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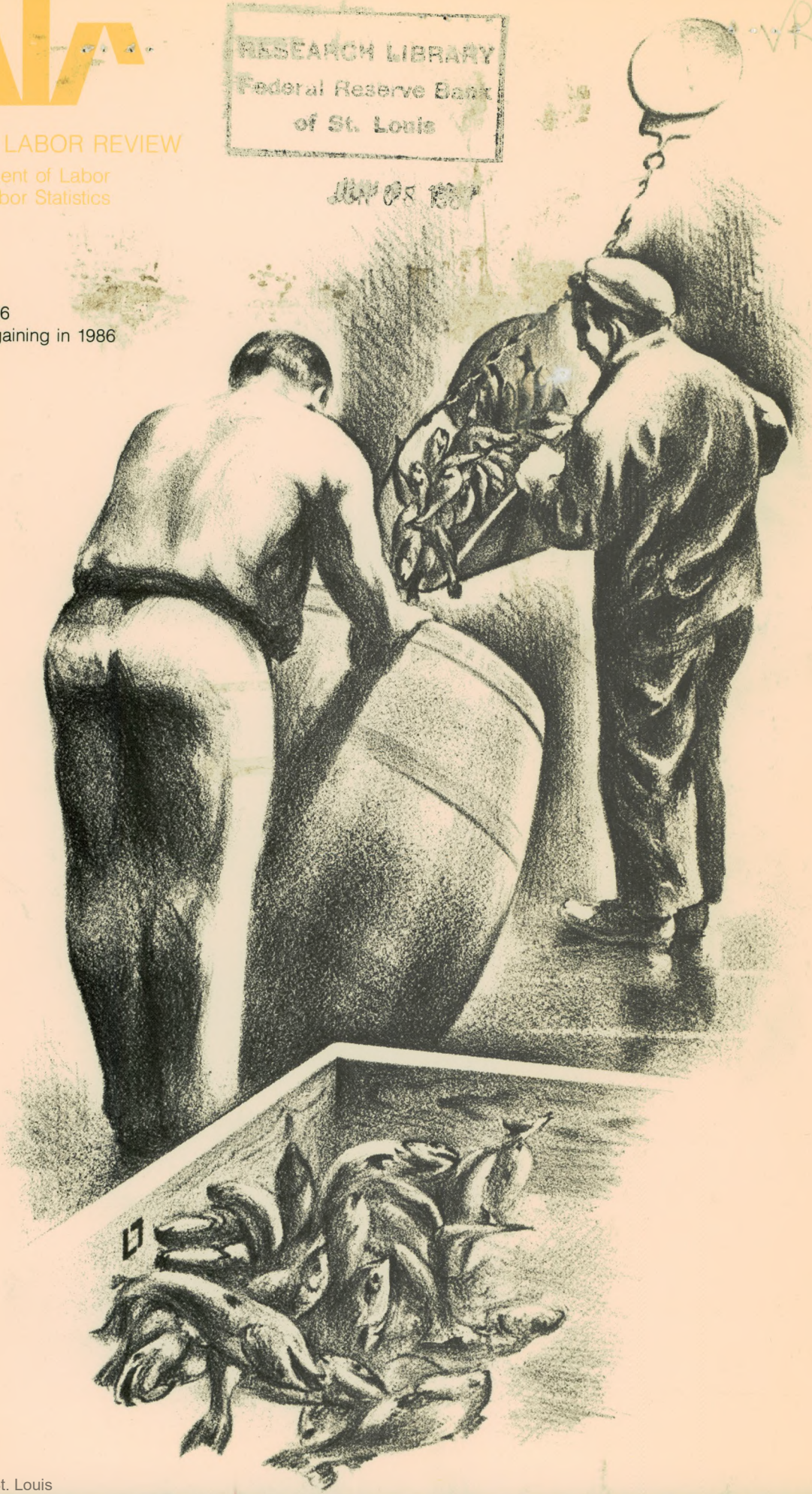
Inflation in 1986
Collective bargaining in 1986



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Labor Month In Review

EWAN CLAGUE, 1896-1987. Ewan Clague, the sixth Commissioner of Labor Statistics, died on April 12. In the 103-year history of the Bureau of Labor Statistics, he served longer than any other commissioner except Carroll D. Wright, the first commissioner. From August 1946 to October 1965, he guided the Bureau through some of the most tumultuous years in the nation's economy.

Clague became commissioner just as Congress, in a wave of postwar austerity, cut federal spending severely, including a 40-percent cut in the staff of BLS. Faced with problems of staff loss and staff morale, eliminated and reduced statistical programs, and disaffection by trade unions and business, he set about immediately to repair the damage.

It is a measurement of his achievement that when he retired in 1965, the BLS budget had tripled, the staff and its morale had been restored, relations with trade unions and with business were on an even keel, and—perhaps most important—new statistical programs had been introduced and old programs enhanced, all in response to expressed need for information about the economy.

Data expansion. During Clague's 4½ terms at the BLS helm, he presided over the establishment of the basic outline of BLS statistical programs:

- primacy of BLS in the measurement of employment and unemployment;
- end of wartime controversy over the "cost of living index" and the explosive expansion of the use of the "Consumer Price Index" as an escalator;
- expansion and strengthening of the Wholesale (Producer) Price Index;
- institutionalization of recurring consumer expenditure surveys for updating the Consumer Price Index;
- institutionalization of recurring industry, area, and white collar wage surveys;
- development of economywide and industry productivity measures;
- development and use of the occupational outlook program as a guide to future worker training needs;
- inception of regular international statistical comparisons; and
- preparation of special studies of safety and health statistics, looking to the national program of the 1970's and 1980's.

Pioneer. From the vantage of our 1980's craving for detailed, useful statistics, we may fail to appreciate the resistance and indifference encountered by statistical pioneers such as Clague as they sought to provide a statistical system that would meet the needs of a world power.

He came to this daunting task well prepared. Born on a farm in Washington state, he graduated from the University of Washington, participated in the ambulance corps during World War I, and returned to school after the war, earning a Ph.D in economics from the University of Wisconsin. In a varied career, he apprenticed at the BLS in the 1920's, developing measures of productivity, conducted research at the Metropolitan Life Insurance Company, Yale University's Institute of Human Relations, and the Pennsylvania School of Social Work. During the 1930's, he served on the Committee on Government Statistics and Information Services, and later moved to the Social Security Board where he became the director of Research and Statistics and later headed the federal/state unemployment compensation program. In 1946, he came to the BLS.

Paramount consideration. In *The First Hundred Years of the Bureau of Labor Statistics*, authors Joseph P. Goldberg and William T. Moye wrote: "Maintaining public confidence was a paramount consideration for Clague as he adapted and extended the Bureau's programs to meet changing need. Upon his appointment, he established formal advisory relations with the trade unions; contacts with the unions had been curtailed as a result of the wartime controversy over the cost-of-living index. And shortly thereafter . . . he formed a business advisory committee. The committees consisted primarily of technicians in the fields of economics, statistics, and labor relations. Clague later suggested that it was through their experience with these advisory groups that General Motors and the Auto Workers gained sufficient confidence in the Bureau's statistics to adopt the CPI for wage escalation in 1948.

"Clague's success in keeping the Bureau's statistics trustworthy was attested by the findings of the various commissions, committees, and teams of experts which examined the Bureau during his many years in office and upheld the integrity and impartiality of its work."—**R.W.F.** □

Sharp drop in energy prices holds inflation in check during 1986

Lower prices for petroleum products result in Consumer Price Index rise of 1.1 percent, the smallest advance since the 1960's; producer prices decreased 2.5 percent

CRAIG HOWELL, ROGER BURNS, AND ANDREW CLEM

Inflation seemed to vanish in 1986. A slight increase in consumer prices was a contrast to the economy of the 1970's, when double-digit price increases appeared. Furthermore, producer prices actually fell across a broad front for the first time since the early 1960's.

The continuing decline in energy prices resulted in the Consumer Price Index (CPI) advancing only 1.1 percent during the 12-month period ended in December. This rise compares with increases of about 4 percent in each of the 4 preceding years and was the smallest annual change since a 0.7-percent rise in 1961.

Falling energy prices had an even larger impact on the Producer Price Index (PPI). The finished goods price index turned lower for the first time since 1963, declining 2.5 percent; it had risen less than 2 percent in each of the 3 preceding years. The intermediate goods price index fell 4.4 percent over the year after rising slowly from 1982 through 1984 and edging down slightly in 1985. The 1986 decreases for both these major stage-of-processing indexes were the largest annual declines since 1949. The drop of 9.7 percent in the crude goods price index was considerably more than the declines recorded in 1984 and 1985 and marked the largest decrease since 1952.

The sharp declines in energy prices and their broad impact on the CPI are shown in table 1. The 19.7-percent drop in energy prices was almost entirely responsible for the deceleration in the CPI. Excluding energy, the index increased 3.8 percent during 1986, compared with increases of between 4 and 4.5 percent in each of the prior 4 years. The food index advanced 3.8 percent in 1986, largely reflecting an upturn in meat and poultry prices. Shelter costs, however, rose somewhat less in 1986 than in other recent years, increasing 4.6 percent. The index for all items excluding food, shelter, and energy continued to slow. Within this group, however, price movements for commodities and services continued to be different. Charges for these other services remained in the 5- to 6-percent range, while other goods prices rose only 1.4 percent in 1986.

Energy in the PPI for all three stages of processing—crude materials, intermediate goods, and finished goods—registered sharper declines than in the CPI. The 1986 declines in the PPI energy measures were substantially larger than in 1985 and more than offset a moderate acceleration in the prices for nonenergy goods. (See table 1.)

By the end of 1986, the economic expansion had entered its fifth year, with few signs of either an impending recession or a resurgence of double-digit inflation. Labor costs continued to move up at only a modest pace, indicating a lack of pressure on current prices. The Employment Cost Index decelerated steadily after peaking at near double-digit rates in 1980, with total compensation for private industry workers advancing only 3.6 percent for the year. In addition, growth in output was sluggish in 1986, with capacity

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Table 1. Percentage changes for major categories of the Consumer Price Index and Producer Price Index, 1982–86[1]

Index	1982	1983	1984	1985	1986
Consumer Price Index					
All Items	3.9	3.8	4.0	3.8	1.1
Energy	1.3	−.5	.2	1.8	−19.7
Energy commodities	−5.0	−3.2	−1.9	3.4	−30.5
Energy services	14.1	4.1	3.4	−.5	−3.3
All Items less energy	4.2	4.4	4.5	4.0	3.8
Food	3.1	2.6	3.8	2.7	3.8
Shelter	2.4	4.7	5.2	6.0	4.6
All items less food, shelter, and energy	6.1	5.0	4.4	3.7	3.4
Other commodities	5.5	5.0	3.1	2.2	1.4
Other services	7.3	4.9	6.0	5.4	5.6
Producer Price Index					
Finished goods	3.7	.6	1.7	1.8	−2.5
Finished energy goods	−.1	−9.2	−4.1	−.3	−39.1
Finished goods less energy	4.2	2.0	2.5	2.1	2.7
Intermediate materials	.2	1.8	1.3	−.3	−4.4
Intermediate energy goods	−.7	−5.5	−.1	−.8	−28.9
Intermediate materials less energy	.5	3.2	1.6	−.2	.2
Crude materials	.4	4.7	−1.6	−5.6	−9.7
Crude energy materials	2.6	−4.6	−1.3	−4.9	−29.4
Crude materials less energy	−.7	9.6	−1.7	−6.0	−.9

[1] Calculated on a December-to-December basis.

utilization rates below 80 percent and civilian unemployment 6.7 percent at yearend. These factors offered little in the way of cost pressure on prices.

Measures taken by policymakers, designed to stimulate growth by depreciating the dollar and lowering interest rates, had only a minor impact on prices, but could contribute to inflation in the longer term. However, the value of the dollar did not fall uniformly against currencies of all other nations. Thus, price advances for some commodities will continue to be restrained by competition from abroad.

Interest rates generally declined throughout the year, easing the debt burden for many companies; nevertheless, expenditures for capital investments decreased, in part because of the uncertainty associated with changes in business tax policies. Widespread warnings about excessive personal debt went largely unheeded as consumer expenditures continued to play a major role in sustaining the overall expansion. Real residential investment spending climbed strongly early in the year, but then slowed.

In this article, we first examine price changes during 1986 for the CPI. We then focus on price changes for all major components of the PPI.

Consumer prices

Energy

The deceleration in the overall CPI in 1986 was almost entirely attributable to the sharp drop in energy prices, down 19.7 percent. Prices for commodities and services within energy, as well as within the overall CPI, continued to diverge. OPEC's decision in late 1985 to formally abandon production quotas led to plunging crude oil prices and resulted in sharp declines in consumer prices for energy commodities. Retail gasoline prices dropped 30.7 percent and fuel oil prices decreased 33.4 percent in 1986. While these prices declined more rapidly during the first half of the year, attempts to stabilize markets and increase prices met with only limited success. At yearend, gasoline and fuel oil prices were 38.7 and 40.4 percent, respectively, below their peak levels in early 1981.

The index for energy services—natural gas and electricity—also declined in 1986, but by substantially less than the index for energy commodities. Charges for natural gas and electricity declined 5.8 and 1.5 percent, respectively.

Food

Retail food prices rose 3.8 percent in 1986, after increasing 2.7 percent in 1985. In 1986, the food at home component increased 3.6 percent, while prices for food away from home rose 4.3 percent. Prices for grocery foods advanced substantially more in the second half of the year, partially due to the severe drought during the late spring in the Southeast. The acceleration in grocery prices during the last 6 months of 1986 was largely concentrated in the meats, poultry, fish, and eggs index and the fruits and vegetables index. After registering declines during the first 6 months, these components increased at double-digit rates during the last half of the year. For the year as a whole, the meats, poultry, fish, and eggs group increased 6.4 percent and accounted for over 55 percent of the increase in the food at home index. All other major grocery food groups rose 3.0 percent or less in 1986.

Shelter

The 1986 rise in shelter costs, up 4.6 percent, was the smallest increase in this component since the rental equivalence approach to the measurement of homeowners' costs was adopted in 1983. Prior to 1983, the measurement of shelter costs for homeowners included investment costs associated with purchasing a housing asset; these costs were inappropriate for the CPI. Historically, shelter costs, principally reflecting the increase in interest rates, were a major cause of the double-digit inflation during 1979, 1980, and the first part of 1981. Conversely, when mortgage interest rates dropped sharply in 1982, the shelter index was a major factor in the slowdown of the overall CPI. Since the shift to an owners' equivalent rent measure for homeowner shelter costs, the volatility of the shelter component has been dampened. While the rise in shelter costs slowed, both the magnitude and the speed of adjustment were much less than in the overall CPI.

Other services

Price increases for other services except shelter and energy did not, on average, contribute to the further slowdown in prices in 1986 and have remained in the 5- to 6-percent range over the last 4 years. While considerable variance exists in the magnitude of the service groups increases in

1986, the service component of all major expenditure groups rose more than the commodities portion of these groups. Nevertheless, some individual components in these service groups slowed substantially or even declined; perhaps most dramatic was the sharp drop in automobile finance charges as interest rates generally declined and automobile manufacturers made extensive use of below-market rate financing in order to stimulate car sales. With a 7.3-percent drop in 1986, these charges have declined in 3 of the past 4 years. In addition, substantial price reductions in interstate long distance toll calls have occurred in each year since the AT&T divestiture on January 1, 1984. These declines, however, have been more than offset by the increases in local telephone charges. In each of the last 3 years, the increase in the costs of all telephone services—local, intrastate, and interstate—exceeded the increases in the overall CPI.

Most services, however, continued to post substantial price increases in 1986 and some even accelerated. The cost of medical care services, which increased at double-digit rates during the 1973–82 period, slowed during 1983–85, advancing about 6 percent a year. In 1986, these charges rose 7.9 percent. Other service components that registered large increases in 1986 included automobile insurance costs, up 11.8 percent, and charges for tuition and other school fees, up 7.9 percent.

Other commodities

Even excluding the sharp drop in the energy index and lower prices for used cars, prices for commodities rose at a much slower rate than those for nonenergy services. This divergence in commodity and service prices suggests that commodity prices in this country may have been affected by lower priced imports resulting from the high value of the dollar relative to the currencies of other countries.

When the dollar appreciated from 1981 to March 1985, foreign suppliers of imports received the same income in their own currency by selling the same quantity of imports at lower dollar prices, as each dollar received by them commanded a greater amount of their own currency. After the dollar began depreciating, several factors still existed that helped to delay any inflationary impact. The effects of the changing value of the dollar on import prices can be delayed or reduced substantially as a result of changing profit margins of suppliers, the necessity to revise dollar-denominated contracts, and specific trade restrictions such as import quotas. Also, changes in the rates of exchange between the dollar and the currencies of the Nation's various trading partners have not been uniform. While the dollar has depreciated significantly against the yen and a number of major European currencies, there has been little change against the currencies of many less developed countries that are significant trading partners. Further, the relative price level of imports may be strongly affected by the growth rate of the domestic economy. Although U.S. economic growth has been quite modest, it still exceeds that of many of the country's principal trading partners. Thus, a large number of factors may have intervened to minimize the price-reducing effect of the 1981–85 dollar appreciation, and these same factors may vitiate or delay any inflationary impact of the post-March 1985 devaluation.

From June 1982 through March 1985, as the dollar was appreciating, prices paid by *importers* for consumer commodities (other than energy, food, and used cars) edged up at an annual rate of only 0.7 percent, while prices paid by *consumers* for the same set of commodities rose at an annual rate of 3.0 percent.

In the 21 months following the March 1985 peak value of the dollar, these import prices accelerated sharply, rising at an annual rate of 8.1 percent, while the corresponding retail prices rose at a much slower rate, only 2.6 percent. Prices charged by importers did not show any obvious impact of the dollar devaluation until December 1985. At the end of 1986, however, prices paid by consumers had advanced 10.3 percent.

Comprehensive analysis relating import prices to changes in consumer prices is difficult. There has been, however, some recent evidence of larger consumer price increases for import-affected items. In 1986, new car prices rose 5.8 percent, their largest increase since 1981. In addition, prices for apparel commodities, housefurnishings, and housekeeping supplies—components which contain commodities with higher than average import proportions—accelerated in the second half of 1986. The largest increases in other commodity prices in 1986, however, occurred in areas with little import penetration: medical care commodities and tobacco products. These components have not accelerated, but rather continued to advance at rates well above most other commodities.

Producer prices

Crude goods

Following decreases of 1.6 percent in 1984 and 5.6 percent in 1985, the PPI for crude materials for further processing fell 9.7 percent during 1986. Price indexes for crude petroleum and natural gas plummeted after showing much smaller declines in 1985, but price decreases for nonenergy materials were not as large as in the previous year.

Energy. The crude energy materials index fell 29.4 percent following a drop of 4.9 percent in 1985. In response to the breakdown in the pricing discipline of the Organization of Petroleum Exporting Countries (OPEC), Saudi Arabia in late 1985 reversed its previous policy of restraining its oil production. Competitive underbidding by certain oil producing countries accelerated during early 1986 as prices for crude oil began to plummet. However, crude petroleum prices rebounded somewhat during the third quarter, following an August OPEC announcement of production cutbacks.

The war-related financial burdens of Iran and Iraq and the debt-servicing needs of certain other oil producing nations both contributed to the ending of OPEC's pricing discipline before 1986. In the longer term, a number of factors have contributed to the fundamental transformation of the global petroleum market. Expanded production by non-OPEC nations has gradually taken a larger share of the world market in the 1980's. In the United States, the cumulative effect on demand of the 1973 and 1979 energy price increases was reflected by the 17-percent decline in petroleum consumption between 1978 and 1985.

Domestic prices for crude petroleum and most refined products fell by nearly 50 percent in 1986. This decrease represented an unprecedented disinflationary advantage to the American economy, helping to maintain the momentum of growth despite the problem of the trade imbalance.

After falling 7.8 percent in 1985, the natural gas index plunged a record 21.6 percent. Natural gas producers lowered their prices during most of the year to remain competitive with falling prices for petroleum-derived heating fuels. This index climbed in the early 1980's, but fell 31.1 percent from its March 1983 peak by December 1986. Coal prices edged down over the year.

Foodstuffs. The index for crude foodstuffs and feedstuffs moved down 1.7 percent, much less than the 6.4-percent drop in 1985. Contributing to this slowdown of price decreases was an advance in fluid milk prices that contrasted with a substantial decrease the previous year. For several years, the dairy industry has experienced low milk prices, resulting from milk overproduction; therefore, the Government created the Dairy Termination Program, which pays farmers to sell or slaughter their dairy cows, reducing milk production and raising prices in 1986.

After dropping in 1985, hog prices advanced strongly in mid-1986, reflecting restricted supplies after several years of stock reductions. Price decreases slowed for cattle; although slaughter rates remained high, low feed prices enabled some farmers to hold their cows off the market during the second half of the year. Raw cane sugar prices moved up after falling in 1985, in response to the lowering of the Government ceiling on import shipments for that commodity.

Increased domestic and world supplies of grains and feedstuffs, along with reduced U.S. Government price supports for grains, put downward pressure on their prices. Domestic corn prices dropped more than 30 percent because of good harvests, larger carryover stocks, and limited storage facilities that compelled farmers to sell off their holdings to make room for new harvests. Record carryover stocks for wheat contributed to a price decline of more than 18 percent. Prices for hay and soybeans dropped at double-digit rates for the third consecutive year. Hay demand was down because of improved pasturing, while soybean stocks were high and exports were off.

Industrial materials. The index for crude nonfood materials other than energy turned up 1.6 percent, after declining in both of the 2 preceding years. Prices were particularly active in the latter half of 1986, with the index falling at a simple seasonally adjusted rate of 6.7 percent during the third quarter and then rising 1.9 percent in the fourth quarter. In large part, this pattern was due to volatile prices for raw cotton. A new Government program, instituted in August 1986 to make American cotton competitive on international markets, initially caused domestic prices to drop almost 60 percent (thereby matching the world price level). However, by the end of the year, the world price for raw cotton (adjusted to U.S. quality and specifications) had jumped over 70 percent, partly reflecting poor weather in growing regions abroad; in addition, the U.S. price climbed above the world price level as a result of stronger demand from domestic cotton mills, tight supplies of quality cotton due to crop damage, and increased export demand. Despite this late surge, the December 1986 price for domestic raw cotton was still below its December 1985 level, although the price decrease was less than those registered in 1985 or 1984.

Several factors contributed to the upturn in raw material prices in 1986. Ferrous scrap prices advanced after declining in the preceding 2 years. Following 2 years of decreases, aluminum base scrap prices rose with the expectation of an improving market for aluminum during the spring. However, these scrap prices remained unchanged during light trading in the second half, when the market for primary aluminum proved to be weak. After falling in 1985, prices for heavy yellow brass scrap turned up in accord with strongly advancing prices for primary zinc. Wastepaper prices soared 52 percent after plummeting in 1985, as paper mill demand increased sharply and exports moved up. Prices also advanced for cattle hides and domestic apparel wool. Price declines slowed for leaf tobacco.

However, prices turned down for logs and timber as falling fuel prices reduced business costs. Construction sand and gravel showed smaller price increases, as transportation costs fell with decreasing fuel prices.

Intermediate goods

Contrasting with the mild pattern of movements experienced since the early 1980's, the PPI for intermediate materials, supplies and components dropped 4.4 percent during 1986. However, virtually all of the impetus behind this downturn came from the energy sector. The index for intermediate goods excluding foods and energy remained nearly unchanged for the second year in a row. One unusual feature of 1986 index changes for this category and its main stage-of-processing components is the close similarity to corresponding changes of a year earlier.

Energy. The index for intermediate energy goods plunged 28.9 percent during the year, following relatively small

declines in recent years. Prices for diesel fuel, residual fuel, and jet fuel each fell nearly 50 percent. Less uniformity was shown in 1985, when residual fuel declined 15.6 percent, jet fuel moved down moderately, and diesel fuel rose nearly 6 percent. Liquefied petroleum gas prices fell 52.4 percent during 1986, closely paralleling refined product movements during the year. Reduced fuel generation costs likewise affected electric power prices. The index for industrial and commercial electric power recorded a 1.0-percent decline, the first decrease for this category in over 2 decades. Electric power rates are typically rather stable, because of the regulatory environment in which utilities operate. These prices did not fall as much as other energy products for that reason, and because petroleum is not used for power generation as much as in the 1970's.

Manufacturing materials. The index for intermediate goods other than foods and energy edged up 0.1 percent over the year, after a 0.1-percent decline in 1985. As in the previous year, declines for manufacturing materials were offset by small advances for manufacturing components and products used in the construction sector.

The index for materials for nondurable manufacturing fell 1.8 percent, slightly less than in the year before. The overwhelming influence was the precipitous fall in petroleum costs, which led to lower prices for industrial chemicals (down 6.0 percent), plastic resins and materials (down 3.6 percent), and synthetic rubber (down 8.8 percent). The rate of capacity utilization in the chemicals industry remained at about 80 percent for most of the year, further depressing pricing. Another commodity whose price fell because of energy developments was nitrogenate fertilizer materials, which registered a 21-percent drop for the year. Most anhydrous ammonia is derived from natural gas, prices of which were negatively affected by the oil price collapse.

In sharp contrast, however, prices jumped for many paper-related goods. Woodpulp prices advanced 16.9 percent, recovering virtually all of the losses experienced the year before. Upturns of a similar but less-pronounced nature occurred in prices for paper and paperboard (both rose between 4 and 5 percent). Growth in the paper sector was centered in the business and computer paper markets, where demand continued to be fairly strong. Woodpulp and paperboard producers benefited from the reduced level of foreign competition due to the decline in the U.S. dollar. Finally, leather prices surged 11.4 percent, the most in several years. This upturn reflected the strong overseas demand (and hence higher costs) for U.S. cattle hides.

The durable manufacturing materials index moved down 1.2 percent, about the same as in 1985. A good portion of this decline was related to the January drop in the steel mill products index. This reflected a broad cut in list prices to bring them into alignment with actual transaction prices, which had been falling for some time. Among nonferrous metals, considerable diversity existed in price movement. Copper and silver prices declined, as did certain types of aluminum. Expectations early in the year of higher prices for copper and aluminum were not fulfilled because demand for both stagnated, and labor disputes in the aluminum industry were settled.

The most dramatic activity was found in the markets for lead, zinc, and platinum. Lead prices began to climb sharply during the spring months, contrary to expectations. Short-term tight inventories due to various technical factors (such as refinery shutdowns and strikes) prevailed over the long-term perception of weakness in demand, and prices ended the year 47.7 percent over the December 1985 level. Zinc prices followed lead prices closely; the two metals are produced together, and both experienced supply problems because of labor disagreements. In the precious metals markets, political unrest in South Africa sparked increased interest in platinum by speculators. Over 90 percent of the world's supply of platinum comes from South Africa and the Soviet Union. Prices began to surge in mid-1985 and continued to increase until the final quarter of 1986, when profit-taking set in. The platinum index was still nearly 50 percent higher at the end of 1986 than it was a year earlier.

Construction materials. In spite of the continued downward trend of mortgage interest rates during the year, the housing construction market began to show signs of weakness in the second quarter. Beginning the year around the 2-million unit level, the annual rate of new private housing starts retreated to about 1.7 million units by the end of the year. In the commercial construction sector, activity remained generally subdued because of the continued oversupply of office space in certain cities.

The PPI for construction materials and components edged up only 0.4 percent, less than in any other year since the early 1960's. Substantial declines were noted for products derived from petroleum: asphalt paving materials fell nearly 12 percent, and asphalt roofing materials dropped almost 9 percent. Plastic plumbing products registered a decline of 6.3 percent, likewise reflecting lower costs of petrochemically derived resins. Prices for gypsum products moved down 2.5 percent, after a strong year (up 7.8 percent) in 1985. The gypsum industry raised prices during the spring, but the slack market failed to support the move; prices slid back for most of the remainder of the year.

The lumber and wood products industries were unusually influenced by governmental actions during the year. A trade dispute with Canada had arisen after 2 years of sagging prices in the midst of strong residential construction activity. Domestic lumber producers filed a countervailing duty petition against Canadian producers in May, alleging that unfair subsidies by provincial governments in Canada permitted below-cost sales. The International Trade Commission ruled that U.S. producers were being injured by the subsidies, and in October an interim 15-percent tariff was imposed on softwood lumber imports from Canada.

Prices for lumber rose during the third quarter, when they normally decline sharply. Over the year, the PPI for softwood lumber advanced 6.5 percent. Prices for millwork and plywood each moved up less than 2 percent.

The cement industry was another source of trade friction in 1986. However, the U.S. producers lost their bid for countervailing duties on imports of eight nations that allegedly guarantee their own firms a minimum rate of return. In spite of substantial transportation costs for such a bulky product (and minimal differences in production technology), cement imports accounted for 10 percent of the American market in dollar terms and 15 percent in tonnage terms. Under such pressure, prices for Portland cement fell 4.5 percent between December 1985 and December 1986.

Foods. The intermediate foods and feeds index continued on a downward path over the past year, but the 0.4-percent decline was less than in 1984 or 1985. Crude vegetable oil prices fell 25.5 percent, reaching their lowest level since the late 1960's. After showing little change over the previous 4 years, flour prices dropped 10.5 percent, reflecting burgeoning world grain supplies. However, refined sugar prices (which are kept above prevailing world levels by a Government support mechanism) rose moderately after declining in recent years.

Finished goods

Among major categories within the finished goods price index in 1986, the index for energy goods fell 39.1 percent, dwarfing the declines registered in other recent years. Consumer food prices climbed 2.9 percent, continuing the moderate increases registered for this index in each year after 1980. As in 1985, the increase in the index for consumer goods other than foods and energy was just under 3 percent. Capital equipment prices rose less in 1986 (2.1 percent) than they had in 1985 (2.7 percent).

Energy. The dramatic decline in the index for finished energy goods followed decreases of just 0.3 percent in 1985 and 4.1 percent in 1984. This decline occurred largely in response to the precipitous drop in world crude oil prices attributable to the breakdown of OPEC's production control system at the end of 1985. Prices received by refineries for both gasoline and home heating oil were nearly cut in half over the year, following much smaller declines in 1984 and moderate increases in 1985. The natural gas index also fell far more than it had a year earlier.

Foods. The 1986 rise in the index for finished consumer foods was well within the range of moderate increases registered for this index each year after 1980; for example, food prices inched up only 0.5 percent in 1985, following a 3.5-percent climb a year earlier. A drought in the summer of 1986 had a limited and relatively short-lived impact on food prices, primarily through heat-related deaths of chickens in the Southeast. Weather conditions during the growing season were generally much more favorable in the Midwest, California, and other major farming regions than in the Southeast. Exports of American agricultural products were seriously hampered by excess supplies in many other countries.

After a rise of less than 1 percent a year earlier, pork prices climbed 13.4 percent in 1986; a 5-percent drop in production was largely responsible for this climb. Processed poultry prices quickly retreated from the high levels attained in the immediate aftermath of the summer drought and ended the year 1.8 percent lower than their December 1985 values, as higher prices for chickens offset a sharp drop in turkey prices. Beef and veal prices fell sharply through the first half of the year, reflecting increased output and the continuing decline in feed grain costs, but recovered somewhat in the second half for a net decrease of 6.3 percent.

Roasted coffee prices climbed 18.2 percent, mostly because of unusually dry weather in Brazil's growing areas for much of the year. The index for fresh and dried vegetables advanced 2.9 percent, far less than the double-digit climb a year before. Prices also rose in 1986 for fish, confectionery end products, dairy products, and refined sugar. In contrast, the index for shortening and cooking oils fell almost 10 percent, partly because of the continued drop in soybean quotations.

Other consumer goods. The index for consumer goods other than foods and energy moved up 2.9 percent, about the same as a year earlier. However, the composition of the 1986 advance was the reverse of the 1985 pattern. Consumer durable price increases accelerated from 2.1 to 3.5 percent, while nondurables slowed to 2.4 percent after a 3.2-percent rise the year before.

Much of the acceleration in the index for consumer durable goods was due to the 6.6-percent increase in the index for passenger cars, far larger than in any other year since 1981. The falling value of the dollar against the yen, coupled with continued Japanese limitations on car shipments into this country, led to higher prices for some Japanese models and allowed room for domestic manufacturers to raise their prices as well. While imported autos still commanded a substantial share (more than one-quarter) of the total American market, sales of domestic cars also enjoyed another strong, if erratic, year. Intermittent discounting, especially evident in cut-rate loans subsidized by producers, again characterized the marketing of domestic models during 1986. New car sales were further stimulated at the end of the year, before tax law changes effective for 1987 would end deductions for State sales taxes on Federal income tax returns. In contrast with the accelerated price increases for new passenger cars, however, prices for light trucks rose less than half as much as in 1985 (3.7 versus 7.9 percent).

Among other consumer durables, prices for gold jewelry

rose following several years of decline, reflecting the parallel upturn in gold quotations. By contrast, lower stainless steel prices were a major influence in the 6.5-percent decline in the flatware index, which showed almost no change in 1985. Prices for books, floor coverings, toys and games, sporting goods, glassware, household furniture, and mobile homes rose moderately, while appliance prices decreased for the first time since 1965.

Within the category for consumer nondurable goods other than foods and energy, the effect of substantially higher prices for some items was eased by modest advances for others. Prescription drug prices climbed nearly 10 percent, marking the seventh consecutive year that this index rose between 8 and 12 percent. Prices for tobacco products and over-the-counter drugs also increased about as sharply (7.8 and 6.2 percent) as in other recent years. In contrast, the index for tires and tubes fell for the fourth consecutive year, reflecting lower costs for synthetic rubber and relatively sluggish demand in both the original equipment and replacement markets. Prices for luggage and soaps decreased after increasing in 1985. Prices for apparel, newspapers, periodicals, sanitary paper, alcoholic beverages, cosmetics, and footwear rose somewhat less than they had a year earlier.

Capital equipment. The index for capital equipment moved up 2.1 percent in 1986, following advances of 2.7 percent in 1985 and 1.8 percent in 1984. Business spending on investment goods declined over the year, with capital expenditures in the energy-production sector especially hard hit. Capacity expansion projects in many other industries were postponed pending the outcome of political debates on elimination of the investment tax credit and similar tax policies. Spending on some projects was accelerated, however, to take advantage of favorable tax treatments that would be scaled back or eliminated in 1987. The scarcely abated influx of imports kept most domestic manufacturing industries at output levels well below any capacity constraints and thus diverted pressure for new capital construction. Prices for only a handful of major types of capital equipment rose more than 3 percent in 1986, while the index for oil field and gas field machinery dropped 3.5 percent, a symptom of the depression in the energy-production sector. □

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, DC 20212.

Major labor contracts in 1986 provided record low wage adjustments

Negotiations again focused on efforts to curb labor costs and save jobs by providing small wage increases, wage decreases, and wage freezes; many settlements provided lump sums instead of wage increases or to offset decreases

JOHN LACOMBE AND JOAN BORUM

In 1986, major collective bargaining settlements in private industry provided record low wage and compensation adjustments, reflecting both employers' and unions' efforts to curb labor costs. Their task was made easier by continued moderate upward pressures on wages from comparatively small increases in consumer prices. According to the Bureau of Labor Statistics' 19-year-old series on private industry agreements covering 1,000 workers or more,[1] wage adjustments—the net effect of decisions to increase, decrease, or not change wages—under settlements reached during 1986 averaged 1.2 percent in the first contract year and 1.8 percent annually over the contract term. (See table 1.) The settlements covered 2.5 million workers.

This was the fifth consecutive year in which settlements produced average wage adjustments that were substantially below those registered prior to 1982. (See chart 1.) Wage adjustments which were actually put into effect during 1986, stemming from settlements negotiated that year and those reached in prior years, also averaged a record low—2.3 percent.

The last time parties to 1986 settlements negotiated (usually in 1983 or 1984), they agreed to contracts that specified average wage adjustments of 3.5 percent the first year and 3.2 percent annually over the term. Total wage adjustments —those specified at the time of settlements plus any subsequent cost-of-living adjustments (COLA's)—averaged 4.0 percent a year over the contract term. This was the smallest on record, and occurred while the Consumer Price Index for Urban Wage Earners (CPI-W) was rising 3.5 percent a year (between December 1982 and December 1985).

The average size of total wage adjustments under expiring agreements has dropped steadily since 1983 because the size of specified wage changes declined and because smaller price increases produced lower wage increases triggered by COLA's. As shown in the following tabulation, the contracts preceding 1986 settlements yielded larger total wage adjustments when they included a COLA clause.

	Average wage adjustment (in percent) per year in contracts	
	With COLA	*Without COLA*
Total adjustment	4.2	3.7
Specified	2.7	3.7
COLA	1.6	–

This marks a return to the pre-1983 pattern in which expiring contracts with COLA clauses provided smaller specified wage adjustments than those without, but COLA's more than made up the differences.

The bargaining climate

Bargaining during 1986 took place in a mixed national economic climate. The Consumer Price Index for Urban Wage Earners rose 0.7 percent during the year (the smallest rise since 1961) and unemployment continued to hover around 7 percent. Negotiators focused on both old and new problems, including: depressed markets and competition from abroad in the steel, aluminum, and copper industries; competition from nonunion firms in retail trade and construction; competition from both union and nonunion carriers in the airline industry; and the breakup of long-standing bargaining relationships in the steel and telephone communications industries. The most common issue was how to curb labor costs and retain jobs.

A number of contracts addressed this issue by such indirect methods as restructuring jobs or changing work rules. Other more direct approaches included historically low wage increases, freezes, or cuts; lump-sum payments

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(which are not included as wages in this series) instead of wage increases or to offset wage cuts; lower wage adjustments in the first than in subsequent years of multi-year contracts; and the suspension or elimination of COLA clauses.

Wage increases, decreases, and freezes

Average wage increases under 1986 settlements were the smallest on record for this series—2.9 percent the first contract year and 2.7 percent a year over the contract life. First-year increases were received by 1,730,000 workers, while 526,000 workers had no wage change and 230,000 sustained wage cuts averaging −9.2 percent. Subsequently, wage increases will go to 218,000 workers with no wage change and 15,000 with a wage decrease in the first contract year. Thus, over their term, contracts reached during 1986 will provide wage increases to 1,963,000 workers, about four-fifths of the total covered. Workers with increases were mostly in construction, railroads, telephone communication, public utilities, food stores, and health services.

The wages of about an eighth of the workers were frozen and those of about one-tenth were cut over the term of 1986 settlements, marking the fifth consecutive year in which substantial proportions of workers did not receive wage increases under settlements. (See table 2.) Workers with wage freezes were concentrated in construction, nonelectrical machinery manufacturing, and food stores. Workers sustaining pay cuts were mostly in steel manufacturing; some of them also took reductions in their previous agreement.

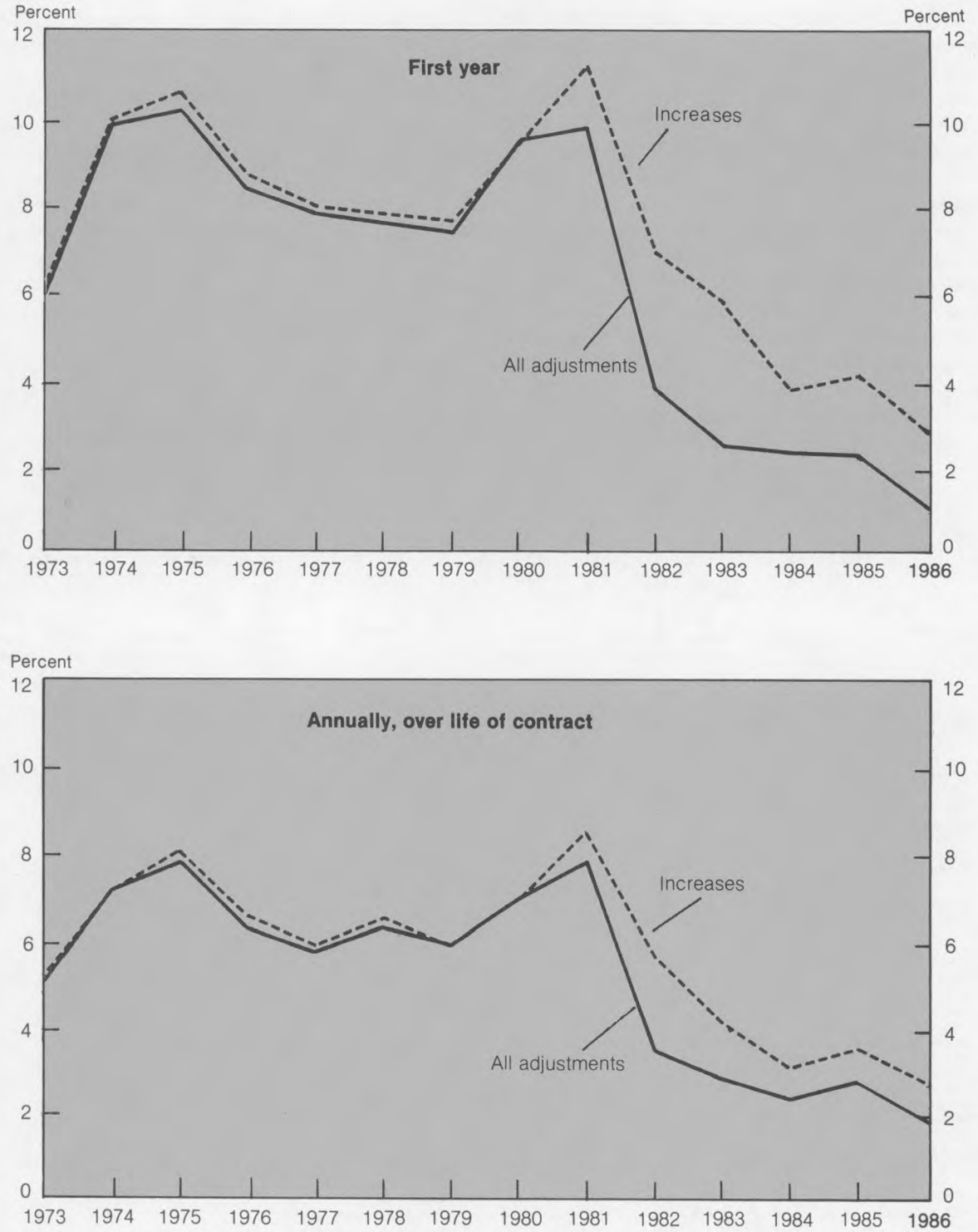
Lump-sum payments. The size of average adjustments was dampened because provisions for lump-sum payments were made in contracts covering two-fifths (988,000) of the workers under 1986 settlements. Lump-sum payments for 10 percent of these workers are linked to the profits or earnings of the firm. Lump sums were negotiated instead of wage increases or to offset pay decreases. These payments are excluded from this series. Lump-sum payments limit labor costs because they do not influence benefit levels that are based on wage rates, they eliminate the compounding effect of successive wage rate increases, and they do not raise the wage rate base from which future contracts will be negotiated.

Settlements with lump sums provided wage adjustments averaging 1.2 percent in the first contract year and 1.5 percent annually over the contract term. The corresponding averages for workers under settlements without lump sums were 1.2 and 1.9 percent. Lump-sum payments were negotiated in a variety of industries, including steel, communications, railroads, food stores, aerospace, health services, and petroleum refining.

Table 1. Wage adjustments for collective bargaining settlements, covering 1,000 workers or more in private industry, 1986

Measure	First year		Over life of contract	
	Average adjustment (percent)	Workers (in thousands)	Average annual adjustment (percent)	Workers (in thousands)
All settlements				
All industries	1.2	2,486	1.8	2,486
With COLA clauses	1.9	780	1.7	780
Without COLA clauses	.9	1,706	1.8	1,706
With lump sums	1.2	988	1.5	988
Without lump sums	1.2	1,498	1.9	1,498
Manufacturing	−1.2	632	.2	632
With COLA clauses	1.3	239	.9	239
Without COLA clauses	−2.8	393	−.2	393
With lump sums	−.9	286	.2	286
Without lump sums	−1.4	346	.2	346
Nonmanufacturing	2.0	1,854	2.3	1,854
With COLA clauses	2.1	541	2.1	541
Without COLA clauses	2.0	1,313	2.4	1,313
With lump sums	2.0	702	2.1	702
Without lump sums	2.0	1,152	2.4	1,152
Construction	2.2	522	2.5	522
All industries excluding construction	.9	1,964	1.6	1,964
Nonmanufacturing excluding construction	1.9	1,332	2.2	1,332
Goods-producing	.2	1,161	1.2	1,161
Service-producing	2.0	1,325	2.3	1,325
Settlements providing increases				
All industries	2.9	1,730	2.7	1,963
With COLA clauses	2.4	665	2.0	690
Without COLA clauses	3.3	1,065	3.1	1,274
With lump sums	2.4	703	2.1	806
Without lump sums	3.3	1,027	3.1	1,157
Manufacturing	3.0	258	2.1	360
With COLA clauses	3.0	147	1.6	157
Without COLA clauses	3.0	111	2.5	202
With lump sums	2.4	103	1.3	177
Without lump sums	3.3	156	2.8	183
Nonmanufacturing	2.9	1,472	2.8	1,604
With COLA clauses	2.2	518	2.1	532
Without COLA clauses	3.3	954	3.2	1,072
With lump sums	2.4	600	2.3	629
Without lump sums	3.3	872	3.1	975
Construction	3.5	356	3.2	420
All industries excluding construction	2.8	1,374	2.5	1,544
Nonmanufacturing excluding construction	2.8	1,116	2.7	1,184
Goods-producing	3.3	614	2.7	781
Service-producing	2.8	1,116	2.7	1,183
Settlements providing decreases				
All industries	−9.2	230	−4.1	215
With COLA clauses	−3.7	33	−1.2	27
With COLA clauses	−10.1	197	−4.5	188
With lump sums	−7.6	69	−2.4	72
Without lump sums	−9.9	161	−5.0	143
Manufacturing	−9.2	167	−3.9	161
Nonmanufacturing	−9.3	63	−4.9	54
Construction	−7.5	9	−9.4	6
All industries excluding construction	−9.3	221	−4.0	209
Nonmanufacturing excluding construction	−9.6	54	−4.3	48
Goods producing	−9.6	182	−4.2	173
Service-producing	−7.9	48	−3.9	42

Chart 1. Average wage adjustments in private industry settlements covering 1,000 workers or more, 1973-86



NOTE: All adjustments include increases, decreases, and no change.

Backloaded contracts. Backloading is another cost-limiting practice that has gained prominence recently. It provides lower specified wage adjustments in the first year than subsequent contract years. Nearly one-half of the workers under 1986 settlements were covered by such contracts. Prior to 1983, however, virtually all workers under multiyear settlements had their largest increases in the first year.

Wage adjustments in back-loaded contracts averaged −0.2 percent in the first year and 1.5 percent annually over the term. Of the 1,199,000 workers covered by back-loaded contracts, 751,000 received smaller increases in the first year than in following years, 225,000 received no wage increase in the first contract year, but received an increase in following years, and 223,000 sustained wage cuts in the first contract year, but no additional decreases over the life of their multiyear agreements. Back-loaded contracts occurred mainly in construction, railroads, steel, petroleum refining, electrical and electronic equipment manufacturing, health services, and food stores.

One-third (805,000) of the workers were covered by front-loaded settlements in which wage adjustments averaged 3.3 percent in the first year and 2.5 percent a year over the life of the contract. These contracts were in communication, construction, aerospace, and other industries. The remaining one-fifth of the workers were covered by either 1-year agreements or multiyear contracts which provided equal wage adjustments each year.

COLA clauses. Cost-of-living adjustment clauses were dropped or suspended in settlements covering 434,000 workers, or about 36 percent of those settling in 1986 who had such coverage in their previous agreements. These include 226,000 communication workers and 106,000 steel workers whose 1986 contracts do not provide any wage adjustments triggered by future changes in the CPI. COLA clauses were established in settlements covering 20,000 workers.

As a result of these developments and employment declines in industries with contracts that retained COLA clauses, the proportion of workers under major contracts with COLA's fell to 40 percent at the end of 1986 from 49 percent in the previous year. This compares with about three-fifths between 1976 and 1984.

This drop is attributable, in part, to the declining importance of COLA's as a source of wage increases. Some union negotiators were willing to trade COLA's for other contract improvements because relatively low price increases since 1982 triggered comparatively small wage increases and, in some cases, none at all.

Contracts with COLA clauses covered 31 percent of workers under 1986 settlements. They specified average wage adjustments of 1.9 percent in the first year and 1.7 percent annually over the contract life. (See chart 2.) These averages exclude any potential adjustments from COLA's because such adjustments depend on future changes in the Consumer

Chart 2. Average annual wage adjustments over the life of contracts with and without COLA in private industry settlements covering 1,000 workers or more, 1973-86

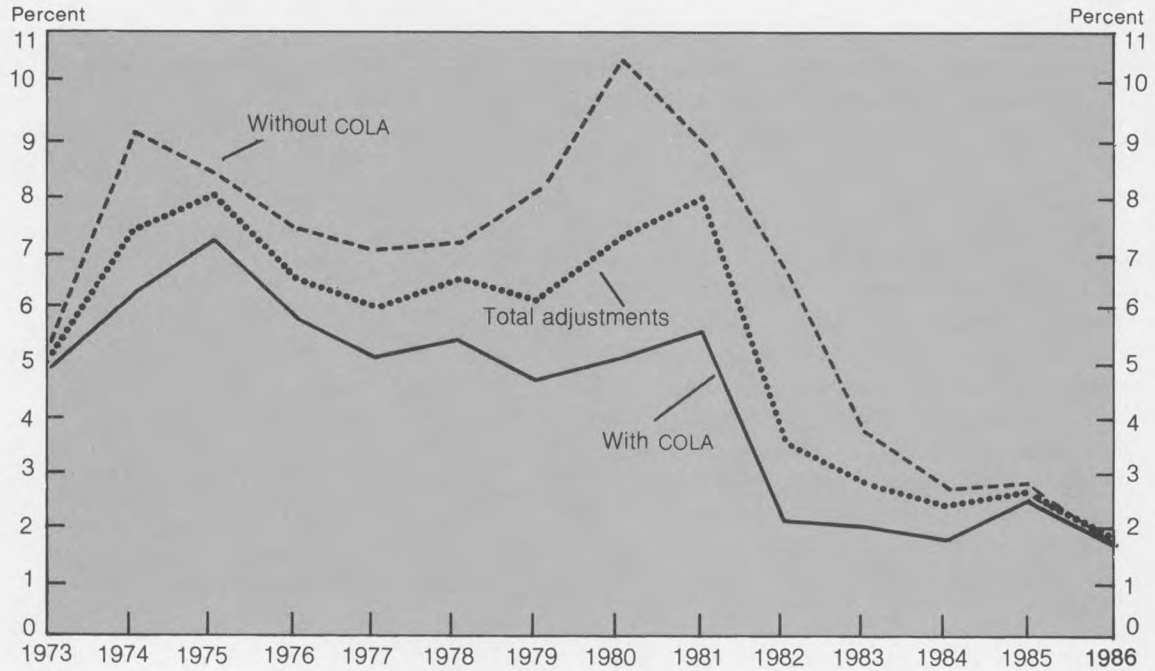


Table 2. Proportion of workers with increases, decreases, or no wage change under settlements covering 1,000 workers or more in private industry, 1979–86
[In percent]

Year	First year			Over the life of contract		
	Increases	Decreases	No change	Increases	Decreases	No change
1979	96	0	4	100	0	0
1980	100	0	0	100	0	0
1981	92	5	3	94	5	1
1982	56	2	42	64	1	35
1983	63	15	22	73	13	14
1984	77	5	18	84	4	12
1985	63	3	33	85	3	12
1986	70	9	21	79	9	13

Price Index that are unknown at the time of settlement. However, "guaranteed" COLA amounts (those specified when the agreement is reached) are included in settlement measures because they are not contingent on subsequent price increases. Wage adjustments for settlements without COLA clauses were 0.9 percent the first year and 1.8 percent a year over the term.

Compensation adjustments. The Bureau measures compensation (wages and employee benefit costs) adjustments in contracts for at least 5,000 workers. These contracts cover almost two-thirds of all workers under major settlements in 1986. Average compensation adjustments were the lowest since the series began—1.1 percent in the first contract year and 1.6 percent annually over the life of the contracts. (See table 3.) During the term of the agreement, 83 percent of the workers will receive increases, 12 percent decreases, and the remainder, no change in compensation.

Major negotiations

Negotiations in 1986 were characterized by the dissolution of some historic pattern bargaining relationships (for example, in steel and telephone communication) as well as by major differences in contract terms among industries.[2]

Settlements in nonmanufacturing industries accounted for three-fourths of all workers under 1986 settlements. They provided wage adjustments of 2.0 percent in the first year and 2.3 percent annually over the life of the contract. The largest numbers of workers covered by settlements in nonmanufacturing were in telephone communications (531,000), construction (522,000), railroads (216,000), and retail trade (209,000)—primarily food stores. Settlements in these industries are detailed below. The remaining workers under nonmanufacturing settlements were in health services, electric and gas utilities, and a variety of other industries.

Telephone communications. Bargaining in telephone communications occurred in a new environment created by the January 1984 divestiture of American Telephone and Telegraph Co., which had provided both local and long distance services. Under the new configuration, AT&T Information Systems (ATTIS) provides national long distance and allied services and seven independent regional companies provide local service through 22 local operating companies. The year (1986) witnessed the breakup of what had been uniform contracts throughout the Bell System.

The first accord was reached between the International Brotherhood of Electrical Workers (IBEW) and AT&T in May. The Communications Workers of America reached a similar agreement in June (ratified in August) after a 4-week strike. Contracts with the regional companies were negotiated in the third quarter of 1986 after the August 9 expiration of the prior agreement.

Although there were many similarities in the terms negotiated in the industry, contracts are no longer uniform. All the settlements provided for wage increases, but the size varied. On average, wage adjustments were 2.0 percent in both the first contract year and annually over the contract term.

There were other similarities in terms, such as improving job security and pension plans, but there were also differences. Some contracts eliminated COLA clauses, for example, while others modified the COLA formula; some contracts called for lump-sum payments or profit sharing, or both, while others provided neither.

Construction. Reflecting general economic improvements in the industry, 1986 settlements in construction provided average wage adjustments of 2.2 percent in the first contract year and 2.5 percent a year over their term. They replaced contracts generally reached 1 to 2 years earlier that provided wage adjustments averaging 1.9 percent a year over their term.

Settlements in construction covered one-fifth of the workers under 1986 settlements, and provided wage adjustments that were higher than the overall averages for the year.

Negotiations in the industry are concentrated in the spring and summer and usually reflect local economic conditions. Employers are generally represented by local or regional branches of national employer associations, while workers are usually organized along craft lines. Contracts for various crafts in a locality frequently provide similar size changes. Average wage adjustments negotiated in 1986 varied by region, as shown in the following tabulation (in percent):

	First year	*Annual, over life of contract*
All construction agreements	2.2	2.5
Northeast	2.2	2.5
New England	3.6	4.0
Middle Atlantic	2.1	2.4
Midwest	3.7	3.5
East North Central	4.2	4.0
West North Central	2.8	2.6
South	0.2	0.2
South Atlantic	2.5	2.1
South Central	−1.7	−1.3
West	1.5	2.2
Mountain	2.0	2.2
Pacific	1.4	2.2
Interregional	0.7	1.2

Wage cuts in the oil-producing South Central States reflect a depressed economy and declines in new construction, while settlements in New England took place during improved economic conditions.

Adjustments also varied by type of construction. Settlements in both general building construction and special trades provided wage adjustments averaging 2.6 percent in the first contract year and 2.8 percent annually over their contract term. Corresponding averages in general construction, other than building, were lower (1.5 and 1.8 percent).

Railroads. Although contracts in the railroad industry expired in June 1984, more than two-thirds of the workers under these agreements did not reach a settlement until 1986. Negotiations covering more than 200,000 workers were concluded during the year with the first settlements in May. Contract talks involved the National Railway Labor Conference (the management bargaining agent for Class I railroads and Conrail) and Amtrak, and various unions, which are organized by craft.

Shifting from the traditional practice of making all wage changes retroactive to the end of the previous contract, the 1986 contracts typically made the first-year wage increases retroactive only to December 1985. Wage adjustments for the industry averaged 2.3 percent in the first year and 2.5 percent a year over the contract term. Although all the contracts continued their COLA clauses, some limited potential COLA payments to specific groups of workers and also stipulated that they would be made only to the extent that they exceeded specified wage increases.

All of the 1986 railroad settlements provided for lump-sum payments. However, the size of the lump sum varied among contracts and within some contracts by type of workers. Some workers received lump-sum payments in lieu of any specified increases or COLA payments.

Retail food stores. Settlements covering 164,000 workers in retail food stores were reached in 1986. They provided average wage adjustments of 1.5 percent in the first contract year and 1.7 percent annually over the term of the agreement.

Almost two-thirds of the workers under these contracts will receive lump-sum payments in lieu of wage increases or to offset pay cuts. Settlements with lump sums provided wage adjustments averaging 0.4 percent in both the first year and annually over the life of the contract. Corresponding averages for settlements without lump sums were 3.6 and 4.1 percent.

Manufacturing. Settlements in manufacturing covered 623,000 workers, including 140,000 in primary metals, 98,000 in transportation equipment, and 145,000 about evenly divided among lumber and wood products, nonelectrical machinery, and electrical machinery, equipment and supplies. They called for wage adjustments averaging −1.2 percent the first contract year and 0.2 percent annually over the contract term.

Primary metals. Settlements in the primary metal industries (steel, aluminum, and copper) dampened overall manufacturing averages for the year. They provided wage adjustments averaging −5.2 percent in the first year and −1.5 percent a year over the term of the agreement.

Bargaining was affected by depressed economic conditions in the entire industry and the breakdown of coordinated bargaining in steel manufacturing. Prior to 1986, the largest steel companies bargained together on terms that set the pattern for the industry. Negotiations in 1986, however, were conducted separately for each company. Although the exact terms differed by contract, settlements in basic steel generally provided wage and benefit cuts, some of which were offset by lump-sum payments.

The most notable bargaining situation in basic steel was at USX (formerly U.S. Steel) where attempts to negotiate a new contract, before the expiration of the old one, failed and a work stoppage ensued, continuing into 1987.

The picture, however, was not bleak throughout the steel industry. Settlements with some profitable specialty steel producers increased wages.

Other negotiations in the primary metal industries produced wage cuts for workers in the copper industry and freezes for those in aluminum production.

Transportation equipment. Contrasting with the wage cuts negotiated in the primary metal industries, 1986 settlements in transportation equipment, covering 98,000 workers, provided wage adjustments averaging 2.5 percent in the first contract year and 1.0 percent a year over the life of the agreements. Eighty-two percent of these workers, primarily those employed in aerospace manufacturing, will receive lump-sum payments.

Negotiations in the aerospace industry in 1986 were conducted under economic conditions that were better than they were during the previous round of talks in 1983. In October

Table 3. Average compensation (wage and benefit costs) adjustments in settlements covering 5,000 workers or more in private industry, 1986
[In percent]

Industry	First-year adjustments	Annual adjustment over life of contracts	Number of workers (thousands)[1]
All industries	1.1	1.6	1,582
Contracts with COLA clauses	2.0	1.7	592
Contracts without COLA clauses	.5	1.5	991
Manufacturing	−2.4	− .7	332
Contracts with COLA clauses	2.3	1.0	123
Contracts without COLA clauses	−5.2	−1.7	209
Nonmanufacturing	2.0	2.2	1,251
Contracts with COLA clauses	1.9	1.9	468
Contracts without COLA clauses	2.1	2.3	782
Construction	2.2	2.3	238
All industries excluding construction	.9	1.4	1,345
Nonmanufacturing excluding construction	2.0	2.1	1,013

[1]Because of rounding, sums of individual employment items may not equal totals.

1986, a pattern-setting agreement covering 40,000 workers was reached between the International Association of Machinists and Boeing Co. Later in the month, similar terms were negotiated for 20,000 employees of Lockheed Corp.

These settlements continued the practice, introduced in the 1983 accords, of providing lump-sum payments in lieu of traditional wage increases. However, the lump sums set by the 1986 settlements were larger than those in the prior agreement. Under the 1986 contracts, workers receive an immediate 40 cents an hour prepaid COLA and lump-sum payments of 12 percent of their prior year's gross earnings in the first contract year and 5 percent of their prior year's gross earnings in both the second and third contract year. Under the previous Boeing agreement, workers received lump-sum payments of 3 percent of their prior year's gross earnings in each year of the 3-year contract. The prior Lockheed agreement provided the same lump-sum payments for the first 2 years, but had a 3-percent general wage increase the third year.

Wage adjustments effective in 1986

Wage adjustments put into effect in 1986 were the lowest in the 19-year history of this series. (See table 4.) They averaged 2.3 percent for the 6.5 million workers under major agreements, as shown in the following tabulation:

	Percent adjustment
All adjustments	2.3
From new settlements	0.5
Deferred from prior settlements	1.7
COLA	0.2

The average was depressed for several reasons. Seventy-eight percent (5,117,000) of the workers had wage increases averaging 3.4 percent (the smallest on record), and 4 percent (250,000) had wage decreases averaging –7.9 percent, as the following tabulation shows. Increases and decreases stemmed from three sources: settlements reached during the year; deferred changes under agreements negotiated in earlier years; and COLA provisions. Some workers received pay changes from more than one source; thus, the number receiving increases and decreases does not equal the total.

Table 4. Effective wage adjustments in collective bargaining agreements covering 1,000 workers or more, 1979–86
[In percent]

Year	Total adjustment	Source		
		New agreements	Deferred from prior agreements	COLA
1979	9.1	3.0	3.0	3.1
1980	9.9	3.6	3.5	2.8
1981	9.5	2.5	3.8	3.2
1982	6.8	1.7	3.6	1.4
1983	4.0	.8	2.5	.6
1984	3.7	.8	2.0	.9
1985	3.3	.7	1.8	.7
1986	2.3	.5	1.7	.2

	Number of workers (in thousands)	*Percent change*
Workers with wage changes:		
Total	5,367	2.8
Increases	5,117	3.4
From new settlements	1,685	3.1
Deferred from prior settlements	2,756	3.9
COLA	1,393	1.0
Decreases	250	−7.9
From new settlements	228	−9.4
Deferred from prior settlements	33	−1.9
COLA	12	−0.7
Workers with no wage changes	1,150	–

The remaining 18 percent of the workers (about 1,150,000) had no wage change. About 930,000 of these workers were covered by contracts that provided no wage change during 1986. An additional 220,000 workers, however, received no wage change because their contracts had expired but had not been renegotiated during the year.

Two million of the 2.6 million workers under contracts with COLA provisions were eligible for COLA's during 1986. About 1.4 million had COLA-triggered net wage increases averaging 1.0 percent over the year; of these, however, 963,000 had at least one COLA wage decrease during the year. An additional 12,000 workers had net COLA decreases in 1986. The remaining 619,000 workers did not receive COLA changes either because their contracts had no provisions for COLA decreases or the change in the CPI was insufficient to trigger a COLA pay change. Wage adjustments stemming from COLA reviews in 1986 averaged 51 percent of the change in the CPI during the COLA review period.

Effective wage adjustments under major collective bargaining agreements are reflected in the wage and salary series of the Bureau's Employment Cost Index (ECI), a broad measure of changes in labor costs. The ECI provides data on both union and nonunion workers in establishments of all employment sizes. It shows that wages and salaries rose 3.1 percent in private industry in the year ending December 1986, the smallest increase in the 10-year history of the series.

During 1986, wages rose 2.0 percent for union workers, compared with 3.5 percent for nonunion workers. This continues a relationship that began in 1983.

A discussion of this year's scheduled bargaining, "Collective bargaining in 1987: local, regional issues to set tone," appears in the January 1987 *Review*. □

FOOTNOTES

[1] The major collective bargaining agreement series for private industry covers 6.5 million workers in bargaining units with at least 1,000 workers. For definition of terms, see Current Labor Statistics, "Wage and Compensation Data," pp. 53–55. Additional tabulations from this series appear in the March 1987 issue of the Bureau's *Current Wage Developments*.

[2] For details of these settlements, see George Ruben, "Labor-management scene in 1986 reflects continuing difficulties," *Monthly Labor Review*, January 1987, pp. 37–48.

On their own: the self-employed and others in private business

The Survey of Income and Program Participation provides new information not found in the Current Population Survey about business owners, including data on incorporated and side businesses, earnings of owners, and the number of persons they employ

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Between 1948 and 1973, the percentage of self-employed persons in nonagricultural industries fell from 12.0 to 6.7 percent,[1] but by 1985, it had risen to 7.5 percent. Given this recent growth in entrepreneurial activity, it is of some importance to obtain as accurate information as possible about the size and composition of the entrepreneurial class and of the businesses they operate. The Bureau of the Census' Survey of Income and Program Participation (SIPP) provides an opportunity for obtaining this information. This article reports on some new findings, derived from this survey, relating to businesses and business ownership as distinct from self-employment.

The Current Population Survey (CPS), conducted for the Bureau of Labor Statistics by the Census Bureau, defines the self-employed as sole proprietors and partners of unincorporated businesses.[2] Individuals who identify themselves as owning a controlling interest in incorporated businesses are shown in published tabulations as wage and salary workers because they are employees of the businesses they operate and are paid a salary for the services they render. Omission of this group from the self-employed leads to an underestimate of the number of business owners. Wage and salary workers who report self-employment as a secondary activity (that is, own a side business) also are business owners and they, too, are excluded from the CPS count of the self-employed. In fact, this group is the fastest growing group among business owners.[3]

While it is possible to derive information about incorporated business owners and owners of a side business from the Current Population Survey and the Survey of Income and Program Participation, the latter offers a number of advantages over the former in studying business ownership. For example, a question about ownership of a side business has only been asked occasionally in the CPS; in these instances information on hours worked at the side business has not been collected. In the Survey of Income and Program Participation, all business owners are identified, whether or not they own incorporated businesses or side businesses, and each owner is asked the number of hours he or she usually works at the business. Additionally, earnings information from up to two businesses is obtained in each Survey of Income and Program Participation reference period; in the CPS, self-employment earnings information is collected only in the March survey and pertains to the preceding calendar year. Furthermore, the Survey of Income and Program Participation contains information about businesses as well as business owners. In particular, information on the legal form of business and number of workers employed is

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obtained for all businesses except those with expected gross receipts of less than $1,000 for the following year (casual businesses).[4] It should be emphasized that these differences between the surveys do not reflect deficiencies in the CPS; they are due to the fact that the two data sets are designed to measure different things.

Survey samples

The Current Population Survey is a monthly survey of 59,000 households that collects information about employment and unemployment. The Survey of Income and Program Participation is an ongoing series of national panels designed to improve reporting of income and participation in major Federal Government income transfer programs. In Wave 1 of the 1984 panel, approximately 19,900 households were interviewed.

In the Survey of Income and Program Participation, each panel is divided into four rotation groups. During a cycle or wave of interviewing covering 4 months, each household is interviewed one time; over a 1-year period, a household is interviewed three times. The reference period for an interview is the 4-month period preceding the interview month.

The Survey of Income and Program Participation data utilized in this study are from Wave 1 of the 1984 panel. The interviews were conducted from October 1983 to January 1984. Hence, the reference periods are from June 1983 to September 1983 for the first rotation group through September 1983 to December 1983 for the fourth rotation group. During the reference periods to Wave 1, 24,490 respondents reported having worked in the nonagricultural sector of the economy; of this number, 2,948 respondents owned a business.

It should be noted that since the Survey of Income and Program Participation is a longitudinal survey, the data reflect work experience over time rather than activity status at a point of time as is the case for the Current Population Survey. For this reason alone, estimates of the number of persons engaged in business and in paid employment from the two Census Bureau surveys will differ.[5]

Estimates of business ownership

The Survey of Income and Program Participation data indicate that in the last half of 1983, 12.8 million persons owned businesses, or 11.9 percent of persons working in nonagricultural industries. Of these workers, however, only 7.4 percent were self-employed owners of unincorporated businesses. A similar calculation based on May 1983 CPS data indicates that 13.5 percent of employed persons[6] in nonagricultural industries were business owners compared to 7.8 percent who were reported as self-employed.[7] From the figures in the first two columns of table 1, it is seen that business ownership is a much more prevalent activity among employed persons than is suggested by statistics on self-employment only. In fact, the percentage of workers who owned businesses was 60 percent (SIPP) to 75 percent (CPS) larger than the percentage reported as self-employed.

Both Census Bureau surveys yield similar distributions of employment. As noted, 7.4 and 7.8 percent of the employed reported self-employment in unincorporated businesses in the Survey of Income and Program Participation and the CPS, respectively. From the Survey of Income and Program Participation, an additional 2.6 percent operated incorporated businesses;[8] the comparable CPS figure is 2.7 percent. The largest discrepancy between the surveys' figures is for the group, paid employee and a business owner (side business owner). In the Survey of Income and Program Participation, 1.9 percent of the employed owned side businesses; the comparable figure from the CPS was 3.0 percent. The difference between these figures is, in part, due to how owners of a side business are defined in both surveys[9] and our inclusion in the Survey of Income and Program Participation of some owners of a side business among casual business owners.[10] The most likely explanation for the difference, however, is that in the Survey of Income and Program Participation, individuals who owned farms and also worked as paid employees in nonagricultural industries were excluded from our count of side business owners because these individuals operated agricultural businesses. In the CPS, individuals who reported they were wage and salary workers in nonagricultural industries and also answered "yes" to whether they owned farms, businesses, or professions, were included in our count of side business owners because the only information about their industrial attachment is for their paid jobs; similar information for their side businesses is absent.[11] The remaining groups, paid employees only[12] and unpaid family workers,[13] accounted for 87.9 and 0.2 percent (SIPP) and 86.1 and 0.4 percent (CPS) of employed persons, respectively.

The percentage of persons working full time at jobs can be calculated from both surveys and as seen from table 1, the estimates are of the same order of magnitude for each category of workers. The Survey of Income and Program Participation percentages are higher than those from the CPS,

Table 1. Distribution of employed persons in nonagricultural industries, SIPP and CPS, 1983[1]

[In percent]

Category	Distribution		Full time at all jobs		Full time at business
	CPS	SIPP	CPS	SIPP	SIPP
Total	100.0	100.0	(2)	(2)	(2)
Self-employed, unincorporated business owner	7.8	7.4	67.1	67.6	66.2
Casual business owner	(2)	1.2	(2)	42.7	37.0
Noncasual business owner	(2)	6.2	(2)	72.4	71.9
Incorporated business owner	2.7	2.6	85.2	88.8	88.7
Paid employee and a business owner	3.0	1.9	76.7	81.2	24.5
All business owners	13.5	11.9	(2)	(2)	(2)
Paid employee only	86.1	87.9	74.8	77.9	73.0
Unpaid family worker	0.4	0.2	(2)	(2)	(2)

[1] SIPP reference periods June to September 1983 through September to December 1983; the CPS reference period is May 1983.

[2] Not applicable or not calculated.

but this is most likely due to the reporting of usual hours worked in the Survey of Income and Program Participation and the use of actual hours in deriving the CPS figures.

Among business owners, the group with the highest percentage working full time at businesses was incorporated business owners; the group with the lowest percentage was owners of side businesses. Among incorporated business owners, 88.7 percent worked full time at their businesses, compared to 66.2 percent among unincorporated business owners. Of some interest, 37.0 percent of casual business owners—a category not distinguished in the CPS—reported working full time. One possible explanation for this relatively high proportion is that casual business owners who work full time do other things when working, such as watching children or trying to become more productive business owners in anticipation that sales will ultimately improve. Still another explanation is that expected gross receipts, because they are expected to be small, were underestimated.

Because full-time casual business owners reported very low earnings of $1,224, it is clear that, as a group, they were only marginally engaged at their businesses. (See page 21.) The same can be said of side business owners. Although a high proportion of paid employees with side businesses worked full time, 81.2 percent, only a small proportion, 24.5 percent, worked full time at their side businesses.

Type of business

The Survey of Income and Program Participation data provide a means of categorizing business owners by the types of businesses they own. In the survey, one can distinguish businesses by legal form of ownership status, whether the business is a casual or a side business, and whether the owner works full time at the business.

Of particular interest is the distribution of business owners and their businesses by legal form of organization. Estimates of these distributions are shown in table 2 for men and women under the plausible assumption that a casual business is a sole proprietorship. (See footnote 4.) As indicated in table 2, 23.2 percent of all business owners were incorporated. Incorporated business owners were a smaller percentage of female business owners, 17.1 percent, than of male business owners, 25.9 percent. The gender differentials are more pronounced when businesses rather than business owners are considered: 10.1 percent of incorporated businesses were owned by women, compared to 22.2 percent owned by men.[14]

The Survey of Income and Program Participation data also indicate that 13.5 million nonagricultural businesses existed in the last half of 1983—700,000 more than the 12.8 million business owners. The larger number of businesses than business owners is due, in part, to the percentage of business owners, 4.1 percent, who owned at least two nonagricultural businesses.[15] Of the nonagricultural businesses, 9.6 million were sole proprietorships, compared to the 10.7 million nonfarm proprietorships reported in Federal income tax returns for 1983.[16]

Table 2. Distribution of business owners and businesses in nonagricultural industries by legal form of business, 1983[1]

[In percent]

Legal form	Total	Men	Women
Business owners			
Total	100.0	100.0	100.0
Sole proprietors	63.2	60.0	69.8
Partners	13.6	14.1	13.1
Incorporated	23.2	25.9	17.1
Number (thousands)	12,842	8,769	4,173
Businesses			
Total	100.0	100.0	100.0
Sole proprietorships	70.8	65.6	81.8
Partnerships	10.9	12.2	8.1
Incorporated	18.3	22.2	10.1
Number (thousands)	13,531	9,147	4,384

[1] SIPP reference periods June to September 1983 through September to December 1983.

Still another perspective of business ownership is obtained from table 3. As indicated, 14.5 percent of men and 8.6 percent of women were business owners.[17] However, 18.8 percent of female business owners had casual businesses and 14.7 percent owned side businesses. Among male business owners, only 6.2 percent owned casual businesses and 16.6 percent were engaged in side businesses. We also see that men worked full time at businesses to a greater extent than women: the male-female differential in the proportion of business owners who worked full time was 28.7 percentage points, while the corresponding male-female differential in the proportion of paid employees only who worked full time was 17.3 percentage points.

If substantial entrepreneurial activity is defined as working full time at a noncasual business that is not a side business, we find that 65.3 percent of male business owners were active entrepreneurs; the analogous figure for female business owners was 37.0 percent. Thus, of all employed men and women in nonagricultural industries, 9.5 percent of the former but only 3.2 percent of the latter were substantially engaged in businesses.

Earnings of workers

People become business owners for a number of reasons: some start their own businesses because they feel constrained by the formal work rules associated with paid employment; some operate businesses because it is a way of earning income while staying home; for those who have special talents, such as artists, self-employment is often the means of achieving the freedom they need to express their creativity. Each of these reasons yields psychic income and leads to the expectation that, all else being the same, business owners, on average, may earn less than paid employees. Additionally, because business owners face risks not generally shared by paid employees, it is plausible that low earnings, including zero earnings, are more common among the former than the latter. The Survey of Income and

Table 3. Business owners in nonagricultural industries by business type, 1983[1]
[In percent]

Category	Total	Men	Women
Employed workers owning a business	11.9	14.5	8.6
Casual business owners	10.3	6.2	18.8
Side business owners	16.0	16.6	14.7
Business owners working full time at businesses	63.8	73.0	44.3
Full-time business owners of noncasual businesses that are not side businesses	56.1	65.3	37.0

[1] SIPP reference periods June to September 1983 through September to December 1983.

Program Participation data, like the CPS data, confirm that the reported earnings of business owners are less than that of paid employees.

Earnings data for business owners in the Survey of Income and Program Participation differ from analogous data in the CPS in several respects. First, the questions asked respondents about business income are different. In the Survey of Income and Program Participation, interviewers are instructed to ask the amount of income an individual takes out of his or her business[18] and income from a business is dated as to when it is earned. Second, because current rather than past income is recorded, the recall period is shorter. Third, this survey is a longitudinal survey and, hence, it contains information about individuals who are in the process of moving into and out of a business. Fourth, earnings information is routinely obtained for incorporated businesses in the survey.

Because the Survey of Income and Program Participation information is collected for up to two businesses and up to two paid jobs in a reference period, the earnings data are aggregated over both businesses and both jobs. Although some earnings may have been missed, it is believed the amount is very small, because only a small percentage of workers change jobs three times during a year. An even smaller proportion would be expected to have three employers (businesses) in a 4-month period.[19] Annualized earnings by type of business are shown in table 4 for men and women.[20]

Earnings of men

To benchmark the earnings data from the Survey of Income and Program Participation, it can be inferred from table 4 that for men the ratio of earnings from unincorporated businesses, $13,520, to earnings from paid employment only, $20,039, is .67. The corresponding ratio, earnings of self-employed men to male wage and salary workers, based on CPS data for 1982[21] is also .67.[22]

Men who owned incorporated businesses earned considerably more than those who did not own incorporated businesses (excluding side business owners in both categories): the median earnings of male owners of incorporated businesses ($24,012) were almost 80 percent higher than that of their counterparts who owned unincorporated businesses ($13,520). When the definition of a business owner is expanded to include incorporated business owners as well as the self employed, the ratio of business earnings to earnings from paid employment only for men rises from .67 to .78.

Earnings of women

An anomaly in the Survey of Income and Program Participation data is seen from the data for female business owners in table 4. Self-employed women had annualized earnings of $3,767, which is approximately one-quarter of the $13,520 earned by self-employed men and one-third of the $12,079 earned by female paid employees only. The CPS data for 1982 indicated that full-time, full-year self-employed women earned about one-half as much as self-employed men and female wage and salary workers.

It is difficult to say what accounts for the low earnings of self-employed women in the Survey of Income and Program Participation. On one hand, it may be that they were underreporting business earnings in the Survey of Income and Program Participation *vis-a-vis* the CPS. On the other hand, their relatively low earnings may reflect our use of annualized earnings instead of actual earnings over a full year. Still another explanation is that the Survey of Income and Program Participation longitudinal data include a larger fraction of transient business owners than the CPS cross-sectional data, and women may be more prone to enter and leave self-employment than men. The higher ratio of female-to-male earnings among incorporated business owners is consistent with the last conjecture because incorporated business owners are a more stable group than unincorporated business owners. Which of these reasons is the correct one requires further study.

Evidence of underreporting

Despite the reasonableness of the Survey of Income and Program Participation earnings figures, at least for men,

Table 4. Median annualized earnings of full-time, full-reference period business owners and paid employees, 1983[1]
[In thousands]

Category	Men	Women
Business owners, including owners of a side business	$14,787	$4,894
Owners of a side business	4,784	(2)
Business owners, excluding owners of a side business	15,600	4,894
Unincorporated business owners[3]	13,520	3,767
Sole proprietors	12,235	3,671
Partners[3]	20,216	(2)
Incorporated business owners[4]	24,012	9,302
Paid employees only	20,039	12,079

[1] SIPP reference periods June to September 1983 through September to December 1983.

[2] Less than 50 observations.

[3] Excludes partners of noncasual businesses who could not be distinguished from incorporated owners of noncasual businesses.

[4] Excludes incorporated owners of noncasual businesses who could not be distinguished from partners of noncasual businesses.

some direct evidence of underreporting of business income in the survey should be noted. Underreporting is suggested by the earnings for business owners whose businesses were neither casual businesses nor side businesses. For example, the percentage of individuals in this group who reported no business earnings (that is, took no income from the business) during the reference period was 20.8 percent. Further evidence of underreporting is found in the data when business owners who worked full time are classified by the number of workers employed in their primary business.[23] Among owners of businesses with 3 or more employees, 14.3 percent reported no earnings during the reference period. Undoubtedly, some of these larger business owners were operating at a loss. Still, the percentage reporting no business earnings is sufficiently high to suggest an inconsistency in the Survey of Income and Program Participation between the earnings data and the data on business size. The alternative explanation that a relatively large proportion of businesses that appeared to be successful, judging by the number of workers employed, yielded no income to their owners over a 4-month period is highly implausible.

Internal evidence of underreporting is also suggested by the earnings of casual business owners. Individuals in this group who worked full time during all reference weeks had annualized median earnings of $1,224.[24] Thus, more than one-half of this group reported earnings at an annual rate that *exceeded* the expected gross receipts criterion of $1,000 used to define casual business owners. While the actual earnings and expected gross receipts estimates are not necessarily inconsistent, it would appear that some respondents underestimated their expected gross receipts. It is not implausible that such individuals may also have underreported their actual business earnings.

It should be mentioned that evidence of underreporting of self-employment earnings can also be found in the CPS. From the May 1983 CPS, it is found that among male full-time self-employed workers (in nonagricultural industries as of May 1983) who worked full time, full year in 1982, 12.5 percent reported business and wage and salary earnings of less than $5,000[25] (that is, $2.40 an hour, assuming a 40-hour week). The underreporting, by business owners, in survey data is a well-known phenomenon. As indicated, the Survey of Income and Program Participation yields new direct evidence of such underreporting.

Employment in privately owned businesses

Up to this point, our analysis has focused primarily on business owners. As indicated, the Survey of Income and Program Participation also contains information about the businesses they own, particularly the legal status of the business and the number of individuals that work for the business.[26] As one would expect, and as can be seen from table 5, the legal status of a business is related to the number of persons in its employ. For example, more than 9 out of 10 businesses with only one worker were sole proprietorships. At the other extreme, only about 1 out of 5 businesses with six workers or more were sole proprietorships. In "intermediate size" businesses, those with two to five employees, about one-half were sole proprietorships.

Table 5. Distribution of businesses by legal form of business and number of employees, 1983[1]
[In percent]

Category	Number of employees[2]				
	1	2	3 to 5	6 or more	Total
Total	100.0	100.0	100.0	100.0	100.0
Sole proprietorships[3]	93.8	51.1	47.7	16.0	70.7
Casual sole proprietorships[3]	3.8	0	0	0	22.3
Noncasual sole proprietorships	90.0	51.1	47.7	16.0	48.4
Partnerships and incorporated businesses	6.2	48.9	52.3	84.0	29.3
Total	58.9	12.3	14.5	14.3	100.0
Sole proprietorships[3]	78.2	8.9	9.7	3.2	100.0
Casual sole proprietorships[3]	100.0	0	0	0	100.0
Noncasual sole proprietorships	68.1	13.0	14.2	4.7	100.0
Partnerships and incorporated businesses	12.5	20.6	25.8	41.1	100.0

[1] SIPP reference periods June to September 1983 through September to December 1983.

[2] Employees in primary business. Owner or owners and unpaid family workers included in count of employees.

[3] Includes side businesses with expected gross receipts of less than $1,000 in next 12 months. Some of these side businesses may be partnerships or incorporated businesses.

Table 5 also reveals that only 12.9 percent of sole proprietorships employed three workers or more; the comparable figure for partnerships and incorporated businesses is 66.9 percent. Among all businesses, somewhat more than 4 out of 10 provided employment for two or more workers.

The data underlying table 5 are of special interest because they enable one to estimate the number of workers employed in privately owned businesses. This number provides a more complete measure of the amount of employment generated through entrepreneurial activity than the number of self-employed persons or business owners. Because of the way the data are grouped in the Survey of Income and Program Participation public use file, however, our estimate is on the low side.[27]

Assuming that businesses with gross receipts of less than $1,000 in the next 12 months have only one worker and also assuming that the number of workers employed by a business is given by the lower bound of each class interval in table 5, an estimate of 28.5 million workers (including business owners and unpaid family workers) in privately owned businesses is obtained. Thus, of the 108.1 million persons in nonagricultural industries who held a job in Wave I of the Survey of Income and Program Participation, at a *minimum* 26.4 percent (28.5 million workers) found employment in privately held businesses. Omitting Federal, State, and local government workers, the latter figure rises to 36.6 percent. If, in addition, paid workers in private nonprofit organizations are excluded from the employment base,[28] the proportion of workers in for-profit businesses who were employed

in privately owned firms increases still further to a minimum of 40.1 percent.

Another way of gauging the importance of the privately owned business sector is by estimating the employment multiplier effect attributable to individuals who establish their own businesses. Given our estimates of 28.5 million workers in privately owned businesses and 12.8 million business owners, this implies that, on average, for every 100 business owners, at least an additional 123 workers find employment in privately owned businesses. More accurate measures of the employment effects of owner-operated businesses must be deferred until as yet unpublished Survey of Income and Program Participation data become available.

Summary

The Survey of Income and Program Participation yields new information about business owners, as distinct from the self-employed, as well as the businesses they own. Not included among the self-employed, but nonetheless members of the entrepreneurial class, are owners of incorporated businesses and owners of side businesses.

Among the more important findings from the Survey of Income and Program Participation data is that business owners accounted for 11.9 percent of persons working in nonagricultural industries during the last half of 1983; this is 60 percent more than the percentage reported as self-employed. A similar conclusion is reached based on Current Population Survey data for May 1983. In the CPS data, an even larger proportion of employed workers, 13.5 percent, were found to own businesses.

We also found that 70.8 percent of businesses were sole proprietorships, while 18.3 percent were incorporated businesses. More women than men were engaged in casual and side businesses, and men worked full time at businesses to a greater extent than did women. Two-thirds of male business owners were substantially engaged in a business, compared to about one-third among female business owners.

Annualized earnings varied from about $3,700 for female sole proprietors to $24,000 for male owners of incorporated businesses. But a relatively high proportion of business owners in the Survey of Income and Program Participation reported no earnings from their businesses even among those with businesses with three workers or more, providing internal evidence of underreporting of business earnings.

It is also possible to estimate the percentage of workers employed by privately owned businesses. At a minimum, 26.4 percent of all workers (28.5 million workers) were employed in such firms. When government workers and paid workers in private nonprofit organizations are excluded, the proportion increases from 26.4 to 40.1 percent. □

——FOOTNOTES——

[1] T. Scott Fain, "Self-employed Americans: their number has increased," *Monthly Labor Review,* November 1980, pp. 3–8 and Eugene H. Becker, "Self-employed workers: an update to 1983," *Monthly Labor Review,* July 1984, pp. 14–18. For earlier studies of self-employment, see Robert N. Ray, "A report on self-employed Americans in 1973," *Monthly Labor Review,* January 1975, pp. 49–54 and John E. Bregger, "Self-employment in the United States, 1948–62," *Monthly Labor Review,* January 1963, pp. 37–43.

[2] Prior to 1967, no distinction was made in the CPS between persons operating unincorporated and incorporated businesses. Individuals in both groups were classified as self-employed. In 1967, when incorporated business owners were separately identified, they were classified as wage and salary workers.

[3] Sheldon Haber, *A New Perspective on Business Ownership* (U.S. Small Business Administration, Office of Advocacy, July 1985). See also *The State of Small Businesses: A Report of the President* (U.S. Government Printing Office, 1986).

[4] For convenience, businesses with expected gross receipts of less than $1,000 in the next year are referred to as casual businesses and their owners as casual business owners. Conversely, businesses with expected gross receipts of more than $1,000 are referred to as noncasual businesses. Because casual businesses are small, it has been assumed that they are sole proprietorships with only one worker, that is, the owner of the business.

[5] For a comparison of estimates of employment and unemployment from SIPP and the CPS, see Paul M. Ryscavage and John E. Bregger, "New Household Survey and the CPS: A look at labor force differences," *Monthly Labor Review,* September 1985, pp. 3–12.

[6] For ease of exposition, in the remainder of the paper employed persons and persons with work experience are referred to simply as employed persons.

[7] One explanation for the lower percentages in SIPP is the greater difficulty of accumulating capital needed to start a business versus finding a job as a paid employee. This difficulty is seen more readily in longitudinal data than in cross-sectional data.

[8] In SIPP, only one owner of a noncasual business is asked the legal form of organization of (and the number of persons employed in) that business. Thus, while all owners of businesses in a household are enumerated, only one partner in a partnership or one owner of an incorporated business can be identified. While it is possible to determine who are the remaining partners and owners of an incorporated business, one cannot tell which of these two categories an individual falls into. Unless otherwise stated, in this study, partners and owners of incorporated businesses who could not be identified as such because another person had answered questions about the business are divided in the same proportion as partners and incorporated owners who could be identified.

[9] In the supplement to the May 1983 CPS, wage and salary workers were asked whether they also operated a "farm, business, or profession." Persons answering "yes" to this question in the CPS are classified as having a side business in this study. For SIPP, side business owners are defined in this study to include (a) casual business owners with earnings from paid employment in all 4 months of the reference period, and (b) noncasual business owners with earnings from a business and from paid employment in one or more of the 4 reference period months *or* earnings from paid employment in all 4 months of the reference period if there were no earnings from a business during the reference period.

[10] In table 1 and elsewhere in this study, unless otherwise stated, casual business owners are classified as owners of a side business if they also meet the criteria for being classified in the latter category. However, because SIPP provides less detailed earnings information for casual than noncasual businesses, it was not possible to identify all casual businesses that were also side businesses. Hence, within the definitional framework adopted in this study, the number of casual business owners is overestimated and the number of side business owners is underestimated.

[11] The difference in definition of a side business also helps explain the smaller percentage that business owners make up of all workers in SIPP *vis-a-vis* the CPS.

[12] In SIPP, paid employees are asked questions of up to two employers for whom they worked in a reference period. For both SIPP and the CPS, the group "paid employee only" is defined to include individuals who worked for pay and did not own a business.

[13] Unpaid family workers are defined in the same way in SIPP as they are in the CPS. However, if an individual reported he or she was a paid employee in one job and an unpaid family worker in another job during a SIPP reference period, we classified the individual as a paid employee.

[14] Some ambiguity in this conclusion should be noted. Because the legal form of business is elicited for only one owner of a partnership or incorporated business, it is possible that the recorded owner is of a different gender than the principal owner.

[15] Also, while SIPP provides an unduplicated count of casual business owners, it does not yield an unduplicated count of casual businesses. One can only assume, as we have here, that all casual businesses are sole proprietorships. This assumption may lead to an overcount of sole proprietorships in our study.

[16] *Statistics of Income Bulletin* (Department of the Treasury, Internal Revenue Service, Summer 1985), p. 98. It is to be recalled that a SIPP reference period is 4 months. The income tax return data cover a calendar year.

[17] Among blacks and Hispanics, 4.5 and 7.4 percent, respectively, were owners of a business.

[18] In the CPS, the respondent is asked to report money income from his or her business after expenses; hence, negative incomes can be reported indicating a business loss. In SIPP, the amount of income taken out of a business during a reference period is zero or positive; net profit is ascertained from a separate question.

[19] In 1978, less than 4 percent of workers had three or more employers during the year (based on the May 1979 CPS).

[20] Because this study is based on the 4-month reference periods of Wave 1, the earnings data have been annualized. Thus, some individuals are shown as having no earnings from a business because they had no business income during their 4-month reference period, whereas they might be expected to have positive earnings over a full-year period. To some extent this problem is mitigated by the use of median earnings to measure income from different types of businesses. More precise figures will be forthcoming as additional SIPP data become available; in the meantime, the data from Wave 1 provide new insights into the earnings of business owners by type of business.

[21] See Eugene H. Becker, "Self-employed workers," p. 18. Becker reports CPS 1982 median earnings of $14,360 and $21,542 for male self-employed and male wage and salary workers, respectively. The corresponding figures for female self-employed and female wage and salary workers are $6,644 and $13,352.

[22] The SIPP earnings figures are for individuals who worked full time and for all weeks of their 4-month reference period. The CPS data referred to above are for individuals who worked full time, full year. The closeness of the ratios from the two data sources, while reassuring, is coincidental.

[23] In this study, the primary business of business owners with two businesses is defined as the one with the higher earnings. The owner or owners of a business and unpaid family workers are included in the count of employees.

[24] Based on 65 observations. Note, respondents are first asked their expected gross receipts in the following 12 months and then *later* in the interview are asked what their earnings were during the reference period.

[25] Sheldon Haber, *A New Perspective,* pp. 23–24.

[26] In topical modules to later SIPP waves, additional information is being collected about unincorporated businesses, for example, information about assets and liabilities and gross receipts and expenses.

[27] In SIPP, up to 99 workers are recorded for each business. Only the group sizes shown in table 5 are provided in the public use files.

[28] From 1984 data developed by Hodgkinson and Weitzman, it is found that 8.8 percent of paid employees in the private nonagricultural sector work in nonprofit organizations. See Virginia Ann Hodgkinson and Murray S. Weitzman, *Dimensions of the Independent Sector: A Statistical Profile,* 2nd ed. (Washington, Independent Sector, forthcoming). Applying the aforementioned figure in ratio form to the number of paid employees only (excluding government workers) derived from SIPP yields an estimate of workers in private nonprofit organizations.

Productivity trends in the furniture and home furnishings stores industry

Overall output per hour was above average from 1967 to 1985, reflecting a 4.8-percent increase in output and a 1.8-percent rise in employee hours; above-average growth is expected for the near future in this rapidly changing industry

ARTHUR S. HERMAN AND J. EDWIN HENNEBERGER

Productivity, as measured by output per hour of all persons, grew at an average rate of 3.0 percent in the furniture and home furnishings stores industry from 1967 to 1985.[1] This gain is significantly above the productivity growth rate for the nonfarm business sector of the economy, which was 0.9 percent during the same period. The productivity trend rate in the furniture and home furnishings stores industry reflects an increase in output of 4.8 percent and a gain in hours of all persons averaging 1.8 percent.

Productivity growth in this industry compared favorably with trends in other retail trade industries measured by the Bureau of Labor Statistics. Apparel stores had a slightly higher productivity growth rate of 3.6 percent during 1967–85. However, drug stores had a lower rate of 2.3 percent and retail food stores which posted an actual decline of 0.8 percent in productivity had a significantly lower rate.

The furniture and home furnishings stores industry comprises a variety of different retail stores besides furniture stores. These include stores selling floor coverings, draperies, curtains, upholstery, miscellaneous home furnishings such as glassware, household appliances, radios and televisions, and music and records. Productivity measures have been developed for the furniture and home furnishings stores component of the industry and the appliance, radio, TV, and music stores component, as well as for the overall industry.

Productivity growth was significantly different in the two components of the industry. Productivity grew at the high rate of 4.6 percent in the appliance, radio, and TV stores component from 1967 to 1985 while increasing at less than half that rate, 1.9 percent, in the furniture and home furnishings component. The appliance, radio, and TV stores component had a significantly higher rate of output growth, 6.6 percent per year, fueled by significant increases in demand for such fast-selling items as microwave ovens, video recorders, color television sets, and personal audio equipment. On the other hand, output of the furniture and home furnishings stores component grew at the slower rate of 3.6 percent over the 1967–85 period. This component of the industry was significantly affected by economic downturns during the period. The growth rate for hours of all persons was relatively similar for the two components of this industry, increasing at a rate of 2.0 percent in appliance, radio, and TV stores and at a rate of 1.6 percent in furniture and home furnishings stores.

Subperiod trends

Productivity growth can be divided into three periods in the furniture and home furnishings stores industry. From 1967 to 1973, productivity grew at the comparatively high rate of 4.3 percent in the overall industry as output increased at the very high rate of 6.7 percent. The productivity ad-

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vance slowed to a 1.5-percent rate from 1973 to 1978 as output gains also slowed to 3.7 percent per year. From 1978 to 1985, productivity growth picked up to a 3.0-percent rate as output growth increased to 4.5 percent. (See table 1.)

The trends in the overall industry reflected differing productivity and output growth rates in the component industries in the more current periods. In the furniture and home furnishings stores component, productivity experienced a high growth rate of 4.3 percent from 1967 to 1973 as output expanded significantly. Productivity fell to a rate of 1.0 percent from 1973 to 1978 and continued at a 1.3-percent rate in the 1978–85 period. In the appliance, radio, and TV stores component, productivity also grew at a high rate of 4.4 percent from 1967 to 1973 with output increasing at a 6.0-percent rate. From 1973 to 1978, productivity in this component slowed to a rate of 2.2 percent, despite an output growth rate of 5.7 percent. However, productivity growth accelerated in this component to a rate of 5.5 percent from 1978 to 1985, with output up even more. (See table 2.)

Cyclical changes

The two components of this industry were influenced by different economic factors over the period studied. The furniture and home furnishings component was very much affected by cyclical changes in the economy. Expansions or contractions in output and associated changes in productivity in this component can be very closely tied to changes in the growth of new residential construction, because furniture and home furnishings are generally purchased when families move into new homes. In periods when the economy is booming and especially when new residential construction expands rapidly, this component of the industry registers large gains in output and, in turn, significant gains in productivity. Conversely, when the overall economy declines, and especially when new residential construction drops, output in this industry slows or posts declines and productivity also tends to fall off.

This relationship can be seen by examining productivity and output rates during the recessionary and growth periods of the 1970's and the 1980's. In the recession of 1970, new residential construction posted a decline.[2] After recording large gains in output and productivity in 1968, the furniture and home furnishing stores component slowed in 1969 and 1970. Productivity in this part of the industry posted declines of 2.8 percent in 1969 and 0.3 percent in 1970. During the growth period, 1971–73, output in this component expanded significantly. Productivity averaged 7.8 percent over this period. However, this industry component was hit very hard by the recession of 1974–75, when new residential construction plummeted, posting major declines in 1974 and 1975. Output of the furniture and home furnishings stores component fell in 1974 and 1975. Productivity in this component had two consecutive declines, −3.3 percent in 1974 and −3.2 percent in 1975. During the period of economic growth from 1976 to 1979, this component of the industry posted significant output gains and moderate productivity growth. The recessionary periods of 1980 and 1981–82 had a major impact on this part of the industry. New residential construction fell sharply in 1980 and continued to fall through 1982. The furniture and home furnishings stores component had 3 consecutive years of declining output. Productivity recorded its largest decline over the period measured in 1980, falling 6.5 percent and an additional 3.6 percent in 1982. In the growth period following this recession, output picked up significantly from 1983 to 1985 and productivity posted two good gains.

The appliance, radio, and TV stores component of the industry was not as much affected by cyclical changes. While trends in the sales of most appliances tend to move in a similar direction as furniture and home furnishings, sales of the other items sold by this component of the industry do not. Radios, televisions, video recorders, records, and tapes tended to have different growth patterns than furniture over the 1967–85 period. There was a boom in demand for these items, especially toward the latter part of the period. Even among appliances, the vigorous expansion in the sale of microwave ovens tended to produce countercyclical forces. In fact, there was only one year of output decline in this component over the 1967–85 period.

In the recession year of 1970, for example, the appliance, radio, and TV stores component posted a strong output gain of 6.1 percent. In the 1974–75 recession, output grew in both years, although productivity posted a decline of 2.4 percent in 1974. In the recessionary periods of 1980 and 1981–82, output increased both in 1980 and 1981. In 1982, however, this component posted its only output decline over the period measured, −1.7 percent. Productivity also declined in 1982, falling 2.9 percent. After the poor showing in 1982, sales accelerated. Output in this component averaged 16.0 percent from 1983 to 1985, and productivity posted three continuous gains.

The sustained growth in output of stores in this component of the industry during the period measured can be attributed to the boom in home electronic equipment sales. Such items as video recorders, video cameras, personal size stereo radio and tape players (boom boxes and minis), miniaturized television sets, color TV's, compact disc players, and high fidelity audio equipment, as well as records and tapes which are played on this equipment, experienced significant growth in demand, resulting in a major expansion in sales in this component of the industry.

Changing industry structure

During the period measured, there has been a shift toward more chain store operations in this industry. Chains have gotten larger and have increased their share of the market in almost every type of store covered by this study. In the past, this industry had been composed of single-unit firms located in various communities, generally in a downtown traditional shopping area location. These stores were designed to serve

individual local markets for furniture, home furnishings, appliances, radios and televisions, records, and musical instruments. Chain store growth became more important during the period that encompassed the shift of stores from downtown areas to shopping malls and strip shopping areas in the suburbs, which includes the period covered by this study.

While single-unit stores still account for the majority of the stores in the industry, the number of multiunit operations has increased greatly. For example, the number of multiunit stores has more than doubled between 1967[3] and 1982[4]. More importantly, a significant amount of sales has shifted from single-unit firms to multiunit operations. In 1967, multiunits accounted for 28 percent of the sales. By 1982, the proportion of sales produced by multiunits had risen to 47 percent, although the number of stores belonging to multiunit firms accounted for only about 10 percent of the total.

In general, most of the chain store operations in the industry are local or regional in nature. There are a few national chains doing business in this industry, although some of the regional chains, especially in home electronics, are moving in the direction of becoming more widespread in operation. However, local or regional store networks tend to be much more common. For example, in 1967 there were five multiunit firms with 101 establishments or more.[5] By 1982, this number had only grown to nine firms with 100 establishments or more.[6] The bulk of the growth in the industry, both in number of stores and sales, has been in firms with 25 establishments or less. Such establishments tend to be local or regional chains.

Technological changes

One of the most important innovations being used in this industry is computerized point-of-sale equipment. This technology varies in its sophistication but its object is to computerize the transaction. In some cases, the items to be sold are coded using a label directly applied to the product, keeping the price in the computer memory. In other cases, the description of the items to be purchased and prices are typed by a sales person or a clerk into a computer terminal. In all cases, the computer does the arithmetic of the sale, adds the sales tax, and prints out a sales ticket. In many cases, the system prompts the sales clerk by asking questions such as whether the clerk tried to sell an extended warranty. In some cases, the computer terminals are tied into a companywide computer system that can be used for such purposes as inventory control, product reordering, and advertising campaigns.

Another innovation recently introduced is computerized warehouses. Such warehouses can utilize computer-controlled "conveyorization" in which the computer controls the functions of storage, retrieval, and recording of inventory and location information. Some of these warehouses are high-rise in nature and use computerized high stackers which automatically store and retrieve items that are retained in the warehouse. Another innovation that can be used in computerized warehouses is automatic guided vehicles. These driverless vehicles follow guides in the warehouse to move items in and out. They can interface with the high stackers and computerized conveyors. However, such equipment is in limited use in this industry and is particularly difficult to adapt to furniture warehouses because of the bulky nature and large variety of items to be stored.[7]

Technological adaptations

The shift toward more chain store operations in this industry over the period measured has gone hand in hand with a shift to more computerized sales and warehousing techniques. This is especially true in the appliance, radio, and TV stores component of the industry, where numerous regional chains and a few national chains have recorded significant growth during the period that consumer electronics sales were exploding.

As part of their strategy for expansion, the consumer electronics chains use the latest computerized retailing technology. For example, one regional chain has computer terminals located on every sales counter. Besides accomplishing the individual transaction, these computers are connected directly to the central warehouse and company headquarters resulting in immediate transmission of sales data. This point-of-sale type technology allows the firm to minimize inventory and storage space, maximize selling space, and keep costs and rent expense low. It results in almost instantaneous control of inventory because as soon as each item is sold, the information is transmitted to headquar-

Table 1. Productivity and related indexes for the furniture and home furnishings stores industry, SIC 57, 1967–85
[1977=100]

Year	Output per hour of all persons	Output	Hours of all persons	All persons
1967	70.2	58.8	83.8	77.6
1968	79.6	64.8	81.4	78.2
1969	76.5	66.5	86.9	83.2
1970	80.1	68.5	85.5	82.9
1971	80.0	71.4	89.2	85.7
1972	89.1	82.7	92.8	90.0
1973	95.3	89.6	94.0	92.9
1974	92.5	89.5	96.8	95.2
1975	91.9	86.7	94.3	92.4
1976	95.3	93.4	98.0	96.6
1977	100.0	100.0	100.0	100.0
1978	100.3	106.2	105.9	105.2
1979	107.6	115.7	107.5	107.7
1980	107.4	113.1	105.3	106.7
1981	112.6	112.9	100.3	102.6
1982	109.2	108.3	99.2	102.7
1983	118.4	124.4	105.1	107.1
1984	122.4	139.2	113.7	116.9
1985	125.9	152.5	121.1	125.1
	Average annual rates of change			
1967–85	3.0	4.8	1.8	2.3
1967–73	4.3	6.7	2.3	3.1
1973–78	1.5	3.7	2.1	2.4
1978–85	3.0	4.5	1.4	2.0

Table 2. Productivity indexes for the furniture and home furnishings stores industry and two components, 1967–85
[1977=100]

Year	Total furniture and home furnishings stores (SIC 57)	Furniture and home furnishings stores (SIC 571)	Appliances, radio, TV, and music stores (SIC 572, 573)
1967	70.2	71.5	68.2
1968	79.6	81.8	76.3
1969	76.5	79.5	72.1
1970	80.1	79.3	81.2
1971	80.0	82.8	75.9
1972	89.1	93.0	83.4
1973	95.3	96.3	94.1
1974	92.5	93.1	91.8
1975	91.9	90.1	94.8
1976	95.3	94.4	96.5
1977	100.0	100.0	100.0
1978	100.3	97.9	104.0
1979	107.6	104.8	112.4
1980	107.4	98.0	124.0
1981	112.6	101.2	132.5
1982	109.2	97.6	128.7
1983	118.4	104.1	143.3
1984	122.4	110.3	143.4
1985	125.9	108.2	157.6
	Average annual rates of change		
1967–85	3.0	1.9	4.6
1967–73	4.3	4.3	4.4
1973–78	1.5	1.0	2.2
1978–85	3.0	1.3	5.5

ters. In this way, slow-moving items can be pushed through advertising and store managers can be alerted, via the computer, about items that should be emphasized with special sales campaigns.[8]

In one national chain which uses point-of-sale type technology, sales of a specific item are rung up on computerized cash registers and the computer automatically signals a regional warehouse to send out a new supply of the item to the store requiring it. This chain also can send computerized messages on its system to individual stores, alerting store managers to items that are building up in inventory and need to be sold.[9]

The furniture store component of the industry has moved somewhat more slowly into computerized retailing technology. The types of products sold and the sales techniques used do not lend themselves as well as home electronic items to multistore computerized point-of-sale hookups. The more traditional furniture stores (chains or independents), comprising the majority of the furniture store component, act as showrooms where sample furniture is set up in displays. These establishments usually have knowledgable sales people and decorators available to counsel customers. Such employees spend a lot of time dealing with such customer needs as matching size, type, and style of furniture and deciding on the correct color, pattern, composition, and fabric. Once ordered, the customer generally waits for the furniture to be manufactured. It is then shipped to the store's warehouse and delivered to the customer's home.

Traditional firms tend to have some furniture in stock in a warehouse, but because of the numerous combinations of styles and types of upholstery, much furniture is ordered by the store, upon sale, directly from furniture manufacturers. However, there has been a trend in the industry, which started in the mid-1960's, toward warehouse type of furniture store operations. These stores, which tend to be run by regional or national chains, stock large volumes of furniture in the same building in which the furniture is displayed. The stores emphasize low price and rapid turnover. These stores are very large and generally include a high-rise warehouse as well as a large display area. They attempt to provide a number of different types, sizes, and patterns of furniture to satisfy the majority of tastes. Warehouse furniture stores use advertising such as direct mail catalogs and newspaper, radio, and TV ads as important marketing tools, emphasizing low price. Their objective is to provide furniture of all types from their stock to the purchaser almost immediately. To accomplish this goal, the stores use a computer system designed to keep careful control of inventory and provide the correct bin location of the item sold to the warehouse personnel. The warehouse personnel move the item, generally via manually operated forklift truck, to the loading docks where it is picked up by the customer. The customer does not have to wait the usual 6 or 8 weeks required for delivery from a conventional furniture store. In these stores, even large bulky items such as upholstered sofas are available. Warehouse stores encourage the customer to deliver the furniture themselves, usually in or on top of their automobile immediately upon sale, thereby cutting the warehouse stores' costs for delivery and inventory. Such firms tend to use the more advanced computerized point-of-sale equipment and warehousing operations installed in the industry.[10]

A similar type of operation that is growing in sales is the furniture clearance outlet. This type of store is designed to sell samples off the display floor and it also encourages customers to deliver the furniture themselves.[11] A different type of store that has recorded sales gains over the period measured concentrates on a very specific product line, such as sleep sofas or mattresses. These stores generally are operated by small or medium chains. They can provide rapid turnaround from their centralized warehouses because of the limited number of styles and sizes carried, therefore aiding productivity growth.[12]

Another type of furniture sales operation that has become more important in the recent past is the store emphasizing knocked-down furniture. These stores, many of which are combined with home furnishings outlets, tend to show furniture such as bookcases and tables which are available in knocked-down form on shelves right next to the item being displayed. The customer is encouraged to pick up the flat-packed furniture and purchase it at a central checkout counter, thereby cutting down greatly on the amount of sales help needed, delivery service required, and warehouse space needed for inventory. Flat-packed items, many of which are imported, take up significantly less warehouse space than completed furniture. Such furniture is much easier to ship, move, pack, and store than conventional, manufactured fur-

niture, resulting in significant labor savings for the store. By reducing the price of the items and displaying samples in attractive settings, the objective of this type of store is to sell items that must be assembled by the customer at home. This type of furniture store appears to be doing well and knocked-down furniture is growing in sales.[13]

Employment

Employment in this industry has increased significantly over the period studied. The total number of persons working (employees, self-employed, and unpaid family workers) in 1967 was 555,000. By 1985, this total had grown to 896,000, an increase of 341,000 employees. Both components of the industry shared in the employment gain. The furniture and home furnishings stores component increased by 179,000 while the appliance, radio, and TV stores component almost doubled in employment over the period, growing from 216,000 in 1967 to 378,000 in 1985.

Average hourly earnings of nonsupervisory workers were $2.42 in 1967 and grew to $7.13 in 1985. These wages remained below the average hourly earnings for the total private nonfarm economy, which were $2.68 in 1967 and $8.57 in 1985.

Average weekly hours of nonsupervisory workers decreased steadily over the period measured, dropping from 38.5 per week in 1967 to 33.6 in 1985. This decline in average weekly hours indicates an increase in the employment of part-time workers.

The largest occupational group in this industry consists of sales and related workers, such as sales persons and cashiers. These employees accounted for about 30 percent of total employment over the period measured. Two other important groups consist of managers and clerical workers, both accounting for more than 15 percent of employment over the period studied. Craftworkers such as mechanics and repairers also are important in this industry, especially in specific types of stores. For example, household appliance mechanics are particularly important in appliance stores, while radio and TV repairers are a major group in radio and television stores. Transportation workers, namely delivery truck drivers, also encompass a significant group in this industry.[14]

Outlook

The current high growth in industry output is expected to continue. Products sold in all the types of stores covered in this industry are expected to continue to increase in the near future. Sales of furniture and home furnishings items as well as appliances are expected to be assisted by significant growth in new residential construction due to low mortgage interest rates.[15] Existing home sales also are up due to the low interest rates, aiding the output of stores in the industry. One area of uncertainty is growth in the construction of new apartment buildings, which may be negatively affected by the impact of the new tax legislation. Growth in home electronic equipment sales is expected to continue to be strong, keeping industry output up. Prices of home electronic items have continued to remain low because of increasing competition from Korean products. Many of the products sold by stores in this component of the industry are made by Japanese firms. However, they have not been as affected by changing exchange rates as other types of imported products. The home electronics industry is continuing to introduce advanced products and demand is expected to continue high for them.

Stores in the industry are expected to continue to introduce computerized equipment such as point-of-sale terminals and systems for sales analysis, inventory control, and product reordering. More automatic warehousing equipment is expected to be adapted.

The combination of high output growth and technologically advanced sales and warehousing equipment should result in a continuation of the above-average productivity growth rate in this industry, at least in the near future. □

——FOOTNOTES——

[1] The furniture, home furnishings, and equipment stores industry is classified as SIC 57 in the 1972 *Standard Industrial Classification Manual* and its 1977 supplement, issued by the U.S. Office of Management and Budget. The subindustries within the furniture and home furnishings group include furniture, home furnishings, and equipment stores, except appliance stores (SIC 571), household appliance stores (SIC 572), and radio, television, and music stores (SIC 573).

[2] *Construction Review, Historical Statistics,* Vol. 29, No. 4 (U.S. Department of Commerce, International Trade Administration, July/August 1983), p. 9.

[3] *1967 Census of Business, Retail Trade, Single Units, and Multiunits,* BC67-RS-4 (Bureau of the Census, January 1971), pp. 4–4 – 4–5.

[4] *1982 Census of Retail Trade, Establishment, and Firm Size,* RC82-I-1 (Bureau of the Census, February 1985), pp. 1–15 – 1–18.

[5] *1967 Census of Business*, BC67-RS-4, pp. 4–4 – 4–5.

[6] *1982 Census of Retail Trade*, RC82-I-1, pp. 1–15 – 1–18.

[7] Information obtained from industry representatives.

[8] "A Tough Case To Prove, Luskin's Prospers in a Cutthroat Business. Secret? Aggressive Selling, Smart Use of Computers and Clever Commission," *Forbes,* Dec. 30, 1985, pp. 55, 58.

[9] "Circuit City's Secret for Electrifying Sales," *Fortune,* Jan. 7, 1985, p. 72.

[10] Information obtained from industry representatives.

[11] *1985 U.S. Industrial Outlook* (U.S. Department of Commerce, International Trade Administration, January 1985), p. 54–10.

[12] Information obtained from Southwest Home Furnishings Association.

[13] "Shopping Swedish-Style comes to the U.S.," *Fortune,* Jan. 20, 1986, p. 63.

[14] *The National Industry—Occupation Employment Matrix, 1970, 1978, and projected 1990,* Bulletin 2086 (Bureau of Labor Statistics, April 1981), pp. 273–76, and *BLS Industry—Occupational Employment Matrix, 1984 and 1995 Alternatives* (Bureau of Labor Statistics, November 1985), pp. 1452–67.

[15] *1986 U.S. Industrial Outlook* (U.S. Department of Commerce, International Trade Administration, January 1986), pp. 53–57.

APPENDIX: Measurement techniques and limitations

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

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

Data on the quantities of goods sold usually are not available for trade industries, including retail furniture and home furnishings stores. Therefore, real output was measured by removing the effects of changing price levels from the current dollar value of sales for the line items. Because an adjustment for changing price levels usually lowers the dollar value, such a series is usually referred to as a deflated value measure. Output measures based on deflated value have two major characteristics. First, shifts in sales within product lines can occur among products of different value which have the same unit labor requirements. Thus, a change can occur in the output per hour index even if the labor utilized to sell the merchandise does not change. Second, the sales level, both in current and constant dollars, reflects differences in unit values for identical products sold in different types of establishments. For example, the unit values associated with a product sold in a self-service "off-price" store may be lower than the unit value associated with the same product sold in a store that provides a number of sales clerks as well as delivery service. The output measure, therefore, reflects changes in the level of service provided to customers, insofar as differences in unit values reflect the difference in service among the various types of establishments.

In addition to the deflated value technique, the output measure for the total of the major group of retail furniture and home furnishings stores was compiled by combining output from the various component industries using weights relating to labor importance (all person hours). This procedure results in a total industry output index that is closer, conceptually, to the preferred output measure.

The index of hours for the retail furniture and home furnishings stores industry is for all persons (hours for paid employees, partners and proprietors, and unpaid family workers). As in all of the output per hour measures published by the Bureau of Labor Statistics, hours and employment are each considered homogeneous and additive. Adequate data are not available to weight the various types of labor separately.

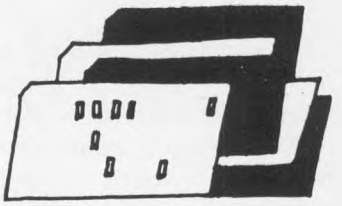
The indexes of output per hour relate total output to one input—labor time. The indexes do not measure the specific contribution of labor, capital, or any other single factor. Rather, they reflect the joint effect of many factors such as changes in technology, capital investment, capacity utilization, store design and layout, skill and effort of the work force, managerial ability, and labor-management relations.

No explicit adjustments were made to the measures to take into account increases or decreases in some services provided to the consumer. With the growth of warehouse stores in the 1970's, there was a trend toward more self-service operations. This shifted some of the hours in retailing from employee to consumer. However, data are not available to measure the effect of this change. Adjustments for changes in product quality are made to the extent that changes in quality have been accounted for in the price indexes used to deflate the current dollar value of sales.

The basic sources for the output series for this measure consist of the total sales data and sales by merchandise line reported by the U.S. Department of Commerce. The deflators were developed using Consumer Price Indexes published by BLS.

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

Research Summaries



Industrial structure has little impact on jobless rate of experienced workers

RICHARD M. DEVENS, JR.

Between 1972 and 1985, the proportion of the experienced labor force[1] involved in the production of goods fell from 36 to 31 percent. This trend, frequently cited in discussions of a "post" or "deindustrialized" society,[2] has led some analysts to hypothesize that the changing industrial structure may actually moderate economic recessions.

The notion that growth in the service-producing sector might moderate recessions is based on the observation that industries in this sector have been less cyclically sensitive than those in the goods-producing sector. Geoffrey H. Moore has observed that the 1981–82 recession "can be largely laid at the door of the goods-producing industries. The service industries, in fact, helped to stabilize total employment. This has been their usual role, but since the services' share of total employment is now far larger than it used to be, their stabilizing effect is more powerful, too."[3] This line of reasoning has an appealing logic to it: the more stable sectors are making up a larger share of the economy; therefore, the economy is becoming more stable. However, Moore was referring specifically to employment trends, which, because of a long-term tendency toward growth, may mask some cyclical variations. Thus, between 1972 and 1985, total payrolls grew by 23.9 million, with 95 percent of the growth in the service sector. Had it not been for the vitality of the service-producing sector in the early 1980's, total employment may easily have fallen even more than it did. However, payroll employment usually only pauses or slows down from long-run growth during recessions; therefore, unemployment rates are considered to be a more sensitive measure of cyclical patterns.

This analysis attempts to determine what, if any, effects the changing industrial structure of the experienced labor force has had on its unemployment rates,[4] and the impact of any such changes on the rise in unemployment rates in recessions. If the cyclical moderation hypothesis is correct, the trough to peak rises in the experienced worker unemployment rate will be smaller after an adjustment is made for industrial composition.

The overall change in the experienced worker unemployment rate is decomposed according to the formula:

$$U_T - U_{1972} = \sum_i [(W_{i,\,1972}\Delta U_i) + (U_{i,\,1972}\Delta W_i) + (\Delta U_i \Delta W_i)]$$

U_T is the experienced worker unemployment rate at time t, W_{it} is the labor force proportion of the ith industry, and U_{it} is the unemployment rate for that industry. ΔU_i is the change in the industry unemployment rate from 1972 to the target year and ΔW_i is the change in labor force proportion from 1972 to the target year. The formula can be broken into separate components of change: the three terms on the right side of the equation isolate the pure trend/cycle effect, the direct composition effect, and the interaction effect, respectively.

The trend/cycle effect is the change in the unemployment rate for experienced workers that would have occurred had labor force proportions been unchanged and the industry unemployment rates had changed. As its name reflects, this measure is affected by both the general trend in industry unemployment rates as well as the cyclical timing of the period being analyzed.

The direct composition effect is that part of the overall

Table 1. Unemployment rates of the experienced civilian labor force, and components of change, 1972–85 annual averages
[In percent]

Year	Unemployment rate	Change from 1972			
		Total	Trend/ cycle	Industrial composition	Inter- action
1972	4.848	–	–	–	–
1973	4.156	−0.692	−0.687	0.000	−0.006
1974	4.871	.023	.029	.000	−.004
1975	7.640	2.792	2.856	−.019	−.044
1976	6.820	1.792	2.016	−.023	−.023
1977	6.132	1.284	1.311	−.018	−.009
1978	5.202	.354	.376	−.020	.000
1979	5.059	.211	.234	−.026	.000
1980	6.350	1.502	1.564	−.023	−.042
1981	6.771	1.923	2.003	−.032	−.050
1982	8.703	3.855	4.059	−.052	−.148
1983	8.609	3.761	3.961	−.049	−.152
1984	6.604	1.756	1.761	−.032	−.083
1985	6.367	1.519	1.657	−.033	−.105

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change in the experienced worker unemployment rate that would have occurred if industry jobless rates had stayed the same, while labor force proportions changed.

The interaction term measures the joint effects of the two changes, including any tendencies for an unemployment rate to rise because of an "in-crowding" of workers that raises an industry's jobless rate or any tendency of workers to transfer between high unemployment and low unemployment sectors, thus either lowering or raising the respective industry labor force proportions.[5]

Data used are annual averages from the Current Population Survey, a monthly survey of about 59,000 households. Calculations are made at the industry division level, with manufacturing separated into its durable and nondurable goods components, for a total of 12 divisions.[6] The results are presented in table 1.

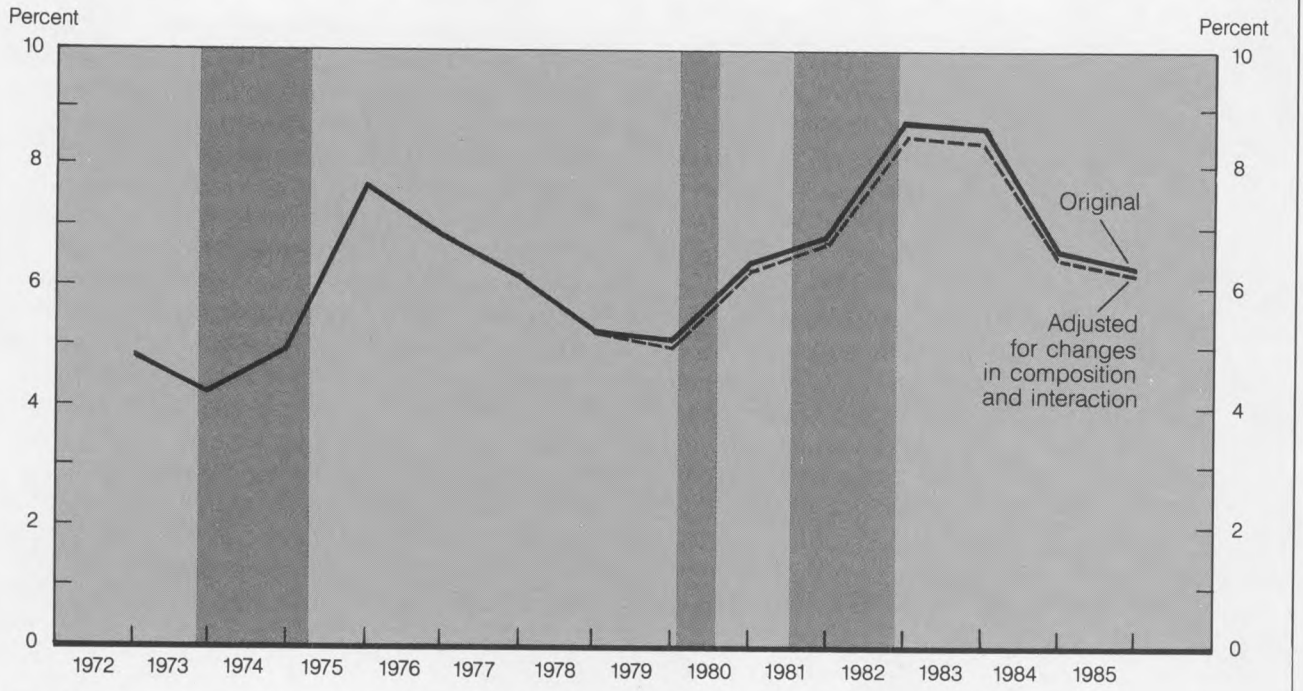
It is quite obvious that during the 1972–85 period, the unemployment rate was little influenced by the industry structure change. In fact, the changing industrial structure, as measured by the direct composition effect, was quite modest in its impact, ranging from zero in 1973 to –.052 percentage points in 1983. The interaction effect was negative or zero in all cases, while the trend/cycle effect had the greatest impact on the unemployment rate of the experienced labor force.

Unemployment rates for the experienced labor force appear in table 2 in original, composition-adjusted, and composition- and interaction-adjusted form (a procedure that assumes that the entire interaction term represents adjustments of labor force weight in response to changes in the industry unemployment rate[7]). All adjustments are based on the 1972 industry labor force distribution.

The unadjusted jobless rate rose 3.48 points (83.9 percent) in the 1973–75 recession. Industry composition change had virtually no effect; after adjusting for the direct composition effect since 1972, the increase was 3.47 points (83.4 percent). Taking into account the interaction term yielded an unemployment rate increase of 3.43 percentage points (82.6 percent) relative to the rate in 1973.

During the 1979–82 recessionary period, the unadjusted rate rose 3.64 points (72.0 percent). (While technically considered to be two complete cycles, the 1979–82 period is analyzed here as a single cycle.) Adjusted for changing composition since 1972, the rise was 3.62 points (71.9 percent). When both the composition and interaction effects were taken into account, the rise was 3.47 points (68.9 percent). Thus, the long-term trend in industry structure change had little effect on either the absolute level of the unemployment rate during these two downturns or on the magnitude of the unemployment rise. The limited impact of

Chart 1. Unemployment rate of the experienced civilian labor force, 1972–85 annual averages



NOTE: Shaded areas are recessionary periods designated by the National Bureau of Economic Research, Inc., Cambridge, MA.

Table 2. Unemployment rates of the experienced civilian labor force adjusted for compositional and interactional changes, 1972–85 annual averages
[In percent]

Year	Original unemployment rate	Adjusted unemployment rates	
		Changes in industrial composition	Changes in composition and interaction
1972	4.848	4.848	4.848
1973	4.156	4.156	4.150
1974	4.871	4.871	4.867
1975	7.640	7.621	7.577
1976	6.820	6.797	6.774
1977	6.132	6.114	6.105
1978	5.202	5.182	5.182
1979	5.059	5.033	5.033
1980	6.350	6.327	6.285
1981	6.771	6.739	6.689
1982	8.703	8.651	8.503
1983	8.609	8.560	8.408
1984	6.604	6.572	6.489
1985	6.334	6.334	6.229

the shift towards service industries is confirmed by chart 1, on which the original data and data adjusted for both composition and interaction have been plotted after rounding to the first decimal point.

The effect on the unemployment rate is so small because of the relative cyclical sensitivity of fast- and slow-growth industries. Unemployment rates for the relatively slow-growth manufacturing divisions are quite sensitive to the cycle. However, although employment levels continue to rise in the service industries, unemployment rates in these fast-growth industries are also sensitive to business cycles. For example, the jobless rate in the rapidly expanding retail trade industry (a major part of the service sector) also rose very sharply during recessions. By 1985, the retail trade industry accounted for almost as much of the experienced labor force as durable and nondurable manufacturing combined, and thus contributed as much weight to the aggregate unemployment rate.

Thus, it is incorrect to assume that all rapidly growing sectors are immune to the business cycle. Certainly, their cyclical sensitivity is more apparent in their unemployment rates than in their employment levels. Therefore, while the moderation hypothesis is intriguing, the empirical effect has been negligible during the past 14 years. □

FOOTNOTES

[1] The experienced labor force excludes those who have no previous work experience and, therefore, no attachment to a particular industry. This labor force concept is used because workers without experience cannot be meaningfully classified according to industry.

[2] See for example, Robert Kuttner, "The Declining Middle," *Atlantic Monthly,* July 1983; Barry Bluestone and Bennett Harrison, *The Deindustrialization of America* (New York, Basic Books, 1982); Thomas J. Di Lorenzo, "The Myth of America's Declining Manufacturing Sector," *Heritage Foundation Backgrounder* No. 321 (Washington, DC, Jan. 13, 1984); and Ronald E. Kutscher and Valerie A. Personick, "Deindustrialization and the shift to services," *Monthly Labor Review,* June 1986, pp. 3–13.

[3] Quoted in Henry F. Meyers, "The Growth in Services May Moderate Cycles," *The Wall Street Journal,* Sept. 22, 1986, p. 1.

[4] The experienced unemployed are categorized by the industry in which they last worked. This can lead to data classification problems—for example, a worker on layoff from a durable goods manufacturing job who works in a temporary job as a taxi driver would be classified as employed in transportation and public utilities. Despite these technical concerns, industry unemployment rates provide a useful perspective on the structural trends that are the focus of this report.

[5] This section draws heavily on Joseph Antos, Wesley Mellow, and Jack Triplett, "What is a current equivalent of unemployment rates of the past?" *Monthly Labor Review,* March 1979, pp. 36–46.

[6] Industry classification in the Current Population Survey is somewhat different than in the Bureau of Labor Statistics establishment payroll survey in that government employees are categorized by industry—public administration, health, education, and so forth—in the CPS, rather than being aggregated in a single industry.

[7] This assumption, which builds the best case possible for the cycle moderation hypothesis, is at least plausible in light of the consistently negative values of the interaction term.

Cooperative training in telecommunications: case studies

MARGARET HILTON AND RONNIE STRAW

In mid-1986, the Communications Workers of America (CWA) and American Telephone and Telegraph (AT&T) reached agreement on a 3-year contract covering 155,000 workers. The highlight of the new contract was an innovative employment security package that gives the company the flexibility to meet competition while protecting and enhancing the careers of the workers. AT&T will provide $7 million annually to a new jointly-administered corporation, the Alliance for Employee Growth and Development, which will offer career counseling, training, and retraining to both active and laid-off AT&T employees.[1]

All regular full- and part-time employees represented by CWA will be eligible for the joint training programs. In addition, laid-off CWA-represented employees may participate if they enroll within 6 months of layoff and take their severance pay in weekly installments. Laid-off workers will remain eligibile for 1 year after these severance payments expire, or until they find a new job, whichever happens first.

This new agreement represents a major milestone in the history of the U.S. telecommunications industry. Training and retraining will help American industry compete in world markets. For the 650,000 workers represented by CWA, the contract was also a major step forward. Between 1983 and 1986, total employment in telephone communications dropped by 14 percent,[2] as new technology and increased competition caused layoffs. More than half of CWA's members are employed by the seven Regional Bell Operating

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Companies spun off from AT&T under the 1984 divestiture agreement. These workers also obtained major improvements in training under new contracts negotiated in August 1986, after the AT&T agreement was reached.

As CWA and AT&T begin to establish the joint training program, they can learn from past experience with both training and quality-of-worklife programs.

The quality-of-worklife strategy

Before divestiture, in the stable world of the regulated AT&T monopoly, CWA and AT&T saw the benefits of joint efforts to improve working conditions and increase productivity. A series of company surveys in the late 1970's showed that workers were dissatisfied with increasing production pressures, measurement and monitoring of work, excessive overtime, and lack of proper training. To address these problems, reduce job stress, and improve communications, the company and union agreed, as part of their 1980 national contract, to a joint quality-of-worklife process.

Quality-of-worklife had its origins in British coal mines in the 1940's. Eric Trist, a behavioral scientist now at the Wharton School, developed a new paradigm of work organization stressing autonomous work groups, broader jobs, and worker participation in decisionmaking. The concept began to appear in U.S. manufacturing industries in the 1960's, and gained momentum with a growing concern for worker satisfaction on the job. In the United States, quality-of-worklife generally takes the form of worker-management teams which meet to discuss and solve workplace problems.

When researchers from the New York Stock Exchange surveyed 49,000 corporations employing more than half of all U.S. workers, they found that quality-of-worklife-related activities had grown rapidly between 1980 and 1982.[3] During this time, about 14 percent of corporations with 100 or more employees had quality-of-worklife-type programs.

Although some experts predicted that quality-of-worklife and other forms of labor-management cooperation would diminish as the economy recovered from recession in the mid-1980's, the opposite has occurred. Increased global competition and the introduction of new technology have spurred more companies to implement worker participation programs. According to *Business Week:*[4]

> In the past few years, scores of companies that traditionally set the patterns in industrial relations have adopted the concept. Among them are General Electric, Ford, most GM Divisions, as well as Xerox, Honeywell, Digital Equipment and other high-tech companies. Even the financial services industry is picking up the concept.

These national trends are reflected in CWA's quality-of-worklife programs. Since 1980, about 1,000 company and union facilitators have been trained, and 3,000 joint local work force teams have met to discuss issues of concern to the company and union. In a recent study, CWA and AT&T concluded that quality-of-worklife was "worth it," with real benefits for all parties.[5]

In the present competitive, postdivestiture environment, worker participation is even more important to both CWA and the telephone companies. As Michael Maccoby, a consultant to CWA and AT&T put it:[6]

> In a competitive world, the bureaucratic, industrial system is too cumbersome and expensive. Workers must be trained to understand the goals of the business and given the authority to respond to customer needs and to solve local problems. Such training and authority requires new skills, flexibility, and decentralization. When it works, everyone is involved in satisfying customers and in cutting unnecessary costs. . .

The quality-of-worklife process can help achieve these goals, making the companies more competitive, which, in turn, will make CWA jobs more secure.

Training and retraining

In 1983, CWA and AT&T recognized that changes in the industry and technology made ongoing training a necessity. Their 1983 national contract directed AT&T and each Bell Operating Company to begin offering training and retraining programs. A union-management Training Advisory Board was established in each company to advise management on off-hours training for career development and retraining for new jobs within the company.

Training programs under the 1983 contract used a variety of delivery mechanisms. At Northwestern Bell headquartered in Omaha, NE, the joint board contracted with 43 community colleges to deliver free career counseling and courses to workers living throughout the five-State region. Since the program began in October 1984, 4,600 workers, or 46 percent of the 10,000 who are eligible, have participated in counseling or training, or both. The dropout rate from college courses selected by the workers, based on their career plans, was less than 5 percent.

At C&P in the Washington, DC, area, the training board has expanded courses offered after work at company locations. Because of their convenience, these classes, which emphasize basic skills such as math and reading, are very popular. The company also offers tuition assistance and home study courses. Rank-and-file participation in off-hours training was 26 percent in 1984 and 17 percent in 1985.

AT&T, Bell South, and Pacific Telesis developed extensive correspondence curricula which matched their business plans. Because of their great accessibility, these courses proved extremely popular. Most of the companies also offered tuition assistance for courses at local colleges.

CWA members have responded enthusiastically to the new training programs. At most companies, participation rates were over 10 percent, and at Pacific Telesis, AT&T, and New Jersey Bell, they were over 15 percent. Courses in basic skills, whether offered via home study or through local colleges, were especially popular. AT&T's studies of its work force indicate that "measured cognitive skills may account for as much as one-third of the productivity difference between workers."[7]

Joint processes improve training

Some of the most successful training programs have been those in which union and management used the quality-of-worklife process to develop and implement the program. When both parties are involved and committed to training, more workers participate and success rates are higher.

Columbus, OH. One example of successful joint training is found in the Columbus, OH, operator services district of AT&T Communications. This group of employees has been actively involved in quality-of-worklife since 1981.

Formerly a part of Ohio Bell, the operator services district now includes 25 managers and 370 workers, most of whom are long-distance operators. Following divestiture, quality-of-worklife has continued and grown. In addition to a district level quality-of-worklife steering committee and several subcommittees and task forces, operator circles reach every employee, with meetings every 4 months.

Through quality-of-worklife, union and management have successfully developed and delivered several types of training. First, to facilitate the work of the operator circles, all employees were trained in problem-solving techniques. The steering committee also assigned a service assistant to develop and conduct a short stress management course. About one-third of the workers have taken the course to date, and surveys show that the course has been extremely well received.[8]

The professional development subcommittee of the steering committee has been particularly active in the area of training. With input from operators in all of the offices, the subcommittee designed a 2-hour course on professionalism and customer satisfaction. A feedback survey indicated that most trainees found the course valuable in promoting professionalism and pride. They were reminded of the importance of their contribution to the company in the more competitive, postdivestiture environment.

The CWA-AT&T Training Advisory Board began mailing texts for home study courses in early 1985. When the professional development subcommittee learned about the courses, they set up after-hours study halls on company premises. Seven union and management subcommittee members began by working through the "Quick Arithmetic" course, meeting on their lunch hours to discuss problems. All seven successfully completed the course. In early 1986, these seven "coaches" organized a study hall on company premises for other interested AT&T employees. Combining the coaches with the study hall group, a total of 43 people enrolled in Quick Arithmetic and received texts, and 81 percent successfully completed the course. Based on this success, the professional development subcommittee is now coaching groups enrolled in "Basic Electricity," "English Review," and "Principles of Selective Listening" courses.

In contrast, national completion rates for AT&T employees who attempted the home study course on their own were much lower.[9] Of the 12,328 employees who had enrolled in February through September 1985, only 3,778, or 31 percent had passed their final test by December of that year.[10] At C&P Telephone, completion rates for off-hours correspondence courses averaged 55 percent, compared with 85 percent completion for those who enrolled in classroom training. By creating a classroom situation, the Columbus quality-of-worklife team has overcome the low motivation that usually leads to high dropout rates. An active union-management partnership has improved the quality of training.

Pacific Northwest Bell. Success with quality-of-worklife led managers at Pacific Northwest Bell to extend joint decisionmaking in late 1984. They established a group of three internal Organizational Change Consultants. The consultants reported to management, CWA, and the International Brotherhood of Electrical Workers, respectively, but were all housed within the company and worked as a team.

One of the first problems assigned to the consultants related to time and materials charging. Because installers were uncertain about whether and how they could charge for work on equipment and wiring not owned by Pacific Northwest Bell, they were charging customers at a very low rate. The company, seeing little revenue generated by the labor hours spent, had stopped marketing the technicians' services. A report on the legal and financial aspects of billing was produced, but this highly detailed information was not reaching the installers who actually did the work.

To address this problem, the consultants involved a cross-section of interested parties, including a core group of six managers chosen by the department directors and four craftspeople chosen by the local unions. Seeing the need for more expertise, this group brought in managers who were knowledgeable about rates and tarriffs; a manager and two CWA members from the business office; and an expert wiring craftsworker. The task force agreed to two goals—increasing revenues and increasing job security.

Two course developers from the company learning center and two technicians developed the curriculum for a 1-day pilot class on time and materials charging. Following trials of the pilot, the subcommittee switched to a longer format of two 6-hour days. The training was aimed not only at teaching the installers how and what to charge, but also why they should keep accurate records—to increase their job security. The committee had agreed to measure the revenues generated by time and materials charging so that these revenues could be weighted against labor costs in layoff decisions.

In March, April, and May of 1985, the course was delivered to about 400 installers. Three instructors—all technicians—brought the training to installation and maintenance groups throughout Washington and Oregon. The results of the training have been phenomenal, as shown by the pattern of revenues generated from work on equipment not owned by Pacific Northwest. In January 1985, before the course, revenues totalled $589. In April, when half of the workers

had completed the training, $21,000 was generated from the outside work. By February 1986, billing for customized work and charges reached $180,000. Total revenues for 1985 and the first 2 months of 1986 were about $1.4 million, or nearly twice the task force's projection of $831,000.

As a result of the course, installers' services are now marketed aggressively. For example, if an installation crew drives by a construction site on their way from another job, they stop and bid on the work. They also know how much to charge for working on outside equipment, such as doing testing for AT&T.

In addition to achieving the company's goal of enhancing revenues, the task force's efforts have led to increased job security for installation and maintenance technicians. Demand for their services has grown with increased bidding on jobs and more installers have been hired, providing CWA members in other job titles with opportunities for promotions or transfers into this work group. Future layoffs are unlikely because the savings in labor costs must be weighed against the revenues generated by the installers.

A second training problem was identified through the annual Work Relationships Survey, conducted as part of the ongoing quality-of-worklife process. Systems technicians, who work on computer-telephone hookups and other special systems, indicated that they were unhappy with the quality of their training. Training was mostly provided in learning laboratories where employees independently studied textbooks and tapes, and raised questions to managers who were sometimes available. This training structure did not give the technicians the skills needed to deal with equipment venders and competitors in the postdivestiture world, nor did it include training on digital equipment, which was planned to be completely installed by 1987.

A more detailed survey of the technicians' knowledge of math and electronics revealed that they needed more knowledge on the fundamentals of electronics. A manager who was instrumental in the surveys and training called upon the Joint Occupational Change Consultants. This team set up a task force of systems technicians, chosen by CWA local presidents, line managers, course developers, and representatives of Lake Washington Vocational Technical Institute. This group first met in May 1985.

The consultants split the task force into three committees. The curriculum committee, which included skilled systems technicians, brainstormed about topics to cover, evaluated textbooks, and interviewed candidates for the instructor and assistant instructor jobs. The human factors committee dealt with transportation, housing, and contract issues. The finance committee obtained group accommodations from a motel near the school and tracked total course costs. The skills of the consultants and the energy of the committee members met with success. By September 1985, the first class began the 3-week "Telecommunications I" course.

Although participation (on company time) was voluntary, 95 percent of the system technicians signed up for the course. They were so enthusiastic about the training that their supervisors also wanted to participate. In June 1986, 8 classes of 20 technicians and 5 classes of 22, including 10 first-level supervisors, had finished the course. Of these 270 trainees, there were no dropouts and only one failure. Following a summer break, three more classes met. As of November 1986, about 300 technicians and supervisors had been trained and no one else had dropped out or failed. The participants were enthusiastic about the quality of the instructors, the extensive modern laboratory, and relaxed camaraderie among the trainees. Also, they preferred the classroom setting to their earlier self-paced instruction.

In general, dropout rates from off-hours correspondence courses at Pacific Northwestern have ranged from 56 to 67 percent between 1982 and 1985. Although completion rates are probably higher for on-hours training, the problem of lack of motivation in self-paced courses remains.

Management was pleased that the off-site electronics course was less expensive than in-house training. Tuition costs reflected a State subsidy to the vocational technical school of about 31 cents per dollar. Technicians who have completed the course were more comfortable dealing with outside vendors, called on their supervisors less often, and were more motivated to work.

The success of "Telecommunications I" has led to further joint training efforts. Management and union representatives have begun developing "Telecommunications II," a more advanced course, covering digital electronics and microprocessors. The instructor for Telecommunications I has surveyed managers, trainees, and technicians to identify training needs and develop the curriculum for the second course. Continued joint training in electronics will increase productivity and employment security as the company installs digital equipment.

FOR AT&T AND CWA, the success of the courses at Pacific Northwest Bell and AT&T Columbus provides a model of working together. In both examples, union and management were active participants in designing and delivering training. The quality-of-worklife process, which facilitated these successes, can help CWA and AT&T set common goals to use the new joint training fund effectively and to work together to deliver beneficial training programs.

Joint training enhances productivity and competitiveness for employers, while helping individuals reach career goals. As national and international competition grows, companies that develop their human capital through such innovative approaches will survive and prosper. □

FOOTNOTES

[1] The International Brotherhood of Electrical Workers obtained similar training programs for their 41,000 AT&T employees in June 1986. However, the IBEW did not create a separate, jointly-owned corporation to deliver training and career counseling.

[2] Bureau of Labor Statistics, *Employment and Earnings*, February 1986.

[3] William C. Freund and Eugene Epstein, *People and Productivity: The New York Stock Exchange Guide to Financial Incentives and the Quality of Work Life* (Homewood, IL, Dow Jones-Irwin, 1984), p. 128.

[4] John Hoerr and Michael A. Pollock, "Management Discovers the Human Side of Automation," *Business Week*, Sept. 29, 1986, p. 74.

[5] U.S. Department of Labor, Bureau of Labor-Management Relations and Cooperative Programs, *Quality of Work Life: AT&T and CWA Examine Process After Three Years* 1985, p. iii.

[6] *Ibid.*, p. vii.

[7] Mary L. Tenopyr, "Cognitive Skills and Job Performance," *High Schools and the Changing Workplace* (Washington, National Academy Press, 1984).

[8] Communications Workers of America Research Staff and AT&T Communications Research Staff, *The Emergence of Second Generation Quality of Work Life Models in AT&T Communications: A Pilot Study*, 1986, p. 8.

[9] The five most widely used home study courses are Robert A. Carman and Marilyn J. Carman, *Quick Arithmetic*, 2nd ed. (John Wiley and Sons); Donald H. Sanders, *Computers Today* (McGraw-Hill); Robert N. Anthony, *Essentials of Accounting*, 3rd ed. (Addison-Wesley); *Principles of Selective Listening* (Argyle Publishing); and Patricia M. Fergus, *Spelling Improvement* (McGraw-Hill).

[10] AT&T Communications Corporate Learning and Development Organization, *Training/Retraining 1985 Results and Measurements*, table 3.

New data on workers belonging to unions, 1986

An estimated 17 million wage and salary employees were union[1] members in 1986, unchanged from 1985. In comparison, union membership declined an average of about 817,000 a year between 1979 and 1983 and 361,000 a year between 1983 and 1985.

Because of the increase in total wage and salary employment—from 94.5 to 96.9 million—union members as a proportion of all wage and salary employees fell from 18.0 to 17.5 percent between 1985 and 1986.

Union membership and employment data were obtained from the Current Population Survey (CPS), conducted by the Bureau of the Census for the Bureau of Labor Statistics. The CPS compiles data on workers identified by their membership in unions or by their representation at work by a union, whether or not they were members. The data covered only employed wage and salary workers, not those who were self-employed, retired, or laid-off.

Industry. Two of the eight major industry groups—Federal, State, and local government and transportation, communications, and public utilities—had union membership proportions approximately double the 17.5 percent national average. Manufacturing and construction also had higher proportions than the national average, 24 and 22 percent, respectively. In mining, the proportion of union members was the same as the national average. Among the other industry groups (wholesale and retail trade; services; and finance, insurance, and real estate), union membership was less than 8 percent of employment.

Occupation. Operators, fabricators, and laborers (including machine operators, assemblers, transportation workers, cleaners, and helpers) and precision production, craft, and repair were the most heavily unionized major occupational groups, with 30 and 29 percent union membership, respectively. Membership rates were less than 15 percent among the other major occupational groups.

Demographic characteristics. While a larger proportion of male workers than female workers belonged to unions (22 and 13 percent, respectively), the pattern of union membership proportions by age bracket was similar for both men and women. The proportion of workers belonging to unions was smallest for workers age 16 to 24 for both men and women (9 and 5 percent, respectively). As worker age rose, so did the percentage belonging to unions, with the highest unionization rate occurring for both men and women in the 45- to 64-year-old bracket.

Earnings. Full-time workers represented by unions had higher median usual weekly earnings than those without representation ($439 compared with $325). This relationship existed in 6 of the 8 major industry groups (exceptions were mining and finance, insurance, and real estate) and among the occupational groups (with the exception of managerial and professional specialty workers). Similarly, among black and white workers of both sexes, those covered by a collective bargaining agreement had higher weekly earnings than those that were not represented.

For detailed data, see Larry T. Adams, "Union Membership of Wage and Salary Employees in 1986," *Current Wage Developments*, February 1987, pp. 3–8. □

———*FOOTNOTE*———

[1] "Union" is defined to include traditional labor unions and employee associations that represent employees in collective bargaining.

Occupational pay structure in cigarette manufacturing plants

Straight-time earnings of production and related workers in the cigarette manufacturing industry averaged $14.81 an hour in July 1986, according to a Bureau of Labor Statistics occupational wage survey.[1]

Pay levels among occupations selected to represent the industry's wage structure, workers' skills, and manufacturing operations ranged from $11.40 an hour for material handling laborers to $17.90 for maintenance electricians.

Cigarette making-machine operators, the most numerous group studied separately, averaged $14.96 an hour—$15.01 for filter cigarettes and $13.74 for nonfilter cigarettes. The only other groups with at least 2,000 employees were machine adjusters, who averaged $17.73 an hour and packers, who averaged $15.02 an hour. (See table 1.)

Earnings of individual workers reflect the similarity of rates paid by the establishments in the survey. Commonly, workers' pay varied by no more than 50 cents an hour in each of four surveyed jobs, and by no more than $1 an hour in five others. For example, nearly two-thirds of the cigarette making-machine operators earned between $15 and $15.50 an hour, and three-fifths of the carpenters earned between $17.50 and $18 an hour. Also, differences in earnings of individual workers within the same occupation and establishment seldom exceeded 15 percent.

Such concentrations of earnings largely reflect the principal method of pay in the industry. All of the workers were paid on a time basis, and nearly two-thirds were under systems providing a single rate for a specific job. Range of rate plans covered the other workers.

The $14.81 average for all production workers in July 1986 was 41 percent higher than the $10.47 recorded by a previous survey in June 1981.[2] This increase, accompanied by a 27-percent decline in employment, averaged 7.1 percent annually. In comparison, the wage and salary component of the Bureau's Employment Cost Index registered an average annual increase of 5.0 percent in nondurable goods manufacturing over roughly the same period.

With lower employment came changes in the occupational composition of the work force. Since the 1981 survey, for example, the number of inspectors dropped by one-half and cigarette making-machine operators by one-third; partly attributable to new, multifunctional equipment. Moreover, cigarette catchers—15 percent of the production workers 20 years ago, but just 1 percent in June 1981—were not identified separately for the current study.

All of the production workers were in establishments providing paid holidays, paid vacations, and at least part of the cost of various health and insurance plans. Nearly two-thirds of the cigarette workers received the industry maximum of 13 holidays annually. Typical vacation provisions were 2 to 6 weeks with pay, depending on years of service.

All establishments provided employer-paid retirement pension plans (in addition to Social Security). Retirement severance plans applied to slightly more than two-fifths of the work force.

The nine cigarette manufacturing establishments within the scope of the survey (plants with 50 workers or more) employed 23,913 production workers in July 1986. Two-thirds of the workers were employed in establishments located in metropolitan areas,[3] and nearly four-fifths were in establishments employing 2,500 workers or more. Slightly more than one-half of the workers were employed in North Carolina; the remainder were in Georgia, Kentucky, and Virginia.

Table 1. Number of workers and average hourly earnings in cigarette manufacturing plants, selected occupations, July 1986

Department and occupation	Number of workers	Average hourly earnings[1]
All production workers	23,813	$14.81
Maintenance		
Carpenters	34	17.49
Electricians	350	17.90
Machinists	398	17.65
Fabrication		
Adjusters, machine	2,607	17.73
Cigarette making-machine operators	2,885	14.96
Filter cigarettes	2,773	15.01
Nonfilter cigarettes	112	13.74
Cigarette machine packers	2,869	15.02
Inspection		
Cigarette making inspectors	200	13.57
Cigarette packing inspectors	458	13.30
Material movement		
Laborers, material handling	213	11.40
Power-truck operators	842	13.40
Forklift	835	13.40
Truckdriver	46	13.48
Custodial		
Guards	100	12.57
Guards I	83	12.86

[1] Excludes premium pay for overtime and for work on weekends, holidays, and late shifts. Incentive payments, such as those resulting from piecework or production bonus systems, and cost-of-living pay increases (but not bonuses) were included as part of the workers' regular pay. Excluded are 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.

NOTE: Overall occupations may include data for workers in subclassifications in addition to those shown separately.

Filter cigarettes were the primary product manufactured in establishments employing 96 percent of the production workers. The remaining workers were in establishments primarily producing nonfilter cigarettes. Seventy percent of the workers were in establishments producing only cigarettes. However, when a secondary tobacco product was produced, it was always smoking tobacco.

Cigarette plants reporting a majority of their production workers under collective bargaining agreements employed seven-tenths of the industry's work force. The major union in the industry is the Bakery, Confectionery, and Tobacco Workers International Union (AFL–CIO). Under these contracts, workers receive quarterly cost-of-living adjustments (COLA) of 1 cent for each 0.3-percentage-point increase in the BLS Consumer Price Index. Besides COLA, the contracts typically include provisions for wage adjustments—either cents-per-hour or percentage additions to base rates.

A COMPREHENSIVE BULLETIN on the study, *Industry Wage Survey: Cigarette Manufacturing, July 1986,* BLS Bulletin 2276, may be purchased from the Bureau of Labor Statis-

tics, Publication Sales Center, P.O. Box 2145. Chicago IL 60690, or the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. □

——*FOOTNOTES*——

[1] Earnings data exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Incentive payments, such as those resulting from piecework or production bonus systems, and cost-of-living pay increases (but not bonuses) were included as part of the workers' regular pay. Excluded are 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] See *Industry Wage Survey: Cigarette Manufacturing, June 1981,* Bulletin 2132 (Bureau of Labor Statistics, June 1982).

[3] Metropolitan Statistical Areas as defined by the U.S. Office of Management and Budget through June 1983.

Employer-sponsored health insurance for retirees: the need and the cost

Retirees in the private sector are finding employer-sponsored health insurance an increasingly important benefit, according to a recent report by the U.S. Department of Labor's Pension and Welfare Benefits Administration. Some highlights:

Although medicare is the principal source of health coverage for the elderly, private health insurance, especially coverage provided through employer-sponsored group plans, provides an important supplement. The significance of private health benefits is likely to continue to grow as early retirement becomes even more common, life expectancy increases, and the older population grows.

Coverage. In 1983, an estimated 4.6 million retirees and 2.3 million dependents were covered by private sector employers' health insurance programs. Among retirees and dependents age 65 and over, 4.3 million persons were covered, or 16 percent of this segment of the population.

Group health insurance is a key consideration to those contemplating early retirement because medicare is not available before age 65. An estimated 1.6 million retirees and 1 million dependents under 65 were covered by employer-sponsored programs.

Employer-sponsored group insurance generally provides better coverage for health services than other private health insurance programs. Although cost-sharing does vary widely between firms, employers pay an average of 58 percent of the premiums under group insurance plans.

No systematic sample data are available on the criteria used by employers to determine eligibility for retiree health benefits. However, scattered data indicate that, to be eligible for benefits, employees usually have had to work for a firm for at least 10 years, and in some cases for as many as 20 years.

Funding. Prefunding of retiree health benefits is rare. Almost all firms finance these benefits on a pay-as-you-go basis.

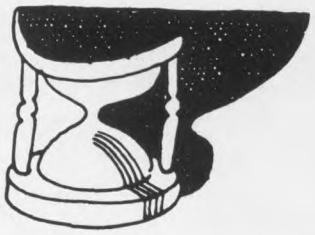
The Deficit Reduction Act of 1984 virtually precludes prefunding for retiree medical benefits. (A concern of the Congress was potential tax abuse.) An alternative would be prefunding as an incidental benefit to a pension plan under section 401 (h) of the Internal Revenue Code. Retirees' benefits funded under this section, however, are not afforded the same level of protection as pension benefits.

The present value of the accrued liability for retiree health benefits is estimated to have been $98.1 billion in 1983. This accrued liability represents the present value of benefits that both active and retired employees had "earned" as of the end of 1983.

If employers had been prefunding retiree health insurance, the 1985 annual accrual for new benefit liabilities would have been an estimated $750 million.

Medicare tax rates are currently inadequate to sustain the program through the 1990's, and concerns about the Federal deficit suggest that medicare benefits are unlikely to increase in the near future. The continuing rise in health care costs over the past decade has resulted in many companies reducing their health care benefits or increasing costs to beneficiaries, including retirees.

The report, "Employer-Sponsored Retiree Health Insurance," was prepared by the Office of Policy and Research, Pension and Welfare Benefits Administration. Copies may be obtained by writing to the Department of Labor, Office of Policy and Research, Pension and Welfare Benefits Administration, Washington, DC 20210 or by calling 202–523–9505. □



Major Agreements Expiring Next Month

This list of selected collective bargaining agreements expiring in June 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.

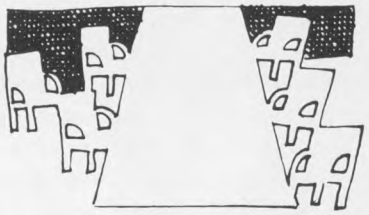
Industry or activity	Employer and location	Labor organization[1]	Number of workers
Private			
Construction	Associated General Contractors of New Jersey and others (Interstate)	Operating Engineers	4,500
	Associated General Contractors, Building, Heavy and Highway (Utah)	Operating Engineers	1,500
	Associated General Contractors and Building Trades Employers' Association (Boston, MA)	Iron Workers	1,800
	Allied Building Metal Industries, Inc., 2 agreements (New York, NY)	Iron Workers	2,400
	Building construction agreement (New York, NY)	Carpenters	20,000
	Building Trades Employers' Association, Nassau and Suffolk (New York)	Operating Engineers	1,700
	Building Contractors, Associated Brick Masons and others, Nassau and Suffolk (New York)	Laborers	2,000
	Elevator Manufacturers Association of New York (New York)	Elevator Constructors	1,900
	General Contractors Association (New York, NY)	Operating Engineers	3,000
	General Contractors Association (New York, NY)	Laborers	2,400
	Mechanical Contractors Association (New York, NY)	Plumbers	3,300
Food products	Great Western Sugar Co. (Interstate)	Teamsters (Ind.)	1,400
	Wholesale bread and cake bakeries (Interstate)	Bakery, Confectionery and Tobacco Workers	8,000
	Wholesale Bakers Group, drivers (southern California)	Teamsters (Ind.)	2,800
Textiles	Dan River Inc. (Danville, VA)	Textile Workers	7,500
Apparel	Lingerie and Negligee Manufacturers Association of New York (New York, NY)	Ladies Garment Workers	3,000
Paper	James River Co. (Berlin, NH)	Paperworkers	1,200
Printing and publishing	Metropolitan Lithographers Association, Inc. (New York, NY)	Graphic Communications	5,000
Chemicals	Martin Marietta Energy Systems, Inc. (Oak Ridge, TN)	Atomic Trades and Labor Council	4,400
Stone, clay, and glass products	Owens-Corning Fiberglas Corp. (Newark, OH)	Glass, Pottery, Plastics and Allied Workers	2,250
Machinery	Sperry-Rand Corp., Univac Division (St. Paul, MN)	Electrical Workers (IBEW)	2,500
Electrical products	Zenith Radio Corp. (Chicago, IL)	Independent Radionic Workers (Ind.)	1,500
Transportation equipment	Rockwell International Corp. (Interstate)	Auto Workers	16,000
	Bell Helicopter Co. (Fort Worth, TX)	Auto Workers	2,700
Water transportation	Tankers agreement (Interstate)	Maritime Union	4,500
	American Maritime Association (Interstate)	Seafarers	8,000
Utilities	Georgia Power Co. (Georgia)	Electrical Workers (IBEW)	6,000
	Detroit Edison Co. (Michigan)	Utility Workers	3,600
Retail trade	Safeway (Virginia)	Food and Commercial Workers	2,500
	Acme Food Stores (Baltimore, MD)	Food and Commercial Workers	2,000
	Employers Association of Greater Chicago (Illinois)	Machinists	2,500
Insurance	John Hancock Mutual Life Insurance Co. (Interstate)	Food and Commercial Workers	5,000
Services	Textile Rental Services Association (California)	Laundry and Dry Cleaning Union	2,600
Amusements	Alliance of Motion Picture and Television Producers (Interstate)	Directors Guild	2,800
Hospitals	Seattle Area Hospital Council (Seattle, WA)	Nurses Association (Ind.)	3,500
Public			
General government	California: Orange County clerical unit	Orange County Employees Association	3,200
	Orange County general unit	Orange County Employees Association	2,850
Education	Sacramento Board of Education, classified employees	Service Employees	3,000
	San Diego Board of Education, teachers	Education Association (Ind.)	6,000
General government	San Diego County multidepartments	San Diego County Employees' Association	7,200
	State professional engineers	Professional Engineers (Ind.)	4,800
Health services	State psychiatric technicians	Communications Workers	7,700
Fire protection	State Department of Forestry, firefighters	Fire Fighters	3,000

See footnote at end of table.

Continued—Major Agreements Expiring Next Month

Industry or activity	Employer and location	Labor organization[1]	Number of workers
Law enforcement	State correctional peace officers	Correctional Peace Officers Association	9,800
	State Patrol	Highway Patrolmen Association (Ind.)	4,700
Education	Florida: Duval County Board of Education, noninstructional employees	Various unions	3,500
	Orange County teachers	Education Association (Ind.)	5,000
	State University faculty	Education Association (Ind.)	6,000
Health services	State professional health care unit	Nurses Association (Ind.)	3,450
	State human services unit	State, County and Municipal Employees	12,000
General government	State professional unit	State, County and Municipal Employees	15,000
	State operational services unit	State, County and Municipal Employees	14,000
	Hawaii: State professional and scientific unit	State, County and Municipal Employees	4,950
	State blue-collar unit	State, County and Municipal Employees	8,000
	State white-collar general unit	State, County and Municipal Employees	10,000
Education	State Board of Education, teachers	Education Association (Ind.)	9,100
General government	Iowa: State blue-collar and technical employees	State, County and Municipal Employees	14,000
	Maine: State general unit	State Employees Association (Ind.)	10,000
Education	Maryland: Baltimore County Board of Education, professionals	Education Association (Ind.)	5,800
	Baltimore County Board of Education, clerical and aides	Various Associations (Ind.)	3,000
	Montgomery County Board of Education, teachers	Education Association (Ind.)	5,800
	Montogomery County Board of Education, support staff	Council of Supporting Services Employees (Ind.)	5,500
General government	Massachusetts: Boston clerical	Service Employees	4,000
Education	Michigan: Detroit Board of Education, teachers	Teachers	11,500
General government	Minnesota: State multidepartment	State, County and Municipal Employees	17,300
	State general professional unit	Association of Professional Employees (Ind.)	5,250
Education	Missouri: St. Louis teachers	Teachers	3,900
	Nevada: Clark County Board of Education, classified	Classified School Employees (Ind.)	3,250
	Clark County Board of Education, teachers	Education Association (Ind.)	4,950
General government	New Hampshire: State general unit	State, County and Municipal Employees	9,000
Education	New York: Buffalo Board of Education, teachers	Education Association (Ind.)	3,400
General government	New York City accountants and data processing employees	State, County and Municipal Employees	3,000
	New York City blue-collar employees	State, County and Municipal Employees	5,400
	New York City clerical employees	State, County and Municipal Employees	36,400
	New York City engineers and scientists	State, County and Municipal Employees	3,250
	New York City institutional services employees	State, County and Municipal Employees	11,200
	New York City Sanitation Department	Teamsters (Ind.)	7,200
Education	New York City Board of Education, school aides	State, County and Municipal Employees	8,300
	New York City Board of Education, paraprofessionals	Teachers	10,000
	New York City Board of Education, supervisors and administrators	American Federation of School Administrators	3,600
	New York City Board of Education, teachers	Teachers	59,500
Fire protection	New York City Fire Department	Fire Fighters	10,000
Health services	New York City health services employees	State, County and Municipal Employees	3,100
	New York City Health and Hospital Corp., custodians	Service Employees	4,000
	New York City Health and Hospital Corp., nurses	Nurses Association (Ind.)	6,900
	New York City Health and Hospital Corp., special officers	Teamsters (Ind.)	3,100
	New York City hospital technicians	State, County and Municipal Employees and Service Employees	3,150
	New York City social services	State, County and Municipal Employees	12,500
Law enforcement	New York City special protective officers	Teamsters (Ind.)	3,100
	New York City Police Department	Patrolmen's Association (Ind.)	17,800
	New York City Department of Correction, correction officers	Correction Officers Benevolent Association (Ind.)	4,250
General government	Oregon: State employees general unit	State Employees Association	15,500
	Wisconsin: State blue-collar employees	State, County and Municipal Employees	5,000
	State technical employees	State, County and Municipal Employees	4,800

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



Developments in Industrial Relations

Supreme Court upholds promotion quotas

The Supreme Court held that judges may order strict promotion quotas to eliminate "long-term, open, and pervasive discrimination." As a result of the ruling, the Alabama Department of Public Safety will be required to promote one black State trooper for each white trooper it promotes until blacks account for 25 percent of each rank.

The case, *United States v. Philip Paradise, Jr.*, arose in 1972 when the NAACP charged that the State of Alabama discriminated against blacks in recruiting, hiring, and promoting police officers. Philip Paradise, a private citizen, and the U.S. Department of Justice later joined in the suit. The district court ruled against the State and ordered it to hire one black trooper for each white trooper hired until blacks made up 25 percent of the force. In later years, the district court ruled that the State was attempting to thwart the 1972 order and ordered corrective action. In 1983, the court issued the promotion order that resulted in the Supreme Court's 1987 decision. Justices Marshall, Powell, and Blackmun joined in an opinion written by Justice Brennan which rejected the Department of Justice's argument that the promotion plan was invalid because it discriminated against whites. "The pervasive, systematic, and obstinate discriminatory conduct" of the State police, Justice Brennan wrote, "created a profound need" for affirmative action. He said the promotion plan was intended to be temporary, called only for promotion of qualified troopers, and applied only when the State decided that promotions were necessary.

Joining the assent was Justice Stevens, who wrote a separate opinion stating that the district court's promotion order was warranted by the "flagrantly" discriminatory actions of the State police.

In a dissent, Justice O'Connor, joined by Chief Justice Rehnquist and Justice Scalia, wrote, "The one-for-one promotion quota used in this case far exceeded the percentages of blacks on the trooper force, and there is no clear evidence in the record that such an extreme quota was necessary to eradicate the effects of the department's delays." She said that protection of the rights of white employees "demands that a racial goal not substantially exceed the percentage of minority group members in the relevant population or work force absent compelling justification." Justice White also dissented.

Gender-based hiring and promotions approved

The Supreme Court approved the adoption of voluntary plans for correcting gender-based imbalances in hiring and promotion of government employees. The ruling in *Johnson v. Transportation Agency, Santa Clara County, California,* affirmed and expanded the Court's 1979 finding in *Weber v. Steelworkers*, in which the Court had ruled that private employers can voluntarily adopt plans to correct racial imbalances in a work unit even though there has been no legal finding of discriminatory employment practices. (See *Monthly Labor Review,* August 1979, p. 62.)

The Court's March 25, 1987, ruling in the Johnson case concluded litigation that began in 1979, when the director of the transportation agency selected Diane Joyce for a road dispatcher job, even though Paul Johnson, one of seven eligible candidates for the skilled craft job, had received a higher score from an interview panel. Testifying in Federal District Court after Johnson challenged the action, the director said that he considered test scores, expertise, and background, as well as the provisions of the agency's affirmative action plan before selecting Joyce for the job. The plan was adopted a year earlier, after the agency studied the distribution of men and women in its operations. One of the findings was that women had never held any of the 238 skilled craft jobs in the agency.

The District Court rejected the agency director's selection procedure, upholding Johnson's contention that sex was the determining factor in the decision, in violation of Title VII of the Civil Rights Act of 1964, and that the affirmative action plan was invalid because it did not conform to a criterion in the Weber case that such plans be temporary.

The District Court's decision was reversed by the Court of Appeals for the Ninth Circuit, leading to the appeal to the Supreme Court. In a friend-of-the-court brief, the U.S. Department of Justice supported Johnson's argument that the plan was discriminatory.

Labor and management officials generally agreed that the Court's decision, written by Justice Brennan, would lead to

"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.

an increase in the number of equal employment opportunity plans voluntarily initiated by government units. Justice Brennan wrote: "In determining whether an imbalance exists that would justify taking sex or race into account, a comparison of the percentage of minorities or women in the employer's work force with the percentage in the area labor market or general population is appropriate." Noting that the agency stated that its plan was intended to achieve "a statistically measurable yearly improvement in hiring, training, and promotion of minorities and women throughout the agency in all major job classifications where they are represented," Justice Brennan stated, "The agency's plan thus set aside no specific number of positions for minorities or women, but authorized the consideration of ethnicity or sex as a factor when evaluating qualified candidates for jobs in which members of such groups were poorly represented."

Justice Brennan concluded that the plan did not commit the agency to quotas or to hiring or promoting people who were not qualified, but rather "represents a moderate, flexible, case-by-case approach to effecting a gradual improvement in the representation of minorities and women in the agency's work force. Such a plan is fully consistent with Title VII, for it embodies the contribution that voluntary employer action can make in eliminating the vestiges of discrimination in the workplace."

Justice Scalia, joined by Chief Justice Rehnquist, dissented. Noting that Title VII provides that no employer can discriminate based on race, color, religion, sex, or national origin or "limit, segregate, or classify" its workers so as to deprive "an individual of employment opportunities," Justice Scalia wrote, "we effectively replace the goal of a discrimination-free society with the quite incompatible goal of proportionate representation. . .after today's decision, the failure to engage in reverse discrimination is economic folly and arguably a breach of duty to shareholders or taxpayers, wherever the cost of anticipated Title VII litigation exceeds the costs of hiring less capable. . .workers."

Justice White also dissented.

'Contagiousness' is a handicap, says High Court

The Supreme Court ruled that workers with contagious diseases are covered by provisions of the Rehabilitation Act of 1973. The case, involving Gene Arline, a tubercular third-grade school teacher in Florida, was widely viewed as setting a precedent for people suffering from AIDS [acquired immune deficiency syndrome].

The Department of Justice had argued that contagiousness is not a handicap under the 1973 Act and that employers were free to dismiss people having contagious diseases. This argument was rejected by Justice Brennan in the majority opinion. He noted that in 1974, the Congress had specifically amended the Act to ensure that it covered both the physically impaired and those considered by others to be impaired.

Justice Brennan said, "Congress acknowledged that society's accumulated myths and fears about disability and disease are as handicapping as are the physical limitations that flow from actual impairments. Few aspects of a handicap give rise to the same level of public fear and misapprehension as contagiousness." He also said even if there is a finding that a person is handicapped and is covered by the Act, the person must still be "otherwise qualified" for a job or program. Under this requirement of the Act, an employer could, for example, refuse to place a teacher "with active, contagious tuberculosis in a classroom with elementary school children." (This means that a decision on Gene Arline will be made by a district court after a hearing to determine if she posed a threat to her students.)

The Court specifically left open the question of whether the Act covers people who are carriers of a disease, such as AIDS, without any symptoms or effects.

Chief Justice William Rehnquist, joined by Justice Scalia, dissented, saying that the majority was operating "on its own sense of fairness" rather than on the text of the law.

Employers must honor prehire agreements

The National Labor Relations Board (NLRB) held that construction employers can no longer unilaterally repudiate prehire agreements with unions. Such agreements, which generally specify that a contractor will hire only union members for a project, were authorized by the Congress in 1959 because firms in the industry generally hire on a project-by-project basis, rather than maintaining more or less permanent work forces. From 1971 until the present ruling, the NLRB had held that such agreements were subject to repudiation by employers at any time.

In its new ruling, the NLRB said it has now decided that continuing to sanction contract repudiation "and the inevitable disruptions that result is not conducive to labor relations stability." Repudiations can now take place only after a contract expires or when employees covered by a contract vote to oust the union representing them.

Compensation increases for aircraft workers

Employees of United Aircraft Corp.'s Sikorsky Aircraft Division in Stratford and other Connecticut locations were covered by a 3-year agreement negotiated by the Teamsters union. Wages were increased by 2.5, 2, and 1.5 percent in the respective contract years, and the 6,500 workers will receive a lump-sum payment at the end of each year equal to 2.5 percent of their earnings in that year.

The contract, which runs to February 12, 1990, also provides for a $500,000 increase, to $750,000, in the lifetime limit on medical benefits; a $1 increase in the monthly pension rate for each year of credited service; and vesting after 5 years' service, instead of 10.

The plants manufacture helicopters.

Contractors, IBEW cooperate to regain work

The National Electrical Contractors Association and the International Brotherhood of Electrical Workers (IBEW) negotiated a national agreement aimed at increasing the amount of electrical transmission construction and associated substation and equipment work performed by companies employing IBEW members. IBEW President John J. Barry said the increased cooperation was necessary to recapture work lost to nonunion contractors in recent years.

The new Outside Utility Construction National Project Agreement, which supersedes all local agreements for this type of work, is available to contractors on a project-by-project basis. According to the parties, the accord gives employers "significant flexibility" in assigning employees, scheduling work, and staffing. The IBEW members are expected to benefit from undisclosed provisions on "subcontracting and preservation of work." Grievances and disputes on projects will be settled, without work stoppages, by the electrical construction industry's joint Council of Industrial Relations.

IBEW officials stressed that the accord will not be available to so-called "double-breasted" companies that employ both union and nonunion workers. The agreement was effective January 1, 1987, and continues until terminated by either party.

Home study—alternative to apprentice training

The National Association of Plumbing-Heating-Cooling Contractors has introduced a home study course in plumbing as an alternative to its plumbing apprenticeship program. The new 4-year course is designed for workers in rural areas where classroom training is not available. The instructional material is the same as for apprentices and participants are also required to undergo the same on-the-job training as apprentices.

Students must complete each of the nine course units within 45 days and they must score at least 70 in a test on each unit and in a final examination. They will also be required to submit drawings that will enable the Association to evaluate their comprehension.

The course is primarily intended for open-shop companies, given that most labor agreements between contractors and unions provide for apprenticeship training. The cost of the new course is $500 a year for trainees employed by companies which are members of the Association, and $700 for other companies, payable by the trainee or the employer. Half of the Association's 6,200 member companies are union shops.

Allied Pilots-American Airlines contract

American Airlines and the Allied Pilots Association ended a year of negotiations by settling on a 3-year contract that further narrowed the pay gap between new employees and other employees that had resulted from a two-tier pay system negotiated in 1983. Originally, the gap was about 50 percent, but it was narrowed under a 1985 settlement that gave new employees larger pay increases than those in the upper tier.

Under the 1987 agreement, pay for employees hired after November 1983 was immediately increased by 11 to 28 percent, varying by job classification, type of aircraft flown, and years of service, compared with a 2-percent increase for upper tier employees. In the second and third years, all 6,100 employees will receive 2-percent increases.

The contract, which was retroactive to January 1, 1987, also provided for an increase in major medical coverage if the medical component of the Consumer Price Index rises 25 percent above its July 1983 level; and for a cut in the minimum work day to 3 hours, from 4.5 hours.

'Work teams' established at auto parts plant

In Buffalo, NY, Trico Products Corp. and Local 2100 of the Auto Workers negotiated a contract that established a labor-management committee to oversee a new "work teams" approach intended to improve production efficiency. According to a Local 2100 official, implicit in the accord is a company commitment not to carry out a planned move of some operations to Texas and Mexico. Trico will, however, consolidate its three Buffalo plants into one, lay off 800 unskilled employees, and eliminate 300 jobs through attrition or retirement. Currently, there are 2,600 employees in the plants, which produce windshield wipers.

Under the new team production approach, employees will receive a "pay for knowledge" wage increase of 50 cents an hour to compensate them for learning and performing a number of duties. The teams will consist of four or five employees.

Skilled workers, who will not be formed into teams, received a $1.75 an hour wage increase over the 3-year period. Previously, they averaged about $11.50 an hour. In another change, all terminated employees are now eligible for severance benefits of 1 week's pay for each year of service.

The agreement, negotiated under a reopening provision, extended the expiration date of the existing 3-year contract to June 30, 1990, from June 30, 1988.

Rubber workers accept pay cut

Closing of a Firestone Tire & Rubber Co. plant in Oklahoma City, OK, was averted when a majority of United Rubber Workers' local unions covered by the national master agreement with the company approved compensation cuts and work rule changes at the plant. Among the changes for the 1,700 Oklahoma employees is an immediate 60-cent pay cut and an additional 60-cent cut in September 1987.

In an earlier vote, the plant-saving proposal had failed to

win approval by the locals but this was later reversed when one of the locals, in Decatur, IL, voted again and approved the proposal 695 to 183. Firestone had repeatedly warned that it would close the Oklahoma City plant unless the $8 million package was approved.

Steelworkers organize minimill in Louisiana

United Steelworkers efforts to organize minimills advanced when Bayou Steel of Laplace, LA, agreed to an initial contract. The minimills, which generally produce a limited line of products and serve a limited geographic area, are of concern to the union because their operation and distribution costs are usually lower than those of the major broadline producers where the union holds bargaining rights.

The Steelworkers had lost a December 1984 representation election at Bayou Steel and were in the process of appealing the election results to the National Labor Relations Board when a new owner, RSR Steel (which owns other mills where the Steelworkers represent employees), agreed to recognize the union as bargaining agent at Bayou Steel if the employees ratified an initial contract.

The 6-year contract was ratified by a vote of 318 to 117. Provisions included specified wage increases totaling 69 cents an hour over the term, possible automatic cost-of-living pay adjustments in the last 3 years, adoption of a pension plan providing for a $12 a month benefit rate for each year of service, limits on contracting out work, 10 paid holidays, and a reduced deductible under the health insurance plan.

Screen Extras Guild settles with producers

The first strike in the 41-year history of the Screen Extras Guild ended when it settled with the Alliance of Motion Picture and Television Producers. The week-long stoppage by the 6,700-member union began about 5 weeks after the Alliance had imposed a pay cut following employee rejection of an offer. The Alliance said that the cut to $68 for an 8-hour day and $54 for a 6-hour day was necessary to enable member companies to compete with nonunion producers. Prior to the cut, extras—who fill out crowd scenes in movies and television shows—had earned $91 a day.

The accord provided that the 2,100 members who belong exclusively to the Screen Extras Guild will be paid at the $91 a day rate. Those who are also members of other unions—a common practice in the entertainment industry—will be paid $5 an hour with a guarantee of 6 hours per day. They will also be able to move up to the $91 "senior" rate over time. Senior employees will be covered by pension and health benefits, while juniors will be covered only by health benefits.

Musicians settle, avert strike

A threatened strike was averted when major recording companies and the American Federation of Musicians settled on a national contract that increased pay for recording sessions, but reduced employer payments into special funds. About 5,200 musicians were covered by the 3-year contract. The three annual pay increases will bring the rate to $220, from $196, for a 3-hour recording session and to $312 from $277, for a 4-hour symphonic session. Pay for these musicians will increase 4 percent in each year and employer payments to a health and welfare fund will rise by 50 cents an hour in each year.

Employer payments into the Music Performance Trust Fund were reduced to a range of 0.45 to 0.54 percent of retail record prices, from a range of 0.55 to 0.6 percent. Also, payments will not be made for the first 25,000 sales of any recording. The fund was established in 1940 to aid musicians who lose work performing live music because of recordings. In 1986, the companies paid about $9 million into the fund, which paid out about $40 to $50 to musicians for each admission-free performance.

Employer payments into the Special Payments Fund also were reduced by 10 percent. This fund provides annual royalty payments to musicians based on percentages of suggested retail prices, after certain deductions.

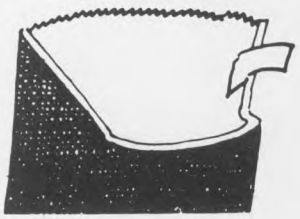
Shipbuilding accord calls for two-tier wages

In Pascagoula, MS, 6,000 employees of Ingalls Shipbuilding Co. were covered by 3-year contracts freezing the top rate at $11.28 an hour for the various crafts. However, all employees received an immediate $1,000 lump-sum "productivity incentive payment," to be followed by $250 to $500 payments in the second and third contract years.

Beginning February 1, 1988, new workers will start at $3 an hour below the rates of current workers. Experienced workers hired by Ingalls will have the full $3 restored, receiving pay increases of $1.25 an hour after 2,000 hours worked, 75 cents after 4,000 hours, and $1 after 6,000 hours. All other new employees will have $2.50 of the $3 restored: $1 an hour after 2,000 hours worked, 75 cents after 4,000 hours, and 75 cents after 6,000 hours.

Other provisions included a $5 increase in the $130 a week sickness and accident benefit in each year; a $50,000 increase in the $250,000 major medical benefit; and increased pensions.

Employees of the shipyard are represented by a Metal Trades Council comprising eight unions and by the Electrical Workers (IBEW), the Machinists, and the Office and Professional Employees. □



Book Reviews

Diagnoses and prescriptions

Is Prevention Better than Cure? By Louise B. Russell. Washington, The Brookings Institution, 1986. 134 pp. $26.95, cloth; $9.95, paper.

Recent years have seen increased efforts to slow the growth in the Nation's expenditures on health care—growth that has doubled the share of the gross national product spent on health care from 5.3 percent in 1960 to 10.7 percent in 1985. One major approach has been to make consumers of health care more cost-conscious, by having them (rather than insurance companies, for example) pay a larger share of the cost of medical care. In this trim, compact volume, Louise B. Russell focuses on another approach that has received wide endorsement as a means of slowing the growth of the Nation's medical-care bill: prevention.

The bulk of the book consists of a review, evaluation, and synthesis of the evidence of the cost-effectiveness of several preventive measures—the smallpox and measles vaccines, screening and drug therapy for high blood pressure, and exercise. Russell shows that, for a variety of reasons, the common impression that prevention of an acute condition is cheaper than the cure of the condition is not necessarily correct. First of all, the size of the population at whom prevention is directed may be very large compared to the incidence of the illness in the absence of prevention. Such a situation developed in the United States, for example, with respect to smallpox vaccination, and, for that reason, this country officially ended its policy of routinely vaccinating children against smallpox.

In addition, one must consider how often the preventive measure must be conducted. Repetition of the procedure is necessary, for example, in a program of screening for high blood pressure as a way of reducing incidence of heart disease and stroke. Russell points out that not only does one's blood pressure fluctuate during the day, but—because of the anxiety involved—one's pressure is usually higher on an initial reading than on later readings. As a result, "a third to a half of the people with high pressures at the first exam are likely to have pressures in the normal range at the second or third exam" (p. 66). The author explains that for several additional reasons—including the side-effects of blood-pressure medicine—claims for the cost-effectiveness of preventing heart disease through screening and drug therapy should be taken with a grain of salt.

Perhaps the most interesting part of the book is the chapter on exercise as a preventive measure. Russell writes that there has been no systematic evaluation of the cost-effectiveness of exercise as a means of improving health, but she assesses the available evidence on the subject and proposes a framework for conducting a more definitive analysis. The author shows that the full costs of an exercise program are far higher than are initially apparent, because they include the costs of equipment and of a medical exam before one begins to exercise, the value of the participants' time, and the injuries that result from exercise. This discussion and the implication that exercise may not be cost-effective are extremely important because they provide the sedentary among us with an economic justification for our inactivity.

Russell concludes that "even after allowing for savings in treatment, prevention usually adds to medical expenditures, contrary to the popular view that it reduces them" (p. 110). She acknowledges, however, that good health has intrinsic value and is worth paying for.

In a concluding chapter, Russell suggests a standardized framework for future studies of the cost-effectiveness of preventive measures as investments in health. She proposes, for example, that such studies should adopt the perspective of society as a whole; that is, they should consider all the costs and effects of a preventive program, regardless of who experiences them. Russell urges, too, that all such studies use the same discount rate. The choice of the discount rate can obviously have a great effect on the results of the studies, because the benefits of a preventive program do not materialize until long after the costs are incurred. Also, Russell suggests that the additional medical expenses that arise because a person lives longer should not be counted in cost-effectiveness studies, just as the corresponding additional expenditures on food and clothing are not counted.

I believe that this book is a valuable addition to the literature in its field. Read it yourself, though, and get a second opinion.

—EDWARD STEINBERG
Economist
AT&T

Health care systems in transition

The Painful Prescription: Rationing Hospital Care. By Henry J. Aaron and William B. Schwarz. Washington, The Brookings Institution, 1984. 161 pp. $22.95, cloth; $8.95, paper.

This is a comparative study of the American and British health care systems that combines both the skills of an economist from the Brookings staff, Henry J. Aaron, and of a physician, William B. Schwarz, of the Tufts Medical School faculty.

As a result, interested readers—even if they have special knowledge in one of these fields—are likely to gain some new understanding in the other. Moreover, because of the successful blending and interlacing of the two kinds of information and concerns in identifying and analyzing the problem areas, and the generally nontechnical presentation, readers will find the book stimulating and rewarding regardless of their professional background or lack of specialized knowledge.

Health care, for some years, has been a timely and urgent subject and is certain to remain so for years to come because of the continuing progress of medical science and technology and the ensuing trend toward their utilization both in more sophisticated diagnostic and treatment methods, at ever increasing costs.

Sooner or later, this trend was bound to raise questions as to whether the successes achieved in (1) early recognition and correct assessment of patients' morbid conditions, and (2) healing them or, at least, alleviating the ill effects and suffering they cause were sufficient to warrant the ever greater share of money from all sources, especially public expenditures allocated to financing medical, hospital, and related services, both in absolute amounts and in the percentage of a nation's total expenditures for all purposes combined. What are the appropriate criteria for answering this question? How can one identify and define the limits beyond which greater expenditures no longer seem to produce beneficial results of like value? This is what the book is all about, with special emphasis on hospital care, notably for serious, often life-threatening diseases, in contrast to emergencies requiring hospitalization for the care of physical conditions that are not normally serious or of extended duration, or in the case of an accident victim.

After an exposition of the methodological problems of comparing health care and costs in Britain and the United States and stating initial hypotheses as to British attempts at cost containment (ch. 1), there follows a fairly comprehensive summary of the structure and working of the British National Health Service and the supplementary role of the private sector (ch. 2). More specific descriptions, highlighting the differences between British and U.S. uses of new technological aids, follow in the next three chapters. For example, life and death syndromes involving kidney dialysis and transplantation, and radiotherapy as well as chemotherapy to treat cancer are discussed in chapter 3; hip replacement and heart-bypass surgery in chapter 4; and diagnostic fine tuning through the use of CT scanners and the extensive diagnostic use of x rays in chapter 5. The last three chapters focus on rationing techniques and appraisals of efficiency in both the British and American settings.

What are the findings of this comparative study? Starting from what the authors deem to be the norm for hospital care in the United States—and with important exceptions—namely, the near-maxim "if it will help, do it," they view health care in this country "usually close to what would be provided if costs were no object and benefits to patients were the sole concern.

Add to this tradition the "deliberate goal of public policy in recent decades," namely to insulate the patient from the cost of care (with private insurance, government programs, or payments from someone other than the patient) and the cost increases brought about are bound to suggest that some limits be placed on the excessive growth of these expenditures. Hence, the authors do expect (more) Federal and State efforts to keep costs down. With this prospect in view, British experience is likely to prove instructive, for "Britain has drastically curtailed the real growth of medical expenditures for an extended period. As a result, per capita hospital expenditures are now less than half as large as those in the United States."

The core of the book lies in the authors' observations and interpretations of their field studies of the British National Health Service (NHS) and the ways in which its institutions and procedures, its medical and ancillary personnel and, not least, its patients, have managed to realize and to accept such cost containment. These passages are, for the most part, insightful and sometimes fascinating—most of all in raising various aspects of the hard-to-achieve compatibility of clinical freedom with budget constraints, or in assessing the role that traditional national mindsets play in providing different answers to this dilemma.

The authors leave it to the readers to judge whether their own conclusions and interpretations seem plausible in light of the evidence. In this reviewer's opinion, most of them do, especially the concluding generalizations that "the choices we face [in the United States] are clear and painful," and that "rationing will inevitably be a painful prescription." On the other hand, which of the authors' findings "persuaded" them "that the United States is not interested in creating a national health service on the British model"—unless, surprisingly, state planning is viewed by many Americans in the way the authors claim it was in Great Britain at the time of the NHS's conception, namely that ". . .the war was widely regarded as a triumph for state planning. . ."

—GEORGE F. ROHRLICH
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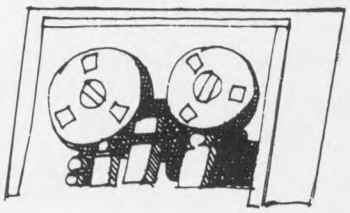
Current Labor Statistics



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Series	Release date	Period covered	Release date	Period covered	Release date	Period covered	MLR table number
Productivity and costs: Nonfinancial corporations	May 4	1st quarter	.....	.....	.....	.....	2; 42–44
Nonfarm business and manufacturing	.....	.....	June 2	1st quarter	.....	.....	2; 42–44
Employment situation	May 8	April	June 5	May	July 2	June	1; 4–21
Producer Price Index	May 15	April	June 12	May	July 10	June	2; 33–35
Consumer Price Index	May 22	April	June 23	May	July 22	June	2; 30–32
Real earnings	May 22	April	June 23	May	July 22	June	14–17
Major collective bargaining settlements	.....	.....	.....	.....	July 28	1st 6 months	3; 25–28
Employment Cost Index	.....	.....	.....	.....	July 28	2nd quarter	1–3; 22–24
U.S. Import and Export Price Indexes	.....	.....	.....	.....	July 30	2nd quarter	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 are 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 midyear 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 1987 issue of the *Review*, to reflect experience through 1986.

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 are published in the two-volume data book—*Labor Force Statistics Derived From the Current Population Survey*, Bulletin 2096. More data from the establishment survey appear 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 population 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 1986.

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 Earners 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.

In the establishment survey, estimates for the 2 most recent months are based on incomplete returns and are published as preliminary in the tables (13 to 16 in the *Review*). When all returns have been received, the estimates are revised and published as final in the third month of their appearance. Thus, August data are published as preliminary in October and November and as final in December. For the same reason, quarterly establishment data (table 1) are preliminary for the first 2 months of publication and final in the third month. Thus, second-quarter data are published as preliminary in August and September and as final in October.

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.

Beginning with June 1986 data, fixed employment weights from the 1980 Census of Population are used each quarter to calculate the indexes for civilian, private, and State and local governments. (Prior to June 1986, the employment weights are from the 1970 Census of Population.) 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 1980 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's 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 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 (wage and benefit 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 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 workdays lost by workers involved in the stoppages.

Days of idleness as a percent of estimated working time: Aggregate workdays lost as a percent of the aggregate number of standard workdays 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 1982–84 buying habits of about 80 percent of the noninstitutional population of the United States at that time, compared with 32 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 21,000 retail establishments and 60,000 housing units in 91 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 27 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. An updated CPI-U and CPI-W were introduced with release of the January 1987 data.

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. An overview of the recently introduced revised CPI, reflecting 1982–84 expenditure patterns, is contained in *The Consumer Price Index: 1987 Revision*, Report 736 (Bureau of Labor Statistics, 1987).

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*.

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 Laspeyres 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 are the labor compensation costs expended in the production of a unit of output and are 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
(Tables 45–47)

Labor force and unemployment

Description of the series

Tables 45 and 46 present comparative measures of the labor force, employment, and unemployment—approximating U.S. concepts—for the United States, Canada, Australia, Japan, and six European countries. The unemployment statistics (and, to a lesser extent, employment statistics) published by other industrial countries are not, in most cases, comparable to U.S. unemployment statistics. Therefore, the Bureau adjusts the figures for selected countries, where necessary, for all known major definitional differences. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country.

Definitions

For the principal U.S. definitions of the **labor force**, **employment**, and **unemployment**, see the Notes section on EMPLOYMENT DATA: Household Survey Data.

Notes on the data

The adjusted statistics have been adapted to the age at which compulsory schooling ends in each country, rather than to the U.S. standard of 16 years of age and over. Therefore, the adjusted statistics relate to the population age 16 and over in France, Sweden, and from 1973 onward, the United Kingdom; 16 and over in Canada, Australia, Japan, Germany, the Netherlands, and prior to 1973, the United Kingdom; and 14 and over in Italy. The institutional population is included in the denominator of the labor force participation rates and employment-population ratios for Japan and Germany; it is excluded for the United States and the other countries.

In the U.S. labor force survey, persons on layoff who are awaiting recall to their job are classified as unemployed. European and Japanese layoff practices are quite different in nature from those in the United States; therefore, strict application of the U.S. definition has not been made on this point. For further information, see *Monthly Labor Review*, December 1981, pp. 8–11.

The figures for one or more recent years for France, Germany, Italy, the Netherlands, and the United Kingdom are calculated using adjustment factors based on labor force surveys for earlier years and are considered preliminary. The recent-year measures for these countries are, therefore, subject to revision whenever data from more current labor force surveys become available.

Additional sources of information

For further information, see *International Comparisons of Unemployment*, Bulletin 1979 (Bureau of Labor Statistics, 1978), Appendix B and unpublished Supplements to Appendix B available on request. The statistics are also analyzed periodically in the *Monthly Labor Review*. Additional historical data, generally beginning with 1959, are published in the *Handbook of Labor Statistics* and are available in unpublished statistical supplements to Bulletin 1979.

Manufacturing productivity and labor costs

Description of the series

Table 47 presents comparative measures of manufacturing labor productivity, hourly compensation costs, and unit labor costs for the United States, Canada, Japan, and nine European countries. 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 output are unavailable.

Definitions

Output is constant value output (value added), generally taken from the national accounts of each country. While the national accounting methods for measuring real output differ considerably among the 12 countries, 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 refer to all employed persons including the self-employed in the United States and Canada; to all wage and salary employees in the other countries. The U.S. hours measure is hours paid; the hours measures for the other countries are hours worked.

Compensation (labor cost) includes all payments in cash or kind made directly to employees plus employer expenditures for legally required insurance programs and contractual and private benefit plans. In addition, for some countries, compensation is adjusted for other significant taxes on payrolls or employment (or reduced to reflect subsidies), even if they are not for the direct benefit of workers, because such taxes are regarded as labor costs. However, compensation does not include all items of labor cost. The costs of recruitment, employee training, and plant facilities and services—such as cafeterias and medical clinics—are not covered because data are not available for most countries. Self-employed workers are included in the U.S. and Canadian compensation figures by assuming that their hourly compensation is equal to the average for wage and salary employees.

Notes on the data

For most of the countries, 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 1971), refer to manufacturing and mining less energy-related products and the figures for the Netherlands exclude petroleum refining from 1969 to 1976. For all countries, manufacturing includes the activities of government enterprises.

The figures for one or more recent years are generally based on current indicators of manufacturing output, employment, hours, and hourly compensation and are considered preliminary until the national accounts and other statistics used for the long-term measures become available.

Additional sources of information

For additional information, see the *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 16 and periodic *Monthly Labor Review* articles. Historical data are provided in the Bureau's *Handbook of Labor Statistics*, Bulletin 2217, 1985. The statistics are issued twice per year—in a news release (generally in May) and in a *Monthly Labor Review* article (generally in December).

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	1985	1986	1985				1986			
			I	II	III	IV	I	II	III	IV
Employment data										
Employment status of the civilian noninstitutionalized population (household survey)[1]										
Labor force participation rate	64.8	65.3	64.8	64.7	64.7	64.9	65.1	65.2	65.3	65.4
Employment-population ratio	60.1	60.7	60.1	60.0	60.1	60.3	60.5	60.6	60.8	60.9
Unemployment rate	7.2	7.0	7.3	7.2	7.2	7.1	7.1	7.1	6.9	6.9
Men	7.0	6.9	7.1	7.0	7.0	6.9	6.9	7.0	6.9	6.9
16 to 24 years	14.1	13.7	14.2	14.0	14.0	14.2	13.5	14.2	13.7	13.4
25 years and over	5.3	5.4	5.4	5.3	5.3	5.2	5.3	5.3	5.4	5.4
Women	7.4	7.1	7.5	7.5	7.4	7.3	7.3	7.2	6.9	6.8
16 to 24 years	13.0	12.8	13.1	12.9	12.9	13.1	13.1	13.1	12.6	12.5
25 years and over	5.9	5.5	6.0	6.0	5.9	5.6	5.7	5.7	5.4	5.3
Unemployment rate, 15 weeks and over	2.0	1.9	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.8
Employment, nonagricultural (payroll data), in thousands:[1]										
Total	97,614	100,167	96,581	97,295	97,897	98,668	99,403	99,848	100,316	101,072
Private sector	81,199	83,432	80,341	80,958	81,414	82,069	82,731	83,144	83,650	84,176
Goods-producing	24,930	24,938	24,970	24,947	24,866	24,937	25,028	24,952	24,872	24,892
Manufacturing	19,314	19,186	19,439	19,323	19,241	19,261	19,284	19,194	19,116	19,153
Service-producing	72,684	75,229	71,611	72,347	73,031	73,731	74,375	74,896	75,444	76,180
Average hours:										
Private sector	34.9	34.8	35.0	34.9	34.9	34.9	34.9	34.8	34.7	34.7
Manufacturing	40.5	40.7	40.4	40.4	40.6	40.8	40.7	40.7	40.7	40.8
Overtime	3.3	3.4	3.3	3.2	3.3	3.5	3.4	3.4	3.5	3.5
Employment Cost Index										
Percent change in the ECI, compensation:										
All workers (excluding farm, household, and Federal workers)	4.3	3.6	1.3	.7	1.6	.6	1.1	.7	1.1	.6
Private industry workers	3.9	3.2	1.2	.8	1.3	.6	1.1	.8	.7	.6
Goods-producing[2]	3.4	3.1	1.5	.7	.6	.6	1.1	.9	.6	.5
Service-producing[2]	4.4	3.2	1.0	1.0	1.8	.5	1.1	.6	.8	.6
State and local government workers	5.7	5.2	1.2	.2	3.4	.7	1.0	.6	2.8	.8
Workers by bargaining status (private industry):										
Union	2.6	2.1	.7	.6	.8	.5	1.0	.2	.5	.3
Nonunion	4.6	3.6	1.6	1.0	1.4	.6	1.2	.9	.8	.7

[1] Quarterly data seasonally adjusted.

[2] Goods-producing industries include mining, construction, and manufacturing. Service-producing industries include all other private sector industries.

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

Selected measures	1985	1986	1985				1986			
			I	II	III	IV	I	II	III	IV
Compensation data [1, 2]										
Employment Cost Index--compensation (wages, salaries, benefits):										
Civilian nonfarm	4.3	3.6	1.3	0.7	1.6	0.6	1.1	0.7	1.1	0.6
Private nonfarm	3.9	3.2	1.2	.8	1.3	.6	1.1	.8	.7	.6
Employment Cost Index--wages and salaries										
Civilian nonfarm	4.4	3.5	1.2	.9	1.7	.6	1.0	.8	1.1	.6
Private nonfarm	4.1	3.1	1.2	1.1	1.3	.6	1.0	.9	.7	.5
Price data[1]										
Consumer Price Index (All urban consumers): All items	3.8	1.1	1.0	1.1	.7	.9	−.4	.6	.7	.3
Producer Price Index:										
Finished goods	1.8	−2.5	.0	.7	−1.4	2.5	−3.1	.5	−.7	.9
Finished consumer goods	1.5	−3.8	−.3	.7	−1.4	2.5	−4.1	.4	−.7	.6
Capital equipment	2.7	2.1	1.3	.4	−1.4	2.5	.2	.6	−.7	2.0
Intermediate materials, supplies, components	−.3	−4.4	−.4	.2	−.5	.4	−2.9	−.9	−.2	−.4
Crude materials	−5.6	−9.7	−3.1	−2.1	−4.5	4.3	−7.6	−1.5	−.5	−.2
Productivity data[3]										
Output per hour of all persons:										
Business sector	1.0	.7	.9	2.7	3.4	−3.2	3.3	.5	−.4	−2.8
Nonfarm business sector	.5	.7	.3	1.8	2.2	−3.5	4.3	.5	−.3	−2.2
Nonfinancial corporations [4]	1.2	–	.8	2.2	4.9	−2.8	−.5	−.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.

[2] Excludes Federal and private household workers.

[3] Annual rates of change are computed by comparing annual averages. Quarterly percent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

[4] Output per hour of all employees.

– Data not available.

3. Alternative measures of wage and compensation changes

Components	Quarterly average						Four quarters ended--					
	1985		1986				1985		1986			
	III	IV	I	II	III	IV	III	IV	I	II	III	IV
Average hourly compensation:[1]												
All persons, business sector	4.4	3.8	2.5	2.8	2.9	2.1	4.4	4.4	3.9	3.4	3.0	2.6
All employees, nonfarm business sector	3.2	3.7	3.1	2.3	2.3	2.7	4.0	3.9	3.6	3.1	2.8	2.6
Employment Cost Index--compensation:												
Civilian nonfarm [2]	1.6	.6	1.1	.7	1.1	.6	4.9	4.3	4.1	4.0	3.6	3.6
Private nonfarm	1.3	.6	1.1	.8	.7	.6	4.7	3.9	3.8	3.8	3.2	3.2
Union	.8	.5	1.0	.2	.5	.3	3.2	2.6	2.9	2.5	2.3	2.1
Nonunion	1.4	.6	1.2	.9	.8	.7	5.4	4.6	4.2	4.2	3.5	3.6
State and local governments	3.4	.7	1.0	.6	2.8	.8	6.0	5.7	5.5	5.8	5.2	5.2
Employment Cost Index--wages and salaries:												
Civilian nonfarm[2]	1.7	.6	1.0	.8	1.1	.6	5.0	4.4	4.2	4.1	3.5	3.5
Private nonfarm	1.3	.6	1.0	.9	.7	.5	4.8	4.1	3.9	3.7	3.1	3.1
Union	.9	.5	.7	.4	.6	.2	3.6	3.1	3.2	2.5	2.3	2.0
Nonunion	1.5	.6	1.1	.9	.7	.7	5.4	4.6	4.3	4.1	3.4	3.5
State and local governments	3.5	.8	1.0	.4	3.2	.7	5.6	5.6	5.5	5.7	5.4	5.4
Total effective wage adjustments[3]	1.2	.5	.6	.7	.5	.5	3.5	3.3	3.1	2.9	2.3	2.3
From current settlements	.2	.1	(4)	.2	.1	.2	.9	.7	.6	.5	.5	.5
From prior settlements	.5	.2	.4	.6	.5	.2	1.8	1.8	1.7	1.8	1.6	1.7
From cost-of-living provision	.4	.1	.2	(4)	(4)	.1	.8	.7	.8	.7	.2	.2
Negotiated wage adjustments from settlements:[3]												
First-year adjustments	2.0	2.1	.8	1.3	.8	2.0	2.4	2.3	2.0	1.6	1.2	1.2
Annual rate over life of contract	3.1	1.9	1.5	2.0	1.5	2.1	2.5	2.7	2.5	2.2	1.7	1.8
Negotiated wage and benefit adjustments from settlements:[5]												
First-year adjustment	2.0	2.0	.6	.7	.7	2.7	3.1	2.6	2.3	1.4	.9	1.1
Annual rate over life of contract	3.0	1.4	1.2	1.6	1.2	2.4	2.7	2.7	2.5	2.0	1.4	1.6

[1] Seasonally adjusted.

[2] Excludes Federal and household workers.

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

[4] Data round to zero.

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

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

(Numbers in thousands)

Employment status	Annual average		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
TOTAL															
Noninstitutional population [1, 2]	179,912	182,293	181,678	181,843	181,998	182,183	182,354	182,525	182,713	182,935	183,114	183,297	183,575	183,738	183,915
Labor force[2]	117,167	119,540	118,880	118,987	119,274	119,685	119,789	119,821	119,988	120,163	120,426	120,336	120,782	121,089	120,958
Participation rate [3]	65.1	65.6	65.4	65.4	65.5	65.7	65.7	65.6	65.7	65.7	65.8	65.7	65.8	65.9	65.8
Total employed [2]	108,856	111,303	110,500	110,664	110,852	111,293	111,559	111,764	111,703	111,941	112,183	112,387	112,759	113,122	113,104
Employment-population ratio [4]	60.5	61.1	60.8	60.9	60.9	61.1	61.2	61.2	61.1	61.2	61.3	61.3	61.4	61.6	61.5
Resident Armed Forces [1]	1,706	1,706	1,693	1,695	1,687	1,680	1,672	1,697	1,716	1,749	1,751	1,750	1,748	1,740	1,736
Civilian employed	107,150	109,597	108,807	108,969	109,165	109,613	109,887	110,067	109,987	110,192	110,432	110,637	111,011	111,382	111,368
Agriculture	3,179	3,163	3,252	3,199	3,151	3,164	3,124	3,057	3,142	3,162	3,215	3,161	3,145	3,236	3,284
Nonagricultural industries	103,971	106,434	105,555	105,770	106,014	106,449	106,763	107,010	106,845	107,030	107,217	107,476	107,866	108,146	108,084
Unemployed	8,312	8,237	8,380	8,323	8,422	8,392	8,230	8,057	8,285	8,222	8,243	7,949	8,023	7,967	7,854
Unemployment rate [5]	7.1	6.9	7.0	7.0	7.1	7.0	6.9	6.7	6.9	6.8	6.8	6.6	6.6	6.6	6.5
Not in labor force	62,744	62,752	62,798	62,856	62,724	62,498	62,565	62,704	62,725	62,772	62,688	62,961	62,793	62,649	62,957
Men, 16 years and over															
Noninstitutional population [1, 2]	86,025	87,349	87,035	87,120	87,195	87,288	87,373	87,460	87,556	87,682	87,773	87,868	88,020	88,099	88,186
Labor force[2]	65,967	66,973	66,793	66,770	66,854	66,937	66,968	66,911	67,128	67,130	67,407	67,425	67,672	67,764	67,644
Participation rate [3]	76.7	76.7	76.7	76.6	76.7	76.7	76.6	76.5	76.7	76.6	76.8	76.7	76.9	76.9	76.7
Total employed [2]	61,447	62,443	62,221	62,253	62,201	62,318	62,402	62,483	62,528	62,565	62,833	62,986	63,187	63,335	63,282
Employment-population ratio [4]	71.4	71.5	71.5	71.5	71.3	71.4	71.4	71.4	71.4	71.4	71.6	71.7	71.8	71.9	71.8
Resident Armed Forces [1]	1,556	1,551	1,540	1,541	1,533	1,525	1,518	1,541	1,560	1,590	1,592	1,593	1,591	1,584	1,575
Civilian employed	59,891	60,892	60,681	60,712	60,668	60,793	60,884	60,942	60,968	60,975	61,241	61,393	61,596	61,751	61,707
Unemployed	4,521	4,530	4,572	4,517	4,653	4,619	4,566	4,428	4,600	4,565	4,574	4,439	4,484	4,429	4,362
Unemployment rate [5]	6.9	6.8	6.8	6.8	7.0	6.9	6.8	6.6	6.9	6.8	6.8	6.6	6.6	6.5	6.4
Women, 16 years and over															
Noninstitutional population [1, 2]	93,886	94,944	94,643	94,723	94,803	94,895	94,981	95,065	95,156	95,253	95,341	95,429	95,556	95,639	95,729
Labor force[2]	51,200	52,568	52,087	52,217	52,420	52,748	52,821	52,910	52,860	53,033	53,019	52,911	53,110	53,325	53,314
Participation rate [3]	54.5	55.4	55.0	55.1	55.3	55.6	55.6	55.7	55.6	55.7	55.6	55.4	55.6	55.8	55.7
Total employed[2]	47,409	48,861	48,279	48,411	48,651	48,975	49,157	49,281	49,175	49,376	49,350	49,401	49,572	49,787	49,822
Employment-population ratio [4]	50.5	51.5	51.0	51.1	51.3	51.6	51.8	51.8	51.7	51.8	51.8	51.8	51.9	52.1	52.0
Resident Armed Forces [1]	150	155	153	154	154	155	154	156	156	159	159	157	157	156	161
Civilian employed	47,259	48,706	48,126	48,257	48,497	48,820	49,003	49,125	49,019	49,217	49,191	49,244	49,415	49,631	49,661
Unemployed	3,791	3,707	3,808	3,806	3,769	3,773	3,664	3,629	3,685	3,657	3,669	3,510	3,538	3,538	3,492
Unemployment rate [5]	7.4	7.1	7.3	7.3	7.2	7.2	6.9	6.9	7.0	6.9	6.9	6.6	6.7	6.6	6.6

[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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
TOTAL															
Civilian noninstitutional population[1]	178,206	180,587	179,985	180,148	180,311	180,503	180,682	180,828	180,997	181,186	181,363	181,547	181,827	181,998	182,179
Civilian labor force	115,461	117,834	117,187	117,292	117,587	118,005	118,117	118,124	118,272	118,414	118,675	118,586	119,034	119,349	119,222
Participation rate	64.8	65.3	65.1	65.1	65.2	65.4	65.4	65.3	65.3	65.4	65.4	65.3	65.5	65.6	65.4
Employed	107,150	109,597	108,807	108,969	109,165	109,613	109,887	110,067	109,987	110,192	110,432	110,637	111,011	111,382	111,368
Employment-population ratio[2]	60.1	60.7	60.5	60.5	60.5	60.7	60.8	60.9	60.8	60.8	60.9	60.9	61.1	61.2	61.1
Unemployed	8,312	8,237	8,380	8,323	8,422	8,392	8,230	8,057	8,285	8,222	8,243	7,949	8,023	7,967	7,854
Unemployment rate	7.2	7.0	7.2	7.1	7.2	7.1	7.0	6.8	7.0	6.9	6.9	6.7	6.7	6.7	6.6
Not in labor force	62,744	62,752	62,798	62,856	62,724	62,498	62,565	62,704	62,725	62,772	62,688	62,961	62,793	62,649	62,957
Men, 20 years and over															
Civilian noninstitutional population[1]	77,195	78,523	78,236	78,309	78,387	78,484	78,586	78,634	78,722	78,802	78,874	78,973	79,132	79,216	79,303
Civilian labor force	60,277	61,320	61,177	61,080	61,158	61,330	61,355	61,219	61,412	61,409	61,703	61,826	61,948	61,973	61,983
Participation rate	78.1	78.1	78.2	78.0	78.0	78.1	78.1	77.9	78.0	77.9	78.2	78.3	78.3	78.2	78.2
Employed	56,562	57,569	57,388	57,392	57,338	57,522	57,544	57,585	57,607	57,595	57,883	58,101	58,227	58,325	58,410
Employment-population ratio[2]	73.3	73.3	73.4	73.3	73.1	73.3	73.2	73.2	73.2	73.1	73.4	73.6	73.6	73.6	73.7
Agriculture	2,278	2,292	2,389	2,319	2,279	2,309	2,275	2,185	2,286	2,297	2,303	2,289	2,254	2,300	2,411
Nonagricultural industries	54,284	55,277	54,999	55,073	55,059	55,213	55,269	55,400	55,321	55,298	55,580	55,812	55,974	56,024	55,999
Unemployed	3,715	3,751	3,789	3,688	3,820	3,808	3,811	3,634	3,805	3,814	3,820	3,725	3,720	3,648	3,573
Unemployment rate	6.2	6.1	6.2	6.0	6.2	6.2	6.2	5.9	6.2	6.2	6.2	6.0	6.0	5.9	5.8
Women, 20 years ond over															
Civilian noninstitutional population[1]	86,506	87,567	87,263	87,355	87,444	87,547	87,629	87,689	87,779	87,856	87,933	88,016	88,150	88,237	88,321
Civilian labor force	47,283	48,589	48,065	48,181	48,433	48,739	48,879	48,950	48,920	49,014	49,043	48,923	49,161	49,348	49,355
Participation rate	54.7	55.5	55.1	55.2	55.4	55.7	55.8	55.8	55.7	55.8	55.8	55.6	55.8	55.9	55.9
Employed	44,154	45,556	44,934	45,094	45,335	45,657	45,869	45,956	45,905	46,020	46,067	46,058	46,261	46,475	46,498
Employment-population ratio[2]	51.0	52.0	51.5	51.6	51.8	52.2	52.3	52.4	52.3	52.4	52.4	52.3	52.5	52.7	52.6
Agriculture	596	614	589	585	604	583	607	622	614	612	675	621	628	641	589
Nonagricultural industries	43,558	44,943	44,345	44,509	44,731	45,074	45,262	45,334	45,291	45,408	45,392	45,437	45,633	45,835	45,909
Unemployed	3,129	3,032	3,131	3,087	3,098	3,082	3,010	2,994	3,015	2,994	2,976	2,865	2,900	2,873	2,857
Unemployment rate	6.6	6.2	6.5	6.4	6.4	6.3	6.2	6.1	6.2	6.1	6.1	5.9	5.9	5.8	5.8
Both sexes, 16 to 19 years															
Civilian noninstitutional population[1]	14,506	14,496	14,485	14,484	14,480	14,472	14,467	14,505	14,496	14,527	14,557	14,558	14,545	14,546	14,555
Civilian labor force	7,901	7,926	7,945	8,031	7,996	7,936	7,883	7,955	7,940	7,991	7,929	7,837	7,926	8,028	7,884
Participation rate	54.5	54.7	54.9	55.4	55.2	54.8	54.5	54.8	54.8	55.0	54.5	53.8	54.5	55.2	54.2
Employed	6,434	6,472	6,485	6,483	6,492	6,434	6,474	6,526	6,475	6,577	6,482	6,478	6,524	6,582	6,460
Employment-population ratio[2]	44.4	44.6	44.8	44.8	44.8	44.5	44.8	45.0	44.7	45.3	44.5	44.5	44.9	45.2	44.4
Agriculture	305	258	274	295	268	272	242	250	242	253	237	251	264	295	284
Nonagricultural industries	6,129	6,215	6,211	6,188	6,224	6,162	6,232	6,276	6,233	6,324	6,245	6,227	6,260	6,287	6,176
Unemployed	1,468	1,454	1,460	1,548	1,504	1,502	1,409	1,429	1,465	1,414	1,447	1,359	1,402	1,446	1,424
Unemployment rate	18.6	18.3	18.4	19.3	18.8	18.9	17.9	18.0	18.5	17.7	18.2	17.3	17.7	18.0	18.1
White															
Civilian noninstitutional population[1]	153,679	155,432	155,005	155,122	155,236	155,376	155,502	155,604	155,723	155,856	155,979	156,111	156,313	156,431	156,561
Civilian labor force	99,926	101,801	101,208	101,237	101,531	101,946	102,015	102,122	102,158	102,297	102,455	102,503	102,746	102,893	102,797
Participation rate	65.0	65.5	65.3	65.3	65.4	65.6	65.6	65.6	65.6	65.6	65.7	65.7	65.7	65.8	65.7
Employed	93,736	95,660	94,955	95,095	95,283	95,720	95,861	96,177	96,000	96,147	96,281	96,533	96,717	96,995	96,998
Employment-population ratio[2]	61.0	61.5	61.3	61.3	61.4	61.6	61.6	61.8	61.6	61.7	61.7	61.8	61.9	62.0	62.0
Unemployed	6,191	6,140	6,253	6,142	6,248	6,226	6,154	5,945	6,158	6,150	6,174	5,970	6,029	5,898	5,799
Unemployment rate	6.2	6.0	6.2	6.1	6.2	6.1	6.0	5.8	6.0	6.0	6.0	5.8	5.9	5.7	5.6
Black															
Civilian noninstitutional population[1]	19,664	19,989	19,889	19,916	19,943	19,974	20,002	20,028	20,056	20,089	20,120	20,152	20,187	20,218	20,249
Civilian labor force	12,364	12,654	12,634	12,687	12,721	12,712	12,611	12,553	12,652	12,720	12,719	12,707	12,831	12,957	12,844
Participation rate	62.9	63.3	63.5	63.7	63.8	63.6	63.0	62.7	63.1	63.3	63.2	63.1	63.6	64.1	63.4
Employed	10,501	10,814	10,770	10,809	10,839	10,818	10,822	10,716	10,799	10,895	10,910	10,968	10,997	11,101	11,053
Employment-population ratio[2]	53.4	54.1	54.2	54.3	54.3	54.2	54.1	53.5	53.8	54.2	54.2	54.4	54.5	54.9	54.6
Unemployed	1,864	1,840	1,864	1,878	1,882	1,894	1,789	1,837	1,853	1,825	1,809	1,739	1,833	1,855	1,791
Unemployment rate	15.1	14.5	14.8	14.8	14.8	14.9	14.2	14.6	14.6	14.3	14.2	13.7	14.3	14.3	13.9

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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Hispanic origin															
Civilian noninstitutional population[1]	11,915	12,344	12,219	12,255	12,290	12,326	12,362	12,397	12,432	12,469	12,505	12,540	12,653	12,692	12,732
Civilian labor force	7,698	8,076	7,926	7,969	8,006	8,085	8,121	8,130	8,179	8,200	8,226	8,320	8,431	8,457	8,392
Participation rate	64.6	65.4	64.9	65.0	65.1	65.6	65.7	65.6	65.8	65.8	65.8	66.3	66.6	66.6	65.9
Employed	6,888	7,219	7,095	7,129	7,136	7,224	7,269	7,248	7,286	7,345	7,437	7,446	7,538	7,644	7,639
Employment-population ratio[2]	57.8	58.5	58.1	58.2	58.1	58.6	58.8	58.5	58.6	58.9	59.5	59.4	59.6	60.2	60.0
Unemployed	811	857	831	840	870	861	852	882	893	855	789	874	893	813	753
Unemployment rate	10.5	10.6	10.5	10.5	10.9	10.6	10.5	10.8	10.9	10.4	9.6	10.5	10.6	9.6	9.0

[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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
CHARACTERISTIC															
Civilian employed, 16 years and over	107,150	109,597	108,807	108,969	109,165	109,613	109,887	110,067	109,987	110,192	110,432	110,637	111,011	111,382	111,368
Men	59,891	60,892	60,681	60,712	60,668	60,793	60,884	60,942	60,968	60,975	61,241	61,393	61,596	61,751	61,707
Women	47,259	48,706	48,126	48,257	48,497	48,820	49,003	49,125	49,019	49,217	49,191	49,244	49,415	49,631	49,661
Married men, spouse present	39,248	39,658	39,396	39,504	39,582	39,613	39,634	39,735	39,691	39,780	39,952	40,093	40,102	39,913	40,100
Married women, spouse present	26,336	27,144	26,761	26,889	27,016	27,354	27,474	27,388	27,249	27,323	27,333	27,400	27,525	27,817	27,965
Women who maintain families	5,597	5,837	5,754	5,799	5,734	5,719	5,812	5,832	5,926	6,016	6,041	6,005	5,985	5,906	5,933
MAJOR INDUSTRY AND CLASS OF WORKER															
Agriculture:															
Wage and salary workers	1,535	1,547	1,655	1,539	1,489	1,508	1,504	1,509	1,521	1,562	1,582	1,621	1,650	1,647	1,739
Self-employed workers	1,458	1,447	1,450	1,467	1,472	1,492	1,434	1,387	1,460	1,451	1,425	1,400	1,370	1,454	1,418
Unpaid family workers	185	169	169	173	177	163	171	174	159	164	198	152	136	126	150
Nonagricultural industries:															
Wage and salary workers	95,871	98,299	97,661	97,858	98,047	98,314	98,312	98,586	98,692	98,846	98,869	99,164	99,550	99,748	99,834
Government	16,031	16,342	16,160	16,231	16,333	16,377	16,582	16,446	16,333	16,264	16,457	16,443	16,412	16,532	16,568
Private industries	79,841	81,957	81,501	81,627	81,714	81,937	81,730	82,140	82,359	82,582	82,412	82,721	83,138	83,216	83,265
Private households	1,249	1,235	1,227	1,309	1,261	1,267	1,241	1,247	1,229	1,216	1,183	1,189	1,269	1,204	1,227
Other	78,592	80,722	80,274	80,318	80,453	80,670	80,489	80,893	81,130	81,366	81,229	81,532	81,869	82,012	82,038
Self-employed workers	7,811	7,881	7,713	7,634	7,793	7,832	8,019	7,956	7,939	7,993	8,179	8,056	8,192	8,187	8,050
Unpaid family workers	289	255	243	251	235	236	258	271	275	265	252	239	246	255	273
PERSONS AT WORK PART TIME[1]															
All industries:															
Part time for economic reasons	5,590	5,588	5,548	5,853	5,825	5,538	5,442	5,471	5,544	5,740	5,563	5,596	5,505	5,780	5,456
Slack work	2,430	2,456	2,352	2,534	2,605	2,437	2,473	2,417	2,472	2,481	2,510	2,444	2,473	2,535	2,440
Could only find part-time work	2,819	2,800	2,908	2,922	2,843	2,813	2,661	2,741	2,772	2,826	2,714	2,867	2,695	2,828	2,698
Voluntary part time	13,489	13,935	13,778	13,900	13,853	14,142	13,967	13,981	13,922	14,178	14,021	13,877	14,170	14,061	14,167
Nonagricultural industries:															
Part time for economic reasons	5,334	5,345	5,295	5,567	5,569	5,322	5,222	5,269	5,303	5,450	5,319	5,342	5,201	5,459	5,164
Slack work	2,273	2,305	2,160	2,382	2,485	2,307	2,317	2,283	2,314	2,314	2,366	2,286	2,281	2,340	2,218
Could only find part-time work	2,730	2,719	2,819	2,806	2,749	2,727	2,609	2,678	2,710	2,739	2,626	2,765	2,599	2,742	2,595
Voluntary part time	13,038	13,502	13,351	13,528	13,412	13,613	13,578	13,606	13,520	13,736	13,567	13,455	13,750	13,597	13,682

[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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
CHARACTERISTIC															
Total, all civilian workers	7.2	7.0	7.2	7.1	7.2	7.1	7.0	6.8	7.0	6.9	6.9	6.7	6.7	6.7	6.6
Both sexes, 16 to 19 years	18.6	18.3	18.4	19.3	18.8	18.9	17.9	18.0	18.5	17.7	18.2	17.3	17.7	18.0	18.1
Men, 20 years and over	6.2	6.1	6.2	6.0	6.2	6.2	6.2	5.9	6.2	6.2	6.2	6.0	6.0	5.9	5.8
Women, 20 years and over	6.6	6.2	6.5	6.4	6.4	6.3	6.2	6.1	6.2	6.1	6.1	5.9	5.9	5.8	5.8
White, total	6.2	6.0	6.2	6.1	6.2	6.1	6.0	5.8	6.0	6.0	6.0	5.8	5.9	5.7	5.6
Both sexes, 16 to 19 years	15.7	15.6	15.0	16.3	15.9	15.9	15.2	15.4	15.9	15.4	16.0	15.1	15.0	15.2	15.5
Men, 16 to 19 years	16.5	16.3	15.9	17.1	17.0	17.1	15.6	16.6	16.6	15.7	16.3	15.5	16.1	16.0	17.1
Women, 16 to 19 years	14.8	14.9	14.1	15.4	14.7	14.6	14.7	14.2	15.1	15.2	15.7	14.6	13.8	14.3	13.9
Men, 20 years and over	5.4	5.3	5.4	5.2	5.4	5.4	5.4	5.1	5.4	5.4	5.4	5.3	5.3	5.2	5.1
Women, 20 years and over	5.7	5.4	5.7	5.5	5.5	5.4	5.3	5.2	5.3	5.2	5.2	5.0	5.1	4.9	4.8
Black, total	15.1	14.5	14.8	14.8	14.8	14.9	14.2	14.6	14.6	14.3	14.2	13.7	14.3	14.3	13.9
Both sexes, 16 to 19 years	40.2	39.3	42.4	41.9	40.5	39.5	38.0	40.3	38.4	35.8	36.0	36.5	39.5	38.9	37.6
Men, 16 to 19 years	41.0	39.3	42.6	41.2	40.5	39.7	40.5	38.8	38.6	37.8	35.0	36.1	36.5	38.3	36.5
Women, 16 to 19 years	39.2	39.2	42.2	42.7	40.5	39.4	35.0	41.9	38.3	33.8	37.0	36.9	43.2	39.5	38.8
Men, 20 years and over	13.2	12.9	12.8	12.8	12.9	13.3	12.9	13.2	13.4	13.1	12.9	11.8	12.2	12.0	11.5
Women, 20 years and over	13.1	12.4	12.3	12.5	12.7	12.7	12.1	12.5	12.4	12.4	12.5	12.3	12.8	12.9	13.0
Hispanic origin, total	10.5	10.6	10.5	10.5	10.9	10.6	10.5	10.8	10.9	10.4	9.6	10.5	10.6	9.6	9.0
Married men, spouse present	4.3	4.4	4.5	4.2	4.4	4.5	4.4	4.2	4.3	4.6	4.5	4.3	4.2	4.2	4.1
Married women, spouse present	5.6	5.2	5.5	5.3	5.3	5.2	5.2	5.1	5.1	5.0	5.0	4.8	4.8	4.8	4.5
Women who maintain families	10.4	9.8	10.1	9.5	10.1	10.0	9.5	10.1	9.8	8.9	9.7	9.8	9.8	9.5	9.7
Full-time workers	6.8	6.6	6.8	6.7	6.9	6.7	6.6	6.4	6.6	6.6	6.6	6.3	6.4	6.3	6.2
Part-time workers	9.3	9.1	9.1	9.4	9.1	9.1	9.2	9.3	9.3	9.2	9.1	8.8	9.0	8.7	9.2
Unemployed 15 weeks and over	2.0	1.9	1.9	1.8	1.9	1.9	1.9	1.9	2.0	1.8	1.9	1.8	1.8	1.8	1.7
Labor force time lost[1]	8.1	7.9	8.1	8.1	8.2	8.1	7.8	7.7	7.9	7.8	7.7	7.6	7.6	7.6	7.4
INDUSTRY															
Nonagricultural private wage and salary workers	7.2	7.0	7.1	7.1	7.2	7.1	7.1	6.9	7.0	7.0	7.0	6.8	6.7	6.6	6.5
Mining	9.5	13.5	10.5	12.4	13.6	17.3	16.6	16.6	13.9	14.5	14.5	14.1	14.0	12.4	9.3
Construction	13.1	13.1	13.0	12.3	13.0	12.4	13.0	12.4	12.9	13.8	15.1	13.7	12.2	11.6	12.5
Manufacturing	7.7	7.1	7.2	6.9	7.4	7.2	6.9	6.9	7.0	7.3	7.1	6.9	6.8	6.8	6.9
Durable goods	7.6	6.9	6.9	6.9	7.3	7.0	6.7	6.8	6.5	7.2	6.6	6.4	6.8	6.8	6.7
Nondurable goods	7.8	7.4	7.6	6.9	7.5	7.5	7.2	6.9	7.7	7.3	7.9	7.7	6.8	6.9	7.3
Transportation and public utilities	5.1	5.1	5.8	5.5	5.3	5.4	5.5	4.8	4.7	5.2	4.4	4.6	4.8	4.0	4.6
Wholesale and retail trade	7.6	7.6	7.7	7.9	7.9	7.7	7.8	7.5	7.6	7.4	7.2	7.2	7.5	7.2	7.3
Finance and service industries	5.6	5.5	5.6	5.8	5.5	5.5	5.7	5.6	5.6	5.4	5.4	5.1	5.2	5.4	4.9
Government workers	3.9	3.6	3.9	3.6	3.6	3.6	3.3	3.3	3.5	3.7	3.6	3.3	3.6	3.7	3.4
Agricultural wage and salary workers	13.2	12.5	12.1	13.4	15.3	13.2	11.4	13.3	12.9	11.9	10.1	11.5	11.6	11.2	10.7

[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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Total, 16 years and over	7.2	7.0	7.2	7.1	7.2	7.1	7.0	6.8	7.0	6.9	6.9	6.7	6.7	6.7	6.6
16 to 24 years	13.6	13.3	13.3	13.7	13.8	13.5	13.2	12.9	13.6	13.0	12.9	12.9	13.1	13.1	12.9
16 to 19 years	18.6	18.3	18.4	19.3	18.8	18.9	17.9	18.0	18.5	17.7	18.2	17.3	17.7	18.0	18.1
16 to 17 years	21.0	20.2	19.8	20.8	20.8	20.7	19.8	19.8	20.0	19.3	20.6	18.8	20.1	20.3	20.0
18 to 19 years	17.0	17.0	17.2	18.4	17.4	17.5	16.2	16.8	17.2	16.5	16.7	16.3	16.2	16.6	16.5
20 to 24 years	11.1	10.7	10.7	10.8	11.2	10.7	10.8	10.3	11.1	10.5	10.2	10.7	10.7	10.5	10.2
25 years and over	5.6	5.4	5.6	5.4	5.5	5.5	5.4	5.4	5.4	5.5	5.5	5.2	5.2	5.1	5.1
25 to 54 years	5.8	5.7	5.9	5.7	5.9	5.9	5.7	5.7	5.6	5.7	5.8	5.5	5.6	5.5	5.4
55 years and over	4.1	3.9	4.2	3.9	3.7	3.8	3.8	3.7	4.0	4.1	3.8	3.5	3.2	3.0	3.4
Men, 16 years and over	7.0	6.9	7.0	6.9	7.1	7.1	7.0	6.8	7.0	7.0	6.9	6.7	6.8	6.7	6.6
16 to 24 years	14.1	13.7	13.7	14.2	14.5	13.9	13.6	13.3	14.3	13.2	13.4	13.4	13.4	13.6	13.2
16 to 19 years	19.5	19.0	19.2	20.0	20.0	19.9	18.4	19.1	19.1	18.2	18.3	17.8	18.5	18.6	19.3
16 to 17 years	21.9	20.8	20.5	21.1	21.3	20.0	20.3	20.9	21.0	19.8	21.3	19.1	21.4	21.2	20.2
18 to 19 years	17.9	17.7	18.3	19.2	19.1	19.4	16.7	18.0	17.5	17.0	16.2	17.0	16.9	17.0	18.6
20 to 24 years	11.4	11.0	11.0	11.3	11.7	10.9	11.1	10.3	11.9	10.7	10.9	11.3	10.7	11.1	10.1
25 years and over	5.3	5.4	5.4	5.2	5.4	5.4	5.4	5.3	5.4	5.5	5.5	5.2	5.4	5.1	5.1
25 to 54 years	5.6	5.6	5.7	5.5	5.7	5.7	5.7	5.6	5.5	5.7	5.7	5.5	5.7	5.4	5.4
55 years and over	4.1	4.1	4.1	4.0	3.9	4.1	4.0	4.1	4.2	4.4	4.1	4.0	3.5	3.3	3.6
Women, 16 years and over	7.4	7.1	7.3	7.3	7.2	7.2	7.0	6.9	7.0	6.9	6.9	6.7	6.7	6.7	6.6
16 to 24 years	13.0	12.8	12.8	13.1	13.1	13.0	12.7	12.4	12.8	12.7	12.4	12.4	12.7	12.4	12.5
16 to 19 years	17.6	17.6	17.5	18.5	17.5	17.9	17.3	16.7	17.7	17.2	18.2	16.8	16.8	17.4	16.7
16 to 17 years	20.0	19.6	19.0	20.4	20.3	21.4	19.2	18.7	18.8	18.6	19.8	18.4	18.7	19.2	19.7
18 to 19 years	16.0	16.3	16.2	17.6	15.5	15.6	15.6	15.4	16.9	16.0	17.2	15.7	15.3	16.1	14.2
20 to 24 years	10.7	10.3	10.3	10.2	10.8	10.4	10.4	10.2	10.2	10.3	9.4	10.0	10.6	9.8	10.3
25 years and over	5.9	5.5	5.8	5.7	5.6	5.6	5.4	5.4	5.5	5.4	5.5	5.2	5.1	5.1	5.0
25 to 54 years	6.2	5.9	6.1	6.0	6.0	6.0	5.8	5.8	5.8	5.7	5.8	5.5	5.5	5.6	5.4
55 years and over	4.1	3.6	4.3	3.8	3.5	3.3	3.6	3.3	3.6	3.6	3.4	2.9	2.7	2.6	3.2

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

(Numbers in thousands)

Reason for unemployment	Annual average		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Job losers	4,139	4,033	4,210	4,035	4,214	4,272	4,063	3,824	4,044	3,984	3,947	3,890	3,971	3,839	3,822
On layoff	1,157	1,090	1,144	1,057	1,118	1,074	1,078	1,017	1,029	1,072	1,073	1,078	1,118	998	1,011
Other job losers	2,982	2,943	3,066	2,978	3,096	3,198	2,985	2,807	3,015	2,912	2,874	2,812	2,854	2,842	2,811
Job leavers	877	1,015	989	1,071	979	1,009	1,025	990	1,041	1,027	1,056	1,036	891	1,046	1,000
Reentrants	2,256	2,160	2,196	2,188	2,200	2,107	2,205	2,199	2,145	2,190	2,119	2,019	2,054	2,042	2,111
New entrants	1,039	1,029	1,006	1,048	1,046	1,050	989	1,014	1,038	972	1,076	1,015	1,084	1,040	956
PERCENT OF UNEMPLOYED															
Job losers	49.8	48.9	50.1	48.4	49.9	50.6	49.1	47.6	48.9	48.7	48.1	48.9	49.6	48.2	48.4
On layoff	13.9	13.2	13.6	12.7	13.2	12.7	13.0	12.7	12.4	13.1	13.1	13.5	14.0	12.5	12.8
Other job losers	35.9	35.7	36.5	35.7	36.7	37.9	36.0	35.0	36.5	35.6	35.1	35.3	35.7	35.7	35.6
Job leavers	10.6	12.3	11.8	12.8	11.6	12.0	12.4	12.3	12.6	12.6	12.9	13.0	11.1	13.1	12.7
Reentrants	27.1	26.2	26.1	26.2	26.1	25.0	26.6	27.4	25.9	26.8	25.8	25.4	25.7	25.6	26.8
New entrants	12.5	12.5	12.0	12.6	12.4	12.4	11.9	12.6	12.6	11.9	13.1	12.8	13.6	13.1	12.1
PERCENT OF CIVILIAN LABOR FORCE															
Job losers	3.6	3.4	3.6	3.4	3.6	3.6	3.4	3.2	3.4	3.4	3.3	3.3	3.3	3.2	3.2
Job leavers	.8	.9	.8	.9	.8	.9	.9	.8	.9	.9	.9	.9	.7	.9	.8
Reentrants	2.0	1.8	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.8
New entrants	.9	.9	.9	.9	.9	.9	.8	.9	.9	.8	.9	.9	.9	.9	.8

10. Duration of unemployment, monthly data seasonally adjusted

(Numbers in thousands)

Weeks of unemployment	Annual average		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Less than 5 weeks	3,498	3,448	3,536	3,565	3,610	3,415	3,399	3,436	3,415	3,418	3,382	3,355	3,416	3,361	3,383
5 to 14 weeks	2,509	2,557	2,625	2,650	2,671	2,650	2,521	2,407	2,524	2,563	2,613	2,389	2,530	2,477	2,447
15 weeks and over	2,305	2,232	2,243	2,130	2,232	2,299	2,250	2,272	2,373	2,168	2,217	2,171	2,200	2,131	2,050
15 to 26 weeks	1,025	1,045	1,078	982	1,065	1,038	1,058	1,068	1,110	950	1,045	1,023	1,022	1,008	945
27 weeks and over	1,280	1,187	1,165	1,148	1,167	1,261	1,192	1,204	1,263	1,218	1,172	1,148	1,178	1,123	1,105
Mean duration in weeks	15.6	15.0	14.6	14.7	14.8	15.2	15.1	15.6	15.5	15.2	14.8	15.0	15.0	14.6	14.9
Median duration in weeks	6.8	6.9	6.8	6.6	6.8	7.2	7.1	7.1	7.1	7.0	7.0	7.1	7.0	6.6	6.6

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

State	Feb. 1986	Feb. 1987	State	Feb. 1986	Feb. 1987
Alabama	9.2	9.9	Montana	9.5	9.7
Alaska	11.5	12.0	Nebraska	7.0	5.9
Arizona	6.5	7.8	Nevada	8.3	6.6
Arkansas	9.6	9.2	New Hampshire	3.8	2.7
California	7.7	6.7	New Jersey	6.4	4.8
Colorado	7.2	9.6	New Mexico	9.2	9.8
Connecticut	4.3	4.0	New York	7.3	5.6
Delaware	6.2	3.5	North Carolina	5.7	5.6
District of Columbia	7.1	7.9	North Dakota	7.9	6.3
Florida	5.4	5.2	Ohio	9.1	9.1
Georgia	5.9	5.8	Oklahoma	8.1	8.5
Hawaii	5.7	4.2	Oregon	9.7	7.5
Idaho	10.6	10.8	Pennsylvania	8.2	6.4
Illinois	10.1	8.3	Rhode Island	5.3	4.7
Indiana	7.9	7.5	South Carolina	7.6	6.3
Iowa	9.1	6.3	South Dakota	5.5	4.7
Kansas	6.6	6.0	Tennessee	8.8	8.1
Kentucky	12.6	11.4	Texas	8.8	9.2
Louisiana	13.4	14.3	Utah	6.3	7.6
Maine	6.6	5.9	Vermont	5.1	5.1
Maryland	5.1	5.4	Virginia	6.0	5.5
Massachusetts	4.3	3.9	Washington	8.6	9.4
Michigan	9.3	8.9	West Virginia	13.1	12.6
Minnesota	7.6	6.4	Wisconsin	8.9	8.0
Mississippi	11.2	12.2			
Missouri	7.1	6.7	Wyoming	10.3	11.0

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	Feb. 1986	Jan. 1987	Feb. 1987[p]	State	Feb. 1986	Jan. 1987	Feb. 1987[p]
Alabama	1,444.6	1,466.1	1,467.9	Nebraska	637.7	647.0	648.6
Alaska	214.5	204.3	206.3	Nevada	450.0	476.6	479.2
Arizona	1,323.7	1,363.7	1,375.5	New Hampshire	472.4	493.4	492.5
Arkansas	794.3	810.2	817.5				
California	11,041.7	11,381.8	11,417.5	New Jersey	3,383.1	3,478.3	3,470.9
				New Mexico	521.1	523.9	527.6
Colorado	1,399.8	1,391.7	1,391.7	New York	7,727.3	7,872.5	7,903.7
Connecticut	1,558.3	1,615.6	1,616.1	North Carolina	2,681.7	2,756.9	2,762.8
Delaware	288.5	306.3	305.4	North Dakota	243.6	243.5	243.9
District of Columbia	630.8	637.7	640.3				
Florida	4,542.1	4,721.8	4,754.8	Ohio	4,348.7	4,466.2	4,470.1
				Oklahoma	1,142.4	1,124.4	1,122.5
Georgia	2,603.7	2,719.4	2,723.7	Oregon	1,025.3	1,051.8	1,061.0
Hawaii	432.8	443.1	447.1	Pennsylvania	4,672.1	4,749.7	4,756.0
Idaho	325.2	329.3	330.8	Rhode Island	429.4	438.1	437.6
Illinois	4,679.8	4,767.5	4,775.2				
Indiana	2,162.6	2,232.4	2,241.0	South Carolina	1,308.1	1,344.7	1,352.2
				South Dakota	242.7	246.3	246.7
Iowa	1,048.2	1,073.7	1,085.4	Tennessee	1,868.9	1,960.2	1,963.4
Kansas	965.5	972.2	978.5	Texas	6,641.7	6,469.7	6,485.4
Kentucky	1,239.3	1,279.9	1,278.8	Utah	624.0	630.1	631.8
Louisiana	1,546.4	1,486.5	1,482.0				
Maine	455.0	472.3	476.3	Vermont	228.7	240.3	241.2
				Virginia	2,470.2	2,573.6	2,567.0
Maryland	1,879.6	1,966.0	1,959.3	Washington	1,718.0	1,765.0	1,770.0
Massachusetts	2,916.6	2,968.3	2,983.6	West Virginia	580.5	586.3	585.2
Michigan	3,580.0	3,628.1	3,643.2	Wisconsin	1,956.6	1,991.8	1,999.1
Minnesota	1,832.5	1,876.9	1,881.3				
Mississippi	842.5	846.3	849.3	Wyoming	196.7	186.3	185.4
Missouri	2,077.0	2,107.1	2,109.4	Puerto Rico	702.9	720.8	723.6
Montana	268.1	270.5	270.2	Virgin Islands	38.0	37.8	38.4

[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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.[p]	Mar.[p]
TOTAL	97,614	100,167	99,484	99,783	99,918	99,843	100,105	100,283	100,560	100,826	101,068	101,322	101,626	101,862	102,026
PRIVATE SECTOR	81,199	83,432	82,785	83,072	83,198	83,161	83,508	83,655	83,786	83,956	84,178	84,394	84,708	84,958	85,060
GOODS-PRODUCING	24,930	24,938	24,945	25,038	24,965	24,854	24,869	24,888	24,858	24,865	24,891	24,920	25,008	25,040	24,972
Mining	930	792	852	821	790	772	768	753	743	746	742	738	731	732	735
Oil and gas extraction	585	464	518	488	461	446	442	431	422	423	420	414	412	414	418
Construction	4,687	4,960	4,838	4,972	4,974	4,947	4,980	5,012	5,010	5,001	4,993	4,996	5,109	5,094	5,047
General building contractors	1,251	1,307	1,298	1,315	1,314	1,299	1,299	1,306	1,301	1,302	1,307	1,298	1,333	1,322	1,302
Manufacturing	19,314	19,186	19,255	19,245	19,201	19,135	19,121	19,123	19,105	19,118	19,156	19,186	19,168	19,214	19,190
Production workers	13,130	13,023	13,061	13,060	13,025	12,979	12,961	12,971	12,960	12,974	13,020	13,053	13,031	13,078	13,063
Durable goods	11,516	11,345	11,418	11,415	11,378	11,307	11,294	11,302	11,271	11,266	11,282	11,289	11,265	11,300	11,280
Production workers	7,660	7,495	7,545	7,547	7,519	7,462	7,441	7,458	7,438	7,435	7,452	7,466	7,440	7,480	7,469
Lumber and wood products	700	727	715	719	719	721	724	729	734	737	743	749	754	755	752
Furniture and fixtures	493	497	493	494	496	496	498	499	500	500	500	500	503	503	504
Stone, clay, and glass products	591	595	594	600	599	597	593	592	594	590	591	594	595	598	594
Primary metal industries	813	768	787	785	780	761	758	751	749	749	751	752	741	753	755
Blast furnaces and basic steel products	305	283	293	291	288	286	285	272	270	272	271	270	264	274	276
Fabricated metal products	1,468	1,439	1,450	1,451	1,447	1,440	1,428	1,429	1,433	1,429	1,427	1,431	1,430	1,430	1,427
Machinery, except electrical	2,182	2,082	2,118	2,111	2,100	2,089	2,079	2,072	2,044	2,039	2,036	2,030	2,029	2,043	2,042
Electrical and electronic equipment	2,207	2,169	2,177	2,177	2,175	2,143	2,169	2,168	2,162	2,167	2,166	2,164	2,156	2,154	2,147
Transportation equipment	1,971	1,984	1,989	1,986	1,972	1,974	1,969	1,985	1,979	1,979	1,993	1,990	1,979	1,986	1,978
Motor vehicles and equipment	876	843	858	854	839	839	824	839	834	824	837	832	826	836	823
Instruments and related products	723	717	726	723	721	717	713	713	713	713	710	709	709	707	708
Miscellaneous manufacturing industries	369	367	369	369	369	369	363	364	363	363	365	370	369	371	373
Nondurable goods	7,798	7,841	7,837	7,830	7,823	7,828	7,827	7,821	7,834	7,852	7,874	7,897	7,903	7,914	7,910
Production workers	5,470	5,528	5,516	5,513	5,506	5,517	5,520	5,513	5,522	5,539	5,568	5,587	5,591	5,598	5,594
Food and kindred products	1,608	1,641	1,632	1,633	1,640	1,648	1,645	1,642	1,644	1,644	1,654	1,657	1,654	1,657	1,656
Tobacco manufactures	65	61	63	63	62	62	62	59	60	59	61	60	59	60	59
Textile mill products	704	709	707	703	705	707	710	711	709	711	717	719	722	727	727
Apparel and other textile products	1,125	1,115	1,117	1,119	1,113	1,106	1,108	1,108	1,110	1,113	1,112	1,124	1,123	1,116	1,116
Paper and allied products	683	690	688	689	689	690	687	685	691	694	694	697	694	695	694
Printing and publishing	1,435	1,479	1,469	1,472	1,474	1,477	1,483	1,481	1,485	1,491	1,493	1,493	1,500	1,506	1,506
Chemicals and allied products	1,046	1,027	1,031	1,028	1,024	1,026	1,025	1,026	1,025	1,023	1,023	1,020	1,021	1,021	1,019
Petroleum and coal products	178	164	166	166	166	164	163	163	162	161	160	159	159	159	158
Rubber and misc. plastics products	790	801	804	800	796	797	792	794	797	805	809	815	819	820	821
Leather and leather products	166	155	160	157	154	151	152	152	151	151	151	153	152	153	154
SERVICE-PRODUCING	72,684	75,229	74,539	74,745	74,953	74,989	75,236	75,395	75,702	75,961	76,177	76,402	76,618	76,822	77,054
Transportation and public utilities	5,242	5,286	5,280	5,266	5,265	5,167	5,288	5,255	5,316	5,316	5,351	5,359	5,382	5,389	5,411
Transportation	3,006	3,068	3,053	3,040	3,037	3,035	3,057	3,063	3,088	3,094	3,117	3,125	3,140	3,143	3,162
Communication and public utilities	2,236	2,218	2,227	2,226	2,228	2,132	2,231	2,192	2,228	2,222	2,234	2,234	2,242	2,246	2,249
Wholesale trade	5,740	5,853	5,841	5,864	5,872	5,829	5,849	5,863	5,859	5,864	5,859	5,859	5,864	5,876	5,880
Durable goods	3,409	3,482	3,480	3,485	3,488	3,454	3,483	3,485	3,485	3,489	3,489	3,491	3,495	3,497	3,498
Nondurable goods	2,331	2,371	2,361	2,379	2,384	2,375	2,366	2,378	2,374	2,375	2,370	2,368	2,369	2,379	2,382
Retail trade	17,360	17,978	17,828	17,851	17,911	17,944	17,992	18,030	18,065	18,143	18,197	18,206	18,289	18,376	18,411
General merchandise stores	2,320	2,350	2,333	2,342	2,344	2,350	2,354	2,359	2,362	2,379	2,367	2,341	2,333	2,366	2,380
Food stores	2,779	2,932	2,901	2,910	2,917	2,932	2,938	2,951	2,952	2,963	2,968	2,979	2,990	3,008	3,006
Automotive dealers and service stations	1,892	1,954	1,939	1,940	1,944	1,945	1,950	1,962	1,970	1,973	1,977	1,984	1,988	1,993	1,987
Eating and drinking places	5,715	5,921	5,868	5,859	5,889	5,918	5,931	5,923	5,948	5,982	6,006	6,035	6,080	6,092	6,108
Finance, insurance, and real estate	5,953	6,305	6,184	6,228	6,261	6,295	6,334	6,364	6,388	6,409	6,429	6,472	6,495	6,518	6,554
Finance	2,979	3,159	3,095	3,120	3,137	3,159	3,176	3,192	3,202	3,212	3,220	3,236	3,239	3,248	3,255
Insurance	1,830	1,934	1,900	1,910	1,918	1,927	1,945	1,952	1,962	1,971	1,979	1,990	2,002	2,009	2,018
Real estate	1,144	1,211	1,189	1,198	1,206	1,209	1,213	1,220	1,224	1,226	1,230	1,246	1,254	1,261	1,281
Services	21,974	23,072	22,707	22,825	22,924	23,072	23,176	23,255	23,300	23,359	23,451	23,578	23,670	23,759	23,832
Business services	4,452	4,809	4,698	4,750	4,755	4,792	4,835	4,848	4,883	4,908	4,926	4,966	4,990	5,042	5,074
Health services	6,310	6,586	6,497	6,511	6,543	6,571	6,601	6,634	6,649	6,677	6,695	6,726	6,757	6,784	6,802
Government	16,415	16,735	16,699	16,711	16,720	16,682	16,597	16,628	16,774	16,870	16,890	16,928	16,918	16,904	16,966
Federal	2,875	2,899	2,923	2,914	2,899	2,875	2,866	2,875	2,901	2,896	2,899	2,907	2,914	2,915	2,924
State	3,848	3,937	3,927	3,938	3,936	3,927	3,921	3,919	3,932	3,959	3,965	3,983	3,983	3,984	4,003
Local	9,692	9,899	9,849	9,859	9,885	9,880	9,810	9,834	9,941	10,015	10,026	10,038	10,021	10,005	10,039

[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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.[p]	Mar.[p]
PRIVATE SECTOR	34.9	34.8	34.9	34.8	34.8	34.7	34.7	34.8	34.7	34.7	34.8	34.6	34.8	35.0	34.8
CONSTRUCTION	37.7	37.5	–	–	–	–	–	–	–	–	–	–	–	–	–
MANUFACTURING	40.5	40.7	40.7	40.7	40.7	40.6	40.6	40.8	40.8	40.7	40.8	40.8	41.0	41.2	40.9
Overtime hours	3.3	3.4	3.4	3.4	3.4	3.3	3.4	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.7
Durable goods	41.2	41.3	41.4	41.3	41.2	41.2	41.1	41.4	41.4	41.3	41.4	41.3	41.6	41.9	41.6
Overtime hours	3.5	3.5	3.6	3.6	3.4	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.7	3.7	3.8
Lumber and wood products	39.9	40.3	40.2	40.3	40.3	39.9	40.1	40.2	40.1	40.3	40.7	40.4	40.7	41.1	40.8
Furniture and fixtures	39.4	39.6	39.4	39.1	39.4	39.4	39.4	39.9	40.0	39.8	39.6	39.6	40.2	40.1	39.8
Stone, clay, and glass products	41.9	42.3	41.9	42.4	42.3	42.2	42.2	42.5	42.5	42.3	41.9	42.1	42.9	43.1	42.5
Primary metal industries	41.5	41.9	41.9	41.3	41.7	41.6	41.3	41.9	42.0	42.3	42.4	42.5	42.7	42.8	42.7
Blast furnaces and basic steel products	41.1	41.6	41.7	40.5	41.5	41.1	41.2	41.5	41.6	42.3	42.5	42.7	42.8	42.4	42.3
Fabricated metal products	41.3	41.3	41.4	41.2	41.1	41.1	41.1	41.2	41.5	41.2	41.4	41.1	41.5	41.8	41.5
Machinery except electrical	41.5	41.6	41.6	41.8	41.8	41.7	41.4	41.7	41.7	41.6	41.7	41.5	42.0	42.1	41.9
Electrical and electronic equipment	40.6	41.0	41.0	41.1	41.0	41.0	41.1	41.2	41.2	40.9	41.0	41.0	41.0	41.4	40.8
Transportation equipment	42.6	42.4	42.7	42.1	41.9	42.2	42.1	42.6	42.6	42.1	42.3	42.1	42.3	42.8	42.7
Motor vehicles and equipment	43.5	42.7	43.3	41.9	41.8	42.4	42.4	42.8	42.7	42.1	42.6	42.6	43.2	43.5	43.2
Instruments and related products	41.0	41.1	41.3	41.3	40.9	41.0	40.8	41.0	40.7	41.1	41.2	41.3	41.2	41.4	41.3
Miscellaneous manufacturing	39.4	39.6	–	–	–	–	–	–	–	–	–	–	–	–	–
Nondurable goods	39.6	39.9	39.8	39.9	39.9	39.8	39.8	40.0	39.9	39.9	40.1	40.1	40.1	40.4	40.1
Overtime hours	3.1	3.3	3.2	3.3	3.4	3.2	3.4	3.4	3.3	3.4	3.5	3.5	3.5	3.5	3.5
Food and kindred products	40.0	40.0	39.9	40.2	40.2	40.0	40.0	40.3	39.7	39.8	40.0	39.8	40.0	40.1	40.0
Tobacco manufactures	37.2	37.6	–	–	–	–	–	–	–	–	–	–	–	–	–
Textile mill products	39.7	41.2	40.7	41.3	41.1	40.8	40.9	41.4	41.6	41.5	41.5	41.9	41.7	42.3	42.0
Apparel and other textile products	36.4	36.7	36.5	36.9	36.5	36.5	36.6	36.5	36.7	36.7	36.9	37.0	36.9	37.6	37.0
Paper and allied products	43.1	43.3	43.5	43.0	43.2	43.1	43.2	43.5	43.0	43.0	43.2	43.4	43.6	43.6	43.3
Printing and publishing	37.8	38.0	38.0	38.0	38.0	37.8	37.9	38.0	38.0	38.0	38.1	38.1	38.0	38.3	37.9
Chemicals and allied products	41.9	42.0	41.9	41.9	42.0	41.9	41.9	42.1	42.0	42.2	42.5	42.2	42.3	42.1	41.9
Petroleum and coal products	43.0	43.7	43.8	43.6	43.4	44.0	43.5	44.3	43.4	43.7	43.8	43.6	45.0	44.2	44.0
Leather and leather products	37.2	36.9	–	–	–	–	–	–	–	–	–	–	–	–	–
TRANSPORTATION AND PUBLIC UTILITIES	39.5	39.2	39.6	39.2	39.2	39.1	39.2	39.1	38.9	39.1	39.3	39.0	39.1	39.3	39.3
WHOLESALE TRADE	38.4	38.4	38.5	38.5	38.4	38.3	38.3	38.4	38.2	38.4	38.3	38.2	38.3	38.4	38.3
RETAIL TRADE	29.4	29.2	29.3	29.2	29.2	29.1	29.2	29.2	29.2	29.1	29.3	28.9	29.0	29.4	29.2
SERVICES	32.5	32.5	32.5	32.5	32.5	32.4	32.4	32.4	32.3	32.4	32.5	32.4	32.4	32.5	32.3

– 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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.[p]	Mar.[p]
PRIVATE SECTOR	$8.57	$8.75	$8.73	$8.72	$8.72	$8.71	$8.69	$8.70	$8.81	$8.81	$8.85	$8.83	$8.88	$8.89	$8.90
Seasonally adjusted	-	-	8.73	8.72	8.73	8.74	8.73	8.77	8.76	8.80	8.84	8.82	8.84	8.86	8.89
MINING	11.98	12.45	12.35	12.43	12.44	12.50	12.46	12.51	12.52	12.51	12.57	12.60	12.67	12.52	12.51
CONSTRUCTION	12.31	12.42	12.22	12.29	12.33	12.31	12.31	12.39	12.54	12.62	12.59	12.70	12.53	12.45	12.57
MANUFACTURING	9.53	9.73	9.72	9.70	9.71	9.70	9.74	9.68	9.73	9.72	9.77	9.84	9.83	9.84	9.85
Durable goods	10.10	10.29	10.30	10.28	10.28	10.26	10.27	10.22	10.30	10.28	10.33	10.40	10.38	10.39	10.39
Lumber and wood products	8.22	8.37	8.33	8.32	8.37	8.43	8.36	8.40	8.42	8.37	8.39	8.36	8.29	8.32	8.28
Furniture and fixtures	7.17	7.44	7.35	7.36	7.39	7.46	7.44	7.46	7.52	7.50	7.52	7.60	7.57	7.56	7.57
Stone, clay, and glass products	9.84	10.05	9.93	10.00	10.04	10.04	10.06	10.07	10.11	10.10	10.13	10.17	10.18	10.16	10.17
Primary metal industries	11.68	11.93	11.99	12.00	12.02	11.94	12.06	11.85	11.92	11.84	11.87	11.91	11.86	11.89	11.91
Blast furnaces and basic steel products	13.34	13.82	13.80	13.82	13.86	13.88	14.08	13.83	13.93	13.78	13.78	13.83	13.67	13.70	13.69
Fabricated metal products	9.70	9.87	9.88	9.84	9.85	9.88	9.84	9.82	9.87	9.86	9.93	10.00	9.98	9.98	9.99
Machinery, except electrical	10.29	10.56	10.58	10.55	10.55	10.55	10.57	10.57	10.58	10.56	10.59	10.65	10.61	10.65	10.69
Electrical and electronic equipment	9.47	9.67	9.62	9.62	9.64	9.61	9.68	9.67	9.73	9.72	9.75	9.85	9.86	9.85	9.86
Transportation equipment	12.72	12.86	12.90	12.83	12.79	12.78	12.78	12.75	12.87	12.87	12.92	13.00	12.98	12.95	12.95
Motor vehicles and equipment	13.42	13.52	13.66	13.54	13.47	13.41	13.40	13.36	13.50	13.49	13.52	13.63	13.67	13.60	13.61
Instruments and related products	9.16	9.46	9.41	9.41	9.40	9.41	9.47	9.45	9.51	9.54	9.61	9.62	9.62	9.65	9.60
Miscellaneous manufacturing	7.30	7.56	7.51	7.50	7.54	7.54	7.59	7.52	7.59	7.60	7.65	7.71	7.70	7.69	7.67
Nondurable goods	8.71	8.93	8.88	8.88	8.90	8.91	8.99	8.93	8.96	8.95	9.00	9.06	9.06	9.06	9.09
Food and kindred products	8.57	8.74	8.74	8.75	8.78	8.74	8.75	8.65	8.65	8.68	8.79	8.88	8.89	8.91	8.94
Tobacco manufactures	11.94	12.77	12.76	12.84	13.38	13.68	13.48	13.44	12.21	12.10	12.62	12.86	12.89	13.35	13.76
Textile mill products	6.71	6.95	6.86	6.87	6.88	6.87	6.90	6.99	7.05	7.04	7.07	7.13	7.13	7.13	7.16
Apparel and other textile products	5.73	5.81	5.80	5.81	5.78	5.79	5.76	5.79	5.87	5.82	5.83	5.86	5.89	5.89	5.90
Paper and allied products	10.82	11.14	11.03	11.05	11.12	11.15	11.31	11.17	11.20	11.20	11.17	11.24	11.17	11.18	11.15
Printing and publishing	9.71	9.97	9.90	9.87	9.91	9.88	9.96	10.00	10.10	10.08	10.11	10.14	10.14	10.16	10.17
Chemicals and allied products	11.56	11.97	11.78	11.82	11.89	11.94	12.04	11.99	12.03	12.08	12.15	12.20	12.17	12.20	12.26
Petroleum and coal products	14.06	14.19	14.22	14.16	14.02	14.14	14.16	14.07	14.20	14.18	14.26	14.36	14.40	14.35	14.56
Rubber and miscellaneous plastics products	8.54	8.76	8.72	8.68	8.75	8.75	8.82	8.81	8.76	8.76	8.81	8.86	8.87	8.84	8.85
Leather and leather products	5.82	5.90	5.86	5.89	5.88	5.88	5.89	5.90	5.93	5.92	5.98	5.98	6.03	5.97	6.04
TRANSPORTATION AND PUBLIC UTILITIES	11.40	11.63	11.62	11.55	11.54	11.57	11.61	11.61	11.70	11.68	11.75	11.71	11.73	11.79	11.78
WHOLESALE TRADE	9.16	9.35	9.33	9.29	9.29	9.32	9.30	9.32	9.37	9.35	9.46	9.47	9.49	9.55	9.51
RETAIL TRADE	5.94	6.02	6.03	6.01	6.00	5.99	5.97	5.97	6.05	6.04	6.07	6.05	6.07	6.06	6.05
FINANCE, INSURANCE, AND REAL ESTATE	7.94	8.34	8.30	8.29	8.31	8.37	8.30	8.33	8.37	8.38	8.54	8.46	8.58	8.71	8.68
SERVICES	7.89	8.16	8.18	8.12	8.10	8.10	8.04	8.05	8.19	8.22	8.31	8.31	8.36	8.40	8.40

- 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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.[p]	Mar.[p]
PRIVATE SECTOR															
Current dollars	$299.09	$304.50	$302.93	$301.71	$302.58	$303.98	$304.15	$305.37	$306.59	$305.71	$307.10	$308.17	$305.47	$306.71	$307.94
Seasonally adjusted	–	–	304.68	303.46	303.80	303.28	302.93	305.20	303.97	305.36	307.63	305.17	307.63	310.10	309.37
Constant (1977) dollars	170.42	170.88	171.05	170.94	170.85	170.78	170.97	171.36	171.28	170.69	171.28	171.78	169.14	169.17	–
MINING	519.93	526.64	522.41	522.06	519.99	525.00	518.34	529.17	529.60	527.92	522.91	536.76	542.28	527.09	522.92
CONSTRUCTION	464.09	465.75	444.81	462.10	467.31	465.32	471.47	475.78	482.79	479.56	459.54	468.63	467.37	459.41	471.38
MANUFACTURING															
Current dollars	385.97	396.01	395.60	392.85	394.23	395.76	391.55	393.98	398.93	396.58	400.57	409.34	401.06	401.47	402.87
Constant (1977) dollars	219.93	222.23	223.38	222.58	222.60	222.34	220.10	221.09	222.87	221.43	223.41	228.17	222.07	221.44	–
Durable goods	416.12	424.98	426.42	423.54	423.54	424.76	417.99	420.04	428.48	424.56	429.73	438.88	430.77	430.15	432.22
Lumber and wood products	327.98	337.31	333.20	334.46	338.99	342.26	334.40	341.04	342.69	338.99	338.12	338.58	331.60	336.13	336.17
Furniture and fixtures	282.50	294.62	288.12	286.30	288.21	294.67	287.93	298.40	303.81	303.00	300.80	310.84	299.77	297.11	299.77
Stone, clay, and glass products	412.30	425.12	412.10	425.00	428.71	429.71	427.55	432.00	435.74	431.27	424.45	427.14	424.51	424.69	428.16
Primary metal industries	484.72	499.87	504.78	499.20	501.23	499.09	495.67	491.78	501.83	496.10	503.29	512.13	505.24	508.89	509.75
Blast furnaces and basic steel products	548.27	574.91	576.84	569.38	576.58	577.41	582.91	569.80	579.49	571.87	580.14	590.54	578.24	582.25	580.46
Fabricated metal products	400.61	407.63	409.03	403.44	404.84	408.04	398.52	402.62	410.59	407.22	412.10	421.00	413.17	412.17	414.59
Machinery, except electrical	427.04	439.30	442.24	437.83	437.83	439.94	431.26	436.54	441.19	438.24	443.72	454.76	445.62	447.30	450.05
Electrical and electronic equipment	384.48	396.47	395.38	392.50	393.31	394.01	391.07	395.50	401.85	397.55	403.65	414.69	405.25	403.85	403.27
Transportation equipment	541.87	545.26	552.12	542.71	537.18	540.59	530.37	531.68	544.40	540.54	549.10	564.20	551.65	550.38	554.26
Motor vehicles and equipment	583.77	577.30	592.84	574.10	567.09	572.61	560.12	555.78	573.75	567.93	575.95	599.72	590.54	584.80	589.31
Instruments and related products	375.56	388.81	389.57	385.81	382.58	385.81	382.59	384.62	388.96	390.19	398.82	406.93	396.34	397.58	397.44
Miscellaneous manufacturing	287.62	299.38	299.65	297.75	297.08	298.58	294.49	294.78	300.56	302.48	307.53	310.71	304.15	301.45	302.97
Nondurable goods	344.92	356.31	352.54	351.65	354.22	355.51	356.00	358.09	360.19	358.00	362.70	368.74	362.40	361.49	363.60
Food and kindred products	342.80	349.60	344.36	346.50	352.08	350.47	350.00	352.06	349.46	347.20	353.36	358.75	353.82	350.16	353.13
Tobacco manufactures	444.17	480.15	478.50	469.94	504.43	523.94	483.93	486.53	470.09	473.11	484.61	484.82	482.09	487.28	539.39
Textile mill products	266.39	286.34	278.52	278.92	282.08	283.04	278.07	290.78	295.40	293.57	296.23	302.31	296.61	298.03	300.00
Apparel and other textile products	208.57	213.23	211.70	211.48	210.97	213.65	209.09	211.91	215.43	214.76	216.88	219.16	216.75	218.52	218.30
Paper and allied products	466.34	482.36	477.60	474.05	479.27	480.57	486.33	483.66	484.96	482.72	484.78	496.81	485.90	481.86	480.57
Printing and publishing	367.04	378.86	377.19	374.07	374.60	370.50	374.50	381.00	386.83	384.05	388.22	393.43	382.28	385.06	386.46
Chemicals and allied products	484.36	502.74	494.76	495.26	499.38	502.67	502.07	501.18	505.26	506.15	517.59	520.94	514.79	512.40	514.92
Petroleum and coal products	604.58	620.10	621.41	615.96	605.66	622.16	618.79	623.30	626.22	621.08	626.01	627.53	643.68	625.66	639.18
Rubber and miscellaneous plastics products	350.99	361.79	360.14	356.75	360.50	361.38	357.21	362.97	364.42	362.66	367.38	374.78	368.99	366.86	368.16
Leather and leather products	216.50	217.71	212.72	213.81	215.80	221.68	217.93	216.53	218.22	217.86	222.46	227.84	224.92	222.08	226.50
TRANSPORTATION AND PUBLIC UTILITIES	450.30	455.90	457.83	450.45	450.06	455.86	457.43	457.43	457.47	456.69	461.78	459.03	453.95	459.81	460.60
WHOLESALE TRADE	351.74	359.04	357.34	355.81	356.74	358.82	358.05	358.82	358.87	359.04	363.26	363.65	361.57	362.90	362.33
RETAIL TRADE	174.64	175.78	174.27	173.69	174.60	176.71	178.50	178.50	176.66	175.16	176.64	178.48	172.39	173.92	174.24
FINANCE, INSURANCE, AND REAL ESTATE	289.02	304.41	304.61	301.76	301.65	306.34	302.95	304.88	304.67	306.71	313.42	309.64	313.17	317.92	315.95
SERVICES	256.43	265.20	265.03	263.09	262.44	264.06	263.71	264.04	264.54	266.33	269.24	269.24	269.19	271.32	270.48

– 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					
	Mar. 1986	Jan. 1987	Feb. 1987[p]	Mar. 1987[p]	Mar. 1986	Nov. 1986	Dec. 1986	Jan. 1987	Feb. 1987[p]	Mar. 1987[p]
PRIVATE SECTOR (in current dollars)	168.5	171.3	171.8	171.8	168.5	170.8	170.6	170.7	171.4	171.8
Mining[1]	180.1	182.0	180.5	181.0	–	–	–	–	–	–
Construction	148.3	152.0	151.0	152.6	149.2	154.0	153.9	151.7	151.0	153.5
Manufacturing	171.9	174.1	174.2	174.3	171.8	173.2	173.5	173.4	173.9	174.1
Transportation and public utilities	169.8	172.1	173.2	172.8	170.2	171.2	171.2	171.5	172.5	173.0
Wholesale trade[1]	171.9	174.9	175.8	175.3	–	–	–	–	–	–
Retail trade	157.7	158.8	159.1	159.1	157.4	159.3	159.3	158.4	158.6	158.8
Finance, insurance, and real estate[1]	179.2	184.7	187.4	187.0	–	–	–	–	–	–
Services	174.0	178.0	178.8	178.9	174.0	176.6	175.8	176.9	178.1	178.9
PRIVATE SECTOR (in constant dollars)	95.2	94.8	94.7	–	95.0	95.3	95.0	94.4	94.4	–

[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:												
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	54.1	49.2	46.2	54.6	54.3	54.9	55.1	62.7	62.4
1987	51.6	63.0	49.7	–	–	–	–	–	–	–	–	–
Over 3-month span:												
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	51.1	49.7	48.4	44.9	47.3	54.1	54.9	62.4	65.1	63.0
1987	62.7	57.3	–	–	–	–	–	–	–	–	–	–
Over 6-month span:												
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	53.8	53.8	47.6	45.9	45.9	48.6	49.7	55.4	61.1	60.5	63.5	60.8
1987	–	–	–	–	–	–	–	–	–	–	–	–
Over 12-month span:												
1985	46.2	45.7	46.8	43.8	44.9	47.3	47.6	48.9	47.3	49.5	48.9	48.6
1986	50.3	51.1	52.2	52.4	52.7	54.6	53.5	55.1	55.9	–	–	–
1987	–	–	–	–	–	–	–	–	–	–	–	–

– 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. Data for the 2 most recent months shown in each span are preliminary. 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	1978	1979	1980	1981	1982	1983	1984	1985	1986
Noninstitutional population	163,541	166,460	169,349	171,775	173,939	175,891	178,080	179,912	182,293
Labor force:									
Total (number)	103,882	106,559	108,544	110,315	111,872	113,226	115,241	117,167	119,540
Percent of population	63.5	64.0	64.1	64.2	64.3	64.4	64.7	65.1	65.6
Employed:									
Total (number)	97,679	100,421	100,907	102,042	101,194	102,510	106,702	108,856	111,303
Percent of population	59.7	60.3	59.6	59.4	58.2	58.3	59.9	60.5	61.1
Resident Armed Forces	1,631	1,597	1,604	1,645	1,668	1,676	1,697	1,706	1,706
Civilian									
Total	96,048	98,824	99,303	100,397	99,526	100,834	105,005	107,150	109,597
Agriculture	3,387	3,347	3,364	3,368	3,401	3,383	3,321	3,179	3,163
Nonagricultural industries	92,661	95,477	95,938	97,030	96,125	97,450	101,685	103,971	106,434
Unemployed:									
Total (number)	6,202	6,137	7,637	8,273	10,678	10,717	8,539	8,312	8,237
Percent of labor force	6.0	5.8	7.0	7.5	9.5	9.5	7.4	7.1	6.9
Not in labor force (number)	59,659	59,900	60,806	61,460	62,067	62,665	62,839	62,744	62,752

20. Annual data: Employment levels by industry

(Numbers in thousands)

Industry	1978	1979	1980	1981	1982	1983	1984	1985	1986
Total employment	86,697	89,823	90,406	91,156	89,566	90,200	94,496	97,614	100,167
Private sector	71,026	73,876	74,166	75,126	73,729	74,330	78,472	81,199	83,432
Goods-producing	25,585	26,461	25,658	25,497	23,813	23,334	24,727	24,930	24,938
Mining	851	958	1,027	1,139	1,128	952	966	930	792
Construction	4,229	4,463	4,346	4,188	3,905	3,948	4,383	4,687	4,960
Manufacturing	20,505	21,040	20,285	20,170	18,781	18,434	19,378	19,314	19,186
Service-producing	61,113	63,363	64,748	65,659	65,753	66,866	69,769	72,684	75,229
Transportation and public utilities	4,923	5,136	5,146	5,165	5,082	4,954	5,159	5,242	5,286
Wholesale trade	4,969	5,204	5,275	5,358	5,278	5,268	5,555	5,740	5,853
Retail trade	14,573	14,989	15,035	15,189	15,179	15,613	16,545	17,360	17,978
Finance, insurance, and real estate	4,724	4,975	5,160	5,298	5,341	5,468	5,689	5,953	6,305
Services	16,252	17,112	17,890	18,619	19,036	19,694	20,797	21,974	23,072
Government	15,672	15,947	16,241	16,031	15,837	15,869	16,024	16,415	16,735
Federal	2,753	2,773	2,866	2,772	2,739	2,774	2,807	2,875	2,899
State	3,474	3,541	3,610	3,640	3,640	3,662	3,734	3,848	3,937
Local	9,446	9,633	9,765	9,619	9,458	9,434	9,482	9,692	9,899

NOTE: 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	1978	1979	1980	1981	1982	1983	1984	1985	1986
Private sector									
Average weekly hours	35.8	35.7	35.3	35.2	34.8	35.0	35.2	34.9	34.8
Average hourly earnings (in dollars)	5.69	6.16	6.66	7.25	7.68	8.02	8.32	8.57	8.75
Average weekly earnings (in dollars)	203.70	219.91	235.10	255.20	267.26	280.70	292.86	299.09	304.50
Mining									
Average weekly hours	43.4	43.0	43.3	43.7	42.7	42.5	43.3	43.4	42.3
Average hourly earnings (in dollars)	7.67	8.49	9.17	10.04	10.77	11.28	11.63	11.98	12.45
Average weekly earnings (in dollars)	332.88	365.07	397.06	438.75	459.88	479.40	503.58	519.93	526.64
Construction									
Average weekly hours	36.8	37.0	37.0	36.9	36.7	37.1	37.8	37.7	37.5
Average hourly earnings (in dollars)	8.66	9.27	9.94	10.82	11.63	11.94	12.13	12.31	12.42
Average weekly earnings (in dollars)	318.69	342.99	367.78	399.26	426.82	442.97	458.51	464.09	465.75
Manufacturing									
Average weekly hours	40.4	40.2	39.7	39.8	38.9	40.1	40.7	40.5	40.7
Average hourly earnings (in dollars)	6.17	6.70	7.27	7.99	8.49	8.83	9.19	9.53	9.73
Average weekly earnings (in dollars)	249.27	269.34	288.62	318.00	330.26	354.08	374.03	385.97	396.01
Transportation and public utilities									
Average weekly hours	40.0	39.9	39.6	39.4	39.0	39.0	39.4	39.5	39.2
Average hourly earnings (in dollars)	7.57	8.16	8.87	9.70	10.32	10.79	11.12	11.40	11.63
Average weekly earnings (in dollars)	302.80	325.58	351.25	382.18	402.48	420.81	438.13	450.30	455.90
Wholesale trade									
Average weekly hours	38.8	38.8	38.5	38.5	38.3	38.5	38.5	38.4	38.4
Average hourly earnings (in dollars)	5.88	6.39	6.96	7.56	8.09	8.55	8.89	9.16	9.35
Average weekly earnings (in dollars)	228.14	247.93	267.96	291.06	309.85	329.18	342.27	351.74	359.04
Retail trade									
Average weekly hours	31.0	30.6	30.2	30.1	29.9	29.8	29.8	29.4	29.2
Average hourly earnings (in dollars)	4.20	4.53	4.88	5.25	5.48	5.74	5.85	5.94	6.02
Average weekly earnings (in dollars)	130.20	138.62	147.38	158.03	163.85	171.05	174.33	174.64	175.78
Finance, insurance, and real estate									
Average weekly hours	36.4	36.2	36.2	36.3	36.2	36.2	36.5	36.4	36.5
Average hourly earnings (in dollars)	4.89	5.27	5.79	6.31	6.78	7.29	7.63	7.94	8.34
Average weekly earnings (in dollars)	178.00	190.77	209.60	229.05	245.44	263.90	278.50	289.02	304.41
Services									
Average weekly hours	32.8	32.7	32.6	32.6	32.6	32.7	32.6	32.5	32.5
Average hourly earnings (in dollars)	4.99	5.36	5.85	6.41	6.92	7.31	7.59	7.89	8.16
Average weekly earnings (in dollars)	163.67	175.27	190.71	208.97	225.59	239.04	247.43	256.43	265.20

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

(June 1981 = 100)

Series	1984	1985				1986				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
										Dec. 1986	
Civilian workers [2]	123.9	125.5	126.4	128.4	129.2	130.6	131.5	133.0	133.8	0.6	3.6
Workers, by occupational group:											
White-collar workers	125.5	127.3	128.3	130.7	131.6	133.1	134.2	136.0	136.9	.7	4.0
Blue-collar workers	120.9	122.2	123.1	124.4	124.9	126.2	126.8	127.8	128.4	.5	2.8
Service occupations	126.8	127.8	128.0	130.9	131.8	133.1	133.7	135.4	136.6	.9	3.6
Workers, by industry division:											
Goods-producing	121.4	123.2	123.9	124.9	125.5	126.9	128.1	128.8	129.5	.5	3.2
Manufacturing	122.0	123.9	124.6	125.5	126.0	127.7	128.7	129.3	130.1	.6	3.3
Service-producing	125.5	126.9	127.9	130.7	131.5	132.9	133.7	135.6	136.5	.7	3.8
Services	130.9	131.9	132.6	136.4	137.1	138.8	139.4	142.4	143.6	.8	4.7
Health services	–	–	–	–	–	–	–	–	–	1.1	4.7
Hospitals	–	–	–	–	–	–	–	–	–	1.1	–
Public administration [3]	128.6	130.1	130.3	134.2	134.8	136.8	138.0	140.6	141.6	.7	5.0
Nonmanufacturing	124.8	126.2	127.2	129.7	130.6	131.9	132.8	134.6	135.4	.6	3.7
Private industry workers	122.7	124.2	125.2	126.8	127.5	128.9	129.9	130.8	131.6	.6	3.2
Workers, by occupational group:											
White-collar workers	123.9	125.8	127.1	128.8	129.8	131.3	132.5	133.5	134.3	.6	3.5
Professional specialty and technical occupations	–	–	–	–	–	–	–	–	–	.7	3.6
Executive, administrative, and managerial occupations	–	–	–	–	–	–	–	–	–	.8	4.1
Sales occupations	–	–	–	–	–	–	–	–	–	-.1	–
Administrative support occupations, including clerical	–	–	–	–	–	–	–	–	–	.7	3.6
Blue-collar workers	120.6	121.9	122.8	124.0	124.4	125.7	126.3	127.2	127.8	.5	2.7
Precision production, craft, and repair occupation	–	–	–	–	–	–	–	–	–	.5	2.9
Machine operators, assemblers, and inspectors	–	–	–	–	–	–	–	–	–	.6	2.7
Transportation and material moving occupations	–	–	–	–	–	–	–	–	–	.3	2.7
Handlers, equipment cleaners, helpers, and laborers	–	–	–	–	–	–	–	–	–	.6	2.1
Service occupations	125.7	126.3	126.5	128.8	129.5	130.9	131.1	132.3	133.5	.9	3.1
Workers, by industry division:											
Goods-producing	121.2	123.0	123.8	124.6	125.3	126.7	127.8	128.6	129.2	.5	3.1
Construction	–	–	–	–	–	–	–	–	–	.2	2.8
Manufacturing	122.0	123.9	124.6	125.5	126.0	127.7	128.7	129.3	130.1	.6	3.3
Durables	–	–	–	–	–	–	–	–	–	.5	2.8
Nondurables	–	–	–	–	–	–	–	–	–	.7	4.0
Service-producing	123.9	125.2	126.4	128.7	129.4	130.8	131.6	132.7	133.5	.6	3.2
Transportation and public utilities	–	–	–	–	–	–	–	–	–	.1	2.2
Transportation	–	–	–	–	–	–	–	–	–	-.4	2.2
Public utilities	–	–	–	–	–	–	–	–	–	.7	2.0
Wholesale and retail trade	–	–	–	–	–	–	–	–	–	.5	2.6
Wholesale trade	–	–	–	–	–	–	–	–	–	1.0	–
Retail trade	–	–	–	–	–	–	–	–	–	.3	2.2
Finance, insurance, and real estate	–	–	–	–	–	–	–	–	–	.8	3.1
Service	–	–	–	–	–	–	–	–	–	1.0	4.3
Health services	–	–	–	–	–	–	–	–	–	1.3	4.9
Hospitals	–	–	–	–	–	–	–	–	–	1.2	–
Nonmanufacturing	123.1	124.4	125.6	127.6	128.4	129.7	130.6	131.7	132.4	.5	3.1
State and local government workers	130.1	131.7	132.0	136.5	137.5	138.9	139.7	143.6	144.7	.8	5.2
Workers, by occupational group:											
White-collar workers	131.1	132.5	132.9	137.6	138.6	140.0	140.5	145.0	146.0	.7	5.3
Blue-collar workers	125.9	128.1	128.5	131.9	132.7	134.7	136.3	138.5	139.5	.7	5.1
Workers, by industry division:											
Services	131.3	132.8	133.2	137.9	139.1	140.4	140.8	145.5	146.6	.8	5.4
Hospitals and other services [4]	129.2	131.1	131.5	134.1	135.2	136.8	137.9	139.4	141.1	1.2	4.4
Health services	–	–	–	–	–	–	–	–	–	.7	4.1
Schools	132.0	133.4	133.7	139.1	140.3	141.5	141.7	147.6	148.4	.5	5.8
Elementary and secondary	133.5	134.4	134.6	140.9	142.0	143.0	143.2	149.4	150.3	.6	5.8
Public administration [3]	128.6	130.1	130.3	134.2	134.8	136.8	138.0	140.6	141.6	.7	5.0

[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] Consist of legislative, judicial, administrative, and regulatory activities.

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

– Data not available.

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

(June 1981 = 100)

Series	1984	1985				1986				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
										Dec. 1986	
Civilian workers [1]	121.7	123.1	124.2	126.3	127.0	128.3	129.3	130.7	131.5	0.6	3.5
Workers, by occupational group:											
White-collar workers	123.5	125.2	126.4	128.8	129.8	131.2	132.4	134.1	135.0	.7	4.0
Blue-collar workers	118.2	119.3	120.5	122.0	122.3	123.4	124.1	125.0	125.6	.5	2.7
Service occupations	124.3	124.8	125.3	128.0	128.6	129.8	130.0	131.7	132.8	.8	3.3
Workers, by industry division											
Goods-producing	118.8	120.3	121.5	122.5	123.1	124.4	125.6	126.3	127.0	.6	3.2
Manufacturing	119.5	121.0	122.3	123.2	123.8	125.3	126.5	127.2	127.9	.6	3.3
Service-producing	123.4	124.7	125.8	128.6	129.4	130.7	131.5	133.4	134.2	.6	3.7
Services	128.9	129.7	130.5	134.2	134.8	136.4	137.0	139.9	141.1	.9	4.7
Health services	–	–	–	–	–	–	–	–	–	1.2	4.8
Hospitals	–	–	–	–	–	–	–	–	–	1.2	–
Public administration [2]	125.7	127.0	127.2	131.4	132.0	133.8	134.6	137.5	138.1	.4	4.6
Nonmanufacturing	122.6	123.9	125.0	127.6	128.4	129.6	130.4	132.2	133.0	.6	3.6
Private industry workers	120.6	122.0	123.3	124.9	125.6	126.8	127.9	128.8	129.5	.5	3.1
Workers, by occupational group:											
White-collar workers	122.3	124.0	125.5	127.3	128.3	129.6	131.1	132.0	132.7	.5	3.4
Professional specialty and technical occupations	127.3	127.7	128.7	131.2	131.5	132.7	134.0	135.4	136.4	.7	3.7
Executive, administrative, and managerial occupations	122.2	123.8	126.5	127.7	128.4	130.5	132.1	132.4	133.5	.8	4.0
Sales occupations	111.6	116.3	117.4	119.3	122.5	122.4	124.3	125.2	124.9	–.2	2.0
Administrative support occupations, including clerical	122.9	124.7	125.6	127.1	127.9	129.6	130.8	131.7	132.7	.8	3.8
Blue-collar workers	118.0	119.1	120.3	121.7	122.0	123.1	123.7	124.5	125.1	.5	2.5
Precision production, craft, and repair occupations	119.4	120.8	122.0	123.7	123.8	125.3	125.7	126.7	127.4	.6	2.9
Machine operators, assemblers, and inspectors	117.9	118.9	120.1	121.1	121.6	122.6	123.6	124.1	124.9	.6	2.7
Transportation and material moving occupations	114.0	114.5	115.7	117.7	117.8	118.0	118.9	119.8	120.1	.3	2.0
Handlers, equipment cleaners, helpers, and laborers	115.9	116.7	118.5	118.6	119.8	120.0	120.3	120.9	121.4	.4	1.3
Service occupations	123.7	123.8	124.4	126.3	126.6	128.0	128.0	128.9	130.1	.9	2.8
Workers, by industry division:											
Goods-producing	118.7	120.2	121.4	122.3	122.9	124.2	125.4	126.1	126.8	.6	3.2
Construction	114.4	115.5	116.6	117.3	117.9	118.3	119.8	120.5	120.8	.2	2.5
Manufacturing	119.5	121.0	122.3	123.2	123.8	125.3	126.5	127.2	127.9	.6	3.3
Durables	119.1	120.6	122.0	122.7	123.4	124.8	125.8	126.4	127.2	.6	3.1
Nondurables	120.2	121.6	122.6	124.0	124.6	126.1	127.9	128.5	129.3	.6	3.8
Service-producing	122.1	123.4	124.8	127.0	127.8	129.0	129.9	130.9	131.6	.5	3.0
Transportation and public utilities	120.7	121.7	122.8	124.8	125.2	126.3	126.6	127.3	127.5	.2	1.8
Transportation	–	–	–	–	–	–	–	–	–	–.3	1.3
Public utilities	–	–	–	–	–	–	–	–	–	.7	2.5
Wholesale and retail trade	118.1	118.8	121.1	122.7	123.7	124.5	125.8	126.5	126.9	.3	2.6
Wholesale trade	122.9	123.7	126.8	127.7	128.3	129.7	131.2	131.8	133.1	1.0	3.7
Retail trade	116.2	116.9	118.9	120.8	121.9	122.5	123.7	124.4	124.5	.1	2.1
Finance, insurance, and real estate	115.8	122.0	121.7	124.1	126.5	126.6	128.0	129.0	130.0	.8	2.8
Services	129.5	129.9	131.0	133.9	134.1	136.2	136.9	138.2	139.5	.9	4.0
Health services	–	–	–	–	–	–	–	–	–	1.5	5.1
Hospitals	–	–	–	–	–	–	–	–	–	1.5	–
Nonmanufacturing	121.2	122.6	123.9	125.9	126.6	127.7	128.7	129.7	130.4	.5	3.0
State and local government workers	127.1	128.4	128.7	133.2	134.2	135.5	136.0	140.4	141.4	.7	5.4
Workers, by occupational group											
White-collar workers	128.0	129.3	129.6	134.3	135.3	136.6	137.0	141.8	142.8	.7	5.5
Blue-collar workers	122.5	124.2	124.5	127.9	128.4	130.4	131.9	134.5	135.1	.4	5.2
Workers, by industry division											
Services	128.1	129.4	129.7	134.5	135.6	136.8	137.1	142.1	143.3	.8	5.7
Hospitals and other services [3]	125.9	127.7	128.0	130.2	130.9	132.4	133.3	135.8	137.3	1.1	4.9
Health services	–	–	–	–	–	–	–	–	–	.5	4.1
Schools	128.7	129.9	130.2	135.8	137.0	138.0	138.2	144.1	145.1	.7	5.9
Elementary and secondary	130.2	130.8	131.1	137.5	138.5	139.4	139.4	145.7	146.4	.5	5.7
Public administration [2]	125.7	127.0	127.2	131.4	132.0	133.8	134.6	137.5	138.1	.4	4.6

[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.
– Data not available.

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

(June 1981=100)

Series	1984	1985				1986				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
										Dec. 1986	
COMPENSATION											
Workers, by bargaining status[1]											
Union	123.9	124.8	125.5	126.5	127.1	128.4	128.7	129.4	129.8	0.3	2.1
Goods-producing	122.9	123.6	123.9	124.6	125.2	126.4	126.7	127.3	127.5	.2	1.8
Service-producing	125.6	126.7	128.0	129.5	130.2	131.6	131.9	132.8	133.4	.5	2.5
Manufacturing	123.2	124.2	124.2	125.0	125.5	127.0	126.9	127.5	127.9	.3	1.9
Nonmanufacturing	124.5	125.3	126.6	127.8	128.6	129.7	130.4	131.2	131.5	.2	2.3
Nonunion	121.9	123.8	125.0	126.8	127.5	129.0	130.2	131.2	132.1	.7	3.6
Goods-producing	119.6	122.4	123.5	124.4	125.1	126.7	128.2	129.1	130.0	.7	3.9
Service-producing	123.3	124.7	125.8	128.3	129.0	130.4	131.4	132.5	133.4	.7	3.4
Manufacturing	120.8	123.6	124.8	125.7	126.3	128.1	129.7	130.4	131.4	.8	4.0
Nonmanufacturing	122.4	123.9	125.1	127.3	128.1	129.5	130.4	131.6	132.5	.7	3.4
Workers, by region [1]											
Northeast	123.8	125.1	126.4	128.8	129.9	131.6	133.3	134.2	135.2	.7	4.1
South	122.2	124.2	125.2	126.5	127.2	128.7	129.6	130.7	131.4	.5	3.3
Midwest (formerly North Central)	120.8	122.0	122.7	124.2	124.6	125.9	126.2	127.3	128.1	.6	2.8
West	124.9	126.8	127.9	129.1	129.8	130.8	131.6	132.1	132.8	.5	2.3
Workers, by area size [1]											
Metropolitan areas	123.2	124.7	125.7	127.3	128.1	129.5	130.5	131.4	132.2	.6	3.2
Other areas	119.8	121.4	122.5	123.9	123.9	125.5	126.4	127.2	127.9	.6	3.2
WAGES AND SALARIES											
Workers, by bargaining status [1]											
Union	120.9	121.7	123.0	124.1	124.7	125.6	126.1	126.9	127.2	.2	2.0
Goods-producing	119.3	120.0	121.3	122.2	122.7	123.4	124.1	124.5	124.8	.2	1.7
Service-producing	123.5	124.2	125.7	127.1	127.8	129.0	129.3	130.5	130.9	.3	2.4
Manufacturing	119.5	120.4	121.7	122.8	123.3	124.2	124.6	125.0	125.5	.4	1.8
Nonmanufacturing	122.1	122.8	124.1	125.3	125.9	126.9	127.4	128.5	128.7	.2	2.2
Nonunion	120.4	122.1	123.4	125.2	125.9	127.3	128.5	129.4	130.3	.7	3.5
Goods-producing	118.1	120.2	121.4	122.3	123.0	124.5	126.1	127.0	127.8	.6	3.9
Service-producing	121.6	123.1	124.4	126.9	127.7	128.9	129.9	130.8	131.7	.7	3.1
Manufacturing	119.5	121.5	122.8	123.7	124.4	126.1	127.7	128.5	129.5	.8	4.1
Nonmanufacturing	120.7	122.3	123.6	125.9	126.6	127.8	128.9	129.8	130.6	.6	3.2
Workers, by region [1]											
Northeast	121.9	123.0	124.6	126.8	128.1	129.2	131.3	132.3	133.1	.6	3.9
South	120.2	122.3	123.4	124.8	125.4	126.8	127.8	128.8	129.4	.5	3.2
Midwest (formerly North Central)	118.7	119.6	121.1	122.5	122.9	124.2	124.4	125.3	126.2	.7	2.7
West	122.5	124.0	125.1	126.6	127.1	128.1	128.9	129.3	130.1	.6	2.4
Workers, by area size[1]											
Metropolitan areas	121.0	122.4	123.8	125.5	126.3	127.4	128.5	129.4	130.2	.6	3.1
Other areas	118.3	119.6	120.6	121.9	122.0	123.6	124.5	125.0	125.6	.5	3.0

[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							
			1985				1986			
	1984	1985	I	II	III	IV	I	II	III	IV
Specified adjustments:										
Total compensation [1] adjustments, [2] settlements covering 5,000 workers or more:										
First year of contract	3.6	2.6	3.6	3.5	2.0	2.0	0.6	0.7	0.7	2.7
Annual rate over life of contract	2.8	2.7	2.7	3.4	3.0	1.4	1.2	1.6	1.2	2.4
Wage adjustments, settlements covering 1,000 workers or more:										
First year of contract	2.4	2.3	3.3	2.5	2.0	2.1	.8	1.3	.8	2.0
Annual rate over life of contract	2.4	2.7	3.2	2.8	3.1	1.9	1.5	2.0	1.5	2.1
Effective adjustments:										
Total effective wage adjustment [3]	3.7	3.3	.7	.8	1.2	.5	.6	.7	.5	.5
From settlements reached in period	.8	.7	.1	.2	.2	.1	[4].0	.2	.1	.2
Deferred from settlements reached in earlier periods	2.0	1.8	.6	.5	.5	.2	.4	.6	.5	.2
From cost-of-living-adjustments clauses	.9	.7	.1	.1	.4	.1	.2	[4].0	[4].0	.1

[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] Between −0.05 and 0.05 percent.

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--							
	1985				1986			
	I	II	III	IV	I	II	III	IV
Specified total compensation adjustments, settlements covering 5,000 workers or more, all industries:								
First year of contract	3.4	3.4	3.1	2.6	2.3	1.4	0.9	1.1
Annual rate over life of contract	2.6	2.7	2.7	2.7	2.5	2.0	1.4	1.6
Specified wage adjustments, settlements covering 1,000 workers or more:								
All industries								
First year of contract	2.4	2.4	2.4	2.3	2.0	1.6	1.2	1.2
Contracts with COLA clauses	2.5	2.3	1.9	1.6	1.6	1.8	2.2	1.9
Contracts without COLA clauses	2.4	2.4	2.7	2.7	2.2	1.5	.8	.9
Annual rate over life of contract	2.3	2.4	2.5	2.7	2.5	2.2	1.7	1.8
Contracts with COLA clauses	1.3	1.5	1.8	2.5	2.5	2.5	2.0	1.7
Contracts without COLA clauses	2.8	2.8	3.0	2.8	2.5	2.1	1.6	1.8
Manufacturing								
First year of contract	2.1	2.0	1.5	.8	.8	.1	−.1	−1.2
Contracts with COLA clauses	2.0	1.9	1.5	.8	.8	.7	1.1	1.3
Contracts without COLA clauses	2.5	2.2	1.5	.9	.9	−.4	−2.0	−2.8
Annual rate over life of contract	1.4	1.5	1.6	1.8	1.8	1.4	.3	.2
Contracts with COLA clauses	.9	1.0	1.4	2.1	2.1	2.0	1.1	.9
Contracts without COLA clauses	3.2	3.0	2.4	1.6	1.5	.9	−.1	−.2
Nonmanufacturing								
First year of contract	2.6	2.7	3.2	3.3	2.8	2.6	2.1	2.0
Contracts with COLA clauses	5.1	4.3	4.0	3.6	3.5	3.4	2.7	2.1
Contracts without COLA clauses	2.4	2.5	3.0	3.3	2.7	2.4	1.9	2.0
Annual rate over life of contract	2.8	2.9	3.3	3.3	3.0	2.8	2.3	2.3
Contracts with COLA clauses	4.0	3.8	3.9	3.6	3.6	3.3	2.5	2.1
Contracts without COLA clauses	2.7	2.8	3.2	3.3	2.8	2.6	2.2	2.4
Construction								
First year of contract	.9	1.1	1.0	1.5	1.6	2.3	2.3	2.2
Contracts with COLA clauses	4.6	9.2	[1]	[1]	[1]	1.1	1.4	1.4
Contracts without COLA clauses	.8	1.0	[1]	[1]	[1]	2.4	2.4	2.3
Annual rate over life of contract	1.4	1.7	1.7	2.1	2.2	2.5	2.6	2.5
Contracts with COLA clauses	1.7	4.6	[1]	[1]	[1]	1.2	1.6	1.6
Contracts without COLA clauses	1.4	1.7	[1]	[1]	[1]	2.6	2.6	2.5

[1] Data do not meet publication standards.

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--						
	1985			1986			
	II	III	IV	I	II	III	IV
For all workers:[1]							
Total	3.5	3.5	3.3	3.1	2.9	2.3	2.3
From settlements reached in period	.9	.9	.7	.6	.5	.5	.5
Deferred from settlements reached in earlier period	1.9	1.8	1.8	1.7	1.8	1.6	1.7
From cost-of-living-adjustments clauses	.7	.8	.7	.8	.7	.2	.2
For workers receiving changes:							
Total	4.2	4.3	4.1	4.0	3.8	3.1	2.8
From settlements reached in period	2.9	2.8	3.4	2.9	2.5	1.7	1.6
Deferred from settlements reached in earlier period	3.9	3.7	3.7	3.5	3.4	3.8	3.9
From cost-of-living-adjustments clauses	2.3	2.8	2.2	2.5	2.0	1.0	1.0

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

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		
	1984	1985	1986
Specified adjustments:			
Total compensation [1] adjustments, [2] settlements covering 5,000 workers or more:			
First year of contract	5.2	4.2	6.2
Annual rate over life of contract	5.4	5.1	6.0
Wage adjustments, settlements covering 1,000 workers or more:			
First year of contract	4.8	4.6	5.7
Annual rate over life of contract	5.1	5.4	5.7
Effective adjustments:			
Total effective wage adjustment [3]	5.0	5.7	5.5
From settlements reached in period	1.9	4.1	2.4
Deferred from settlements reached in earlier periods	3.1	1.6	3.0
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.

29. Work stoppages involving 1,000 workers or more

Measure	Annual totals		1986										1987[p]		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Number of stoppages:															
Beginning in period	54	69	2	4	6	11	13	10	8	5	2	1	2	5	1
In effect during period	61	72	8	8	10	15	22	22	17	17	9	6	7	7	3
Workers involved:															
Beginning in period (in thousands)	323.9	533.1	11.2	7.2	29.7	198.0	46.7	113.3	39.4	44.3	8.7	3.0	7.3	37.6	9.0
In effect during period (in thousands)	584.1	899.5	39.7	18.3	41.9	206.8	83.1	153.0	87.4	109.9	67.8	49.4	46.9	41.6	13.0
Days idle:															
Number (in thousands)	7,079.0	11,861.0	367.5	287.1	296.9	3,677.0	859.1	1,371.6	1,225.6	1,423.7	940.4	933.2	828.6	194.1	92.0
Percent of estimated working time[1]	.03	.05	.02	.01	.01	.18	.04	.07	.06	.06	.05	.04	.04	.01	.01

[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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS:															
All items	322.2	328.4	326.0	325.3	326.3	327.9	328.0	328.6	330.2	330.5	330.8	331.1	333.1	334.4	335.9
All items (1957-59=100)	374.7	381.9	379.1	378.3	379.5	381.4	381.4	382.1	384.1	384.4	384.7	385.1	387.4	388.9	390.7
Food and beverages	302.0	311.8	307.8	308.5	309.4	309.5	312.2	314.6	315.1	315.6	316.4	317.0	320.5	321.6	321.6
Food	309.8	319.7	315.4	316.1	317.0	317.1	320.1	322.7	323.2	323.7	324.6	325.2	328.9	330.1	330.0
Food at home	296.8	305.3	301.2	301.5	302.1	301.6	305.5	308.9	309.0	309.5	309.9	310.2	315.2	316.6	315.8
Cereals and bakery products	317.0	325.8	322.7	322.5	323.8	326.1	326.3	328.2	328.5	328.4	328.5	329.5	331.5	332.7	333.2
Meats, poultry, fish, and eggs	263.4	275.1	267.7	264.2	263.4	265.1	274.9	283.0	284.7	284.9	286.3	287.3	289.2	286.4	286.5
Dairy products	258.0	258.4	256.8	256.8	257.1	257.2	258.4	258.3	258.5	260.0	261.2	262.2	263.3	264.7	263.7
Fruits and vegetables	325.7	328.7	319.2	329.5	336.5	327.8	330.3	332.1	329.1	328.6	327.8	328.5	344.3	355.2	352.5
Other foods at home	361.1	373.6	375.7	376.1	374.6	374.1	373.7	374.0	373.7	374.4	373.9	372.2	378.7	380.0	378.6
Sugar and sweets	398.8	411.1	408.4	411.4	411.2	411.5	412.4	413.1	413.7	413.4	412.4	411.8	415.8	415.8	417.2
Fats and oils	294.4	287.8	290.2	288.5	287.2	287.0	287.3	287.8	285.6	284.6	285.4	286.0	293.2	290.3	294.6
Nonalcoholic beverages	451.7	478.2	488.0	487.4	481.9	480.0	478.3	476.9	475.7	477.5	476.9	470.2	482.6	481.9	475.4
Other prepared foods	294.2	301.9	299.3	300.2	301.4	301.7	301.8	303.2	303.8	304.7	303.9	305.2	308.4	312.1	311.3
Food away from home	346.6	360.1	355.5	357.0	358.8	360.2	360.8	361.8	363.3	364.0	365.8	367.1	368.6	369.6	370.9
Alcoholic beverages	229.5	239.7	238.8	239.5	239.4	240.1	240.4	240.1	240.4	240.6	240.5	240.8	242.5	243.2	243.6
Housing	349.9	360.2	357.0	358.0	358.5	361.2	361.5	362.4	363.7	363.0	361.7	362.1	363.9	365.1	366.4
Shelter	382.0	402.9	397.0	400.1	400.9	401.6	403.5	405.2	407.6	409.5	410.2	410.4	412.3	414.0	415.9
Renters' costs (12/82=100)	115.4	121.9	119.6	120.9	121.1	121.6	122.5	122.9	123.6	124.0	124.3	124.2	125.3	125.8	126.4
Rent, residential	264.6	280.0	275.0	277.9	278.4	279.4	281.2	281.7	283.2	284.6	285.6	286.0	287.1	288.0	288.3
Other renters' costs	398.4	416.2	405.5	410.8	411.3	415.2	420.1	425.7	429.1	427.3	425.5	418.2	428.3	430.8	438.7
Homeowners' costs (12/82=100)	113.1	119.4	117.9	118.7	118.9	119.0	119.4	119.9	120.7	121.3	121.5	121.6	122.0	122.5	123.0
Owners' equivalent rent (12/82=100)	113.2	119.4	117.9	118.7	118.9	119.0	119.4	119.9	120.7	121.3	121.5	121.6	122.0	122.5	123.0
Household insurance (12/82=100)	112.4	119.2	118.0	118.3	118.8	118.9	119.9	119.9	120.2	120.6	121.1	121.6	121.8	122.0	122.2
Maintenance and repairs	368.9	373.8	367.5	367.6	367.1	366.6	369.2	376.4	376.2	379.0	377.1	380.0	382.1	381.9	383.4
Maintenance and repair services	421.1	430.9	422.4	424.6	425.5	427.4	430.1	434.2	437.0	437.5	433.7	433.1	437.7	436.1	439.4
Maintenance and repair commodities	269.6	269.7	266.1	264.5	262.9	260.7	262.7	271.3	268.7	273.0	272.9	278.3	277.7	278.8	278.5
Fuel and other utilities	393.6	384.7	385.5	381.8	382.5	393.8	389.4	389.5	388.3	379.1	371.1	371.0	373.7	374.8	374.9
Fuels	488.1	463.1	467.6	459.6	460.6	477.0	469.2	469.0	467.2	450.3	437.8	438.1	443.7	445.1	444.6
Fuel oil, coal, and bottled gas	619.5	501.5	549.9	518.3	496.8	486.6	459.4	447.3	453.5	451.9	452.0	460.6	487.9	503.2	500.6
Gas (piped) and electricity	452.7	446.7	442.3	439.2	444.6	466.0	462.3	464.5	461.1	441.4	426.7	425.3	428.8	428.9	428.7
Other utilities and public services	240.7	253.1	249.0	251.3	251.5	255.2	255.6	255.9	255.6	257.1	255.4	254.9	254.9	255.6	256.2
Household furnishings and operations	247.2	250.4	249.8	249.6	249.9	250.2	250.5	250.5	251.5	251.6	251.2	252.4	253.1	253.5	254.3
Housefurnishings	200.1	201.1	201.0	200.4	200.8	200.8	201.2	200.9	202.2	202.2	201.4	202.5	203.0	203.2	203.8
Housekeeping supplies	313.6	319.5	317.9	318.5	318.3	319.6	319.5	319.8	320.1	319.8	320.4	322.9	324.6	325.3	327.7
Housekeeping services	338.9	346.6	345.1	345.4	345.8	346.1	346.6	347.4	347.8	348.5	348.5	349.3	349.8	350.6	351.0
Apparel and upkeep	206.0	207.8	206.3	207.3	206.4	204.5	203.2	207.0	212.1	213.2	213.1	210.9	207.1	208.4	215.2
Apparel commodities	191.6	192.0	190.8	191.7	190.7	188.4	187.0	191.2	196.6	197.6	197.4	194.9	190.9	192.1	199.1
Men's and boys' apparel	197.9	200.0	198.3	199.7	200.2	198.1	195.8	197.8	203.2	204.3	205.3	202.3	199.2	199.9	203.5
Women's and girls' apparel	169.5	168.0	167.6	168.0	164.9	161.3	159.8	167.2	175.7	176.4	175.0	171.7	166.6	167.8	177.0
Infants' and toddlers' apparel	299.7	312.7	313.1	316.6	318.5	319.7	307.5	310.6	309.7	312.0	307.0	312.7	301.8	304.5	319.6
Footwear	212.1	211.2	210.1	211.4	211.5	210.0	209.1	209.6	212.0	215.1	215.1	214.0	209.9	211.0	216.5
Other apparel commodities	215.5	217.9	214.6	215.3	215.4	215.8	218.1	221.6	221.1	219.8	221.1	220.0	223.2	226.0	227.4
Apparel services	320.9	334.6	331.5	332.9	333.6	334.3	334.6	334.7	336.7	338.3	339.0	339.5	342.5	343.2	344.7
Transportation	319.9	307.5	309.6	303.3	305.7	308.6	304.7	301.3	302.2	302.6	304.3	304.8	308.5	310.0	310.6
Private transportation	314.2	299.5	302.1	295.3	297.8	300.8	296.5	292.8	293.7	294.1	295.8	295.9	299.8	301.3	301.9
New vehicles	214.9	224.1	220.1	221.0	222.8	224.0	224.5	224.5	224.2	226.7	230.2	231.7	232.3	229.9	229.2
New cars	215.2	224.4	220.3	221.2	223.0	224.2	224.7	224.7	224.5	227.1	230.7	232.2	233.0	230.2	229.4
Used cars	379.7	363.2	367.2	364.8	363.6	362.5	360.3	358.0	359.5	360.6	361.0	356.6	354.6	356.9	363.0
Motor fuel	373.8	292.1	308.5	279.5	289.3	299.4	280.2	265.9	271.1	263.2	260.9	261.9	275.8	288.1	290.0
Gasoline	373.3	291.4	307.7	278.6	288.7	299.1	279.8	265.3	270.6	262.6	260.2	261.2	275.1	287.5	289.4
Maintenance and repair	351.4	363.1	359.3	360.6	361.3	362.1	363.4	364.3	365.0	365.7	368.4	370.7	371.3	373.0	373.0
Other private transportation	287.6	303.9	301.5	301.6	301.3	303.0	304.5	304.5	302.3	307.6	311.6	312.0	314.9	314.0	314.4
Other private transportation commodities	202.6	201.6	203.6	202.2	202.4	201.5	201.6	201.8	200.3	198.9	200.0	200.4	202.2	201.8	202.3
Other private transportation services	312.8	333.9	330.3	330.9	330.4	332.8	334.6	334.6	332.3	339.3	344.1	344.5	347.7	346.7	347.0
Public transportation	402.8	426.4	421.2	422.2	423.7	425.4	428.0	428.0	428.5	428.7	431.7	437.5	438.9	439.8	441.4
Medical care	403.1	433.5	425.8	428.0	429.7	432.0	434.8	437.5	439.7	442.3	444.6	446.8	449.6	452.4	455.0
Medical care commodities	256.7	273.6	269.4	271.3	272.3	273.3	275.4	276.0	276.7	277.5	278.2	280.8	282.4	283.9	286.3
Medical care services	435.1	468.6	460.1	462.3	464.2	466.8	469.8	473.0	475.7	478.8	481.5	483.4	486.5	489.6	492.1
Professional services	367.3	390.9	385.0	386.9	388.3	390.3	391.7	393.3	396.1	398.0	399.8	401.0	403.7	406.8	409.6
Hospital and related services	224.0	237.4	233.8	234.2	234.4	235.0	237.4	239.5	240.1	242.3	243.8	245.0	246.7	248.1	249.0
Entertainment	265.0	274.1	271.9	272.3	272.9	273.9	274.4	274.7	275.3	276.5	277.4	277.4	278.3	278.7	279.8
Entertainment commodities	260.6	265.9	265.0	264.8	265.3	266.1	265.8	266.1	265.9	266.7	267.6	267.4	268.1	268.1	269.9
Entertainment services	271.8	286.3	282.2	283.5	284.2	285.5	287.0	287.3	289.2	290.8	291.8	292.2	293.3	294.1	294.5
Other goods and services	326.6	346.4	341.1	341.8	342.1	342.6	344.9	346.4	353.3	354.6	354.9	355.2	358.1	359.7	360.3
Tobacco products	328.5	351.0	345.6	346.5	346.5	347.1	354.3	356.2	356.8	357.2	357.3	357.6	364.9	368.3	369.6
Personal care	281.9	291.3	290.3	290.5	290.9	291.0	291.1	292.3	292.0	293.1	293.4	293.6	295.7	296.4	296.4
Toilet goods and personal care appliances	278.5	287.9	287.3	287.7	287.9	287.0	287.1	289.1	288.2	289.9	289.6	289.6	291.3	292.1	292.0
Personal care services	286.0	295.4	294.0	294.1	294.7	295.7	295.8	296.2	296.5	297.1	297.9	298.2	300.8	301.3	301.5
Personal and educational expenses	397.1	428.8	417.9	418.9	419.5	420.4	421.2	422.9	445.2	447.6	448.2	448.8	450.6	452.0	452.8
School books and supplies	350.8	380.3	374.3	374.4	374.5	375.7	375.9	376.9	389.4	392.3	392.5	392.6	400.7	403.4	403.9
Personal and educational services	407.7	440.1	428.3	429.5	430.2	431.0	431.9	433.7	457.8	460.2	460.8	461.6	462.8	464.2	465.0

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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
All items	322.2	328.4	326.0	325.3	326.3	327.9	328.0	328.6	330.2	330.5	330.8	331.1	333.1	334.4	335.9
Commodities	286.7	283.9	283.7	281.2	282.1	282.8	281.9	281.9	283.5	283.6	284.0	284.2	286.3	287.7	289.5
Food and beverages	302.0	311.8	307.8	308.5	309.4	309.5	312.2	314.6	315.1	315.6	316.4	317.0	320.5	321.6	321.6
Commodities less food and beverages	274.6	264.7	266.7	262.5	263.4	264.3	261.4	260.1	262.3	262.1	262.4	262.4	263.7	265.2	267.9
Nondurables less food and beverages	282.1	265.2	268.9	262.0	263.3	264.7	259.8	258.1	261.5	260.4	260.0	260.0	261.8	265.4	269.7
Apparel commodities	191.6	192.0	190.8	191.7	190.7	188.4	187.0	191.2	196.6	197.6	197.4	194.9	190.9	192.1	199.1
Nondurables less food, beverages, and apparel	333.3	307.3	313.6	302.6	305.2	308.4	301.7	296.9	299.5	297.2	296.7	298.0	304.8	310.3	311.9
Durables	270.7	270.2	269.7	269.2	269.6	269.9	269.6	269.0	269.3	270.5	271.8	271.7	272.4	271.2	271.7
Services	381.5	400.5	394.9	396.8	397.9	401.0	402.3	403.7	405.5	406.1	406.1	406.6	408.6	409.9	411.2
Rent of shelter (12/82=100)	113.9	120.2	118.5	119.4	119.7	119.9	120.5	120.9	121.7	122.2	122.4	122.5	123.1	123.6	124.1
Household services less rent of shelter (12/82=100)	111.2	112.8	111.6	111.6	112.3	115.2	114.9	115.3	114.9	112.9	111.0	110.8	111.3	111.5	111.5
Transportation services	337.0	356.3	352.4	353.2	353.4	355.3	357.1	357.3	356.2	360.5	364.4	366.2	368.5	368.5	369.0
Medical care services	435.1	468.6	460.1	462.3	464.2	466.8	469.8	473.0	475.7	478.8	481.5	483.4	486.5	489.6	492.1
Other services	314.1	331.8	326.6	327.6	328.2	329.2	330.1	330.8	337.9	339.5	340.3	340.8	342.2	343.1	343.7
Special indexes:															
All items less food	323.3	328.6	326.6	325.7	326.7	328.6	328.0	328.1	330.0	330.2	330.4	330.6	332.2	333.6	335.4
All items less shelter	303.9	306.7	305.2	303.6	304.7	306.5	306.1	306.4	307.9	307.8	308.0	308.3	310.3	311.5	312.9
All items less homeowners' costs (12/82=100)	109.7	111.2	110.5	110.1	110.4	111.1	111.0	111.2	111.7	111.7	111.8	111.9	112.7	113.1	113.6
All items less medical care	317.7	322.6	320.5	319.7	320.6	322.2	322.1	322.6	324.2	324.4	324.5	324.8	326.7	328.0	329.4
Commodities less food	272.5	263.4	265.2	261.2	262.1	263.0	260.2	259.0	261.1	260.9	261.2	261.2	262.5	264.0	266.5
Nondurables less food	277.2	262.2	265.6	259.2	260.5	261.8	257.3	255.6	258.9	257.8	257.4	257.5	259.2	262.6	266.4
Nondurables less food and apparel	319.2	297.1	302.7	292.9	295.2	298.1	292.2	287.9	290.2	288.1	287.7	288.9	294.9	299.6	301.0
Nondurables	293.2	289.6	289.5	286.3	287.4	288.2	287.1	287.4	289.4	289.0	289.2	289.5	292.1	294.6	296.8
Services less rent of shelter (12/82=100)	113.5	118.7	117.1	117.4	117.8	119.2	119.5	119.8	120.2	120.1	120.0	120.2	120.8	121.1	121.3
Services less medical care	373.3	390.6	385.4	387.2	388.3	391.3	392.5	393.6	395.4	395.7	395.4	395.8	397.6	398.8	400.0
Energy	426.5	370.3	381.3	361.8	367.6	380.6	366.5	358.6	360.6	348.6	341.7	342.4	352.2	359.2	360.0
All items less energy	314.8	327.0	323.3	324.4	325.0	325.5	326.9	328.3	330.0	331.4	332.3	332.6	334.0	334.9	336.5
All items less food and energy	314.4	327.1	323.6	324.8	325.3	325.9	326.9	327.9	329.9	331.6	332.5	332.8	333.6	334.5	336.4
Commodities less food and energy	259.7	263.2	262.0	262.1	262.2	262.0	262.0	262.9	264.5	265.5	266.1	265.8	265.5	265.7	268.4
Energy commodities	409.9	322.4	343.0	313.3	319.3	327.1	306.6	292.4	297.7	290.6	288.5	290.5	306.1	319.2	320.9
Services less energy	375.9	397.1	391.5	393.8	394.5	395.9	397.7	399.0	401.4	403.7	405.0	405.7	407.5	408.9	410.4
Purchasing power of the consumer dollar:															
1967=$1.00	31.0	30.5	30.7	30.7	30.6	30.5	30.5	30.4	30.3	30.3	30.2	30.2	30.0	29.9	29.8
1957-59=$1.00	26.7	26.2	26.4	26.4	26.4	26.2	26.2	26.2	26.0	26.0	26.0	26.0	25.8	25.7	25.6
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS:															
All items	318.5	323.4	321.4	320.4	321.4	323.0	322.9	323.4	324.9	325.0	325.4	325.7	327.7	329.0	330.5
All items (1957-59=100)	370.4	376.1	373.7	372.6	373.7	375.6	375.5	376.1	377.8	378.0	378.4	378.8	381.1	382.6	384.4
Food and beverages	301.8	311.6	307.6	308.3	309.0	309.3	312.0	314.5	315.0	315.4	316.2	316.8	320.3	321.3	321.2
Food	309.3	319.2	315.0	315.6	316.4	316.6	319.5	322.3	322.8	323.3	324.2	324.8	328.4	329.5	329.4
Food at home	295.3	303.7	299.7	299.9	300.4	300.0	303.9	307.3	307.5	307.9	308.4	308.7	313.4	314.6	313.8
Cereals and bakery products	315.4	324.2	321.1	320.9	322.1	324.5	324.6	326.7	326.8	326.8	327.0	328.0	330.0	331.2	331.6
Meats, poultry, fish, and eggs	262.7	274.4	267.2	263.5	262.6	264.2	274.0	282.2	284.0	284.4	285.8	286.6	288.5	285.8	285.6
Dairy products	256.9	257.1	255.5	255.5	255.8	255.9	257.0	256.9	257.1	258.6	259.9	260.9	262.0	263.6	262.4
Fruits and vegetables	320.3	323.8	314.6	325.0	331.6	323.5	325.6	327.2	324.2	322.9	322.2	323.4	338.2	348.2	346.0
Other foods at home	361.5	373.5	375.6	376.0	374.3	373.9	373.4	373.9	373.5	374.4	373.9	372.2	378.9	380.0	378.8
Sugar and sweets	398.3	410.5	407.8	410.9	410.6	410.9	411.9	412.6	413.0	412.8	411.9	411.2	414.9	414.8	416.5
Fats and oils	293.9	287.2	289.7	287.8	286.6	286.4	286.6	287.1	285.1	284.1	284.5	285.5	292.6	289.9	293.9
Nonalcoholic beverages	453.2	478.1	487.4	487.0	481.2	479.5	477.6	476.9	475.5	477.7	477.1	470.3	483.7	482.5	476.9
Other prepared foods	295.7	303.2	300.7	301.6	302.7	303.0	303.1	304.5	305.2	305.9	305.3	306.6	309.7	313.3	312.6
Food away from home	349.7	363.4	358.6	360.2	362.0	363.5	364.2	365.2	366.6	367.3	369.2	370.5	372.2	373.2	374.3
Alcoholic beverages	232.6	242.5	241.4	242.3	242.2	242.9	243.4	243.0	243.4	243.5	243.4	243.9	245.4	246.2	246.5
Housing	343.3	353.2	350.1	351.1	351.6	354.3	354.5	355.4	356.6	355.6	354.3	354.8	356.3	357.5	358.8
Shelter	370.4	390.7	385.0	388.1	388.8	389.4	391.5	392.9	395.2	397.1	397.8	398.1	399.6	401.2	403.2
Renters' costs (12/84=100)	103.6	109.5	107.4	108.6	108.8	109.3	110.0	110.3	110.9	111.4	111.7	111.6	112.3	112.7	113.3
Rent, residential	263.7	279.1	274.1	277.0	277.5	278.5	280.3	280.8	282.2	283.6	284.6	285.1	286.1	287.0	287.3
Other renters' costs	397.9	416.0	405.4	411.6	411.3	415.5	420.4	426.1	428.9	426.7	424.8	417.3	424.9	427.6	439.0
Homeowners' costs (12/84=100)	103.1	108.8	107.4	108.1	108.3	108.4	108.8	109.3	110.0	110.5	110.7	110.8	111.1	111.6	112.1
Owners' equivalent rent (12/84=100)	103.0	108.8	107.3	108.1	108.3	108.4	108.8	109.2	110.0	110.5	110.7	110.8	111.1	111.5	112.1
Household insurance (12/84=100)	103.2	109.4	108.2	108.5	109.0	109.1	110.1	110.1	110.4	110.8	111.3	111.7	111.9	112.1	112.4
Maintenance and repairs	364.1	369.4	364.7	364.6	363.8	363.2	366.7	371.5	370.6	373.1	372.4	374.6	377.3	376.9	378.5
Maintenance and repair services	415.0	425.3	416.6	419.2	420.0	422.6	425.2	428.6	430.7	431.1	428.2	428.1	434.5	432.5	436.8
Maintenance and repair commodities	261.1	262.5	261.1	259.4	258.0	255.7	259.0	263.5	261.1	264.3	265.0	268.0	267.6	268.4	267.9
Fuel and other utilities	394.7	385.4	386.3	382.6	383.0	394.9	390.3	390.6	389.1	379.3	371.3	371.1	373.9	374.9	375.1
Fuels	487.5	462.7	467.1	459.1	459.7	477.3	469.1	469.3	467.1	449.2	437.1	437.3	442.7	443.7	443.2
Fuel oil, coal, and bottled gas	622.0	504.5	552.8	521.5	499.9	489.9	462.9	450.7	456.6	454.8	455.0	463.5	489.3	503.9	501.4
Gas (piped) and electricity	451.6	445.6	441.2	438.0	443.0	465.7	461.4	464.1	460.3	439.6	425.3	423.8	427.4	427.3	427.0
Other utilities and public services	241.6	253.8	249.9	252.1	252.2	255.8	256.3	256.6	256.2	257.8	255.8	255.3	255.6	256.5	257.1
Household furnishings and operations	243.4	246.5	246.0	246.0	246.1	246.2	246.5	246.6	247.5	247.5	247.2	248.5	248.9	249.4	250.1
Housefurnishings	197.6	198.4	198.5	198.1	198.4	198.2	198.4	198.3	199.4	199.3	198.5	199.7	200.0	200.2	200.7
Housekeeping supplies	310.7	317.1	315.5	316.3	315.7	316.8	317.1	317.3	317.9	317.8	318.4	320.6	322.0	323.1	325.2
Housekeeping services	340.2	348.2	346.6	347.1	347.4	347.8	348.4	349.1	349.5	350.1	350.1	350.8	351.2	352.0	352.3
Apparel and upkeep	205.0	206.5	205.2	206.1	205.1	203.0	201.8	205.9	211.0	211.9	211.5	209.6	205.8	206.9	213.7

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		1986										1987		
	1985	1986	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Apparel commodities	191.3	191.5	190.4	191.2	190.1	187.7	186.3	190.8	196.2	197.1	196.6	194.5	190.5	191.5	198.3
Men's and boys' apparel	198.2	199.7	198.0	199.3	200.0	198.0	195.4	197.1	202.3	203.6	204.6	202.1	198.6	198.9	201.9
Women's and girls' apparel	171.3	169.4	169.0	169.3	165.9	162.0	160.8	169.3	178.1	178.1	176.2	173.1	168.2	169.2	178.6
Infants' and toddlers' apparel	311.7	329.4	329.6	331.3	334.3	335.6	323.7	328.6	326.2	329.2	323.8	329.3	319.1	322.2	337.3
Footwear	212.5	211.8	210.7	212.1	212.0	210.6	209.6	209.9	212.0	215.3	215.6	214.9	211.1	212.4	217.7
Other apparel commodities	203.1	206.1	203.5	204.1	203.8	204.5	206.5	209.5	209.0	207.9	208.9	207.8	210.1	212.1	214.1
Apparel services	318.5	332.0	329.0	330.2	330.9	331.9	332.2	332.3	334.2	335.6	336.2	336.6	339.7	340.5	341.8
Transportation	321.6	307.6	310.3	303.5	305.9	308.7	304.6	300.9	301.8	302.2	304.0	304.2	308.2	309.9	310.8
Private transportation	317.4	301.5	304.5	297.4	299.9	302.8	298.3	294.4	295.3	295.7	297.5	297.5	301.6	303.4	304.2
New vehicles	214.2	223.3	219.4	220.2	222.0	223.2	223.7	223.6	223.3	225.7	229.4	230.7	231.2	228.9	228.2
New cars	214.5	223.6	219.5	220.4	222.3	223.4	223.9	223.9	223.7	226.3	230.0	231.4	232.0	229.3	228.5
Used cars	379.7	363.2	367.2	364.8	363.6	362.5	360.3	358.0	359.5	360.6	361.0	356.6	354.7	357.0	363.1
Motor fuel	375.4	293.1	309.6	280.1	290.3	300.6	280.9	266.7	271.9	264.0	262.0	263.2	277.7	289.5	291.3
Gasoline	375.0	292.5	308.8	279.1	289.6	300.3	280.5	266.1	271.4	263.4	261.3	262.5	277.1	288.9	290.7
Maintenance and repair	352.6	364.7	360.9	362.2	362.8	363.6	365.0	365.7	366.6	367.2	369.7	372.3	373.4	375.1	374.9
Other private transportation	287.7	302.2	300.6	300.4	299.8	301.2	302.4	302.2	299.7	305.2	309.5	309.9	312.6	311.5	311.7
Other private transportation commodities	204.7	203.9	206.0	204.6	204.9	203.9	203.8	204.0	202.7	201.1	202.3	202.8	204.3	204.0	204.3
Other private transportation services	312.3	330.9	328.3	328.5	327.7	329.6	331.2	330.9	328.1	335.4	340.7	341.0	344.0	342.6	342.9
Public transportation	391.7	416.3	412.0	413.0	413.8	415.1	418.0	418.4	418.8	418.9	421.1	425.8	426.7	427.2	428.7
Medical care	401.2	431.0	423.5	425.7	427.3	429.6	432.4	435.0	437.1	439.7	441.7	443.9	446.7	449.7	452.3
Medical care commodities	256.3	272.8	268.8	270.7	271.7	272.5	274.6	275.2	275.8	276.6	277.0	279.8	281.4	282.9	285.1
Medical care services	432.7	465.7	457.3	459.5	461.3	464.0	466.9	470.1	472.6	475.6	478.2	480.1	483.2	486.5	489.2
Professional services	367.7	391.4	385.6	387.4	388.8	390.8	392.3	394.0	396.6	398.4	400.2	401.5	404.2	407.4	410.2
Hospital and related services	221.2	234.2	230.6	231.0	231.2	232.1	234.2	236.3	236.8	239.1	240.4	241.6	243.2	244.6	245.4
Entertainment	260.1	268.7	266.5	266.9	267.3	268.4	269.0	269.2	270.0	271.1	272.1	272.3	272.9	273.4	274.4
Entertainment commodities	254.2	259.5	258.3	258.4	258.7	259.8	259.6	259.8	259.8	260.6	261.7	261.7	262.2	262.3	263.7
Entertainment services	271.6	286.0	282.1	283.0	283.6	284.8	286.5	286.7	288.9	290.7	291.6	292.0	292.7	293.9	294.2
Other goods and services	322.7	341.7	337.0	337.6	338.0	338.4	341.2	342.6	347.5	348.8	349.2	349.5	352.8	354.6	355.1
Tobacco products	328.1	350.7	345.2	346.0	346.0	346.7	354.0	355.9	356.5	356.8	356.9	357.2	364.7	368.0	369.2
Personal care	279.6	289.0	288.0	288.2	288.6	288.6	288.8	289.9	289.5	290.8	291.2	291.3	293.2	294.1	293.9
Toilet goods and personal care appliances	279.0	288.6	288.1	288.4	288.6	287.6	287.8	289.7	288.7	290.5	290.5	290.3	292.0	293.2	292.7
Personal care services	280.5	289.8	288.4	288.4	289.0	290.0	290.2	290.5	290.8	291.6	292.4	292.7	294.9	295.4	295.5
Personal and educational expenses	399.3	430.7	420.1	421.2	422.0	422.9	423.8	425.1	446.1	448.7	449.4	450.0	452.0	453.7	454.3
School books and supplies	355.7	384.8	379.0	379.1	379.1	380.2	380.5	381.4	393.9	396.7	396.9	397.1	406.5	409.3	409.6
Personal and educational services	410.1	442.0	430.5	431.8	432.8	433.6	434.6	436.0	458.7	461.3	462.1	462.8	464.3	465.9	466.6
All items	318.5	323.4	321.4	320.4	321.4	323.0	322.9	323.4	324.9	325.0	325.4	325.7	327.7	329.0	330.5
Commodities	286.5	283.1	283.1	280.4	281.3	282.0	281.1	281.1	282.6	282.6	283.1	283.3	285.5	287.0	288.6
Food and beverages	301.8	311.6	307.6	308.3	309.0	309.3	312.0	314.5	315.0	315.4	316.2	316.8	320.3	321.3	321.2
Commodities less food and beverages	274.9	264.2	266.3	261.9	262.9	263.8	260.7	259.4	261.5	261.1	261.5	261.5	262.9	264.6	267.2
Nondurables less food and beverages	283.8	265.6	269.6	262.0	263.6	265.2	260.1	258.1	261.5	260.2	259.7	259.9	262.3	266.0	270.0
Apparel commodities	191.3	191.5	190.4	191.2	190.1	187.7	186.3	190.8	196.2	197.1	196.6	194.5	190.5	191.5	198.3
Nondurables less food, beverages, and apparel	334.2	306.7	313.2	301.6	304.5	308.0	301.0	295.9	298.4	296.0	295.6	296.9	304.4	310.2	311.5
Durables	265.2	264.0	263.7	263.3	263.5	263.6	263.2	262.6	263.0	264.0	265.3	265.0	265.4	264.5	265.3
Services	377.3	395.7	390.5	392.2	393.2	396.4	397.7	399.0	400.4	401.0	401.0	401.5	403.3	404.5	405.9
Rent of shelter (12/84=100)	103.2	109.0	107.4	108.3	108.5	108.7	109.2	109.6	110.3	110.8	111.0	111.1	111.5	111.9	112.5
Household services less rent of shelter (12/84=100)	102.6	103.9	102.8	102.7	103.4	106.4	106.0	106.4	106.0	103.8	102.0	101.8	102.3	102.5	102.5
Transportation services	332.2	350.1	347.0	347.5	347.3	348.9	350.6	350.7	349.2	353.8	357.9	359.5	361.7	361.3	361.6
Medical care services	432.7	465.7	457.3	459.5	461.3	464.0	466.9	470.1	472.6	475.6	478.2	480.1	483.2	486.5	489.2
Other services	310.1	326.9	322.1	322.9	323.6	324.6	325.6	326.0	332.2	333.8	334.7	335.1	336.4	337.5	338.0
Special indexes:															
All items less food	319.4	323.0	321.5	320.2	321.2	323.2	322.3	322.2	323.9	324.0	324.2	324.4	326.0	327.4	329.3
All items less shelter	303.4	305.1	303.8	302.1	303.0	304.8	304.3	304.6	305.9	305.7	305.9	306.3	308.4	309.6	311.0
All items less homeowners' costs (12/84=100)	101.8	102.8	102.3	101.8	102.1	102.7	102.6	102.7	103.2	103.2	103.2	103.4	104.0	104.5	104.9
All items less medical care	314.3	318.0	316.2	315.2	316.1	317.7	317.4	317.8	319.3	319.3	319.6	319.8	321.8	323.0	324.5
Commodities less food	272.8	262.9	264.9	260.7	261.6	262.6	259.6	258.3	260.3	260.0	260.3	260.4	261.8	263.5	265.9
Nondurables less food	279.0	262.7	266.4	259.4	260.9	262.4	257.7	255.8	259.1	257.8	257.4	257.6	259.9	263.3	266.9
Nondurables less food and apparel	320.3	296.9	302.6	292.2	294.9	298.0	291.8	287.3	289.6	287.4	287.0	288.2	294.8	299.7	300.9
Nondurables	293.9	289.8	289.8	286.3	287.5	288.4	287.2	287.5	289.5	289.0	289.2	289.6	292.5	294.9	296.9
Services less rent of shelter (12/84=100)	102.6	107.1	105.7	105.9	106.2	107.6	107.8	108.1	108.3	108.2	108.1	108.3	108.8	109.0	109.2
Services less medical care	369.0	385.9	381.0	382.7	383.6	386.8	387.9	389.0	390.3	390.6	390.4	390.7	392.5	393.5	394.7
Energy	426.3	367.5	379.0	358.4	364.6	378.1	363.1	354.8	356.9	344.8	338.5	339.2	349.8	356.9	357.7
All items less energy	309.9	321.2	317.8	318.8	319.2	319.7	321.1	322.4	323.9	325.3	326.3	326.5	327.8	328.7	330.2
All items less food and energy	308.7	320.3	317.2	318.3	318.6	319.1	320.1	321.0	322.7	324.4	325.4	325.6	326.3	327.1	329.0
Commodities less food and energy	256.8	259.8	258.7	258.8	258.8	258.5	258.5	259.3	260.9	261.7	262.4	262.1	261.7	262.0	264.6
Energy commodities	410.9	322.9	343.3	312.9	319.8	328.1	307.2	292.9	298.2	290.9	289.1	291.1	307.2	319.9	321.5
Services less energy	371.1	391.9	386.5	388.8	389.4	390.8	392.6	393.7	395.7	398.2	399.6	400.2	401.9	403.2	404.7
Purchasing power of the consumer dollar:															
1967=$1.00	31.4	30.9	31.1	31.2	31.1	31.0	31.0	30.9	30.8	30.8	30.7	30.7	30.5	30.4	30.3
1957-59=$1.00	27.0	26.6	26.8	26.8	26.8	26.6	26.6	26.6	26.5	26.5	26.4	26.4	26.2	26.1	26.0

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						
			1986				1987			1986				1987		
			Mar.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	Mar.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.
U.S. city average	M	-	326.0	325.3	330.8	331.1	333.1	334.4	335.9	321.4	320.4	325.4	325.7	327.7	329.0	330.5
Region and area size[3]																
Northeast urban	M	12/77	-	173.7	-	177.2	178.4	179.0	179.9	-	171.1	-	174.3	175.5	176.0	177.0
Size A - More than 1,200,000	M	12/77	-	171.0	-	174.7	176.1	176.8	177.5	-	166.9	-	170.3	171.6	172.3	173.0
Size B - 500,000 to 1,200,000	M	12/77	-	174.7	-	178.3	179.3	179.1	180.7	-	171.7	-	175.1	176.2	176.2	177.7
Size C - 50,000 to 500,000	M	12/77	-	183.0	-	186.3	187.1	187.4	188.8	-	187.4	-	190.5	191.4	191.7	193.1
North Central urban	M	12/77	-	173.9	-	177.1	178.3	178.5	179.5	-	170.0	-	173.0	174.3	174.4	175.3
Size A - More than 1,200,000	M	12/77	-	177.8	-	181.0	182.1	182.5	183.2	-	172.1	-	175.3	176.3	176.6	177.3
Size B - 360,000 to 1,200,000	M	12/77	-	172.1	-	176.1	177.2	177.2	177.8	-	167.7	-	171.5	172.7	172.6	173.1
Size C - 50,000 to 360,000	M	12/77	-	168.5	-	171.9	173.9	173.6	175.3	-	165.1	-	168.4	170.3	169.9	171.5
Size D - Nonmetropolitan (less than 50,0000	M	12/77	-	170.0	-	171.6	172.5	172.9	174.0	-	171.4	-	172.7	173.7	174.1	175.1
South urban	M	12/77	-	175.1	-	177.9	178.7	179.5	180.2	-	174.1	-	176.5	177.5	178.3	179.0
Size A - More than 1,200,000	M	12/77	-	175.5	-	177.9	178.6	179.4	180.4	-	174.9	-	177.0	177.8	178.7	179.6
Size B - 450,000 to 1,200,000	M	12/77	-	177.0	-	179.9	180.8	181.7	182.3	-	173.2	-	175.6	176.5	177.4	178.1
Size C - 50,000 to 450,000	M	12/77	-	173.6	-	176.4	177.5	178.5	178.8	-	174.3	-	176.7	177.9	179.0	179.3
Size D - Nonmetropolitan (less than 50,000)	M	12/77	-	173.2	-	176.6	177.4	177.3	177.8	-	174.0	-	177.0	177.9	177.9	178.4
West urban	M	12/77	-	176.8	-	179.6	180.6	182.0	182.7	-	174.5	-	177.0	177.9	179.3	180.1
Size A - More than 1,250,000	M	12/77	-	179.6	-	182.6	183.6	185.3	186.1	-	174.9	-	177.5	178.4	180.2	181.0
Size B - 330,000 to 1,250,000	M	12/77	-	176.7	-	178.9	179.9	180.6	181.4	-	177.1	-	179.0	180.0	180.8	181.5
Size C - 50,000 to 330,000	M	12/77	-	170.5	-	172.9	173.8	174.8	175.2	-	168.9	-	171.1	171.9	172.7	173.3
Size classes:																
A	M	12/77	-	-	-	100.0	100.6	101.1	101.6	321.4	320.4	325.4	325.7	327.7	329.0	330.5
B	M	12/77	-	175.6	-	178.7	179.6	180.1	181.0	-	172.7	-	175.5	176.5	177.0	177.8
C	M	12/77	-	173.4	-	176.5	177.7	178.2	179.1	-	173.4	-	176.2	177.5	178.0	178.9
D	M	12/77	-	172.7	-	175.4	176.1	176.4	176.9	-	173.6	-	175.9	176.7	177.1	177.6
Selected local areas																
Chicago, IL-Northwestern IN	M	-	323.9	323.7	331.3	331.0	334.3	334.2	335.5	309.7	309.1	316.1	315.8	319.1	319.0	320.1
Los Angeles-Long Beach, Anaheim, CA	M	-	328.2	326.8	333.8	332.9	335.1	338.8	341.4	321.6	320.2	326.3	325.3	327.4	331.2	333.4
New York, NY-Northeastern NJ	M	-	322.4	321.4	327.5	329.1	331.6	333.2	334.7	314.5	313.2	318.6	320.1	322.3	324.0	325.7
Philadelphia, PA-NJ	M	-	319.1	317.8	324.1	325.2	327.7	329.0	329.4	321.4	319.7	325.4	326.6	329.1	329.9	330.4
San Francisco-Oakland, CA	M	-	-	339.3	-	343.6	345.8	348.8	349.6	-	333.2	-	337.0	339.0	342.2	343.4
Baltimore, MD	1	-	331.1	-	333.4	-	334.1	-	335.9	329.5	-	330.4	-	331.1	-	333.2
Boston, MA	1	-	324.9	-	329.3	-	333.2	-	336.8	322.3	-	325.9	-	330.9	-	334.7
Cleveland, OH	1	-	-	346.9	352.7	351.8	352.9	-	356.8	-	324.4	329.6	328.9	330.1	-	333.3
Miami, FL	1	11/77	174.5	-	175.8	-	177.2	-	178.4	175.1	-	176.1	-	177.6	-	178.6
St. Louis, MO-IL	1	-	319.2	-	323.8	-	326.7	-	328.8	315.0	-	319.0	-	321.9	-	324.3
Washington, DC-MD-VA	1	-	329.1	-	334.0	-	335.7	-	338.0	330.5	-	335.9	-	337.7	-	340.1
Dallas-Ft. Worth, TX	2	-	-	341.4	-	342.8	-	347.8	-	-	334.1	-	335.0	-	341.1	-
Detroit, MI	2	-	320.0	318.8	325.3	324.7	-	327.6	-	309.3	308.1	314.7	314.0	-	316.5	-
Houston, TX	2	-	-	330.0	-	331.0	-	334.9	-	-	327.7	-	328.5	-	333.0	-
Pittsburgh, PA	2	-	-	328.1	-	333.0	-	335.2	-	-	307.8	-	311.8	-	314.2	-

[1] Area is the Consolidated Metropolitan Statistical Area (CMSA), exclusive of farms and military. Area definitions are those established by the Office of Management and Budget in 1983, except for Boston-Lawrence-Salem, MA-NH Area (excludes Monroe County); and Milwaukee, WI Area (includes only the Milwaukee MSA). Definitions do not include revisions made since 1983.

[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.

- 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	1978	1979	1980	1981	1982	1983	1984	1985	1986
Consumer Price Index for All Urban Consumers:									
All items:									
Index	195.4	217.4	246.8	272.4	289.1	298.4	311.1	322.2	328.4
Percent change	7.7	11.3	13.5	10.4	6.1	3.2	4.3	3.6	1.9
Food and beverages:									
Index	206.3	228.5	248.0	267.3	278.2	284.4	295.1	302.0	311.8
Percent change	9.7	10.8	8.5	7.8	4.1	2.2	3.8	2.3	3.2
Housing:									
Index	202.8	227.6	263.3	293.5	314.7	323.1	336.5	349.9	360.2
Percent change	8.7	12.2	15.7	11.5	7.2	2.7	4.1	4.0	2.9
Apparel and upkeep:									
Index	159.6	166.6	178.4	186.9	191.8	196.5	200.2	206.0	207.8
Percent change	3.5	4.4	7.1	4.8	2.6	2.5	1.9	2.9	.9
Transportation:									
Index	185.5	212.0	249.7	280.0	291.5	298.4	311.7	319.9	307.5
Percent change	4.7	14.3	17.8	12.1	4.1	2.4	4.5	2.6	–3.9
Medical care:									
Index	219.4	239.7	265.9	294.5	328.7	357.3	379.5	403.1	433.5
Percent change	8.4	9.3	10.9	10.8	11.6	8.7	6.2	6.2	7.5
Entertainment:									
Index	176.6	188.5	205.3	221.4	235.8	246.0	255.1	265.0	274.1
Percent change	5.3	6.7	8.9	7.8	6.5	4.3	3.7	3.9	3.4
Other goods and services:									
Index	183.3	196.7	214.5	235.7	259.9	288.3	307.7	326.6	346.4
Percent change	6.4	7.3	9.0	9.9	10.3	10.9	6.7	6.1	6.1
Consumer Price Index for Urban Wage Earners and Clerical Workers:									
All items:									
Index	195.3	217.7	247.0	272.3	288.6	297.4	307.6	318.5	323.4
Percent change	7.6	11.5	13.5	10.2	6.0	3.0	3.4	3.5	1.5

33. Producer Price Indexes, by stage of processing

(1967 = 100)

Grouping	Annual average		1986									1987		
	1985	1986	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Finished goods	293.7	289.6	287.2	288.9	289.3	287.6	288.1	287.3	290.7	290.7	289.9	291.7	292.3	292.3
Finished consumer goods	291.8	284.9	281.9	284.1	284.5	282.3	283.0	282.5	285.2	285.1	284.2	286.2	287.1	287.2
Finished consumer foods	271.2	278.0	271.9	274.8	275.1	280.4	284.0	282.9	283.6	283.1	282.9	280.0	279.6	280.4
Finished consumer goods excluding foods	297.3	283.4	282.2	284.0	284.4	278.3	277.5	277.4	281.0	281.2	279.9	284.5	286.0	285.7
Nondurable goods less food	339.3	311.1	309.8	313.0	313.5	302.6	301.6	304.5	301.9	302.2	300.5	307.7	311.6	311.7
Durable goods	241.5	246.9	245.7	245.5	245.9	246.2	245.8	241.7	253.5	253.5	252.9	252.9	250.4	249.6
Capital equipment	300.5	306.5	305.6	305.7	306.1	306.4	306.2	303.9	309.9	310.4	310.1	311.2	310.5	310.3
Intermediate materials, supplies, and components	318.7	307.6	307.1	306.7	306.8	304.8	304.5	306.1	304.8	304.8	305.0	307.1	308.9	309.4
Materials and components for manufacturing	299.5	296.1	295.5	295.4	295.1	295.6	296.0	296.2	296.4	296.4	296.2	297.7	298.3	299.4
Materials for food manufacturing	258.8	250.9	244.8	248.7	247.9	251.7	255.5	254.3	253.9	253.2	253.0	251.0	250.6	250.0
Materials for nondurable manufacturing	285.9	279.2	279.3	278.2	277.8	277.7	277.1	277.0	277.5	278.0	277.9	280.9	282.1	283.4
Materials for durable manufacturing	320.2	313.8	313.7	313.2	312.9	313.0	313.6	314.9	315.3	314.9	313.8	316.2	316.5	317.9
Components for manufacturing	291.5	294.4	294.1	294.1	294.1	294.6	294.9	295.0	294.9	294.9	295.2	295.6	296.1	297.1
Materials and components for construction	315.2	317.5	318.3	318.3	317.8	317.9	317.6	317.6	317.3	317.5	317.0	317.2	318.2	319.0
Processed fuels and lubricants	548.9	430.3	428.5	424.2	426.7	401.1	395.0	409.1	394.9	392.8	396.2	408.2	420.2	416.4
Containers	311.2	315.1	312.8	313.6	314.0	314.6	316.2	317.4	318.1	319.0	319.7	321.4	323.3	324.5
Supplies	284.2	287.3	287.2	287.1	287.3	287.2	287.1	288.0	287.5	288.0	288.3	289.0	289.8	290.0
Crude materials for further processing	306.1	280.0	273.7	279.4	276.9	277.7	276.3	275.4	277.2	279.2	274.8	284.0	288.8	287.7
Foodstuffs and feedstuffs	235.0	230.6	220.3	229.9	227.1	234.4	238.1	233.5	235.0	236.8	232.8	227.1	229.2	229.1
Nonfood materials[1]	459.2	386.8	389.4	386.9	384.8	370.8	358.3	365.6	367.9	370.3	365.1	392.9	401.7	399.2
Special groupings														
Finished goods, excluding foods	299.0	291.1	289.9	291.2	291.6	287.4	286.8	286.1	290.4	290.7	289.7	293.2	294.0	293.8
Finished energy goods	720.9	518.5	517.2	534.1	536.4	461.6	456.2	471.7	452.1	453.7	446.8	478.4	497.9	493.8
Finished goods less energy	269.2	275.6	273.1	274.0	274.3	276.4	277.2	275.5	280.0	280.0	279.5	279.6	279.0	279.2
Finished consumer goods less energy	261.3	267.8	264.9	266.1	266.3	268.9	270.0	268.5	272.6	272.4	271.9	271.6	271.0	271.5
Finished goods less food and energy	268.7	274.9	273.9	274.0	274.3	275.0	274.8	272.9	278.9	279.1	278.5	279.7	279.0	279.1
Finished consumer goods less food and energy	252.1	258.4	257.3	257.5	257.7	258.7	258.4	256.7	262.6	262.6	262.0	263.2	262.6	262.7
Consumer nondurable goods less food and energy	246.2	252.9	252.0	252.3	252.5	253.9	253.8	254.2	254.8	254.9	254.2	256.2	256.8	257.6
Intermediate materials less foods and feeds	325.0	313.3	313.0	312.4	312.5	310.4	309.9	311.5	310.4	310.3	310.5	312.9	314.8	315.4
Intermediate foods and feeds	232.8	230.2	227.0	229.3	229.0	230.3	232.1	233.2	230.3	231.0	231.7	229.7	229.8	227.9
Intermediate energy goods	528.3	414.5	413.3	409.1	411.1	386.6	380.7	393.8	380.3	378.3	381.3	392.8	404.2	400.6
Intermediate goods less energy	304.0	303.5	303.1	303.0	302.9	303.3	303.5	304.0	303.9	304.1	304.0	305.2	306.0	306.8
Intermediate materials less foods and energy	305.2	304.4	304.3	304.0	303.8	304.1	304.2	304.6	304.8	304.9	304.8	306.2	307.0	308.1
Crude energy materials	748.1	575.8	577.0	570.6	563.9	528.8	520.4	533.9	534.4	537.0	519.5	571.6	586.2	581.2
Crude materials less energy	233.2	228.9	221.9	229.2	227.3	232.8	232.4	229.7	231.6	233.3	230.9	227.9	230.3	230.3
Crude nonfood materials less energy	249.7	245.6	249.1	249.3	250.1	250.0	235.9	239.1	242.3	244.4	246.9	251.0	254.6	254.6

[1] Crude nonfood materials except fuel.

34. Producer Price Indexes, by durability of product

(1967=100)

Grouping	Annual average		1986									1987		
	1985	1986	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Total durable goods	297.3	300.0	299.7	299.6	299.7	300.0	299.9	298.8	302.2	302.4	302.1	303.0	303.5	303.9
Total nondurable goods	317.2	298.7	296.0	297.9	297.7	294.5	294.2	295.6	294.4	294.8	294.0	298.2	301.0	300.8
Total manufactures	304.3	297.6	296.1	296.7	296.9	295.2	295.5	296.0	297.0	297.1	297.2	299.3	300.7	300.9
Durable	298.1	300.9	300.5	300.4	300.5	300.9	300.8	299.6	303.1	303.3	302.9	303.7	304.1	304.6
Nondurable	310.5	294.0	291.2	292.6	293.0	289.1	289.7	292.1	290.4	290.5	290.9	294.4	296.9	296.8
Total raw or slightly processed goods	327.9	305.3	303.0	306.2	304.2	303.2	300.4	299.0	299.2	300.6	296.3	302.0	305.6	305.2
Durable	252.2	252.0	253.1	252.1	251.2	249.6	252.0	252.8	252.0	254.4	254.7	260.3	264.2	262.2
Nondurable	332.4	308.3	305.8	309.3	307.2	306.2	303.0	301.6	301.8	303.1	298.4	304.1	307.7	307.4

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	245.0	272.3	330.0	401.0	482.3	473.9	477.4	484.5	459.2
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	1984			1985				1986			
		June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
ALL COMMODITIES (9/83=100)		101.5	99.3	98.1	97.5	97.5	96.5	96.7	97.0	96.7	95.1	96.2
Food (3/83=100)	0	109.6	103.5	96.5	95.8	94.0	90.2	93.6	90.5	89.5	77.2	81.2
Meat (3/83=100)	01	108.7	105.6	104.4	103.9	104.7	106.1	112.2	111.5	114.7	122.0	122.6
Fish (3/83=100)	03	98.7	98.0	98.7	101.0	103.6	102.6	101.8	102.2	106.2	111.2	116.9
Grain and grain preparations (3/80=100)	04	107.4	101.2	92.9	92.4	90.3	82.6	87.1	82.1	79.1	59.0	64.8
Vegetables and fruit (3/83=100)	05	126.9	125.6	114.7	119.5	120.2	126.9	118.9	115.3	125.8	131.4	131.9
Feedstuffs for animals (3/83=100)	08	98.8	83.5	82.4	72.8	68.6	75.7	83.4	88.5	85.5	90.2	87.4
Misc. food products (3/83=100)	09	110.6	109.5	108.4	110.6	109.2	108.1	107.7	106.0	104.7	106.6	108.2
Beverages and tobacco (6/83=100)	1	101.9	102.8	101.3	99.9	100.1	99.7	98.6	95.6	96.5	96.3	101.6
Beverages (9/83=100)	11	102.9	103.3	103.7	104.0	105.3	101.8	100.9	101.9	103.0	102.2	102.9
Tobacco and tobacco products (6/83=100)	12	101.8	102.7	101.1	99.5	99.6	99.5	98.4	95.1	95.9	95.8	101.4
Crude materials (6/83=100)	2	118.3	105.2	101.4	97.5	96.8	93.3	92.5	95.8	95.6	92.3	94.8
Raw hides and skins (6/80=100)	21	154.7	153.7	133.6	121.0	126.2	129.0	139.9	138.9	148.9	138.0	148.3
Oilseeds and oleaginous fruit (9/77=100)	22	104.3	79.9	74.8	71.0	71.2	64.2	63.9	66.9	65.8	64.5	62.9
Crude rubber (including synthetic and reclaimed) (9/83=100)	23	106.0	104.1	104.0	106.4	106.3	107.1	106.0	106.0	106.1	105.3	104.4
Wood	24	129.4	123.8	125.4	128.7	125.7	124.5	128.1	128.7	128.7	129.7	135.5
Pulp and waste paper (6/83=100)	25	122.1	120.8	114.2	100.5	96.1	93.8	92.7	98.8	109.7	119.8	121.2
Textile fibers	26	125.6	109.4	106.7	102.4	105.8	103.6	97.7	101.6	98.6	74.7	92.2
Crude fertilizers and minerals	27	147.7	163.0	163.2	165.6	167.9	169.4	165.5	168.0	166.1	164.3	162.8
Metalliferous ores and metal scrap	28	98.5	93.2	92.4	89.2	82.0	80.1	78.7	83.4	80.5	84.6	80.7
Mineral fuels	3	99.7	99.7	99.7	100.1	99.2	97.6	96.6	91.9	86.7	85.7	84.7
Animal and vegetables oils, fats, and waxes	4	164.5	145.7	147.9	142.0	144.5	114.5	101.4	90.8	84.4	76.5	86.8
Fixed vegetable oils and fats (6/83=100)	42	176.4	159.0	156.7	152.9	164.8	128.8	108.7	95.4	95.3	80.8	87.0
Chemicals (3/83=100)	5	99.7	98.3	97.7	97.0	96.8	97.1	96.6	96.5	95.4	93.1	92.2
Organic chemicals (12/83=100)	51	101.0	97.4	94.7	93.8	96.5	97.1	95.4	93.5	89.3	88.0	89.4
Fertilizers, manufactured (3/83=100)	56	96.9	97.4	94.8	92.5	87.9	89.8	90.0	88.6	84.0	77.4	68.7
Intermediate manufactured products (9/81=100)	-	101.3	102.0	100.4	99.4	99.2	99.2	99.1	100.3	101.2	102.2	102.7
Leather and furskins (9/79=100)	6	81.2	80.8	79.0	82.5	79.2	75.9	78.5	77.8	82.5	84.2	88.0
Rubber manufactures	61	147.5	148.9	148.5	150.2	149.0	148.3	148.7	151.0	150.0	150.4	151.3
Paper and paperboard products (6/78=100)	62	154.7	160.0	159.5	155.0	151.6	149.6	148.2	152.2	158.7	165.3	167.9
Iron and steel (3/82=100)	64	96.1	96.8	96.5	95.5	95.3	95.9	98.2	98.4	99.4	100.2	100.1
Nonferrous metals (9/81=100)	-	92.9	90.4	82.5	79.7	79.6	79.8	78.2	80.2	79.1	79.4	78.8
Metal manufactures, n.e.s. (3/82=100)	-	104.5	105.1	105.0	105.4	105.2	105.4	104.4	105.3	105.5	105.6	105.7
Machinery and transport equipment, excluding military and commercial aircraft (12/78=100)	67	139.4	140.1	141.5	142.3	142.9	143.1	143.3	144.0	144.2	144.6	145.5
Power generating machinery and equipment (12/78=100)	68	156.9	160.6	167.5	165.3	167.4	167.1	167.5	169.1	169.2	169.5	171.4
Machinery specialized for particular industries (9/78=100)	69	152.8	153.7	153.4	155.0	155.7	156.0	156.2	155.5	154.7	155.0	155.7
Metalworking machinery (6/78=100)	7	151.2	151.7	151.9	153.4	155.1	156.3	158.4	159.0	158.9	160.4	161.8
General industrial machines and parts n.e.s. 9/78=100)	71	149.0	149.3	150.2	152.4	152.0	152.4	152.2	152.3	153.3	154.4	155.3
Office machines and automatic data processing equipment	72	101.5	99.8	101.4	100.9	100.0	99.9	99.4	99.9	99.2	98.9	98.1
Telecommunications, sound recording and reproducing equipment	73	132.3	134.4	134.3	133.3	133.3	134.1	134.5	136.5	137.0	137.8	139.7
Electrical machinery and equipment	74	112.6	113.8	114.6	114.9	116.1	115.3	113.8	115.1	114.2	114.4	114.9
Road vehicles and parts (3/80=100)	75	131.2	131.0	131.8	133.1	133.9	133.8	135.0	135.5	136.4	136.5	137.9
Other transport equipment, excl. military and commercial aviation	76	187.7	189.6	191.7	195.5	196.6	199.3	200.7	203.3	206.8	207.4	209.7
Other manufactured articles	77	100.4	100.7	99.3	99.5	100.4	100.3	100.3	102.6	103.4	104.1	104.3
Apparel (9/83=100)	78	102.1	103.9	103.4	104.7	104.7	105.0	105.3	-	-	-	110.0
Professional, scientific, and controlling instruments and apparatus	79	172.0	175.8	171.7	175.5	178.3	178.7	178.8	182.1	183.8	183.8	184.8
Photographic apparatus and supplies, optical goods, watches and clocks (12/77=100)	8	131.3	132.7	130.3	128.0	129.1	127.5	128.5	131.6	132.9	132.7	132.0
Miscellaneous manufactured articles, n.e.s.	84	97.9	95.2	94.1	92.4	93.1	93.1	92.4	95.6	95.6	97.6	97.7
Gold, non-monetary (6/83=100)	971	93.5	81.7	79.5	69.1	75.4	77.4	77.5	81.8	82.2	97.5	94.5

- 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			
		Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
ALL COMMODITIES (9/82=100)		95.7	93.5	93.0	92.9	94.2	88.5	83.2	83.9	86.0
Food (9/77=100)	0	98.1	98.5	96.8	94.9	102.8	113.4	104.7	109.1	105.3
Meat	01	132.3	130.4	118.2	120.6	131.2	122.7	118.5	126.9	134.4
Dairy products and eggs (6/81=100)	02	98.4	98.3	97.9	99.1	100.5	106.7	107.1	109.4	111.5
Fish	03	133.9	132.9	129.4	129.7	132.7	139.3	144.8	149.6	157.1
Bakery goods, pasta products, grain and grain preparations (9/77=100)	04	132.8	131.8	132.3	136.3	141.9	146.9	149.2	154.0	155.3
Fruits and vegetables	05	117.2	127.1	129.4	120.2	131.3	119.4	119.4	127.1	125.5
Sugar, sugar preparations, and honey (3/82=100)	06	118.5	118.4	122.6	123.1	111.9	124.6	121.6	123.9	124.3
Coffee, tea, cocoa	07	58.4	57.0	56.0	54.4	64.6	85.9	69.2	71.8	61.0
Beverages and tobacco	1	156.5	156.2	157.1	158.0	162.1	163.2	165.5	165.8	168.0
Beverages	11	152.8	154.2	154.3	156.0	159.1	161.8	163.9	165.5	168.2
Crude materials	2	98.9	94.0	93.6	91.5	91.2	94.2	95.3	98.1	98.5
Crude rubber (inc. synthetic & reclaimed) (3/84=100)	23	83.8	77.6	76.4	68.9	73.2	78.8	75.5	76.9	78.5
Wood (9/81=100)	24	104.0	100.7	106.9	101.6	99.4	104.3	106.3	109.4	107.2
Pulp and waste paper (12/81=100)	25	93.2	84.0	80.4	76.8	75.8	74.9	79.9	86.0	92.8
Crude fertilizers and crude minerals (12/83=100)	27	98.6	100.3	101.7	102.7	102.1	101.5	100.0	100.4	100.2
Metalliferous ores and metal scrap (3/84=100)	28	95.6	90.4	87.6	89.5	90.1	94.5	95.6	98.2	95.4
Crude vegetable and animal materials, n.e.s.	29	106.4	104.3	104.9	102.5	102.5	103.6	104.4	104.8	104.7
Fuels and related products (6/82=100)	3	85.2	82.9	80.9	79.8	79.1	55.3	37.5	33.6	38.4
Petroleum and petroleum products (6/82=100)	33	85.2	83.8	81.6	80.3	80.1	54.7	36.1	32.1	37.9
Fats and oils (9/83=100)	4	114.9	89.9	76.7	57.6	50.6	41.4	39.3	35.5	51.6
Vegetable oils (9/83=100)	42	115.3	89.5	75.9	56.2	48.9	39.3	37.4	33.5	50.0
Chemicals (9/82=100)	5	97.1	95.7	94.9	94.5	94.2	94.6	93.3	93.4	93.2
Medicinal and pharmaceutical products (3/84=100)	54	94.6	91.6	95.1	95.3	96.7	102.9	104.9	110.0	110.1
Manufactured fertilizers (3/84=100)	56	92.9	94.2	82.0	80.8	78.5	79.2	79.7	77.4	79.7
Chemical materials and products, n.e.s. (9/84=100)	59	97.5	96.1	95.6	96.9	97.8	99.9	100.3	101.0	102.8
Intermediate manufactured products (12/77=100)	6	136.8	133.1	132.4	133.6	133.4	134.0	135.6	138.8	139.4
Leather and furskins	61	140.4	135.3	133.3	137.0	141.3	141.6	143.0	147.4	143.3
Rubber manufactures, n.e.s.	62	140.5	139.5	138.6	137.3	138.1	136.5	137.7	138.1	138.1
Cork and wood manufactures	63	126.1	121.3	121.2	123.4	124.0	130.8	134.3	137.4	142.7
Paper and paperboard products	64	157.5	157.6	157.2	157.8	156.5	157.1	157.1	157.5	164.8
Textiles	65	132.9	130.4	127.5	126.5	128.1	131.2	132.9	135.1	135.3
Nonmetallic mineral manufactures, n.e.s.	66	159.4	154.2	151.7	157.6	162.2	164.2	169.6	178.2	180.2
Iron and steel (9/78=100)	67	123.7	121.0	120.1	119.1	118.3	117.3	118.1	119.0	118.5
Nonferrous metals (12/81=100)	68	87.3	81.9	82.3	83.7	80.4	79.4	78.9	83.5	81.6
Metal manufactures, n.e.s.	69	119.3	117.4	117.8	119.5	121.6	124.4	127.8	129.1	129.1
Machinery and transport equipment (6/81=100)	7	102.9	101.6	102.6	103.5	107.2	111.5	115.3	118.1	120.2
Machinery specialized for particular industries (9/78=100)	72	98.0	96.2	97.0	101.4	104.9	112.1	115.4	120.1	121.0
Metalworking machinery (3/80=100)	73	89.9	86.3	90.5	94.2	98.1	105.0	107.7	110.7	115.7
General industrial machinery and parts, n.e.s. (6/81=100)	74	91.3	89.2	91.1	94.3	98.0	103.8	109.0	112.8	113.9
Office machines and automatic data processing equipment (3/80=100)	75	92.2	89.6	89.4	90.3	93.7	96.9	101.3	102.5	102.4
Telecommunications, sound recording and reproducing apparatus (3/80=100)	76	91.3	90.0	88.8	88.3	88.6	89.4	91.6	93.7	93.9
Electrical machinery and equipment (12/81=100)	77	86.4	82.1	83.9	81.4	83.1	84.5	87.5	89.5	91.7
Road vehicles and parts (6/81=100)	78	111.3	111.5	112.1	112.7	117.8	123.4	127.1	129.8	133.2
Misc. manufactured articles (3/80=100)	8	100.0	97.0	98.0	99.6	100.8	103.3	104.8	109.5	109.6
Plumbing, heating, and lighting fixtures (6/80=100)	81	111.6	113.9	114.1	117.8	115.0	120.1	123.5	125.5	125.5
Furniture and parts (6/80=100)	82	142.5	137.4	136.7	142.1	142.7	147.0	142.2	145.8	146.9
Clothing (9/77=100)	84	138.5	136.7	133.9	134.5	134.5	133.4	135.3	137.8	139.1
Footwear	85	142.5	137.4	136.7	142.1	142.7	147.0	142.2	145.8	146.9
Professional, scientific, and controlling instruments and apparatus (12/79=100)	87	92.9	89.2	92.3	98.8	102.4	106.4	112.5	118.3	118.0
Photographic apparatus and supplies, optical goods, watches, and clocks (3/80=100)	88	91.3	88.9	89.5	91.1	94.5	99.3	103.2	106.9	107.6
Misc. manufactured articles, n.e.s. (6/82=100)	89	96.3	91.2	95.2	96.4	97.9	102.1	103.4	112.3	111.0
Gold, non-monetary (6/82=100)	971	103.6	90.1	98.3	101.1	101.0	106.7	107.3	126.9	123.3

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			
		Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
Foods, feeds, and beverages	16.294	83.0	81.5	80.9	76.2	77.5	75.5	74.7	66.0	68.4
Raw materials	30.696	99.1	97.6	97.2	96.5	95.9	96.0	94.9	93.3	94.8
Raw materials, nondurable	21.327	101.4	99.6	99.5	98.7	97.9	97.5	96.1	93.7	95.4
Raw materials, durable	9.368	93.3	92.6	91.6	91.1	91.0	92.5	91.9	92.5	93.2
Capital goods (12/82=100)	30.186	105.6	106.2	106.6	106.6	106.6	107.4	107.5	107.7	108.3
Automotive vehicles, parts and engines (12/82=100)	7.483	105.7	106.7	108.0	108.1	109.2	109.5	110.4	110.8	111.8
Consumer goods	7.467	100.8	100.9	101.1	101.9	101.4	103.7	104.5	104.5	105.7
Durables	3.965	99.3	99.1	99.2	100.4	99.5	101.8	101.8	102.1	102.7
Nondurables	3.501	102.3	102.7	103.0	103.3	103.3	105.5	107.2	106.9	108.5

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

(December 1982=100)

Category	Percentage of 1980 trade value	1984	1985				1986			
		Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
Foods, feeds, and beverages	7.477	101.8	102.1	100.4	99.0	106.0	115.8	108.2	112.3	109.2
Petroleum and petroleum products, excl. natural gas	31.108	85.7	84.4	82.1	80.9	80.5	55.4	36.8	32.6	38.3
Raw materials, excluding petroleum	19.205	101.1	96.3	95.8	95.4	93.9	94.5	94.0	95.3	94.9
Raw materials, nondurable	9.391	100.7	95.0	93.9	93.5	91.8	91.1	89.7	89.5	89.7
Raw materials, durable	9.814	101.6	97.7	97.8	97.4	96.2	98.1	98.7	101.4	100.3
Capital goods	13.164	97.8	94.8	96.3	97.6	100.0	102.8	106.7	109.4	110.7
Automotive vehicles, parts and engines	11.750	105.2	105.4	105.9	106.4	111.4	115.6	119.0	121.0	123.9
Consumer goods	14.250	101.1	99.5	99.4	101.0	102.4	104.5	106.5	110.1	110.6
Durable	5.507	98.5	97.0	97.0	98.9	100.7	103.4	106.5	111.2	111.6
Nondurable	8.743	104.6	103.0	102.5	103.9	104.7	106.0	106.6	108.6	109.2

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

Industry group	1984	1985				1986			
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
Manufacturing:									
Food and kindred products (6/83=100)	103.3	99.5	99.5	96.7	98.1	97.0	95.0	95.2	97.6
Lumber and wood products, except furniture (6/83=100)	97.9	99.9	99.5	98.3	101.2	101.5	101.2	102.1	105.7
Furniture and fixtures (9/83=100)	104.9	105.2	106.5	107.1	108.4	109.2	109.7	110.1	110.4
Paper and allied products (3/81=100)	103.6	97.1	94.7	93.2	92.1	95.7	101.5	106.1	108.7
Chemicals and allied products (12/84=100)	100.7	100.3	99.6	99.7	99.2	98.9	98.3	96.2	95.9
Petroleum and coal products (12/83=100)	100.4	101.3	102.7	102.0	99.1	93.5	83.1	83.1	82.2
Primary metal products (3/82=100)	90.4	87.9	87.5	88.1	87.9	89.8	89.8	90.7	89.9
Machinery, except electrical (9/78=100)	139.9	140.4	140.5	140.6	140.5	140.6	140.3	140.5	140.7
Electrical machinery (12/80=100)	111.1	111.3	112.4	111.9	111.2	112.6	112.3	112.6	113.6
Transportation equipment (12/78=100)	158.8	160.4	161.8	162.6	164.1	165.1	167.1	167.4	169.4
Scientific instruments; optical goods; clocks (6/77=100)	153.0	154.9	156.6	156.2	156.7	159.7	161.2	161.5	162.3

[1] SIC - based classification.

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

Industry group	1984	1985				1986			
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
Manufacturing:									
Food and kindred products (6/77=100)	122.6	118.8	115.0	114.2	115.1	117.7	115.6	118.0	122.4
Textile mill products (9/82=100)	104.7	102.8	101.0	100.4	101.8	104.7	106.4	107.1	108.0
Apparel and related products (6/77=100)	138.2	135.6	133.0	133.9	134.4	133.4	135.1	137.8	139.3
Lumber and wood products, except furniture (6/77=100)	120.0	116.3	120.6	117.5	115.8	122.1	124.8	127.9	127.9
Furniture and fixtures (6/80=100)	95.6	93.9	96.1	97.7	98.2	101.2	103.5	105.4	105.6
Paper and allied products (6/77=100)	145.5	141.5	139.8	138.7	137.4	137.6	139.4	142.2	150.3
Chemicals and allied products (9/82=100)	98.2	95.3	93.9	93.3	95.8	98.6	102.1	103.8	102.4
Rubber and miscellaneous plastic products (12/80=100)	98.0	96.9	96.7	96.6	97.5	100.9	100.6	101.9	102.1
Leather and leather products	144.2	139.1	138.9	142.3	144.0	145.8	144.6	147.7	148.7
Primary metal products (6/81=100)	87.8	84.1	84.1	84.3	82.6	82.0	82.4	84.9	84.0
Fabricated metal products (12/84=100)	100.0	99.0	99.1	101.0	102.6	104.9	108.5	110.3	111.1
Machinery, except electrical (3/80=100)	94.1	91.8	93.4	96.6	100.0	105.5	109.0	112.5	114.2
Electrical machinery (9/84=100)	98.6	95.1	95.8	94.5	95.8	97.0	100.2	102.6	104.0
Transportation equipment (6/81=100)	112.9	113.1	114.2	114.8	119.6	123.9	128.0	130.4	133.2
Scientific instruments; optical goods; clocks (12/79=100)	93.2	90.7	91.7	94.6	98.8	103.9	109.1	113.7	113.7
Miscellaneous manufactured commodities (9/82=100)	96.4	95.1	95.1	96.6	98.7	99.9	101.7	106.9	108.1

[1] SIC - based classification.

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

(1977=100)

Item	Quarterly Indexes										
	1984			1985				1986			
	II	III	IV	I	II	III	IV	I	II	III	IV
Business:											
Output per hour of all persons	105.6	105.5	105.5	105.7	106.4	107.3	106.4	107.3	107.4	107.3	106.8
Compensation per hour	167.1	169.0	170.6	172.3	174.5	176.4	178.0	179.1	180.4	181.7	182.6
Real compensation per hour	97.9	98.1	98.2	98.4	98.6	99.0	99.0	99.2	100.2	100.4	100.2
Unit labor costs	158.3	160.2	161.7	163.1	164.0	164.4	167.3	167.0	168.0	169.3	171.0
Unit nonlabor payments	156.7	157.0	157.7	158.3	160.0	161.4	159.6	162.2	161.9	163.4	159.7
Implicit price deflator	157.7	159.0	160.3	161.4	162.6	163.4	164.6	165.3	165.8	167.2	167.0
Nonfarm business:											
Output per hour of all persons	104.6	104.4	104.3	104.4	104.9	105.4	104.5	105.6	105.7	105.7	105.3
Compensation per hour	166.9	168.7	170.4	172.1	174.0	175.4	177.0	178.3	179.3	180.4	181.6
Real compensation per hour	97.8	97.9	98.1	98.3	98.3	98.5	98.4	98.8	99.7	99.6	99.6
Unit labor costs	159.5	161.5	163.3	164.8	165.9	166.3	169.3	168.8	169.6	170.7	172.5
Unit nonlabor payments	156.4	157.2	157.9	158.9	160.8	163.0	160.3	163.9	163.7	165.9	162.2
Implicit price deflator	158.4	160.0	161.4	162.7	164.1	165.2	166.2	167.1	167.5	169.0	168.9
Nonfinancial corporations:											
Output per hour of all employees	105.9	105.5	105.8	106.0	106.5	107.8	107.0	106.9	106.8	106.9	107.2
Compensation per hour	164.8	166.6	168.3	169.9	171.6	173.1	174.5	175.4	176.1	176.8	177.8
Real compensation per hour	96.5	96.7	96.9	97.0	96.9	97.2	97.0	97.1	97.8	97.7	97.6
Total unit costs	160.1	162.6	163.8	164.9	165.8	165.0	167.2	168.3	168.6	169.8	169.6
Unit labor costs	155.7	157.9	159.1	160.3	161.1	160.5	163.0	164.0	164.8	165.4	165.8
Unit nonlabor costs	173.1	176.4	177.5	178.5	179.8	178.3	179.8	181.1	179.9	182.6	180.9
Unit profits	138.5	130.3	130.5	129.3	130.2	141.7	131.2	131.7	132.3	135.8	136.8
Unit nonlabor payments	161.0	160.3	161.0	161.3	162.5	165.5	162.8	163.8	163.2	166.2	165.5
Implicit price deflator	157.5	158.7	159.8	160.6	161.6	162.2	162.9	164.0	164.3	165.7	165.7
Manufacturing:											
Output per hour of all persons	115.7	117.8	118.2	119.3	121.7	123.0	122.9	123.7	124.7	125.8	125.8
Compensation per hour	166.8	169.1	171.5	173.8	175.6	178.1	179.3	180.2	181.4	182.5	183.5
Real compensation per hour	97.7	98.1	98.7	99.2	99.2	100.0	99.7	99.8	100.8	100.8	100.7
Unit labor costs	144.2	143.5	145.1	145.7	144.3	144.8	145.8	145.7	145.5	145.1	145.9

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

(1977=100)

Item	1960	1970	1973	1975	1977	1979	1980	1981	1982	1983	1984	1985
Private business												
Productivity:												
Output per hour of all persons	67.3	88.4	95.9	95.7	100.0	99.5	99.2	100.6	100.3	103.0	105.4	106.5
Output per unit of capital services	102.4	102.0	105.3	93.8	100.0	99.8	94.2	92.4	86.6	88.3	92.4	91.5
Multifactor productivity	78.2	92.9	99.1	95.0	100.0	99.7	97.4	97.7	95.2	97.6	100.6	101.0
Output	55.3	80.2	93.0	89.3	100.0	107.9	106.6	108.9	105.4	109.9	118.9	122.8
Inputs:												
Hours of all persons	82.2	90.8	96.9	93.2	100.0	108.4	107.5	108.2	105.2	106.7	112.8	115.3
Capital services	54.0	78.7	88.3	95.1	100.0	108.0	113.1	117.8	121.7	124.4	128.7	134.1
Combined units of labor and capital input	70.7	86.3	93.8	93.9	100.0	108.2	109.4	111.5	110.7	112.6	118.1	121.6
Capital per hour of all persons	65.7	86.7	91.1	102.0	100.0	99.7	105.3	108.8	115.7	116.7	114.1	116.3
Private nonfarm business												
Productivity:												
Output per hour of all persons	70.7	89.2	96.4	96.0	100.0	99.2	98.7	99.6	99.1	102.4	104.3	104.8
Output per unit of capital services	103.7	102.8	106.0	93.8	100.0	99.0	93.4	91.1	85.1	87.3	90.9	89.7
Multifactor productivity	80.9	93.7	99.6	95.3	100.0	99.1	96.9	96.7	94.1	97.0	99.6	99.4
Output	54.4	79.9	92.9	88.9	100.0	107.9	106.6	108.4	104.8	110.0	118.9	122.5
Inputs:												
Hours of all persons	77.0	89.6	96.3	92.6	100.0	108.8	108.0	108.8	105.7	107.4	114.0	116.9
Capital services	52.5	77.7	87.6	94.8	100.0	109.0	114.1	119.0	123.2	126.1	130.8	136.6
Combined units of labor and capital input	67.3	85.3	93.3	93.4	100.0	108.9	110.0	112.2	111.4	113.5	119.4	123.3
Capital per hour of all persons	68.2	86.8	91.0	102.3	100.0	100.1	105.6	109.4	116.5	117.4	114.7	116.8
Manufacturing												
Productivity:												
Output per hour of all persons	62.2	80.8	93.4	92.9	100.0	101.4	101.4	103.6	105.9	112.0	116.6	121.7
Output per unit of capital services	102.5	98.6	111.4	90.1	100.0	99.7	91.2	89.2	81.8	86.9	94.4	96.0
Multifactor productivity	71.9	85.2	97.9	92.0	100.0	101.0	98.7	99.8	99.2	105.1	110.7	114.7
Output	52.5	78.6	96.3	84.9	100.0	108.1	103.2	104.8	98.4	104.7	116.0	120.4
Inputs:												
Hours of all persons	84.4	97.3	103.1	91.4	100.0	106.5	101.7	101.1	92.9	93.5	99.5	98.9
Capital services	51.2	79.7	86.4	94.2	100.0	108.4	113.1	117.5	120.3	120.6	122.9	125.4
Combined units of labor and capital inputs	73.0	92.2	98.4	92.2	100.0	107.0	104.5	105.0	99.2	99.7	104.8	105.0
Capital per hour of all persons	60.7	82.0	83.8	103.1	100.0	101.7	111.2	116.2	129.4	129.0	123.6	126.7

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

(1977=100)

Item	1960	1970	1973	1975	1977	1979	1980	1981	1982	1983	1984	1985	1986
Business:													
Output per hour of all persons	67.6	88.4	95.9	95.7	100.0	99.6	99.3	100.7	100.3	103.0	105.3	106.4	107.1
Compensation per hour	33.6	57.8	70.9	85.2	100.0	119.1	131.5	143.7	154.9	161.5	168.1	175.3	180.9
Real compensation per hour	68.9	90.2	96.7	95.9	100.0	99.4	96.7	95.7	97.3	98.2	98.1	98.8	100.0
Unit labor costs	49.7	65.4	73.9	89.0	100.0	119.5	132.5	142.7	154.5	156.8	159.7	164.8	168.8
Unit nonlabor payments	46.4	59.4	72.5	88.2	100.0	112.5	118.7	134.6	136.6	146.3	156.3	159.7	161.8
Implicit price deflator	48.5	63.2	73.4	88.7	100.0	117.0	127.6	139.8	148.1	153.0	158.5	163.0	166.3
Nonfarm business:													
Output per hour of all persons	71.0	89.3	96.4	96.0	100.0	99.3	98.8	99.8	99.2	102.4	104.3	104.8	105.5
Compensation per hour	35.3	58.2	71.2	85.6	100.0	118.9	131.3	143.6	154.8	161.5	167.9	174.6	179.8
Real compensation per hour	72.3	90.8	97.1	96.4	100.0	99.2	96.6	95.7	97.2	98.2	98.0	98.4	99.4
Unit labor costs	49.7	65.2	73.9	89.2	100.0	119.7	132.9	144.0	156.0	157.7	161.0	166.7	170.4
Unit nonlabor payments	46.3	60.0	69.3	86.7	100.0	110.5	118.5	133.5	136.5	148.1	156.1	160.6	163.9
Implicit price deflator	48.5	63.4	72.3	88.3	100.0	116.5	127.8	140.3	149.2	154.3	159.3	164.6	168.1
Nonfinancial corporations:													
Output per hour of all employees	73.4	91.1	97.5	96.7	100.0	99.8	99.1	99.6	100.4	103.5	105.6	106.8	106.9
Compensation per hour	36.9	59.2	71.6	85.9	100.0	118.7	131.1	143.3	154.3	159.9	165.9	172.3	176.5
Real compensation per hour	75.5	92.4	97.6	96.7	100.0	99.1	96.4	95.5	96.9	97.3	96.8	97.0	97.5
Total unit costs	49.4	64.8	72.7	90.3	100.0	118.2	133.4	147.7	159.5	159.5	161.5	165.8	169.1
Unit labor costs	50.2	65.0	73.4	88.8	100.0	119.0	132.3	143.8	153.8	154.5	157.0	161.2	165.0
Unit nonlabor costs	47.0	64.2	70.7	94.9	100.0	115.8	136.7	159.1	176.4	174.3	174.6	179.1	181.2
Unit profits	59.8	52.3	65.6	77.0	100.0	94.5	85.2	98.1	78.5	110.9	133.4	133.1	134.1
Unit nonlabor payments	51.5	60.1	68.9	88.6	100.0	108.4	118.6	137.8	142.1	152.1	160.1	163.0	164.7
Implicit price deflator	50.7	63.3	71.9	88.7	100.0	115.4	127.6	141.7	149.8	153.7	158.1	161.8	164.9
Manufacturing:													
Output per hour of all persons	62.2	80.8	93.4	92.9	100.0	101.4	101.4	103.6	105.9	112.0	116.6	121.7	125.0
Compensation per hour	36.5	57.4	68.8	85.1	100.0	118.6	132.4	145.2	157.5	162.4	168.2	176.7	181.9
Real compensation per hour	74.8	89.5	93.8	95.9	100.0	99.1	97.4	96.7	98.9	98.8	98.1	99.5	100.5
Unit labor costs	58.7	71.0	73.7	91.7	100.0	117.0	130.6	140.1	148.7	145.0	144.2	145.1	145.5
Unit nonlabor payments	60.0	64.1	70.7	87.5	100.0	98.9	97.8	111.8	114.0	128.5	136.9	134.4	–
Implicit price deflator	59.1	69.0	72.8	90.5	100.0	111.7	121.0	131.8	138.6	140.2	142.1	142.0	–

– Data not available.

45. Unemployment rates, approximating U.S. concepts, in nine countries, quarterly data seasonally adjusted

Country	Annual average		1985			1986			
	1985	1986	II	III	IV	I	II	III	IV
Total labor force basis									
United States	7.1	6.9	7.1	7.1	7.0	7.0	7.0	6.8	6.8
Canada	10.4	9.5	10.5	10.2	10.1	9.7	9.5	9.6	9.4
Australia	8.2	8.0	8.4	8.1	7.8	7.8	7.7	8.3	8.3
Japan	2.6	2.8	2.5	2.6	2.9	2.6	2.8	2.9	2.9
France	10.1	10.3	10.1	10.2	10.0	10.1	10.2	10.4	10.4
Germany	7.7	7.4	7.8	7.7	7.7	7.6	7.5	7.3	7.2
Italy [1, 2]	5.9	6.1	5.7	5.8	6.1	6.0	6.0	5.9	6.5
Sweden	2.8	2.6	2.9	2.7	2.7	2.7	2.6	2.6	2.6
United Kingdom	11.3	11.5	11.2	11.3	11.2	11.4	11.6	11.6	11.3
Civilian labor force basis									
United States	7.2	7.0	7.2	7.2	7.1	7.1	7.1	6.9	6.9
Canada	10.5	9.6	10.6	10.2	10.1	9.7	9.6	9.7	9.4
Australia	8.3	8.1	8.5	8.2	7.9	7.8	7.8	8.3	8.4
Japan	2.6	2.8	2.6	2.7	2.9	2.7	2.8	2.9	2.9
France	10.4	10.5	10.4	10.4	10.3	10.3	10.5	10.6	10.6
Germany	7.9	7.5	7.9	7.9	7.8	7.8	7.6	7.5	7.3
Italy[1, 2]	6.0	6.2	5.8	6.0	6.2	6.1	6.1	6.0	6.6
Sweden	2.8	2.7	2.9	2.8	2.7	2.8	2.6	2.6	2.6
United Kingdom	11.3	11.5	11.3	11.3	11.3	11.5	11.7	11.6	11.3

[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 about double the Italian unemployment rate shown.

NOTE: Quarterly figures for France, Germany, and the United Kingdom 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, approximating U.S. concepts, 10 countries

(Numbers in thousands)

Employment status and country	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Labor force										
United States	99,009	102,251	104,962	106,940	108,670	110,204	111,550	113,544	115,461	117,834
Canada	10,500	10,895	11,231	11,573	11,904	11,958	12,183	12,399	12,639	12,870
Australia	6,358	6,443	6,519	6,693	6,810	6,910	6,997	7,133	7,272	7,562
Japan	53,820	54,610	55,210	55,740	56,320	56,980	58,110	58,480	58,820	59,420
France	22,300	22,470	22,670	22,790	22,930	23,150	23,130	23,290	23,310	23,520
Germany	25,870	26,000	26,250	26,520	26,650	26,710	26,740	26,880	27,100	27,300
Italy	20,510	20,570	20,850	21,120	21,320	21,410	21,590	21,670	21,800	21,970
Netherlands	4,950	5,010	5,100	5,310	5,520	5,600	5,730	5,720	5,830	–
Sweden	4,168	4,203	4,262	4,312	4,326	4,350	4,369	4,385	4,418	4,437
United Kingdom	26,050	26,260	26,350	26,520	26,590	26,740	26,780	27,120	27,300	27,310
Participation rate[1]										
United States	62.3	63.2	63.7	63.8	63.9	64.0	64.0	64.4	64.8	65.3
Canada	61.6	62.7	63.4	64.1	64.8	64.1	64.4	64.8	65.2	65.7
Australia	62.7	62.0	61.7	62.2	62.0	61.8	61.5	61.5	61.8	63.0
Japan	62.5	62.8	62.7	62.6	62.6	62.7	63.1	62.7	62.3	62.1
France	57.6	57.5	57.5	57.2	57.1	57.1	56.6	56.6	56.3	56.3
Germany	53.4	53.3	53.3	53.2	52.9	52.7	52.5	52.6	53.2	53.5
Italy	48.2	47.8	48.0	48.2	48.3	47.7	47.5	47.3	47.2	47.5
Netherlands	49.0	48.8	49.0	50.2	51.4	51.5	52.1	51.4	52.1	–
Sweden	65.9	66.1	66.6	67.0	66.8	66.8	66.7	66.6	67.1	67.3
United Kingdom	62.7	62.8	62.6	62.5	62.2	62.3	62.1	62.4	62.6	62.6
Employed										
United States	92,017	96,048	98,824	99,303	100,397	99,526	100,834	105,005	107,150	109,597
Canada	9,651	9,987	10,395	10,708	11,006	10,644	10,734	11,000	11,311	11,634
Australia	6,000	6,038	6,111	6,284	6,416	6,415	6,300	6,490	6,670	6,952
Japan	52,720	53,370	54,040	54,600	55,060	55,620	56,550	56,870	57,260	57,750
France	21,180	21,260	21,300	21,320	21,200	21,230	21,170	20,980	20,890	21,050
Germany	24,970	25,130	25,470	25,750	25,560	25,130	24,750	24,790	24,970	25,240
Italy	19,670	19,720	19,930	20,200	20,280	20,250	20,320	20,390	20,490	20,610
Netherlands	4,700	4,750	4,830	4,980	5,010	4,970	4,900	4,920	5,080	–
Sweden	4,093	4,109	4,174	4,226	4,218	4,213	4,218	4,249	4,293	4,319
United Kingdom	24,400	24,610	24,940	24,670	23,800	23,710	23,600	23,960	24,210	24,160
Employment-population ratio[2]										
United States	57.9	59.3	59.9	59.2	59.0	57.8	57.9	59.5	60.1	60.7
Canada	56.6	57.5	58.7	59.3	59.9	57.0	56.7	57.4	58.4	59.4
Australia	59.2	58.1	57.9	58.4	58.4	57.3	55.4	56.0	56.6	57.9
Japan	61.2	61.3	61.4	61.3	61.2	61.2	61.4	61.0	60.6	60.4
France	54.7	54.4	54.0	53.5	52.8	52.3	51.8	51.0	50.5	50.4
Germany	51.6	51.5	51.7	51.7	50.8	49.6	48.6	48.5	49.0	49.5
Italy	46.3	45.9	45.9	46.1	45.9	45.2	44.7	44.5	44.4	44.6
Netherlands	46.5	46.3	46.4	47.0	46.6	45.7	44.6	44.2	45.4	–
Sweden	64.8	64.6	65.3	65.6	65.1	64.7	64.4	64.6	65.2	65.5
United Kingdom	58.7	58.8	59.2	58.1	55.7	55.3	54.7	55.2	55.5	55.4
Unemployed										
United States	6,991	6,202	6,137	7,637	8,273	10,678	10,717	8,539	8,312	8,237
Canada	849	908	836	865	898	1,314	1,448	1,399	1,328	1,236
Australia	358	405	408	409	394	495	697	642	602	610
Japan	1,100	1,240	1,170	1,140	1,260	1,360	1,560	1,610	1,560	1,670
France	1,120	1,210	1,370	1,470	1,730	1,920	1,960	2,310	2,420	2,470
Germany	900	870	780	770	1,090	1,580	1,990	2,090	2,130	2,060
Italy	840	850	920	920	1,040	1,160	1,270	1,280	1,310	1,360
Netherlands	250	260	270	330	510	630	830	800	750	–
Sweden	75	94	88	86	108	137	151	136	125	118
United Kingdom	1,660	1,650	1,420	1,850	2,790	3,040	3,180	3,170	3,090	3,150
Unemployment rate										
United States	7.1	6.1	5.8	7.1	7.6	9.7	9.6	7.5	7.2	7.0
Canada	8.1	8.3	7.4	7.5	7.5	11.0	11.9	11.3	10.5	9.6
Australia	5.6	6.3	6.3	6.1	5.8	7.2	10.0	9.0	8.3	8.1
Japan	2.0	2.3	2.1	2.0	2.2	2.4	2.7	2.8	2.6	2.8
France	5.0	5.4	6.0	6.4	7.5	8.3	8.5	9.9	10.4	10.5
Germany	3.5	3.4	3.0	2.9	4.1	5.9	7.4	7.8	7.9	7.5
Italy	4.1	4.1	4.4	4.4	4.9	5.4	5.9	5.9	6.0	6.2
Netherlands	5.1	5.2	5.3	6.2	9.2	11.3	14.5	14.0	12.9	–
Sweden	1.8	2.2	2.1	2.0	2.5	3.1	3.5	3.1	2.8	2.7
United Kingdom	6.4	6.3	5.4	7.0	10.5	11.8	11.9	11.7	11.3	11.5

[1] Labor force as a percent of the civilian working-age population.
[2] Employment as a percent of the civilian working-age population.
– Data not available.

47. Annual indexes of manufacturing productivity and related measures, 12 countries

(1977=100)

Item and country	1960	1970	1973	1974	1975	1976	1978	1979	1980	1981	1982	1983	1984	1985
Output per hour														
United States	62.2	80.8	93.4	90.6	92.9	97.1	101.5	101.4	101.4	103.6	105.9	112.0	116.6	121.7
Canada	50.3	76.8	91.3	93.4	91.0	96.2	101.4	104.2	101.9	104.0	101.0	107.6	111.5	115.1
Japan	23.2	64.8	83.1	86.5	87.7	94.3	108.0	114.8	122.7	127.2	135.0	142.3	152.2	159.9
Belgium	32.8	59.9	78.2	82.6	85.9	95.1	106.3	112.3	119.7	128.1	135.7	144.7	149.8	156.7
Denmark	37.2	65.5	83.2	86.0	94.6	98.2	101.5	106.5	112.3	114.2	114.6	117.0	118.2	119.1
France	36.4	69.6	82.2	85.2	88.5	95.0	105.7	110.3	112.0	116.4	123.5	128.8	133.8	138.3
Germany	40.3	71.2	84.0	87.4	90.1	96.5	103.1	108.2	108.6	111.0	112.6	119.1	123.5	130.4
Italy	36.5	72.7	90.9	95.3	91.1	98.9	103.0	110.5	116.9	121.0	123.4	126.6	133.5	137.6
Netherlands	32.4	64.3	81.5	88.1	86.2	95.8	106.4	112.3	113.9	116.9	119.4	127.5	141.2	145.6
Norway	54.6	81.7	94.6	97.7	96.8	99.7	101.8	107.1	106.7	107.0	109.8	116.3	119.3	120.5
Sweden	42.3	80.7	94.8	98.8	100.2	101.7	102.8	110.9	112.7	113.2	116.5	125.5	131.0	134.5
United Kingdom	55.4	79.9	95.7	97.2	95.3	99.6	101.5	102.6	102.1	107.5	113.2	121.5	126.9	131.3
Output														
United States	52.5	78.6	96.3	91.7	84.9	93.1	106.0	108.1	103.2	104.8	98.4	104.7	116.0	120.4
Canada	41.5	75.1	94.6	98.0	92.3	98.1	104.9	110.9	107.7	108.8	96.4	101.7	110.1	115.2
Japan	19.2	69.9	91.9	91.7	86.2	94.8	106.7	113.9	124.1	129.8	137.3	148.2	165.2	175.8
Belgium	41.6	78.0	95.7	99.5	92.0	99.4	101.6	104.4	107.3	106.0	110.5	112.1	114.1	115.1
Denmark	49.2	82.0	95.9	97.4	95.0	99.6	99.7	105.4	110.1	106.6	108.3	111.9	118.4	124.7
France	35.4	73.3	88.6	91.8	90.0	96.1	103.4	106.1	106.6	105.9	106.0	107.4	108.4	108.6
Germany	50.0	86.6	96.1	95.4	91.0	98.0	101.8	106.6	106.6	104.9	102.4	103.6	106.4	111.7
Italy	37.4	78.0	90.5	96.3	86.9	97.9	101.8	108.6	115.4	114.3	111.6	109.2	113.2	115.3
Netherlands	44.8	84.4	95.8	100.0	92.7	99.0	102.8	106.1	106.6	106.7	105.0	107.0	112.9	115.3
Norway	55.1	86.9	99.5	104.0	101.0	101.4	98.2	100.3	98.8	97.7	97.4	96.4	98.8	101.2
Sweden	52.6	92.5	100.3	105.7	106.1	106.1	97.3	103.6	104.0	100.6	100.1	105.2	111.5	113.8
United Kingdom	71.2	95.0	104.8	103.5	96.3	98.2	100.6	100.5	91.7	86.2	86.4	88.9	92.4	95.3
Total hours														
United States	84.4	97.3	103.1	101.2	91.4	95.9	104.4	106.5	101.7	101.1	92.9	93.5	99.5	98.9
Canada	82.6	97.7	103.6	105.0	101.4	102.0	103.4	106.4	105.7	104.6	95.4	94.6	98.7	100.1
Japan	82.7	107.9	110.7	106.1	98.2	100.6	98.8	99.3	101.2	102.0	101.7	104.2	108.5	110.0
Belgium	127.1	130.2	122.3	120.4	107.1	104.6	95.5	93.0	89.6	82.8	81.4	77.5	76.2	73.5
Denmark	132.4	125.1	115.2	113.2	100.4	101.4	98.3	99.0	98.1	93.4	94.5	95.7	100.2	104.7
France	97.2	105.3	107.8	107.8	101.7	101.2	97.8	96.2	95.2	91.0	85.8	83.4	81.0	78.6
Germany	123.8	121.7	114.4	109.2	101.0	101.6	98.7	98.5	98.1	94.6	91.0	87.0	86.2	85.7
Italy	102.3	107.4	99.6	101.0	95.4	99.0	98.8	98.2	98.7	94.5	90.4	86.2	84.8	83.8
Netherlands	138.4	131.2	117.6	113.5	107.6	103.3	96.6	94.4	93.6	91.2	88.0	83.9	79.9	79.2
Norway	101.0	106.4	105.1	106.5	104.3	101.7	96.5	93.6	92.6	91.3	88.6	82.9	82.8	84.0
Sweden	124.4	114.6	105.7	107.0	105.9	104.3	94.6	93.4	92.3	88.9	85.9	83.9	85.1	84.6
United Kingdom	128.5	118.9	109.5	106.5	101.1	98.6	99.2	98.0	89.9	80.3	76.3	73.2	72.8	72.6
Compensation per hour														
United States	36.5	57.3	68.8	76.2	85.1	92.1	108.2	118.6	132.4	145.2	157.5	162.4	168.2	176.7
Canada	27.1	46.5	59.2	68.5	78.2	89.9	106.7	118.3	130.6	151.5	167.1	179.3	182.1	191.4
Japan	8.9	33.9	55.1	72.3	84.2	90.7	106.6	113.4	120.7	129.8	136.6	140.7	144.8	148.3
Belgium	13.8	34.9	53.5	65.2	79.0	89.5	107.8	117.5	130.4	144.5	150.7	159.8	173.1	181.4
Denmark	12.6	36.3	56.1	67.9	81.0	90.4	110.2	123.1	135.9	149.6	162.9	174.3	184.0	194.2
France	15.1	36.6	52.3	62.0	76.7	88.9	113.5	129.3	148.2	171.5	202.3	227.0	246.9	261.4
Germany	18.8	48.0	67.5	76.9	84.5	91.3	107.8	116.1	125.6	134.5	141.0	148.4	155.5	164.9
Italy	8.3	26.1	43.7	54.5	70.2	84.2	114.5	134.7	160.2	197.1	237.3	276.4	299.7	330.4
Netherlands	12.5	39.0	60.5	71.9	82.2	91.9	108.4	117.0	123.6	129.1	137.5	144.0	151.0	159.0
Norway	15.8	37.9	54.5	63.6	77.2	88.8	110.0	116.0	128.0	142.8	156.0	173.5	188.3	202.7
Sweden	14.7	38.5	54.2	63.8	77.3	91.5	111.4	120.1	133.6	148.1	158.9	173.3	189.7	208.9
United Kingdom	15.2	31.5	48.3	57.8	77.4	89.4	116.4	138.8	168.6	193.0	212.6	227.9	244.2	262.0
Unit labor costs: National currency basis														
United States	58.7	70.9	73.7	84.1	91.7	94.9	106.6	117.0	130.6	140.1	148.7	145.0	144.2	145.1
Canada	53.9	60.6	64.8	73.3	86.0	93.5	105.3	113.5	128.1	145.7	165.4	166.7	163.2	166.3
Japan	38.4	52.3	66.4	83.6	96.0	96.2	98.7	98.8	98.4	102.0	101.2	98.9	95.1	92.7
Belgium	42.0	58.2	68.4	78.9	91.9	94.2	101.4	104.7	109.0	112.8	111.1	110.5	115.6	115.8
Denmark	33.8	55.4	67.4	79.0	85.6	92.1	108.6	115.7	121.0	131.1	142.2	149.0	155.6	163.1
France	41.6	52.6	63.6	72.8	86.7	93.6	107.4	117.3	132.3	147.4	163.8	176.2	184.5	189.1
Germany	46.6	67.4	80.3	88.0	93.8	94.6	104.5	107.3	115.7	121.2	125.2	124.6	125.9	126.5
Italy	22.8	36.0	48.1	57.2	77.1	85.1	111.2	121.9	137.0	162.9	192.4	218.3	224.5	240.1
Netherlands	38.5	60.7	74.3	81.6	95.4	96.0	101.8	104.1	108.5	110.4	115.2	113.0	106.9	109.2
Norway	29.0	46.4	57.6	65.2	79.7	89.1	108.1	108.2	120.0	133.4	142.1	149.2	157.8	168.3
Sweden	34.8	47.7	57.2	64.6	77.1	90.0	108.4	108.3	118.6	130.9	136.3	138.1	144.8	155.3
United Kingdom	27.4	39.4	50.4	59.5	81.2	89.8	114.7	135.3	165.1	179.6	187.7	187.6	192.4	199.6
Unit labor costs: U.S. dollar basis														
United States	58.7	70.9	73.7	84.1	91.7	94.9	106.6	117.0	130.6	140.1	148.7	145.0	144.2	145.1
Canada	59.0	61.7	68.8	79.7	89.8	100.7	98.1	103.0	116.4	129.1	142.3	143.7	133.9	129.4
Japan	28.5	39.1	65.6	76.8	86.7	86.9	126.8	121.3	116.8	123.8	108.8	111.5	107.2	104.2
Belgium	30.2	42.0	63.1	72.7	89.7	87.5	115.6	127.9	133.7	109.2	86.9	77.4	71.7	69.9
Denmark	29.5	44.4	67.2	77.9	89.6	91.5	118.4	132.0	129.0	110.3	102.3	97.7	90.2	92.4
France	41.7	46.8	70.4	74.5	99.5	96.3	117.3	135.5	154.1	133.2	122.4	113.7	103.8	103.5
Germany	25.9	42.9	70.4	79.1	88.7	87.3	121.0	135.9	147.9	124.9	119.7	113.3	102.7	99.8
Italy	32.5	50.6	73.1	77.6	104.3	90.5	115.6	129.5	141.4	126.3	125.4	126.8	112.8	111.1
Netherlands	25.1	41.2	65.6	74.6	92.8	89.1	115.7	127.4	134.2	108.9	105.8	97.1	81.8	80.7
Norway	21.7	34.5	53.4	62.8	81.4	86.9	109.7	113.8	129.3	123.6	117.1	108.7	102.9	104.2
Sweden	30.1	41.1	58.7	65.1	83.2	92.3	107.2	112.9	125.3	115.4	96.9	80.4	78.2	80.6
United Kingdom	44.1	54.1	70.8	79.7	103.3	92.8	126.1	164.6	220.1	208.4	188.1	163.0	147.4	148.4

– 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	1985
PRIVATE SECTOR[3]									
Total cases	9.3	9.4	9.5	8.7	8.3	7.7	7.6	8.0	7.9
Lost workday cases	3.8	4.1	4.3	4.0	3.8	3.5	3.4	3.7	3.6
Lost workdays	61.6	63.5	67.7	65.2	61.7	58.7	58.5	63.4	64.9
Agriculture, forestry, and fishing[3]									
Total cases	11.5	11.6	11.7	11.9	12.3	11.8	11.9	12.0	11.4
Lost workday cases	5.1	5.4	5.7	5.8	5.9	5.9	6.1	6.1	5.7
Lost workdays	81.1	80.7	83.7	82.7	82.8	86.0	90.8	90.7	91.3
Mining									
Total cases	10.9	11.5	11.4	11.2	11.6	10.5	8.4	9.7	8.4
Lost workday cases	6.0	6.4	6.8	6.5	6.2	5.4	4.5	5.3	4.8
Lost workdays	128.8	143.2	150.5	163.6	146.4	137.3	125.1	160.2	145.3
Construction									
Total cases	15.5	16.0	16.2	15.7	15.1	14.6	14.8	15.5	15.2
Lost workday cases	5.9	6.4	6.8	6.5	6.3	6.0	6.3	6.9	6.8
Lost workdays	111.5	109.4	120.4	117.0	113.1	115.7	118.2	128.1	128.9
General building contractors:									
Total cases	15.0	15.9	16.3	15.5	15.1	14.1	14.4	15.4	15.2
Lost workday cases	5.7	6.3	6.8	6.5	6.1	5.9	6.2	6.9	6.8
Lost workdays	100.2	105.3	111.2	113.0	107.1	112.0	113.0	121.3	120.4
Heavy construction contractors:									
Total cases	16.0	16.6	16.6	16.3	14.9	15.1	15.4	14.9	14.5
Lost workday cases	5.7	6.2	6.7	6.3	6.0	5.8	6.2	6.4	6.3
Lost workdays	116.7	110.9	123.1	117.6	106.0	113.1	122.4	131.7	127.3
Special trade contractors:									
Total cases	15.6	15.8	16.0	15.5	15.2	14.7	14.8	15.8	15.4
Lost workday cases	6.1	6.6	6.9	6.7	6.6	6.2	6.4	7.1	7.0
Lost workdays	115.5	111.0	124.3	118.9	119.3	118.6	119.0	130.1	133.3
Manufacturing									
Total cases	13.1	13.2	13.3	12.2	11.5	10.2	10.0	10.6	10.4
Lost workday cases	5.1	5.6	5.9	5.4	5.1	4.4	4.3	4.7	4.6
Lost workdays	82.3	84.9	90.2	86.7	82.0	75.0	73.5	77.9	80.2
Durable goods									
Lumber and wood products:									
Total cases	22.3	22.6	20.7	18.6	17.6	16.9	18.3	19.6	18.5
Lost workday cases	10.4	11.1	10.8	9.5	9.0	8.3	9.2	9.9	9.3
Lost workdays	178.0	178.8	175.9	171.8	158.4	153.3	163.5	172.0	171.4
Furniture and fixtures:									
Total cases	17.2	17.5	17.6	16.0	15.1	13.9	14.1	15.3	15.0
Lost workday cases	6.0	6.9	7.1	6.6	6.2	5.5	5.7	6.4	6.3
Lost workdays	92.0	95.9	99.6	97.6	91.9	85.6	83.0	101.5	100.4
Stone, clay, and glass products:									
Total cases	16.9	16.8	16.8	15.0	14.1	13.0	13.1	13.6	13.9
Lost workday cases	6.9	7.8	8.0	7.1	6.9	6.1	6.0	6.6	6.7
Lost workdays	120.4	126.3	133.7	128.1	122.2	112.2	112.0	120.8	127.8
Primary metal industries:									
Total cases	16.2	17.0	17.3	15.2	14.4	12.4	12.4	13.3	12.6
Lost workday cases	6.8	7.5	8.1	7.1	6.7	5.4	5.4	6.1	5.7
Lost workdays	119.4	123.6	134.7	128.3	121.3	101.6	103.4	115.3	113.8
Fabricated metal products:									
Total cases	19.1	19.3	19.9	18.5	17.5	15.3	15.1	16.1	16.3
Lost workday cases	7.2	8.0	8.7	8.0	7.5	6.4	6.1	6.7	6.9
Lost workdays	109.0	112.4	124.2	118.4	109.9	102.5	96.5	104.9	110.1
Machinery, except electrical:									
Total cases	14.0	14.4	14.7	13.7	12.9	10.7	9.8	10.7	10.8
Lost workday cases	4.7	5.4	5.9	5.5	5.1	4.2	3.6	4.1	4.2
Lost workdays	69.9	75.1	83.6	81.3	74.9	66.0	58.1	65.8	69.3
Electric and electronic equipment:									
Total cases	8.6	8.7	8.6	8.0	7.4	6.5	6.3	6.8	6.4
Lost workday cases	3.0	3.3	3.4	3.3	3.1	2.7	2.6	2.8	2.7
Lost workdays	46.7	50.3	51.9	51.8	48.4	42.2	41.4	45.0	45.7
Transportation equipment:									
Total cases	11.8	11.5	11.6	10.6	9.8	9.2	8.4	9.3	9.0
Lost workday cases	5.0	5.1	5.5	4.9	4.6	4.0	3.6	4.2	3.9
Lost workdays	79.3	78.0	85.9	82.4	78.1	72.2	64.5	68.8	71.6
Instruments and related products:									
Total cases	7.0	6.9	7.2	6.8	6.5	5.6	5.2	5.4	5.2
Lost workday cases	2.4	2.6	2.8	2.7	2.7	2.3	2.1	2.2	2.2
Lost workdays	37.4	37.0	40.0	41.8	39.2	37.0	35.6	37.5	37.9
Miscellaneous manufacturing industries:									
Total cases	11.5	11.8	11.7	10.9	10.7	9.9	9.9	10.5	9.7
Lost workday cases	4.0	4.5	4.7	4.4	4.4	4.1	4.0	4.3	4.2
Lost workdays	58.7	66.4	67.7	67.9	68.3	69.9	66.3	70.2	73.2

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	1985
Nondurable goods									
Food and kindred products:									
Total cases	19.5	19.4	19.9	18.7	17.8	16.7	16.5	16.7	16.7
Lost workday cases	8.5	8.9	9.5	9.0	8.6	8.0	7.9	8.1	8.1
Lost workdays	130.1	132.2	141.8	136.8	130.7	129.3	131.2	131.6	138.0
Tobacco manufacturing:									
Total cases	9.1	8.7	9.3	8.1	8.2	7.2	6.5	7.7	7.3
Lost workday cases	3.8	4.0	4.2	3.8	3.9	3.2	3.0	3.2	3.0
Lost workdays	66.7	58.6	64.8	45.8	56.8	44.6	42.8	51.7	51.7
Textile mill products:									
Total cases	10.2	10.2	9.7	9.1	8.8	7.6	7.4	8.0	7.5
Lost workday cases	2.9	3.4	3.4	3.3	3.2	2.8	2.8	3.0	3.0
Lost workdays	57.4	61.5	61.3	62.8	59.2	53.8	51.4	54.0	57.4
Apparel and other textile products:									
Total cases	6.7	6.5	6.5	6.4	6.3	6.0	6.4	6.7	6.7
Lost workday cases	2.0	2.2	2.2	2.2	2.2	2.1	2.4	2.5	2.6
Lost workdays	31.7	32.4	34.1	34.9	35.0	36.4	40.6	40.9	44.1
Paper and allied products:									
Total cases	13.6	13.5	13.5	12.7	11.6	10.6	10.0	10.4	10.2
Lost workday cases	5.0	5.7	6.0	5.8	5.4	4.9	4.5	4.7	4.7
Lost workdays	101.6	103.3	108.4	112.3	103.6	99.1	90.3	93.8	94.6
Printing and publishing:									
Total cases	6.8	7.0	7.1	6.9	6.7	6.6	6.6	6.5	6.3
Lost workday cases	2.7	2.9	3.1	3.1	3.0	2.8	2.9	2.9	2.9
Lost workdays	41.7	43.8	45.1	46.5	47.4	45.7	44.6	46.0	49.2
Chemicals and allied products:									
Total cases	8.0	7.8	7.7	6.8	6.6	5.7	5.5	5.3	5.1
Lost workday cases	3.1	3.3	3.5	3.1	3.0	2.5	2.5	2.4	2.3
Lost workdays	51.4	50.9	54.9	50.3	48.1	39.4	42.3	40.8	38.8
Petroleum and coal products:									
Total cases	8.1	7.9	7.7	7.2	6.7	5.3	5.5	5.1	5.1
Lost workday cases	3.3	3.4	3.6	3.5	2.9	2.5	2.4	2.4	2.4
Lost workdays	59.2	58.3	62.0	59.1	51.2	46.4	46.8	53.5	49.9
Rubber and miscellaneous plastics products:									
Total cases	16.8	17.1	17.1	15.5	14.6	12.7	13.0	13.6	13.4
Lost workday cases	7.6	8.1	8.2	7.4	7.2	6.0	6.2	6.4	6.3
Lost workdays	118.1	125.5	127.1	118.6	117.4	100.9	101.4	104.3	107.4
Leather and leather products:									
Total cases	11.5	11.7	11.5	11.7	11.5	9.9	10.0	10.5	10.3
Lost workday cases	4.4	4.7	4.9	5.0	5.1	4.5	4.4	4.7	4.6
Lost workdays	68.9	72.5	76.2	82.7	82.6	86.5	87.3	94.4	88.3
Transportation and public utilities									
Total cases	9.7	10.1	10.0	9.4	9.0	8.5	8.2	8.8	8.6
Lost workday cases	5.3	5.7	5.9	5.5	5.3	4.9	4.7	5.2	5.0
Lost workdays	95.9	102.3	107.0	104.5	100.6	96.7	94.9	105.1	107.1
Wholesale and retail trade									
Total cases	7.7	7.9	8.0	7.4	7.3	7.2	7.2	7.4	7.4
Lost workday cases	2.9	3.2	3.4	3.2	3.1	3.1	3.1	3.3	3.2
Lost workdays	44.0	44.9	49.0	48.7	45.3	45.5	47.8	50.5	50.7
Wholesale trade:									
Total cases	8.5	8.9	8.8	8.2	7.7	7.1	7.0	7.2	7.2
Lost workday cases	3.6	3.9	4.1	3.9	3.6	3.4	3.2	3.5	3.5
Lost workdays	52.5	57.5	59.1	58.2	54.7	52.1	50.6	55.5	59.8
Retail trade:									
Total cases	7.4	7.5	7.7	7.1	7.1	7.2	7.3	7.5	7.5
Lost workday cases	2.7	2.8	3.1	2.9	2.9	2.9	3.0	3.2	3.1
Lost workdays	40.5	39.7	44.7	44.5	41.1	42.6	46.7	48.4	47.0
Finance, insurance, and real estate									
Total cases	2.0	2.1	2.1	2.0	1.9	2.0	2.0	1.9	2.0
Lost workday cases	.8	.8	.9	.8	.8	.9	.9	.9	.9
Lost workdays	10.4	12.5	13.3	12.2	11.6	13.2	12.8	13.6	15.4
Services									
Total cases	5.5	5.5	5.5	5.2	5.0	4.9	5.1	5.2	5.4
Lost workday cases	2.2	2.4	2.5	2.3	2.3	2.3	2.4	2.5	2.6
Lost workdays	35.4	36.2	38.1	35.8	35.9	35.8	37.0	41.1	45.4

[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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