6 | 291.8 | 293.0 | 294.0 | 294.1 | 294.7 |
| Personal and educational expenses | 365.7 | 397.1 | 388.5 | 389.1 | 390.1 | 390.7 | 412.5 | 414.7 | 415.4 | 415.5 | 416.8 | 417.7 | 417.9 | 418.9 | 419.5 |
| School books and supplies | 322.8 | 350.8 | 344.5 | 344.9 | 345.5 | 346.1 | 362.1 | 364.5 | 364.7 | 364.7 | 371.0 | 373.8 | 374.3 | 374.4 | 374.5 |
| Personal and educational services | 375.6 | 407.7 | 398.8 | 399.4 | 400.4 | 401.1 | 423.9 | 426.2 | 426.9 | 427.0 | 427.6 | 428.1 | 428.3 | 429.5 | 430.2 |

See footnotes at end of table.

**30. Continued— Consumer Price Index for All Urban Consumers: U.S. city average, by expenditure category and commodity or service group; and CPI for Urban Wage Earners and Clerical Workers, all items**

(1967=100, unless otherwise indicated)

| Series | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| All items | 311.1 | 322.2 | 321.3 | 322.3 | 322.8 | 323.5 | 324.5 | 325.5 | 326.6 | 327.4 | 328.4 | 327.5 | 326.0 | 325.3 | 326.3 |
| Commodities | 280.7 | 286.7 | 287.0 | 286.9 | 286.5 | 286.5 | 287.1 | 287.9 | 289.2 | 289.9 | 290.1 | 287.4 | 283.7 | 281.2 | 282.1 |
| Food and beverages | 295.1 | 302.0 | 301.0 | 301.4 | 301.6 | 301.8 | 302.1 | 302.5 | 303.6 | 305.6 | 307.9 | 307.7 | 307.8 | 308.5 | 309.4 |
| Commodities less food and beverages | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Nondurables less food and beverages | 275.7 | 282.1 | 283.1 | 283.5 | 282.9 | 283.1 | 284.6 | 285.3 | 286.8 | 286.8 | 284.9 | 278.6 | 268.9 | 262.0 | 263.3 |
| Apparel commodities | 187.0 | 191.6 | 191.0 | 190.2 | 188.0 | 190.6 | 195.3 | 196.7 | 196.8 | 194.2 | 189.5 | 188.5 | 190.8 | 191.7 | 190.7 |
| Nondurables less food, beverages, and apparel | 325.8 | 333.3 | 335.1 | 336.2 | 336.4 | 335.4 | 335.3 | 335.6 | 337.8 | 339.1 | 338.7 | 329.5 | 313.6 | 302.6 | 305.2 |
| Durables | 266.5 | 270.7 | 271.6 | 270.4 | 269.3 | 268.6 | 268.7 | 270.2 | 271.5 | 271.4 | 271.4 | 270.5 | 269.7 | 269.2 | 269.6 |
| Services | 363.0 | 381.5 | 378.9 | 381.3 | 383.3 | 384.9 | 386.5 | 387.7 | 388.7 | 389.5 | 391.7 | 393.3 | 394.9 | 396.8 | 397.9 |
| Rent of shelter | 107.7 | 113.9 | 113.2 | 113.6 | 114.3 | 115.1 | 115.4 | 116.1 | 116.7 | 117.0 | 117.4 | 117.7 | 118.5 | 119.4 | 119.7 |
| Household services less rent of shelter | 108.1 | 111.2 | 110.9 | 112.7 | 113.2 | 113.2 | 113.5 | 112.1 | 110.8 | 110.8 | 111.4 | 111.8 | 111.6 | 111.6 | 112.3 |
| Transportation services | 321.1 | 337.0 | 334.5 | 335.3 | 337.0 | 337.4 | 337.1 | 341.1 | 344.7 | 346.1 | 349.0 | 351.0 | 352.4 | 353.2 | 353.4 |
| Medical care services | 410.3 | 435.1 | 430.9 | 433.0 | 435.8 | 438.6 | 440.5 | 443.0 | 445.8 | 448.0 | 451.9 | 456.2 | 460.1 | 462.3 | 464.2 |
| Other services | 296.0 | 314.1 | 310.7 | 312.0 | 313.0 | 313.8 | 319.7 | 321.4 | 322.5 | 322.9 | 324.8 | 326.1 | 326.6 | 327.6 | 328.2 |
| Special indexes: | | | | | | | | | | | | | | | |
| All items less food | 311.3 | 323.3 | 322.4 | 323.6 | 324.2 | 325.0 | 326.2 | 327.4 | 328.5 | 328.9 | 329.5 | 328.5 | 326.6 | 325.7 | 326.7 |
| All items less shelter | 295.1 | 303.9 | 303.4 | 304.3 | 304.4 | 304.6 | 305.7 | 306.3 | 307.2 | 307.9 | 308.8 | 307.4 | 305.2 | 303.6 | 304.7 |
| All items less homeowners' costs | 106.3 | 109.7 | 109.5 | 109.8 | 109.9 | 110.1 | 110.4 | 110.7 | 111.1 | 111.3 | 111.6 | 111.2 | 110.5 | 110.1 | 110.4 |
| All items less medical care | 307.3 | 317.7 | 317.0 | 317.9 | 318.4 | 318.9 | 319.9 | 320.8 | 321.9 | 322.6 | 323.4 | 322.2 | 320.5 | 319.7 | 320.6 |
| Commodities less food | 267.0 | 272.5 | 273.4 | 273.1 | 272.4 | 272.3 | 273.1 | 274.4 | 275.7 | 275.7 | 274.7 | 270.9 | 265.2 | 261.2 | 262.1 |
| Nondurables less food | 270.8 | 277.2 | 278.0 | 278.4 | 277.9 | 278.1 | 279.6 | 280.7 | 282.0 | 282.0 | 280.4 | 274.5 | 265.6 | 259.2 | 260.5 |
| Nondurables less food and apparel | 311.9 | 319.2 | 320.7 | 321.7 | 321.9 | 321.1 | 321.0 | 322.0 | 324.0 | 325.1 | 324.9 | 316.8 | 302.7 | 292.9 | 295.2 |
| Nondurables | 286.6 | 293.2 | 293.3 | 293.7 | 293.5 | 293.7 | 294.6 | 295.1 | 296.4 | 297.4 | 297.7 | 294.3 | 289.5 | 286.3 | 287.4 |
| Services less rent of shelter | 108.5 | 113.5 | 112.8 | 113.7 | 114.2 | 114.5 | 115.0 | 115.1 | 115.2 | 115.4 | 116.2 | 116.8 | 117.1 | 117.4 | 117.8 |
| Services less medical care | 355.6 | 373.3 | 370.9 | 373.3 | 375.2 | 376.7 | 378.3 | 379.3 | 380.1 | 380.8 | 382.7 | 384.0 | 385.4 | 387.2 | 388.3 |
| Energy | 423.6 | 426.5 | 431.7 | 436.8 | 437.1 | 433.8 | 432.6 | 427.1 | 425.1 | 426.5 | 424.7 | 408.9 | 381.3 | 361.8 | 367.6 |
| All items less energy | 302.9 | 314.8 | 313.3 | 313.9 | 314.5 | 315.6 | 316.8 | 318.4 | 319.8 | 320.5 | 321.8 | 322.3 | 323.3 | 324.4 | 325.0 |
| All items less food and energy | 301.2 | 314.4 | 312.8 | 313.4 | 314.1 | 315.3 | 316.9 | 318.9 | 320.4 | 320.7 | 321.6 | 322.3 | 323.6 | 324.8 | 325.3 |
| Commodities less food and energy | 253.1 | 259.7 | 259.6 | 259.0 | 258.2 | 258.8 | 260.2 | 262.0 | 262.7 | 262.2 | 261.8 | 261.6 | 262.0 | 262.1 | 262.2 |
| Energy commodities | 409.8 | 409.9 | 417.0 | 418.7 | 418.1 | 414.0 | 411.2 | 410.1 | 415.2 | 417.9 | 413.2 | 386.5 | 343.0 | 313.3 | 319.3 |
| Services less energy | 356.4 | 375.9 | 372.9 | 374.6 | 376.6 | 378.6 | 380.2 | 382.5 | 384.8 | 385.8 | 387.9 | 389.4 | 391.5 | 393.8 | 394.5 |
| Purchasing power of the consumer dollar: | | | | | | | | | | | | | | | |
| 1967=$1.00 | 32.1 | 31.0 | 31.1 | 31.0 | 31.0 | 30.9 | 30.8 | 30.7 | 30.6 | 30.5 | 30.5 | 30.5 | 30.7 | 30.7 | 30.6 |
| 1957-59=$1.00 | 27.6 | 26.7 | 26.8 | 26.7 | 26.6 | 26.6 | 26.5 | 26.4 | 26.3 | 26.3 | 26.2 | 26.3 | 26.4 | 26.4 | 26.4 |
| **CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS:** | | | | | | | | | | | | | | | |
| All items | 307.6 | 318.5 | 317.8 | 318.7 | 319.1 | 319.6 | 320.5 | 321.3 | 322.6 | 323.4 | 324.3 | 323.2 | 321.4 | 320.4 | 321.4 |
| All items (1957-59=100) | 357.7 | 370.4 | 369.6 | 370.6 | 371.2 | 371.8 | 372.7 | 373.7 | 375.1 | 376.1 | 377.1 | 375.8 | 373.7 | 372.6 | 373.7 |
| Food and beverages | 295.2 | 301.8 | 300.8 | 301.2 | 301.4 | 301.6 | 301.8 | 302.2 | 303.4 | 305.4 | 307.7 | 307.5 | 307.6 | 308.3 | 309.0 |
| Food | 302.7 | 309.3 | 308.4 | 308.8 | 309.0 | 309.1 | 309.3 | 309.3 | 310.6 | 312.8 | 315.1 | 314.9 | 315.0 | 315.6 | 316.4 |
| Food at home | 291.2 | 295.3 | 294.6 | 294.5 | 294.6 | 294.3 | 294.0 | 293.7 | 295.2 | 297.9 | 300.9 | 300.1 | 299.7 | 299.9 | 300.4 |
| Cereals and bakery products | 303.7 | 315.4 | 314.1 | 315.7 | 315.7 | 316.8 | 317.6 | 317.3 | 318.2 | 320.4 | 320.4 | 320.9 | 321.1 | 320.9 | 322.1 |
| Meats, poultry, fish, and eggs | 266.0 | 262.7 | 259.2 | 259.3 | 259.7 | 259.0 | 259.9 | 260.4 | 265.4 | 269.2 | 270.7 | 267.7 | 267.2 | 263.5 | 262.6 |
| Dairy products | 252.2 | 256.9 | 257.3 | 256.7 | 256.6 | 256.3 | 256.8 | 255.9 | 255.9 | 255.7 | 256.0 | 256.0 | 255.5 | 255.5 | 255.8 |
| Fruits and vegetables | 312.5 | 320.3 | 324.8 | 323.5 | 323.9 | 320.6 | 313.6 | 311.2 | 309.4 | 319.3 | 329.7 | 316.0 | 314.6 | 325.0 | 331.6 |
| Other foods at home | 352.7 | 361.5 | 361.6 | 361.3 | 361.1 | 362.2 | 362.9 | 363.4 | 362.5 | 361.6 | 366.1 | 375.2 | 375.6 | 376.0 | 374.3 |
| Sugar and sweets | 388.6 | 398.3 | 396.9 | 398.0 | 399.8 | 401.4 | 400.8 | 402.2 | 400.9 | 401.8 | 404.7 | 408.1 | 407.8 | 410.9 | 410.6 |
| Fats and oils | 287.5 | 293.9 | 293.6 | 295.6 | 297.3 | 296.5 | 294.1 | 290.6 | 291.8 | 289.6 | 291.6 | 290.8 | 289.7 | 287.8 | 286.6 |
| Nonalcoholic beverages | 444.4 | 453.2 | 455.4 | 453.0 | 449.8 | 451.2 | 454.1 | 455.6 | 453.1 | 450.4 | 461.0 | 485.5 | 487.4 | 487.0 | 481.2 |
| Other prepared foods | 286.4 | 295.7 | 294.9 | 295.0 | 296.1 | 297.3 | 297.7 | 298.3 | 298.3 | 298.7 | 299.4 | 300.9 | 300.7 | 301.6 | 302.7 |
| Food away from home | 336.7 | 349.7 | 348.4 | 350.1 | 350.4 | 351.5 | 353.0 | 353.4 | 354.4 | 355.2 | 356.2 | 357.3 | 358.6 | 360.2 | 362.0 |
| Alcoholic beverages | 225.3 | 232.6 | 230.8 | 231.0 | 231.0 | 232.2 | 232.6 | 239.1 | 238.8 | 239.1 | 240.1 | 240.9 | 241.4 | 242.3 | 242.2 |
| Housing | 329.2 | 343.3 | 342.1 | 344.0 | 345.0 | 346.2 | 347.2 | 347.5 | 348.3 | 349.1 | 350.1 | 349.7 | 350.1 | 351.1 | 351.6 |
| Shelter | 350.0 | 370.4 | 368.1 | 369.5 | 371.5 | 374.0 | 375.0 | 377.1 | 379.3 | 380.4 | 381.8 | 382.9 | 385.0 | 388.1 | 388.8 |
| Renters' costs (12/84=100) | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Rent, residential | 248.6 | 263.7 | 261.8 | 262.7 | 264.1 | 265.7 | 266.8 | 268.9 | 270.7 | 271.5 | 272.5 | 272.8 | 274.1 | 277.0 | 277.5 |
| Other renters' costs | 372.4 | 397.9 | 396.7 | 401.0 | 405.2 | 409.6 | 409.8 | 411.6 | 408.0 | 397.5 | 400.8 | 403.5 | 405.4 | 411.6 | 411.3 |
| Homeowners' costs (12/84=100) | – | 103.1 | 102.5 | 102.8 | 103.4 | 104.1 | 104.3 | 104.8 | 105.5 | 105.9 | 106.3 | 106.6 | 107.4 | 108.1 | 108.3 |
| Owners' equivalent rent (12/84=100) | – | 103.0 | 102.4 | 102.8 | 103.4 | 104.1 | 104.3 | 104.8 | 105.5 | 105.9 | 106.3 | 106.6 | 107.3 | 108.1 | 108.3 |
| Household insurance (12/84=100) | – | 103.2 | 102.8 | 103.4 | 103.5 | 103.7 | 104.3 | 105.2 | 105.2 | 105.7 | 106.3 | 107.8 | 108.2 | 108.5 | 109.0 |
| Maintenance and repairs | 356.3 | 364.1 | 361.8 | 362.9 | 363.4 | 365.6 | 364.4 | 364.6 | 367.7 | 368.5 | 373.2 | 374.0 | 364.7 | 364.6 | 363.8 |
| Maintenance and repair services | 403.5 | 415.0 | 410.1 | 417.0 | 415.3 | 419.6 | 416.8 | 417.4 | 420.9 | 420.1 | 426.2 | 426.5 | 416.6 | 419.2 | 420.0 |
| Maintenance and repair commodities | 257.2 | 261.1 | 260.7 | 258.4 | 260.0 | 260.6 | 260.5 | 260.5 | 262.7 | 264.2 | 267.2 | 268.1 | 261.1 | 259.4 | 258.0 |
| Fuel and other utilities | 388.6 | 394.7 | 393.8 | 400.9 | 401.2 | 400.1 | 401.9 | 396.3 | 393.2 | 394.3 | 395.6 | 390.9 | 386.3 | 382.6 | 383.0 |
| Fuels | 485.0 | 487.5 | 488.9 | 497.7 | 497.0 | 494.0 | 496.7 | 487.2 | 481.0 | 483.1 | 484.1 | 475.7 | 467.1 | 459.1 | 459.7 |
| Fuel oil, coal, and bottled gas | 644.3 | 622.0 | 623.2 | 614.3 | 604.2 | 596.9 | 604.3 | 618.1 | 644.3 | 659.9 | 652.7 | 593.6 | 552.8 | 521.5 | 499.9 |
| Gas (piped) and electricity | 444.1 | 451.6 | 453.0 | 465.1 | 466.3 | 464.2 | 465.9 | 452.0 | 439.5 | 438.8 | 441.4 | 443.2 | 441.2 | 438.0 | 443.0 |
| Other utilities and public services | 231.2 | 241.6 | 237.7 | 242.0 | 243.7 | 245.1 | 245.6 | 245.7 | 246.8 | 246.7 | 248.3 | 248.8 | 249.9 | 252.1 | 252.2 |
| Household furnishings and operations | 239.1 | 243.4 | 244.0 | 243.3 | 242.6 | 243.1 | 243.2 | 244.5 | 245.1 | 245.2 | 245.1 | 245.3 | 246.0 | 246.0 | 246.1 |
| Housefurnishings | 197.0 | 197.6 | 198.9 | 197.6 | 196.2 | 196.6 | 196.5 | 197.7 | 198.3 | 197.8 | 197.3 | 197.2 | 198.5 | 198.1 | 198.4 |
| Housekeeping supplies | 300.2 | 310.7 | 310.0 | 310.8 | 310.3 | 310.4 | 311.0 | 312.7 | 313.5 | 315.0 | 315.8 | 316.4 | 315.5 | 316.3 | 315.7 |
| Housekeeping services | 328.0 | 340.2 | 339.2 | 339.5 | 341.0 | 342.2 | 342.9 | 343.9 | 344.5 | 345.0 | 345.6 | 346.3 | 346.6 | 347.1 | 347.4 |
| Apparel and upkeep | 199.1 | 205.0 | 204.2 | 203.7 | 201.8 | 204.3 | 208.7 | 210.2 | 210.2 | 208.1 | 204.1 | 203.1 | 205.2 | 206.1 | 205.1 |

See footnotes at end of table.

## 30. Continued— Consumer Price Index for All Urban Consumers: U.S. city average, by expenditure category and commodity or service group; and CPI for Urban Wage Earners and Clerical Workers, all items

(1967=100, unless otherwise indicated)

| Series | Annual average | | 1985 | | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| Apparel commodities | 186.6 | 191.3 | 190.7 | 190.0 | 187.8 | 190.4 | 195.1 | 196.6 | 196.5 | 194.1 | 189.4 | 188.2 | 190.4 | 191.2 | 190.1 |
| Men's and boys' apparel | 192.9 | 198.2 | 198.2 | 196.6 | 194.8 | 197.3 | 201.8 | 203.5 | 203.7 | 202.2 | 198.8 | 196.8 | 198.0 | 199.3 | 200.0 |
| Women's and girls' apparel | 165.0 | 171.3 | 169.7 | 168.4 | 165.5 | 169.9 | 178.2 | 180.0 | 178.3 | 174.5 | 166.1 | 165.2 | 169.0 | 169.3 | 165.9 |
| Infants' and toddlers' apparel | 297.6 | 311.7 | 310.6 | 313.5 | 306.4 | 311.2 | 314.9 | 314.8 | 320.7 | 317.3 | 332.7 | 328.6 | 329.6 | 331.3 | 334.3 |
| Footwear | 210.0 | 212.5 | 213.3 | 214.1 | 211.6 | 210.5 | 211.0 | 212.6 | 215.9 | 213.6 | 209.9 | 208.4 | 210.7 | 212.1 | 212.0 |
| Other apparel commodities | 204.5 | 203.1 | 202.7 | 204.0 | 204.5 | 205.2 | 202.5 | 202.4 | 202.5 | 202.4 | 203.5 | 204.2 | 203.5 | 204.1 | 203.8 |
| Apparel services | 302.9 | 318.5 | 317.0 | 317.6 | 319.0 | 320.5 | 321.6 | 323.2 | 323.6 | 324.4 | 327.2 | 328.1 | 329.0 | 330.2 | 330.9 |
| Transportation | 313.9 | 321.6 | 323.3 | 323.6 | 323.5 | 322.3 | 321.1 | 322.2 | 324.6 | 325.3 | 325.1 | 320.1 | 310.3 | 303.5 | 305.9 |
| Private transportation | 310.1 | 317.4 | 319.4 | 319.6 | 319.3 | 318.0 | 316.6 | 317.6 | 320.1 | 320.8 | 320.2 | 314.8 | 304.5 | 297.4 | 299.9 |
| New vehicles | 207.3 | 214.2 | 213.5 | 213.6 | 213.6 | 213.5 | 213.5 | 215.3 | 217.5 | 218.6 | 219.0 | 219.4 | 219.4 | 220.2 | 222.0 |
| New cars | 207.9 | 214.5 | 213.8 | 214.0 | 214.0 | 213.9 | 213.8 | 215.5 | 217.8 | 218.8 | 219.2 | 219.7 | 219.5 | 220.4 | 222.3 |
| Used cars | 375.7 | 379.7 | 384.2 | 380.3 | 376.7 | 374.0 | 374.3 | 375.3 | 376.4 | 375.6 | 374.1 | 370.7 | 367.2 | 364.8 | 363.6 |
| Motor fuel | 372.2 | 375.4 | 383.0 | 386.2 | 387.2 | 383.8 | 379.5 | 376.3 | 378.7 | 379.6 | 375.3 | 353.0 | 309.6 | 280.1 | 290.3 |
| Gasoline | 371.8 | 375.0 | 382.7 | 386.0 | 387.0 | 383.7 | 379.2 | 375.8 | 378.1 | 378.9 | 374.6 | 352.3 | 308.8 | 279.1 | 289.6 |
| Maintenance and repair | 342.2 | 352.6 | 350.6 | 351.5 | 352.2 | 352.9 | 354.5 | 356.9 | 357.2 | 359.0 | 359.4 | 360.4 | 360.9 | 362.2 | 362.8 |
| Other private transportation | 274.2 | 287.7 | 285.9 | 286.9 | 287.7 | 287.6 | 285.2 | 289.2 | 293.7 | 294.7 | 296.9 | 298.4 | 300.6 | 300.4 | 299.8 |
| Other private transportation commodities | 203.9 | 204.7 | 203.5 | 205.9 | 204.3 | 204.9 | 205.6 | 205.0 | 203.7 | 204.3 | 205.6 | 205.4 | 206.0 | 204.6 | 204.9 |
| Other private transportation services | 295.4 | 312.3 | 310.4 | 310.9 | 312.4 | 312.1 | 308.9 | 314.1 | 320.2 | 321.3 | 323.7 | 325.7 | 328.3 | 328.5 | 327.7 |
| Public transportation | 376.8 | 391.7 | 387.6 | 388.4 | 392.1 | 393.5 | 396.8 | 399.3 | 400.1 | 400.2 | 408.6 | 412.6 | 412.0 | 413.0 | 413.8 |
| Medical care | 377.7 | 401.2 | 397.7 | 399.8 | 402.0 | 404.5 | 406.3 | 408.5 | 410.9 | 412.6 | 416.0 | 420.0 | 423.5 | 425.7 | 427.3 |
| Medical care commodities | 239.7 | 256.3 | 254.8 | 256.7 | 257.4 | 259.0 | 259.8 | 260.9 | 262.2 | 262.3 | 264.1 | 267.0 | 268.8 | 270.7 | 271.7 |
| Medical care services | 407.9 | 432.7 | 428.7 | 430.7 | 433.3 | 436.1 | 438.1 | 440.6 | 443.2 | 445.4 | 449.2 | 453.5 | 457.3 | 459.5 | 461.3 |
| Professional services | 346.5 | 367.7 | 365.0 | 366.8 | 368.5 | 370.4 | 372.1 | 373.7 | 375.8 | 377.6 | 379.3 | 382.2 | 385.6 | 387.4 | 388.8 |
| Other medical care services | 484.7 | 513.9 | 508.2 | 510.5 | 514.4 | 518.4 | 520.7 | 524.4 | 527.5 | 530.4 | 536.9 | 543.0 | 547.3 | 550.0 | 552.3 |
| Entertainment | 251.2 | 260.1 | 258.9 | 260.1 | 260.9 | 260.8 | 261.6 | 263.0 | 263.7 | 263.0 | 265.4 | 266.5 | 266.5 | 266.9 | 267.3 |
| Entertainment commodities | 247.7 | 254.2 | 253.1 | 253.9 | 254.5 | 254.3 | 256.0 | 257.1 | 257.2 | 255.7 | 257.8 | 258.3 | 258.3 | 258.4 | 258.7 |
| Entertainment services | 258.5 | 271.6 | 270.0 | 272.0 | 273.2 | 273.3 | 272.6 | 274.6 | 276.3 | 276.8 | 280.0 | 282.0 | 282.1 | 283.0 | 283.6 |
| Other goods and services | 304.9 | 322.7 | 318.8 | 319.5 | 321.8 | 322.9 | 328.7 | 330.1 | 330.5 | 331.9 | 334.9 | 336.1 | 337.0 | 337.6 | 338.0 |
| Tobacco products | 309.7 | 328.1 | 323.6 | 324.4 | 329.7 | 331.1 | 332.4 | 334.0 | 334.3 | 337.1 | 342.4 | 344.4 | 345.2 | 346.0 | 346.0 |
| Personal care | 269.4 | 279.6 | 278.6 | 279.2 | 279.9 | 280.9 | 281.8 | 282.7 | 283.1 | 284.0 | 285.9 | 286.8 | 288.0 | 288.2 | 288.6 |
| Toilet goods and personal care appliances | 270.3 | 279.0 | 277.8 | 278.2 | 279.2 | 280.0 | 281.1 | 282.0 | 281.9 | 283.3 | 285.9 | 286.7 | 288.1 | 288.4 | 288.6 |
| Personal care services | 268.8 | 280.5 | 279.7 | 280.7 | 280.9 | 282.2 | 282.8 | 283.7 | 284.8 | 285.2 | 286.4 | 287.4 | 288.4 | 288.4 | 289.0 |
| Personal and educational expenses | 368.2 | 399.3 | 390.9 | 391.6 | 392.5 | 393.2 | 414.5 | 416.5 | 417.3 | 417.4 | 418.9 | 419.9 | 420.1 | 421.2 | 422.0 |
| School books and supplies | 327.5 | 355.7 | 349.5 | 349.9 | 350.6 | 351.2 | 366.9 | 369.2 | 369.3 | 369.4 | 375.6 | 378.4 | 379.0 | 379.1 | 379.1 |
| Personal and educational services | 378.2 | 410.1 | 401.2 | 401.9 | 402.9 | 403.6 | 426.1 | 428.1 | 428.9 | 429.1 | 429.7 | 430.3 | 430.5 | 431.8 | 432.8 |
| All items | 307.6 | 318.5 | 317.8 | 318.7 | 319.1 | 319.6 | 320.5 | 321.3 | 322.6 | 323.4 | 324.3 | 323.2 | 321.4 | 320.4 | 321.4 |
| Commodities | 280.4 | 286.5 | 286.8 | 286.8 | 286.4 | 286.3 | 286.8 | 287.6 | 288.9 | 289.7 | 289.8 | 287.0 | 283.1 | 280.4 | 281.3 |
| Food and beverages | 295.2 | 301.8 | 300.8 | 301.2 | 301.4 | 301.6 | 301.8 | 302.2 | 303.4 | 305.4 | 307.7 | 307.5 | 307.6 | 308.3 | 309.0 |
| Commodities less food and beverages | 269.3 | – | 277.5 | 277.7 | – | – | – | – | – | – | – | – | – | – | – |
| Nondurables less food and beverages | 277.5 | 283.8 | 284.9 | 285.4 | 285.0 | 285.1 | 286.5 | 287.0 | 288.5 | 288.7 | 286.9 | 280.1 | 269.6 | 262.0 | 263.6 |
| Apparel commodities | 186.6 | 191.3 | 190.7 | 190.0 | 187.8 | 190.4 | 195.1 | 196.6 | 196.5 | 194.1 | 189.4 | 188.2 | 190.4 | 191.2 | 190.1 |
| Nondurables less food, beverages, and apparel | 327.0 | 334.2 | 336.0 | 337.2 | 337.6 | 336.6 | 336.4 | 336.5 | 338.8 | 340.1 | 339.6 | 330.1 | 313.2 | 301.6 | 304.5 |
| Durables | 261.1 | 265.2 | 266.3 | 265.1 | 263.8 | 263.1 | 263.1 | 264.5 | 265.7 | 265.7 | 265.6 | 264.6 | 263.7 | 263.3 | 263.5 |
| Services | 358.0 | 377.3 | 374.9 | 377.4 | 379.2 | 380.7 | 382.0 | 383.0 | 384.2 | 385.1 | 387.2 | 388.8 | 390.5 | 392.2 | 393.2 |
| Rent of shelter (12/84=100) | – | 103.2 | 102.6 | 102.9 | 103.5 | 104.3 | 104.5 | 105.1 | 105.8 | 106.1 | 106.4 | 106.7 | 107.4 | 108.3 | 108.5 |
| Household services less rent of shelter (12/84=100) | – | 102.6 | 102.2 | 104.2 | 104.5 | 104.6 | 104.8 | 103.3 | 102.1 | 102.0 | 102.6 | 103.0 | 102.8 | 102.7 | 103.4 |
| Transportation services | 317.2 | 332.2 | 329.9 | 330.6 | 332.2 | 332.4 | 331.4 | 335.5 | 339.3 | 340.5 | 343.3 | 345.4 | 347.0 | 347.5 | 347.3 |
| Medical care services | 407.9 | 432.7 | 428.7 | 430.7 | 433.3 | 436.1 | 438.1 | 440.6 | 443.2 | 445.4 | 449.2 | 453.5 | 457.3 | 459.5 | 461.3 |
| Other services | 292.9 | 310.1 | 307.2 | 308.4 | 309.3 | 310.1 | 315.0 | 316.7 | 317.8 | 318.3 | 320.4 | 321.6 | 322.1 | 322.9 | 323.6 |
| Special indexes: | | | | | | | | | | | | | | | |
| All items less food | 307.5 | 319.4 | 318.7 | 319.8 | 320.3 | 320.9 | 321.9 | 322.9 | 324.2 | 324.6 | 325.1 | 323.8 | 321.5 | 320.2 | 321.2 |
| All items less shelter | 295.1 | 303.4 | 303.0 | 303.9 | 304.0 | 304.0 | 304.8 | 305.4 | 306.4 | 307.2 | 307.9 | 306.4 | 303.8 | 302.1 | 303.0 |
| All items less homeowners' costs (12/84=100) | – | 101.8 | 101.7 | 102.0 | 102.0 | 102.1 | 102.4 | 102.6 | 103.0 | 103.2 | 103.5 | 103.0 | 102.3 | 101.8 | 102.1 |
| All items less medical care | 304.0 | 314.3 | 313.7 | 314.6 | 314.9 | 315.3 | 316.1 | 316.9 | 318.1 | 318.9 | 319.6 | 318.3 | 316.2 | 315.2 | 316.1 |
| Commodities less food | 267.1 | 272.8 | 273.8 | 273.6 | 272.8 | 272.7 | 273.4 | 274.5 | 275.9 | 275.9 | 275.0 | 270.9 | 264.9 | 260.7 | 261.6 |
| Nondurables less food | 272.6 | 279.0 | 279.8 | 280.4 | 280.0 | 280.2 | 281.5 | 282.4 | 283.8 | 283.9 | 282.3 | 276.1 | 266.4 | 259.4 | 260.9 |
| Nondurables less food and apparel | 313.2 | 320.3 | 321.8 | 322.9 | 323.2 | 322.4 | 322.3 | 323.1 | 325.0 | 326.3 | 325.9 | 317.5 | 302.6 | 292.2 | 294.9 |
| Nondurables | 287.4 | 293.9 | 294.0 | 294.4 | 294.3 | 294.5 | 295.2 | 295.7 | 297.1 | 298.2 | 298.4 | 295.0 | 289.8 | 286.3 | 287.5 |
| Services less rent of shelter (12/84=100) | – | 102.6 | 101.9 | 102.8 | 103.3 | 103.5 | 103.8 | 103.9 | 103.9 | 104.2 | 104.9 | 105.5 | 105.7 | 105.9 | 106.2 |
| Services less medical care | 350.5 | 369.0 | 366.8 | 369.3 | 371.1 | 372.5 | 373.6 | 374.5 | 375.5 | 376.2 | 378.2 | 379.5 | 381.0 | 382.7 | 383.6 |
| Energy | 423.3 | 426.3 | 431.3 | 436.9 | 437.2 | 433.9 | 432.5 | 426.6 | 425.4 | 426.8 | 424.7 | 408.1 | 379.0 | 358.4 | 364.6 |
| All items less energy | 298.3 | 309.9 | 308.6 | 309.1 | 309.5 | 310.4 | 311.5 | 313.0 | 314.5 | 315.3 | 316.5 | 316.9 | 317.8 | 318.8 | 319.2 |
| All items less food and energy | 295.8 | 308.7 | 307.3 | 307.8 | 308.3 | 309.4 | 310.7 | 312.7 | 314.2 | 314.6 | 315.4 | 316.1 | 317.2 | 318.3 | 318.6 |
| Commodities less food and energy | 250.5 | 256.8 | 256.8 | 256.2 | 255.3 | 255.8 | 257.2 | 258.8 | 259.5 | 259.2 | 258.8 | 258.5 | 258.7 | 258.8 | 258.8 |
| Energy commodities | 410.5 | 410.9 | 418.0 | 419.9 | 419.6 | 415.7 | 412.6 | 411.2 | 416.3 | 418.9 | 414.1 | 387.3 | 343.3 | 312.9 | 319.8 |
| Services less energy | 350.8 | 371.1 | 368.4 | 369.9 | 371.9 | 373.7 | 374.9 | 377.3 | 379.8 | 380.8 | 382.9 | 384.5 | 386.5 | 388.8 | 389.4 |
| Purchasing power of the consumer dollar: | | | | | | | | | | | | | | | |
| 1967=$1.00 | 32.5 | 31.4 | 31.5 | 31.4 | 31.3 | 31.3 | 31.2 | 31.1 | 31.0 | 30.9 | 30.8 | 30.9 | 31.1 | 31.2 | 31.1 |
| 1957-59=$1.00 | 28.0 | 27.0 | 27.1 | 27.0 | 26.9 | 26.9 | 26.8 | 26.8 | 26.7 | 26.6 | 26.5 | 26.6 | 26.8 | 26.8 | 26.8 |

– Data not available.

## 31. Consumer Price Index: U.S. city average and available local area data: all items

(1967=100, unless otherwise indicated)

| Area[1] | Pricing schedule[2] | Other index base | All Urban Consumers | | | | | | | Urban Wage Earners | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1985 | | 1986 | | | | | 1985 | | 1986 | | | | |
| | | | May | June | Jan. | Feb. | Mar. | Apr. | May | May | June | Jan. | Feb. | Mar. | Apr. | May |
| U.S. city average | | - | 321.3 | 322.3 | 328.4 | 327.5 | 326.0 | 325.3 | 326.3 | 317.8 | 318.7 | 324.3 | 323.2 | 321.4 | 320.4 | 321.4 |
| Chicago, Ill.-Northwestern Ind. | M | - | 319.8 | 324.1 | 326.3 | 326.4 | 323.9 | 323.7 | 324.2 | 306.9 | 310.9 | 312.9 | 312.8 | 309.7 | 309.1 | 309.6 |
| Detroit, Mich. | M | - | 316.1 | 317.0 | 323.1 | 322.9 | 320.0 | 318.8 | 321.7 | 306.6 | 307.4 | 313.4 | 312.3 | 309.3 | 308.1 | 311.0 |
| Los Angeles-Long Beach, Anaheim, Calif. | M | - | 319.1 | 319.3 | 326.8 | 326.6 | 328.2 | 326.8 | 329.4 | 314.1 | 314.1 | 320.9 | 320.4 | 321.6 | 320.2 | 322.7 |
| New York, N.Y.-Northeastern N.J. | M | - | 312.6 | 313.2 | 323.1 | 322.3 | 322.4 | 321.4 | 320.6 | 305.8 | 306.3 | 315.8 | 314.7 | 314.5 | 313.2 | 312.3 |
| Philadelphia, Pa.-N.J. | M | - | 314.2 | 314.2 | 320.3 | 320.1 | 319.1 | 317.8 | 318.9 | 317.2 | 317.2 | 323.0 | 322.8 | 321.4 | 319.7 | 320.8 |
| Anchorage, Alaska (10/67 = 100) | 1 | 10/67 | 278.8 | - | 287.1 | - | 291.2 | - | 288.9 | 271.9 | - | 280.2 | - | 284.4 | - | 281.8 |
| Baltimore, Md. | 1 | - | 323.1 | - | 332.0 | - | 331.1 | - | 329.1 | 322.3 | - | 331.1 | - | 329.5 | - | 326.8 |
| Boston, Mass. | 1 | - | 315.2 | - | 327.1 | - | 324.9 | - | 322.6 | 313.2 | - | 324.5 | - | 322.3 | - | 319.3 |
| Cincinnati, Ohio-Ky.-Ind. | 1 | - | 330.4 | - | 333.2 | - | 329.4 | - | 332.0 | 324.0 | - | 326.0 | - | 321.8 | - | 324.8 |
| Denver-Boulder, Colo. | 1 | - | 356.3 | - | 364.4 | - | 355.7 | - | 356.3 | 351.9 | - | 359.1 | - | 350.1 | - | 350.3 |
| Miami, Fla. (11/77 = 100) | 1 | 11/77 | 171.0 | - | 174.6 | - | 174.5 | - | 173.0 | 172.2 | - | 175.7 | - | 175.1 | - | 173.4 |
| Milwaukee, Wis. | 1 | - | 330.9 | - | 333.9 | - | 329.1 | - | 332.0 | 350.2 | - | 353.0 | - | 347.2 | - | 350.6 |
| Northeast, Pa. | 1 | - | 306.0 | - | 311.6 | - | 309.3 | - | 309.2 | 305.2 | - | 310.6 | - | 308.3 | - | 308.1 |
| Portland, Oreg.-Wash. | 1 | - | 310.4 | - | 321.3 | - | 315.0 | - | 314.6 | 301.2 | - | 311.0 | - | 304.3 | - | 303.2 |
| St. Louis, Mo.-Ill. | 1 | - | 315.9 | - | 322.4 | - | 319.2 | - | 318.6 | 313.0 | - | 319.1 | - | 315.0 | - | 314.2 |
| San Diego, Calif. | 1 | - | 372.1 | - | 381.9 | - | 379.2 | - | 382.8 | 336.5 | - | 344.7 | - | 341.9 | - | 345.2 |
| Seattle-Everett, Wash. | 1 | - | 321.0 | - | 327.0 | - | 325.0 | - | 323.5 | 308.4 | - | 313.5 | - | 311.4 | - | 309.4 |
| Washington, D.C.-Md.-Va. | 1 | - | 319.8 | - | 331.1 | - | 329.1 | - | 329.6 | 323.0 | - | 332.6 | - | 330.5 | - | 330.2 |
| Alanta, Ga. | 2 | - | - | 328.0 | - | 336.9 | - | 334.9 | - | - | 326.0 | - | 334.3 | - | 331.7 | - |
| Buffalo, N.Y. | 2 | - | - | 307.3 | - | 310.1 | - | 308.0 | - | - | 293.7 | - | 295.8 | - | 292.7 | - |
| Cleveland, Ohio | 2 | - | - | 346.4 | - | 350.2 | - | 346.9 | - | - | 325.3 | - | 328.3 | - | 324.4 | - |
| Dallas-Ft. Worth, Tex. | 2 | - | - | 339.6 | - | 347.0 | - | 341.4 | - | - | 333.5 | - | 340.4 | - | 334.1 | - |
| Honolulu, Hawaii | 2 | - | - | 293.5 | - | 301.2 | - | 299.0 | - | - | 300.4 | - | 308.5 | - | 306.0 | - |
| Houston, Tex. | 2 | - | - | 337.6 | - | 337.2 | - | 330.0 | - | - | 335.0 | - | 334.3 | - | 327.7 | - |
| Kansas City, Mo.-Kansas | 2 | - | - | 320.1 | - | 321.1 | - | 320.7 | - | - | 310.5 | - | 310.1 | - | 308.9 | - |
| Minneapolis-St. Paul, Minn.-Wis. | 2 | - | - | 336.7 | - | 339.9 | - | 338.4 | - | - | 332.3 | - | 334.9 | - | 332.3 | - |
| Pittsburgh, Pa. | 2 | - | - | 325.9 | - | 330.1 | - | 328.1 | - | - | 308.3 | - | 311.4 | - | 307.8 | - |
| San Francisco-Oakland, Calif. | 2 | - | - | 333.2 | - | 341.1 | - | 339.3 | - | - | 328.7 | - | 336.0 | - | 333.2 | - |
| Region[3] | | | | | | | | | | | | | | | | |
| Northeast | 2 | 12/77 | - | 170.4 | - | 174.5 | - | 173.7 | - | - | 168.4 | - | 172.3 | - | 171.1 | - |
| North Central | 2 | 12/77 | - | 174.2 | - | 175.4 | - | 173.9 | - | - | 171.0 | - | 171.8 | - | 170.0 | - |
| South | 2 | 12/77 | - | 173.8 | - | 176.6 | - | 175.1 | - | - | 173.7 | - | 176.1 | - | 174.1 | - |
| West | 2 | 12/77 | - | 174.6 | - | 177.5 | - | 176.8 | - | - | 172.8 | - | 175.4 | - | 174.5 | - |
| Population size class[3] | | | | | | | | | | | | | | | | |
| A-1 | 2 | 12/77 | - | 170.9 | - | 174.7 | - | 173.9 | - | - | 167.2 | - | 170.5 | - | 169.3 | - |
| A-2 | 2 | 12/77 | - | 176.0 | - | 178.7 | - | 177.4 | - | - | 173.2 | - | 175.5 | - | 173.8 | - |
| B | 2 | 12/77 | - | 174.7 | - | 176.9 | - | 175.6 | - | - | 172.3 | - | 174.2 | - | 172.7 | - |
| C | 2 | 12/77 | - | 172.3 | - | 174.7 | - | 173.4 | - | - | 172.9 | - | 175.0 | - | 173.4 | - |
| D | 2 | 12/77 | - | 171.9 | - | 174.0 | - | 172.7 | - | - | 173.5 | - | 175.2 | - | 173.6 | - |
| Region/population size class cross classification[3] | | | | | | | | | | | | | | | | |
| Class A: | | | | | | | | | | | | | | | | |
| Northeast | 2 | 12/77 | - | 167.5 | - | 171.8 | - | 171.0 | - | - | 164.2 | - | 168.1 | - | 166.9 | - |
| North Central | 2 | 12/77 | - | 177.6 | - | 179.2 | - | 177.8 | - | - | 172.8 | - | 174.0 | - | 172.1 | - |
| South | 2 | 12/77 | - | 174.1 | - | 177.3 | - | 175.5 | - | - | 174.2 | - | 177.0 | - | 174.9 | - |
| West | 2 | 11/77 | - | 176.1 | - | 179.8 | - | 179.6 | - | - | 172.2 | - | 175.5 | - | 174.9 | - |
| Class B: | | | | | | | | | | | | | | | | |
| Northeast | 2 | 12/77 | - | 173.5 | - | 176.4 | - | 174.7 | - | - | 170.5 | - | 173.4 | - | 171.7 | - |
| North Central | 2 | 12/77 | - | 172.6 | - | 173.7 | - | 172.1 | - | - | 169.0 | - | 169.7 | - | 167.7 | - |
| South | 2 | 12/77 | - | 175.3 | - | 178.2 | - | 177.0 | - | - | 172.2 | - | 174.6 | - | 173.2 | - |
| West | 2 | 12/77 | - | 176.2 | - | 177.6 | - | 176.7 | - | - | 176.8 | - | 178.2 | - | 177.1 | - |

See footnotes at end of table.

## 31. Continued— Consumer Price Index: U.S. city average and available local area data: all items

(1967=100, unless otherwise indicated)

| Area[1] | Pricing schedule[2] | Other index base | All Urban Consumers | | | | | | | Urban Wage Earners | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1985 | | 1986 | | | | | 1985 | | 1986 | | | | |
| | | | May | June | Jan. | Feb. | Mar. | Apr. | May | May | June | Jan. | Feb. | Mar. | Apr. | May |
| Class C: | | | | | | | | | | | | | | | | |
| Northeast | 2 | 12/77 | – | 179.0 | – | 183.1 | – | 183.0 | – | – | 183.7 | – | 187.8 | – | 187.4 | – |
| North Central | 2 | 12/77 | – | 169.6 | – | 170.4 | – | 168.5 | – | – | 166.7 | – | 167.1 | – | 165.1 | – |
| South | 2 | 12/77 | – | 172.8 | – | 175.3 | – | 173.6 | – | – | 174.5 | – | 176.6 | – | 174.3 | – |
| West | 2 | 12/77 | – | 168.4 | – | 171.1 | – | 170.5 | – | – | 167.2 | – | 169.6 | – | 168.9 | – |
| Class D: | | | | | | | | | | | | | | | | |
| Northeast | 2 | 12/77 | – | 173.7 | – | 178.9 | – | 177.9 | – | – | 173.8 | – | 178.6 | – | 177.2 | – |
| North Central | 2 | 12/77 | – | 170.4 | – | 170.7 | – | 170.0 | – | – | 172.5 | – | 172.4 | – | 171.4 | – |
| South | 2 | 12/77 | – | 172.2 | – | 174.7 | – | 173.2 | – | – | 174.0 | – | 176.0 | – | 174.0 | – |
| West | 2 | 12/77 | – | 172.5 | – | 174.8 | – | 172.6 | – | – | 174.2 | – | 176.3 | – | 173.9 | – |

[1] Area is generally the Standard Metropolitan Statistical Area (SMSA), exclusive of farms. L.A.-Long Beach, Anaheim, Calif. is a combination of two SMSA's, and N.Y., N.Y.-Northeastern N.J. and Chicago, Ill.-Northwestern Ind. are the more extensive Standard Consolidated Areas. Area definitions are those established by the Office of Management and Budget in 1973, except for Denver-Boulder, Colo. which does not include Douglas County. Definitions do not include revisions made since 1973.

[2] Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated:.

M - Every month.

1 - January, March, May, July, September, and November.

2 - February, April, June, August, October, and December.

[3] Regions are defined as the four Census regions.

The population size classes are aggregations of areas which have urban population as defined:

A-1 - More than 4,000,000.

A-2 - 1,250,000 to 4,000,000.

B - 385,000 to 1,250,000

C - 75,000 to 385,000.

D - Less than 75,000.

Population size class A is the aggregation of population size classes A-1 and A-2.

– Data not available.

NOTE: Local area CPI indexes are byproducts of the national CPI program. Because each local index is a small subset of the national index, it has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error than the national index. As a result, local area indexes show greater volatility than the national index, although their long-term trends are quite similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in escalator clauses.

## 32. Annual data: Consumer Price Index all items and major groups

| Series | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|---|
| Consumer Price Index for All Urban Consumers: | | | | | | | | | |
| All items: | | | | | | | | | |
| Index | 181.5 | 195.4 | 217.4 | 246.8 | 272.4 | 289.1 | 298.4 | 311.1 | 322.2 |
| Percent change | 6.5 | 7.7 | 11.3 | 13.5 | 10.4 | 6.1 | 3.2 | 4.3 | 3.6 |
| Food and beverages: | | | | | | | | | |
| Index | 188.0 | 206.3 | 228.5 | 248.0 | 267.3 | 278.2 | 284.4 | 295.1 | 302.0 |
| Percent change | 6.0 | 9.7 | 10.8 | 8.5 | 7.8 | 4.1 | 2.2 | 3.8 | 2.3 |
| Housing | | | | | | | | | |
| Index | 186.5 | 202.8 | 227.6 | 263.3 | 293.5 | 314.7 | 323.1 | 336.5 | 349.9 |
| Percent change | 6.8 | 8.7 | 12.2 | 15.7 | 11.5 | 7.2 | 2.7 | 4.1 | 4.0 |
| Apparel and upkeep: | | | | | | | | | |
| Index | 154.2 | 159.6 | 166.6 | 178.4 | 186.9 | 191.8 | 196.5 | 200.2 | 206.0 |
| Percent change | 4.5 | 3.5 | 4.4 | 7.1 | 4.8 | 2.6 | 2.5 | 1.9 | 2.9 |
| Transportation: | | | | | | | | | |
| Index | 177.2 | 185.5 | 212.0 | 249.7 | 280.0 | 291.5 | 298.4 | 311.7 | 319.9 |
| Percent change | 7.1 | 4.7 | 14.3 | 17.8 | 12.1 | 4.1 | 2.4 | 4.5 | 2.6 |
| Medical care: | | | | | | | | | |
| Index | 202.4 | 219.4 | 239.7 | 265.9 | 294.5 | 328.7 | 357.3 | 379.5 | 403.1 |
| Percent change | 9.6 | 8.4 | 9.3 | 10.9 | 10.8 | 11.6 | 8.7 | 6.2 | 6.2 |
| Entertainment: | | | | | | | | | |
| Index | 167.7 | 176.6 | 188.5 | 205.3 | 221.4 | 235.8 | 246.0 | 255.1 | 265.0 |
| Percent change | 4.9 | 5.3 | 6.7 | 8.9 | 7.8 | 6.5 | 4.3 | 3.7 | 3.9 |
| Other goods and services: | | | | | | | | | |
| Index | 172.2 | 183.3 | 196.7 | 214.5 | 235.7 | 259.9 | 288.3 | 307.7 | 326.6 |
| Percent change | 5.8 | 6.4 | 7.3 | 9.0 | 9.9 | 10.3 | 10.9 | 6.7 | 6.1 |
| Consumer Price Index for Urban Wage Earners and Clerical Workers | | | | | | | | | |
| All items: | | | | | | | | | |
| Index | 181.5 | 195.3 | 217.7 | 247.0 | 272.3 | 288.6 | 297.4 | 307.6 | 318.5 |
| Percent change | 6.5 | 7.6 | 11.5 | 13.5 | 10.2 | 6.0 | 3.0 | 3.4 | 3.5 |

## 33. Producer Price Indexes, by stage of processing

(1967 = 100)

| Grouping | Annual average | | 1985 | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| **Finished goods** | 291.1 | 293.7 | 294.0 | 294.8 | 293.5 | 290.0 | 294.7 | 296.4 | 297.2 | 296.0 | 292.3 | 288.1 | 286.9 | 289.0 |
| Finished consumer goods | 290.3 | 291.8 | 292.2 | 293.1 | 291.4 | 288.2 | 292.3 | 294.4 | 295.4 | 293.8 | 288.9 | 283.5 | 281.6 | 284.2 |
| *Finished consumer foods* | 273.3 | 271.2 | 268.7 | 271.2 | 268.7 | 265.7 | 268.2 | 271.8 | 275.0 | 275.0 | 272.3 | 272.2 | 272.4 | 274.9 |
| Finished consumer goods excluding foods | 294.1 | 297.3 | 299.0 | 299.2 | 297.8 | 294.7 | 299.4 | 300.7 | 300.7 | 298.3 | 292.5 | 284.4 | 281.4 | 284.1 |
| Nondurable goods less food | 337.3 | 339.3 | 342.1 | 342.4 | 340.0 | 340.3 | 340.3 | 342.6 | 343.2 | 339.6 | 329.3 | 315.0 | 308.6 | 312.9 |
| Durable goods | 236.8 | 241.5 | 241.9 | 241.9 | 241.8 | 234.5 | 244.9 | 245.0 | 244.3 | 243.5 | 243.6 | 243.9 | 245.4 | 245.8 |
| Capital equipment | 294.0 | 300.5 | 300.5 | 300.8 | 301.0 | 296.3 | 303.5 | 303.8 | 303.7 | 303.9 | 304.2 | 304.3 | 305.6 | 305.8 |
| **Intermediate materials, supplies, and components** | 320.0 | 318.7 | 319.3 | 318.6 | 317.9 | 317.7 | 317.6 | 318.1 | 318.9 | 317.4 | 313.5 | 309.4 | 307.0 | 306.8 |
| Materials and components for manufacturing | 301.8 | 299.5 | 300.3 | 299.8 | 299.1 | 298.4 | 298.0 | 297.7 | 297.9 | 297.1 | 296.5 | 296.4 | 295.2 | 295.3 |
| Materials for food manufacturing | 271.1 | 258.8 | 262.0 | 260.3 | 253.0 | 249.9 | 252.3 | 254.0 | 254.3 | 252.8 | 248.9 | 246.3 | 244.6 | 248.6 |
| Materials for nondurable manufacturing | 290.5 | 285.9 | 286.4 | 285.8 | 285.8 | 285.1 | 283.3 | 282.8 | 283.1 | 283.8 | 283.0 | 281.9 | 279.0 | 278.0 |
| Materials for durable manufacturing | 325.1 | 320.2 | 322.3 | 320.9 | 320.3 | 319.2 | 318.6 | 317.5 | 317.6 | 313.4 | 313.0 | 313.6 | 313.1 | 313.2 |
| Components for manufacturing | 287.5 | 291.5 | 291.3 | 291.6 | 291.9 | 292.1 | 292.3 | 292.3 | 292.4 | 293.1 | 293.3 | 294.2 | 294.1 | 294.1 |
| Materials and components for construction | 310.3 | 315.2 | 317.3 | 316.9 | 316.5 | 315.6 | 315.5 | 315.0 | 315.7 | 316.2 | 316.6 | 316.8 | 318.0 | 318.3 |
| Processed fuels and lubricants | 566.2 | 548.9 | 549.1 | 544.0 | 539.8 | 542.4 | 542.6 | 550.5 | 557.2 | 540.8 | 500.7 | 453.9 | 430.2 | 425.7 |
| Containers | 302.3 | 311.2 | 312.0 | 311.4 | 310.3 | 309.9 | 310.4 | 309.8 | 310.6 | 311.2 | 310.6 | 311.2 | 312.5 | 313.9 |
| Supplies | 283.4 | 284.2 | 283.3 | 283.6 | 284.1 | 284.5 | 285.1 | 285.6 | 285.7 | 286.6 | 286.3 | 286.7 | 287.0 | 287.2 |
| **Crude materials for further processing** | 330.8 | 306.1 | 305.6 | 303.9 | 295.3 | 291.8 | 297.8 | 304.7 | 304.3 | 301.0 | 290.5 | 280.9 | 272.8 | 278.9 |
| Foodstuffs and feedstuffs | 259.5 | 235.0 | 233.7 | 231.6 | 221.0 | 215.4 | 224.6 | 236.6 | 236.8 | 231.7 | 226.9 | 224.0 | 220.1 | 228.9 |
| Nonfood materials[1] | 380.5 | 355.3 | 354.0 | 353.5 | 351.2 | 352.2 | 352.8 | 352.0 | 351.6 | 352.4 | 321.7 | 293.2 | 280.8 | 278.8 |
| **Special groupings** | | | | | | | | | | | | | | |
| Finished goods, excluding foods | 294.8 | 299.0 | 300.2 | 300.5 | 299.5 | 295.9 | 301.3 | 302.4 | 302.4 | 300.7 | 296.7 | 291.1 | 289.4 | 291.3 |
| Finished energy goods | 750.3 | 720.9 | 741.4 | 733.8 | 719.9 | 718.2 | 716.5 | 729.5 | 733.8 | 700.9 | 636.8 | 551.1 | 511.3 | 532.7 |
| Finished goods less energy | 265.1 | 269.2 | 268.4 | 269.7 | 269.0 | 265.5 | 270.5 | 271.6 | 272.2 | 272.7 | 272.2 | 272.3 | 273.2 | 274.2 |
| Finished consumer goods less energy | 257.8 | 261.3 | 260.3 | 261.9 | 260.9 | 257.7 | 262.1 | 263.4 | 264.3 | 264.8 | 264.1 | 264.2 | 265.0 | 266.2 |
| Finished goods less food and energy | 262.3 | 268.7 | 268.6 | 269.4 | 269.4 | 265.7 | 271.6 | 271.8 | 271.4 | 272.1 | 272.4 | 272.6 | 273.7 | 274.2 |
| Finished consumer goods less food and energy | 245.9 | 252.1 | 252.0 | 252.9 | 252.9 | 249.6 | 254.9 | 255.0 | 254.6 | 255.5 | 255.9 | 256.1 | 257.1 | 257.7 |
| Consumer nondurable goods less food and energy | 239.0 | 246.2 | 245.6 | 247.4 | 247.3 | 247.9 | 248.3 | 248.5 | 248.3 | 250.5 | 251.1 | 251.3 | 251.8 | 252.5 |
| Intermediate materials less foods and feeds | 325.0 | 325.0 | 325.7 | 325.0 | 324.5 | 324.4 | 324.1 | 324.5 | 325.3 | 323.6 | 319.7 | 315.5 | 312.9 | 312.5 |
| Intermediate foods and feeds | 253.1 | 232.8 | 232.2 | 231.7 | 227.1 | 225.4 | 228.6 | 231.4 | 232.7 | 232.6 | 228.6 | 227.6 | 226.8 | 229.4 |
| Intermediate energy goods | 545.0 | 528.3 | 528.6 | 523.8 | 519.8 | 522.3 | 522.2 | 529.3 | 536.2 | 520.0 | 481.9 | 437.4 | 414.9 | 410.5 |
| Intermediate goods less energy | 303.8 | 304.0 | 304.6 | 304.3 | 303.9 | 303.4 | 303.4 | 303.2 | 303.5 | 303.4 | 303.0 | 303.2 | 302.8 | 303.0 |
| Intermediate materials less foods and energy | 303.6 | 305.2 | 306.0 | 305.6 | 305.5 | 305.0 | 304.6 | 304.2 | 304.5 | 304.3 | 304.2 | 304.4 | 304.0 | 304.0 |
| Crude energy materials | 785.2 | 748.1 | 754.5 | 752.6 | 742.9 | 743.2 | 743.1 | 737.1 | 735.6 | 732.8 | 679.0 | 618.4 | 570.7 | 571.6 |
| Crude materials less energy | 255.5 | 233.2 | 231.7 | 230.1 | 221.8 | 217.9 | 224.7 | 233.2 | 233.0 | 229.8 | 225.9 | 224.0 | 221.8 | 228.5 |
| Crude nonfood materials less energy | 266.1 | 249.7 | 247.4 | 247.2 | 245.8 | 246.7 | 246.5 | 244.6 | 242.9 | 245.8 | 244.6 | 245.6 | 249.1 | 249.3 |

[1] Crude nonfood materials except fuel.

## 34. Producer Price indexes, by durability of product

(1967=100)

| Grouping | Annual average | | 1985 | | | | | | | 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May |
| Total durable goods | 293.6 | 297.3 | 297.8 | 297.8 | 297.8 | 295.2 | 298.8 | 298.5 | 298.5 | 298.1 | 298.3 | 298.7 | 299.5 | 299.7 |
| Total nondurable goods | 323.3 | 317.2 | 317.5 | 317.3 | 314.1 | 313.0 | 314.3 | 317.6 | 318.8 | 316.8 | 309.0 | 300.6 | 295.7 | 297.9 |
| Total manufactures | 302.9 | 304.3 | 304.8 | 304.6 | 303.8 | 302.2 | 304.4 | 305.4 | 306.0 | 304.8 | 301.0 | 297.3 | 296.0 | 296.9 |
| Durable | 293.9 | 298.1 | 298.7 | 298.7 | 298.6 | 296.0 | 299.7 | 299.5 | 299.5 | 299.0 | 299.2 | 299.5 | 300.3 | 300.5 |
| Nondurable | 312.3 | 310.5 | 311.0 | 310.6 | 309.0 | 308.4 | 309.2 | 311.4 | 312.5 | 310.6 | 302.7 | 294.7 | 291.2 | 292.8 |
| Total raw or slightly processed goods | 346.6 | 327.9 | 327.3 | 327.5 | 320.2 | 317.6 | 320.6 | 326.2 | 327.6 | 326.0 | 319.0 | 310.4 | 302.0 | 305.6 |
| Durable | 266.7 | 252.2 | 247.3 | 247.6 | 249.7 | 249.7 | 248.1 | 245.2 | 244.3 | 248.2 | 250.6 | 251.5 | 252.7 | 252.0 |
| Nondurable | 351.4 | 332.4 | 332.1 | 332.3 | 324.4 | 321.6 | 324.9 | 331.2 | 332.7 | 330.6 | 323.1 | 313.8 | 304.7 | 308.7 |

## 35. Annual data: Producer Price Indexes, by stage of processing

(1967=100)

| Index | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|---|
| **Finished goods:** | | | | | | | | | |
| Total | 181.7 | 195.9 | 217.7 | 247.0 | 269.8 | 280.7 | 285.2 | 291.1 | 293.7 |
| Consumer goods | 180.7 | 194.9 | 217.9 | 248.9 | 271.3 | 281.0 | 284.6 | 290.3 | 291.8 |
| Capital equipment | 184.6 | 199.2 | 216.5 | 239.8 | 264.3 | 279.4 | 287.2 | 294.0 | 300.5 |
| **Intermediate materials, supplies, and components:** | | | | | | | | | |
| Total | 201.5 | 215.6 | 243.2 | 280.3 | 306.0 | 310.4 | 312.3 | 320.0 | 318.7 |
| Materials and components for manufacturing | 195.4 | 208.7 | 234.4 | 265.7 | 286.1 | 289.8 | 293.4 | 301.8 | 299.5 |
| Materials and components for construction | 203.4 | 224.7 | 247.4 | 268.3 | 287.6 | 293.7 | 301.8 | 310.3 | 315.2 |
| Processed fuels and lubricants | 282.5 | 295.3 | 364.8 | 503.0 | 595.4 | 591.7 | 564.8 | 566.2 | 548.9 |
| Containers | 188.3 | 202.8 | 226.8 | 254.5 | 276.1 | 285.6 | 286.6 | 302.3 | 311.2 |
| Supplies | 188.7 | 198.5 | 218.2 | 244.5 | 263.8 | 272.1 | 277.1 | 283.4 | 284.2 |
| **Crude materials for further processing:** | | | | | | | | | |
| Total | 209.2 | 234.4 | 274.3 | 304.6 | 329.0 | 319.5 | 323.6 | 330.8 | 306.1 |
| Foodstuffs and feedstuffs | 192.1 | 216.2 | 247.9 | 259.2 | 257.4 | 247.8 | 252.2 | 259.5 | 235.0 |
| Nonfood materials except fuel | 212.2 | 233.1 | 284.5 | 346.1 | 413.7 | 376.8 | 372.2 | 380.5 | 355.3 |
| Fuel | 372.1 | 426.8 | 507.6 | 615.0 | 751.2 | 886.1 | 931.5 | 931.3 | 909.6 |

## 36. U.S. export price indexes by Standard International Trade Classification

(June 1977=100, unless otherwise indicated)

| Category | 1974 SITC | 1983 | | 1984 | | | | 1985 | | | | 1986 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sept. | Dec. | Mar. | June | Sept. | Dec. | Mar. | June | Sept. | Dec. | Mar. |
| **ALL COMMODITIES (9/83=100)** | | 100.0 | 99.5 | 100.2 | 101.5 | 99.3 | 98.1 | 97.5 | 97.5 | 96.5 | 96.7 | 97.0 |
| **Food (3/83=100)** | 0 | 113.1 | 108.8 | 106.2 | 109.6 | 103.5 | 96.5 | 95.8 | 94.0 | 90.2 | 93.6 | 90.5 |
| Meat (3/83=100) | 01 | 100.8 | 101.2 | 108.9 | 108.7 | 105.6 | 104.4 | 103.9 | 104.7 | 106.1 | 112.2 | 111.5 |
| Fish (3/83=100) | 03 | 97.7 | 100.4 | 99.8 | 98.7 | 98.0 | 98.7 | 101.0 | 103.6 | 102.6 | 101.8 | 102.2 |
| Grain and grain preparations (3/80=100) | 04 | 111.5 | 105.6 | 102.7 | 107.4 | 101.2 | 92.9 | 92.4 | 90.3 | 82.6 | 87.1 | 82.1 |
| Vegetables and fruit (3/83=100) | 05 | 114.8 | 116.1 | 116.2 | 126.8 | 125.5 | 114.6 | 119.4 | 120.1 | 126.8 | 118.8 | 115.2 |
| Feedstuffs for animals (3/83=100) | 08 | 121.4 | 117.4 | 106.9 | 98.8 | 83.5 | 82.4 | 72.8 | 68.6 | 75.7 | 83.4 | 88.5 |
| Misc. food products (3/83=100) | 09 | 102.8 | 101.7 | 104.9 | 110.6 | 109.5 | 108.4 | 110.6 | 109.2 | 108.1 | 107.7 | 106.0 |
| **Beverages and tobacco (6/83=100)** | 1 | 100.0 | 101.5 | 101.6 | 101.9 | 102.8 | 101.3 | 99.9 | 100.1 | 99.7 | 98.6 | 95.6 |
| Beverages (9/83=100) | 11 | 100.0 | 103.3 | 102.3 | 102.9 | 103.3 | 103.7 | 104.0 | 105.3 | 101.8 | 100.9 | 101.9 |
| Tobacco and tobacco products (6/83=100) | 12 | 100.0 | 101.4 | 101.6 | 101.8 | 102.7 | 101.1 | 99.5 | 99.6 | 99.5 | 98.4 | 95.1 |
| **Crude materials (6/83=100)** | 2 | 114.6 | 112.2 | 112.5 | 118.3 | 105.2 | 101.4 | 97.5 | 96.8 | 93.3 | 92.5 | 95.8 |
| Raw hides and skins (6/80=100) | 21 | 129.2 | 135.2 | 145.6 | 154.7 | 153.7 | 133.6 | 121.0 | 126.2 | 129.0 | 139.9 | 138.9 |
| Oilseeds and oleaginous fruit (9/77=100) | 22 | 105.6 | 96.8 | 93.9 | 104.3 | 79.9 | 74.8 | 71.0 | 71.2 | 64.2 | 63.9 | 66.9 |
| Crude rubber (including synthetic and reclaimed) (9/83=100) | 23 | 100.0 | 102.2 | 103.3 | 106.0 | 104.1 | 104.0 | 106.4 | 106.3 | 107.1 | 106.0 | 106.0 |
| Wood | 24 | 128.7 | 129.8 | 131.1 | 129.4 | 123.8 | 125.4 | 128.7 | 125.7 | 124.5 | 128.1 | 128.7 |
| Pulp and waste paper (6/83=100) | 25 | 103.5 | 106.0 | 112.5 | 122.1 | 120.8 | 114.2 | 100.5 | 96.1 | 93.8 | 92.7 | 99.3 |
| Textile fibers | 26 | 117.3 | 123.1 | 120.5 | 125.6 | 109.4 | 106.7 | 102.4 | 105.8 | 103.6 | 97.7 | 101.6 |
| Crude fertilizers and minerals | 27 | 144.8 | 144.8 | 146.6 | 147.7 | 163.0 | 163.2 | 165.6 | 167.9 | 169.4 | 165.5 | 168.0 |
| Metalliferous ores and metal scrap | 28 | 100.0 | 96.7 | 100.2 | 98.5 | 93.2 | 92.4 | 89.2 | 82.0 | 80.1 | 78.7 | 83.4 |
| **Mineral fuels** | 3 | 100.0 | 99.2 | 99.1 | 99.7 | 99.7 | 99.7 | 100.1 | 99.2 | 97.6 | 96.6 | 91.9 |
| **Animal and vegetables oils, fats, and waxes** | 4 | 125.6 | 122.0 | 129.8 | 164.5 | 145.7 | 147.9 | 142.0 | 144.5 | 114.5 | 101.4 | 90.8 |
| Fixed vegetable oils and fats (6/83=100) | 42 | 138.2 | 129.3 | 133.2 | 176.4 | 159.0 | 156.7 | 152.9 | 164.8 | 128.8 | 108.7 | 95.4 |
| **Chemicals (3/83=100)** | 5 | 97.0 | 98.6 | 101.4 | 99.7 | 98.3 | 97.7 | 97.0 | 96.8 | 97.1 | 96.6 | 96.5 |
| Organic chemicals (12/83=100) | 51 | – | 100.0 | 100.2 | 101.0 | 97.4 | 94.7 | 93.8 | 96.5 | 97.1 | 95.4 | 93.5 |
| Fertilizers, manufactured (3/83=100) | 56 | 89.8 | 96.8 | 108.3 | 96.9 | 97.4 | 94.8 | 92.5 | 87.9 | 89.8 | 90.0 | 88.6 |
| **Intermediate manufactured products** (9/81=100) | – | 100.8 | 100.0 | 101.0 | 101.3 | 102.0 | 100.4 | 99.4 | 99.2 | 99.2 | 99.1 | 100.3 |
| Leather and furskins (9/79=100) | 6 | 70.1 | 75.8 | 83.5 | 81.2 | 80.8 | 79.0 | 82.5 | 79.2 | 75.9 | 78.5 | 77.8 |
| Rubber manufactures | 61 | 145.0 | 145.0 | 146.7 | 147.5 | 148.9 | 148.5 | 150.2 | 149.0 | 148.3 | 148.7 | 151.0 |
| Paper and paperboard products (6/78=100) | 62 | 139.7 | 145.5 | 150.2 | 154.7 | 160.0 | 159.5 | 155.0 | 151.6 | 149.6 | 148.2 | 152.2 |
| Iron and steel (3/82=100) | 64 | 96.6 | 96.3 | 95.9 | 96.1 | 96.8 | 96.5 | 95.5 | 95.3 | 95.9 | 98.2 | 98.4 |
| Nonferrous metals (9/81=100) | – | 102.3 | 93.8 | 94.2 | 92.9 | 90.4 | 82.5 | 79.7 | 79.6 | 79.8 | 78.2 | 80.2 |
| Metal manufactures, n.e.s. (3/82=100) | – | 101.9 | 102.1 | 103.1 | 104.5 | 105.1 | 105.0 | 105.4 | 105.2 | 105.4 | 104.4 | 105.3 |
| **Machinery and transport equipment, excluding military and commercial aircraft (12/78=100)** | 67 | 135.9 | 137.0 | 138.5 | 139.4 | 140.1 | 141.5 | 142.3 | 142.9 | 143.1 | 143.3 | 144.0 |
| Power generating machinery and equipment (12/78=100) | 68 | 152.3 | 154.4 | 158.4 | 156.9 | 160.6 | 167.5 | 165.3 | 167.4 | 167.1 | 167.5 | 169.1 |
| Machinery specialized for particular industries (9/78=100) | 69 | 149.1 | 151.1 | 152.3 | 152.8 | 153.7 | 153.4 | 155.0 | 155.7 | 156.0 | 156.1 | 155.4 |
| Metalworking machinery (6/78=100) | 7 | 148.3 | 148.7 | 150.8 | 151.2 | 151.7 | 151.9 | 153.4 | 155.1 | 156.3 | 158.4 | 159.0 |
| General industrial machines and parts n.e.s. 9/78=100) | 71 | 145.4 | 145.9 | 148.6 | 149.0 | 149.3 | 150.2 | 152.4 | 152.0 | 152.4 | 152.2 | 152.3 |
| Office machines and automatic data processing equipment | 72 | 103.2 | 102.5 | 101.4 | 101.5 | 99.8 | 101.4 | 100.9 | 100.0 | 99.9 | 99.4 | 99.9 |
| Telecommunications, sound recording and reproducing equipment | 73 | 132.2 | 132.1 | 133.0 | 132.3 | 134.4 | 134.3 | 133.3 | 133.3 | 134.1 | 134.5 | 136.5 |
| Electrical machinery and equipment | 74 | 109.4 | 109.8 | 110.2 | 112.6 | 113.8 | 114.6 | 114.9 | 116.1 | 115.3 | 113.8 | 115.1 |
| Road vehicles and parts (3/80=100) | 75 | 127.5 | 128.8 | 130.2 | 131.2 | 131.0 | 131.8 | 133.1 | 133.9 | 133.8 | 135.0 | 135.5 |
| Other transport equipment, excl. military and commercial aviation | 76 | 176.4 | 179.3 | 183.1 | 187.7 | 189.6 | 191.7 | 195.5 | 196.6 | 199.3 | 200.7 | 203.3 |
| **Other manufactured articles** | 77 | 100.0 | 100.2 | 100.6 | 100.4 | 100.7 | 99.3 | 99.5 | 100.4 | 100.3 | 100.3 | 102.6 |
| Apparel (9/83=100) | 78 | 100.0 | 100.8 | 101.9 | 102.1 | 103.9 | 103.4 | 104.7 | 104.7 | 105.0 | 105.3 | – |
| Professional, scientific, and controlling instruments and apparatus | 79 | 169.0 | 171.5 | 171.8 | 172.0 | 175.8 | 171.7 | 175.5 | 178.3 | 178.7 | 178.8 | 182.2 |
| Photographic apparatus and supplies, optical goods, watches and clocks (12/77=100) | 8 | 130.0 | 132.0 | 132.0 | 131.3 | 132.7 | 130.3 | 128.0 | 129.1 | 127.5 | 128.5 | 131.6 |
| Miscellaneous manufactured articles, n.e.s. | 84 | 100.0 | 98.2 | 98.5 | 97.9 | 95.2 | 94.1 | 92.4 | 93.1 | 93.1 | 92.4 | 95.6 |
| **Gold, non-monetary (6/83=100)** | 971 | – | – | – | – | – | – | – | – | – | – | – |

– Data not available.

## 37. U.S. import price indexes by Standard International Trade Classification

(June 1977=100, unless otherwise indicated)

| Category | 1974 SITC | 1984 | | | | 1985 | | | | 1986 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Mar. | June | Sept. | Dec. | Mar. | June | Sept. | Dec. | Mar. |
| **ALL COMMODITIES** (9/82=100) | | 98.0 | 98.3 | 96.7 | 95.7 | 93.5 | 93.0 | 92.9 | 94.2 | 88.5 |
| **Food** (9/77=100) | 0 | 102.5 | 103.5 | 102.0 | 98.1 | 98.5 | 96.8 | 94.9 | 102.8 | 113.5 |
| Meat | 01 | 133.4 | 133.8 | 135.4 | 132.3 | 130.4 | 118.2 | 120.6 | 131.2 | 122.7 |
| Dairy products and eggs (6/81=100) | 02 | 100.8 | 99.8 | 98.9 | 98.4 | 98.3 | 97.9 | 99.1 | 100.5 | 106.8 |
| Fish | 03 | 132.7 | 134.2 | 134.2 | 133.9 | 132.9 | 129.4 | 129.7 | 132.7 | 139.3 |
| Bakery goods, pasta products, grain and grain preparations (9/77=100) | 04 | 136.5 | 134.8 | 132.9 | 132.8 | 131.8 | 132.3 | 136.3 | 141.9 | 146.9 |
| Fruits and vegetables | 05 | 136.1 | 135.8 | 135.4 | 117.2 | 127.1 | 129.4 | 120.2 | 131.3 | 119.4 |
| Sugar, sugar preparations, and honey (3/82=100) | 06 | 117.1 | 120.3 | 119.0 | 118.5 | 118.4 | 122.6 | 123.1 | 111.9 | 124.6 |
| Coffee, tea, cocoa | 07 | 61.4 | 62.4 | 60.3 | 58.4 | 57.0 | 56.0 | 54.4 | 64.6 | 85.9 |
| **Beverages and tobacco** | 1 | 155.3 | 156.3 | 157.1 | 156.5 | 156.2 | 157.1 | 158.0 | 162.1 | 163.2 |
| Beverages | 11 | 152.6 | 153.6 | 153.5 | 152.8 | 154.2 | 154.3 | 156.0 | 159.1 | 161.8 |
| **Crude materials** | 2 | 103.2 | 102.6 | 100.6 | 98.9 | 94.0 | 93.6 | 91.5 | 91.2 | 94.7 |
| Crude rubber (inc. synthetic & reclaimed) (3/84=100) | 23 | 100.0 | 93.7 | 90.7 | 83.8 | 77.6 | 76.4 | 68.9 | 73.2 | 78.8 |
| Wood (9/81=100) | 24 | 114.8 | 103.2 | 99.6 | 104.0 | 100.7 | 106.9 | 101.6 | 99.4 | 104.3 |
| Pulp and waste paper (12/81=100) | 25 | 87.6 | 96.1 | 96.3 | 93.2 | 84.0 | 80.4 | 76.8 | 75.8 | 74.9 |
| Crude fertilizers and crude minerals (12/83=100) | 27 | 100.0 | 96.2 | 98.0 | 98.6 | 100.3 | 101.7 | 102.7 | 102.1 | 101.5 |
| Metalliferous ores and metal scrap (3/84=100) | 28 | 100.0 | 102.8 | 100.1 | 95.6 | 90.4 | 87.6 | 89.5 | 90.1 | 96.2 |
| Crude vegetable and animal materials, n.e.s. | 29 | 100.0 | 100.8 | 101.1 | 106.4 | 104.3 | 104.9 | 102.5 | 102.5 | 103.6 |
| **Fuels and related products** (6/82=100) | 3 | 88.3 | 88.0 | 86.9 | 85.2 | 82.9 | 80.9 | 79.8 | 79.1 | 55.3 |
| Petroleum and petroleum products (6/82=100) | 33 | 88.2 | 88.1 | 87.0 | 85.2 | 83.8 | 81.6 | 80.3 | 80.1 | 54.7 |
| **Fats and oils** (9/83=100) | 4 | 117.4 | 141.8 | 124.4 | 114.9 | 89.9 | 76.7 | 57.6 | 50.6 | 41.4 |
| Vegetable oils (9/83=100) | 42 | 118.1 | 143.1 | 125.3 | 115.3 | 89.5 | 75.9 | 56.2 | 48.9 | 39.3 |
| **Chemicals** (9/82=100) | 5 | 101.1 | 100.6 | 98.8 | 97.1 | 95.7 | 94.9 | 94.5 | 94.2 | 94.6 |
| Medicinal and pharmaceutical products (3/84=100) | 54 | 100.0 | 98.5 | 96.4 | 94.6 | 91.6 | 95.1 | 95.3 | 96.7 | 102.9 |
| Manufactured fertilizers (3/84=100) | 56 | 100.0 | 101.7 | 98.5 | 92.9 | 94.2 | 82.0 | 80.8 | 78.5 | 79.2 |
| Chemical materials and products, n.e.s. (9/84=100) | 59 | - | - | 100.0 | 97.5 | 96.1 | 95.6 | 96.9 | 97.8 | 99.9 |
| **Intermediate manufactured products** (12/77=100) | 6 | 137.6 | 139.6 | 137.2 | 136.8 | 133.1 | 132.4 | 133.6 | 133.4 | 134.0 |
| Leather and furskins | 61 | 141.6 | 145.3 | 144.0 | 140.4 | 135.3 | 133.3 | 137.0 | 141.3 | 141.6 |
| Rubber manufactures, n.e.s. | 62 | 141.8 | 140.8 | 139.6 | 140.5 | 139.5 | 138.6 | 137.3 | 138.1 | 136.5 |
| Cork and wood manufactures | 63 | 130.1 | 131.0 | 126.4 | 126.1 | 121.3 | 121.2 | 123.4 | 124.0 | 130.8 |
| Paper and paperboard products | 64 | 148.0 | 150.4 | 156.1 | 157.5 | 157.6 | 157.2 | 157.8 | 156.5 | 157.1 |
| Textiles | 65 | 130.8 | 130.1 | 131.6 | 132.9 | 130.4 | 127.5 | 126.5 | 128.1 | 131.2 |
| Nonmetallic mineral manufactures, n.e.s. | 66 | 168.4 | 166.6 | 156.6 | 159.4 | 154.3 | 151.8 | 157.6 | 162.3 | 164.2 |
| Iron and steel (9/78=100) | 67 | 118.5 | 123.8 | 124.7 | 123.7 | 121.0 | 120.1 | 119.1 | 118.3 | 117.3 |
| Nonferrous metals (12/81=100) | 68 | 95.0 | 96.3 | 90.2 | 87.3 | 81.9 | 82.3 | 83.7 | 80.4 | 79.4 |
| Metal manufactures, n.e.s. | 69 | 119.7 | 120.5 | 119.3 | 119.3 | 117.4 | 117.8 | 119.5 | 121.6 | 124.4 |
| **Machinery and transport equipment (6/81=100)** | 7 | 104.0 | 104.1 | 102.6 | 102.9 | 101.6 | 102.6 | 103.5 | 107.2 | 111.5 |
| Machinery specialized for particular industries (9/78=100) | 72 | 100.4 | 100.0 | 98.8 | 98.0 | 96.2 | 97.0 | 101.4 | 104.9 | 112.1 |
| Metalworking machinery (3/80=100) | 73 | 94.3 | 93.8 | 92.1 | 89.9 | 86.3 | 90.5 | 94.2 | 98.1 | 105.0 |
| General industrial machinery and parts, n.e.s. (6/81=100) | 74 | 93.7 | 94.4 | 92.4 | 91.3 | 89.2 | 91.1 | 94.3 | 98.0 | 103.8 |
| Office machines and automatic data processing equipment (3/80=100) | 75 | 97.8 | 96.7 | 94.1 | 92.2 | 89.6 | 89.4 | 90.3 | 93.7 | 96.9 |
| Telecommunications, sound recording and reproducing apparatus (3/80=100) | 76 | 94.2 | 94.8 | 93.6 | 91.3 | 90.0 | 88.8 | 88.3 | 88.6 | 89.4 |
| Electrical machinery and equipment (12/81=100) | 77 | 94.2 | 91.2 | 87.0 | 86.4 | 82.1 | 83.9 | 81.4 | 83.1 | 84.3 |
| Road vehicles and parts (6/81=100) | 78 | 109.0 | 110.4 | 109.8 | 111.3 | 111.5 | 112.1 | 112.7 | 117.8 | 123.4 |
| **Misc. manufactured articles** (3/80=100) | 8 | 100.6 | 101.5 | 99.7 | 100.0 | 97.0 | 98.0 | 99.6 | 100.8 | 103.3 |
| Plumbing, heating, and lighting fixtures (6/80=100) | 81 | 109.5 | 112.0 | 110.7 | 111.6 | 113.9 | 114.1 | 117.8 | 115.0 | 120.1 |
| Furniture and parts (6/80=100) | 82 | 136.8 | 140.8 | 138.4 | 142.5 | 137.4 | 136.7 | 142.1 | 142.7 | 147.0 |
| Clothing (9/77=100) | 84 | 130.2 | 132.5 | 135.4 | 138.5 | 136.7 | 133.9 | 134.5 | 134.5 | 133.4 |
| Footwear | 85 | 136.8 | 140.8 | 138.4 | 142.5 | 137.4 | 136.7 | 142.1 | 142.7 | 147.0 |
| Professional, scientific, and controlling instruments and apparatus (12/79=100) | 87 | 98.7 | 97.8 | 95.6 | 92.9 | 89.2 | 92.3 | 98.8 | 102.4 | 106.4 |
| Photographic apparatus and supplies, optical goods, watches, and clocks (3/80=100) | 88 | 89.6 | 92.8 | 91.2 | 91.3 | 88.9 | 89.5 | 91.1 | 94.5 | 99.3 |
| Misc. manufactured articles, n.e.s. (6/82=100) | 89 | 105.2 | 104.0 | 98.3 | 96.3 | 91.2 | 95.2 | 96.4 | 97.9 | 102.1 |
| **Gold, non-monetary (6/82=100)** | 971 | - | - | - | - | - | - | - | - | - |

- Data not available.

## 38. U.S. export price indexes by end-use category

(September 1983 = 100 unless otherwise indicated)

| Category | Percentage of 1980 Trade Value | 1984 | | | | 1985 | | | | 1986 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Mar. | June | Sept. | Dec. | Mar. | June | Sept. | Dec. | Mar. |
| Foods, feeds, and beverages | 16.294 | 92.8 | 98.5 | 88.8 | 83.0 | 81.5 | 80.9 | 76.2 | 77.5 | 75.5 |
| Raw materials | 30.696 | 102.2 | 102.5 | 100.5 | 99.1 | 97.6 | 97.2 | 96.5 | 95.9 | 96.0 |
| Raw materials, nondurable | 21.327 | 103.6 | 104.4 | 102.8 | 101.4 | 99.6 | 99.5 | 98.7 | 97.9 | 97.5 |
| Raw materials, durable | 9.368 | 98.8 | 97.7 | 95.0 | 93.3 | 92.6 | 91.6 | 91.1 | 91.0 | 92.5 |
| Capital goods (12/82=100) | 30.186 | 103.2 | 103.9 | 104.6 | 105.6 | 106.2 | 106.6 | 106.6 | 106.6 | 107.4 |
| Automotive vehicles, parts and engines (12/82=100) | 7.483 | 104.5 | 105.3 | 105.3 | 105.7 | 106.7 | 108.0 | 108.1 | 109.2 | 109.5 |
| Consumer goods | 7.467 | 100.9 | 100.9 | 101.3 | 100.8 | 100.9 | 101.1 | 101.9 | 101.4 | 103.7 |
| Durables | 3.965 | 100.1 | 99.6 | 99.4 | 99.3 | 99.1 | 99.2 | 100.4 | 99.5 | 101.8 |
| Nondurables | 3.501 | 101.8 | 102.1 | 103.0 | 102.3 | 102.7 | 103.0 | 103.3 | 103.3 | 105.5 |

## 39. U.S. import price indexes by end-use category

(December 1982=100)

| Category | Percentage of 1980 Trade Value | 1984 | | | | 1985 | | | | 1986 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Mar. | June | Sept. | Dec. | Mar. | June | Sept. | Dec. | Mar. |
| Foods, feeds, and beverages | 7.477 | 106.0 | 107.2 | 105.6 | 101.8 | 102.1 | 100.4 | 99.0 | 106.0 | 115.8 |
| Petroleum and petroleum products, excl. natural gas | 31.108 | 88.8 | 88.5 | 87.5 | 85.7 | 84.4 | 82.1 | 80.9 | 80.5 | 55.4 |
| Raw materials, excluding petroleum | 19.205 | 103.5 | 104.3 | 102.5 | 101.1 | 96.3 | 95.8 | 95.4 | 93.9 | 94.5 |
| Raw materials, nondurable | 9.391 | 100.7 | 102.1 | 101.7 | 100.7 | 95.0 | 93.9 | 93.5 | 91.8 | 91.1 |
| Raw materials, durable | 9.814 | 106.5 | 106.7 | 103.3 | 101.6 | 97.7 | 97.8 | 97.4 | 96.2 | 98.0 |
| Capital goods | 13.164 | 100.8 | 99.8 | 98.0 | 97.8 | 94.8 | 96.3 | 97.6 | 100.0 | 102.8 |
| Automotive vehicles, parts and engines | 11.750 | 103.6 | 104.9 | 104.0 | 105.2 | 105.4 | 105.9 | 106.4 | 111.4 | 115.6 |
| Consumer goods | 14.250 | 101.0 | 101.9 | 100.6 | 101.1 | 99.5 | 99.4 | 101.0 | 102.4 | 104.5 |
| Durable | 5.507 | 101.1 | 101.4 | 98.8 | 98.5 | 97.0 | 97.0 | 98.9 | 100.7 | 103.4 |
| Nondurable | 8.743 | 100.9 | 102.5 | 103.0 | 104.6 | 103.0 | 102.5 | 103.9 | 104.7 | 106.0 |

## 40. U.S. export price indexes by Standard Industrial Classification [1]

| Industry group | 1984 | | | | 1985 | | | | 1986 |
|---|---|---|---|---|---|---|---|---|---|
| | Mar. | June | Sept. | Dec. | Mar. | June | Sept. | Dec. | Mar. |
| Manufacturing: | | | | | | | | | |
| Food and kindred products (6/83=100) | 109.0 | 112.7 | 105.6 | 103.3 | 99.5 | 99.5 | 96.7 | 98.1 | 97.0 |
| Lumber and wood products, except furniture (6/83=100) | 101.5 | 100.1 | 97.0 | 97.9 | 99.9 | 99.5 | 98.3 | 101.2 | 101.5 |
| Furniture and fixtures (9/83=100) | 101.8 | 103.1 | 103.5 | 104.9 | 105.2 | 106.5 | 107.1 | 108.4 | 109.2 |
| Paper and allied products (3/81=100) | 98.6 | 104.3 | 106.2 | 103.6 | 97.1 | 94.7 | 93.2 | 92.1 | 95.7 |
| Chemicals and allied products (12/84=100) | 103.3 | 102.3 | 101.3 | 100.7 | 100.3 | 99.6 | 99.7 | 99.2 | 98.9 |
| Petroleum and coal products (12/83=100) | 101.6 | 102.1 | 100.7 | 100.4 | 101.3 | 102.7 | 102.0 | 99.1 | 93.5 |
| Primary metal products (3/82=100) | 105.1 | 104.0 | 100.0 | 95.8 | 91.2 | 92.7 | 93.6 | 93.6 | 96.4 |
| Machinery, except electrical (9/78=100) | 137.4 | 137.9 | 138.0 | 139.9 | 140.4 | 140.5 | 140.6 | 140.5 | 140.6 |
| Electrical machinery (12/80=100) | 108.0 | 109.5 | 110.7 | 111.1 | 111.3 | 112.4 | 111.9 | 111.2 | 112.6 |
| Transportation equipment (12/78=100) | 155.7 | 157.2 | 157.8 | 158.9 | 160.5 | 161.9 | 162.8 | 164.3 | 165.2 |
| Scientific instruments; optical goods; clocks (6/77=100) | 153.1 | 153.2 | 156.0 | 153.0 | 154.9 | 156.6 | 156.2 | 156.7 | 159.7 |

[1] SIC - based classification.

## 41. U.S. import price indexes by Standard Industrial Classification [1]

| Industry group | 1984 | | | | 1985 | | | | 1986 |
|---|---|---|---|---|---|---|---|---|---|
| | Mar. | June | Sept. | Dec. | Mar. | June | Sept. | Dec. | Mar. |
| Manufacturing: | | | | | | | | | |
| Food and kindred products (6/77=100) | 122.3 | 126.6 | 124.1 | 122.6 | 118.8 | 115.0 | 114.2 | 115.1 | 117.7 |
| Textile mill products (9/82=100) | 104.4 | 103.8 | 104.3 | 104.7 | 102.8 | 101.0 | 100.4 | 101.8 | 104.7 |
| Apparel and related products (6/77=100) | 128.1 | 129.6 | 133.9 | 138.2 | 135.6 | 133.0 | 133.9 | 134.4 | 133.4 |
| Lumber and wood products, except furniture (6/77=100) | 129.4 | 121.1 | 117.3 | 120.0 | 116.3 | 120.6 | 117.5 | 115.8 | 122.1 |
| Furniture and fixtures (6/80=100) | 95.7 | 96.9 | 96.2 | 95.6 | 93.9 | 96.1 | 97.7 | 98.2 | 101.2 |
| Paper and allied products (6/77=100) | 136.5 | 141.9 | 146.0 | 145.5 | 141.5 | 139.8 | 138.7 | 137.4 | 137.6 |
| Chemicals and allied products (9/82=100) | 101.8 | 101.8 | 99.8 | 98.2 | 95.3 | 93.9 | 93.3 | 95.8 | 98.6 |
| Rubber and miscellaneous plastic products (12/80=100) | 98.1 | 98.5 | 97.8 | 98.0 | 96.9 | 96.7 | 96.6 | 97.5 | 100.9 |
| Leather and leather products | 140.3 | 143.7 | 141.6 | 144.2 | 139.1 | 138.9 | 142.3 | 144.0 | 145.8 |
| Primary metal products (6/81=100) | 90.1 | 91.9 | 88.3 | 86.6 | 82.2 | 83.0 | 83.4 | 81.9 | 82.0 |
| Fabricated metal products (12/84=100) | – | – | – | 100.0 | 99.0 | 99.1 | 101.0 | 102.6 | 104.9 |
| Machinery, except electrical (3/80=100) | 97.8 | 97.1 | 95.5 | 94.1 | 91.8 | 93.4 | 96.6 | 100.0 | 105.5 |
| Electrical machinery (9/84=100) | – | – | 100.0 | 98.6 | 95.1 | 95.8 | 94.5 | 95.8 | 96.8 |
| Transportation equipment (6/81=100) | 110.6 | 111.6 | 110.7 | 112.9 | 113.1 | 114.2 | 114.8 | 119.6 | 123.9 |
| Scientific instruments; optical goods; clocks (12/79=100) | 94.0 | 95.5 | 94.4 | 93.2 | 90.7 | 91.7 | 94.6 | 98.8 | 103.9 |
| Miscellaneous manufactured commodities (9/82=100) | 99.8 | 99.1 | 95.8 | 96.4 | 95.1 | 95.1 | 96.6 | 98.7 | 100.0 |

[1] SIC - based classification.

– Data not available.

## 42. Indexes of productivity, hourly compensation, and unit costs, quarterly data seasonally adjusted

(1977=100)

| Item | Annual average | Quarterly Indexes | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1983 | | 1984 | | | | 1985 | | | | 1986 |
| | | III | IV | I | II | III | IV | I | II | III | IV | I |
| **Business:** | | | | | | | | | | | | |
| Output per hour of all persons | 105.2 | 103.5 | 103.6 | 104.9 | 105.5 | 105.3 | 105.0 | 105.3 | 105.5 | 105.9 | 104.9 | 105.5 |
| Compensation per hour | 168.2 | 162.1 | 164.1 | 166.1 | 167.5 | 169.1 | 170.4 | 172.4 | 174.3 | 176.1 | 177.6 | 178.2 |
| Real compensation per hour | 98.2 | 98.1 | 98.3 | 98.3 | 98.2 | 98.2 | 98.1 | 98.5 | 98.5 | 98.9 | 98.7 | 98.7 |
| Unit labor costs | 159.9 | 156.6 | 158.4 | 158.4 | 158.7 | 160.6 | 162.3 | 163.8 | 165.2 | 166.3 | 169.3 | 168.9 |
| Unit nonlabor payments | 156.5 | 146.8 | 148.6 | 153.4 | 156.8 | 157.3 | 158.0 | 157.6 | 158.2 | 158.6 | 156.2 | 159.1 |
| Implicit price deflator | 158.7 | 153.1 | 154.9 | 156.6 | 158.0 | 159.4 | 160.8 | 161.6 | 162.7 | 163.5 | 164.6 | 165.4 |
| **Nonfarm business:** | | | | | | | | | | | | |
| Output per hour of all persons | 104.1 | 103.3 | 103.0 | 104.0 | 104.5 | 104.2 | 103.8 | 104.1 | 104.2 | 104.3 | 103.2 | 104.1 |
| Compensation per hour | 168.0 | 162.3 | 164.0 | 165.9 | 167.4 | 168.8 | 170.1 | 172.1 | 173.7 | 175.0 | 176.4 | 177.3 |
| Real compensation per hour | 98.0 | 98.2 | 98.2 | 98.1 | 98.1 | 98.0 | 97.9 | 98.3 | 98.2 | 98.3 | 98.0 | 98.2 |
| Unit labor costs | 161.4 | 157.1 | 159.1 | 159.6 | 160.1 | 162.0 | 163.9 | 165.3 | 166.8 | 167.8 | 170.9 | 170.3 |
| Unit nonlabor payments | 156.3 | 148.9 | 150.7 | 152.5 | 156.3 | 157.6 | 158.4 | 158.8 | 160.2 | 161.4 | 157.7 | 161.9 |
| Implicit price deflator | 159.6 | 154.2 | 156.1 | 157.1 | 158.8 | 160.5 | 161.9 | 163.0 | 164.5 | 165.5 | 166.3 | 167.4 |
| **Nonfinancial corporations:** | | | | | | | | | | | | |
| Output per hour of all employees | 106.2 | 104.6 | 105.0 | 106.2 | 106.7 | 106.1 | 105.8 | 105.8 | 105.8 | 106.5 | 105.9 | 105.8 |
| Compensation per hour | 166.1 | 160.8 | 162.4 | 164.2 | 165.6 | 166.8 | 167.9 | 169.4 | 170.8 | 172.0 | 173.3 | 173.9 |
| Real compensation per hour | 96.9 | 97.3 | 97.3 | 97.1 | 97.1 | 96.9 | 96.7 | 96.7 | 96.6 | 96.6 | 96.3 | 96.3 |
| Total unit costs | 161.2 | 159.6 | 159.5 | 159.1 | 159.9 | 162.2 | 163.6 | 164.4 | 165.8 | 165.5 | 167.2 | 168.0 |
| Unit labor costs | 156.4 | 153.8 | 154.8 | 154.7 | 155.1 | 157.2 | 158.7 | 160.0 | 161.5 | 161.5 | 163.7 | 164.3 |
| Unit nonlabor costs | 175.3 | 176.7 | 173.7 | 172.3 | 174.0 | 177.0 | 177.9 | 177.6 | 178.6 | 177.2 | 177.8 | 179.0 |
| Unit profits | 135.6 | 114.4 | 124.0 | 132.9 | 139.1 | 134.3 | 135.9 | 138.3 | 139.1 | 150.2 | 143.1 | 146.1 |
| Unit nonlabor payments | 161.4 | 154.9 | 156.3 | 158.5 | 161.8 | 162.1 | 163.2 | 163.8 | 164.8 | 167.7 | 165.7 | 167.5 |
| Implicit price deflator | 158.1 | 154.2 | 155.3 | 156.0 | 157.4 | 158.9 | 160.3 | 161.3 | 162.6 | 163.6 | 164.4 | 165.4 |
| **Manufacturing:** | | | | | | | | | | | | |
| Output per hour of all persons | 118.5 | 114.5 | 114.7 | 116.7 | 117.8 | 119.8 | 119.5 | 120.0 | 121.8 | 122.8 | 122.4 | 123.1 |
| Compensation per hour | 169.1 | 163.3 | 164.4 | 166.7 | 168.1 | 169.9 | 171.8 | 174.3 | 176.1 | 177.3 | 178.8 | 179.2 |
| Real compensation per hour | 98.7 | 98.8 | 98.5 | 98.6 | 98.6 | 98.7 | 98.9 | 99.5 | 99.5 | 99.6 | 99.4 | 99.3 |
| Unit labor costs | 142.8 | 142.6 | 143.4 | 142.8 | 142.7 | 141.9 | 143.7 | 145.3 | 144.5 | 144.4 | 146.0 | 145.6 |

### 43. Annual indexes of multifactor productivity and related measures, selected years

(1977=100)

| Item | 1960 | 1970 | 1973 | 1974 | 1976 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Private business** | | | | | | | | | | | | |
| Productivity: | | | | | | | | | | | | |
| Output per hour of all persons | 64.8 | 86.1 | 94.8 | 92.5 | 97.6 | 100.5 | 99.3 | 98.7 | 100.6 | 100.8 | 103.7 | 107.1 |
| Output per unit of capital services | 98.4 | 98.5 | 103.0 | 96.5 | 96.1 | 101.8 | 100.3 | 95.6 | 94.1 | 89.5 | 92.3 | 97.4 |
| Multifactor productivity | 75.4 | 90.2 | 97.5 | 93.8 | 97.1 | 101.0 | 99.7 | 97.6 | 98.3 | 96.8 | 99.6 | 103.7 |
| Output | 53.3 | 78.3 | 91.8 | 89.9 | 93.7 | 105.5 | 107.9 | 106.4 | 109.2 | 106.3 | 111.1 | 121.0 |
| Inputs: | | | | | | | | | | | | |
| Hours of all persons | 82.2 | 90.8 | 96.8 | 97.2 | 95.9 | 105.0 | 108.6 | 107.8 | 108.5 | 105.4 | 107.2 | 113.0 |
| Capital services | 54.1 | 79.4 | 89.1 | 93.1 | 97.5 | 103.6 | 107.5 | 111.4 | 116.0 | 118.8 | 120.4 | 124.3 |
| Combined units of labor and capital input | 70.7 | 86.7 | 94.1 | 95.8 | 96.5 | 104.5 | 108.2 | 109.0 | 111.0 | 109.9 | 111.6 | 116.8 |
| Capital per hour of all persons | 65.9 | 87.4 | 92.0 | 95.9 | 101.6 | 98.7 | 98.9 | 103.3 | 106.9 | 112.7 | 112.3 | 109.9 |
| **Private nonfarm business** | | | | | | | | | | | | |
| Productivity: | | | | | | | | | | | | |
| Output per hour of all persons | 68.0 | 86.8 | 95.3 | 92.9 | 97.8 | 100.6 | 99.0 | 98.2 | 99.6 | 99.9 | 103.5 | 106.3 |
| Output per unit of capital services | 98.4 | 98.6 | 103.2 | 96.5 | 96.1 | 101.9 | 100.1 | 95.2 | 93.2 | 88.7 | 91.9 | 96.6 |
| Multifactor productivity | 77.6 | 90.7 | 97.9 | 94.1 | 97.2 | 101.0 | 99.4 | 97.2 | 97.4 | 95.9 | 99.4 | 102.9 |
| Output | 52.3 | 77.8 | 91.7 | 89.7 | 93.6 | 105.7 | 108.0 | 106.4 | 108.7 | 105.9 | 111.3 | 121.0 |
| Inputs: | | | | | | | | | | | | |
| Hours of all persons | 77.0 | 89.7 | 96.2 | 96.5 | 95.7 | 105.1 | 109.1 | 108.4 | 109.1 | 106.0 | 107.6 | 113.8 |
| Capital services | 53.2 | 78.9 | 88.8 | 93.0 | 97.4 | 103.7 | 107.9 | 111.7 | 116.6 | 119.4 | 121.1 | 125.2 |
| Combined units of labor and capital input | 67.4 | 85.9 | 93.6 | 95.3 | 96.3 | 104.6 | 108.7 | 109.5 | 111.6 | 110.4 | 112.0 | 117.5 |
| Capital per hour of all persons | 69.1 | 88.0 | 92.4 | 96.3 | 101.8 | 98.7 | 98.9 | 103.1 | 106.8 | 112.6 | 112.6 | 110.1 |
| **Manufacturing** | | | | | | | | | | | | |
| Productivity: | | | | | | | | | | | | |
| Output per hour of all persons | 60.0 | 79.2 | 93.0 | 90.8 | 97.6 | 100.9 | 101.6 | 101.7 | 104.9 | 107.1 | 111.6 | 115.6 |
| Output per unit of capital services | 87.9 | 91.8 | 108.2 | 99.6 | 96.1 | 101.5 | 99.5 | 90.7 | 89.9 | 82.9 | 87.6 | 96.0 |
| Multifactor productivity | 67.0 | 82.3 | 96.8 | 93.1 | 97.1 | 101.1 | 101.0 | 98.8 | 100.8 | 100.3 | 104.9 | 110.4 |
| Output | 50.7 | 77.0 | 95.9 | 91.9 | 93.6 | 105.3 | 108.2 | 103.5 | 106.1 | 99.3 | 104.4 | 115.3 |
| Inputs: | | | | | | | | | | | | |
| Hours of all persons | 84.4 | 97.3 | 103.1 | 101.2 | 95.9 | 104.4 | 106.5 | 101.7 | 101.1 | 92.7 | 93.5 | 99.8 |
| Capital services | 57.6 | 83.9 | 88.6 | 92.2 | 97.4 | 103.8 | 108.8 | 114.1 | 118.0 | 119.8 | 119.2 | 120.2 |
| Combined units of labor and capital inputs | 75.6 | 93.5 | 99.0 | 98.7 | 96.3 | 104.2 | 107.1 | 104.8 | 105.2 | 99.0 | 99.5 | 104.5 |
| Capital per hour of all persons | 68.3 | 86.2 | 85.9 | 91.1 | 101.6 | 99.4 | 102.1 | 112.2 | 116.7 | 129.2 | 127.5 | 120.4 |

### 44. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years

(1977=100)

| Item | 1960 | 1970 | 1973 | 1974 | 1976 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Business:** | | | | | | | | | | | | | |
| Output per hour of all persons | 67.5 | 88.3 | 95.9 | 93.9 | 98.3 | 100.8 | 99.6 | 99.2 | 100.7 | 100.3 | 103.2 | 105.2 | 105.3 |
| Compensation per hour | 33.6 | 57.7 | 70.9 | 77.6 | 92.8 | 108.5 | 119.1 | 131.5 | 143.7 | 154.9 | 161.9 | 168.2 | 175.0 |
| Real compensation per hour | 68.8 | 90.1 | 96.7 | 95.4 | 98.7 | 100.8 | 99.4 | 96.7 | 95.7 | 97.3 | 98.5 | 98.2 | 98.6 |
| Unit labor costs | 49.8 | 65.4 | 73.9 | 82.7 | 94.3 | 107.7 | 119.6 | 132.6 | 142.7 | 154.5 | 157.0 | 159.9 | 166.2 |
| Unit nonlabor payments | 46.3 | 59.4 | 72.5 | 76.4 | 93.4 | 106.7 | 112.5 | 118.8 | 134.7 | 136.8 | 145.4 | 156.5 | 157.7 |
| Implicit price deflator | 48.5 | 63.2 | 73.4 | 80.5 | 94.0 | 107.3 | 117.0 | 127.6 | 139.8 | 148.1 | 152.8 | 158.7 | 163.1 |
| **Nonfarm business:** | | | | | | | | | | | | | |
| Output per hour of all persons | 70.9 | 89.1 | 96.4 | 94.3 | 98.5 | 100.8 | 99.2 | 98.8 | 99.8 | 99.2 | 102.6 | 104.1 | 103.9 |
| Compensation per hour | 35.3 | 58.1 | 71.2 | 78.0 | 92.8 | 108.6 | 118.9 | 131.3 | 143.6 | 154.8 | 162.1 | 168.0 | 174.2 |
| Real compensation per hour | 72.2 | 90.7 | 97.1 | 95.9 | 98.8 | 100.9 | 99.2 | 96.6 | 95.7 | 97.2 | 98.6 | 98.0 | 98.1 |
| Unit labor costs | 49.8 | 65.2 | 73.9 | 82.7 | 94.2 | 107.7 | 119.8 | 132.9 | 144.0 | 156.0 | 158.0 | 161.4 | 167.7 |
| Unit nonlabor payments | 46.2 | 60.0 | 69.4 | 74.0 | 93.1 | 105.6 | 110.5 | 118.5 | 133.5 | 136.6 | 147.0 | 156.3 | 159.5 |
| Implicit price deflator | 48.5 | 63.4 | 72.3 | 79.7 | 93.8 | 107.0 | 116.5 | 127.8 | 140.3 | 149.2 | 154.1 | 159.6 | 164.8 |
| **Nonfinancial corporations:** | | | | | | | | | | | | | |
| Output per hour of all employees | 73.4 | 91.1 | 97.5 | 94.6 | 98.4 | 100.6 | 99.8 | 99.1 | 99.6 | 100.4 | 104.0 | 106.2 | 105.9 |
| Compensation per hour | 36.9 | 59.2 | 71.6 | 78.2 | 92.9 | 108.4 | 118.7 | 131.1 | 143.3 | 154.3 | 160.6 | 166.1 | 171.3 |
| Real compensation per hour | 75.5 | 92.4 | 97.6 | 96.1 | 98.9 | 100.7 | 99.1 | 96.4 | 95.5 | 96.9 | 97.7 | 96.9 | 96.5 |
| Unit labor costs | 50.2 | 65.0 | 73.4 | 82.6 | 94.3 | 107.8 | 119.0 | 132.3 | 143.8 | 153.8 | 154.5 | 156.4 | 161.7 |
| Unit nonlabor payments | 51.5 | 60.1 | 68.9 | 73.1 | 93.8 | 104.4 | 108.4 | 118.6 | 137.8 | 142.1 | 152.2 | 161.4 | 165.5 |
| Implicit price deflator | 50.7 | 63.3 | 71.9 | 79.4 | 94.2 | 106.6 | 115.4 | 127.6 | 141.7 | 149.8 | 153.7 | 158.1 | 163.0 |
| **Manufacturing:** | | | | | | | | | | | | | |
| Output per hour of all persons | 62.2 | 80.8 | 93.4 | 90.6 | 97.1 | 101.5 | 101.4 | 101.4 | 103.6 | 105.9 | 112.9 | 118.5 | 121.8 |
| Compensation per hour | 36.5 | 57.3 | 68.8 | 76.2 | 92.1 | 108.2 | 118.6 | 132.4 | 145.2 | 157.5 | 163.2 | 169.1 | 176.6 |
| Real compensation per hour | 74.7 | 89.4 | 93.8 | 93.6 | 98.1 | 100.5 | 99.1 | 97.4 | 96.7 | 98.9 | 99.3 | 98.7 | 99.5 |
| Unit labor costs | 58.7 | 70.9 | 73.7 | 84.1 | 94.9 | 106.6 | 117.0 | 130.6 | 140.1 | 148.7 | 144.5 | 142.8 | 145.0 |
| Unit nonlabor payments | 60.2 | 64.3 | 70.7 | 67.7 | 93.5 | 101.9 | 98.9 | 97.8 | 111.8 | 114.0 | 132.4 | 140.5 | 138.9 |
| Implicit price deflator | 59.1 | 69.0 | 72.8 | 79.3 | 94.5 | 105.2 | 111.7 | 121.0 | 131.8 | 138.6 | 141.0 | 142.1 | 143.3 |

## 45. Unemployment rates in nine countries, quarterly data seasonally adjusted

| Country | Annual average | | 1984 | | 1985 | | | | 1986 |
|---|---|---|---|---|---|---|---|---|---|
| | 1984 | 1985 | III | IV | I | II | III | IV | I |
| **Total labor force basis** | | | | | | | | | |
| United States | 7.4 | 7.1 | 7.3 | 7.1 | 7.2 | 7.2 | 7.1 | 6.9 | 7.0 |
| Canada | 11.2 | 10.4 | 11.2 | 11.1 | 11.0 | 10.5 | 10.2 | 10.1 | 9.7 |
| Australia | 8.9 | 8.2 | 8.7 | 8.6 | 8.5 | 8.4 | 8.1 | 7.8 | 7.9 |
| Japan | 2.7 | 2.6 | 2.8 | 2.7 | 2.6 | 2.5 | 2.6 | 2.9 | 2.6 |
| France | 9.7 | 10.1 | 9.9 | 10.0 | 10.2 | 10.1 | 10.2 | 9.9 | 10.0 |
| Germany | 7.7 | 7.7 | 7.8 | 7.7 | 7.8 | 7.8 | 7.7 | 7.7 | 7.7 |
| Great Britain | 12.8 | 13.0 | 13.0 | 12.8 | 12.9 | 13.0 | 13.2 | 12.8 | 13.0 |
| Italy [1], [2] | 5.8 | 5.9 | 5.8 | 5.7 | 5.8 | 5.7 | 5.9 | 6.2 | 6.2 |
| Sweden | 3.1 | 2.8 | 3.0 | 3.0 | 3.0 | 2.9 | 2.7 | 2.7 | 2.8 |
| **Civilian labor force basis** | | | | | | | | | |
| United States | 7.5 | 7.2 | 7.4 | 7.2 | 7.3 | 7.3 | 7.2 | 7.0 | 7.1 |
| Canada | 11.3 | 10.5 | 11.3 | 11.1 | 11.1 | 10.6 | 10.2 | 10.1 | 9.7 |
| Australia | 9.0 | 8.3 | 8.8 | 8.6 | 8.6 | 8.5 | 8.2 | 7.9 | 8.0 |
| Japan | 2.8 | 2.6 | 2.8 | 2.7 | 2.6 | 2.6 | 2.7 | 2.9 | 2.7 |
| France | 9.9 | 10.3 | 10.1 | 10.3 | 10.5 | 10.4 | 10.4 | 10.1 | 10.2 |
| Germany | 7.8 | 7.9 | 7.9 | 7.8 | 7.9 | 8.0 | 7.9 | 7.8 | 7.8 |
| Great Britain | 12.9 | 13.2 | 13.2 | 13.0 | 13.1 | 13.2 | 13.4 | 13.0 | 13.1 |
| Italy | 5.9 | 6.0 | 5.9 | 5.8 | 5.9 | 5.8 | 6.0 | 6.3 | 6.3 |
| Sweden | 3.1 | 2.8 | 3.1 | 3.0 | 3.0 | 2.9 | 2.8 | 2.7 | 2.8 |

[1] Quarterly rates are for the first month of the quarter.

[2] Major changes in the Italian labor force survey, introduced in 1977, resulted in a large increase in persons enumerated as unemployed. However, many persons reported that they had not actively sought work in the past 30 days, and they have been provisionally excluded for comparability with U.S. concepts. Inclusion of such persons would more than double the Italian unemployment rate shown.

NOTE: Quarterly and monthly figures for France, Germany, and Great Britain are calculated by applying annual adjustment factors to current published data and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures.

## 46. Annual data: Employment status of the civilian working-age population, ten countries

(Numbers in thousands)

| Employment status and country | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|---|---|---|---|---|---|---|---|---|---|
| **Labor force** | | | | | | | | | |
| United States | 96,158 | 99,009 | 102,251 | 104,962 | 106,940 | 108,670 | 110,204 | 111,550 | 113,544 |
| Canada | 10,203 | 10,500 | 10,895 | 11,231 | 11,573 | 11,904 | 11,958 | 12,183 | 12,399 |
| Australia | 6,244 | 6,358 | 6,443 | 6,519 | 6,693 | 6,810 | 6,910 | 6,997 | 7,133 |
| Japan | 53,100 | 53,820 | 54,610 | 55,210 | 55,740 | 56,320 | 56,980 | 58,110 | 58,480 |
| France | 22,000 | 22,300 | 22,470 | 22,670 | 22,790 | 22,930 | 23,150 | 23,110 | 23,250 |
| Germany | 25,900 | 25,870 | 26,000 | 26,240 | 26,500 | 26,610 | 26,640 | 26,640 | 26,700 |
| Great Britain | 25,290 | 25,430 | 25,620 | 25,710 | 25,870 | 25,870 | 25,880 | 26,010 | 26,530 |
| Italy | 20,300 | 20,530 | 20,630 | 20,910 | 21,210 | 21,410 | 21,450 | 21,610 | 21,680 |
| Netherlands | 4,890 | 4,950 | 5,010 | 5,100 | 5,290 | 5,500 | 5,560 | 5,720 | 5,740 |
| Sweden | 4,149 | 4,168 | 4,203 | 4,262 | 4,312 | 4,326 | 4,350 | 4,369 | 4,385 |
| **Participation rate** | | | | | | | | | |
| United States | 61.6 | 62.3 | 63.2 | 63.7 | 63.8 | 63.9 | 64.0 | 64.0 | 64.4 |
| Canada | 61.1 | 61.6 | 62.7 | 63.4 | 64.1 | 64.8 | 64.1 | 64.4 | 64.8 |
| Australia | 62.7 | 62.7 | 62.0 | 61.7 | 62.2 | 62.0 | 61.8 | 61.5 | 61.5 |
| Japan | 62.4 | 62.5 | 62.8 | 62.7 | 62.6 | 62.6 | 62.7 | 63.1 | 62.7 |
| France | 57.3 | 57.6 | 57.5 | 57.5 | 57.2 | 57.1 | 57.1 | 56.5 | 56.6 |
| Germany | 53.8 | 53.4 | 53.3 | 53.3 | 53.2 | 52.9 | 52.5 | 52.3 | 52.7 |
| Great Britain | 63.2 | 63.2 | 63.3 | 63.2 | 63.2 | 62.2 | 61.9 | 61.9 | 62.7 |
| Italy | 47.8 | 48.0 | 47.7 | 47.8 | 48.0 | 48.0 | 47.4 | 47.2 | 47.3 |
| Netherlands | 49.1 | 49.0 | 48.8 | 49.0 | 50.0 | 51.3 | 51.2 | 52.1 | 52.0 |
| Sweden | 66.0 | 65.9 | 66.1 | 66.6 | 67.0 | 66.8 | 66.8 | 66.7 | 66.8 |
| **Employed** | | | | | | | | | |
| United States | 88,752 | 92,017 | 96,048 | 98,824 | 99,303 | 100,397 | 99,526 | 100,834 | 105,005 |
| Canada | 9,477 | 9,651 | 9,987 | 10,395 | 10,708 | 11,006 | 10,644 | 10,734 | 11,000 |
| Australia | 5,946 | 6,000 | 6,038 | 6,111 | 6,284 | 6,416 | 6,415 | 6,300 | 6,490 |
| Japan | 52,020 | 52,720 | 53,370 | 54,040 | 54,600 | 55,060 | 55,620 | 56,550 | 56,870 |
| France | 21,010 | 21,180 | 21,260 | 21,300 | 21,320 | 21,200 | 21,230 | 21,150 | 20,940 |
| Germany | 25,010 | 24,970 | 25,130 | 25,460 | 25,730 | 25,520 | 25,060 | 24,650 | 24,610 |
| Great Britain | 23,810 | 23,840 | 24,040 | 24,360 | 24,100 | 23,190 | 22,820 | 22,680 | 23,100 |
| Italy | 19,600 | 19,800 | 19,870 | 20,100 | 20,380 | 20,480 | 20,430 | 20,470 | 20,390 |
| Netherlands | 4,630 | 4,700 | 4,750 | 4,830 | 4,960 | 4,990 | 4,930 | 4,890 | 4,880 |
| Sweden | 4,083 | 4,093 | 4,109 | 4,174 | 4,226 | 4,218 | 4,213 | 4,218 | 4,249 |
| **Employment-population ratio** | | | | | | | | | |
| United States | 56.8 | 57.9 | 59.3 | 59.9 | 59.2 | 59.0 | 57.8 | 57.9 | 59.5 |
| Canada | 56.7 | 56.6 | 57.5 | 58.7 | 59.3 | 59.9 | 57.0 | 56.7 | 57.4 |
| Australia | 59.7 | 59.2 | 58.1 | 57.9 | 58.4 | 58.4 | 57.3 | 55.4 | 56.0 |
| Japan | 61.1 | 61.2 | 61.3 | 61.4 | 61.3 | 61.2 | 61.2 | 61.4 | 61.0 |
| France | 54.8 | 54.7 | 54.4 | 54.0 | 53.5 | 52.8 | 52.3 | 51.7 | 51.0 |
| Germany | 52.0 | 51.6 | 51.5 | 51.7 | 51.6 | 50.7 | 49.4 | 48.4 | 48.6 |
| Great Britain | 59.5 | 59.3 | 59.4 | 59.8 | 58.9 | 55.8 | 54.6 | 54.0 | 54.6 |
| Italy | 46.1 | 46.3 | 45.9 | 45.9 | 46.1 | 45.9 | 45.2 | 44.7 | 44.5 |
| Netherlands | 46.5 | 46.5 | 46.3 | 46.4 | 46.9 | 46.5 | 45.4 | 44.5 | 44.2 |
| Sweden | 64.9 | 64.8 | 64.6 | 65.3 | 65.6 | 65.1 | 64.7 | 64.4 | 64.7 |
| **Unemployed** | | | | | | | | | |
| United States | 7,406 | 6,991 | 6,202 | 6,137 | 7,637 | 8,273 | 10,678 | 10,717 | 8,539 |
| Canada | 726 | 849 | 908 | 836 | 865 | 898 | 1,314 | 1,448 | 1,399 |
| Australia | 298 | 358 | 405 | 408 | 409 | 394 | 495 | 697 | 642 |
| Japan | 1,080 | 1,100 | 1,240 | 1,170 | 1,140 | 1,260 | 1,360 | 1,560 | 1,610 |
| France | 990 | 1,120 | 1,210 | 1,370 | 1,470 | 1,730 | 1,920 | 1,960 | 2,310 |
| Germany | 890 | 900 | 870 | 780 | 770 | 1,090 | 1,580 | 1,990 | 2,090 |
| Great Britain | 1,480 | 1,590 | 1,580 | 1,350 | 1,770 | 2,680 | 3,060 | 3,330 | 3,430 |
| Italy | 700 | 740 | 760 | 810 | 830 | 920 | 1,020 | 1,140 | 1,280 |
| Netherlands | 260 | 250 | 260 | 270 | 330 | 510 | 630 | 830 | 860 |
| Sweden | 66 | 75 | 94 | 88 | 86 | 108 | 137 | 151 | 136 |
| **Unemployment rate** | | | | | | | | | |
| United States | 7.7 | 7.1 | 6.1 | 5.8 | 7.1 | 7.6 | 9.7 | 9.6 | 7.5 |
| Canada | 7.1 | 8.1 | 8.3 | 7.4 | 7.5 | 7.5 | 11.0 | 11.9 | 11.3 |
| Australia | 4.8 | 5.6 | 6.3 | 6.3 | 6.1 | 5.8 | 7.2 | 10.0 | 9.0 |
| Japan | 2.0 | 2.0 | 2.3 | 2.1 | 2.0 | 2.2 | 2.4 | 2.7 | 2.8 |
| France | 4.5 | 5.0 | 5.4 | 6.0 | 6.4 | 7.5 | 8.3 | 8.5 | 9.9 |
| Germany | 3.4 | 3.5 | 3.4 | 3.0 | 2.9 | 4.1 | 5.9 | 7.5 | 7.8 |
| Great Britain | 5.9 | 6.3 | 6.2 | 5.3 | 6.8 | 10.4 | 11.8 | 12.8 | 12.9 |
| Italy | 3.4 | 3.6 | 3.7 | 3.9 | 3.9 | 4.3 | 4.8 | 5.3 | 5.9 |
| Netherlands | 5.3 | 5.0 | 5.2 | 5.3 | 6.2 | 9.3 | 11.3 | 14.5 | 15.0 |
| Sweden | 1.6 | 1.8 | 2.2 | 2.1 | 2.0 | 2.5 | 3.1 | 3.5 | 3.1 |

## 47. Annual indexes of productivity and related measures, twelve countries

(1977=100)

| Item and country | 1960 | 1970 | 1973 | 1974 | 1976 | 1977 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Output per hour** | | | | | | | | | | | | | |
| United States | 62.2 | 80.8 | 93.4 | 90.6 | 97.1 | 100.0 | 101.4 | 101.4 | 103.6 | 105.9 | 112.9 | 118.5 | 121.8 |
| Canada | 50.3 | 76.8 | 91.3 | 93.4 | 96.2 | 100.0 | 104.2 | 101.9 | 104.0 | 101.0 | 107.6 | 111.5 | 115.1 |
| Japan | 23.2 | 64.8 | 83.1 | 86.5 | 94.3 | 100.0 | 114.8 | 122.7 | 127.2 | 135.0 | 142.3 | 152.2 | 159.9 |
| Belgium | 32.8 | 60.0 | 78.7 | 83.2 | 95.3 | 100.0 | 111.8 | 119.3 | 127.2 | 132.8 | 141.0 | 145.5 | – |
| Denmark | 37.2 | 65.5 | 83.2 | 86.0 | 98.2 | 100.0 | 106.5 | 112.3 | 114.2 | 114.6 | 117.3 | 118.3 | 118.4 |
| France | 36.4 | 69.6 | 82.2 | 85.2 | 95.0 | 100.0 | 110.3 | 112.0 | 116.4 | 123.5 | 129.3 | 135.0 | 140.2 |
| Germany | 40.3 | 71.2 | 84.0 | 87.4 | 96.5 | 100.0 | 108.2 | 108.6 | 111.0 | 112.6 | 119.0 | 124.7 | 131.9 |
| Italy | 36.5 | 72.7 | 90.9 | 95.3 | 98.9 | 100.0 | 110.5 | 116.9 | 121.0 | 123.4 | 126.6 | 135.0 | 139.1 |
| Netherlands | 32.4 | 64.3 | 81.5 | 88.1 | 95.8 | 100.0 | 112.3 | 113.9 | 116.9 | 119.4 | 126.1 | 139.3 | – |
| Norway | 54.6 | 81.7 | 94.6 | 97.7 | 99.7 | 100.0 | 107.1 | 109.3 | 109.7 | 112.6 | 119.2 | 122.3 | 125.0 |
| Sweden | 42.3 | 80.7 | 94.8 | 98.8 | 101.7 | 100.0 | 110.9 | 112.7 | 113.2 | 116.5 | 125.5 | 132.6 | 135.2 |
| United Kingdom | 53.8 | 77.6 | 92.9 | 95.2 | 99.1 | 100.0 | 102.2 | 101.2 | 107.9 | 112.7 | 121.2 | 126.2 | 129.7 |
| **Output** | | | | | | | | | | | | | |
| United States | 52.5 | 78.6 | 96.3 | 91.7 | 93.1 | 100.0 | 108.1 | 103.2 | 104.8 | 98.4 | 105.6 | 117.9 | 121.0 |
| Canada | 41.5 | 75.1 | 94.6 | 98.0 | 98.1 | 100.0 | 110.9 | 107.7 | 108.8 | 96.4 | 101.7 | 110.1 | 115.2 |
| Japan | 19.2 | 69.9 | 91.9 | 91.7 | 94.8 | 100.0 | 113.9 | 124.1 | 129.8 | 137.3 | 148.2 | 165.2 | 175.8 |
| Belgium | 41.7 | 78.1 | 95.8 | 99.6 | 99.5 | 100.0 | 104.2 | 107.2 | 105.9 | 109.1 | 110.7 | 112.8 | – |
| Denmark | 49.2 | 82.0 | 95.9 | 97.4 | 99.6 | 100.0 | 105.4 | 110.1 | 106.6 | 108.3 | 112.2 | 118.6 | 122.3 |
| France | 35.4 | 73.3 | 88.6 | 91.8 | 96.1 | 100.0 | 106.1 | 106.6 | 105.9 | 106.0 | 107.4 | 108.4 | 109.0 |
| Germany | 50.0 | 86.6 | 96.1 | 95.4 | 98.0 | 100.0 | 106.6 | 106.6 | 104.9 | 102.4 | 103.5 | 107.4 | 113.0 |
| Italy | 37.4 | 78.0 | 90.5 | 96.3 | 97.9 | 100.0 | 108.6 | 115.4 | 114.3 | 111.6 | 109.2 | 113.2 | 115.3 |
| Netherlands | 44.8 | 84.4 | 95.8 | 100.0 | 99.0 | 100.0 | 106.1 | 106.6 | 106.7 | 105.0 | 105.3 | 110.8 | – |
| Norway | 55.1 | 87.0 | 99.5 | 104.0 | 101.4 | 100.0 | 100.3 | 101.3 | 100.1 | 99.8 | 98.8 | 101.3 | 103.7 |
| Sweden | 52.6 | 92.5 | 100.3 | 105.7 | 106.1 | 100.0 | 103.6 | 104.0 | 100.6 | 100.1 | 105.2 | 112.4 | 114.6 |
| United Kingdom | 71.0 | 94.7 | 104.7 | 103.5 | 98.2 | 100.0 | 100.5 | 91.7 | 86.2 | 86.4 | 88.9 | 92.4 | 95.0 |
| **Total hours** | | | | | | | | | | | | | |
| United States | 84.4 | 97.3 | 103.1 | 101.2 | 95.9 | 100.0 | 106.5 | 101.7 | 101.1 | 92.9 | 93.5 | 99.5 | 99.3 |
| Canada | 82.6 | 97.7 | 103.6 | 105.0 | 102.0 | 100.0 | 106.4 | 105.7 | 104.6 | 95.4 | 94.6 | 98.7 | 100.1 |
| Japan | 82.7 | 107.9 | 110.7 | 106.1 | 100.6 | 100.0 | 99.3 | 101.2 | 102.0 | 101.7 | 104.2 | 108.5 | 110.0 |
| Belgium | 127.0 | 130.1 | 121.8 | 119.7 | 104.4 | 100.0 | 93.2 | 89.9 | 83.3 | 82.1 | 78.5 | 77.5 | – |
| Denmark | 132.4 | 125.1 | 115.2 | 113.2 | 101.4 | 100.0 | 99.0 | 98.1 | 93.4 | 94.5 | 95.7 | 100.2 | 103.3 |
| France | 97.2 | 105.3 | 107.8 | 107.8 | 101.2 | 100.0 | 96.2 | 95.2 | 91.0 | 85.9 | 83.0 | 80.3 | 77.8 |
| Germany | 123.8 | 121.7 | 114.4 | 109.2 | 101.6 | 100.0 | 98.5 | 98.1 | 94.6 | 91.0 | 87.0 | 86.2 | 85.7 |
| Italy | 102.3 | 107.4 | 99.6 | 101.0 | 99.0 | 100.0 | 98.2 | 98.7 | 94.5 | 90.4 | 86.2 | 83.9 | 82.9 |
| Netherlands | 138.4 | 131.2 | 117.6 | 113.5 | 103.3 | 100.0 | 94.4 | 93.6 | 91.2 | 88.0 | 83.5 | 79.5 | – |
| Norway | 101.0 | 106.4 | 105.1 | 106.5 | 101.7 | 100.0 | 93.6 | 92.6 | 91.3 | 88.6 | 82.9 | 82.8 | 83.0 |
| Sweden | 124.4 | 114.6 | 105.7 | 107.0 | 104.3 | 100.0 | 93.4 | 92.3 | 88.9 | 85.9 | 83.9 | 84.8 | 84.8 |
| United Kingdom | 131.9 | 122.1 | 112.7 | 108.7 | 99.0 | 100.0 | 98.3 | 90.7 | 79.9 | 76.7 | 73.3 | 73.2 | 73.3 |
| **Compensation per hour** | | | | | | | | | | | | | |
| United States | 36.5 | 57.3 | 68.8 | 76.2 | 92.1 | 100.0 | 118.6 | 132.4 | 145.2 | 157.5 | 163.2 | 169.1 | 176.6 |
| Canada | 27.1 | 46.5 | 59.2 | 68.5 | 89.9 | 100.0 | 118.3 | 130.6 | 151.5 | 167.1 | 179.3 | 182.1 | 191.4 |
| Japan | 8.9 | 33.9 | 55.1 | 72.3 | 90.7 | 100.0 | 113.4 | 120.7 | 129.8 | 136.6 | 140.7 | 144.8 | 148.3 |
| Belgium | 13.8 | 34.9 | 53.5 | 65.2 | 89.5 | 100.0 | 117.6 | 130.4 | 144.6 | 152.0 | 163.7 | 176.6 | – |
| Denmark | 12.6 | 36.3 | 56.1 | 67.9 | 90.4 | 100.0 | 123.1 | 135.9 | 149.6 | 162.9 | 174.3 | 183.9 | 195.5 |
| France | 15.1 | 36.6 | 52.3 | 62.0 | 88.9 | 100.0 | 129.3 | 147.5 | 170.3 | 200.8 | 226.2 | 246.5 | 262.7 |
| Germany | 18.8 | 48.0 | 67.5 | 76.9 | 91.3 | 100.0 | 116.1 | 125.6 | 134.5 | 141.0 | 148.4 | 155.3 | 164.7 |
| Italy | 8.3 | 26.1 | 43.7 | 54.5 | 84.2 | 100.0 | 134.7 | 160.2 | 197.1 | 237.3 | 276.4 | 303.0 | 334.0 |
| Netherlands | 12.5 | 39.0 | 60.5 | 71.9 | 91.9 | 100.0 | 117.0 | 123.6 | 129.1 | 137.5 | 144.7 | 152.8 | – |
| Norway | 15.8 | 37.9 | 54.5 | 63.6 | 88.8 | 100.0 | 116.0 | 128.0 | 142.8 | 156.0 | 173.5 | 188.3 | 205.2 |
| Sweden | 14.7 | 38.5 | 54.2 | 63.8 | 91.5 | 100.0 | 120.1 | 133.6 | 148.1 | 158.9 | 173.3 | 190.7 | 205.8 |
| United Kingdom | 14.8 | 30.8 | 44.8 | 56.9 | 88.4 | 100.0 | 137.7 | 165.8 | 188.9 | 206.4 | 222.4 | 237.2 | 257.0 |
| **Unit labor costs:** National currency basis: | | | | | | | | | | | | | |
| United States | 58.7 | 70.9 | 73.7 | 84.1 | 94.9 | 100.0 | 117.0 | 130.6 | 140.1 | 148.7 | 144.5 | 142.8 | 145.0 |
| Canada | 53.9 | 60.6 | 64.8 | 73.3 | 93.5 | 100.0 | 113.5 | 128.1 | 145.7 | 165.4 | 166.7 | 163.2 | 166.3 |
| Japan | 38.4 | 52.3 | 66.4 | 83.6 | 96.2 | 100.0 | 98.8 | 98.4 | 102.0 | 101.2 | 98.9 | 95.1 | 92.7 |
| Belgium | 42.0 | 58.1 | 68.0 | 78.3 | 93.9 | 100.0 | 105.2 | 109.3 | 113.6 | 114.4 | 116.1 | 121.4 | – |
| Denmark | 33.8 | 55.4 | 67.4 | 79.0 | 92.1 | 100.0 | 115.7 | 121.0 | 131.1 | 142.2 | 148.6 | 155.5 | 165.1 |
| France | 41.6 | 52.6 | 63.6 | 72.8 | 93.6 | 100.0 | 117.3 | 131.7 | 146.3 | 162.6 | 175.0 | 182.5 | 187.4 |
| Germany | 46.6 | 67.4 | 80.3 | 88.0 | 94.6 | 100.0 | 107.3 | 115.7 | 121.2 | 125.2 | 124.7 | 124.6 | 124.9 |
| Italy | 22.8 | 36.0 | 48.1 | 57.2 | 85.1 | 100.0 | 121.9 | 137.0 | 162.9 | 192.4 | 218.3 | 224.5 | 240.1 |
| Netherlands | 38.5 | 60.7 | 74.3 | 81.6 | 96.0 | 100.0 | 104.1 | 108.5 | 110.4 | 115.2 | 114.7 | 109.7 | – |
| Norway | 29.0 | 46.4 | 57.6 | 65.2 | 89.1 | 100.0 | 108.2 | 117.0 | 130.2 | 138.6 | 145.5 | 154.0 | 164.2 |
| Sweden | 34.8 | 47.7 | 57.2 | 64.6 | 90.0 | 100.0 | 108.3 | 118.6 | 130.9 | 136.3 | 138.1 | 143.8 | 152.2 |
| United Kingdom | 27.6 | 39.7 | 48.2 | 59.7 | 89.2 | 100.0 | 134.7 | 163.8 | 175.1 | 183.1 | 183.5 | 187.9 | 198.1 |
| **Unit labor costs:** U.S. dollar basis: | | | | | | | | | | | | | |
| United States | 58.7 | 70.9 | 73.7 | 84.1 | 94.9 | 100.0 | 117.0 | 130.6 | 140.1 | 148.7 | 144.5 | 142.8 | 145.0 |
| Canada | 59.0 | 61.7 | 68.8 | 79.7 | 100.7 | 100.0 | 103.0 | 116.4 | 129.1 | 142.3 | 143.7 | 133.9 | 129.4 |
| Japan | 28.5 | 39.1 | 65.6 | 76.8 | 86.9 | 100.0 | 121.3 | 116.8 | 123.8 | 108.8 | 111.5 | 107.2 | 104.2 |
| Belgium | 30.2 | 42.0 | 62.8 | 72.1 | 87.2 | 100.0 | 128.5 | 134.1 | 109.9 | 89.5 | 81.3 | 75.3 | – |
| Denmark | 29.5 | 44.4 | 67.2 | 77.9 | 91.5 | 100.0 | 132.0 | 129.0 | 110.3 | 102.3 | 97.5 | 90.1 | 93.5 |
| France | 41.7 | 46.8 | 70.4 | 74.5 | 96.3 | 100.0 | 135.5 | 153.4 | 132.2 | 121.5 | 112.9 | 102.7 | 102.6 |
| Germany | 25.9 | 42.9 | 70.4 | 79.1 | 87.3 | 100.0 | 135.9 | 147.9 | 124.9 | 119.7 | 113.4 | 101.6 | 98.6 |
| Italy | 32.5 | 50.6 | 73.1 | 77.6 | 90.5 | 100.0 | 129.5 | 141.4 | 126.3 | 125.4 | 126.8 | 112.8 | 111.1 |
| Netherlands | 25.1 | 41.2 | 65.6 | 74.6 | 89.1 | 100.0 | 127.4 | 134.2 | 108.9 | 105.8 | 98.6 | 83.9 | – |
| Norway | 21.7 | 34.5 | 53.4 | 62.8 | 86.9 | 100.0 | 113.8 | 126.2 | 120.6 | 114.2 | 106.1 | 100.4 | 101.7 |
| Sweden | 30.1 | 41.1 | 58.7 | 65.1 | 92.3 | 100.0 | 112.9 | 125.3 | 115.4 | 96.9 | 80.4 | 77.7 | 79.1 |
| United Kingdom | 44.4 | 54.4 | 67.7 | 80.1 | 92.3 | 100.0 | 163.9 | 218.3 | 203.1 | 183.5 | 159.4 | 143.9 | 147.3 |

– Data not available.

## 48. Occupational injury and illness incidence rates by industry, United States

| Industry and type of case[1] | Incidence rates per 100 full-time workers[2] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
| **PRIVATE SECTOR[3]** | | | | | | | | |
| Total cases | 9.3 | 9.4 | 9.5 | 8.7 | 8.3 | 7.7 | 7.6 | 8.0 |
| Lost workday cases | 3.8 | 4.1 | 4.3 | 4.0 | 3.8 | 3.5 | 3.4 | 3.7 |
| Lost workdays | 61.6 | 63.5 | 67.7 | 65.2 | 61.7 | 58.7 | 58.5 | 63.4 |
| **Agriculture, forestry, and fishing[3]** | | | | | | | | |
| Total cases | 11.5 | 11.6 | 11.7 | 11.9 | 12.3 | 11.8 | 11.9 | 12.0 |
| Lost workday cases | 5.1 | 5.4 | 5.7 | 5.8 | 5.9 | 5.9 | 6.1 | 6.1 |
| Lost workdays | 81.1 | 80.7 | 83.7 | 82.7 | 82.8 | 86.0 | 90.8 | 90.7 |
| **Mining** | | | | | | | | |
| Total cases | 10.9 | 11.5 | 11.4 | 11.2 | 11.6 | 10.5 | 8.4 | 9.7 |
| Lost workday cases | 6.0 | 6.4 | 6.8 | 6.5 | 6.2 | 5.4 | 4.5 | 5.3 |
| Lost workdays | 128.8 | 143.2 | 150.5 | 163.6 | 146.4 | 137.3 | 125.1 | 160.2 |
| **Construction** | | | | | | | | |
| Total cases | 15.5 | 16.0 | 16.2 | 15.7 | 15.1 | 14.6 | 14.8 | 15.5 |
| Lost workday cases | 5.9 | 6.4 | 6.8 | 6.5 | 6.3 | 6.0 | 6.3 | 6.9 |
| Lost workdays | 111.5 | 109.4 | 120.4 | 117.0 | 113.1 | 115.7 | 118.2 | 128.1 |
| General building contractors: | | | | | | | | |
| Total cases | 15.0 | 15.9 | 16.3 | 15.5 | 15.1 | 14.1 | 14.4 | 15.4 |
| Lost workday cases | 5.7 | 6.3 | 6.8 | 6.5 | 6.1 | 5.9 | 6.2 | 6.9 |
| Lost workdays | 100.2 | 105.3 | 111.2 | 113.0 | 107.1 | 112.0 | 113.0 | 121.3 |
| Heavy construction contractors: | | | | | | | | |
| Total cases | 16.0 | 16.6 | 16.6 | 16.3 | 14.9 | 15.1 | 15.4 | 14.9 |
| Lost workday cases | 5.7 | 6.2 | 6.7 | 6.3 | 6.0 | 5.8 | 6.2 | 6.4 |
| Lost workdays | 116.7 | 110.9 | 123.1 | 117.6 | 106.0 | 113.1 | 122.4 | 131.7 |
| Special trade contractors: | | | | | | | | |
| Total cases | 15.6 | 15.8 | 16.0 | 15.5 | 15.2 | 14.7 | 14.8 | 15.8 |
| Lost workday cases | 6.1 | 6.6 | 6.9 | 6.7 | 6.6 | 6.2 | 6.4 | 7.1 |
| Lost workdays | 115.5 | 111.0 | 124.3 | 118.9 | 119.3 | 118.6 | 119.0 | 130.1 |
| **Manufacturing** | | | | | | | | |
| Total cases | 13.1 | 13.2 | 13.3 | 12.2 | 11.5 | 10.2 | 10.0 | 10.6 |
| Lost workday cases | 5.1 | 5.6 | 5.9 | 5.4 | 5.1 | 4.4 | 4.3 | 4.7 |
| Lost workdays | 82.3 | 84.9 | 90.2 | 86.7 | 82.0 | 75.0 | 73.5 | 77.9 |
| **Durable goods** | | | | | | | | |
| Lumber and wood products: | | | | | | | | |
| Total cases | 22.3 | 22.6 | 20.7 | 18.6 | 17.6 | 16.9 | 18.3 | 19.6 |
| Lost workday cases | 10.4 | 11.1 | 10.8 | 9.5 | 9.0 | 8.3 | 9.2 | 9.9 |
| Lost workdays | 178.0 | 178.8 | 175.9 | 171.8 | 158.4 | 153.3 | 163.5 | 172.0 |
| Furniture and fixtures: | | | | | | | | |
| Total cases | 17.2 | 17.5 | 17.6 | 16.0 | 15.1 | 13.9 | 14.1 | 15.3 |
| Lost workday cases | 6.0 | 6.9 | 7.1 | 6.6 | 6.2 | 5.5 | 5.7 | 6.4 |
| Lost workdays | 92.0 | 95.9 | 99.6 | 97.6 | 91.9 | 85.6 | 83.0 | 101.5 |
| Stone, clay, and glass products: | | | | | | | | |
| Total cases | 16.9 | 16.8 | 16.8 | 15.0 | 14.1 | 13.0 | 13.1 | 13.6 |
| Lost workday cases | 6.9 | 7.8 | 8.0 | 7.1 | 6.9 | 6.1 | 6.0 | 6.6 |
| Lost workdays | 120.4 | 126.3 | 133.7 | 128.1 | 122.2 | 112.2 | 112.0 | 120.8 |
| Primary metal industries: | | | | | | | | |
| Total cases | 16.2 | 17.0 | 17.3 | 15.2 | 14.4 | 12.4 | 12.4 | 13.3 |
| Lost workday cases | 6.8 | 7.5 | 8.1 | 7.1 | 6.7 | 5.4 | 5.4 | 6.1 |
| Lost workdays | 119.4 | 123.6 | 134.7 | 128.3 | 121.3 | 101.6 | 103.4 | 115.3 |
| Fabricated metal products: | | | | | | | | |
| Total cases | 19.1 | 19.3 | 19.9 | 18.5 | 17.5 | 15.3 | 15.1 | 16.1 |
| Lost workday cases | 7.2 | 8.0 | 8.7 | 8.0 | 7.5 | 6.4 | 6.1 | 6.7 |
| Lost workdays | 109.0 | 112.4 | 124.2 | 118.4 | 109.9 | 102.5 | 96.5 | 104.9 |
| Machinery, except electrical: | | | | | | | | |
| Total cases | 14.0 | 14.4 | 14.7 | 13.7 | 12.9 | 10.7 | 9.8 | 10.7 |
| Lost workday cases | 4.7 | 5.4 | 5.9 | 5.5 | 5.1 | 4.2 | 3.6 | 4.1 |
| Lost workdays | 69.9 | 75.1 | 83.6 | 81.3 | 74.9 | 66.0 | 58.1 | 65.8 |
| Electric and electronic equipment: | | | | | | | | |
| Total cases | 8.6 | 8.7 | 8.6 | 8.0 | 7.4 | 6.5 | 6.3 | 6.8 |
| Lost workday cases | 3.0 | 3.3 | 3.4 | 3.3 | 3.1 | 2.7 | 2.6 | 2.8 |
| Lost workdays | 46.7 | 50.3 | 51.9 | 51.8 | 48.4 | 42.2 | 41.4 | 45.0 |
| Transportation equipment: | | | | | | | | |
| Total cases | 11.8 | 11.5 | 11.6 | 10.6 | 9.8 | 9.2 | 8.4 | 9.3 |
| Lost workday cases | 5.0 | 5.1 | 5.5 | 4.9 | 4.6 | 4.0 | 3.6 | 4.2 |
| Lost workdays | 79.3 | 78.0 | 85.9 | 82.4 | 78.1 | 72.2 | 64.5 | 68.8 |
| Instruments and related products: | | | | | | | | |
| Total cases | 7.0 | 6.9 | 7.2 | 6.8 | 6.5 | 5.6 | 5.2 | 5.4 |
| Lost workday cases | 2.4 | 2.6 | 2.8 | 2.7 | 2.7 | 2.3 | 2.1 | 2.2 |
| Lost workdays | 37.4 | 37.0 | 40.0 | 41.8 | 39.2 | 37.0 | 35.6 | 37.5 |
| Miscellaneous manufacturing industries: | | | | | | | | |
| Total cases | 11.5 | 11.8 | 11.7 | 10.9 | 10.7 | 9.9 | 9.9 | 10.5 |
| Lost workday cases | 4.0 | 4.5 | 4.7 | 4.4 | 4.4 | 4.1 | 4.0 | 4.3 |
| Lost workdays | 58.7 | 66.4 | 67.7 | 67.9 | 68.3 | 69.9 | 66.3 | 70.2 |

See footnotes at end of table.

## 48. Continued— Occupational injury and illness incidence rates by industry, United States

| Industry and type of case[1] | Incidence rates per 100 full-time workers[2] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
| **Nondurable goods** | | | | | | | | |
| Food and kindred products: | | | | | | | | |
| Total cases | 19.5 | 19.4 | 19.9 | 18.7 | 17.8 | 16.7 | 16.5 | 16.7 |
| Lost workday cases | 8.5 | 8.9 | 9.5 | 9.0 | 8.6 | 8.0 | 7.9 | 8.1 |
| Lost workdays | 130.1 | 132.2 | 141.8 | 136.8 | 130.7 | 129.3 | 131.2 | 131.6 |
| Tobacco manufacturing: | | | | | | | | |
| Total cases | 9.1 | 8.7 | 9.3 | 8.1 | 8.2 | 7.2 | 6.5 | 7.7 |
| Lost workday cases | 3.8 | 4.0 | 4.2 | 3.8 | 3.9 | 3.2 | 3.0 | 3.2 |
| Lost workdays | 66.7 | 58.6 | 64.8 | 45.8 | 56.8 | 44.6 | 42.8 | 51.7 |
| Textile mill products: | | | | | | | | |
| Total cases | 10.2 | 10.2 | 9.7 | 9.1 | 8.8 | 7.6 | 7.4 | 8.0 |
| Lost workday cases | 2.9 | 3.4 | 3.4 | 3.3 | 3.2 | 2.8 | 2.8 | 3.0 |
| Lost workdays | 57.4 | 61.5 | 61.3 | 62.8 | 59.2 | 53.8 | 51.4 | 54.0 |
| Apparel and other textile products: | | | | | | | | |
| Total cases | 6.7 | 6.5 | 6.5 | 6.4 | 6.3 | 6.0 | 6.4 | 6.7 |
| Lost workday cases | 2.0 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.4 | 2.5 |
| Lost workdays | 31.7 | 32.4 | 34.1 | 34.9 | 35.0 | 36.4 | 40.6 | 40.9 |
| Paper and allied products: | | | | | | | | |
| Total cases | 13.6 | 13.5 | 13.5 | 12.7 | 11.6 | 10.6 | 10.0 | 10.4 |
| Lost workday cases | 5.0 | 5.7 | 6.0 | 5.8 | 5.4 | 4.9 | 4.5 | 4.7 |
| Lost workdays | 101.6 | 103.3 | 108.4 | 112.3 | 103.6 | 99.1 | 90.3 | 93.8 |
| Printing and publishing: | | | | | | | | |
| Total cases | 6.8 | 7.0 | 7.1 | 6.9 | 6.7 | 6.6 | 6.6 | 6.5 |
| Lost workday cases | 2.7 | 2.9 | 3.1 | 3.1 | 3.0 | 2.8 | 2.9 | 2.9 |
| Lost workdays | 41.7 | 43.8 | 45.1 | 46.5 | 47.4 | 45.7 | 44.6 | 46.0 |
| Chemicals and allied products: | | | | | | | | |
| Total cases | 8.0 | 7.8 | 7.7 | 6.8 | 6.6 | 5.7 | 5.5 | 5.3 |
| Lost workday cases | 3.1 | 3.3 | 3.5 | 3.1 | 3.0 | 2.5 | 2.5 | 2.4 |
| Lost workdays | 51.4 | 50.9 | 54.9 | 50.3 | 48.1 | 39.4 | 42.3 | 40.8 |
| Petroleum and coal products: | | | | | | | | |
| Total cases | 8.1 | 7.9 | 7.7 | 7.2 | 6.7 | 5.3 | 5.5 | 5.1 |
| Lost workday cases | 3.3 | 3.4 | 3.6 | 3.5 | 2.9 | 2.5 | 2.4 | 2.4 |
| Lost workdays | 59.2 | 58.3 | 62.0 | 59.1 | 51.2 | 46.4 | 46.8 | 53.5 |
| Rubber and miscellaneous plastics products: | | | | | | | | |
| Total cases | 16.8 | 17.1 | 17.1 | 15.5 | 14.6 | 12.7 | 13.0 | 13.6 |
| Lost workday cases | 7.6 | 8.1 | 8.2 | 7.4 | 7.2 | 6.0 | 6.2 | 6.4 |
| Lost workdays | 118.1 | 125.5 | 127.1 | 118.6 | 117.4 | 100.9 | 101.4 | 104.3 |
| Leather and leather products: | | | | | | | | |
| Total cases | 11.5 | 11.7 | 11.5 | 11.7 | 11.5 | 9.9 | 10.0 | 10.5 |
| Lost workday cases | 4.4 | 4.7 | 4.9 | 5.0 | 5.1 | 4.5 | 4.4 | 4.7 |
| Lost workdays | 68.9 | 72.5 | 76.2 | 82.7 | 82.6 | 86.5 | 87.3 | 94.4 |
| **Transportation and public utilities** | | | | | | | | |
| Total cases | 9.7 | 10.1 | 10.0 | 9.4 | 9.0 | 8.5 | 8.2 | 8.8 |
| Lost workday cases | 5.3 | 5.7 | 5.9 | 5.5 | 5.3 | 4.9 | 4.7 | 5.2 |
| Lost workdays | 95.9 | 102.3 | 107.0 | 104.5 | 100.6 | 96.7 | 94.9 | 105.1 |
| **Wholesale and retail trade** | | | | | | | | |
| Total cases | 7.7 | 7.9 | 8.0 | 7.4 | 7.3 | 7.2 | 7.2 | 7.4 |
| Lost workday cases | 2.9 | 3.2 | 3.4 | 3.2 | 3.1 | 3.1 | 3.1 | 3.3 |
| Lost workdays | 44.0 | 44.9 | 49.0 | 48.7 | 45.3 | 45.5 | 47.8 | 50.5 |
| Wholesale trade: | | | | | | | | |
| Total cases | 8.5 | 8.9 | 8.8 | 8.2 | 7.7 | 7.1 | 7.0 | 7.2 |
| Lost workday cases | 3.6 | 3.9 | 4.1 | 3.9 | 3.6 | 3.4 | 3.2 | 3.5 |
| Lost workdays | 52.5 | 57.5 | 59.1 | 58.2 | 54.7 | 52.1 | 50.6 | 55.5 |
| Retail trade: | | | | | | | | |
| Total cases | 7.4 | 7.5 | 7.7 | 7.1 | 7.1 | 7.2 | 7.3 | 7.5 |
| Lost workday cases | 2.7 | 2.8 | 3.1 | 2.9 | 2.9 | 2.9 | 3.0 | 3.2 |
| Lost workdays | 40.5 | 39.7 | 44.7 | 44.5 | 41.1 | 42.6 | 46.7 | 48.4 |
| **Finance, insurance, and real estate** | | | | | | | | |
| Total cases | 2.0 | 2.1 | 2.1 | 2.0 | 1.9 | 2.0 | 2.0 | 1.9 |
| Lost workday cases | .8 | .8 | .9 | .8 | .8 | .9 | .9 | .9 |
| Lost workdays | 10.4 | 12.5 | 13.3 | 12.2 | 11.6 | 13.2 | 12.8 | 13.6 |
| **Services** | | | | | | | | |
| Total cases | 5.5 | 5.5 | 5.5 | 5.2 | 5.0 | 4.9 | 5.1 | 5.2 |
| Lost workday cases | 2.2 | 2.4 | 2.5 | 2.3 | 2.3 | 2.3 | 2.4 | 2.5 |
| Lost workdays | 35.4 | 36.2 | 38.1 | 35.8 | 35.9 | 35.8 | 37.0 | 41.1 |

[1] Total cases include fatalities.

[2] The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as: (N/EH) X 200,000, where:
N = number of injuries and illnesses or lost workdays.
EH = total hours worked by all employees during calendar year.
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year.)

[3] Excludes farms with fewer than 11 employees since 1976.



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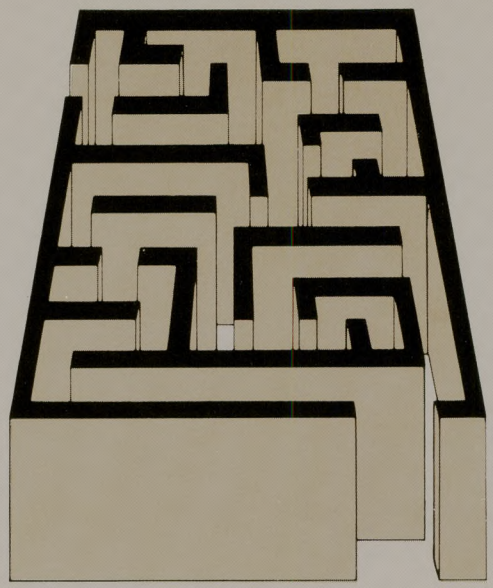

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