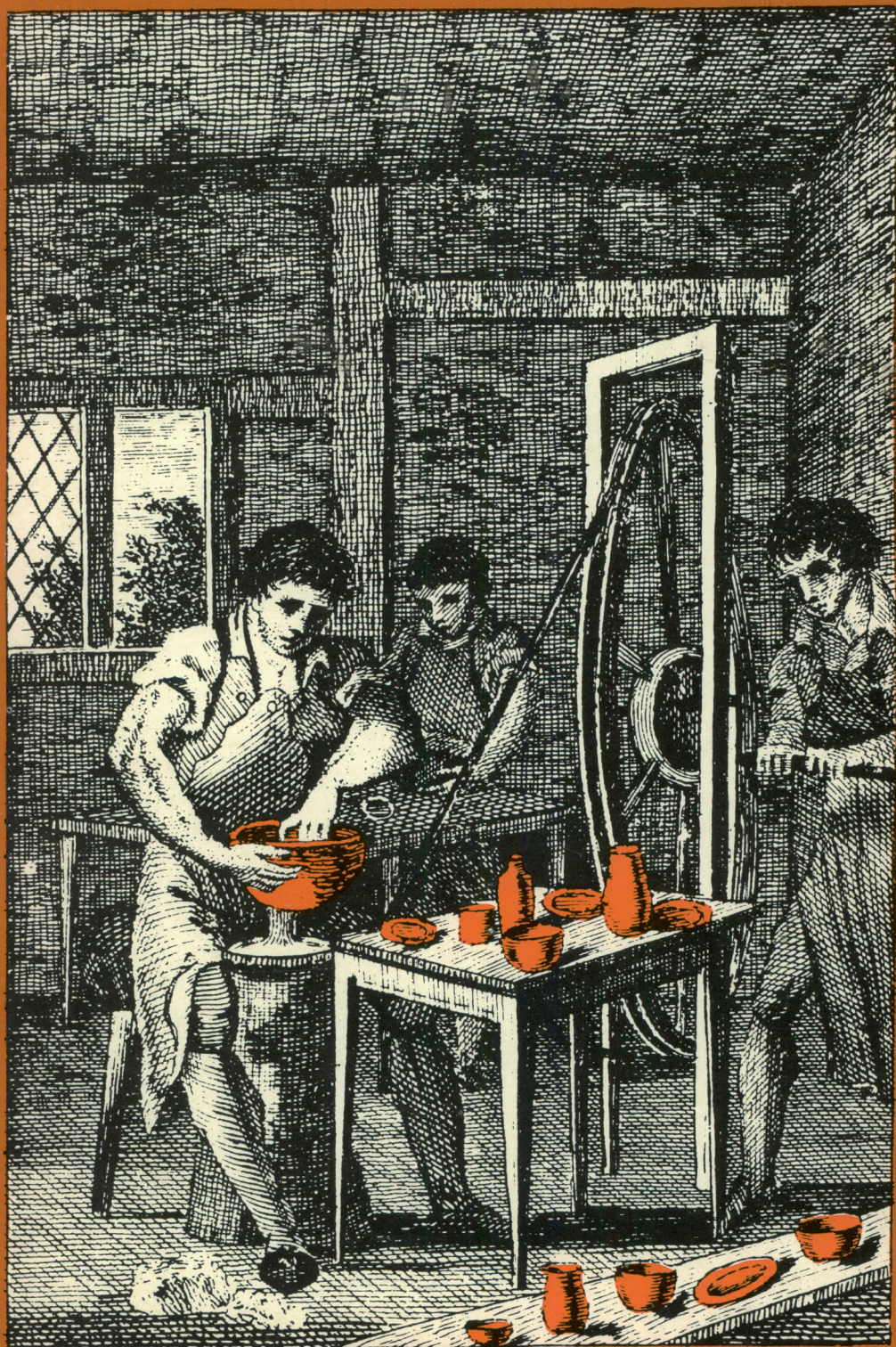


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U.S. Department of Labor
Bureau of Labor Statistics
April 1985

In this issue:
Inflation in 1984
Imports and exports in 1984
Revision of the Consumer Price Index





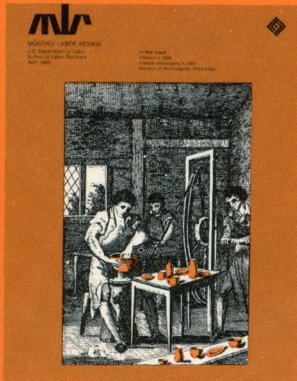
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BUREAU OF LABOR STATISTICS
Janet L. Norwood, *Commissioner*

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MONTHLY LABOR REVIEW

APRIL 1985
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Henry Lowenstern, Editor-in-Chief
Robert W. Fisher, Executive Editor

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Labor Month In Review



DATA NEEDS. What do current labor market data tell us about the data needs of the future? Commissioner of Labor Statistics Janet L. Norwood offered some answers to that question in an address to the First Annual Census Research Conference, March 21, in Reston, Va. Excerpts:

Service sector. Throughout the last 4 decades, job growth has been primarily concentrated in the service-producing sector of the economy. In February, employment in the nonagricultural goods-producing sector was only about $\frac{1}{3}$ of that in the service-producing sector. Yet there are 100 more 4-digit SIC industries in the goods-producing sector than in the service-producing sector. The fastest growing industry within the service-producing sector is services, with a seasonally adjusted February employment level of 21.3 million, but with 131 4-digit SIC industries. Manufacturing, on the other hand, with a February employment level of 19.7 million had 452 separate industry codes. Clearly adjustment is in order. This could be done far more efficiently if the statistical system had data-sharing arrangements and with some front-end capital investment in computer-matching programming.

Local area data. We all know that Local Area Unemployment Statistics are difficult to produce with accuracy. BLS has made a number of improvements in the system, through use of the Current Population Survey and changes in use of administrative data. Even the establishment of standards for use of CPS data is a difficult task. BLS has used the sampling error of CPS series to develop minimum standards, but a great deal more work is needed in this field.

Even in a survey of such high quality as the CPS, response rates differ considerably from one sampling area to another. It is becoming increasingly difficult to get cooperation from central city residents in such places as New York City, Chicago, Miami, and Los Angeles. Moreover, turnover among interviewers is relatively high in some central cities, and error rates among new interviewers are always considerably greater than among more seasoned ones. The impact of this trend came home to us recently when we were forced to cancel plans to expand samples in New York and Los Angeles because of operational problems and constraints in resources to deal with them. Efforts to deal with these issues have not been successful thus far. The need is critical. We must undertake a serious new effort—involving new approaches to data collection perhaps through computer assisted telecommunications interviews as well as methods for upgrading the status of Census Bureau data collectors—as rapidly as possible.

Longitudinal data. If we are to understand the problems of unemployment, we will need to know more about the job experience and labor market attachment of the unemployed members of groups who have difficulty in the labor market. One way to do this is to exploit better than we have done in the past the longitudinal capability of the CPS.

The rotation pattern of the CPS (a household is in the sample for 4 months, out for 8 and back in for 4 months) makes it possible to follow the labor market experience of individual respondents over a period of as many as 16 months. But this effort, like the related problems with the gross flow

data, is seriously hampered by inaccurate coding, errors in classification, and the lack of identifiers on many CPS observations. The CPS has been treated each month as a new set of cross sectional data. We should begin to rethink our whole concept of that survey and take steps to improve the coding and processing to take account of the longitudinal character of the CPS data base.

Testing CPS questions. We must somehow find a way to test changes in questionnaire content and design. Although a Presidentially appointed Commission made a recommendation nearly 6 years ago to change the definition of discouraged workers—a change that was accepted by two Secretaries of Labor—we are no closer to implementation in 1985 than we were in 1979. We do not want to risk generating uncertain results in the CPS by the use of new probing questions to refine concepts without an adequate period of testing and overlap. Yet, labor market conditions change very rapidly. While we must maintain sufficient uniformity to protect statistical time series, the avoidance of all change will not ensure that our data remain relevant to current conditions. A sizable panel of households—perhaps as large as 10,000—should be established to test changes in questionnaire content and design. Unless we do so, we will never be able to change our questions to keep our data current.

The problems I have cited are increasingly evident in the data on employment and unemployment BLS issues each month. I look forward to a joint BLS-Census research agenda that will address them. □

Inflation remained low during 1984

Consumer prices rose only 4.0 percent in 1984, marking the third straight year of moderation; producer prices rose only 1.8 percent

CRAIG HOWELL AND WILLIAM THOMAS

In 1984, a variety of factors reinforced each other to hold inflation substantially in check as was the case in 1983:

- Good harvests for many agricultural crops, both in the United States and abroad;
- Continued weakness in world commodity markets for energy and many basic industrial materials;
- The unusually high value of the U.S. dollar in international currency markets, which encouraged a surge of imports that averted production and labor bottlenecks by siphoning off much of the upswing in domestic demand;
- Weak export demand for most U.S.-made goods, also caused in large part by the strength of the dollar;
- An excellent year for domestic capital investment projects designed to expand capacity with demand;
- Solid U.S. productivity improvements and general wage restraint, both of which held down rises in unit labor costs;
- American monetary policies which gave high priority to maintaining a low rate of inflation; and
- The slowing of the domestic economic expansion in the latter half of the year.

As a result, inflation in 1984 at both the retail and the producer levels rose at a rate of less than 5 percent for the third consecutive year. This moderate performance coincided with the second year of strong economic recovery from a recession that ended in late 1982.

Craig Howell and William Thomas are economists in the Office of Prices and Living Conditions, Bureau of Labor Statistics. They were assisted by Doug Robertson, Andrew Clem, Eddie Lamb, Jessie Thomas, Tom Mosimann, and Mary Lynn Schmidt, economists in the same office.

The 4.0-percent increase in the Consumer Price Index for All Urban Consumers (CPI-U) for the 12-month period ended in December 1984 followed increases of 3.9 percent in 1982 and 3.8 percent in 1983. (See table 1.) While the overall increases were virtually the same in each of the 3 years, the composition of the change was different each year. Specifically, the moderation became more broadly based with each successive year. In 1982, declines in energy commodities—motor fuel, fuel oil, coal, and bottled gas—and small increases in grocery store foods and shelter costs were largely responsible for reducing the all-items increase from 8.9 percent in 1981 to 3.9 percent in 1982. The following tabulation shows the annual increases for selected groupings of CPI expenditure classes, December 1981–84:

	1981	1982	1983	1984
All items	8.9	3.9	3.8	4.0
Food at home, shelter, and energy commodities	8.5	1.3	2.4	3.5
All items less food at home, shelter, and energy commodities	9.5	6.6	4.8	4.3

After rising 8.5 percent in 1981, the combination of the food, energy commodity, and shelter components decelerated sharply, increasing only 1.3 percent in 1982. All other items in the CPI also moderated that year, but not so sharply, posting an average increase of 6.6 percent after advancing 9.5 percent in 1981. In 1983, the energy commodities, grocery store foods, and shelter grouping advanced 2.4 percent while all other items in the CPI slowed down further

to a 4.8-percent increase. By 1984, the variance in the behavior of the two groups had further diminished: The energy commodities, grocery store foods, and shelter combination increased 3.5 percent, while all other CPI items advanced 4.3 percent.

The Producer Price Index (PPI) for Finished Goods moved up 1.8 percent from December 1983 to December 1984, following an even smaller increase of 0.6 percent in 1983 and a 3.7-percent advance in 1982. Consumer food price increases accelerated modestly, from a 2.3-percent increase in 1983 to 3.8 percent in 1984. Prices for finished energy goods continued to drop (-4.1 percent), although by less than half as much as in 1983: -9.2 percent. Prices received by producers of other kinds of finished goods rose 2.2 percent in 1984, slightly more than the 1.8-percent increase in 1983 but considerably less than 1982's 4.9 percent. (See table 2.)

The 1984 inflation record at earlier stages of processing was also encouraging. The Intermediate Goods Price Index increased 1.3 percent, compared with 1.8 percent a year earlier. This index rose at a seasonally adjusted annual rate of 3.2 percent in the first half of 1984, when the general

economic expansion maintained the exceptionally fast pace of 1983. The ensuing slowdown in the economy was reflected in the 0.6-percent rate of decline in this index during the latter half of the year. Crude material prices, which had advanced 4.7 percent from December 1982 to December 1983, fell 1.3 percent in 1984. This reversal resulted from drops in the indexes for foodstuffs and sensitive industrial materials, both of which had advanced substantially during 1983.

In this article, we will next examine price changes during 1984 for all major expenditure categories within the Consumer Price Index. Then we will focus on price changes for those components of the Producer Price Index which do not overlap with categories of the CPI. (Price movements for consumer energy goods—gasoline, home heating oil, and natural gas—are discussed at both the retail and the producer market levels because of important distinctions between what affects the CPI and what affects the PPI for those items.)

Consumer prices: food and housing

Food and beverages. The food and beverage component

Table 1. Percent changes in selected consumer price indexes (CPI-U), 1982-1984

Index	Relative importance, Dec. 1984	Percent change			Contribution			Compound annual rate, seasonally adjusted except as noted, for 3 months ended—			
		Dec. 1981 to Dec. 1982	Dec. 1982 to Dec. 1983	Dec. 1983 to Dec. 1984	Dec. 1981 to Dec. 1982	Dec. 1982 to Dec. 1983	Dec. 1983 to Dec. 1984	1984			
								March	June	Sept.	Dec.
All Items	100.0	3.9	3.8	4.0	100.0	100.0	100.0	5.4	3.2	4.5	3.0
Food	18.7	3.1	2.6	3.8	13.4	12.9	18.0	8.4	- .5	3.9	3.7
Commodities less food and energy	26.3	5.8	5.0	3.1	48.8	34.4	20.6	3.8	3.9	3.8	0.9
Energy	11.5	1.3	- .5	.2	3.7	-1.5	.6	1.2	.3	0.1	-.7
Energy commodities	6.8	-5.0	-3.2	-1.9	—	—	-3.4	.8	-3.3	-7.9	3.4
Energy services	4.7	14.1	4.1	3.4	—	—	4.0	1.8	5.9	13.2	-6.3
Services less energy	43.5	3.4	4.8	5.6	34.1	54.2	60.7	6.0	5.2	6.2	5.0
All Items	100.0	3.9	3.8	4.0	100.0	100.0	100.0	5.4	3.2	4.5	3.0
Services	48.2	4.3	4.8	5.4	47.5	59.2	64.7	5.4	5.4	6.9	3.9
Commodities	51.8	3.6	2.9	2.6	52.5	40.8	35.3	5.0	1.3	2.2	2.3
All Items	100.0	3.9	3.8	4.0	100.0	100.0	100.0	5.4	3.2	4.5	3.0
Food and beverages	19.8	3.2	2.7	3.7	14.4	13.9	18.8	8.0	- .3	3.7	3.8
Food at home	12.6	2.2	1.9	3.6	6.6	6.8	11.6	10.5	-3.0	4.1	3.5
Food away from home	6.1	5.0	4.1	4.2	6.8	6.6	6.4	4.1	4.7	3.5	4.6
Alcoholic beverages	1.1	4.0	3.4	2.7	1.0	100.0	.7	1.5	3.1	2.2	4.0
Housing	37.7	3.6	3.5	4.2	44.5	34.8	40.0	4.1	4.4	6.4	1.9
Shelter	21.8	2.4	4.7	5.2	19.7	26.6	28.4	4.0	5.3	7.0	4.6
Renters' costs	7.1	—	5.1	5.9	—	9.3	10.4	4.6	6.5	6.4	5.6
Rent residential ¹	6.2	6.6	4.9	5.8	8.7	7.6	9.0	4.7	6.0	6.6	6.0
Homeowners' costs ¹	14.1	—	5.4	5.1	—	16.6	17.7	4.3	4.6	7.3	4.1
Homeownership ²	—	1.7	—	4.2	9.3	—	—	-7.6	2.2	21.0	-1.4
Fuel and other utilities	8.2	9.7	1.8	5.1	17.3	3.9	8.6	8.5	4.6	7.2	-3.2
Household furnishings and operation	7.7	3.5	2.0	2.0	6.5	4.4	3.0	- .3	1.8	4.0	.5
Apparel and upkeep	5.1	1.6	2.9	2.0	2.0	4.0	2.5	.6	- .8	6.4	1.8
Apparel commodities	4.3	.9	2.5	1.4	.9	2.9	1.6	0	-1.7	6.4	1.3
Apparel services	.8	6.2	5.0	4.9	1.1	1.0	1.0	4.1	4.9	5.4	5.2
Transportation	21.6	1.7	3.9	3.1	8.6	22.4	17.0	5.8	3.5	.4	2.8
Private transportation	20.1	1.4	3.9	2.8	6.4	20.9	14.5	5.4	3.2	0	2.9
Public transportation	1.6	6.5	3.8	6.4	2.2	1.5	2.5	9.4	8.5	4.5	3.4
Medical care	6.3	11.0	6.4	6.1	13.8	10.1	9.4	7.5	6.1	4.8	5.8
Medical care commodities	1.0	9.6	7.6	7.6	2.0	1.9	1.9	8.0	6.6	6.3	9.2
Medical care services	5.2	11.2	6.1	5.8	11.8	8.1	7.5	7.5	6.0	4.6	5.1
Entertainment	4.2	5.6	3.9	4.2	5.2	4.3	4.5	1.1	5.5	5.0	5.5
Other goods and services	5.3	12.1	8.0	6.1	12.6	10.5	7.8	6.7	5.9	6.9	4.4

¹ Not seasonally adjusted.

² Old series CPI-W.

Table 2. Percent changes in selected producer price indexes by stage of processing, 1983-84

Index	Relative Importance, Dec. 1984	Percent change		Compound annual rate, seasonally adjusted except as noted, for 3 months ended—			
		Dec. 1982 to Dec. 1983	Dec. 1983 to Dec. 1984	March 1984	June 1984	Sept. 1984	Dec. 1984
Finished goods	100.0	0.6	1.8	6.1	-0.4	0	1.8
Consumer foods	24.4	2.3	3.8	15.2	-7.5	4.5	4.5
Energy goods	11.5	-9.2	-4.1	-5.2	5.0	-19.7	5.7
Consumer goods excluding foods and energy	42.4	1.9	2.2	5.6	.8	2.5	0
Capital equipment	21.6	1.9	2.1	3.9	2.2	2.3	0
Intermediate materials, supplies, and components	100.0	1.8	1.3	4.1	2.4	-1.9	.8
Food and feeds	4.9	9.3	-5.4	3.0	-4.8	-14.7	-3.2
Energy goods	15.1	-5.5	-.1	2.6	3.8	-9.2	3.0
Materials excluding foods and energy	80.1	3.0	2.0	4.1	2.0	.9	1.3
Crude materials for further processing	100.0	4.7	-1.3	4.4	-7.7	-3.3	2.1
Foodstuffs and feedstuffs	53.0	8.0	-.9	8.9	-19.2	-1.7	12.0
Energy materials ¹	31.7	-4.6	-1.0	-1.6	4.0	.4	-6.5
Nonfood materials excluding energy	15.4	15.5	-3.3	9	14.3	-15.3	-10.7

¹ Not seasonally adjusted.

NOTE: Data reflect revisions in not seasonally adjusted indexes through September 1984, as well as the recalculation of seasonally adjusted data from January 1980 through December 1984, effective with the release of January 1985 indexes.

of the CPI, whose deceleration predated the overall slowdown in prices, continued its moderate behavior in 1984, increasing 3.7 percent. For the fourth consecutive year, grocery store food prices rose less than 4 percent. The 3.6-percent rise in 1984, however, was nearly double the 1983 increase. While all major grocery store food groups contributed to the acceleration, a turnaround in meat prices was primarily responsible. Following declines in 1983, beef prices rose 3.8 percent and pork prices, 6.0 percent in 1984. The drought in the summer of 1983 had a major impact on those prices in both years. Higher feed costs induced owners to market their livestock early, which resulted in meat price reductions in 1983. These declines were interrupted in early 1984, when harsh winter weather restricted supplies to retail markets and caused a temporary jump in prices. The effect of accelerated slaughterings in 1983, however, led to some liquidation of stocks, lower marketings, and higher prices for pork by early summer and for beef, by the fourth quarter. By contrast, poultry and egg prices, reflecting the effects of the drought and avian influenza, rose sharply in the second half of 1983 and in early 1984 before declining in the last 3 quarters of 1984.

The 1983 summer drought and winter freeze played a major role in the 1984 price movement for fresh vegetables and fruits. Drought-reduced harvests caused fresh vegetable prices to rise sharply in the fall of 1983 and early 1984 before declining in the remainder of 1984. By the year's end, prices were 6.9 percent below the December 1983 level. Fresh fruit prices, which declined in 1983, increased 22.6 percent in 1984. The late 1983 freeze, which severely damaged orchards as well as the early 1984 citrus crop, is likely to have a long-run impact on prices.

Prices for dairy products rose 3.4 percent in 1984, fol-

lowing increases of less than 1 percent in each of the preceding 2 years. The introduction of the U.S. Department of Agriculture's Dairy Diversion Program, which was designed to reduce milk production and government support payments, contributed to the advance in milk prices. The indexes for cereal and bakery products, processed fruits and vegetables, and other foods at home all registered moderate increases in 1984, which were nevertheless larger than in 1982 and 1983.

Housing. The CPI-U housing index rose 4.2 percent in 1984, following a 3.5-percent increase in 1983. Larger increases in the costs for shelter and fuels and other utilities more than offset the smaller rise in household furnishings and operations. Prices for fuel and other utilities rose 4.2 percent in 1984, compared with 1.8 percent in 1983. The sharpest advance in the fuel and other utilities component was the rise in telephone service charges, which coincided with the January 1, 1984, restructuring of the telephone industry. Telephone services, which rose 3.6 percent in 1983, jumped 9.2 percent in 1984 as local charges soared 17.1 percent, intrastate toll charges increased 3.7 percent, while interstate toll charges declined 4.3 percent.

Fuel oil prices, which had decreased sharply during 1983 in the wake of the oil glut—down 10.9 percent—were unchanged in 1984, as oil prices remained stable amid sufficient supplies and moderate heating oil demands. The sharp increases which occurred during the bitter cold of January and February were offset by declines throughout the remainder of the year. Charges for electricity rose 5.6 percent, following increases of 3.2 percent in 1983 and 6.4 percent in 1982. Natural gas prices increased less than a percentage point (0.8 percent) in 1984, well below the 5.2-percent

increase in 1983; this was their smallest increase since 1967. In the 9-year period ended in 1982, annual increases in natural gas prices averaged 17.1 percent a year and never dropped below a double-digit level. The cessation of take-or-pay contracts,¹ together with court-ordered refunds to compensate for overcharges based upon these contracts, helped hold down the 1984 increase.

Shelter costs rose 5.2 percent in 1984. Renters' costs rose 5.9 percent, up slightly from the 5.1-percent rise in 1983. Homeowners' costs also rose slightly more in 1984 (5.1 percent) than they had in 1983 (4.5 percent). However, home maintenance and repair prices slowed from a 5.0-percent increase in 1983 to a 2.7-percent rise in 1984, as charges for maintenance and repair services moderated substantially.

The 1.5-percent increase in the household furnishings and operations index was the smallest annual increase since the series began in 1967. The index for housefurnishings was up only marginally, as price increases in textile housefurnishings (4.2 percent), furniture and bedding (1.9 percent), and other household equipment (1.1 percent) were nearly offset by price declines for household appliances, televisions, and sound equipment. Prices for housekeeping supplies advanced 3.0 percent and services, 2.4 percent.

Transportation and medical care

Transportation. Transportation costs rose 3.1 percent in 1984, following increases of 3.9 percent in 1983 and 1.7 percent in 1982. The 9-percent advance over the past 3 years compares with a 50-percent increase for the 3-year period ended in 1981. The turnaround in gasoline prices and the smaller increases in automobile prices were largely responsible for the slowdown.

Although used car prices decelerated substantially in the last half of 1984, the sharp 7.0-percent rise for the year accounted for nearly half of the total transportation increase. Larger inventories, associated with the increase of trade-ins from strong new car purchases, resulted in downward pressure on used car prices. New car prices rose only 2.5 percent during 1984, the third consecutive small annual increase. The moderate increases in 1983 and 1984, unlike that in 1982, coincided with expanding production and sales.

Again exerting downward pressure on the transportation index, motor fuel prices decreased 2.4 percent during 1984. This decline was slightly greater than 1983's 1.7-percent drop, which included the 5-percent Federal excise tax increase, but it was less than the 6.5-percent decline in 1982. From their peak level of March 1981, gasoline prices had declined 13.2 percent by December 1984.

Among other automotive expenses, automobile finance charges rose 6.8 percent in 1984, after registering sharp declines in each of the preceding 2 years. The cost of automobile insurance—up 7.9 percent—continued to advance. Tire prices, however, declined for the third consecutive year, and automobile maintenance and repair costs—up 3.2

percent—registered their smallest annual increase since 1966.

The public transportation component, which had risen 3.8 percent in 1983, advanced 6.4 percent in 1984. Airline fares, fluctuating throughout the year, showed a net increase of 6.5 percent. Intercity bus fares rose sharply (12.3 percent). By contrast, taxi fares rose only 1.2 percent, the lowest increase since 1964 when the taxi fare index was first published.

Medical care. The 6.1-percent advance in the cost of medical care in 1984 followed an increase of 6.4 percent in 1983 and increases of 10 percent or more in each of the preceding 4 years. The slight deceleration in 1984 reflected a slowdown in prices for medical care services, while prices for medical care commodities rose at the same rate as in 1983. Within the medical care service component, charges for physicians' services rose 6.0 percent, the smallest increase in 11 years. Charges for dental services and other professional services also decelerated in 1984. Following a 9.3-percent increase in 1983, the costs of hospital rooms rose 7.4 percent in 1984, the smallest since 1973. Within the medical care commodities component, the index for prescription drugs rose 9.9 percent, about the same as in 1983. Prices for nonprescription drugs and medical supplies decelerated slightly in 1984, increasing 5.4 percent.

Apparel and other expenses

Apparel. The index for apparel rose 2.0 percent in 1984, declining in the first half of the year before rising sharply in the third quarter. The introduction of higher-priced fall merchandise was responsible for the third-quarter spurt. Clothing sales and promotions were prevalent throughout the rest of the year. Small-to-moderate price increases were recorded for most men's, boys', women's, girls', and infants' clothing items and for footwear. The index for jewelry and luggage declined slightly, reflecting a decline in prices for precious metals. Charges for apparel services (such as laundering and dry cleaning), which rose 4.9 percent in 1984, continued to decelerate from their peak level increase of 12.5 percent in 1978. Most of the 1984 advance was due to higher prices for dry cleaning services.

Entertainment. The index for entertainment, which had decelerated yearly from 1980 to 1983, rose slightly faster in 1984, increasing 4.2 percent. The cost of entertainment services rose 5.7 percent in 1984. Admission fees for movies, theaters, sporting events, and other forms of entertainment rose 7.5 percent on average. Increased charges for membership to fitness centers, health centers, and fees for participant sports averaged 5.7 percent. The index for entertainment commodities—up 3.3 percent—also rose slightly more than in 1983, principally because of larger price increases for photographic supplies and equipment. Prices for reading materials, however, slowed substantially in the past 2 years, reflecting a moderation in printing costs. The 4.0-

percent increase in 1984 was the smallest advance since this series was introduced in 1977. Prices for sporting goods and equipment rose 3.4 percent, as a 5.3-percent increase in sports vehicles was partially offset by near-stable prices for bicycles and sporting equipment.

Other goods and services. The other goods and services index increased 6.1 percent in 1984, the smallest annual increase in this category since 1976. Increases in personal and educational expenses (up 9.1 percent) accounted for half of the 1984 increase in this component. Tuition and other school fees increased 10.1 percent in 1984 after having doubled over the past 7 years. Prices for school books and supplies also continued to advance—up 8.1 percent—but by less than in other recent years. The index for personal expenses rose 6.5 percent, substantially less than in any year since this series was introduced in 1977. The deregulation of banks increased competition for depositors and coincided with the smaller increases in charges for banking services.

The index for tobacco rose 4.9 percent in 1984, following increases of 20.1 in 1982 and 10.1 percent in 1983. Legislation passed in the summer of 1982 and effective January 1, 1983, doubled the Federal excise tax on cigarettes from 8 to 16 cents per pack. Sharp increases were recorded from September 1982 through January 1983 as manufacturers immediately began phasing in the effect of the tax increase. In 1984, two moderate increases in wholesale prices for tobacco were passed on at retail.

Producer prices: energy trends

Prices received for domestic energy products decreased in 1984, following more substantial and pervasive declines in 1983. The indexes for both finished energy goods and crude energy materials continued to fall, although not nearly so much as in 1983; prices for intermediate energy goods were almost unchanged, following 2 consecutive years of decline. Major influences on energy prices in 1984 included unusual weather patterns, climbing foreign exchange rates, heavy inventories of crude oil and refined petroleum products, and the decontrol of natural gas. (Prices for major refined petroleum products and natural gas are lagged 1 month in the Producer Price Index.)

The index for finished energy goods decreased 4.1 percent from December 1983 to December 1984. Indexes for gasoline and home heating oil—both of which had fallen at double-digit rates during 1983—fell again but by considerably less. These declines largely reflected the general oversupply of petroleum and intense competition among refiners to boost their market share. Natural gas prices rose slightly, mostly in response to earlier regulatory adjustments and increased sales of unregulated “new” gas. Natural gas is now essentially competitive with other fuels, as evidenced in declines in the natural gas index in the last 4 months of 1984.

The Producer Price Index for intermediate energy goods was virtually unchanged in 1984, as price increases for most refined petroleum products were largely offset by an advance in the index for electric power. Extreme weather patterns in both summer and winter caused users to increase electricity consumption. The increased costs, particularly for fuels for generating this additional power, were passed on to consumers. Prices for residual fuel moved slightly higher in 1984, when electric utilities opted for this fuel to meet some of the surge in demand during severe weather. Prices continued to decline for liquefied petroleum gas, kerosene, jet fuel, and diesel fuel, reflecting the oversupply of such fuels.

The PPI for crude energy moved down 1.0 percent in 1984, after falling 4.6 percent a year earlier. Prices for domestic crude petroleum fell 3.2 percent, much less than in other recent years. As in 1983, continued global surpluses in energy supplies frustrated attempts by the Organization of Petroleum Exporting Countries (OPEC) to maintain price levels. The index for coal edged up just 0.8 percent. Although coal consumption grew about 8 percent in 1984, producer stockpiles were up significantly over the year in anticipation of a strike that never materialized.

Capital equipment

Business spending on new plant and equipment surged 13 percent in 1984, the largest advance in 18 years. This increase was due to enhanced after-tax returns on investment and widespread optimism about the durability of the general expansion in the economy. Nevertheless, the Producer Price Index for capital equipment continued to rise only modestly—2.1 percent from December 1983 to December 1984, roughly the same as in 1983. Moreover, prices of few major products moved up more than 4 percent during the year. As in 1983, intense competition from imports was a major factor restraining inflation in this sector of the economy.

Prices for machine tools rose about 4 percent, as orders and domestic shipments were sharply higher than a year earlier, although still well below prerecession levels. These types of machinery—key to industrial automation—range from computer-controlled lathes to automated presses that shape metal parts. The level of orders for machine tools is considered an indication of capital spending by the automotive, appliance, aircraft, and other durable goods industries.² Imports controlled an unusually high share of the American market for machine tools, just as they had in 1983. However, the recovery was strong enough in 1984 to allow increased sales by both domestic and foreign manufacturers of machine tools.

Prices for heavy trucks rose 4.2 percent over the year, on the strength of sharply increased sales of 0.26 million units from a low of 0.18 million in 1983. These trucks range from medium-duty general delivery trucks to heavy-duty diesel tractor-trailers. The turnaround in sales reflected the strong recovery in business investment in 1984.

Intermediate goods less foods and energy

After accelerating moderately to a 3.0-percent increase in 1983, the Producer Price Index for intermediate goods other than foods and energy eased somewhat, registering a 2.0-percent rise for the 12 months ended in December 1984. The unusually strong pace of economic growth early in the year enabled manufacturers to raise prices for many goods whose prices had slumped during the preceding 2 years. However, these increases were mitigated by the soaring foreign exchange value of the U.S. dollar, which severely curtailed export demand for American-made industrial goods, and prompted increased imports of products that undercut domestic markets. This unfavorable trade balance, plus a slowdown in the overall economy, caused prices for most intermediate goods to either rise more slowly or decline during the latter part of 1984.

Manufacturing materials. The index for nondurable manufacturing materials moved up 1.3 percent over the course of the year, about half as much as in 1983. Following a small increase in 1983, prices for industrial chemicals turned down 4.0 percent, reaching their lowest level since the end of 1980. Double-digit decreases occurred for vinyl chloride monomer (used in making plastics), as well as for benzene and ethylene, two widely used primary industrial chemicals. These resulted from lower crude petroleum costs, heavy import competition, and uncertain prospects in housing and automotive industries. Lower chemical prices tended to restrain prices for derivative products; synthetic fibers and synthetic rubber showed little net change over 1984, the third consecutive year of flat or declining prices. Price increases also moderated for plastic resins, gray fabrics, finished fabrics, leather, and inedible fats and oils (the last nevertheless still advanced sharply).

A major exception to the moderation of prices of intermediate industrial goods was in the pulp and paper products industry, where strong demand kept manufacturers operating at over 95 percent of capacity throughout the year. Import competition was not very serious because labor disputes reduced output in the Canadian paper industry; this also made it possible for U.S. paper producers to maintain export levels in spite of the strength of the U.S. dollar. As a result, price increases accelerated over the year for wood-pulp and paperboard (recording double-digit advances), as well as for paper.

Reversing the 4.3-percent climb of the previous year, the index of materials for durable manufacturing edged down 0.3 percent during 1984, led by nonferrous metals. The market for aluminum was not as strong as anticipated. American producers reacted to bulging inventories and sagging prices by closing several major smelting-refining operations that together accounted for almost one-tenth of total production capacity. Aluminum prices continued to slide, nonetheless, ending the year about 7 percent below 1983 levels. Copper prices declined for the fifth consecutive year.

The urgent need for foreign exchange to repay debts prompted Chile, Peru, and Zambia to continue heavy exports of copper in spite of minimal profits. The American copper mining industry petitioned the Federal Government for relief against imports, but was denied. Prices for lead, zinc, gold, and silver also fell during the year. Flat glass prices fell 5.1 percent, the first drop since 1972. This resulted from moderation in costs for inputs such as natural gas, as well as uncertainty in the construction industry.

The steel mill products index did register an increase (2.2 percent), but this was only half as much as in 1983. The import share of the U.S. steel market reached a record high of 26 percent during 1984, up from a 21-percent share a year earlier, thereby displacing more U.S. production. Unlike the previous year, when decreases for tubular products and wire partly offset steep increases for sheets and strip, the principal steel categories showed uniformly modest advances in 1984. Moderate increases also took place for hardwood lumber and Portland cement.

Construction materials. The housing construction market began the year on a very strong note, but then generally subsided as mortgage interest rates climbed during the second and third quarters. Correspondingly, softwood lumber prices rose during the first quarter, but subsequently turned down, ending the year 5.2 percent below the December 1983 level. Plywood prices likewise declined 4.6 percent over the year. Continued expansion of lumber and plywood imports from Canada (now accounting for nearly 40 percent of the U.S. market) forced many American sawmills to go out of business during 1984.

Prices for gypsum products (such as wallboard) continued the 1983 rapid increase through the middle of 1984, as shortages persisted in several areas. However, the gypsum industry finally began to catch up with demand as the market softened around mid-year. Prices receded during the second half, to finish the year only 2.1 percent above the December 1983 level, compared with the 27.1-percent surge in the prior 12-month period.

However, sizable increases for certain products tended to offset the moderation observed among other construction materials. Those showing significant advances included wiring devices, asphalt felts and coatings (formerly asphalt roofing), and prepared paint. This mixture of price movements over 1984 resulted in a 2.4-percent rise in the overall index for materials and components for construction, the third consecutive yearly advance of less than 4 percent.

Grains and feedstuffs

During 1984, the Producer Price Index for grains fell 12.8 percent, largely reflecting good harvests in the United States and abroad. Grain prices had climbed more than 20 percent a year earlier because of severe drought in many growing regions, combined with the impact of the acreage reduction prompted by the payment-in-kind (PIK) program.

The PIK program was formally discontinued for most grains before the 1984 growing season.

Wheat prices rose moderately in the first half of 1984, partly because of good export demand, but then retreated in the second half as record harvests occurred in this country and several other major producing nations. The net result was a 4.6-percent drop in prices from December 1983 to December 1984. Corn prices fell in almost every month of the year, for a total decrease of 18.1 percent by the end of 1984. Expanded harvests after unusually low production in 1983, combined with stagnant foreign demand restrained by the continuing climb in the value of the American dollar in international currency markets, were the principal influences behind the drop in corn quotations. Prices for barley, oats, and rye also moved down over the year.

The index for oilseeds declined sharply over the year, largely because of reduced prices for soybeans and peanuts. Soybean quotations fell more than 20 percent, reflecting increased domestic production, lagging demand from Europe and Japan, and increased competition from Argentine and Brazilian exports. A record harvest, made possible by a yield 7 percent greater than the previous record yield in 1982, led to a 17.4-percent drop in peanut prices. Hay prices also moved down in the face of abundant alternative animal feeds and extensive pasture feeding for much of the year.

Price-sensitive industrial materials

The Producer Price Index for crude nonfood materials other than energy, which measures changes in prices of raw industrial commodities usually responsive to cyclical shifts in general economic conditions, dropped 3.3 percent from December 1983 to December 1984. Responding to the vigorous recovery from the 1981-82 recession, this index had climbed 15 percent in 1983 and continued to advance briskly (at a 7.4-percent rate) through the first half of 1984. The impact of the second-half economic slowdown was evident in the behavior of the index for these price-sensitive industrial materials, which fell at a 13.0-percent rate from June to December.

Scrap metals were especially prominent in the 1984 downturn. Iron and steel scrap prices, which had soared more than 50 percent a year before, decreased considerably during most of 1984, ending the year 5.2 percent lower than their December 1983 level. The low output of domestic steel mills, which again were confronted with heavy imports of steel products, lowered ferrous scrap demand and prices. Increased export demand for ferrous scrap kept their prices from falling more. Nonferrous scrap prices dropped nearly 16 percent during 1984, in distinct contrast to the 36.7-percent upward jump in the preceding 12 months. Aluminum base scrap prices were nearly one-third lower by the end of the year than they had been in December 1983, reflecting the unexpected weakness in industrial demand for aluminum products.

Like scrap metals, prices for raw cotton and crude natural rubber fell in 1984 after jumping substantially a year before. Raw cotton prices had climbed 23.8 percent in 1983 and continued to rise in early 1984. These prices fell through the rest of the year, however, to close with a net loss of nearly 19 percent from December 1983 quotations. Demand for some cotton fabrics, notably corduroy and denim, was considerably lower in 1984 than in other recent years, in part reflecting a saturation of consumer markets with blue jeans and other apparel made from those fabrics. Minimal inventory rebuilding by domestic mills, reduced export demand, and recent excellent harvests in this country and China added further downward pressure on raw cotton prices. After advancing about one-third in 1983, crude natural rubber prices dropped nearly one-fourth in 1984, as world supplies expanded more than enough to meet demand.

Prices for cattle hides had surged 36.2 percent in 1983 and continued to advance in most of 1984. However, increased supplies and lagging foreign and domestic demand lowered fourth-quarter prices, resulting in a net rise of just 2.3 percent from December 1983 to December 1984. Prices for leaf tobacco and for construction sand and gravel also rose in 1984, while indexes for logs and wastepaper decreased moderately. □

FOOTNOTES

¹ Under long-term take-or-pay contracts, natural gas producers required pipelines to pay for a minimum quantity of gas whether it was needed or not. If demand for gas fell, a fixed charge under a take-or-pay contract had to be spread over a smaller volume, leading to rate increases for the

ultimate gas user.

² See John Duke and Horst Brand, "Cyclical behavior of productivity in the machine tool industry," *Monthly Labor Review*, November 1981, pp. 27-34.

Prices of U.S. imports and exports declined in 1984

Throughout the year, the economy benefited from lower prices and abundant quantities of imported goods; however, the continued strength of the dollar and stiffer competition from foreign producers spelled trouble for the Nation's exporters in sluggish world markets

PATRICIA SZAREK AND BRIAN COSTELLO

U.S. import prices declined for the second consecutive year in 1984, decreasing 1.7 percent after a 2.5-percent drop in 1983. (See table 1.) The downward trend in import prices during the year was more broad-based than in 1983, when aggregate price movements were predominately influenced by falling energy prices. The price index for nonenergy imports decreased a moderate 1.0 percent in 1984, after having advanced 2.1 percent in 1983. Substantial price reductions were registered for food, chemicals, and machinery and transport equipment in 1984. While price increases for fats and oils, and tobacco and beverages helped to moderate the decline, prices for intermediate manufactures and miscellaneous manufactures also drifted downward over the year.

The appreciation of the U.S. dollar and plentiful supplies of foreign-produced goods were the principal factors exerting downward pressure on import prices, despite the Nation's vigorous economic growth. Strong U.S. demand was increasingly met by imported merchandise; the record \$328 billion of goods imported in 1984 represented a 25.5-percent increase over 1983.¹ The large supplies and lower prices of foreign-made merchandise contributed to low levels of domestic inflation.²

The export price index, which was first published for the

fourth quarter of 1983, fell 1.4 percent during 1984. (See table 2.) The principal contributors to the downward drift in the index were declining prices for food, crude materials, chemicals, and miscellaneous manufactures, which were partially offset by increases in export prices for machinery and transport equipment, and fats and oils. Export prices for intermediate manufactures and fuels were relatively stable, with slight rises registered for the year, while a small price decrease occurred for beverages and tobacco. As with imports, escalating competition in the world market and the strength of the U.S. dollar exerted downward pressure on prices, but rising demand moderated some price declines. Sluggish economic growth in Western Europe in recent years and international debt problems experienced by some of the Nation's major trading partners also contributed to the moderation in U.S. export prices. The \$220 billion worth of merchandise exported by the United States in 1984 was almost 10 percent above the \$200 billion exported in 1983, but was only 4 percent higher than the 1982 level and still well below the \$237 billion exported in 1981.³ The U.S. share of total world exports has been declining since 1980.⁴

The price indexes discussed in this article are not seasonally adjusted and are based on transaction price information provided by a sample of U.S. importers and exporters. They represent 100 percent of the value of all imported and exported products. Indexes are published for detailed and aggregate categories of imports and exports.⁵

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Table 1. Change in selected import price indexes in 1984, and commodity shares of total 1980 trade value

Commodity	Share of total 1980 trade value	Percent change in—				
		All of 1984	First quarter	Second quarter	Third quarter	Fourth quarter
All commodities ¹	100.000	-1.7	0.7	0.3	-1.6	-1.1
All commodities, except fuels and related products ¹	67.223	-1.0	0.8	0.5	-1.7	-0.5
Fuels and related products	32.776	-3.0	0.8	-0.3	-1.3	-2.2
Crude petroleum and petroleum products	30.653	-3.1	0.7	-0.1	-1.2	-2.4
Crude petroleum	25.799	-3.5	-0.4	0.4	-0.6	-2.9
Natural gas and liquified natural gas	1.642	-3.6	0.2	-2.3	-1.6	0.0
Machinery and transport equipment	25.442	-1.2	-0.1	0.1	-1.4	0.3
Metalworking machinery . . . . .	.755	-6.1	-1.5	-0.5	-1.8	-2.4
Telecommunications, sound recording and reproducing equipment	2.785	-3.8	-0.7	0.6	-1.3	-2.5
Electric machinery and equipment	3.396	-9.8	-1.8	-3.2	-4.6	-0.6
Road vehicles and parts	10.887	1.6	-0.5	1.3	-0.5	1.4
Passenger automobiles	7.201	2.3	-0.9	2.0	-0.3	1.5
Parts for motor vehicles . . . . .	.814	-5.1	1.1	-0.2	-4.2	-1.8
Food	6.554	-2.3	2.1	1.0	-1.4	-3.8
Meat . . . . .	.977	-1.3	-0.5	0.3	1.2	-2.3
Fruits and vegetables . . . . .	.838	-6.2	8.9	-0.2	-0.3	-13.4
Vegetables, fresh, chilled, or frozen . . . . .	.183	-33.0	20.0	-1.3	1.8	-44.4
Fruits and nuts, fresh or dried . . . . .	.347	-3.0	2.2	-2.9	-0.8	-1.4
Coffee, tea, and cocoa	2.241	-2.0	3.0	1.6	-3.4	-3.2
Coffee	1.644	-0.2	2.9	1.0	0.3	-4.2
Tea . . . . .	.054	3.7	9.1	0.1	-4.4	-0.6
Intermediate manufactures	13.520	-0.4	0.2	1.5	-1.7	-0.3
Iron and steel	3.127	3.5	-0.8	4.5	0.7	-0.8
Nonferrous metals	3.123	-7.9	0.2	1.4	-6.3	-3.2
Silver and platinum	1.037	-14.2	1.4	-2.6	-14.3	1.3
Copper . . . . .	.581	-7.1	-3.1	3.1	-4.7	-2.5
Miscellaneous manufactures	9.794	-0.1	0.6	0.9	-1.8	0.2
Clothing	2.666	7.8	1.3	1.8	2.2	2.3
Footwear	1.232	4.8	0.6	2.9	-1.7	3.0
Watches and clocks . . . . .	.437	5.3	-0.4	6.6	-1.5	0.7
Professional, scientific, and controlling apparatus . . . . .	.628	-4.8	1.1	-0.9	-2.2	-2.8
Collectors' pieces, including gold and silver coins . . . . .	.802	-17.3	-0.4	-2.4	-12.6	-2.7
Musical instruments and accessories . . . . .	.203	-7.6	1.0	-3.3	-2.8	-2.6
Beverages and tobacco	1.082	0.7	-0.1	0.6	0.5	-0.4
Crude materials	4.275	-0.2	4.7	-0.6	-1.9	-2.2
Fats and oils . . . . .	.226	14.4	16.9	20.8	-12.3	-7.6
Chemicals and related products	3.475	-2.4	1.6	-0.5	-1.8	-1.7

¹This category includes indexes in addition to those shown here. For all of the indexes available in each category, see *U.S. Import and Export Indexes*, usol-85-45 (Bureau of

Labor Statistics) Jan. 31, 1985.

General developments in U.S. foreign trade

Appreciation of the dollar against the currencies of our major trading partners in recent years has had a significant impact on U.S. export and import prices. From its low in July 1980 to December 1984, the dollar's trade-weighted exchange rate gained 46 percent.⁶ (See chart 1.) Over this period, the dollar rose 14.6 percent against the Canadian dollar and 12.2 percent against the Japanese yen. In 1984, the dollar reached all-time peaks against the currencies of the United Kingdom and France, and climbed to an 11-year high against the Deutschmark. The dollar's rise was particularly dramatic against currencies of countries experiencing large external debts. For example, the dollar surged 219 percent against the Brazilian cruzeiro and 33 percent against the Mexican peso from December 1983 to December 1984.⁷ This rapid appreciation has made U.S. imports less expensive while driving up the prices of U.S. exports in foreign markets. (See chart 2.)

Relative economic growth rates also had an important influence on trade patterns and export and import price movements in 1984. A robust U.S. economic recovery boosted demand for a wide variety of imported products. Total U.S. auto sales in 1984 were 13.1 percent higher than in 1983, which fueled demand for such products as steel, aluminum, and rubber.⁸ In addition, housing starts were up by 2.6 percent over strong 1983 levels, and private nonresidential construction leaped 41 percent from December 1983 to December 1984.⁹ This activity boosted sales of lumber, copper, appliances, and other products associated with construction. Moreover, personal consumption expenditures were 8.6 percent higher than in 1983.¹⁰ The increasingly important role played by imports in satisfying both investment and consumer demand was seen in the unprecedented \$59 billion worth of capital goods imported in 1984; this represented a 46-percent rise over 1983. Imports of consumer goods also jumped 33 percent over the year.¹¹

These import surges influenced economic growth in some foreign countries, especially those Far Eastern and European nations with economies substantially affected by export levels (such as West Germany, Japan, South Korea, and Taiwan), and those developing nations facing large external debts (including Mexico, Brazil, and Argentina). Increased production for export in these nations has spurred competition in the world market, contributing to lower price levels. U.S. imports from Asia grew 31.6 percent in 1984 while imports from Latin America and the European Economic Community increased 18.8 percent and 31.4 percent, respectively.¹²

Conversely, lower economic growth rates in some traditional export markets tended to depress demand for U.S. products, particularly as the strength of the dollar has made them more expensive. While Europe experienced moderate economic growth in 1984, its expansion was sluggish compared with developments in the United States and Japan; U.S. exports to the European Economic Community increased 6 percent in 1984, but were still 2.1 percent below the \$48 billion exported in 1982.¹³ Although up 16 percent

over 1983 levels, U.S. exports to Latin America were well below those of 1980, 1981 and 1982, primarily because the international debt situation of many of these nations has forced them to cut back their imports.¹⁴ Major oil-producing nations had lower export revenues in 1984, and thus bought fewer U.S. products. Forty-eight percent of the growth in total U.S. exports for the year was attributable to a 22-percent increase in exports to Canada. This top trading partner of the United States has experienced healthy economic growth during the past 2 years.¹⁵ Exports of capital goods, which have traditionally been the largest U.S. export category, increased moderately in 1984 following declines in each of the previous 3 years. (See chart 3.)

The U.S. merchandise trade deficit soared to a record \$107.6 billion in 1984, 76 percent over the 1983 amount, and 195 percent above the 1982 level.¹⁶ (See chart 4.) Rising imports led to higher U.S. deficits with almost all major trading partners, and particularly with Japan; the \$36.8 billion deficit vis à vis that country in 1984 represented a 70-percent increase over the 1983 figure. (See table 3.) The trade deficit with Canada rose 42.5 percent, as strong U.S.

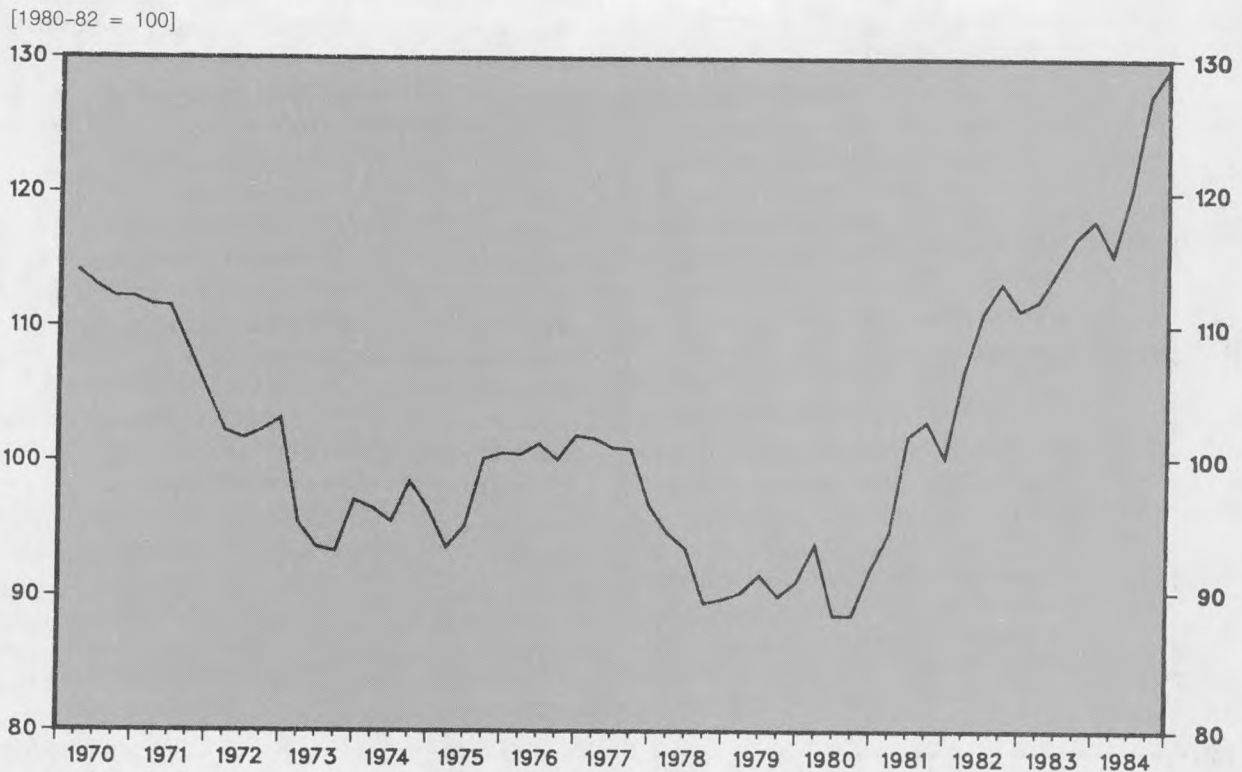
Table 2. Change in selected export price indexes in 1984, and commodity shares of total 1980 trade value

Commodity	Share of total 1980 trade value	Percent change in—				
		All of 1984	First quarter	Second quarter	Third quarter	Fourth quarter
All commodities ¹	100.000	-1.4	0.7	1.3	-2.2	-1.2
Machinery and transport equipment	35.261	3.3	1.1	0.6	0.5	1.0
Power generating machinery and equipment	3.943	8.5	2.6	-0.9	2.4	4.3
Office machines and automatic data processing equipment	3.990	-1.1	-1.1	0.1	-1.7	1.6
Road vehicles and parts	6.726	2.3	1.1	0.8	-0.2	0.6
Passenger automobiles	1.861	2.7	0.2	-0.5	0.5	2.5
Parts for motor vehicles	3.499	0.8	1.6	1.2	-0.7	-1.1
Other transport equipment, except military and commercial aircraft	2.718	6.9	2.1	2.5	1.0	1.1
Grain and grain preparations	8.341	-12.0	-2.7	4.6	-5.8	-8.2
Wheat	2.943	-0.2	-2.1	4.8	-1.7	-1.1
Yellow corn	3.956	-18.4	-3.3	5.4	-6.5	-14.3
Yellow sorghum	.498	-18.0	-4.8	6.0	-19.5	0.9
Animal feeds, except unmilled cereals	1.332	-30.0	-8.9	-7.6	-15.5	-1.6
Vegetable oilcake extracts and residues	.800	-33.5	-10.2	-6.8	-16.9	-4.4
Crude materials	10.948	-9.6	0.3	5.2	-11.1	-3.6
Oilseeds	3.024	-22.7	-3.0	11.1	-23.4	-6.4
Soybeans	2.716	-22.9	-3.8	9.8	-23.1	-5.1
Wood	1.417	-3.4	1.0	-1.3	-4.3	1.3
Textile fibers	1.813	-13.3	-2.1	4.2	-12.9	-2.5
Cotton	1.341	-16.2	-0.3	5.2	-17.5	-3.1
Chemicals and related products	9.578	-0.9	2.8	-1.7	-1.4	-0.6
Organic chemicals	2.289	-5.3	0.2	0.8	-3.6	-2.8
Hydrocarbons not elsewhere specified and their derivatives	.799	-16.9	-3.4	0.1	-9.5	-5.1
Polymerization and copolymerization products	1.042	-12.2	1.4	-3.2	-4.3	-6.6
Intermediate manufactures	10.544	0.4	1.0	0.3	0.7	-1.6
Paper and paperboard products	1.300	9.6	3.2	3.0	3.4	-0.3
Kraft paper and paperboard	.442	17.5	7.6	7.4	4.6	-2.8
Nonferrous metals	2.280	-12.0	0.4	-1.4	-2.7	-8.7
Aluminum	.919	-13.7	0.0	-4.4	5.6	-14.5
Beverages and tobacco	1.229	-0.2	0.1	0.3	0.9	-1.5
Fuels and related products	3.691	0.5	-0.1	0.6	0.0	0.0
Fats and oils	.911	21.2	6.4	26.7	-11.4	1.5
Miscellaneous manufactures	7.397	-0.9	0.4	-0.2	0.3	-1.4

¹This category includes indexes in addition to those shown here. For all of the indexes available in each category, see *U.S. Import and Export Indexes*, usdl-85-45 (Bureau of

Labor Statistics), Jan. 31, 1985.

Chart 1. Trade-weighted exchange rate index for the U.S. dollar, quarterly averages, 1970-84



NOTE: Estimates are based on 1980 bilateral trade weights.
 SOURCE: International Economics Department, Morgan Guaranty Trust Company.

exports to that country were more than offset by increased imports of Canadian goods in most nonagricultural product categories. The trade deficit with the United Kingdom expanded 24.4 percent, with Taiwan it jumped 48.9 percent, and with Western Germany it soared 96.4 percent.¹⁷ Of the top trading partners of the United States, Mexico was the only one with which the trade deficit narrowed in 1984, by 2.1 percent.¹⁸ The product group which experienced the largest import gains over the year was machinery; such imports grew 46 percent, resulting in the first annual trade deficit for the category.¹⁹ Other high-deficit product groups were transport equipment and miscellaneous manufactures. However, surpluses were recorded for food, crude materials, and chemicals.

Gross trade (imports plus exports) as a percentage of U.S. final goods production, a measure of the importance of foreign trade to the goods sector of the economy, began to increase during the year after some minor decreases in 1983

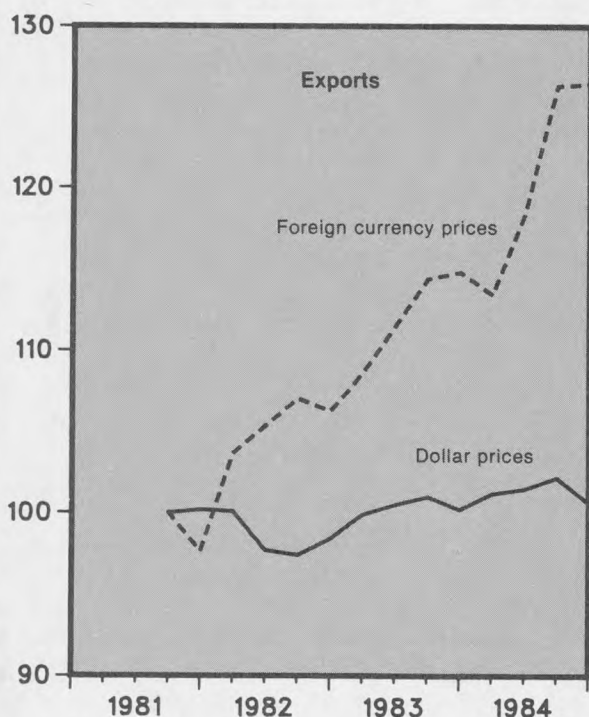
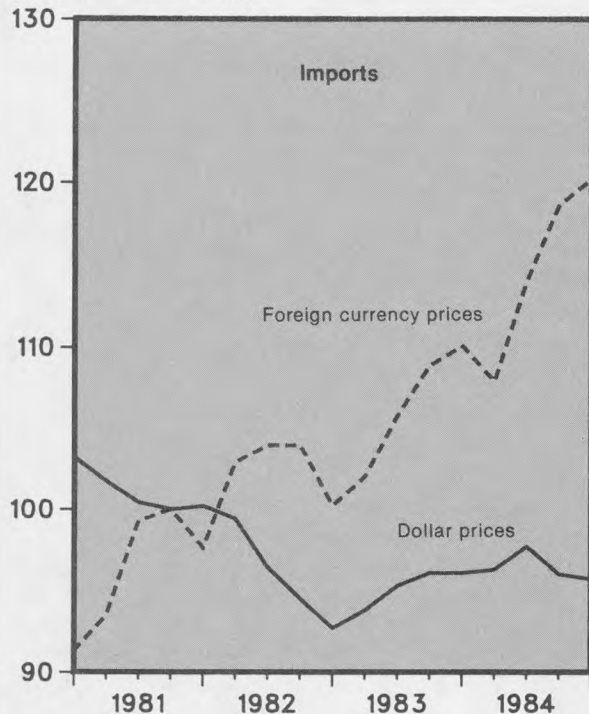
and 1982. The figure stood at 30 percent in 1984, compared to 16 percent in 1970.²⁰ The U.S. current account, which incorporates the balances on both merchandise trade and services (including payments and receipts of interest and dividends on international investments), also set a record deficit of \$101.6 billion in 1984, compared with the previous record of \$41.6 billion in 1983.²¹

Import price determinants

Fuels and related products. Import prices for fuels and related products fell 3 percent in 1984, after an 11.8-percent drop in 1983. Because this product group comprised over 32 percent of U.S. imports in 1980, the base year for the all-import index, its price movement contributes substantially to fluctuations in that index. The 1984 price decrease for fuels and related products was the result of a 3.5-percent fall in crude oil prices and a 3.6-percent decline in natural gas prices, which were only partially offset by moderate

Chart 2. Quarterly U.S. dollar and foreign currency price indexes for U.S. imports and exports of intermediate manufactured goods, 1981-84

[September 1981 = 100]



SOURCE: Bureau of Labor Statistics, based on data from the Bureau and from the Morgan Guaranty Trust Co.

rises in prices for petroleum products. Import prices for crude petroleum have consistently fallen in recent years, registering a 29-percent drop from March 1981 to December 1984. (See chart 5.) The price slide reflects declining demand due to sluggish world economic growth, increased substitution of other forms of energy for crude oil, and stepped-up conservation in the major industrialized nations. Moreover, most major producing nations—including such non-OPEC members as Mexico, the United Kingdom, and Norway—increased production significantly during those years. Fuel and related products accounted for 18.6 percent of the total value of U.S. imports in 1984.

The 1984 world oil market was characterized by excess capacity and competition for market share among major producers. Supplies were not reduced when the Iran-Iraq conflict escalated in the first half of the year because other OPEC members boosted output more than enough to compensate for any disruption in shipments.²² Inventory accumulation by OECD countries also exerted further downward pressure on oil prices.²³ By mid-1984, OECD inventories had climbed to their highest level in 3 years, with U.S. stocks about 7 percent above year-earlier estimates.

Oil surpluses led to widespread discounting below official price levels, which rapidly drove down spot, or non-contract, prices from June through December 1984. This slide was especially evident for the more expensive light crudes, and it was increasingly difficult for producers of this product grade to maintain official price quotes. In mid-October, reductions in official crude oil prices were announced by several producers of light crudes.²⁴ An OPEC meeting held in late October to shore up oil prices resulted in an agreement to curb OPEC output by approximately 9 percent, and in regulations to end the practice of discounting from the official price on certain oil transactions.²⁵ During the remaining 2 months of the year, however, a number of OPEC members continued to boost production and/or offer price discounts, although the benchmark price officially remained at \$29 per barrel.

World oil consumption in 1984 was an estimated 3 percent above depressed 1983 levels, primarily because of economic upturns in the major industrialized nations.²⁶ Tending to curb the growth in demand, however, was the strength of the U.S. dollar. Specifically, the dollar's appreciation against the currencies of our major trading partners meant that those nations did not reap the full benefit of the cuts in posted dollar prices for oil. In fact, buyers in several nations found that oil prices in their own currencies actually rose in 1984 because of the depreciation of those currencies against the dollar. This phenomenon contributed to low levels of world oil demand in the face of robust economic growth. Even in the United States, where a strong economic recovery sharply stimulated overall import demand, 1984 crude oil imports were just 2.7 percent (in thousands of barrels per day) above 1983 amounts.²⁷

U.S. imports of petroleum products rose a more substantial 15.3 percent in 1984.²⁸ Purchases of foreign gasoline and heating oil at the end of the year were nearly double those registered 3 years earlier.²⁹ New refineries in the Persian Gulf contributed to the increased supplies and lower prices, particularly because these nations have no rules for pricing refined products as they have for crude oil.³⁰ The growing volume of oil products from foreign sources was instrumental in lowering the capacity rate of U.S. refineries, which averaged between 65 and 70 percent during 1980–83. By the end of 1984, the capacity utilization rate had risen moderately to 76 percent as U.S. refiners continued to trim costs by cutting back excess capacity.³¹

Early in 1984, heating oil demand and prices rose temporarily as a result of an unusually cold winter in the northeastern United States. Demand slackened in the remainder of the year, leading U.S. refineries to cut prices in November. As a result, the U.S. average price for heating oil was

\$1.12 per gallon in 1984, compared with \$1.17 per gallon in 1983.³² The increase in gasoline supplies drove U.S. prices for all types of the fuel down by 3 percent from December 1983 to December 1984.³³ When the improved fuel efficiency of the Nation's auto fleet is taken into account, gasoline costs per mile driven for U.S. consumers have declined substantially since 1980.

U.S. oil and petroleum product imports continued to come predominately from non-OPEC sources in 1984. The United States purchased 38 percent of its oil and oil products from OPEC sources in that year, compared with 37 percent in 1983, 42 percent in 1982, and 70 percent in 1977—the year of the greatest volume of U.S. oil imports.³⁴ Leading suppliers in 1984 were Mexico at 740 thousand barrels per day (bpd), Canada (629 thousand bpd), Venezuela (536 thousand bpd), the United Kingdom (395 thousand bpd), and Saudi Arabia (322 thousand bpd).³⁵

The 3.6-percent price fall for imported natural gas in 1984 reflected lower prices for imports from Canada, which supplies approximately 90 percent of total U.S. imports of natural gas. Bountiful supplies of gas and oil were the primary influence on gas prices for the year.

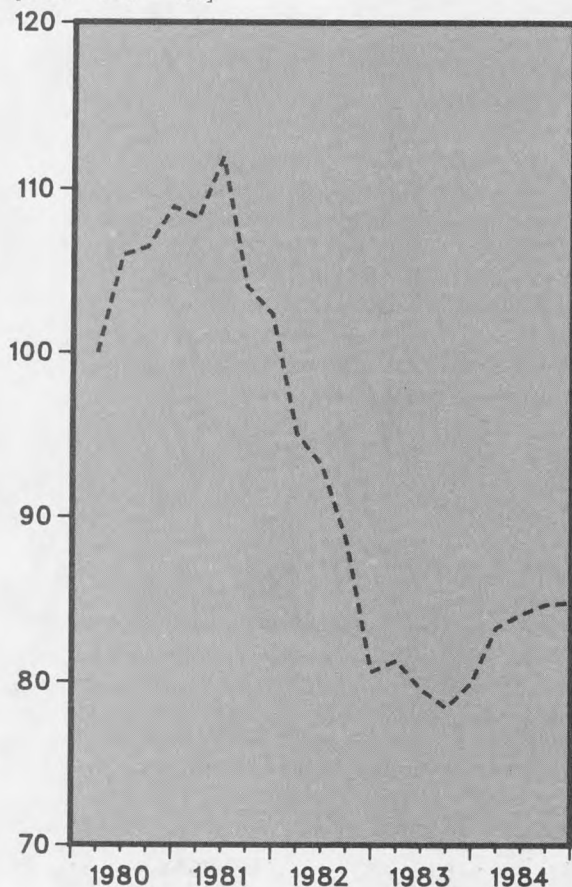
Machinery and transport equipment. This index, which accounts for 25.4 percent of the weight of the all-import price index, decreased 1.2 percent in 1984, after rising 2.4 percent in 1983. Some \$123 billion of this merchandise was imported during 1984, up 38.4 percent from \$89 billion in 1983, as economic recovery fueled demand.³⁶ As indicated earlier, this substantial increase was a major factor in widening the 1984 U.S. merchandise trade deficit. Approximately half of the dollar value in this index consists of consumer products such as autos, videocassette recorders, and household appliances. As consumer spending grew, purchases of these types of items rose. The index also includes many important components of manufacturing processes, such as electric motors, air pumps, compressors, valves, and roller bearings, for which demand grew with U.S. manufacturing output. However, expanding foreign production along with the continued appreciation of the dollar tended to drive down prices for imported machinery in 1984, with the notable exception of prices for road vehicles.

Import prices for automobiles rose 1.6 percent over the year. This movement incorporates adjustments to the data to account for quality improvements in new models introduced in the fourth quarter. In 1984, total U.S. car sales (domestic and foreign) exceeded the 10 million unit sales barrier for the first time since 1979. In addition, imports achieved record sales of almost 2.5 million units. However, due to strong sales of domestic models, the import penetration rate declined to 23.5 percent from 26.0 percent in 1983.³⁷

A noteworthy trend is the significant upgrading of the import vehicle mix, with respect to both value and options.

Chart 3. Constant-dollar index of U.S. exports of capital goods, except autos

[March 1980 = 100]



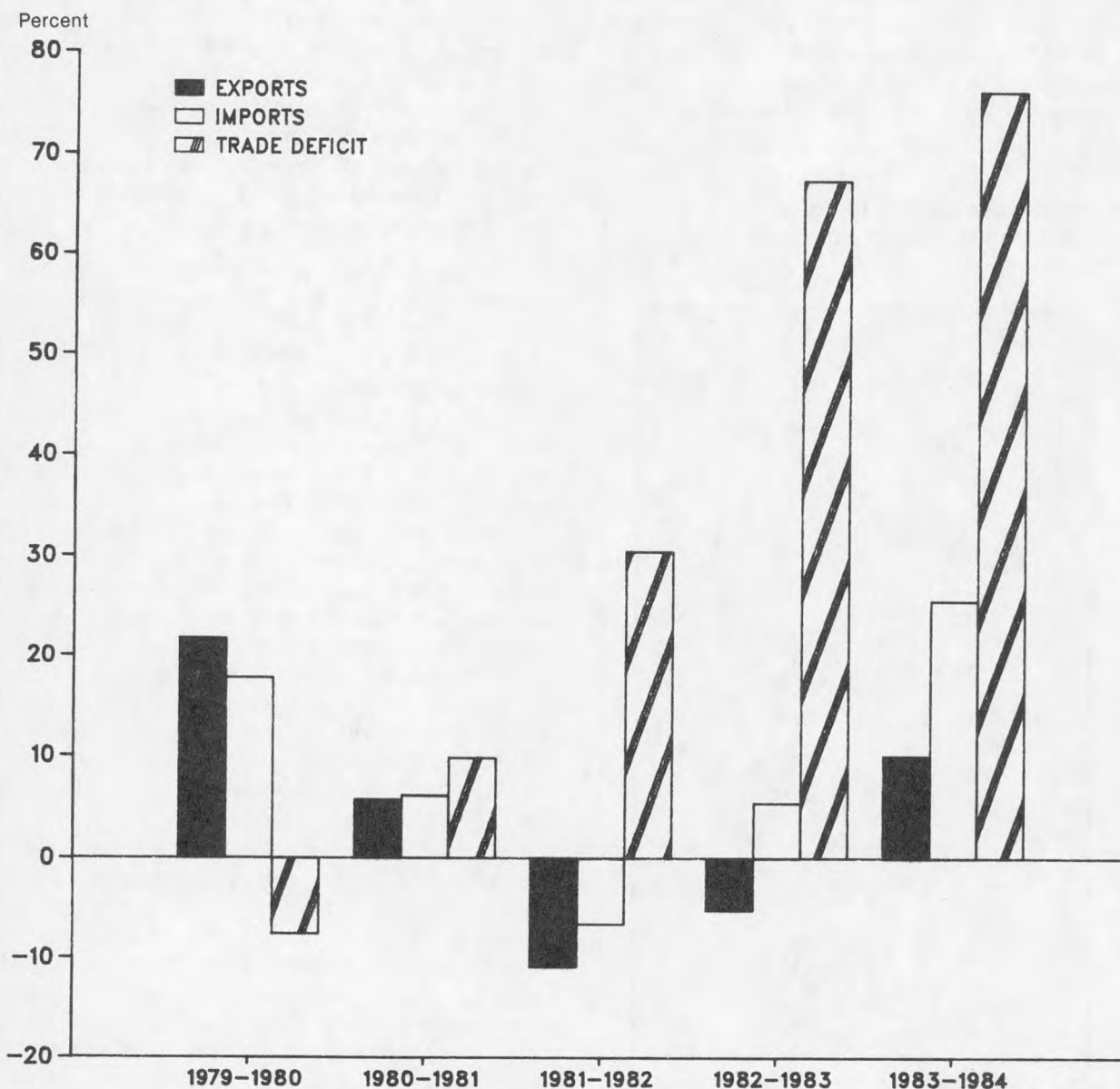
SOURCE: Bureau of Labor Statistics, based on data from the Bureau and from the U.S. Department of Commerce.

The domestic industry now faces the strong competition on the high end of the market (\$15,000+) that it has felt previously on the lower end. The share of the U.S. market for high-priced cars held by imports has grown from 5.7 percent in 1965 to 19 percent in 1984.³⁸ The West German share of the overall import market increased to 13.5 percent in 1984 from 11.7 percent a year ago, with a number of manufacturers from that nation and other European countries registering all-time U.S. sales records.³⁹ In addition, Jap-

anese manufacturers have continued to promote their higher-priced, option-rich models in an effort to counteract the constraints of the Voluntary Restraint Agreement. (The Agreement was extended for another year in April 1984, with quotas expanded to 1.85 million units for shipment to the United States.)

As a result of this change in the mix of imported automobiles, the unit value index for automobiles increased at a much sharper rate than did the price index. (See chart 6.)

Chart 4. Percent change in the dollar volume of U.S. exports and imports and in the trade deficit, 1979-84



NOTE: Data are on a balance of payments basis.

SOURCE: Bureau of the Census.

The price index adjusts for quality changes and maintains a constant mix of goods; price is the only fluctuating variable. The unit value index reflects the shift to higher-valued models, as well as price change.

The Voluntary Restraint Agreement on Japanese autos continues to be a major price-related issue. Most segments of the domestic industry still contend that the quotas are necessary to compensate for the market advantages arising from the differences in the Japanese commodity tax structure and the undervaluation of the yen. It is clear that the agreement has limited supplies of Japanese autos to U.S. consumers. In the robust car market of 1984, the Japanese share of the American market declined to 18.3 percent from 20.8 percent in 1983, with a decrease of over 9,000 units sold.⁴⁰ In addition, the quota-driven shift to higher-priced cars has, in effect, provided a pricing floor for competition. The domestic industry has benefited from the combination of competitive new products, a resurgence of consumer interest in larger, more profitable cars, and from strenuous cost-cutting programs. The three major auto makers set all-time highs in net income in 1984 with the industry total at over \$10 billion dollars.⁴¹ As of this writing, there has been no official decision on extension of the quota system beyond April 1985.

U.S. and Japanese automakers continued to pursue cooperative agreements throughout the year. General Motors and Toyota began to assemble prototypes of their jointly-produced subcompact to be delivered to dealers in the spring of 1985. The other three domestic automakers have also entered into joint projects with foreign auto companies, while a third Japanese producer is preparing to produce autos in this country.

Although this trend is consistent with the internationalization of the world automobile industry, the U.S.-Japanese efforts are specially designed for mutual advantage. The Japanese enjoy access to the lucrative U.S. market and dampen pressures for domestic content legislation; the domestic industry gains technological and financial assistance in the area of capital-intensive small car production.

Prices for imported metalworking machinery continued to decline in 1984, particularly in the second half. Favorable exchange rates and decreasing production costs were key factors in this downward movement. In addition, competition from foreign producers intensified as undercapacity in the domestic industry tended to lengthen delivery times.

Under these conditions, the dollar volume of machine tool imports increased 43 percent over 1983 levels, while the value of imported machinery for cutting metal was up by 48 percent.⁴² Japanese machine tool builders increased their share of import sales in this country to 50 percent in 1984, up from 42 percent in 1982.⁴³ This reflects a strategy of concentration on metal-cutting tools, such as computer numerically controlled (CNC) lathes and machining centers (units which feature a series of variable metal-cutting functions). These Japanese tools have attained a reputation for

Table 3. Annual U.S. imports from and exports to selected areas, 1982-84

[In billions of dollars]

Area	Imports			Exports		
	1982	1983	1984	1982	1983	1984
Developed countries ¹	\$147.0	\$157.9	\$208.6	\$122.5	\$122.8	\$135.9
Canada	46.8	52.5	66.9	33.7	38.2	46.5
Japan	39.9	43.6	60.4	21.0	21.9	23.6
United Kingdom	13.5	12.9	15.0	10.6	10.6	12.2
West Germany	12.5	13.2	17.8	9.3	8.7	9.1
France	5.7	6.3	8.5	7.1	6.0	6.0
Developing countries ²	104.2	108.0	126.9	82.7	72.3	74.4
Mexico	15.8	17.0	18.3	11.8	9.1	12.0
Venezuela	5.0	5.2	6.8	5.2	2.8	3.4
Brazil	4.6	5.4	8.3	3.4	2.6	2.6
Taiwan	9.6	12.1	16.1	4.4	4.7	5.0
South Korea	6.0	7.7	10.0	5.5	5.9	6.0
Hong Kong	5.9	6.8	8.9	2.5	2.6	3.1
Saudi Arabia	7.9	3.8	4.0	9.0	7.9	5.6

¹Generally follows the assignment of countries made by the United Nations to include Canada, Western Europe, Japan, Australia, New Zealand, and the Republic of South Africa.

²Generally follows the assignment of countries made by the United Nations to exclude the developed countries and communist countries in Europe and Asia but include the rest of the world.

NOTE: Export data are on a free-alongside-ship (f.a.s.) value basis, and import data are on a cost-insurance-freight (c.i.f.) basis.

SOURCE: *Highlights of Export and Import Trade*, FT-990 (Bureau of the Census), table 5, section B, and table 8, section C.

reliability and competitive price, and deliveries tend to be prompt.

In this climate of fierce international competition and shifting markets, the pace of technological development has quickened. Machine tool flexibility and computer compatibility are two areas in which product innovation has been swift in recent years. Intensified competition has also increased protectionist pressures. At yearend, the Japanese Ministry of International Trade and Industry (MITI) was expected to approve a 1-year extension of a floor-price system for numerically controlled machine tools exported to the United States, Canada, and Western Europe.⁴⁴ Meanwhile, there has not yet been any action taken in response to a petition filed by the National Machine Tool Builders' Association seeking restrictions on machine tool imports to this country.

Following a 4.1-percent slide from December 1981 to December 1983, prices for imported electrical machinery and equipment dropped another 9.8 percent in 1984, despite brisk demand for new appliances for residential housing and electronic components for military equipment. A substantial 17.4-percent price decline for imported electronic components was the main contributor to the large downward movement in the index, although moderate decreases also occurred for household appliances, electrical apparatus for circuits, electric power machinery, and automotive electric equipment. Soaring U.S. demand for Asian electronics in 1984 induced hurried expansion of foreign manufacturing facilities. Output increases occurred in Hong Kong, Taiwan, and South Korea, and in Malaysia, where some new factories

were completed in 1984.⁴⁵ Economies of scale and technological advancements combined with lower costs for aluminum, copper, and steel inputs to further depress 1984 import prices for this product group.

Similarly, import prices for telecommunications, sound recording, and sound reproducing equipment fell 3.8 percent in 1984. Since June 1983, this product group had experienced a 6.1-percent price erosion, despite healthy growth in demand. Intense competition among an increasing number of domestic and foreign companies continued to depress prices for some high-growth products within the group in 1984. Videocassette recording (VCR) equipment is a case in point. U.S. VCR sales were about 7 million units in 1984, compared to 4 million in 1983 and 2 million in 1982.⁴⁶ Throughout 1984, however, U.S. and Japanese producers fought to maintain and expand market shares and distribution channels, in anticipation of Korea's entry into the U.S. VCR market in the summer of 1985.⁴⁷

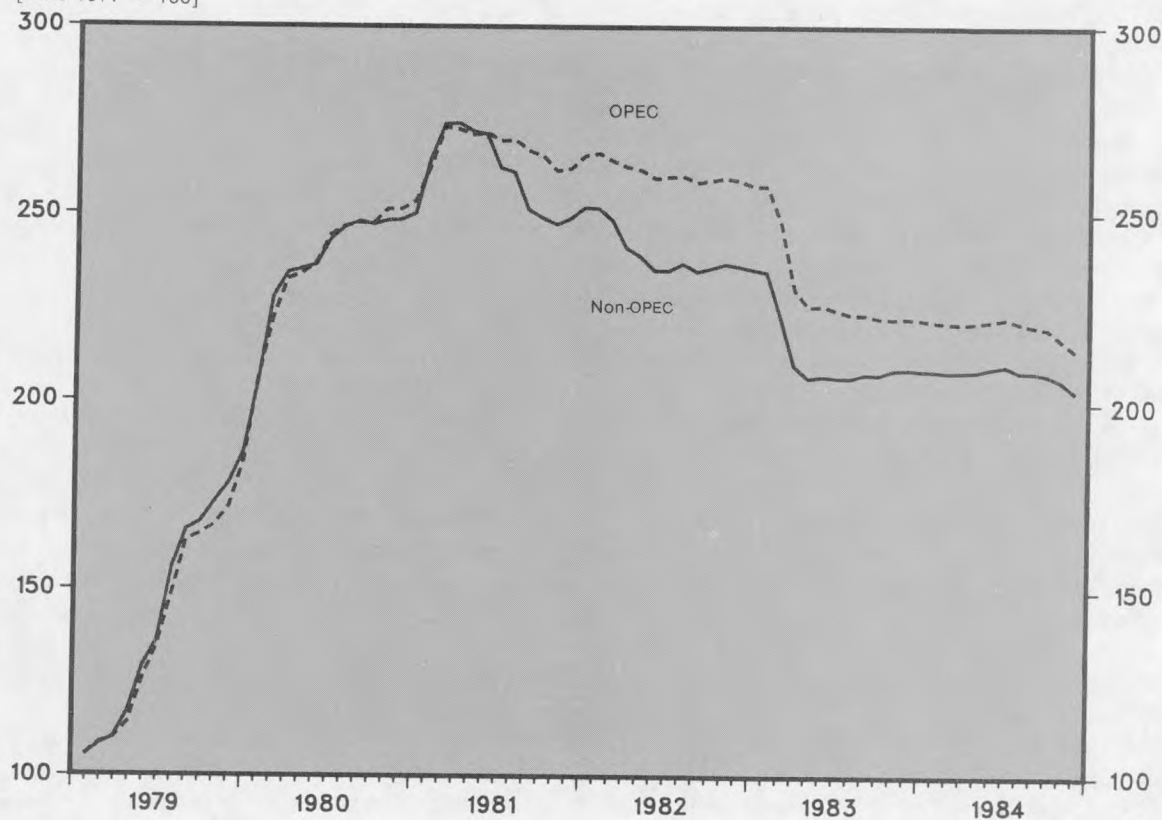
Many producers of equipment in this import price index have taken advantage of technological advancements which tend both to reduce production costs of new output and to lower prices on competing older models. Some products in this group, such as stereos and televisions, enjoyed less spectacular U.S. sales growth in 1984, but experienced sim-

ilar levels of competition among Asian suppliers as well as large inventory accumulation. Furthermore, deregulation of the U.S. telecommunications industry has led European and Japanese manufacturers of telephone and telegraph equipment to enter the U.S. market aggressively.⁴⁸ In April 1984, however, the U.S. International Trade Commission ruled that imports of color television sets from South Korea and Taiwan were injuring domestic producers and penalty duties were imposed, helping to mitigate the price decline in the index for telecommunications, sound recording and reproducing equipment.⁴⁹

Food. The import price index for food decreased 2.3 percent in 1984, following a 3.8-percent advance in 1983. The 1984 decline was mainly the result of a 6.2-percent drop in the index for fruits and vegetables, a 2.0-percent fall in coffee, tea, and cocoa prices, and a 1.3-percent lowering of meat prices. Domestic meat supplies were at a record level in the first half of the year, while U.S. crop output was up sharply in the second half.⁵⁰ Furthermore, global commodity prices were under pressure, as large yields were only partially offset by a modest expansion in consumption.⁵¹ U.S. food imports were \$19.4 billion for the year, up from \$16.7 billion in 1983.⁵² The price index for food, which represents 6.6 percent of the all-import price index,

Chart 5. Monthly OPEC and non-OPEC price indexes for U.S. imports of crude petroleum, 1979-84

[June 1977 = 100]



is one of the most volatile components of that index because of production uncertainties related to weather and other factors.

The index for coffee, tea, and cocoa comprises 35 percent of import food index. World coffee prices fell rapidly in the second half of the year, following steep gains in 1983 and the first half of 1984. Undershipments caused by transportation difficulties, the threat of a frost in Brazil, and shortages of quality beans from West Africa and Brazil resulted in rising coffee prices in first-half 1984. Additional stocks equivalent to 7 percent of the quotas initially negotiated by the International Coffee Organization (ICO) were released during the first three quarters of 1984 to reverse the upward price trend.⁵³ (The ICO is an organization of producing and consuming nations which uses export quotas to stabilize global prices.) A new ICO agreement concluded in October 1984 allowed for an especially large release of coffee between October and December—a peak consumption period in the Northern Hemisphere—and abundant supplies contributed to the decline in coffee prices in the second half.⁵⁴ Expectations of good crops in major African producing countries placed further downward pressure on coffee prices late in the year.⁵⁵

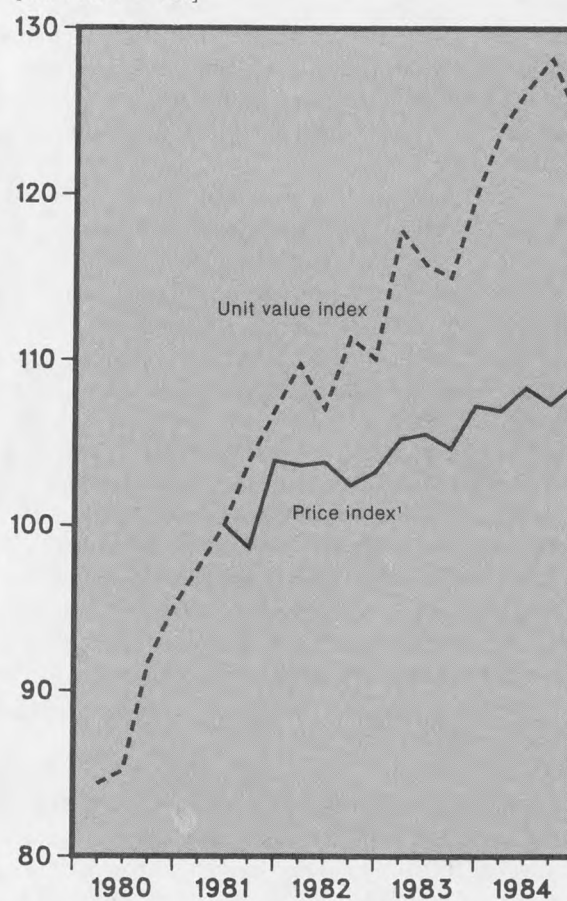
Similarly, abundant cocoa supplies in the second half of 1984 drove prices downward. This decline was sharper than that for coffee in the absence of any price-stabilizing agreement among major exporter and importer countries. Conversely, imported tea prices rose 3.7 percent over the year, for a price gain of 55 percent since June 1982. The price advance reflected a shortage of raw tea in the world market, as production failed to keep pace with increased demand, particularly in the Middle East, the Soviet Union, and Western Asia. Exports from China and India were also limited in 1984 by strong internal demand. From late 1983 to the summer of 1984, the Indian government banned exports of certain types of teas to ensure adequate domestic supplies.⁵⁶ However, tea prices began to fall in late 1984, primarily because favorable weather conditions in Sri Lanka boosted that country's tea output approximately 17 percent above 1983 levels.⁵⁷ An abundance of lower quality teas in May and June also moderated the 1984 price increase.

The import price index for meat decreased 1.3 percent in 1984, after dropping 6.5 percent the previous year. The price reduction was influenced by a 4-percent rise in domestic cattle slaughter in 1984, which added to already large meat supplies.⁵⁸ The price decline also reflected sluggish demand, as U.S. consumers showed a continued dietary preference away from red meat. Imports of meat were down 9 percent in the 1983/1984 marketing year (October–August), while poultry imports increased 37 percent for the same period.⁵⁹

Import prices for fruits and vegetables decreased a substantial 6.2 percent in 1984, as steep price drops in the second half dominated significant first-half increases. (The offsetting price movements reflect differences in the types

Chart 6. Quarterly unit value and price indexes for U.S. automotive imports, 1980–84

[June 1981 = 100]



¹ First published for second-quarter 1981.

SOURCE: Bureau of Labor Statistics and Bureau of the Census.

of crops harvested in the 2 marketing years included in calendar year 1984.) Fruits and vegetables are particularly sensitive to weather developments, with domestic supplies limited early in 1984 because of harsh weather conditions. Imports of vegetables and vegetable preparations, mainly from Mexico and Canada, jumped 24 percent over the 1984 marketing year (October–August), while fruit and nut imports gained a similar 21 percent for the same period.⁶⁰ However, spring yields of vegetables in the United States and worldwide were considerable, and the upward trend of prices was rapidly reversed. Imports of orange juice from Brazil continued to soar during the year as Florida citrus was damaged by the fourth freeze within the decade in December 1983, and was threatened by an outbreak of citrus canker late in 1984.

Intermediate manufactures. Prices for imports of intermediate manufactures decreased a slight 0.4 percent in 1984,

after rising 3.7 percent in 1983. This product category includes a number of basic inputs to manufacturing processes, such as paperboard, glassware, iron and steel, and nonferrous metals. The United States imported \$49 billion of these products in 1984, up from \$37 billion in 1983, as the economic recovery spurred demand.⁶¹ Substantial price declines for nonferrous metals, cork and wood manufactures, and nonmetallic mineral manufactures during the year were almost wholly offset by sharp price gains for textiles, paper, and iron and steel.

Prices for imported iron and steel rose 3.5 percent in 1984, following a 1.8-percent increase during the preceding year. Iron and steel imports were 60 percent higher in 1984 than in 1983, and import penetration of the domestic market climbed to 26 percent from 20 percent in the earlier year.⁶² U.S. demand for sheet steel was particularly strong because of increased sales of autos and appliances. Although import prices for steel have increased over the past 2 years, many foreign suppliers are still able to deliver steel to the United States at prices below those of the major domestic steelmakers, primarily because of the strength of the U.S. dollar and their own relatively low output costs. Specifically, foreign producers often enjoy lower labor costs than U.S. firms, receive some form of government subsidization, and/or make extensive use of more efficient production methods, such as the continuous casting method of production.⁶³ In 1984, domestic steel production was up a modest 8 percent from depressed 1983 levels.⁶⁴

A significant portion of the post-1981 steel import surge came from developing nations—particularly Mexico, Argentina, and Brazil—which engaged in aggressive marketing practices in order to obtain foreign exchange to service their international debts. Other countries, such as South Korea, expanded steel facilities in 1984, adding to the glut in world steelmaking capacity. Also in 1984, additional foreign shipments entered the United States after being diverted from other countries which had imposed restrictions on their steel imports.⁶⁵

The wave of imports led the U.S. steel industry to petition for Federal relief in May of 1984. This threat of quotas or tariffs caused some foreign steelmakers to step up shipments during the first 6 months of the year. Others, fearing that they would be charged with selling steel below cost, raised their prices to the United States. The end result of the domestic industry's efforts to limit imports was a pledge by the U.S. government to restrict 1985 steel imports to 18.5 percent of the domestic steel market through voluntary agreements with major suppliers. By mid-December, the United States had concluded several supply-limiting agreements with foreign steel producers, including Japan's commitment to limit her exports to the United States to 5.5 to 6.0 percent of the U.S. market.⁶⁶ Other negotiations, such as those conducted with South Korea, were stalled at year's end, with domestic steel producers threatening revival of numerous other import petitions if the Government failed

to conclude such export-restraint accords.⁶⁷

Nonetheless, stiff competition among fully integrated U.S. steelmakers, foreign suppliers, and domestic minimills continued during 1984. Minimills convert steel scrap and semi-finished slabs into products such as bars, rods, and light structurals. Taking advantage of production costs that are approximately one-third less than those of integrated plants, they continued to expand their market share over the year. To become more competitive, the major U.S. steel firms have sought mergers, cut capacity, lowered labor costs, and invested in technological advancements. Domestic steel capacity was reduced from 160 million tons in 1977 to 135 million tons at the start of 1984.⁶⁸ Since the beginning of 1982, 20 major continuous casting capital projects have been completed or initiated, and plans for four electrogalvanizing lines have been announced since the start of 1984. During the year, the development of a new process called thin-slab casting (already being tested in Japan and Europe) spurred a joint research project between U.S. Steel and Bethlehem Corporation. A 1984 merger between LTV Steel and Republic Steel formed the second largest U.S. steel producer, and a venture between this company and Sumitomo Metal Industries of Japan to produce rust-resistant steel in the United States also was undertaken during the year.⁶⁹

The competition among producers has become even sharper as demand for steel in this country declines. Demand has been dampened by significantly higher U.S. spending on foreign-made capital goods, by the downsizing of U.S. automobiles in recent years, and by the substitution of other metals and plastics for steel by many of the industry's traditional customers.

The effect of the strong dollar was evident in price decreases for imported nonferrous metals in 1984. The volume of imports of many metals sharply increased over the year as suppliers in debt-burdened developing countries stepped up production for export. Moreover, exchange rates further enhanced the price competitiveness of imports, which stems from production cost advantages. Copper and copper alloy imports by the United States increased 13.0 percent in 1984, leading domestic producers to seek (albeit unsuccessfully) quota protection from the U.S. International Trade Commission.⁷⁰ The oversupply on world markets has also caused market prices for copper to fall, despite low domestic inventory levels and an 8-percent increase in copper consumption by the non-Communist world.⁷¹

Prices for zinc did not sustain their strong growth of the first half of 1984, yet showed a decline of only 0.3 percent for the year as a whole. The metal was in great demand for steel galvanizing applications, especially in the domestic automobile sector where increased steel durability is being emphasized under expanded warranty protection. Tin prices, on the other hand, continued in steep decline, reflecting a combination of slack demand and significant oversupplies in world markets.

The metal for which price is most directly affected by

movements in the dollar and interest rates is silver, due to its appeal as a speculative commodity and a hedge against inflation. In the past, there has tended to be an inverse relationship between the price performance of silver and the direction of interest rates. Thus, in the economic climate of 1984, silver prices hovered at depressed levels, although there was a small rally in the fourth quarter in response to a decline in short-term interest rates.

Miscellaneous manufactured goods. The import price index for miscellaneous manufactures, which comprise almost 10 percent of the all-import index, experienced a very slight, 0.1-percent downward drift in 1984. The stability of this index was the result of significant price movements in both directions for a number of consumer items. The upward pressure exerted by a 7.8-percent increase in clothing prices, a 4.8-percent rise in footwear prices, and a 5.3-percent gain in watch and clock prices was more than offset by a 17.3-percent price drop for collectors' pieces, a 4.8-percent decline for professional, scientific, and controlling instruments, a 7.6-percent decrease for musical instruments and accessories, and various more-moderate drops for such items as toys and jewelry. U.S. imports of miscellaneous manufactures leaped 35 percent in 1984.⁷²

Increased clothing and footwear prices reflected healthy domestic demand throughout 1984, and imports of these products soared. Limited supplies of some apparel items contributed to higher price levels, in part because of Federal tightening of import controls in 1983 and 1984, and new quota regulations issued late in 1984.⁷³ These new "transshipping" rules attempt to prohibit shipment of a garment under a country's quota if the garment was not substantially constructed in that country. The regulations especially curbed supplies of sweaters and knit shirts from Hong Kong, Taiwan, and China. Investigations by the U.S. International Trade Commission on the effect of footwear imports on the domestic industry took place in 1984. Although a June ruling determined that imports were not injuring the domestic industry, another investigation was initiated in November and the possibility of increased import controls placed upward pressure on prices for the year as a whole.

The substantial 17.3-percent price drop for imported collectors pieces in 1984 was primarily caused by a decline in gold prices, as speculative demand abated in response to the strength of the U.S. dollar. Similarly, jewelry prices dropped 5.7 percent because of falling metal prices. Other imported consumer products in the miscellaneous manufactures group experienced price decreases despite booming U.S. demand, reflecting expanded foreign output levels and sluggish economic growth in other parts of the world. Videotapes provide an example of a product in this index for which production outpaced sales growth in 1984. Twice as many brands of videotapes were available in the United States in 1984 as in 1983, and prices declined substantially during the year. Worldwide capacity for videotapes in-

creased from 121 million units in 1980 to 736 million units in 1984, resulting in an estimated 25-percent surplus capacity.⁷⁴ Major Japanese videotape producers kept unit costs down during the year by manufacturing tapes for other companies to sell under their own brand names, and this practice further depressed prices over the year.⁷⁵ Also in 1984, Korean manufactures began shipping tapes to the United States and these newcomers captured more than 8 percent of the U.S. market in that year.⁷⁶

Export price trends

Machinery and transport equipment. Machinery and transportation equipment account for 35.3 percent of the value of all U.S. exports. Export prices for these products advanced by 3.3 percent in 1984, following a rise of 2.2 percent in 1983. All major product groups within the machinery and transportation equipment index, with the exception of office machines and computers, showed moderate price gains for the year. Also, the trade value of U.S. exports falling into this category was 8.7 percent greater in 1984 than in the previous year.⁷⁷ Price growth was strongest in such areas as power-generating equipment, electrical machinery, and aircraft, where the technical sophistication of U.S. production provides a comparative advantage. Other product areas in which world competition based on quality considerations has intensified—such as telecommunications equipment, office machines, and transportation equipment—showed more moderate price movements, as U.S. producers attempted to cope with the current exchange rate climate.

One export category demonstrating significant price growth was power-generating machinery and equipment, for which the index advanced 8.5 percent in 1984. This grouping includes a variety of powerplant equipment for transportation uses, as well as industrial motors, turbines, generators, and their parts. Benefiting from increasing demand for capital equipment in export markets, export trade volumes for power-generating machinery and equipment increased by 5.8 percent in 1984.⁷⁸ Due to the reputation of U.S. manufacturers, product categories such as aircraft engines and their parts, and automotive engine parts have consistently enjoyed high levels of export demand, which has permitted moderate price advancement. Some groups, such as marine powerplants and replacement parts for generators, demonstrated even stronger price growth during the year.

The export price index for road vehicles and parts is the largest component of the machinery and transportation index. The indexes of its two major product groups, passenger automobiles and motor vehicle parts, moved in different directions during the second half of the year, although both categories registered moderate overall increases for the year as a whole.

The export index for automobiles advanced by 2.3 percent in 1984. The overwhelming majority of automobile exports from U.S. plants are shipped to Canada; in 1983, for ex-

ample, 93.9 percent of such exports were to the Canadian market.⁷⁹ Buoyed by an economic recovery in Canada, new car sales in that country increased by 15 percent in final 1984 figures.⁸⁰ This market growth has permitted U.S. automakers to raise prices, and thus to begin recouping the substantial investment in new design and production technologies made in recent years. Significant capital equipment outlays, in conjunction with strenuous cost-cutting efforts in other industry spending, are helping U.S. automakers compete effectively in the rapidly changing world automotive market.

Despite the continuing surge in shipments of export motor vehicle parts, the index for this category increased by only 0.8 percent in 1984. Increased original equipment manufacture in both Canada and Mexico has fueled demand for U.S. exports of auto parts. However, price growth for these components has been dampened by the strength of the U.S. dollar in an increasingly competitive world market, as evidenced by price erosion of 1.5 percent in the second half. The evolution of the "world car" concept has enhanced the development of parts industries in many countries, where high standards of quality control have been applied.

The "other transport" export price index, which includes aerospace parts, railway equipment, ships and boats, and general aviation aircraft, advanced 6.9 percent in 1984. Excluded from coverage in the index are commercial transport and military aircraft.

Prices for exported general aviation aircraft registered a 10.2-percent increase for the year. The percentage share of industry billings represented by exports continued to decline in 1984, having dropped to 15.4 percent from a 33-percent level in 1982.⁸¹ However, because price levels also reflect the state of domestic demand and the industry's high production costs, a stronger domestic sales performance in the second half, especially in the high-priced business jet aircraft segment, contributed to price growth.

Export prices for aircraft parts rose 6.3 percent during the year. The high quality and technological sophistication inherent in U.S. products has earned a worldwide reputation and sales dominance. Despite the disadvantageous exchange rate, U.S. manufacturers are able to raise prices as production costs increase because of the demonstrated inelasticity of demand for aerospace replacement parts.

In 1984, the office machine and data processing (ADP) equipment category continued to be the only major sector in the export machinery and transportation equipment index to register regular patterns of price erosion. The index for the category declined 1.1 percent over the year, and has fallen 15.6 percent since yearend 1980. In 1984, prices for office machines fell 0.5 percent, ADP machines and units were down 0.4 percent, and prices for associated parts weakened at a 1.8-percent rate.

This downward price trend is in part attributable to the high fixed costs of product development and low variable costs of production characteristic of goods in the category:

Once fixed costs are covered by sales in the initial period, it is relatively easy for producers to reprice output in order to compete successively in a variety of markets. As higher priced markets become saturated, the price of a given product is often lowered over time to be competitive in less-profitable market segments.

Another major factor associated with price declines is the fiercely competitive world market for these products, in which U.S. exporters are again burdened by the sustained strength of the dollar. This market context has stimulated alliances and partnerships between competitors for purposes of product-line diversification. For example, Burroughs, NCR, Sperry-Rand, Control Data Corp., and Honeywell—companies that formerly specialized in computer mainframes—all have made alliances with other firms that enable them to offer a more complete range of products.⁸²

The world competitiveness of U.S. exports of office machines and computers is reflected in export trade volumes for 1984, which were up 67.5 percent from 1980 levels and 25 percent from yearend 1983 levels.⁸³ Export trade was buoyed in 1984 by improved economic performance in European economies, a major export market for this equipment.

Food. Grain prices—the main component of the export food index—declined 12 percent in 1984 following a 16.8-percent advance in 1983. The drop in the index was attributable to significant reductions in corn and sorghum prices, and a slight downward movement in wheat prices. (Soybean prices, which also declined sharply over the year, are included in the crude materials index.) Market prices decreased as 1984 U.S. corn output was almost double that of 1983 and as wheat stockpiles remained large through the year. U.S. grain exports were \$16.1 billion in 1984, representing a 6.1-percent increase over 1983 levels and accounting for 7.4 percent of the value of total U.S. merchandise trade exports.⁸⁴

Corn prices dropped 18.4 percent in 1984, after a 34.5-percent jump in 1983. U.S. corn production had plummeted more than 50 percent in the 1983/84 marketing year (October through September), but should increase an estimated 80 percent for the same period in 1984/85.⁸⁵ The drawing down of corn surpluses in 1983 due to crop reduction programs and dry weather, and floods in the Midwest which disrupted the planting of spring crops in 1984 combined to increase speculative demand. Initially, high prices resulted, but these began to fall rapidly in mid-1984, because only an estimated 4.2 million acres of the corn base were idled in Federal land retirement programs in that year compared with 32 million acres in 1983.⁸⁶ In addition, yields were up about 30 percent from 1983's abnormally low level.⁸⁷ A factor inhibiting demand for corn during the year was the corn feeding rate; its 1983/84 level was the lowest since 1976/77, primarily because higher livestock prices encouraged large slaughters which reduced cattle herds.⁸⁸ Also, wheat prices were low

enough that wheat tended to be substituted for corn.

Other coarse grains, such as sorghum and barley, can also be used as substitutes for corn and these exhibited similar price declines in 1984 because of plentiful supplies. Competition from Argentina, Australia, Canada, South Africa, and Thailand limited U.S. export sales of coarse grains over the year. Production in these major exporting countries rose an estimated 10 percent in 1984, while the appreciation of the dollar made U.S. commodities relatively more expensive.⁸⁹ Meanwhile, China's coarse grain harvest set a record in crop year 1983/84 and is expected to increase another 3 percent in 1984/85.⁹⁰ China has not purchased major amounts of coarse grains from the United States since March 1983, despite the Long-Term Grain Agreement between the two nations that stipulates purchases of almost 1 million tons annually.⁹¹ Projected record production in Europe (stemming from increased use of high-yielding varieties), along with ideal weather conditions in the United States during the summer, further drove down prices of corn and other coarse grains in 1984. The price decline was somewhat tempered by large Soviet purchases to supplement poor harvests in that country, and by growing demand for high-fructose corn syrup as the U.S. beverage industry increasingly substituted this product for sugar.

Export prices for wheat edged downward 0.2 percent in 1984, a decline attributable to an abundant domestic harvest, huge U.S. stockpiles, and rising world production. The poor Soviet harvest, a drought in Africa, and severe spring flooding in the Midwestern part of the United States mitigated the price decline for the year. Competition in the world wheat market was heightened by output gains in Australia, China, and Europe. Moreover, harvests were better than expected in Argentina, a country which has substantially expanded its exports of hard winter wheat in recent years. Wheat prices also tumbled in second-half 1984 for the same reasons that export prices for other agricultural products were falling—the strength of the U.S. dollar, higher yields, and excellent summer weather conditions in the United States. Although the Soviet Union imported more U.S. wheat in 1984 than in 1983, that nation seemed to be shifting some of its business to the European Community and particularly to France, which had large export amounts available in 1984.⁹² Foreign-grown wheat exports in 1983/84 (July–June) were 10 percent higher than for the 1982/83 crop year, with slightly higher projections for the 1984/85 period. U.S. wheat exports will have increased approximately 4 percent between July 1982 and June 1985.⁹³

Crude materials. The 9.6-percent price drop for crude materials in 1984 contributed significantly to the decrease in the all-export price index, as these materials represent almost 11 percent of the index weight. Although demand for these products, which are used in the early stages of production, increased as worldwide industrial activity began to pick up in 1984, rising supplies of crude materials and

the dollar's strength tended to depress export prices. U.S. exports of crude materials during the year were \$20.25 billion, an 8.9-percent increase over the 1983 dollar volume.⁹⁴ Substantial price declines for oilseeds, textile fibers, wood, and metal ores and scrap were partially offset by increased prices for pulp and waste paper, crude minerals, and crude rubber.

Falling soybean prices contributed substantially to the decline in index for crude materials. Soybean supplies rebounded significantly in 1984 following a drought in 1983. Soybeans are processed into meal or oil. In November 1984, soybean meal prices stood at their lowest level since October 1977, in part because reduction of U.S. livestock herds had dampened demand for feeds.⁹⁵ Lower prices for soybean meal also reflected the increased use of wheat for feed; because wheat contains more protein than corn, less meal is required to balance rations when wheat is used.⁹⁶ Increased Brazilian exports, which were relatively inexpensive because of the rapid appreciation of the U.S. dollar against the cruzeiro, also depressed soybean prices in 1984. Strong demand for soybean oil helped mitigate the price decline, even as vegetable oil supplies in Southeast Asia increased in the second half of the year.

Falling cotton prices were the principal reason for the 13.3-percent slide in the textile fibers price index in 1984. U.S. cotton prices dropped 16.2 percent over the year, following a 30-percent gain in 1983. The United States is the world's leading exporter of raw cotton, and U.S. exports of this commodity for the 1983/84 season were 31 percent above those for the 1982/83 year.⁹⁷ (The cotton year runs from August through July.) This higher export demand had to be met from U.S. surplus stocks because cotton production had declined dramatically during the 1983/84 year. Consequently, cotton prices rose significantly in 1983 and first-half 1984.

The upward price trend for cotton was reversed in mid-1984, when it became apparent that world cotton production in the 1984/85 season could reach record levels, exceeding the previous season's output by 20 percent.⁹⁸ The downward price movement also reflected a 41-percent increase in acreage planted and a 22-percent higher yield from the 1984/85 U.S. crop.⁹⁹ Furthermore, the U.S. Department of Agriculture projected that U.S. cotton exports would decline 7.4 percent for the 1984/85 year, compared with the same July–June period in 1983/84.¹⁰⁰ However, cotton exports remained fairly strong in the second half of 1984, principally because of significantly higher shipments to the Soviet Union, Italy, Yugoslavia, West Germany, and Greece. Competition for the important Asian market escalated over the year as China enjoyed record-breaking harvests, and yields in Mexico and Brazil proved large. (Japan, South Korea, and Taiwan are the leading buyers of U.S. cotton.) While textile production and imports of U.S. cotton have grown in Latin America in recent years, these countries also have greatly expanded

their internal cotton production. Such policies have tended to dampen the growth of U.S. cotton exports to Latin America, particularly in the latter half of 1984.

Export prices for wood fell 3.4 percent in 1984, following a 1.2-percent increase in 1983. Prices for wood had registered decreases in 1980 and 1982, with only a slight increase in 1981; from March 1980 through December 1983, the index for this product group slid 18 percent. A significant proportion of U.S. wood exports consists of high-quality lumber and logs for furniture production in Japan, Europe, and, increasingly, in the newly industrialized Far Eastern countries. Lower quality U.S. lumber is used as general construction material in the Caribbean. The declining export prices in recent years were partially the result of the slow pace of construction and consumer spending in these foreign markets. Furthermore, competition from Canada combined with excess supplies in the United States to exert downward pressure on prices in 1984. U.S. log and lumber exports for the year were 3 percent below 1983 amounts.¹⁰¹

The U.S. wood and wood-products industry faced stiff competition in 1984 from Canadian companies, which enjoyed a price advantage because of abundant supplies of inexpensive government-owned timber, and the relative strength of the U.S. dollar. To become more competitive, U.S. manufacturers attempted to lower costs and to expand offshore markets. However, some foreign countries, such as Japan, have enacted measures to protect their domestic industries. Moreover, lumber for export must be sized to conform to metric standards, and some domestic mills are not equipped to cut wood in this manner.

Excess capacity and high production costs have beset the U.S. wood industry in recent years, primarily because home-building activity during the early 1980's was less than anticipated. Lumber companies had expected rapid growth in starts of single-family homes because of the maturing of the U.S. population. Accordingly, firms expanded their facilities and land holdings in the 1970's and bid up prices on Federal timberlands, resulting in high operating costs.¹⁰² Over the past 2 years, the industry has initiated deep production cuts and widespread mill closings, despite a pick-up in housing. A law enacted in October 1984, which permits companies to buy out of their high-priced Federal timber contracts, also helped to reduce costs late in the year.¹⁰³

Chemicals. The chemical export price index registered a 0.9-percent decline for 1984, reflecting increasingly competitive conditions in the world chemical market, the continued strength of the U.S. dollar, and lower raw material costs. Foreign market sales have historically been a substantial percentage of U.S. chemical shipments, and have resulted in trade surpluses for most chemical categories. These trade surpluses have narrowed in recent years because of a proliferation of imported chemicals in the domestic market at the same time that U.S. exports were being hampered by the strong dollar. Although chemical exports jumped

13 percent in 1984, imports climbed 27 percent, resulting in only a \$7.9 billion trade surplus, compared with \$8.5 billion in 1983 and \$10.4 billion in 1982.¹⁰⁴

Chemical prices were influenced by the expansion of foreign chemical production capacity, particularly in oil-producing nations such as Saudi Arabia, Kuwait, and Mexico. These nations enjoy the cost advantage resulting from the ready availability of extremely low-cost petroleum feedstocks, which has exerted downward pressure on world chemical prices in recent years. However, a continued decline in crude oil prices during 1984 enabled other producers, including those in the United States, to lower prices on some chemical products. For example, the production of polymers and copolymers (plastics) involves substantial petroleum use, and U.S. export prices for this group dropped 12 percent in 1984.

Although export prices for some chemical products, such as polyvinyl chloride (PVC), rose moderately in 1984, U.S. manufacturers of these products were also adversely affected by a rising tide of imports. Forty percent of the consumption of PVC is for pipeline, the demand for which depends on residential construction. The year saw an approximate doubling of PVC imports and a 50-percent reduction in U.S. exports.¹⁰⁵ Excess supplies of this product thus persisted in the United States despite healthy demand. Other chemical categories were similarly affected, and some U.S. producers continued to reduce their operating costs in 1984 in an attempt to remain competitive in both the domestic and foreign markets. These cost-reduction measures followed deep cuts induced by recession in the previous 3 years, and furthered the long-term slide in chemical prices. For example, export prices for hydrocarbons decreased 29.3 percent from June 1981 through December 1984.

Intermediate manufactured products. Export prices for intermediate manufactured products advanced 0.4 percent in 1984. A significant increase of 9.6 percent for paper and paperboard products was offset by a 12-percent decrease in prices for nonferrous metals. In 1983, this category had registered a 3.1-percent price increase. The decline in value of U.S. exports of intermediate manufactured goods over the past few years was halted in 1984, as volumes increased slightly to \$15.1 billion from the \$14.9 billion posted in 1983.¹⁰⁶

A 9.6-percent price advance for exported paper and paperboard products was a principal contributor to the upward movement in the intermediate manufactures export price index for 1984, as U.S. paper exports increased 11.9 percent.¹⁰⁷ Paper supplies remained tight as U.S. producers were operating at close to full capacity throughout the year. Production in this industry is highly capital-intensive and additional capacity cannot be brought on-line easily over a short period. In some cases, capacity planned in 1984 will not be ready for use until 1986. Foreign and domestic de-

mand for kraft paper, which is primarily used for packaging material, grew dramatically as manufacturing output rose, particularly in the United States and Japan. White coated-paper demand was up with brisk magazine sales, and booming catalog and advertising distribution. And the growing use of office and home automation products boosted demand for both writing and printing papers. From the supply side, a labor strike in the major pulp-producing region of Canada limited shipments from that nation in first-half 1984, further driving up world paper prices.

Export prices for nonferrous metals declined by 12 percent in 1984, following an increase of 1 percent in 1983. Significant price drops were registered for silver (-21.0 percent) and aluminum (-13.7 percent). Demand for silver remained very

slack as the strength of the dollar and the level of interest rates weakened the metal's attractiveness as a speculative commodity. Demand by industrial users was not sufficient to offset price dampening factors. Aluminum prices, which fell sharply in the fourth quarter, have been affected by steep drops in ingot prices and growing producer inventories, which increased by 738 million pounds between November 1983 and November 1984.¹⁰⁸ Export volumes for aluminum were down by 15.5 percent in a similar November to November comparison.¹⁰⁹ High domestic energy costs (the largest cost factor in aluminum production) and the strength of the dollar have damaged U.S. competitiveness in a world market that has seen dramatic increases in foreign capacity in recent years, particularly in such countries as Brazil, Australia, and Canada. □

—FOOTNOTES—

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$$\frac{\text{Merchandise imports} + \text{Merchandise exports}}{\text{Sales of final goods} + \text{Merchandise imports}} \times 100$$

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- ¹⁰⁸ *The Aluminum Situation* (Washington, The Aluminum Association), January 1985, p. 4.
- ¹⁰⁹ Ibid.

Revision of Consumer Price Index is now under way

Upon completion in 1987, the revised CPI will reflect current population and spending patterns, as well as an improved housing survey and other technical enhancements

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The Bureau of Labor Statistics is in the midst of a 5-year program to update and improve the Consumer Price Index (CPI). The resulting changes will be introduced in the January 1987 indexes. The 1987 revision will use the Consumer Expenditure Survey data from 1982-84 and population distributions from the 1980 census to update the CPI market basket. A greatly enhanced housing survey is being developed that will improve the rental equivalence measure of homeowner costs recently introduced in the CPI. Many of the sampling advances introduced in the 1978 revision will be refined for 1987 and other methodological enhancements will be made.

This article explains why periodic CPI revisions are needed, briefly reviews previous revisions, and describes the current revision plans.

Why periodic revisions are needed

The CPI is a measure of price change for a fixed market basket of goods and services of constant quantity and quality purchased for consumption. It is essential to update that market basket periodically so that the CPI reflects price changes of items currently purchased by consumers. Consumers change their purchasing patterns as a result of changes in a number of factors, including relative prices, real income, demographic characteristics, and tastes.

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Price changes over time may differ among items and these differences can affect consumer demand. This is illustrated by rapidly rising prices for energy items over the last decade. In the Consumer Price Index for All Urban Consumers (CPI-U), energy products (gasoline, motor oil, electricity, natural gas, fuel oil, bottled gas, and coal) rose 218 percent from December 1972 to December 1980, more than twice as fast as the average increase for all items. According to data from the Consumer Expenditure Surveys, urban consumer units¹ reported an average annual expense for energy items of \$743 for the 1972-73 period and an annual average of \$1,783 for the 1980-81 period. This 140-percent increase is substantially smaller than the change that occurred for prices and implies a reduction in consumption of energy items as a result of higher relative prices. This adjustment was also seen in related consumption such as the increased demand for smaller and more fuel-efficient automobiles.

Another factor which can influence consumers' consumption patterns is changing real income. If prices paid by consumers and their money income were to increase at the same rate, consumers' real income would remain unchanged. Average money income in constant dollars declined about 7 percent between 1972 and 1981, both for households and for families. However, per capita average real money income increased by more than 3 percent during the same period.² The rise in per capita income, in contrast to the decline experienced by families and households, is a direct result of the average size of families and households becoming smaller.

The impact of rising prices on some families can be offset by having additional income from another member joining the labor force. For example, in 1972, 41.5 percent of married women with a husband present were in the labor force. By 1981, the percentage increased to 51. The labor force participation rate for married women, husband present, and with children under 6 years of age increased from 30.1 percent in 1972 to a rate of 47.8 in 1981.³ Demographic-related changes of this kind affect expenditure patterns. For example, expenses for such items as day care/nursery school and babysitting might increase and there could be additional expenses for eating meals out and transportation.

Still other factors which affect the pattern of consumption over time are product changes and technological changes which can affect consumers' demand for various goods and services. The electronics industry in particular has influenced consumer preferences by its introduction of such items as the personal computer, video games, and video recorders. Over time, a number of products are modified, expanded, or improved, depending on the demand of consumers, and these changes influence subsequent purchasing decisions of consumers.

Finally, a more subtle phenomenon which contributes to changes in the relative importance of items in the market basket is that tastes of consumers change. There are a variety of ways in which lifestyles and tastes change, such as the increasing number of persons who are active in some form of physical exercise such as jogging, cycling, or using the facilities of a physical fitness organization. These preference shifts also change expenditure patterns for items such as sports clothing and equipment, and fees paid for recreational facilities.

Population changes. Not only do the consumption patterns of individual consumer units change over time, but also the geographic distribution of the population may change. Between 1970 and 1980, the total population of the United States grew 11.5 percent. The population of the South grew 20 percent and the population of the West increased 25 percent.⁴ This means that consumer units in the South and West represent approximately 52 percent of the population for which the revised CPI market basket will be based, compared with 48 percent in the 1972-73 market basket currently being used. Thus, consumption patterns of consumers in the warmer climates of the South and West will have a greater influence on the CPI than before.

Prior revisions

The first major activity in prior revisions of the CPI has been the implementation of a Consumer Expenditure Survey as the basis for selecting and weighting a new market basket of goods and services to be priced. Until these data are in hand, it is impossible to complete a revision of the CPI. The

periods when expenditures were collected that were the basis for the last four revisions are as follows:

<i>Reference year(s)</i>	<i>Release of revised CPI</i>
1934-36	1940
1950	1953
1960-61	1964
1972-73	1978

The time between the reference years of the Consumer Expenditure Survey and the introduction of the CPI with revised expenditure weights was typically 3 years, except for the 1978 revision.

The 1940 revision introduced the concept of a sample of cities and items and the principal of imputation, permitting the CPI to represent price change in all cities and all items purchased for consumption. Prior to 1940, the CPI measured the price change in only the 33 cities being surveyed and for only the items actually priced.

Prior to the 1950 Consumer Expenditure Survey (on which the 1953 revision was based), BLS conducted experimental surveys and test pricings to improve data collection methods and to establish the basic procedures for processing these data. The 1953 revision took 3 years to implement surveys which revised the areas and weights, and updated the item samples priced. This effort was primarily a clerical operation.

After the 1953 revision, it became apparent that the CPI should be revised every decade. By the late 1950's, dramatic changes had occurred: The composition of the urban population changed, with rapid growth of suburban areas, increased use of the automobile affected lifestyles, and new shopping centers catered to the American consumer. A contributing factor to this growth was the 37-percent increase in personal disposable income between 1950 and 1956, with more than two-thirds of the rise being reflected in real income. The BLS received, in mid-1959, authorization for a revision program, which was completed in 1964 with the release of an index with revised weights and outlet samples which included, for the first time, areas outside the central city of metropolitan areas.⁵

The first year of the 1964 revision was dedicated to pilot surveys for testing and debugging procedures to be used nationwide. After clerical edits and professional reviews of the data, the computer was used to process estimates of expenditures and indexes.

The 1978 CPI revision took longer than the previous revisions because it included the introduction of new approaches to the collection of consumer expenditures and a number of complex improvements and innovations in pricing for the CPI. A thorough examination of the CPI, its concepts and operational processes, was made during the revision. The growth of computer applications during the decade of the 1960's made it possible to introduce statistical techniques and monthly operational processes which were not feasible in earlier efforts of producing estimates of monthly price change.

Innovations of the 1978 revision

Innovations in collecting expenditure data for the 1978 revision contributed to a longer time between the Consumer Expenditure Survey reference data and the introduction of the revised CPI. Prior to the 1972-73 Consumer Expenditure Survey, interviewers visited all sample households during February through June and asked the respondents questions needed to reconstruct their living expenses for the previous calendar year. These global estimates of expenditures were used to obtain annual expenditures for most items. Respondents were asked to recall weekly expenditures for food store items and small frequently purchased items.⁶

Several changes in these procedures were made early in 1972. A quarterly interview survey for a sample of consumer units was introduced. Expenditures for a number of items were collected for purchases made throughout the preceding 3 months, while other items were surveyed for varying reference and recall periods. Another separate sample of consumer units was asked to keep two 1-week diaries in which each purchase was recorded on the day it was made. Although this change in methodology was more expensive and took somewhat longer to process, it resulted in a marked improvement in the data used in the estimation of expenditure weights. It reduced the length of recall in the collection of data, and, therefore, reduced response errors associated with either telescoping purchases from an earlier period or forgetting certain purchases. (Telescoping occurs when the respondent inadvertently recalls and reports a purchase made prior to the survey period.)

Another significant innovation in the 1978 revision was the introduction of the Point-of-Purchase Survey.⁷ In earlier revisions, the BLS had to rely on secondary data to establish sampling frames used in selecting outlets in which to price items comprising the market basket. These secondary data provided only the broadest classification of the outlet and provided no detail on the merchandise lines actually purchased. For example, it was not possible to identify all the types of outlets where motor oil was sold, and it was impossible to tell whether a particular grocery store sold fresh fish. As a result, despite substantial efforts, it was impossible to obtain a statistical sample of outlets for the CPI that represented where people shopped. The growth of metropolitan areas and the spread of shopping centers added to the concern about the quality of outlet samples.

In the Point-of-Purchase Survey, consumer units were interviewed in each local area where prices were to be collected for the CPI. Respondents specified the amount they actually spent in each outlet in which they shopped for a category of items. Each category was structured to be compatible with a major line of goods or services sold, and so that the category would contain one or more "entry level items"⁸ for which a relatively broad class of products or services could be priced to represent that entry level item. (The current CPI market basket contains 382 such items.) The Point-of-Purchase Survey respondents were asked if

they purchased an item within a specific category during a prescribed reference period. If a purchase was made, the name and address of the outlet was recorded along with the cost of each transaction.

Prior to the introduction of the Point-of-Purchase Survey, each outlet was selected and weighted without specific regard for the relative sales that the outlet had for the priced item. The only exception to this procedure was in the grocery store food index where sales data were obtained from food chain organizations so that differential weights could be used to weight prices in the food index for large food chains. Since 1978, the BLS has used a probability procedure with the value of purchases of each outlet as a measure of size to select outlets for each Point-of-Purchase Survey category. This ensures that the outlet sample has an unbiased representation of large and small establishments and also allows for the estimation of variances and sampling error.

In addition, prior to 1978, there was no systematic statistical process for replacement of outlets which closed, moved, or changed merchandise lines. BLS had to rely primarily on its CPI field representatives to locate a comparable establishment to obtain price quotes for the specific items to be priced. With the composition of outlets gradually changing due to the entry of new establishments, it was difficult to ensure the representativeness of the sample of outlets. In 1978, BLS introduced a new system, based on data from the continuing Point-of-Purchase Survey, to update CPI outlet samples in each urban area on a 5-year cycle. Outlet samples in about 20 percent of the urban areas priced for the index are updated each year so that the entire outlet sample is completely updated over a period of 5 years.

When substituting a price quote for an outlet item selected from the updated sample for a corresponding outlet item quote previously priced, it is necessary to factor out of the index measure any difference between the two prices which results from this substitution. For example, if a man's 100-percent cotton dress shirt is selected in the newly selected outlet to replace a cotton blend shirt which was priced in the outlet to be replaced, the prices of these two items would not be viewed as comparable for an index measuring price change. Differences that may exist between the new outlet item quote and the old one are factored out of the measurement of price change by a method described as linking with an overlap price. This linking method used in outlet sample updating requires that both the new and old outlet item quotes be priced in the same month. The price for the item quote or the outlet being replaced measures any price change from the previous index month up to the link month when both outlets were priced. The price of the item quote from the newly selected outlet is used to measure price change from the link month forward. This linking method assures that the process of introducing the new item has no effect on the index.

Prior to 1978, an item designated for pricing in an outlet would have characteristics specified by commodity analysts

in the national office. The detailed specification was usually the same for all outlets in the country and would generally limit the number of products that could be priced to represent the expenditures within the item class. In the 1978 revision, the BLS introduced new sampling procedures to permit all products or services within a respective item classification to be eligible for pricing, thereby increasing the efficiency and representativeness of the index. However, once an outlet item is selected, the field representative records the specific narrow characteristics of the item to identify it for continuous pricing as long as the item is available in the store.

The process used in the selection of an item within an outlet is called disaggregation. This process gives an opportunity for every variety of an item within a store to be selected to represent purchases for the whole item class. This disaggregation is an objective and efficient process which results in the selection of a sample of varieties that covers the full spectrum of purchased items.⁹

During the 1978 revision, a great amount of time was spent examining alternative methods of measuring price change in homeownership. This effort resulted in the definition of a flow-of-services approach¹⁰ which is consistent with the economic concepts on which the CPI is based. This approach was not introduced during the 1978 revision because of difficulties in developing a workable flow-of-services measure and because of the diversity of views held by various advisory groups.¹¹

Shortly after the revision, concern over the measurement of homeownership costs increased because of the major changes that were occurring in the financing of homes and the increasing difficulties of obtaining adequate house price data. Because of these changes and the increasing impact and importance of the CPI, BLS changed the homeownership component of the index between revisions.¹² A rental equivalence measure¹³ was introduced as the measure of homeowner cost in the January 1983 CPI-U index and in the CPI-W with the January 1985 index. The rental equivalence measure estimates the change in shelter costs as the change in rents which would have to be paid for occupancy of housing units occupied by owners. This new measure replaced the previous treatment in which homeownership costs were measured by current house prices, mortgage interest, costs of new mortgages, property taxes, property insurance, and maintenance and repair costs. Because it measures the cost of consuming shelter services provided by a house (that is, the rent that would be paid), rental equivalence is consistent with the underlying concept of the CPI as a measure of price change for consumption. The old homeownership measure included investment aspects of homeownership associated with obtaining and maintaining the house as an asset.

The 1987 revision

The CPI relates to expenditures of the civilian noninstitutional urban population of the United States. The urban

population is defined as persons who live in Metropolitan Statistical Areas as defined by the Office of Management and Budget (including the rural nonfarm within these areas) and urban areas, including places with 2,500 or more persons outside of the Metropolitan Statistical Areas.

Since the 1978 revision, the CPI has been calculated for two populations. The All Urban (CPI-U) index is based on expenditures reported by all consumer units in urban areas of the United States with two exceptions: consumer units on farms within urban areas and consumer units receiving a majority of their income from a member who is in the military and lives off base with the unit. The CPI-U population represented 81 percent of the total U.S. civilian non-institutional population in 1981. Because a large proportion of the population is covered, this index is extremely useful in discerning the effect of changing prices on consumers.

The CPI for Urban Wage Earners and Clerical Workers (CPI-W) is based on urban consumer units who meet additional requirements related to their employment: more than one-half of the consumer unit's income has to be earned from clerical or wage occupations, and at least one of the members had to be employed for 37 weeks or more in an eligible occupation. The CPI-W population was 30 percent of the total U.S. population in 1981.

Geographic coverage. The first phase of a revision is to make a new selection of the geographic areas, or primary sampling units, in which price data collection will be done. The new area sample for the 1987 revision is based on the 1980 Census of Population and uses the new Consolidated Metropolitan Statistical Area definitions.¹⁴ The use of these definitions resulted in some changes. For instance, the definition for the New York area now includes Danbury and other parts of Connecticut; Philadelphia includes Wilmington and Trenton; Los Angeles includes Riverside-San Bernardino; and San Francisco includes San Jose. The Metropolitan Statistical Areas which are not a part of a Consolidated Metropolitan Statistical Area were defined as individual primary sampling units. All nonmetropolitan counties were grouped into primary sampling units to allow urban places with a population greater than 2,500 outside metropolitan areas an opportunity to be selected. The overall primary sampling units design consisted of 278 metropolitan areas and 810 nonmetropolitan urban areas, which cover all urban population. Primary sampling units with at least 1.2 million persons were designated "certainty areas." This means that each of these areas represents itself in the weighting of the estimates to the total CPI population. The noncertainty selections have a population weight that represents the population of all cities including their own population in their stratum—a collection of similarly sized areas in the same general geographic region. Twenty-nine largest primary sampling units and two unique areas—Anchorage and Honolulu—were designated certainty areas.¹⁵

The remaining primary sampling units were assigned to three city-size classes—medium-sized cities, small-sized

cities, and nonmetropolitan areas—within the Northeast, North Central, South, and West regions.¹⁶ The result of the sampling process was the selection of 39 new areas with the retention of 52 primary sampling units from the old sample, of which 30 were certainty selections in the new sample. Overall, the number of primary sampling units to be surveyed for the CPI has increased by six. A comparison of primary sampling units in the old and new samples by population size and region is shown in table 1.

The South will have eight more primary sampling units than it had previously. Despite the West's large population growth between the 1970 and 1980 censuses, it will still have the same number of primary sampling units; however, it will have two more certainty selections. Two reasons account for the unchanged overall number of primary sampling units in the West. First, additional primary sampling units were allocated disproportionately to the West in previous allocations to permit publication of a separate nonmetropolitan urban index for the region. Second, use of Consolidated Metropolitan Statistical Areas resulted in two certainty selections, Los Angeles and San Francisco, becoming substantially greater in population. Because of their larger populations in the new CPI design, the number of items and outlets priced in each of these two areas will be expanded.¹⁷

Allocating samples to produce the most accurate national CPI possible with the funds available will affect the frequency of publishing CPI's for 13 local areas. Beginning with the January 1987 CPI, a monthly index will continue to be published for only the four largest local areas—New York, Los Angeles, Chicago, and Philadelphia. The index for Detroit, the smallest of the areas now published monthly, will be compiled on a bimonthly basis only for even numbered months. Bimonthly indexes will be published for each of the next 10 largest areas. Bimonthly indexes which are now published for the 12 smaller local areas will be replaced by semiannual average indexes, and the index for Northeast Pennsylvania (Scranton) will be discontinued.¹⁸

Expenditure weights. The relative weight of each entry level item in the CPI is tabulated from data obtained by the Consumer Expenditure Survey. This survey is actually composed of two separate surveys—an interview survey and a

diary survey—both conducted by the Bureau of the Census for the BLS.

As in the 1972–73 interview survey, Bureau representatives collect data for expenditures which respondents can remember fairly accurately for periods of approximately 3 months. Each consumer unit designated for sampling is contacted each quarter for five consecutive quarters. The initial contact is used to collect socioeconomic characteristics of the unit—an inventory of properties, vehicles, major durable goods, and insurance policies. In addition, purchases of goods and services made in the past month are recorded together with a date of purchase and a description of each item.¹⁹

BLS uses only the second, third, fourth, and fifth interviews in estimating a 12-month consumption pattern for the consumer units surveyed. The current interview questionnaire differs from that used in the 1972–73 survey in that it has a uniform reference period of 3 months for each expenditure item, whereas the 1972–73 questionnaire allowed for variable lengths of the period of recall. The major advantage of a uniform reference period is that it permits each interview to be used in a quarterly estimate, even when a consumer unit was not interviewed for the full 12 months of consumption. All data collected from consumer units are used, in contrast to 1972–73 when data from consumer units who later moved were not used.

The uniform reference period facilitates rotating the sample. Each quarter, one-fifth of the consumer units are interviewed for the first time, an additional one-fifth for the second time, and so on. The rotation spreads over the calendar year any bias which may result from either conditioning or fatigue on the part of respondents as they progress from the first to the fifth interview. Because many expenditure items are seasonal, it is advantageous to have a mixture of interviews in each quarterly estimate of consumption patterns.

The purpose of the diary survey is to obtain expenditure information for small frequently purchased items which consumers tend to forget. Each selected sample unit is asked to keep 1-week diaries of expenditures for 2 consecutive weeks. The diary sample is spread among the 52 weeks of the year. However, the sample size is doubled in the last 6 weeks of the year to obtain better estimates of items pur-

Table 1. Current and new primary sampling units, by city-size and region

City-size	All areas		Northeast		North Central		South		West	
	Current	New	Current	New	Current	New	Current	New	Current	New
Total	85	91	18	15	22	23	26	34	19	19
Metropolitan Statistical Areas:										
Large-sized cities	27	31	6	5	8	9	6	8	7	9
Medium-sized cities	20	22	4	4	4	4	8	10	4	4
Small-sized cities	22	24	4	4	6	6	8	10	4	4
Nonmetropolitan Statistical Areas	16	14	4	2	4	4	4	6	4	2

chased seasonally. The interviewer, when placing the first-week diary, obtains the socioeconomic characteristics of the consumer unit and provides instructions to the respondent. The respondent records purchases made by any member of the unit during the week. (This eliminates any questions the respondent might have in determining if an item is within the scope of the survey.) The diary focuses on the recording of purchases made in grocery stores and of meals, snacks, and beverages purchased in restaurants or other eating places. Other purchases are also recorded; therefore, a number of items reported in the interview survey can also be recorded in the diary. A major difference in the two surveys is that the diary does not record expenses made while out of town on trips. Both surveys have a sample size of approximately 4,800 consumer units per year. However, in the interview survey, each unit can potentially provide four quarters of data, whereas in the diary only 2 weeks of data can be obtained from the same unit.

The BLS staff has to identify from which survey—interview or diary—estimates should be used in developing expenditure weights and selecting item samples. For many items, the design of each survey predetermines which data should be used. For example, the diary estimates are used for all individual food and beverage items because the interview survey only collects a total estimate of expenses for these items. The diary is also used for a number of small and frequently purchased items in the categories of personal care, household supplies, and nonprescription drugs and supplies which are not covered in the interview survey. For other expenses, the interview survey is the better source as it has an effective sample size of 4,800 units each quarter and expenses are recalled for a period of 3 months. The diary panel, in contrast, only has an effective sample of 1,200 units per quarter for a total of approximately 2,400 diary weeks. There are a few expenditures that are collected in both surveys for which an evaluation is necessary to determine which estimate is best. For example, gasoline purchases are a frequently reported entry in the diary, and the estimate obtained from the interview is based on an average monthly expense pattern. Also, small clothing items such as hosiery and accessories could be overlooked in the 3-month recall which is the heart of the interview survey, but are likely to be recorded in the diary.

Each expenditure reported in these two surveys is coded to one of the 382 entry level items which constitute the lowest level of the CPI classification structure. The highest level of the CPI structure consists of the seven major groups of expenditures: (1) food and beverages, (2) housing, (3) apparel and upkeep, (4) transportation, (5) medical care, (6) entertainment, and (7) other goods and services. Expenditures within a major group are divided into expenditure classes which have been established either by categories of commodities or services and with some regard to similarity in their characteristics. The CPI structure currently has 68 expenditure classes and a new one will be established in

this revision for electronic products covering personal computers, computer software, calculators, telephones and other information processing equipment. (See exhibit 1.)

Most of the expenditure classes are divided into two or more strata.²⁰ The stratum is the lowest level for which expenditure weights are calculated, and thus, the level at which the priced market basket is fixed between revisions. Because the allocation of the sample of quotes and outlets is also done at the item stratum level, the number of strata within an expenditure class generally has some overall relationship to the relative importances of expenditures in that class. The variances of the CPI can be greatly influenced by the way price quotations are allocated among the item strata. In this revision, a paramount consideration was to maximize the efficiencies that could be achieved through sample designs and the allocation of samples. Using data from the 1980–81 CES and preliminary data on variances, item strata were restructured so that, given the available resources for pricing, the variance of the All Items CPI would be a minimum. A very few selected strata were left unchanged because of their individual uses or interest. The number of strata for which expenditure weights are calculated will drop from 265 to 203.²¹ (See exhibit 1.)

Each item stratum has at least one entry level item which is usually structured to facilitate the selection of a unique item to be priced. If there is much heterogeneity among the goods or services which comprise an item stratum or in the types of outlets where they are purchased, the stratum is usually subdivided into two or more entry level items. Currently, there are 382 entry level items and although the composition of several will be changed in this revision, the total number will probably not change by much.

In the past, there have been a few sample entry level items which have not been priced. Sometimes the item was difficult to price because its quality changed constantly. An example would be the pricing of books purchased through book clubs. The book offered varies substantially over time and various discounts or premiums may be earned. Also, an entry level item may not have been priced because an appropriate outlet sample could not be established. This is the case particularly for services provided by household workers and babysitters. If an entry level item or a potential one has a small relative importance, the Bureau does not go to a great disproportionate expense to price it. In the current revision, the Bureau plans to use the relative importances of entry level items reported in the interview and diary surveys to identify those that have become more significant since the last revision. As a result, unpriced strata are expected to comprise only 1.5 percent of the CPI, compared with 3.7 percent currently.

Outlet selection. The 1987 revision will rely primarily on the continuing Point-of-Purchase Survey for the selection of outlet samples. When this survey was initially designed in 1974, there was some concern that it would not be useful

Exhibit 1. Strata titles for revised Consumer Price Index

Expenditure class	Stratum number	Stratum title	Expenditure class	Stratum number	Stratum title
		Food and beverages (at home)			
01	1	Flour, prepared flour mixes	24	1	Materials, supplies, equipment for home repairs
	2	Cereal		2	Other property maintenance/repair commodities
	3	Rice, pasta, cornmeal	25	1	Fuel oil
02	1	White bread		2	Other fuels
	2	Other breads, rolls, biscuits, muffins	26	1	Electricity
	3	Cakes, cupcakes, cookies		2	Utility (piped) gas
	4	Other bakery products	27	1	Telephone—main station service
03	1	Ground beef		2	Water/sewerage maintenance
	2	Chuck roast		3	Community antenna, cable TV
	3	Round roast		4	Garbage/trash collection
	4	Other steak, roast and other beef		5	Telephone—interstate toll calls
	5	Round steak		6	Telephone—intrastate toll calls
	6	Sirloin steak	28	1	Linens, curtains, drapes, sewing materials
04	1	Bacon	29	1	Bedroom furniture
	2	Pork chops		2	Sofas
	3	Ham		3	Living room chairs, tables
	4	Other pork, including sausage		4	Other furniture
05	1	Lunchmeat, lamb, organ meats, game, mutton, goat	30	1	Refrigerators, home freezers
06	1	Fresh whole chicken		2	Laundry equipment
	2	Fresh/frozen chicken parts		3	Stoves, ovens, portable dishwashers, window air conditioners
	3	Other poultry	31	1	Televisions
07	1	Canned fish and seafood		2	Video tape recorders, cassettes, tapes
	2	Fresh/frozen fish and seafood		3	Radios, phonographs, components, recordings
08	1	Eggs		9	Unpriced accessories for electronic equipment
09	1	Fresh whole milk	32	1	Floor/window coverings, outdoor/infant/laundry/cleaning equipment
	2	Other fresh milk and cream		2	Clocks, lamps, and decorator items
10	1	Butter and other dairy products (excluding cheese, ice cream)		3	Tablewear, serving pieces, nonelectric kitchenware
	2	Cheese		4	Lawn and garden equipment, tools, hardware
	3	Ice cream and related products		5	Small kitchen appliances, sewing machines, portable heating/cooling equipment
11	1	Apples		6	Indoor plants and fresh flowers
	2	Bananas		9	Unpriced household equipment parts, small furnishings
	3	Oranges	33	1	Laundry and cleaning products
	4	Other fresh fruits		2	Household paper products, including stationery
12	1	Potatoes		3	Other household products, lawn and garden supplies
	2	Lettuce	34	1	Postage
	3	Tomatoes		2	Babysitting
	4	Other fresh vegetables		3	Domestic service
13	1	Fruit juices and frozen fruits		4	Other household services
	2	Canned and dried fruits		5	Appliance and furniture repair
14	1	Frozen vegetables		6	Care of invalids, elderly at home
	2	Canned and other processed vegetables		9	Unpriced rental and repairs of household and audio equipment
15	1	Candy and other sweets	35	1	Tenants' insurance
	2	Sugar and artificial sweetener			Apparel and upkeep
16	1	Fats and oils	36	1	Men's suits, coats, sportcoats, jackets
17	1	Carbonated drinks		2	Men's furnishings, special clothing
	2	Coffee		3	Men's shirts
	3	Other noncarbonated drinks		4	Men's dungarees, jeans, trousers
18	1	Canned and packaged soup		9	Unpriced men's uniforms and other clothing
	2	Frozen prepared foods	37	1	Boys' apparel
	3	Snacks		9	Unpriced boys' uniforms and other clothing
	4	Spices, seasonings, condiments, sauces	38	1	Women's coats and jackets
	5	Other prepared food		2	Women's dresses
		Food (away from home) and alcoholic beverages		3	Women's separates, sportswear
19	1	Lunch		4	Women's underwear, nightwear, accessories
	2	Dinner		5	Women's suits
	3	Other meals and snacks		9	Unpriced women's uniforms and other clothing
	9	Unpriced board and catered affairs	39	1	Girls' apparel
20	1	Beer and ale at home		9	Unpriced girls' uniforms and other clothing
	2	Other alcoholic beverages at home	40	1	Men's footwear
	3	Wine at home		2	Boys' and girls' footwear
	4	Alcoholic beverages away from home		3	Women's footwear
		Housing	41	1	Infants' and toddlers' apparel
21	1	Rent of dwelling		9	Unpriced infants' accessories and other clothing
	2	Lodging while out of town	42	1	Sewing materials, notions, luggage
	3	Lodging while at school	43	1	Watches
22	1	Homeowners' insurance		2	Jewelry
23	1	Property maintenance and repair services	44	1	Other apparel services
				2	Apparel laundry, dry cleaning, storage

Exhibit 1. Continued—Strata titles for revised Consumer Price Index

Expenditure class	Stratum number	Stratum title	Expenditure class	Stratum number	Stratum title
Transportation			Entertainment		
45	1	New cars	59	1	Newspapers
	2	New trucks		2	Magazines, periodicals, and books
	3	New motorcycles		9	Unpriced newsletters
46	1	Used cars	60	1	Sports vehicles, including bicycles
	9	Unpriced other used motor vehicles		2	Sports equipment
47	1	Motor fuel	61	1	Toys, hobbies, and music equipment
	2	Motor oil, coolant, and other products		2	Photo supplies, equipment
48	1	Tires		3	Pet expense
	2	Other parts and equipment		9	Unpriced souvenirs, fireworks, visual goods
49	1	Automotive body work	62	1	Club membership and fees
	2	Auto drive train, front end repair		2	Fees for participant sports
	3	Auto maintenance and servicing		3	Admissions
	4	Auto power plant repair		4	Fees for lessons and instructions
	9	Unpriced auto repair service policy		5	Photographers, film processing, pet services
50	1	Automobile insurance		9	Unpriced rental of recreational vehicles
51	1	Auto finance charges	Other goods and services		
	9	Unpriced other vehicle finance charges	63	1	Tobacco and smoking supplies
52	1	State and local auto registration, license, inspection	64	1	Hair, dental, shaving, miscellaneous personal care products
	2	Other automobile related fees		2	Cosmetics/bath/nail preparations and implements
	9	Unpriced docking/landing fees	65	1	Beauty parlor services—females
53	1	Airline fare		2	Haircuts and other barber services—males
	2	Intercity transportation		9	Unpriced repair of personal care appliances
	3	Intracity transportation	66	1	School books and supplies for college
	9	Unpriced school bus		2	Reference books and elementary/high school books
Medical care				9	Unpriced miscellaneous school purchases
54	1	Prescription drugs	67	1	College tuition
55	1	Internal and respiratory over-the-counter drugs		2	Elementary and high school tuition
	2	Nonprescription medical equipment and supplies		3	Child daycare, nursery school
56	1	Physicians' services		4	Other tuition
	2	Dental services		9	Unpriced miscellaneous school item rentals and other services
	3	Eyeglasses and eyecare	68	1	Legal fees
	4	Services by other medical professionals		2	Banking and accounting expenses
57	1	Hospital room		3	Cemetery lots and funeral expenses
	2	Other inpatient services		9	Unpriced miscellaneous personal services
	3	Lab tests, x-rays, emergency room, other outpatient service	69	1	Electronic and office equipment for nonbusiness use
	9	Unpriced rent/repair of medical equipment			
58	1	Health insurance			

in selecting outlets for entry level items which were purchased either infrequently or by a relatively small percentage of consumers. In updating outlet samples over recent years, a number of these entry level items have been added to the Point-of-Purchase Survey. By extending the reference period for such items, the continuing Point-of-Purchase Survey has proved effective in securing a sufficient outlet sample.

There are a few entry level items for which outlet samples are obtained from sources other than the Point-of-Purchase Survey. Generally, these items are found in a relatively small number of establishments, and reliable information is readily available for establishing a measure of size in the sampling frame. Examples of such entry level items are natural gas, electricity, basic telephone service, casualty insurance premiums, postage rates, and train fares. The ongoing Consumer Expenditure Survey is collecting outlet information (along with the expenditure data) for a small number of these entry level items. After these data are evaluated, we will determine if it is possible to use the Consumer Expenditure Survey for selecting outlet samples for such entry level items as electricity, natural gas, and

tuition. Data collected in the Consumer Expenditure Survey with regard to consumption quantities on utility bills will be used for selecting the consumption amounts to be priced for the CPI.

New strategy: 'rolling-in' samples

In previous CPI revisions, a new area sample (primary sampling unit) and new item and outlet samples were introduced at the same time. The 1987 revision will use a concept of rolling-in the new area, item, and outlet samples. That is, the composition of the area and item samples will be gradually updated over a period of years, rather than substituting the full set of new area and outlet samples at a single time. Two innovations of the 1978 revision facilitate this rolling-in strategy: the use of the continuing Point-of-Purchase Survey for a systematic updating of outlet samples, and the broader definition of the characteristics of items which define strata. The first stage of rolling-in the new sample is to initiate pricing in new areas which will be needed in January 1987 for updating the U.S. CPI to reflect changes in population distributions. A number of the areas

which had been representative of a specific city-size had sufficient population growth between 1970 and 1980 so that they no longer represented that particular city-size. There are 19 new areas classified as either small- or medium-sized or nonmetropolitan, and one large-sized area which have to be surveyed prior to 1987 in order for the U.S. CPI to reflect the distribution of the U.S. population as enumerated by the 1980 census.

The second aspect of this phased update pertains to the item samples in all CPI areas retained in the new design. Any new entry level item or any entry level item that is substantially modified in definition will be initiated in all areas prior to the issuance of the revised CPI for January 1987.

The continuing Point-of-Purchase Survey for 1985 will be conducted in the 20 new areas so the item and outlet samples for these areas can be initiated and results introduced in the January 1987 CPI. (An additional 19 new areas will be initiated and introduced over the 1987-89 period.)

The new item expenditure weights tabulated from the 1982-84 Consumer Expenditure Surveys will replace those tabulated from 1972-73 survey data. To make this substitution of expenditure weights without causing a discontinuity in the CPI's measurement of price change, the index levels using the new expenditure weights will be set equal to those published for the old series in December 1986. The official CPI for January 1987, therefore, will reflect the price change between December and January based on the new expenditure weights. As in the past, the Bureau will continue to publish overlap indexes using the old expenditure weights for 6 months after the issuance of the revised CPI, for the convenience of users.

Outlet samples for entry level items retained from the old primary sampling unit design will be updated through the use of the continuing Point-of-Purchase Survey and the existing outlet updating procedures. A few of the retained areas will have their outlet samples updated in 1987 when 10 more new areas are rolled-in. The remaining areas will have item and outlet samples rolled-in over the next 3 years.

Advantages. By rolling-in the new areas and using the established outlet updating process for areas retained in the CPI design, it is possible to effect significant time and cost savings. One of the most costly activities of past revisions was the initiation of pricing of the item and the outlet samples in all areas selected in the primary sampling unit redesign. Prior to the introduction of the revised CPI, all of the item and outlet samples had to be initiated and priced in the same month as the existing samples. Even for the areas retained, a reselection of item and outlet samples required substantially more new pricing because the probability of reselecting the same outlet for an entry level item is very small. Additional field representatives had to be hired and trained to do this work while pricing was continued to produce the ongoing CPI.

Because the existing CPI is official until the revised index is released, the review and processing of data from the new samples must be done in a framework which does not jeopardize production schedules. Rolling-in the new areas into the CPI estimate over a 3-year period allows more time to train field representatives and lessens problems associated with a rapid expansion and subsequent reduction in staff. More importantly, using the existing updating procedures for introducing new outlet samples on a systematic basis precludes the need to maintain extended dual operations—one for the existing CPI and one for the data scheduled to supersede it. Over the past 6 years, the Bureau has used this technique for updating outlet samples. A few modifications to accommodate new areas and entry level items will increase the amount of data requiring processing, but by substantially less than the old procedure.

Expenditure weights for the 203 strata in the CPI market basket will be tabulated using 3 years of Consumer Expenditure Survey data—1982, 1983, and 1984. Because the CPI is a base-weighted index designed to reflect price change (and not changes in the quantities purchased), these expenditure weights will remain fixed until the next revision of the CPI. As in the past, of course, BLS will continue to update the outlet sample in one-fifth of the CPI areas each year.

Within the CPI fixed-weight constraint, however, BLS intends to make maximum use of data from the ongoing Consumer Expenditure Survey to keep the items priced to represent the strata up to date. A number of CPI strata, for example, are represented by 2 or more entry level items. The sample of entry level items for these multiple-entry level item strata have been selected from the Consumer Expenditure Survey.

Beginning in 1987, when the outlet samples are updated for one-fifth of the urban areas and new detailed items are selected for pricing, this sample of entry level items will also be updated based on the two most recent years of Consumer Expenditure Survey data. If relative shifts of consumption occur among items within a stratum or new products appear within the stratum, then entry level item reselection will gradually change the composition of the entry level items being priced. In other words, the entry level item sample will begin to reflect the changes consumers are making in the variety of products purchased which make up an item stratum of the index. The reselection of the item samples within each fixed-weight category for one-fifth of the area sample does not alter the fixed-weight nature of the CPI because the population-expenditure weights will remain fixed, as now, at the item strata level until the next revision. This reselection will not affect entry level items which have a very large relative importance or are the only ones in the particular strata and, therefore, are certain to be priced in all urban areas.

Although the CPI will continue to have its basic fixed-weight character, the existence of annual expenditure data will offer a number of opportunities for developing exper-

imental indexes with different characteristics. For example, while the expenditure weights for the official CPI are updated only about once every 10 years, experimental indexes could be developed with more frequent weight changes.

Improvements of the 1987 revision

Enhanced shelter survey. The adoption in 1983 of rental equivalence to measure changes in the cost of the shelter component of owner-occupied homes put the housing component of the CPI on a flow-of-services conceptual footing, and isolated the consumption element of owner housing from its investment element.

In addition to updating the housing sample based on the 1980 census, the 1987 CPI revision program will enhance the rental equivalence method adopted in 1983.²² The selection of a new housing sample is designed to represent optimally both owners and renters. A multi-stage sampling procedure was used that stratifies the residential areas of each primary sampling unit by tenure (percent owner-occupied) and rent level. Smaller areas are then defined and sampled within each selected area. The housing units of each selected small area are screened for tenure and sampled at differential rates according to tenure. In heavily owner-occupied areas, for example, the renters are selected more frequently than owners in order to find renters who are like owners, because it is from these rentals that the best estimates can be made in the implicit rent of owner-occupied dwellings.

Enhancement of statistical techniques. Because the Consumer Expenditure Survey estimates for each of the individual areas of the country are based on relatively small samples, BLS has undertaken research in statistical techniques to reduce the error on local area index weights. In the 1978 revision, a compositing technique was used in which the local area average expenditures were weighted together with the expenditure estimates for the same item class for the geographic region to which the local area belongs.

Research done at the BLS during the current revision involved use of the composite estimation of relative importances rather than of mean expenditures of the item categories. Relative importances in the CPI are the mean expenditures for each item as a percentage of all expenditures. BLS statisticians found compositing of relative importances to be more effective in reducing the average mean squared error than compositing of the expenditures themselves.²³

Another refinement under consideration is to replace estimates for each of the four broad geographic regions of the country (Northeast, North Central, South, West) with two sub-area estimates—one for the certainty areas within each region and one for all other areas within each region. The relative importances of each certainty area within each region would be estimated based on composites which use relative importances of expenditure patterns from all cer-

tainty areas in the region. The division of the regional estimate between certainty areas and all other areas has also proved effective in reducing the average mean squared error.

Publication of quantitative measures of sampling error for selected indexes is planned for the 1987 revision. Initially, estimates of the index variance will be available in the All Items CPI and for some of the major group indexes. Eventually, more indexes will have an estimate of variance published.

Enhanced quality. During the implementation of the 1987 revision, the Bureau will add a new dimension to quality assurance and control of the CPI program. Throughout the years, the staff has devoted substantial time to the inspection of data collection and processing activities. The goal of the inspections was to identify and correct individual error. The goal of the new audit process to be instituted in this revision will be to achieve long-term quality improvement. This will be accomplished, in part, by an independent staff which will systematically evaluate survey processes empirically.

By having independent audit data for comparison purposes, error profiles can be used to identify the type of errors, diagnose their sources, and prescribe procedural changes to prevent these errors from occurring in the first place. The techniques used will include special, detailed evaluation studies of specific processes, ongoing process controls and reports, statistical quality control and measurement, and a system for information feedback and corrective action. The goal is to develop processes that will result in enhanced estimators of price change.

Other concepts to be investigated

As part of the revision, BLS will investigate the appropriate treatment of insurance premiums in the CPI. Currently, premium costs for health insurance and casualty insurance for vehicles and household furnishings are priced for the index. The overriding issue in the pricing is the one of constant quality in the coverage. Quality changes that affect premium level should be removed before being used in the CPI. Using health insurance as an illustration, there are four factors which affect changes in premiums: (1) changes in the costs of medical procedures, (2) administrative cost and surplus requirements and the profit needs of commercial carriers, (3) policy benefit changes, and (4) utilization changes, that is, changes in the frequency of a covered event occurring. Changes in the first two factors do not affect policy quality, whereas changes in the latter two will. For the past 20 years, the Bureau has used an indirect method of pricing health insurance because it has been unable to develop an effective methodology for removing the effect of most changes in the coverage or the utilization rate.²⁴ The indirect method of pricing health insurance measures changes in medical costs (factor 1) by using the price changes which have occurred in physicians' and hospital fees in the CPI to represent the change in costs that insurance carriers

have incurred for their policy holders. Changes in costs for carriers (factor 2) are measured by the annual changes in the retained earnings (premium revenue less benefit payments) of insurance carriers. Thus, the indirect method measures changes which affect policy premiums while excluding from the measurement the two factors which affect quality.

Direct pricing of a sample of policies was tried during the 1978 revision, but was dropped due to the unresolved issue of quality adjustment. BLS was unable to measure satisfactorily the premium value for changes in the coverage of the policies and for the impact of changes in the utilization of policies. For the 1987 revision, research is continuing to determine if a procedure can be adopted that produces adequate direct adjustment for changes in coverage and utilization.

Casualty insurance on vehicles and household effects is directly priced in the CPI. Factors for removing quality changes from these kinds of policies were developed for changes in deductible provisions and for mandatory "no fault" automobile insurance. Generally, other policy coverage changes are treated by not using the policy and its premium in the index calculation for the month of the change. With casualty insurance, however, price changes which result from changes in utilization rates are usually reflected in the index. The difference in the treatment of utilization changes for health insurance and casualty insurance is being reviewed as part of the revision.

Evaluating substitute items

One of the most difficult problems for those who compile price indexes is that of quality change. Products and services change constantly, and new items replace old ones on the market. There is a large body of literature on the effect of quality change on Consumer Price Indexes.²⁵ Most of these studies show mixed results. Although it is generally agreed that quality adjustment error exists, the extent of the error, and, indeed, even its direction, are not known.

A series of practical techniques for handling substitution and quality change issues in an operating environment has been developed. Briefly, if an item and its substitute are comparable, with no significant difference in quality, then the prices are directly compared and used in the index. If the items are judged not comparable, then the price difference must be broken down into quality change and price

change. This process results in one of three actions: (1) a quality adjustment is made by using the difference in production costs and adding a markup to retail or by some other method of valuing the difference in characteristics, (2) if both the old and new items can be priced in the current period, the difference in price in this period is considered the value of quality change (this "overlap pricing" is the technique used in outlet updating), or (3) if neither a quality adjustment nor an overlap price is possible, then the price change of the new item is not used in the current estimate, and a current price for the old item is imputed using price movements of the quotes with comparable prices in both periods in the item strata or market basket. This third action (referred to as linking) not only precludes a quality change from being reflected in the index, but can also preclude capturing the price change—either positive or negative—which may have occurred at the time of the substitution in the specific item.

Of the more than 1 million distinct price quotes obtained for items other than shelter in the index during 1983, only 3.8 percent were substitutions. But this relatively low frequency of substitution still had a major impact on the CPI. Price changes associated with the substitutions accounted for more than one-half of the total price change in the year, and quality changes equal to about one-third of the total price change were excluded from the index. More than 40 percent of these substitutions were comparable, and an additional 8 percent were adjusted explicitly for quality changes. An additional 45 percent of the substitutions were judged noncomparable and linked, while an overlap price was obtained about 6 percent of the time. The highest substitution rate (17.3 percent) was for apparel and upkeep items.²⁶

In cases where noncomparable substitutes are "linked" out of the index, there is a danger that the CPI is missing some real price change. The converse danger of including some quality change in the index also occurs when two versions of an item are declared comparable. Because of the significant impact such substitutions have on the index, research is under way to identify methods to reduce the risks associated with missing price change by linking and with reflecting quality change as price change when declaring substitutes comparable.

As the revision progresses, detailed reports will be prepared on the results of specific investigations and research. □

FOOTNOTES

¹A consumer unit is comprised of either all members of a particular household who are related by blood, marriage, adoption, or other legal arrangements such as a foster child; a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent; or two or more persons living together who pool their income to make joint expenditure decisions.

²See *Current Population Reports, Consumer Income*, Series P-60, No.

142 (Washington, Bureau of the Census, February 1984), tables 3, 14, and 38.

³Elizabeth Waldman, "Labor force statistics from a family perspective," *Monthly Labor Review*, December 1983, pp. 16-20.

⁴Derived from table 52, *Persons by Race for Regions: 1980 and 1970, United States Summary, General Population Characteristics*, PC80-1-81 (Washington, Bureau of the Census, May 1983).

⁵For a detailed description of the 1964 CPI revision, see *The Consumer Price Index: History and Techniques*, Bulletin 1517 (Bureau of Labor Statistics, 1966).

⁶For a detailed description of the 1960–61 survey, see *Consumer Expenditures and Income: Survey Guidelines*, Bulletin 1694 (Bureau of Labor Statistics, 1971).

⁷The Point-of-Purchase Survey is a household survey conducted by the Bureau of the Census each year in one-fifth of the areas sampled by BLS for the CPI. The survey is designed to periodically update the outlet sample used for pricing various items. Approximately 4,000 households are contacted each year and asked to provide data on names of retail, wholesale, or service establishments for purchases of 156 categories of goods and services.

⁸An entry level item is the ultimate sampling unit for expenditure items selected from the Consumer Expenditure Surveys by the Washington office. Each entry level item establishes the definition to be used by data collectors in the identification of unique items within an outlet that can be selected for pricing an entry level item.

⁹For further elaborations of the CPI methodologies, see *BLS Handbook of Methods, Volume II, The Consumer Price Index*, Bulletin 2134 (Bureau of Labor Statistics, 1984).

¹⁰The flow-of-services approach measures the cost of consuming shelter services provided by a house. The approach focuses on consumption and abstracts from the investment aspects of home purchase decisions. See the following *Monthly Labor Review* articles: Robert Gillingham, "Estimating the user cost of owner-occupied housing," February 1980, pp. 31–35; and Robert Gillingham and Walter Lane, "Changing the treatment of shelter costs for homeowners in the CPI," June 1982, pp. 9–14.

¹¹For more information, see "Changing the Homeownership Component of the Consumer Price Index to Rental Equivalency," *CPI Detailed Report*, January 1983, pp. 7–13.

¹²Janet L. Norwood, "Statement Regarding Changes in the Consumer Price Index," *USDL News Release*, 81–506, Oct. 27, 1981. This release explains reasons for introducing rental equivalence between revisions. See also "Changing the treatment of shelter costs" and "Changing the Homeownership."

¹³The rental equivalence approach as incorporated into the CPI attempts to answer the following question: How much rental income do the owners of housing units forego when they choose to occupy the units themselves instead of renting them out?

¹⁴Consolidated Metropolitan Statistical Area is an area which has more than 1 million population and is contiguous to one or more primary metropolitan statistical areas.

¹⁵Anchorage and Honolulu have been designated certainty areas since 1964, shortly after these territories were legislated to statehood. They are great distances from the areas comprising the West region so it is unlikely that a population market basket of other areas would provide a good representation of them.

¹⁶In order to allocate the remaining primary sampling units to each size class of the design as proportionally as possible to its share of the urban population, the population demarcation between medium-sized cities and small-sized cities varies by region—from 330,000 in the West to 500,000 in the Northeast. Further, proportional allocation will preclude the publication of nonmetropolitan urban areas in the Northeast and West as a minimum of four primary sampling units are required, and these regions received only two.

When selecting the sample of primary sampling units, major considerations are the costs of hiring and training field staff in new areas as well as the requirements related to the linking of CPI region city-size indexes. Thus, the BLS uses a statistical procedure which maximizes the probability of retaining primary sampling units from the old design.

The goal of this procedure is to increase the number of primary sampling units overlapped between the two designs, compared to an independent selection of primary sampling units, while at the same time reflecting the shifts in population of primary sampling units between the censuses. The BLS also uses a controlled selection to ensure that the representation of the

sample by State is directly proportional to the population of the State. (See Cathryn S. Dippe and Curtis A. Jacobs, "Area Sample Design for the Consumer Price Index," *1983 Proceedings*, American Statistical Association.)

¹⁷The budget of the CPI constrains the number of items and outlets which can be priced. The item sample design developed in the 1978 revision designates the number of price quotes which are required for each item stratum in the CPI market basket. Some variability in the number of quotes obtained occurs because of the greater relative importance of some items and differential allocation based on collection costs and variances of price change. The basic unit for allocating item quotes among the primary sampling units selected for pricing is called a halfsample. Each halfsample has approximately 1,100 quotes and is called a halfsample because at least two are required to calculate a price index for a specific CPI market basket area. The proposed budget for maintaining the CPI after the 1987 revision supports 127 halfsamples.

When allocating the 127 halfsamples among the primary sampling units of the new design, the primary objective was to make the sample as efficient as possible to minimize the sampling error of the national index. Each of the 91 primary sampling units was allocated one halfsample. For the optimization of the design, a primary sampling unit should only receive an additional halfsample if its population is greater than $1/127$ of the total population. The remaining halfsamples were allocated among the 15 largest primary sampling units. By doing this, the efficiency of the national CPI estimate was improved. With other changes made by establishing population proportionality among the region according to size of cities, and optimizing the sample allocation between major groups, the overall efficiency of the national index will be improved by approximately 35 percent. However, the policy of optimization of the area design did have an impact on the publication policy.

¹⁸Bimonthly indexes will continue to be published for the local areas of Boston, Pittsburgh, Cleveland, St. Louis, Baltimore, Dallas, Houston, Miami, Washington, D.C., and San Francisco. Semiannual averages will be published for Buffalo, Cincinnati, Kansas City, Milwaukee, Minneapolis-St. Paul, Atlanta, Anchorage, Denver, Honolulu, Portland, San Diego, and Seattle.

¹⁹These data are used in a technique described as "bounding" the reference period of the subsequent interview. Bounding minimizes response errors which may result from the respondent inadvertently duplicating purchases from an earlier period. By recording dates and descriptions of purchases for the preceding month of each visit, the technique can be repeated in each subsequent interview.

²⁰Item strata constitute the level of detail for calculating the expenditure weights of the CPI market basket, and the qualities and implicit quantities of this market basket are kept fixed between revisions. That is, any change in the CPI from one month to another is the effect of price changes of the item strata comprising the market basket.

²¹The reduction in the number of strata will affect the number of indexes that are currently published. The BLS will, however, produce a number of substratum (entry level items) indexes for old item strata that are now published and that have a significant number of price quotations collected.

²²See Walter F. Lane and John P. Sommers, "Improved Measures of Shelter Costs," *1984 Proceedings*, American Statistical Association.

²³Michael P. Cohen and John P. Sommers, "Evaluation of Methods of Composite Estimation of Cost Weights for the CPI," *1984 Proceedings*, American Statistical Association.

²⁴See Daniel H. Ginsburg, "Medical care services in the Consumer Price Index," *Monthly Labor Review*, August 1978, pp. 35–39.

²⁵For a detailed discussion of this and other problems, see Janet L. Norwood, *Problems in Measuring Consumer Prices*, Report 697 (Bureau of Labor Statistics, 1983) and Jack E. Triplett, "Quality Bias in Price Indexes and New Methods of Quality Measurement," in Zvi Griliches, ed., *Price Indexes and Quality Change* (Cambridge, MA, Harvard University Press, 1971).

²⁶Paul A. Armknecht, "Quality Adjustments in the CPI and Methods to Improve It," *1984 Proceedings*, American Statistical Association.

Major agreements in 1984 provide record low wage increases

A substantial portion of workers had their wages frozen or reduced; and specified increases were the smallest since the bargaining series began in 1968, reflecting both management's desire to hold down labor costs and workers' concern over job security

JOHN J. LACOMBE II AND JAMES R. CONLEY

In 1984, the size of wage adjustments under major collective bargaining agreements in private industry reached historic lows for the Bureau of Labor Statistics 17-year-old series.¹ Settlements reached during the year provided adjustments (increases, decreases, and no wage change) averaging 2.4 percent for both the first year and annually over the life of the contracts. Adjustments peaked in 1981 and have declined steadily since. (See chart 1.) Wage adjustments actually put into effect during 1984, 3.7 percent on average, were also at a historic low.

Average wage adjustments under 1984 settlements were low because wages were frozen or reduced for a substantial proportion of workers, and average increases were the smallest ever. Such developments were not new, having first emerged as a result of 1981 negotiations. They were especially evident in 1982 settlements, and persisted in 1983 and 1984. (See table 1.)

When most of the parties involved in 1984 contracts last bargained in 1981 or 1982, the economy was in a recession and individual industries and firms were in particular difficulty. By 1984, much of the economy had emerged from the 1981-82 recession, as reflected by major economic indicators. The gross national product increased 6.8 percent in constant (1972) dollars in 1984, following a 3.3-percent increase in 1983 and a 1.9-percent decrease in 1982; total industry utilization was 81.7 percent in December 1984,

compared with 79.0 percent in December 1983, and up from 69.6 percent in November 1982; productivity (output per hour) in the business sector rose 3.6 percent in 1984, the largest annual average increase since 1976; the unemployment rate fell from a recession high of 10.7 percent in December 1982 to 8.1 percent in December 1983 and 7.1 percent a year later; the Consumer Price Index for All Urban Consumers (CPI-U) rose 4.0 percent in 1984, continuing the moderate rate of increase that started in 1982 (this index increased 13.3 percent in 1979 and 12.4 percent in 1980); the Employment Cost Index (ECI) showed a dampening of increases in employer costs for employee compensation, rising by only 4.9 percent in 1984, after a 9.8-percent increase in 1981, 6.4 percent in 1982, and 5.7 percent in 1983.

Despite the improvement in the overall economy in 1984, many negotiators continued to face problems stemming from import competition, deregulation of the airline industry, nonunion competition (particularly in the construction industry), and structural changes in some industries (for example, changing product lines or production methods). Thus, settlements reached in 1984 reflected the pressure on management to reduce or hold down labor costs, and the job security concerns of workers which continued to dampen union wage demands.

Settlements provide record low adjustments

Reacting to a variety of economic concerns, 1984 contracts provided record low adjustments, averaging 2.4 percent in both the first contract year and annually over the

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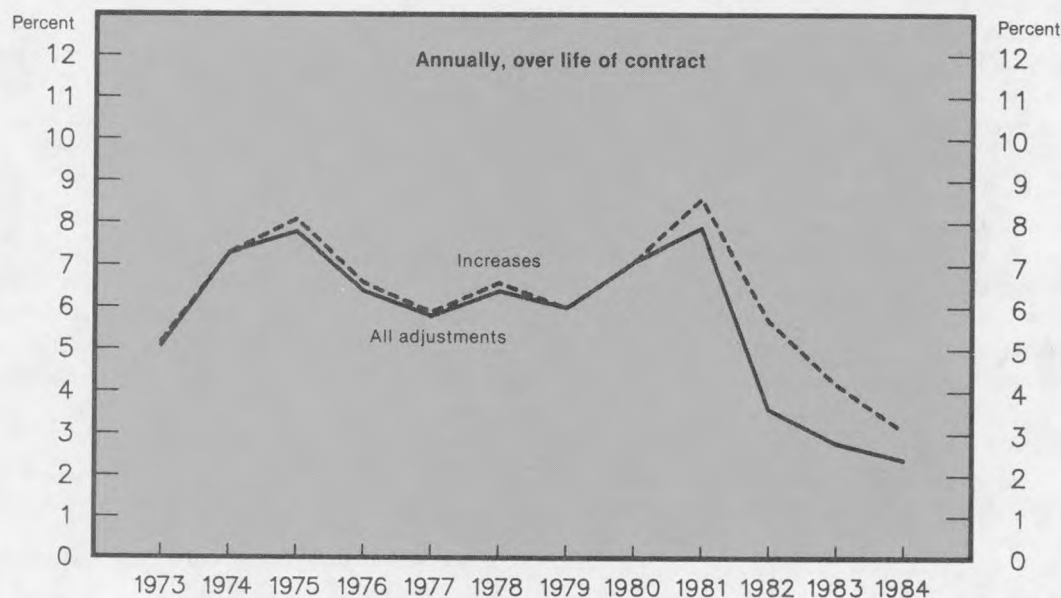
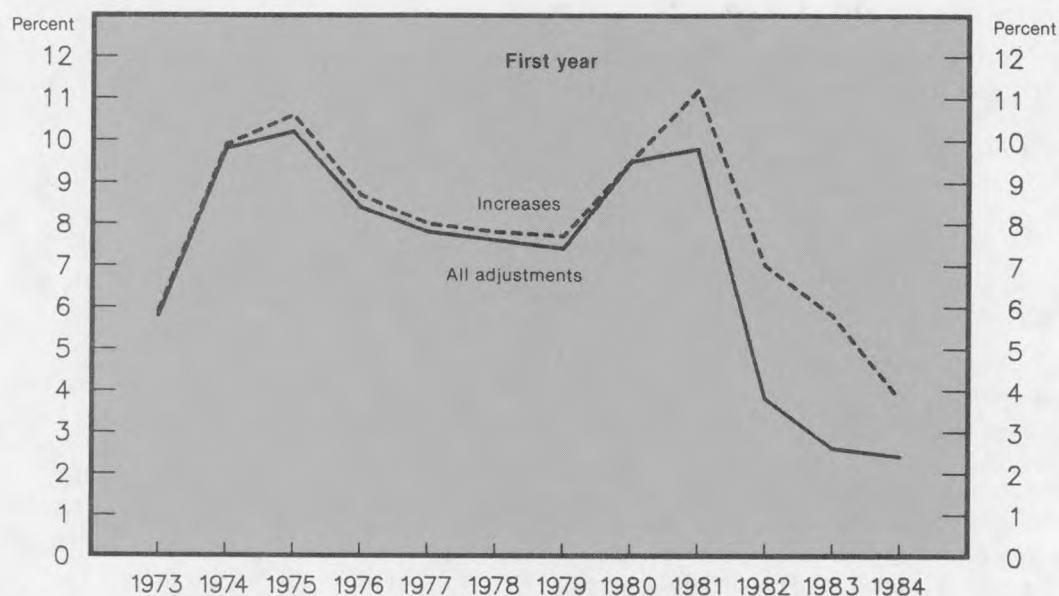
life of the agreement. (See table 2.) The previous lows, in 1983, were 2.6 percent in the first year and 2.8 percent over the life of the contract.

About 2.3 million of the 7.3 million workers under major agreements were covered by 1984 settlements. The last time parties to these settlements bargained (2 to 3 years ago in most cases), wage adjustments averaged 5.9 percent in the first contract year and 4.9 percent annually over the contract

life. These averages reflect, in part, settlements reached in 1982, and to a lesser extent 1983, which provided smaller wage adjustments than in earlier years.

About 720,000 workers (or 31 percent of those covered under 1984 settlements) will receive lump-sum payments that are not incorporated into employees' wage rates during their contract term. Such payments are provided by 38 (7 percent) of the 550 agreements reached in the year. (Lump-

Chart 1. Average wage adjustments in private-sector settlements covering 1,000 workers or more, 1973-84



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

sum payments are excluded from all wage and benefit measures in the major collective bargaining agreements series.) Most workers under 1984 settlements that provide lump-sum payments will receive a specified wage increase but no lump-sum payment in the first contract year, and will receive lump-sum payments but no specified wage increase in the second and third contract years. Thus, settlements with lump-sum payments specified wage adjustments averaging 2.5 percent the first contract year, but only 1.4 percent annually over the contract term. Corresponding adjustments in settlements without lump-sum payments averaged 2.4 and 2.8 percent.

The small 1984 adjustments stem from the smallest wage increases and the largest wage decreases on record. Approximately three-fourths of the workers had wage increases averaging 3.8 percent in the first contract year, almost one-fifth had no wage change, and the remainder had decreases averaging 9.5 percent. About three-tenths of those with wage decreases or no change in the first year will receive subsequent increases, resulting in a net wage gain for the contract term. Thus, by the end of their contracts, 84 percent of the workers will have received a specified wage increase.

Compensation adjustments. The Bureau measures total compensation (wages and benefit costs) adjustments in agreements covering 5,000 workers or more. These contracts involved slightly more than 60 percent of all workers under major settlements in 1984. Agreements covering 5,000 workers or more provided compensation adjustments of 3.6 percent in the first year and 2.8 percent a year over the contract life. (See table 3.) Approximately 5 percent of the workers will have no change or a decrease in total compensation over the life of their agreements; for the remainder, increases will average 3.0 percent a year.

Changes by industry. Wage increases were negotiated in a variety of industries, including automobile manufacturing, coal mining, petroleum refining, public utilities, water transportation, construction, building service and maintenance, and health services. Settlements providing no wage changes were primarily in the construction industry, but appeared in some contracts in other industries, including primary metals, transportation equipment, water transportation, food stores,

Table 2. Wage adjustments in private sector settlements covering 1,000 workers or more, 1984

Industry	First year		Over life of contract	
	Average adjustment (percent)	Workers (thousands)	Average annual adjustment (percent)	Workers (thousands)
All settlements				
All industries	2.4	2,307	2.4	2,307
With COLA clauses	2.9	855	1.8	855
Without COLA clauses	2.1	1,452	2.7	1,452
Manufacturing	2.3	863	1.5	863
With COLA clauses	2.1	660	1.0	660
Without COLA clauses	2.9	203	3.3	203
Nonmanufacturing	2.5	1,443	2.9	1,443
With COLA clauses	5.5	195	4.8	195
Without COLA clauses	2.0	1,249	2.6	1,249
Construction	.5	482	1.0	482
All industries, excluding construction	2.9	1,824	2.7	1,824
Nonmanufacturing, excluding construction	3.4	961	3.8	961
Settlements providing increases				
All industries	3.8	1,778	3.1	1,936
With COLA clauses	3.3	762	2.0	809
Without COLA clauses	4.1	1,016	4.0	1,127
Manufacturing	2.8	736	1.7	803
With COLA clauses	2.4	579	1.0	621
Without COLA clauses	4.0	156	3.8	181
Nonmanufacturing	4.5	1,042	4.2	1,134
With COLA clauses	6.1	183	5.1	188
Without COLA clauses	4.1	860	4.0	946
Construction	4.1	233	3.7	261
All industries, excluding construction	3.7	1,545	3.0	1,675
Nonmanufacturing, excluding construction	4.6	809	4.3	872
Settlements providing decreases				
All industries	- 9.5	121	- 6.1	101
With COLA clauses	- 12.6	4	- 6.8	4
Without COLA clauses	- 9.4	117	- 6.1	96
Manufacturing	- 10.9	5	- 4.1	5
Nonmanufacturing	- 9.4	116	- 6.2	96
Construction	- 9.9	72	- 7.0	68
All industries, excluding construction	- 8.9	49	- 4.3	33
Nonmanufacturing, excluding construction	- 8.7	44	- 4.3	28

Table 1. Proportion of workers with increases, decreases, or no wage change under settlements covering 1,000 workers or more reached in 1979-84
(In percent)

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

and airlines.

Of the 121,000 workers sustaining first-year wage decreases, approximately three-fifths were in the construction industry. The remainder were primarily in air transportation and food stores. Subsequent wage increases will restore the cuts for about 20,000 of the workers with first-year cuts, most of whom are in airlines and food stores. For the others, wage cuts will average 6.1 percent annually over the contract life.

Settlements covering nearly one-half million construction workers (one-fifth of those under 1984 agreements) helped dampen the overall average wage adjustments for the year. Wages were either cut or frozen for about one-quarter million construction workers, bringing construction wage settlements to a 17-year low—averaging 0.5 percent in the first contract year and 1.0 percent a year over the contract

Table 3. Average compensation (wage and benefit costs) adjustments in private sector settlements covering 5,000 workers or more, 1984

[In percent]

Industry	First-year adjustments ¹	Annual adjustment over life of contracts ²	Number of workers (thousands)
All industries	3.6	2.8	1,396
Contracts with COLA clauses	4.0	2.3	679
Contracts without COLA clauses	3.2	3.3	716
Manufacturing	3.5	1.9	596
Contracts with COLA clauses	3.7	1.7	535
Contracts without COLA clauses	2.6	3.0	62
Nonmanufacturing	3.7	3.5	799
Contracts with COLA clauses	5.3	4.4	144
Contracts without COLA clauses	3.3	3.3	655
Construction ³	1.7	1.8	159
All industries, excluding construction	3.8	3.0	1,237
Nonmanufacturing, excluding construction	4.1	4.0	640

¹ Change effective within first 12 months of contract term.
² Total adjustment over contract term expressed as an average annual (compound) rate.
³ Data by COLA coverage for construction do not meet publication standards.
 NOTE: Because of rounding, sums of individual employment items may not equal totals.

life, compared with corresponding adjustments of 2.9 percent and 2.7 percent in other industries. The last time the same parties bargained, wage adjustments for construction workers averaged 6.2 percent in the first year and 5.3 percent annually over the contract life.

COLA clauses

Cost-of-living adjustment (COLA) clauses covered 37 percent of the workers under 1984 settlements. This was about the same proportion that had been covered under the old agreements, as 68,000 workers lost coverage, while 12,000 gained coverage. Wage adjustments stemming from COLA clauses are not included in settlement data because COLA's depend on future changes in the Consumer Price Index—changes that are unknown at the time of settlement. However, guaranteed COLA amounts (those specified when the agreement is reached and scheduled to be implemented later) are included in settlement calculations because they are not tied to subsequent price movements.

In 1984, wage adjustments over the life of the contract averaged 1.8 percent annually for settlements with COLA, compared with 2.7 percent for those without. This follows the historic pattern, in which settlements with COLA clauses have provided lower specified wage adjustments over the life of the contract than those without COLA because it is expected that the COLA provision will yield additional wage increases. (See chart 2.) This relationship often has been true for first-year wage adjustments as well, but it was not the case in 1984. First-year wage adjustments averaged 2.9 percent in settlements with COLA and 2.1 percent in the others. Many factors contributed to this relationship. For

example, record low wage settlements in construction contracts, which usually do not have COLA clauses, dampened the size of non-COLA settlements. At the same time, some contracts with COLA's only provide them in the second or third year of the contract or after a substantial CPI increase has been reached, and thus did not moderate the first-year wage increase in anticipation of COLA payments.

Adjustments implemented by previous contracts

Contracts that preceded 1984 settlements provided average wage adjustments (specified adjustments plus COLA) of 5.7 percent a year while they were in effect. This is down from 9.1 percent for those replaced by 1983 settlements. The lower adjustments reflect the moderation in the size of specified wage adjustments that began with 1982 settlements, as well as smaller COLA's, stemming primarily from the moderation in the rate of inflation. Contracts with COLA clauses provided a smaller total average annual adjustment than those without. This continues the relationship between contracts with COLA's and those without that occurred in 1983 for the first time in the 9 years for which comparable data are available. Previously, contracts with COLA's provided smaller specified wage adjustments than those without, but COLA's more than made up the difference.

The following tabulation shows average annual wage adjustments (in percent) over the life of contracts with and without COLA's replaced in 1984:

	With COLA	Without COLA
Total adjustment	4.3	6.8
Specified	1.9	6.8
COLA	2.5	0

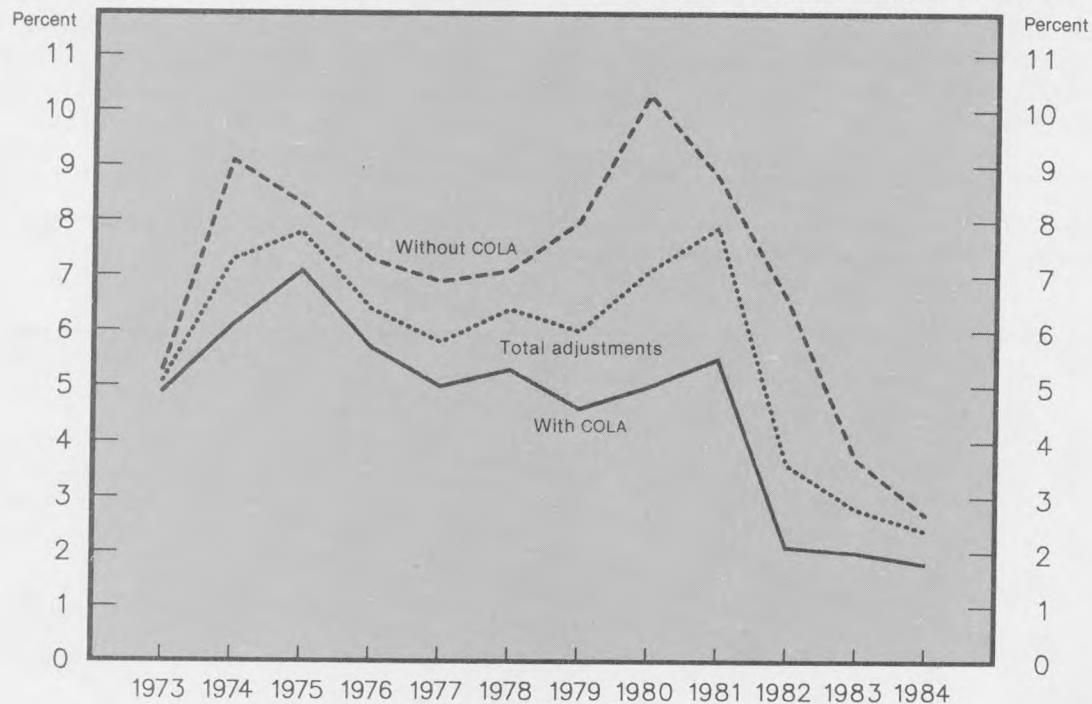
Wage adjustments effective in 1984

As noted earlier, wage adjustments put into effect in 1984 were the lowest since the series began in 1968. These adjustments result from (1) settlements during the year; (2) deferred changes made under agreements negotiated in earlier years; and (3) COLA provisions. Of the 7.3 million workers under major contracts, 6.2 million received wage changes which averaged 4.4 percent; the remaining 1.1 million had no wage changes. When prorated over all 7.3 million workers, effective wage adjustments averaged 3.7 percent, the lowest ever recorded by this series.

The following tabulation shows average wage adjustments (in percent) effective in 1984 for workers receiving a wage change and prorated for all workers:²

	Workers receiving a change	All workers
All adjustments	4.4	3.7
New settlements	3.0	.8
Deferred from prior agreements	4.0	2.0
COLA	2.7	.9

Chart 2. Average annual wage adjustments over the life of contracts with and without COLA in private-sector settlements covering 1,000 workers or more, 1973-84



Workers can receive wage changes from more than one source; thus the size of the average change (4.4 percent) is larger than any of the component parts.

The record low effective wage adjustment reflects the moderation in the size of new settlements and COLA adjustments. (See chart 3.) During heavy bargaining years, the new settlement component of the effective wage adjustments series was larger than or equal to the deferred adjustment component until 1982. In 1982 and 1983 (years of heavy bargaining), deferred adjustments averaged more than those from new settlements. In 1984 (a moderate bargaining year), adjustments from prior-year contracts averaged 2.0 percent, compared with 0.8 percent from new settlements.

In 1984, the prorated COLA averaged 0.9 percent, up from the record low of 0.6 percent set in 1983. The size of the COLA is determined by movement in the Consumer Price Index, timing of reviews, and the adjustment formula used. Changes in two of these factors—the decline in the rate of increase in the CPI and the negotiation of less generous COLA formulas—contributed to the small 1984 COLA's.

About 3.8 million workers had COLA reviews in 1984, of which 2.5 million received COLA increases averaging 2.7 percent; approximately 1.4 million had at least one COLA review that yielded no wage change; and none had COLA

decreases. Wage adjustments stemming from all 1984 COLA reviews averaged 50 percent of the rise in consumer prices during the COLA review period

Effective wage changes in major collective bargaining agreements are reflected in the Bureau's Employment Cost Index, which measures the change in the price of labor, free from the influence of employment shifts among industries and occupations. The wage and salary series of the ECI is limited to straight-time average hourly earnings, including production bonuses, incentive earnings, and COLA's. It excludes employer costs for employee benefits.

The ECI wage and salary component shows that in private industry, the cost of wages and salaries rose 4.1 percent during 1984, less than in any other of the 9 years for which such data exist. Continuing the relationship that first occurred in 1983, wages went up more for nonunion than union workers in 1984—4.5 percent versus 3.4 percent. The ECI wage and salary component, although relating to all union workers, is conceptually similar to the effective wage adjustment measure for all workers covered by major agreements which, as noted earlier, was 3.7 percent in 1984.

Quarterly developments

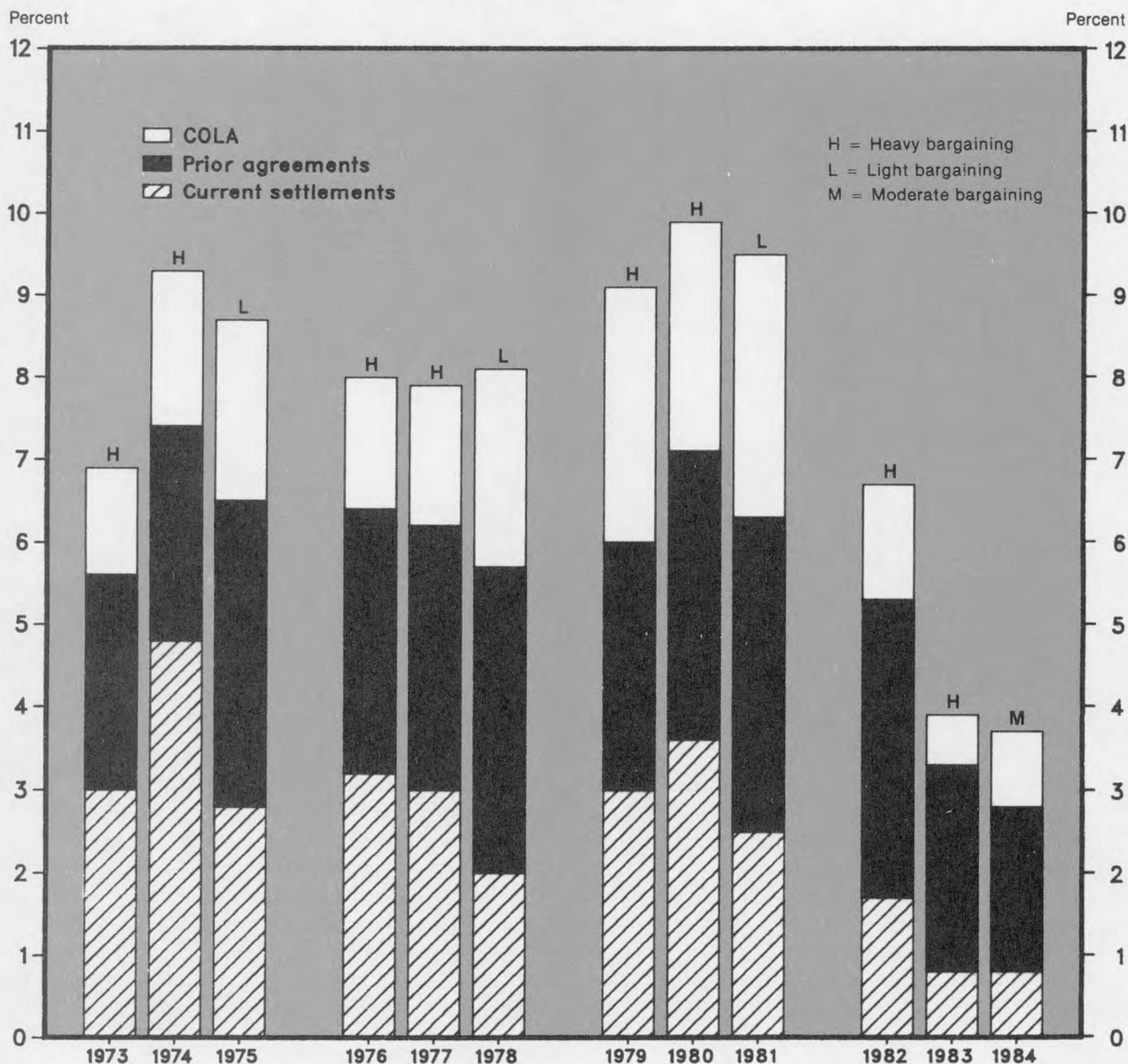
The following summary of significant developments by quarter in 1984 traces the course of major collective bar-

gaining throughout the year.³

First quarter. Contracts negotiated in the first quarter provided average wage adjustments of 2.8 percent in the first year and 3.3 percent annually over the life of the contract. Bargaining activity was relatively light. The 387,000 covered workers were spread among such industries as petroleum refining, water transportation, public utilities, and building service and maintenance. No single industry was a major factor affecting the data for the quarter. Construction

settlements covering 46,000 workers provided average adjustments of -3.6 percent in the first year and -2.8 percent annually over the life of the contract. A 2-year contract reached in January between Gulf Oil Corp. and the Oil, Chemical and Atomic Workers set the pattern for pacts at other major oil companies. The petroleum settlements covered about 23,000 workers and generally provided for an immediate wage hike of 20 cents an hour and a 35-cent increase in the second contract year. Another 31,000 workers under major agreements were covered by a 3-year "mas-

Chart 3. Average wage adjustments effective in private-sector agreements covering 1,000 workers or more, by 3-year bargaining cycle, 1973-84



ter'' contract between East and Gulf Coast stevedoring companies and the International Longshoremen's Association, which was ratified in February. The master contract provided a \$1 an hour pay increase retroactive to October 1 of 1983, \$1 an hour on October 1 of 1984 and 1985, plus a \$1.25 an hour increase in employer payments to benefit funds.

Second quarter. Construction settlements dominated second quarter statistics, covering more than half (54 percent) of the 554,000 workers under settlements. Wage adjustments in construction settlements averaged 1.1 percent in the first year and 1.4 percent annually over the contract life. In other industries, wage adjustments averaged 3.9 percent the first year and 3.8 percent annually over the contract life. When combined with construction settlements, however, they produced average wage adjustments of 2.6 percent for the first contract year and 2.7 percent over the contract life.

Third quarter. Construction was an important influence on settlement statistics, accounting for 26 percent of 573,000 workers covered by major contracts settled in the third quarter. Construction contracts provided wage adjustments that averaged 2.0 percent the first year and 2.1 percent annually over the contract life.

An important settlement during the third quarter covered 105,000 active mine workers, and was negotiated in September by the Bituminous Coal Operators Association and the United Mine Workers of America. Negotiated against the backdrop of a depressed industry with about 55,000 unemployed miners, the settlement provided pay increases of \$1.40 an hour over the term of the 40-month pact, compared with \$3.60 an hour over the previous 40-month pact. Other settlements in the third quarter covered 65,000 United Food and Commercial Workers in southern California who received a total of 2.3 percent in wage increases over the life of the 3-year contract; and 50,000 workers under a 2-year pact between the league of Voluntary Homes and Hospitals of New York and District 1199 of the Retail, Wholesale and Department Store Union which provided 5-percent pay hikes each year.

By the end of the third quarter, contracts had been concluded for about 9 of 10 construction workers for whom contracts would eventually be settled in the year. It was clear that average wage adjustments in settlements negoti-

ated in the construction industry for 1984 would be historically low and would dampen the all-industry averages for the year. The fourth-quarter developments reinforced this by providing first-year adjustments of -2.8 percent and over the life of the contract adjustments of -0.8 percent for 47,000 construction workers. Construction contracts covered about one-fourth of all workers under 1984 settlements and provided record low average wage and compensation (wage and benefit costs) adjustments.

Fourth quarter. This quarter generally is light in terms of settlement activity, but 1984 was different. Settlements covered 797,000 workers, more than in any other quarter. A notable settlement was the agreement between United Parcel Service and the Teamsters ratified in late October. This pact, covering 90,000 workers (including a substantial number of part-timers), extended the 1982 agreement until July 31, 1987. (The 1982 agreement had been scheduled to expire June 1, 1985.) It set an initial pay hike of 68 cents an hour, retroactive to September 4, 1984. This is the total amount of the COLA's that had been diverted in 1983 and 1984 to help finance health and welfare and pension benefits. Also, it provided for a 50-cent hourly pay increase on September 1 of 1985 and 1986.

Settlement data were dominated by 3-year contracts negotiated by the Auto Workers at General Motors Corp. (for 350,000 workers) and at Ford Motor Co. (114,000 workers). Both auto contracts provided immediate specified wage increases ranging from 9 to 50 cents an hour (depending on pay bracket). Although wage rates will not be raised as a result of specified increases for the remainder of the pacts, workers will receive lump-sum 'performance bonuses' in 1985 and 1986. These bonuses will equal 2.25 percent of the previous contract year's pay for all compensated hours, including straight-time (but not premium) pay for overtime. Similar contract terms were extended to 24,000 workers represented by the International Union of Electrical, Radio and Machine Workers and 4,000 represented by the United Rubber Workers at General Motors. As discussed earlier, lump-sum payments are not incorporated into wage rates and are not included in the major collective bargaining agreements series. The large number of workers who received lump-sum payments but no specified wage increase after the first contract year had a noticeable influence on settlement statistics for 1984. □

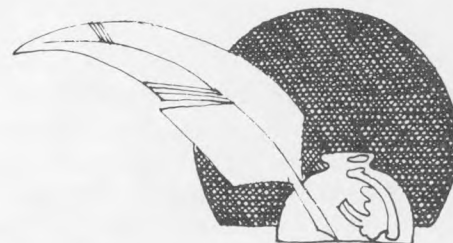
—FOOTNOTES—

¹ The major collective bargaining agreement series for private industry covers 7.3 million workers in bargaining units with at least 1,000 workers. For definitions of terms, see *Current Labor Statistics, Wage and Compensation Data*, pp. 98. Additional tabulations from this series appear in the April 1985 issue of the Bureau's *Current Wage Developments*.

² To calculate the effective adjustment and each component for workers receiving wage changes, each percent change in wages is weighted by the number of workers receiving the change, then the total worker-weighted

change is divided by the number of workers receiving the changes. The prorated adjustment is calculated by dividing the total worker-weighted change by the total number of workers covered by major agreements. Therefore, the size of the average adjustment and each of its components reflects both the size of each change and the number of workers it affects.

³ For details of these settlements, see George Ruben, "Modest labor-management bargains continue despite recovery," *Monthly Labor Review*, January 1985, pp. 3-12.



Programs to aid ex-offenders: we don't know 'nothing works'

PAMELA K. LATTIMORE AND ANN D. WITTE

In his article, "Helping ex-offenders enter the labor market," Frederick Englander surveys some of the recent research on how employment programs affect the behavior of offenders and former offenders.¹ He concludes that the available evidence on the effectiveness of the various programs indicates that nothing works when it comes to rehabilitation. Englander suggests that it may be time to shift resources from programs for offenders and ex-offenders to education and training of young people with limited access to those services.

We believe that Englander's conclusions are premature. Our own reading of the literature and work with a number of employment programs support different conclusions: (1) we don't know what does work and (2) available research does not suggest abandoning employment programs for prisoners or parolees but rather initiating different types of programs that will build on what has been learned over the past 12 years.

Nothing works?

The rehabilitation literature has been evaluated extensively.² Most researchers, like Englander, find that only a few methodologically sound studies indicate that any single rehabilitative program significantly alters the behavior of large segments of the offender population. There are, however, marked differences in the conclusions that are drawn from this finding. Douglas Lipton, Robert Martinson, and Judith Wilks, like Englander, conclude that nothing works.³ However, James Wilson states: "The conclusion that Martinson was right does not mean that he or anyone else has

proved that 'nothing works,' only that nobody has proved that something works."⁴

Our response to Englander's findings is similar to Wilson's reaction to Martinson's. Although Englander has been careful in reporting the results of the major evaluations of employment programs conducted during the last 10 years, his conclusion that nothing works is not merited.

In his assessment of the rehabilitation literature, Englander concentrated on the methodology used in each of the studies surveyed and also on the significance of behavioral differences. While these aspects are extremely important to any program evaluation, other things also need to be considered. We suggest that the strength and the degree of program implementation must be considered before concluding that "nothing works."

Some of the programs surveyed by Englander consisted of only very weak interventions. Consider a few examples. Work-release programs generally place inmates in very low-level jobs for relatively short periods of time.⁵ The transitional aid programs consisted of providing financial assistance to newly released ex-offenders for up to 6 months. Most prison programs provide little or no training and often what is provided is not relevant to today's labor market (for example, making mailbags or license plates). In evaluating the effects of correctional programs, it is necessary to consider the strength of the treatment along with expected results. For many of the programs considered by Englander, insignificant effects on behavior should have been expected.

Even a "strong" intervention will not be effective if it is not implemented. In assessing the strength of the program being evaluated, it is necessary to obtain detailed information on how the program was conducted. It is rare, indeed, that a program is implemented precisely as planned. Englander should have considered the degree of program execution, as well as the merits of the methodology used in evaluating it.

Englander appears to believe that only the results of random experiments should be considered valid. While sympathetic to this position, we realize that there are often

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reasons to question the results of random experiments and to applaud carefully conducted quasi-experiments. For example, Gordon Waldo and T. G. Chiricos' study of work release used an experimental design that had a comparatively large sample size (281 individuals). Even so, given the reasonably small effects on recidivism that could be expected to accompany a short (2-to-6 month) timespan on work release (placement in low-skill jobs), the probability that they incorrectly concluded that work release had no significant effect on recidivism (measured by post-release arrest) was approximately 60 percent.⁶ Conversely, the good quasi-experiments when carefully compared and contrasted can provide valuable insight and should not be dismissed as providing no information.⁷

Programs for offenders?

Abolishing employment programs for offenders will not decrease the prison population but could increase the cost of running the prison systems.⁸ Employment and other rehabilitative programs currently carried out in the prison systems serve a number of functions: (1) lowering the costs of running the prison system; (2) facilitating prison management; (3) attracting suitable personnel; and (4) improving the post-release behavior of participants. These goals often conflict. For example, a work-release program which places a large number of prison inmates in low-skilled jobs may be effective in lowering prison costs but may have little or no effect on post-release behavior. Perhaps we should honestly admit that the major goal of most prison "rehabilitation programs" has not been rehabilitation. These programs should be continued if they meet other goals but they should not be expected to rehabilitate inmates.

Promising research directions

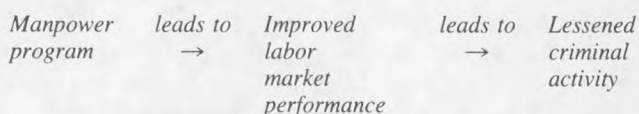
Although the existing literature does not suggest that there is a single employment program that "will work" for large segments of our prison population, various studies suggest that some strategies are workable for certain types of offenders. Transitional aid and programs which provide work in supportive environments have met with limited success.⁹ This literature provides a basis on which to build more successful rehabilitative programs within our prison systems. However, it does not yet provide any basis for diverting large amounts of resources into another untested "rehabilitative" program.

Instead, we believe that limited resources should be provided to develop, implement, and evaluate programs that have as their primary purpose the rehabilitation of offenders. We believe that employment programs will be best developed through the coordinated efforts of social scientists, employment professionals, and correctional officials.¹⁰

Some social scientists' models of human behavior indicate programs which may be effective for certain types of offenders. For example, an economic model of crime sug-

gests that *economically motivated* offenders may reduce their criminal activity if they are provided with *desirable* legitimate means of *satisfying* their economic needs.¹¹ Specifically, the model suggests that participants who find and keep "good jobs" are less likely to commit crimes than those who cannot find suitable work. The model implies that we select a subset of offenders who relied on illegal means to fulfill their economic needs.¹² It also suggests that the program must be of sufficient duration and thoroughness so that participants are able to find and keep "good" jobs.

Manpower programs for offenders are founded on the following model.



This model has not been fully tested because it is often implicitly rather than explicitly stated. We do not know if the programs surveyed by Englander "failed" because labor market performance was not improved or because it did not affect criminal activity, or both. It is important from both a programmatic and theoretical perspective to know whether the causal relationships hold and, if so, to what extent. Available literature indicates that certain types of programs (for example, on-the-job training) result in greater improvements in labor market performance than others. Further, the existing criminological literature suggests that job satisfaction may have a stronger effect on recidivism than increased wages.

With social science theory providing only general guidance for program development, the participation of employment professionals in program development becomes extremely important. These professionals are familiar with the labor markets to which ex-offenders may return and they have the ability to develop and administer programs that will allow former inmates to successfully participate in these markets.

Correctional officials have expertise in dealing with offenders who are often unstable and have many needs. In some cases, there may be a need for counseling, drug and alcohol treatment, as well as vocational training.

Once developed, the employment program must be carefully implemented. Implementation is a serious problem in many employment programs. In recent years, researchers have considered implementation issues and have come up with various methods for documenting program implementation.¹³

Following implementation, the effects of the program on the behavior of ex-offenders must be assessed. Evaluation of the impact of the program should be carefully planned at the same time that the program is developed. The evaluation should involve random assignment, a sample size sufficient to assure the detection of small effects, and measurement of the post-release labor market performance as

well as criminal activity.¹⁴ An indepth study considering theory, institutions, effectiveness of interventions, and requirements of evaluation research would assist in resolving some of the questions concerning offender rehabilitation. We believe it is too early to abandon employment programs for offenders.

EMPLOYMENT PROGRAMS take on important roles in our prison systems including (1) cost reduction; (2) ensuring that inmates are occupied, thereby assisting in prison management; and (3) the rehabilitation of offenders. Each role needs to be considered when assessing the effectiveness of employment programs for offenders.

To date, we believe that only a few prison employment programs hold the rehabilitation of offenders as their major objective. But if rehabilitation is to be a primary goal for at least some of the prison employment programs, current literature provides guidance for the development of more successful programs. Most importantly, perhaps, we should learn from the literature that weak interventions, which do not consider the need to accommodate different types of offenders, have little chance of working. Before eliminating offender employment programs, their effectiveness should be given a full and careful trial. □

—FOOTNOTES—

¹ See *Monthly Labor Review*, July 1983, pp. 25–30.

² For example, see Douglas Lipton, Robert Martinson, and Judith Wilks, *The Effectiveness of Correctional Treatment: A Survey of Treatment Evaluation Studies* (New York, Praeger Publishers, 1975); Lee Sechrest, Susan O. White, Elizabeth D. Brown, eds., *The Rehabilitation of Criminal Offenders: Problems and Prospects* (Washington, National Academy of Sciences, 1979); and Paul Gendreau and Robert K. Ross, *Correctional Potency: Treatment and Deterrence on Trial* (Toronto, Ontario, Canada, Ontario Ministry of Correctional Services) and the references cited within.

³ Lipton and others, *The Effectiveness of Correctional Treatment*.

⁴ James Q. Wilson, *Thinking About Crime* (New York, Basic Books, Inc., Publishers, 1983), p. 167.

⁵ Ann D. Witte, *Work Release in North Carolina: The Program and the Progress* (Chapel Hill, NC, University of North Carolina, Institute of Government, 1973).

⁶ This is, of course, the probability of type II error. See Jacob Cohen, *Statistical Power Analysis for the Behavioral Sciences* (New York, Academic Press, 1977) for the tables from which we obtained our estimate of the probability of type II error for the study by G. P. Waldo and T. G. Chiricos, "Work Release and Recidivism: An Empirical Evaluation of a Social Policy," *Evaluation Quarterly*, Vol. 1, No. 1, 1977, pp. 87–108. Specifically, we examined the power of a X^2 test at $\alpha = .05$, sample size = 281, effect size = .10 (which we believe to be reasonable for the 2- to 6-month work-release experience of this sample group). The power for these values of the tests was less than .40 (see p. 235), indicating a probability of type II error of approximately 60 percent.

Two aspects of Englander's assessment of work-release programs are also worthy of brief note. First, Englander bases his overall evaluation of the effect of work release largely on the conclusions of a survey by Jonathan Katz and Scott Decker, "An Analysis of Work Release," *Criminal Justice and Behavior*, June 1982, pp. 229–59. Unfortunately, this survey is not as carefully done as Englander's. Second, in interpreting our research related to the post-release effects of work release in North Carolina, Englander does not appear to appreciate the reasons for the different types of research. We conducted a quasi-experimental evaluation of the North Carolina work-release program (Ann D. Witte, "Work Release in North Car-

olina—A Program that Works!" *Law and Contemporary Problems*, Winter 1977, pp. 230–37), which involved selection of a comparison and control group and control via multivariate statistical techniques for a wide range of factors affecting the post-release behavior of offenders. We concluded that work release had no significant effect on the recidivism rate but did reduce the severity of recidivist offenses. Subsequent to this evaluation, we used the same data set to explore the nature of labor markets for prison releases. See Ann D. Witte and Pamela Reid, "An Exploration of the Determinants of Labor Market Performance of Prison Releases," *Journal of Urban Economics*, August 1980, pp. 313–29. As we only have detailed labor market data for a subset of individuals involved in the work-release evaluation, the study involves a different population than did the work-release evaluation. Further, as the purpose of this research was exploratory, we made no use of quasi-experimental design. We do not believe that this research tells us anything definitive about the effect of work release on post-release labor market performance, although we do believe that it provides some useful insights concerning the nature of labor markets for ex-offenders.

Englander also cites research which used an entirely different data set. See Peter Schmidt and Ann D. Witte, "Evaluating Correctional Programs: Models of Criminal Recidivism and an Illustration of Their Use," *Evaluation Review*, October 1980, pp. 585–600. The purpose of this research was to provide the North Carolina Department of Corrections with models that could predict recidivism. The Department wished to use these models to predict future prison population and to evaluate correctional programs. The work encompassed no quasi-experimental design and, therefore, should not be considered to provide useful insights concerning the effect of work release on post-release behavior.

⁷ See Frank Zimring, "Policy Experiments in General Deterrence: 1970–1975," in Alfred Blumstein, Jacquelin Cohen, Daniel Nagin, eds., *Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates* (Washington, National Academy of Sciences, 1978); and Philip J. Cook, "Research in Criminal Deterrence: Laying the Groundwork for the Second Decade," in Norval Morris and Michael Tonry, eds., *Crime and Justice: An Annual Review of Research* (Chicago, University of Chicago, 1980), pp. 211–68.

⁸ Sechrest and others, eds., *Rehabilitation*.

⁹ See Peter H. Rossi, Richard A. Berk, Kenneth J. Lenihan, *Money, Work and Crime: Experimental Evidence* (New York, Academic Press, 1980), and Board of Directors, Manpower Development Research Corp., *Summary and Findings of the National Supported Work Demonstration* (Cambridge, MA, Ballinger Publishing Co., 1980).

¹⁰ We are currently involved in such an effort. See Pamela K. Lattimore and Ann D. Witte, *Research Services in Support of the Sandhills Evaluation Project, Phase I: Criteria, Randomization, and Data* (Chapel Hill, NC, University of North Carolina, Department of Economics, 1983).

¹¹ For a survey of economic models of crime, see Peter Schmidt and Ann D. Witte, *An Economic Analysis of Crime and Justice* (New York, Academic Press, 1984), pt. II.

¹² In our current project, the criteria for inclusion in the study population are: conviction for an income-producing offense, 18- to 21-year-olds, no serious drug problems, no physical disabilities, normal intelligence, and a minimum of 8 months remaining to be served before release (to assure a minimum of 6 months in the program). These criteria are not as stringent as would be desirable but were chosen to ensure some control over the type of inmate entering the program and to provide a sufficient sample size to allow us to discern positive program effects, if present.

¹³ Ronald G. Tharp and Ronald Gallimore, "The Ecology of Program Research and Development: A Model of Evaluation Succession," in Lee Sechrest and others, eds., *Evaluation Studies Review Annual*, Vol. 4 (Beverly Hills, CA, Sage Publications, 1979). See also Gary D. Gottfredson, ed., *The School Action Effectiveness Study: First Interim Report* (Baltimore, MD, The Johns Hopkins University, Center for Social Organization of Schools, 1982).

¹⁴ The legal and moral problems surrounding random assignment often have been overstated although they certainly must be considered. See Eva Lantos Rezmovic, "Methodological Considerations in Evaluating Correctional Effectiveness: Issues and Chronic Problems," in Sechrest and others, *Rehabilitation*, p. 165. Also see Robert E. Boruch and Joe S. Cecil, *Solutions to Ethical and Legal Problems in Social Research* (New York, Academic Press, 1983).

The author replies: we still need to demonstrate program effectiveness

FREDERICK ENGLANDER

It was not my contention that "nothing works when it comes to rehabilitating offenders." Pamela K. Lattimore and Ann D. Witte repeatedly state this to be my position. There is an important difference between saying nothing works and saying no one rehabilitation strategy has consistently been shown to be successful. Just as Professors Lattimore and Witte subscribe to the latter view, so do I.

They state that I favor abandoning or abolishing employment programs for offenders. There was no such recommendation in my article. Rather, the conclusion asks whether "some of the dollars currently spent on facilitating the labor market adjustment of offenders could be better applied to increasing the education and training of those young people with the least access to these services."¹

Lattimore and Witte argue for stronger interventions. They characterize work release, transitional aid, and some prison training programs as intrinsically weak rehabilitative treatments. Hence, "insignificant effects on behavior are precisely what should have been expected." Although the plea for stronger rehabilitative treatments may be correct, it may not always be easy to discern the weaker interventions from the stronger ones. For example, in Witte's 1977 evaluation of work release ("Work Release in North Carolina—A Program That Works!")² there was little indication from the title or the content that work release was a weak intervention from which little could be expected. Although Lattimore and Witte also use transitional aid as another example of a weak intervention, this strategy is supported in another 1977 article coauthored by Witte.³

Lattimore and Witte state that, whenever possible, the evaluation of rehabilitative treatments should involve careful planning, random assignment, adequate sample size, and measurement of labor market performance and recidivism. When random assignment is not possible, carefully designed quasi-experiments are appropriate. I agree.

The record to date

Lattimore and Witte suggest that rehabilitative labor programs may not have performed better because these interventions were not "implemented precisely as planned." If the disappointing performance of some or all of the rehabilitative treatments reviewed in my article is to be attributed to inadequate implementation, rather than to the treatments themselves, Lattimore and Witte have missed an excellent opportunity to be more specific as to which interventions

have been significantly affected by poor implementation and in what ways. Unsupported generalizations such as "implementation has been a problem in many manpower programs" do not substantially advance the dialogue.

More detailed information regarding the difficulties of implementing rehabilitative interventions would have been especially helpful in understanding the findings from the "Supported Work" program. This approach, with its emphasis on peer group support, close supervision, and gradually accelerating performance expectations, was implemented for groups of ex-offenders, welfare recipients, ex-addicts, and youth. Although the program was judged to be successful for welfare recipients and ex-addicts, program objectives were not achieved for ex-offenders and youth.⁴ If implementation problems frustrated the successful application of this program to help ex-offenders, how is it that such problems did not undermine the services provided to welfare recipients and ex-addicts?

This is not to deny, however, that program implementation may not seriously constrain the success of rehabilitative manpower efforts for offenders. In his review of these programs undertaken in the 1960's and early 1970's, Robert Taggart analyzes some of the inherent difficulties in administering rehabilitative treatments for the offender population. Taggart asserts that implementation is often thwarted by hostility toward those programs on the part of offenders, officials of the criminal justice system, and potential employers. Taggart concludes, "This negative attitude can be a greater impediment to the success of manpower services than any identifiable problem in the system or the individual."⁵

In discussing the importance of program implementation in their "Promising research directions" section, Lattimore and Witte indicate that recent progress has been made. They cite two recent studies involving innovative approaches to the problem in the education area. On the basis of these comments by Lattimore and Witte, it may appear that because we now know more about program implementation, it should be a somewhat straightforward matter to implement a given rehabilitation strategy designed for offenders and then carefully evaluate the efficacy of the intervention.

A review of the two studies suggests that this may not be the case. The implementation technique tested by Ronald G. Tharp and Ronald Gallimore was applied in what even the editors of the volume in which the article appears concede was a rather unusual environment. The approach relies upon what the authors admit are subjective signals in determining whether the implementation should continue and whether it is proceeding according to plan. It also relies upon subjective and somewhat *ad hoc* methods for correcting any particular perceived deviation from the intended implementation.⁶

The strategy tested by Gary D. Gottfredson is similar to that discussed by Tharp and Gallimore and shares some of the same potential threats to successful replicability. Sub-

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jective judgments appear to determine the detection of deviations from an implementation blueprint and the appropriate corrective actions.⁷

Although these models of improved program implementation have been successful, it remains to be seen if they can be applied in many organizational and environmental settings. This is especially true because, as Gottfredson concedes,⁸ the approaches are very expensive and require the services of the relatively small number of researchers with the requisite skills to apply these models. In sum, implementation is a complex and unsettled problem. It seems much too early to determine to what extent the innovations cited by Lattimore and Witte may be generalized to employment programs for offenders.

Rehabilitation as the one program goal

Lattimore and Witte raise an interesting and important question regarding the objectives of prison rehabilitation programs. They argue that facilitating the labor market adjustment of releases may be just one objective of such program activities. Prison training and rehabilitation services may lower prison costs, facilitate prison management, and attract less sadistic and authoritarian personnel. It is correctly argued that if rehabilitation programs efficiently advance these other objectives, they should be continued even though they may not be effective in rehabilitating inmates. Although it may not be possible to make any conclusive judgments at this time, this position deserves additional consideration.

With respect to the impact of rehabilitation programs on prison costs, a recent examination of costs in 19 institutions by Peter Schmidt and Witte indicates no systematic statistical association between rehabilitation programs and either short-run or long-run prison costs.⁹

It would have been helpful if Lattimore and Witte had explained the hypothesized relationship between rehabilitation programs and prison management. However, an earlier analysis of this issue, coauthored by Witte, does construct such a relationship:

To survive the ordeal of captivity, an offender must hope that he will emerge from it capable of enjoying life in a free world, and he must be assured that the portion of his life that is spent in prison was not entirely wasted. Without hope and a sense of significance, he is more likely to become embittered and to view himself as a victim of society's arbitrary vengeance. The offender who feels society is trying to help him may accept some of the restrictions imposed on him. The offender who feels that society has no other goal other than to punish him will feel justified in attacking his captors.¹⁰

In that same work, Seymour Halleck and Witte also explain how prisons attempting to rehabilitate, rather than warehouse, prisoners attract a higher quality staff:

Correctional workers, too, must have hope and a sense of usefulness. No one wants to be his brother's keeper unless he is convinced that the process of keeping will be helpful. Our cor-

rectional system already has too many lethargic, bureaucratically insensitive and even sadistic employees. A warehousing philosophy attracts more of them and reduces the possibility of creating a benign environment.¹¹

This is a powerful analysis. However, unless prison training and rehabilitation programs can, at some point, demonstrate that they are effective in improving post-release outcomes, will not these programs eventually risk being viewed by all concerned as a sham or simply as busy work? In that event, would they not exacerbate rather than ameliorate the alienation and embitterment of the inmates? If prison rehabilitation programs do not eventually establish a credible record of effectiveness, would prisons still succeed in attracting more humane correctional personnel? □

FOOTNOTES

ACKNOWLEDGMENT: The author thanks Steven M. Director, Valerie Englander, and Michael E. Borus for their helpful comments.

¹ Frederick Englander, "Helping ex-offenders enter the labor market," *Monthly Labor Review*, July 1983, pp. 25-30. My suggestion that some of the funds now allocated to rehabilitation programs be diverted to what may be called prevention programs implies, of course, that the remainder of the rehabilitation funds should not be transferred. If it were my position that "nothing works," it would be inconsistent to support the continuation of rehabilitation, even on a smaller scale.

² Ann D. Witte, "Work Release in North Carolina—A Program That Works!" *Law and Contemporary Problems*, Winter 1977, pp. 230-51.

³ Seymour L. Halleck and Ann D. Witte, "Is Rehabilitation Dead?" *Crime and Delinquency*, October 1977, pp. 372-82. Of course, interventions that are weaker need not be less effective or subject to more modest expectations. Irving Piliavin and Rosemary Gartner ("The Impact of Supported Work on Ex-Offenders," University of Wisconsin, Institute for Research on Poverty, 1981) suggest, following the early success of transitional aid, that this weaker intervention may have been more successful than earlier, stronger interventions, because transitional aid encouraged a sense of self sufficiency, while more comprehensive assistance may foster institutional dependency and perpetuate the stigma of being an ex-offender.

⁴ Board of Directors, Manpower Development Research Corp., *Summary and Findings of the National Supported Work Demonstration* (Cambridge, MA, Ballinger Publishing Co., 1980).

⁵ Robert Taggart, *The Prison of Unemployment: Manpower Programs for Offenders* (Baltimore, MD, The Johns Hopkins University Press, 1972).

⁶ Ronald G. Tharp and Ronald Gallimore, "The Ecology of Program Research and Development: A Model of Evaluation Succession," in Lee Sechrest and others, eds., *Evaluation Studies Review Annual*, vol. 4 (Beverly Hills, CA, Sage Publications, 1979).

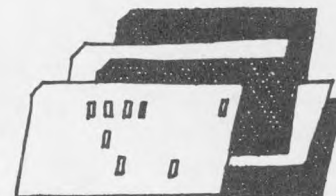
⁷ Gary D. Gottfredson, ed., *The School Action Effectiveness Study: The First Interim Report* (Baltimore, MD, The Johns Hopkins University, Center for Social Organization of Schools, 1982); and Gary D. Gottfredson, "A Theory Ridden Approach to Program Evaluation," *American Psychologist*, forthcoming. Note that Gottfredson envisions a closer union of the evaluation researcher and program implementer who would "collaborate in evaluation design, question formulation, and planning. As a result, researchers extensively intervene in project development—indeed they become part of the project." This would seem to threaten the objectivity of the evaluator.

⁸ Gottfredson, "A Theory Ridden Approach."

⁹ Peter Schmidt and Ann D. Witte, *An Economic Analysis of Crime and Justice* (New York, Academic Press, 1984).

¹⁰ Halleck and Witte, "Is Rehabilitation Dead?" p. 379.

¹¹ *Ibid.*



State employee bargaining: policy and organization

HELENE S. TANIMOTO AND GAIL F. INABA

At least 35 State governments engage in some type of labor negotiations with their employees, according to a survey conducted during the 1981-83 period by the Industrial Relations Center at the University of Hawaii at Manoa. A majority have formal negotiations; others have some type of "meet and confer" procedure.

States which engage in formal negotiations have bargaining units reflecting the history of organizing and negotiation activities in the respective States. The larger groups of organized State employees are in administrative/clerical, corrections, engineering/science, hospital, maintenance/trades, and public welfare occupations. Some professional employees—dentists, lawyers, doctors, teachers, engineers, and administrators—also are in bargaining units.

The American Federation of State, County, and Municipal Employees (AFSCME) is the major State employee union, representing 44 percent of the more than 943,000 covered employees in the survey. State employee associations represent about 75,000, or 18 percent of the employees, but the employee associations are affiliating with other unions, the most recent being the affiliation of the California State Employees' Association with the Service Employees International Union (AFL-CIO).

In the fall of 1981, a questionnaire was sent to the board responsible for collective bargaining procedures or the agency involved in personnel administration in each of the 50 State governments. By the fall of 1983, responses had been received from all States except New Mexico. The questionnaire was designed to identify States according to the extent of employee bargaining activity and to obtain basic data for a study of the characteristics of such activity. Questions were asked about State labor relations policy, organization of the administering agency, unit determination, and impasse resolution procedures. This summary discusses information related to policy and unit determination.

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Labor relations policy

Collective bargaining occurs in 27 State governments and, in most instances, is authorized by law. (See table 1.) State employee collective bargaining is now authorized in Illinois by the Public Labor Relations Act (which became effective on July 1, 1984) and by the Education Labor Relations Act (effective January 1, 1984), and in Ohio with the enactment of a comprehensive statute (effective April 1, 1984). Informal consultations with no written agreements take place in four States—Utah, Indiana, Nevada, and Wyoming. In Utah, the State constitution¹ and attorney general opinion are the legal basis for such informal consultation. The other three States report no legal basis for their policies. "Meet and confer" discussions with mutual understandings outlined in a memorandum of understanding occur in Alabama. Informal negotiations with written memorandum of understanding are authorized by State law and attorney general opinion in North Dakota. North Dakota also confers exclusive recognition status to unions for the purpose of informal negotiations. In Maryland and Missouri, informal "meet and confer" sessions are authorized by law. Such discussions are held between the Governor and the employee organizations in Maryland.

Five States—Arkansas, Mississippi, Oklahoma, South Carolina, and Texas—report that State employees had "no bargaining rights." There was no legal basis in Arkansas for this policy. Mississippi reported "there is no State legislation relative to collective bargaining in the public sector." Oklahoma and South Carolina replied that State employees were not among employees permitted to bargain, with South Carolina noting attorney general opinions and court rulings as the legal basis for not bargaining. Oklahoma did not provide the legal basis for the State policy. Texas reported that the "employer [is] not required to meet with employee groups, except to accept their grievances."

Arizona, Georgia, Idaho, Kentucky, and West Virginia reported simply that "bargaining does not occur." Georgia indicated only that "State employees are prohibited from striking—there are no unions or Board [Public Employee Relations Board]," without any reference to collective bargaining. Kentucky said that "employees have the right to collectively bargain, but [the] State isn't mandated to recognize. Bargaining does not occur." Citations to State law

and an attorney general opinion were given as the legal basis for this policy.

Collective bargaining is prohibited in four States—by law in North Carolina and Colorado, by attorney general opinion in Tennessee, and by court ruling in Virginia.

Thus, while the policy and practices vary among States, some kind of negotiating activity—collective bargaining, meet and confer, consultation, or other mechanism—occurs in at least 35 States.

Bargaining units

More than 943,000 State employees are included in at least 470 bargaining units, according to responses from 27 States. (See table 1.) Most (90 percent) of these employees are concentrated in 15 States. The State of New York employs some 161,000, or 17 percent; California has approximately 130,000, or 14 percent.

As a group, bargaining units carved along occupational lines (for example, nurses, teachers, guards) are found more frequently than units drawn along functional or departmental lines. Such occupational units are represented by unions or associations that limit membership according to a specific occupation or profession. For example, affiliates of the American Nurses Association represent 13 of the 15 units of nurses reported in this survey. However, there are certain groups of employees who, although organized in their own units, have chosen to be represented by broad-based unions, such as AFSCME.

States permitting collective bargaining generally have the appropriate bargaining units determined by Public Employee Relations Boards, other government agencies, or State officials. In Hawaii, Minnesota, and Wisconsin, bargaining units are set forth in the collective bargaining statutes; in Florida, they are established by rules promulgated by the Public Employees Relations Commission. In California, there are 46 potential units. The Public Employment Relations Board has carved 20 units for employees covered by the State Employer–Employee Relations Act; 17 units for the University of California system, and 9 units for the California State University system under the Higher Education Employer–Employee Relations Act. (At the time of the survey, only 9 higher education units had exclusive representatives certified for representation purposes.) In Massachusetts, the Labor Relations Commission has established 10 statewide units of “nonprofessional” and professional employees, and 28 higher education units. Eight additional units (which cover State police, metropolitan district commission police, judiciary, and lottery commission employees) are set by statute.

The number of bargaining units ranges from two in New Hampshire to 51 in Washington; 13 States reported fewer than 15 units. The average number of units is 18. States tend to have relatively few units when employees are organized by occupation on a statewide basis, as is the case in Florida, Iowa, Maine, Michigan, New York, and Ver-

mont (each of these States has 10 or fewer units). Other States (Minnesota with 16 statewide units and Hawaii and Wisconsin with 12 each) carve out additional units by separating subgroups of professional employees and establishing units for supervisory employees.

The case of Ohio is unusual. Prior to the 1983 passage of the collective bargaining law, the State had negotiated agreements with a number of employee organizations. However, the bargaining agent was recognized “based on a percentage of showing of interest determined by the appointing authority of each state agency evidenced by dues payment to an employee organization. Generally, employee organizations were granted the right to negotiate a contract when twenty (20) percent to thirty (30) percent of the total number of employees paid dues to an employee organization. . . . Therefore, recognition was granted based on this showing of interest and not through representation elections.”

It was also explained that Ohio had “agreements which do not define the bargaining unit. In these instances, all dues-paying employees of an agency constitute the bargaining unit.” Presently, the law authorizes the Ohio Public Employment Relations Board to determine the appropriate unit.

Excluded employees

Information on types of employees excluded from bargaining was provided by the 27 States with collective bargaining activities. (See table 1.) Only one State, Louisiana, extends bargaining to all employees, stating “no State employee groups are excluded from appropriate bargaining units.” Managerial employees and confidential employees (generally those who have access to confidential information, or who participate in negotiating on behalf of the employer) are most often excluded (20 States), followed by elected and appointed officials (11) and supervisory employees (9).

Among the collective bargaining units in Alaska is a unit of confidential employees, who are defined as “classified employees of the Executive Branch who ‘assist or act in a confidential capacity to a person who formulates, determines, and effectuates management policies in the area of collective bargaining’.” Ohio generally included supervisors in the bargaining units if they paid dues to an employee organization. However, some agreements in Ohio defined the bargaining unit to exclude supervisory, confidential, and management-level employees.

Practice varies in terms of coverage of supervisory employees under the bargaining laws. Supervisors are included in the same bargaining unit with nonsupervisory employees in Connecticut, Louisiana, and New York. Two broad supervisory units are set forth by law in Hawaii, but some units combine supervisory and nonsupervisory employees. In Delaware and Washington, most supervisors, if organized, are in units with other employees, although this prac-

Table 1. State government employees in bargaining units in States in which collective bargaining is authorized, 1981-83

State	Number of units	Employees covered		Excluded employees
		Number	Percent	
Total	470	943,042	100.0	
Alaska	11	11,541	1	Elected or appointed officials; teachers and noncertified employees of school districts covered by AS14.20.550 et seq. [Alaska teachers collective bargaining law].
California	29	130,497	14	Managerial and confidential employees.
Connecticut	27	41,452	4	Elected and appointed officials; board and commission members; managerial, part-time, and confidential employees; staff of Board of Labor Relations and Board of Mediation and Arbitration.
Delaware	30	4,768	1	Elected officials; appointees of Governor; public school teachers; prisoners.
Florida	10	68,210	7	Legislative employees; managerial and confidential employees; appointed and elected officials; agency heads; members of boards and commissions; militia; negotiating representatives; persons convicted of crime in State institutions; Federal and State fruit and vegetable inspectors; Public Employees Relations Commission employees.
Hawaii	12	31,629	3	Appointed and elected officials; members of boards and commissions; administrative officers, director or chief of a State agency or major division, and other top-level management and administrative personnel; individuals handling confidential matters.
Illinois	16	45,500	5	All State employees not under the jurisdiction of the Governor; supervisors; managers; confidential employees; temporary and emergency employees.
Iowa	7	14,830	2	Elected officials; appointees and members of boards or commissions; representatives of public employer; supervisory employees; school superintendents, assistant superintendents, principals, and assistant principals; confidential employees; students working part time; temporary employees; national guard; judges and other court employees; patients and inmates employed, sentenced, or committed to a State or local institution; Department of Justice and Commission for the Blind personnel.
Kansas	31	7,707	1	Supervisory and confidential employees.
Louisiana	20	9,800	1	None.
Maine	7	11,600	1	Certain appointees; department heads; temporary, seasonal, and on-call employees; employees with less than 6 months of service; militia; assistant attorneys general; elected officials; labor relations employees; confidential employees.
Massachusetts	45	61,280	6	Managerial and confidential employees.
Michigan	10	43,104	5	Supervisors, managers, and confidential employees.
Minnesota	16	31,398	3	Managerial employees; physicians; unclassified employees appointed by the Governor, lieutenant governor, secretary of State, attorney general, treasurer, and auditor; all positions in the Bureau of Mediation Services and Public Employment Relations Board; hearing examiners in the Office of Administrative Hearings; confidential employees.
Montana	34	4,646	1	Elected officials; appointees of the Governor; supervisory employees; management officials; confidential employees; engineers.
Nebraska	15	7,359	1	National guard; militia.
New Hampshire	2	9,019	1	Unclassified and nonclassified employees; legislative service employees.
New Jersey	32	72,030	8	Confidential employees; managerial executives; elected officials; members of boards and commissions.
New York	9	161,300	17	Management; confidential employees.
Ohio	(1)	—	—	Supervisors; confidential and management-level employees.
Oregon	10	22,360	2	Supervisors; confidential employees.
Pennsylvania	25	88,398	9	Managerial and confidential employees.
Rhode Island	—	—	—	Governor and his designee; top-level supervisors.
South Dakota	3	2,550	(2)	Elected and appointed officials; administrators (except elementary and secondary school), administrative officers, directors, chief executive officers, chief deputies, first assistants, and others having authority to hire, transfer, suspend, layoff, recall, promote, discharge, assign, reward, or discipline other public employees or the responsibility to direct them, or to adjust their grievances or to recommend such action; students working 20 hours a week or less; temporary workers employed for 4 months or less; commissioned and enlisted personnel of the national guard; judges and employees of the unified court system; legislators and other employees of the legislature or any agency statutorily directed by the legislative branch.
Vermont	6	6,565	1	Employees exempt or excluded from State classified service; employees in the office of the lieutenant governor; legal assistants to the attorney general; department or agency head or deputy officer; head of an institution or a division director in the department of administration and similar positions in State colleges; managerial employees; private secretaries; Department of Personnel employees; budget and management analysts; revenue research analysts; director of budget and management operations; director of program formulation and evaluation; director of State information system.
Washington	51	24,061	3	Personnel exempt from civil service.
Wisconsin	12	27,916	3	University faculty and administrators; employees outside the classified service; limited term, sessional, and project employees; supervisory employees; management employees; confidential employees; Employment Relations Commission staff.

¹Bargaining units were not defined in Ohio.

²Fewer than 1 percent.

tice may vary. Separate supervisory units are called for under the laws of Alaska, California, Florida, Maine, Minnesota, Nebraska, New Hampshire, New Jersey, Pennsylvania, and Vermont. In Alaska, however, the law grandfathered units that combined nonsupervisory and supervisory employees prior to the enactment of the Public Employment Relations Act. In Florida, only the health care unit includes both supervisors and nonsupervisors, according to rules of the Public Employees Relations Commission. In New Jersey, the Public Employment Relations Commission is authorized to allow a bargaining unit made up of supervisory and nonsupervisory employees under special limited circumstances. Under the Pennsylvania law, supervisors are granted meet and discuss rights only. Supervisory employees in Michigan have only limited recognition rights.

Bargaining organizations

Unions enjoying exclusive representation rights in each of the States range in number from one (Louisiana) to 20 (Rhode Island). Washington has 51 bargaining units, but only eight unions are involved.

Affiliates of AFSCME are found in 24 States in the survey. In contrast, State employee associations, are recognized in 13² of the 26 States providing union representation information, and represent approximately 18 percent of the employees included in the survey. (In January 1984, the California State Employees' Association, with current membership of approximately 90,000, announced it would affiliate with the Service Employees International Union, thus reducing the percentage of employees in the survey represented by employee associations to 8 percent.)

A number of private sector unions hold exclusive representation rights among certain groups of State public employees. For example, the Communications Workers of America represents the largest number of employees, 42,313, in six units in New Jersey and one unit in California. The Service Employees International Union represents more than 34,000 employees in Illinois, Kansas, Michigan, New Jersey, Oregon, and Pennsylvania. Other private sector unions representing State employees include the International Federation of Professional and Technical Engineers (six units with 9,000 employees in New Jersey and Washington), the Retail Clerks (four units with 3,380 employees in Montana, Nebraska, Pennsylvania, and Washington), and the Teamsters (11 units with 9,000 employees in Illinois, Massachusetts, Minnesota, Montana, New Jersey, Oregon, and Washington). At least 19 other private sector unions are represented in the survey.

In representing State government employees, the private sector unions follow jurisdictional lines in most cases (that is, the Painters, Electricians, and Machinist unions represent craft employees, and the Plant Guard Workers represent security employees). There are, however, variations. For example, the Teamsters union, which has primary interest

in "transportation, warehousing, and the manufacture, processing, sale, and distribution of food, milk, and dairy products,"³ claims among its members a unit of university administrative employees in Minnesota. The Communications Workers of America, which began as a union of telephone employees,⁴ represents State administrative, clerical, professional, and supervisory employees and psychiatric technicians. Until 1981, four of the six CWA units in New Jersey were jointly represented by the Civil Service Association and the State Employee Association.

By occupation. Nearly 75,000 education employees in 21 States are represented by the American Federation of Teachers, National Education Association, American Association of University Professors, and other education employee organizations. These employees include both instructional and noninstructional professional personnel in institutions of higher education, community colleges, vocational-technical schools, schools for the blind and the deaf, and schools in correctional departments and hospitals. Affiliates of the American Federation of Teachers and the National Education Association represent the largest numbers of employees, approximately 28,700 and 28,300, respectively, followed by the American Association of University Professors with approximately 7,750. Three additional units in Hawaii and

Table 2. Percent of organized full-time employees in State government and in private nonagriculture industries, selected States, 1980

State	State government	Private nonagriculture industries
All States ¹	40.5	25.2
Alaska	67.9	33.7
California	48.1	27.0
Connecticut	78.5	23.0
Delaware	40.0	25.2
Florida	84.5	11.8
Hawaii	88.5	28.0
Illinois	44.5	30.4
Iowa	18.2	22.2
Kansas	17.3	15.4
Louisiana	15.7	16.4
Maine	69.4	24.1
Massachusetts	67.4	24.9
Michigan	54.0	37.3
Minnesota	54.3	26.2
Montana	53.7	29.2
Nebraska	17.9	18.1
New Hampshire	41.5	15.8
New Jersey	45.2	25.7
New York	82.6	38.8
Ohio	27.5	31.3
Oregon	48.3	26.1
Pennsylvania	60.3	34.6
Rhode Island	88.3	28.3
South Dakota	13.7	14.8
Vermont	65.5	18.0
Washington	36.2	34.4
Wisconsin	53.9	28.5

¹Includes States other than those listed separately.

NOTE: Only States with collective bargaining authorized for State employees were selected.

SOURCE: Bureau of the Census and Bureau of Labor Statistics.

Pennsylvania, totaling 7,770 faculty members, are represented jointly by the American Association of University Professors/National Education Association, and American Association of University Professors/American Federation of Teachers. Nonteacher organizations such as the California State Employees' Association, California Federation of the Union of American Physicians and Dentists, Statewide University Police Association, Nebraska Association of Public Employees, and AFSCME represent an additional 51 units consisting of 24,000 employees in education institutions; the majority (22,700) are noninstructional, nonprofessional employees.

Affiliates of the American Nurses Association represent 13 units comprising more than 12,700 nurses in Delaware, Florida, Illinois, Massachusetts, Minnesota, Montana, Oregon, Pennsylvania, and Washington. Two units, together covering more than 2,400 registered nurses, are represented by the California State Employees' Association and the Hawaii Government Employees Association. In addition, a bargaining unit of 2,000 professional health care employees in Connecticut is represented by the N.E. Health Care Employees, District 1199, and a unit of 1,100 patient care employees in Wisconsin is represented by the United Professionals for Quality Health Care.

More than 20,700 State troopers and police were organized in 15 States. The Policemen's Benevolent Association is by far the largest, representing nearly 8,000 employees in Florida, New Jersey, and New York. The Fraternal Order of Police represents six units totaling 760 employees in Delaware, New Jersey, and Pennsylvania. Other police and State trooper organizations, representing more than 12,000 members, include the Alaska Public Safety Employees Association, California Association of Highway Patrolmen, Connecticut State Police Union, Iowa State Police Officers' Council, Kansas Troopers Association, Maine State Troopers Association, State Police Association of Massachusetts, Michigan State Police Troopers Association, Minnesota State Patrol Troopers Association, the State Troopers Fraternal Association of New Jersey, Inc., and the State Troopers Noncommissioned Officers Association of New Jersey, Inc. The Vermont State Employees Association represents a unit of State police officers in that State.

Some observations

The survey results presented here provide the basis for some general observations concerning characteristics of State government employee bargaining: the existence of a bargaining statute determines the bargaining unit coverage, but it may not be determinative of the extent of organization in terms of organized employees; and the extent of organization in the nonagriculture sector appears to influence the organization of State employees, although in States in which collective bargaining is authorized by law, the proportion of organized workers is larger in State government than in private nonagriculture industries. (See table 2.)

The findings reveal State government bargaining characteristics which are not entirely like those that describe the private sector. This leads to questions which require further investigation. What factors other than the existence of a bargaining statute influence or promote organization of State employees? Does the existence of a merit system affect the development of a State's labor relations policy and organization of employees? Are there differences in the bargaining outcomes developing out of State government bargaining? It may be that the perceived differences are only minor variations; but without further examination, it is not clear whether they reflect the environment unique to State government and the individual States. □

—FOOTNOTES—

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¹ According to the Utah respondent, the prohibition of collective bargaining by State Constitution is found in *Utah Code Annotated*, Secs. 34-34-1 to 34-34-17 (Utah's right-to-work law).

² The States are Alaska, California, Connecticut, Illinois, Kansas, Maine, Michigan, Montana, Nebraska, New Hampshire, North Dakota, Vermont, and Washington.

³ See Jack Stieber, *Public Employee Unionism: Structure, Growth, Policy* (Washington, The Brookings Institution, 1973), p. 5.

⁴ See Jack Barbash, *Unions and Telephones* (New York, Harper & Row, 1952).

Proportion of higher income families declines during the 1969–82 period

The proportion of families earning \$25,000 or more after inflation decreased to 39 percent in 1982, after remaining constant at about 45 percent in 1969 and 1976, according to the 1983 Survey of Consumer Finances. This change in the distribution of real income reflects changes in the economy and in the size of families. For example, both 1969 and 1982 were recession years, and the number of families maintained by unmarried persons increased over the 1969–82 period, causing a decrease in average family size and, therefore, reduced family income.

The older the head of the household, the more the average family income. Incomes ranged from \$13,835 when the household head was under age 25 to nearly \$33,000 when the head was in the 45- to 54-year-old group. Family incomes fell for each age group thereafter—reaching \$11,335 for households headed by persons age 75 or older.

Occupation, education, and race played a key role in family income. The higher the educational attainment of the family head, the higher the family income. Income was lowest in families maintained by persons with an eighth grade education or lower, and rose consistently with each level of attainment. Families maintained by a professional,

technical, or managerial worker averaged higher incomes than those maintained by other workers. Incomes also tended to be higher when the family head was white. As might be expected, the lowest income was in households maintained by unmarried persons with children, followed by households maintained by retirees.

About 60 percent of the nonfarm families owned their homes in 1983, down from 65 percent in 1977. The decrease can be partly attributed to the high mortgage interest rates in recent years, as well as to the increase in the number of families headed by unmarried persons. Families maintained by persons 45 years and over were most likely to own their homes; those maintained by persons under age 35 were least likely.

The survey questioned homeowners about the current market value of their homes and about the outstanding mortgage debt. From the responses, home equity was determined. The average real value of homes increased from \$53,190 in 1970 to \$72,238 in 1980. During the same period, real equity increased from \$37,853 to \$56,133.

Total assets (in 1983 dollars) increased over the 1970–83 period. Average holdings of liquid assets were \$11,274 in 1970, \$15,224 in 1977, and \$12,934 in 1983. The 1969 and 1982 recessions attributed to the lower holdings in 1970

and 1983, as families used liquid assets to meet shortfalls in income.

The proportion of owners of liquid holdings and the dollar amount of holdings of liquid assets increased with family income. For example, slightly more than half (53 percent) of the families with incomes under \$5,000 had liquid assets in 1983, while nearly all (99 percent) of those with incomes of at least \$30,000 had such assets.

The 1983 Survey of Consumer Finances was jointly sponsored by the Board of Governors of the Federal Reserve System, Department of Health and Human Services, Federal Deposit Insurance Corporation, Comptroller of the Currency, Federal Trade Commission, Department of Labor, and U.S. Treasury. Personal interviews of 3,824 families were conducted by the University of Michigan's Survey Research Center. The individual selected as the respondent for each family was either the head of the family, or, for married couples, the person most knowledgeable about family finances.

This summary is from the report "Survey of Consumer Finances, 1983," *Federal Reserve Bulletin*, September 1984. Future articles based on survey results will examine family debts and the financial behavior of high income families. □

Major Agreements Expiring Next Month



This list of selected collective bargaining agreements expiring in May is based on information from 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.

Employer and location	Private industry	Labor organization ¹	Number of workers
Anthracite Coal Operators Association (Pennsylvania)	Mining	Mine Workers	1,200
Associated General Contractors of Massachusetts, Inc. and one other (Massachusetts)	Construction	Laborers	6,650
Master Builders Association of Western Pennsylvania, Inc. (Pennsylvania)	Construction	Carpenters	5,000
Master Builders Association of Western Pennsylvania, Inc. (Pennsylvania)	Construction	Operating Engineers	2,500
Associated General Contractors of America, Inc. (Knoxville, TN)	Construction	Laborers	1,000
Independent employers (Kentucky and Indiana)	Construction	Carpenters	1,200
General Building Contractors Association, Inc. (Philadelphia, PA)	Construction	Carpenters	5,000
Building Contractors Association (Indianapolis, IN)	Construction	Carpenters	2,000
Associated General Contractors of America, Inc., Detroit Chapter (Michigan)	Construction	Carpenters	2,500
Associated General Contractors of America, Inc. and Builders Association of Southeast Michigan (Detroit, MI)	Construction	Laborers	2,200
Associated General Contractors of America, Inc. (Detroit, MI)	Construction	Operating Engineers	1,350
Fox Valley General Contractors Association (Illinois)	Construction	Carpenters	1,000
Building Trades Employers Association (Syracuse, NY)	Construction	Laborers	1,000
Construction Employers of North Central West Virginia (West Virginia)	Construction	Carpenters	1,000
Associated General Contractors of America, Inc. and others (Eastern Massachusetts, except Boston)	Construction	Carpenters	3,000
Construction Industries of Massachusetts, heavy and highway (Massachusetts)	Construction	Laborers	3,350
Construction Industries of Massachusetts and others (Massachusetts)	Construction	Operating Engineers	3,400
Master Builders Association of Western Pennsylvania (Pennsylvania)	Construction	Laborers	4,000
Associated General Contractors of America, Inc., heavy construction (Alabama)	Construction	Multi-crafts	1,950
Ohio Valley Construction Employers Council (West Virginia)	Construction	Operating Engineers	2,000
Wisconsin Road Builders Association (Wisconsin)	Construction	Laborers	1,700
Wisconsin Road Builders Association (Wisconsin)	Construction	Teamsters (Ind.)	1,000
Ironworkers Employers Association of Western Pennsylvania, Inc. (Pennsylvania)	Construction	Iron Workers	2,000
Mechanical Contractors Association of Western Pennsylvania (Pennsylvania)	Construction	Plumbers	1,350
Associated Steel Erectors (Chicago, IL)	Construction	Iron Workers	1,700
Electrical Contractors Association (Chicago, IL)	Construction	Electrical Workers (IBEW)	5,300
Plumbing Contractors Association (Chicago, IL)	Construction	Plumbers	4,500
Mechanical Contractors Association (Chicago, IL)	Construction	Plumbers	8,000
Metropolitan Detroit Plumbing and Mechanical Contractors Association (Michigan)	Construction	Plumbers	1,800
Metropolitan Detroit Plumbing, pipefitters (Michigan)	Construction	Plumbers	1,850
Contract Administration Fund of Northeastern Colorado and one other (Denver, CO)	Construction	Plumbers	1,250
Mechanical Contractors' Association and independent companies (Washington)	Construction	Plumbers	2,500
Sheet Metal Employers Association (Detroit, MI)	Construction	Sheet Metal Workers	1,000
Associated General Contractors of America, Inc. and one other (Cincinnati, OH)	Construction	Carpenters	2,800
National Electrical Contractors Association (Wisconsin)	Construction	Electrical Workers (IBEW)	1,300
National Electrical Contractors Association (Las Vegas, NV)	Construction	Electrical Workers (IBEW)	1,100

See footnotes at end of table.

Continued—Major Agreements Expiring Next Month

Employer and location	Private industry	Labor organization ¹	Number of workers
National Electrical Contractors Association, Orange County (California)	Construction	Electrical Workers (IBEW)	1,200
National Electrical Contractors Association, Alameda County (California)	Construction	Electrical Workers (IBEW)	1,100
Mechanical Contractors Association and independent companies (Washington)	Construction	Plumbers	2,500
National Electrical Contractors Association, Santa Clara County (California)	Construction	Electrical Workers (IBEW)	1,800
Mechanical Contractors of Cincinnati and Air Conditioning Contractors of Cincinnati (Ohio)	Construction	Plumbers	1,100
Mason Contractors Association (Pittsburgh, PA)	Construction	Bricklayers	1,000
Great Lakes Fabricators and Erectors, conveyer agreement (Detroit, MI)	Construction	Operating Engineers	1,350
Mid-South Erectors Association (Interstate)	Construction	Iron Workers	1,050
Associated General Contractors of America, Inc. and others (Detroit, MI)	Construction	Iron Workers	1,100
Millwrights, Conveyer and Machine Erectors Contractors (Detroit, MI)	Construction	Carpenters	1,350
Industrial Contractors and Builders Association and one other (Indiana)	Construction	Iron Workers	1,350
National Distillers Products Co. (Interstate)	Food products	Distillery Workers	1,500
Soft drink bottling companies (Chicago, IL) ²	Food products	Teamsters (Ind.)	1,100
Campbell Soup Co. (Sacramento, CA)	Food products	Teamsters (Ind.)	1,400
California Processors, Inc. and others (California)	Food products	Teamsters (Ind.)	50,000
Knitted Outerwear Manufacturers Association, Pennsylvania District (Pennsylvania)	Textiles	Ladies' Garment Workers	5,000
Cone Mills Corp., White Oak plant (Greensboro, NC)	Textiles	Clothing and Textile Workers	1,700
Erwin Mills, Inc. (Durham, NC)	Textiles	Clothing and Textile Workers	1,100
New York Coat and Suit Association (Interstate)	Apparel	Ladies' Garment Workers	20,000
Cotton dress and juvenile apparel associations (Interstate)	Apparel	Ladies' Garment Workers	6,000
Affiliated Dress Association, national dress agreement (Interstate)	Apparel	Ladies' Garment Workers	50,000
National Association of Blouse Manufacturers, Inc. (Interstate)	Apparel	Ladies' Garment Workers	3,000
Jonathan Logan, Inc. (Interstate)	Apparel	Ladies' Garment Workers	4,500
New England Sportswear Manufacturers Association (Boston, MA)	Apparel	Ladies' Garment Workers	1,500
New England Clothing and Rainwear Manufacturing Association (Boston, MA)	Apparel	Ladies' Garment Workers	1,500
New England Apparel Manufacturers Association (Fall River, MA)	Apparel	Ladies' Garment Workers	2,000
Philadelphia Apparel Producers Association, Philadelphia area and South Jersey area (Interstate)	Apparel	Ladies' Garment Workers	5,000
Greater Blouse, Skirt and Undergarment Association (New York, NY)	Apparel	Ladies' Garment Workers	23,000
United Knitwear Manufacturers League (New York, NY)	Apparel	Ladies' Garment Workers	3,600
National Skirt and Sportswear Association, Inc.	Apparel	Ladies' Garment Workers	1,500
National Women's Neckwear and Scarf Association, Inc. (New York, NY)	Apparel	Ladies' Garment Workers	1,000
New Jersey Apparel Contractors Association, Inc. (New Jersey)	Apparel	Ladies' Garment Workers	3,000
Association of Rain Apparel Contractors, Inc. (New York, NY)	Apparel	Ladies' Garment Workers	3,800
Atlantic Apparel Contractors Association (Pennsylvania)	Apparel	Ladies' Garment Workers	35,000
Infants and Children's Coat Association (New York, NY)	Apparel	Ladies' Garment Workers	3,000
Knit Manufacturers of New Jersey (Northern New Jersey)	Apparel	Ladies' Garment Workers	3,000
R. and M. Kaufman Co. (Interstate)	Apparel	Ladies' Garment Workers	1,000
Associated Garment Industries of St. Louis, underwear branch (Interstate)	Apparel	Ladies' Garment Workers	3,000
Association of Garment Contractors, ladies sportswear (Boston, MA)	Apparel	Ladies' Garment Workers	4,000
Roper Eastern (Baltimore, MD)	Furniture	Furniture Workers	1,150
Memphis Furniture Co. (Tennessee)	Furniture	Furniture Workers	1,250
Scott Paper Co., S.D. Warren Co. Division (Maine)	Paper	Paperworkers	1,100
Nekoosa-Edwards Paper Co. (Wisconsin)	Paper	Paperworkers	1,500
Dayco Corp. (Waynesville, NC)	Rubber	Rubber Works	1,200
American Standard Inc. (Interstate)	Stone, clay, and glass products	Pottery and Allied Workers	1,500
Emhart Industries (Berlin, CT)	Fabricated metal products	Machinists	1,150
The Stanley Works (New Britain, CT)	Fabricated metal products	Machinists	2,100
Ingersoll-Rand Co. (New York)	Machinery	Electronic Workers (IUE)	1,550
Tecumseh Products Co. (Tecumseh, MI)	Machinery	United Product Workers (Ind.)	1,750
Carrier Corp. (Morrison, TN)	Machinery	Sheet Metal Workers	1,500
Sprague Electric Co. (North Adams, MA)	Electrical products	Electronic Workers (IUE) and others	1,200
Magnavox Co. (Fort Wayne, IN)	Electrical products	Allied Industrial Workers	1,800
Whirlpool Corp., St. Joseph Division (St. Joseph, MI)	Electrical products	Machinists	1,600
Avco Corp., Lycoming Division (Stratford, CT)	Transportation equipment	Auto Workers	2,700
Westinghouse Air Brake Co. (Pennsylvania)	Transportation equipment	Electrical Workers (UE-Ind.)	2,500
Maryland Shipbuilding and Drydock Co. (Baltimore, MD)	Transportation equipment	Marine and Shipbuilding Workers	1,600
National Automobile Transporters agreement (Interstate)	Trucking	Teamsters (Ind.)	20,000
Garment Industry Trucking Associations (Interstate)	Trucking	Ladies' Garment Workers	1,800

See footnotes at end of table.

Continued—Major Agreements Expiring Next Month

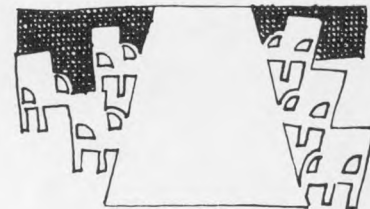
Employer and location	Private industry	Labor organization ¹	Number of workers
U.S. Air, pilots (Interstate) ³	Air transportation	Air Line Pilots	1,100
General Telephone Company of Indiana (Ft. Wayne, IN)	Communication	Communications Workers	2,200
Public Service Company of Indiana (Plainfield, IN)	Utilities	Electrical Workers (IBEW)	2,200
Gimbel Brothers, Inc. (New York, NY)	Retail trade	Retail, Wholesale and Department Store	4,000
First National Stores, Inc. (Connecticut)	Retail trade	Food and Commercial Workers ...	3,300
Chain and independent food stores (St. Louis, MO)	Retail trade	Food and Commercial Workers ...	8,500
Independent food stores, central and northeast Illinois and Indiana	Retail trade	Food and Commercial Workers ...	2,500
Association of Telephone Answering Services, Inc. (New York, NY)	Services	Retail, Wholesale and Department Store	1,000
	Government activity	Labor organization¹	Number of workers
Arizona: Phoenix Board of Education, teachers	Education	National Education Association (Ind.)	1,100
District of Columbia: Board of Education, custodians	Education	State, County and Municipal Employees	1,000
New York: New York City Transit Authority, supervisors (Brooklyn) ...	Transportation	Subway-Surface Supervisors Association (Ind.)	3,600

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

²Industry area (group of companies signing same contract).

³Information is from newspaper report.

Developments in Industrial Relations



Harvester accord focuses on 'job content'

A new Job Content Protection Program is the centerpiece of a settlement between International Harvester Co. and the United Auto Workers. Under the program, if straight-time hours worked by UAW members in a given product line decline during a 6-month period, the company must reduce overtime hours; return to plants where the union holds representation rights work that had been subcontracted; or compensate workers in training programs at regular straight-time rates.

The 3-year agreement also provides for a 31-cent-an-hour pay increase retroactive to October 1, 1984, and a 2.25-percent increase on October 7, 1985. The provision for automatic quarterly cost-of-living pay adjustments was continued, with up to 13 cents an hour to be diverted from the allowance over the term to bolster the Supplemental Unemployment Benefits (SUB) fund. The 13 cents will be restored to the allowance, without retroactivity, when the total diverted amount matches a \$3 million company advance to the fund. Harvester also agreed to advance \$9 million into the SUB fund to permit payment of a backlog of benefits. The company will recoup this amount by reducing its normal payment into the fund for each hour worked.

Other terms include restoration of 8 paid days each year that the employees had given up in 1982 to aid the company; liberalization of the profit-sharing plan; and improvements in health care and other insurance.

The accord, which ended a 2-day weekend strike, also provides for employees to retain all benefits and credits if Tenneco's planned purchase of Harvester's farm equipment operations is approved by the Federal Government, and the Harvester operations are merged into Tenneco's J. I. Case unit.

Anheuser-Busch settles in 10 States

In the beer brewing industry, 9,000 workers in 10 States were covered by a settlement between Anheuser-Busch, Inc., and the Teamsters union. The contract, scheduled to expire in February 1988, provides for a total wage increase

of \$2 an hour: 70 cents effective January 1, 1985, followed by 65-cent increases on March 1 of 1986 and 1987. Under the prior contract, pay averaged about \$15 an hour, according to a union official.

In March 1986, the company will end the practice of supplying the employees with free beer during lunch and rest breaks. In return for this change, Anheuser-Busch agreed to other forms of compensation, varying by location, such as increased payments to benefit funds or distribution of free beer to take home. A union official said the change reflected the mood of the country, particularly the increasing concern over the danger of drinking and driving.

Elsewhere in the industry, the Miller Brewing Co. and the Teamsters negotiated a contract for 1,000 workers in Fort Worth, TX. Terms were similar to those at Anheuser-Busch. In 1984, Miller and the union negotiated a contract in Eden, NC that provided for some 1,000 workers to receive the same wage increases as the Anheuser-Busch employees.

Auto Workers settle at Jeep plant

The Auto Workers negotiated a 3-year contract for American Motors employees at Toledo, OH, who produce Jeep vehicles. Terms for the 5,800 workers were similar to the union's 1984 settlements with General Motors Corp. and Ford Motor Co. (See *Monthly Labor Review*, December 1984, pp. 46-49.)

Still to be negotiated is a contract for American Motors' Kenosha, WI, plant, which produces automobiles. First indications are that the talks will be difficult, as a top company official said the union had been informed that "costs at that plant are too high." The current Kenosha contract expires on September 15, 1985.

Newspaper's contract provides for job security

A 5½-year dispute between the Kansas City Star and International Typographical Union (ITU) Local 80 ended when the parties agreed on a 6-year contract. The dispute began in 1979, when the parent corporation, Capital City Communications, refused to extend lifetime job security provisions in the union's contract. Despite this, the 140 workers remained on the job without a contract or wage increase until the settlement.

"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.

Under the new contract, the workers received wage increases of \$120 a week effective immediately, \$17 in the second through fifth years, and \$12 in the final year, for a total of \$200. Job security is provided through 1990 for workers who were on the payroll when the last contract expired. The company also agreed to promptly inform the union of plans to introduce new technology and to train the ITU members for the jobs.

Contract covers 80 Illinois nursing homes

Some 5,000 employees of 80 nursing homes in Cook and Lake counties were covered by a settlement between the Illinois Association of Health Care Facilities and the Service Employees. A Local 2 official said the accord provides for a "modest" 53-cent-an-hour wage increase over the 3-year term because priority was given to bolstering the health and welfare fund, which is "in the hole." The new employer payment to the fund is \$70 a month for full-time employees, up from \$40.

The accord covers nurses aides, and dietary, housekeeping, and maintenance employees. Under the prior contract, the starting rate was \$3.65 an hour and the average pay rate was \$5.25, according to the union.

DuPont offers early retirement

In a move to reduce labor costs, DuPont Co. offered early retirement to its employees in the United States. About 6,500, or 4 percent, of them were expected to accept the offer. Under the plan, as many as 5 years will be added to an employee's age and length of service in computing pensions. With the credit, the pension of a 53-year-old worker with an annual salary of \$25,000 and 22 years of service would rise to \$675 a month, from \$275.

Company officials said the cut in employment was part of its plan to streamline operations and reduce a large overlap of staff resulting from its 1981 acquisition of Conoco.

Automakers share profits with employees

General Motors Corp. reported a record \$3.87 billion profit on domestic operations in 1984, compared with the previous record of \$3.47 billion in 1983. Despite the rise, the average profit-sharing payment for UAW-represented workers dropped to \$515 per person, from \$606 in 1983. GM said one reason for this was that 100,000 laid-off employees had been recalled during the year, meaning that the available money had to be divided among more people.

Chrysler Corp. earned record profits of \$2.4 billion in 1984. Chrysler employees do not have a profit-sharing provision (their current contract, negotiated in 1983 and scheduled to expire on October 15, 1985, terminated such a provision), but Chrysler nevertheless awarded \$1,000 to each of its 100,000 nonbonus employees—\$500 in cash and

a \$500 certificate that can be applied toward purchase of a new Chrysler vehicle.

At Ford Motor Co., the 1984 profit was \$2.9 billion, exceeding the record \$1.9 billion for 1983. The profit-sharing formula, which differs from that at General Motors, resulted in a 1984 distribution averaging more than \$2,000 each for 170,000 workers, including low and mid level white-collar workers not represented by the UAW. The 1983 distribution averaged \$400 each.

Some critics claimed that much of the profit rise at the companies resulted from the voluntary restraint on shipments to the United States accepted by Japanese producers (and scheduled to lapse on March 31), but Chrysler claims much of its improved finances resulted from a doubling of its output per worker since 1980.

Idaho's 'right-to-work' law temporarily blocked

Idaho became the 21st State to enact a "right-to-work" law, but union leaders won a court order temporarily blocking implementation of the law. The labor leaders contended that the law was illegal because it was to become effective immediately, thwarting the citizens' right to a referendum on all laws passed by the legislature.

Under the Idaho law, employers would be prohibited from entering into agreements with unions under which only union members or dues paying workers could be employed.

The last State to enact a right-to-work law was Louisiana, in 1976.

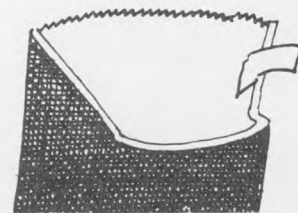
EEOC to focus on individual complaints

In a major policy change, the Federal Equal Employment Opportunity Commission (EEOC) announced that it will concentrate on resolving complaints by specific individuals. In the past, the EEOC had initiated a number of major actions on behalf of classes of employees of companies such as General Electric, AT&T, and Sears Roebuck.

EEOC Chairman Clarence Thomas said the agency will now "seek remedies for individuals where there is a finding of discrimination. This is a significantly tougher stand for people who have been hurt by discrimination." He said the new approach will not involve goals or timetables. Thomas indicated that the EEOC might on occasion initiate actions on behalf of classes of employees, but in such cases will press for damages and jobs only for the individuals of the class who can prove they have been discriminated against. For other members, remedies sought will be limited to procedural changes in personnel policies.

Ann Ladky, executive director of Women Employed, an advocacy group that monitors the EEOC, criticized the change in enforcement approach. She contended that much discrimination is systemic, requiring broad enforcement actions rather than individual actions. She also claims that the new approach means that "enforcement won't be vigorous." □

Book Reviews



The Japanese approach to labor issues

Japan's Reshaping of American Labor Law. By William B. Gould. Cambridge, MA, The MIT Press, 1984. 187 pp. \$19.95.

This book, by a Stanford law school professor who has twice served as a visiting professor in the Tokyo University Law Faculty, is a comparison of labor law under the National Labor Relations Act in the United States and the Trade Union Law in Japan. It consists of an overview, a brief historical review, four chapters dealing with the administrative process of the two laws, as well as remedies, job security, unfair labor practices, a short discussion of the law affecting public sector unions, and the conclusion. William B. Gould's objectives are (1) to use the law to explain and compare industrial relations systems, and (2) to explain how similar legislation has operated quite differently in the two countries.

The chapter on the historical evolution of Japanese labor law notes differences between U.S. practices and those in Japan, despite the fact that Japanese unionization after World War II went forward under U.S. occupation authorities who had been significantly influenced by the National Labor Relations Act, known also as the Wagner Act, and the development of the National Labor Relations Board (NLRB). Of particular interest to Americans is that elections for an exclusive bargaining agent in a work unit, whose characteristics were determined by an administrative agency, has no counterpart in Japan. Considering the essential role played in the evolution of current American industrial relations by the concept of a single responsible agent in an appropriate unit, it is a wonder that major differences exist between Japan and the United States.

The chapter on administrative processes shows that one of the major differences is that in Japan, the Labor Relations Commissions will give great deference to facilitating the continuing relationship between the parties, even at the expense of what might have been the Commissions' decisions. In the United States, the introduction of the NLRB into a dispute brings public concerns and public goals into play and these then become dominant.

The chapter on remedies looks at those associated with seven different issues of dispute. Overall, the author found the Japanese approach to be imaginative and foresighted.

He was, however, particularly critical of the limited role played by the Commissions in issues involving discrimination against one union in favor of another. This is a major problem area with 177 new cases in 1983, about 37 percent of all new unfair labor practice cases in that year. Gould's concern may have lessened somewhat by the post-publication (May 1984) decision of the Supreme Court in the case of the Japan Mail Order Co. in which the Court upheld the original Commission decision. However, the fact that the original discrimination occurred during bargaining over the yearend bonus in 1972, with the final court decision coming more than 11 years later, only underlines the potentials for delay in Japanese legal proceedings.

The chapter on job security sharply contrasts the United States with its emphasis upon the individual and adversary proceedings to settle issues with the more cooperative model which the author found in Japan. He also found that Japanese law gives individuals greater protection from arbitrary discharge and unions the right to more information from companies. He argues that these occur because of their consistency with general Japanese personnel practices.

Under unfair labor practices, Gould finds provisions of the laws in the two countries to be roughly comparable. He notes that in Japan, the line between violence and power is not as clearly drawn as in the United States. Yet, he finds a close correspondence in the treatment involving the wearing of ribbons and other insignia on uniforms of employees in contact with the public. Overall, though, there does not appear to be a common theme to the various decisions.

The author's basic conclusion is that, with a labor law very similar to that of the United States, Japanese legal institutions have moved in different directions from those in the United States. He sees this as support for reforms through changes in our legal approach, either by statute or interpretations by the NLRB and the Supreme Court.

This is an interesting book because of the constant interplay between Japanese and American legal approaches to what are, at least on the surface, similar situations. It is a well-written book, setting out quite clearly a number of specifics concerning the law and particular cases. Yet, the book's audience may be quite small. One should already be interested in and knowledgeable about the labor laws of Japan and the United States. Otherwise, there is too great an expectation of detailed prior knowledge. The general

reader wishing information about Japan will be better served by chapters in Taishiro Shirai, ed., *Contemporary Industrial Relations in Japan* (University of Wisconsin, 1983) or by Tadashi Hanami, *Labor Relations in Japan Today* (Kondansha, 1979).

The author sought to use the law to examine and compare the two industrial relations systems. For Japan, the system seems to explain the law, for decisions are explained by the influence of current employer and union practice or the need to facilitate the maintenance of relationships. There have been fundamental changes in Japanese industrial relations since the 1950's. This is illustrated in the dramatic decline, by a factor of 10, in the days lost to industrial disputes between 1952-84 and 1976-81. Yet, legal issues do not seem to provide an explanation.

In the United States, we are accustomed to thinking of laws and the NLRB as playing a crucial role. Certainly, early decisions concerning a single representative union, the definition of what was a company-supported union, and key postwar decisions on the required areas of bargaining, especially pensions, do seem to have played essential roles in defining American industrial relations. Yet, increasingly, the law seems irrelevant.

One of the striking differences between the countries is the number of unfair labor practices cases. In 1980, there were 778 new cases filed with the local boards in Japan and in the United States, the NLRB closed some 42,000 cases. Yet, some 20 years earlier there were only about one-sixth as many cases, a fact that suggests that, rather than defining an industrial relations systems, it is being used as a weapon to help one side or the other.

This book will be of special interest to those readers who are concerned and fascinated by issues of national labor policy under the National Labor Relations Act in the United States or the Trade Union Law in Japan.

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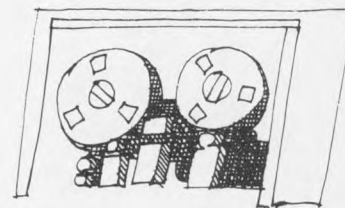
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NOTES ON CURRENT LABOR STATISTICS

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

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

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

Seasonally adjusted labor force data in tables 3-8 were revised in the February 1985 issue of the *Review*, to reflect experience through 1984.

Beginning in January 1980, the BLS introduced two major modifications in the seasonal adjustment methodology for labor force data. First, the data are being seasonally adjusted with a new procedure called X-11/ARIMA, which was developed at Statistics Canada as an extension of the standard X-11 method. A detailed description of the procedure appears in *The X-11 ARIMA Seasonal Adjustment Method* by Estela Bee Dagum (Statistics Canada Catalogue No. 12-564E, January 1983). The second change is that seasonal factors are now being calculated for use during the first 6 months of the year, rather than for the entire year, and then are calculated at mid-year for the July-December period. Revisions of historical data continue to be made only at the end of each calendar year.

Annual revision of the seasonally adjusted payroll data shown in tables 11, 13, 15, and 17 were made in July 1984 using the X-11 ARIMA seasonal adjustment methodology. New seasonal factors for productivity data in tables 29 and 30 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month to month and from

quarter to quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All Items CPI. Only seasonally adjusted percent changes are available for this series.

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

Availability of information. Data that supplement the tables in this section are published by the Bureau of Labor Statistics in a variety of sources. Press releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule given below. More information from household and establishment surveys is provided in *Employment and Earnings*, a monthly publication of the Bureau. Comparable household information is published in a two-volume data book—*Labor Force Statistics Derived From the Current Population Survey*, Bulletin 2096. Comparable establishment information appears in two data books—*Employment and Earnings, United States*, and *Employment and Earnings, States and Areas*, and their annual supplements. More detailed information on wages and other aspects of collective bargaining appears in the monthly periodical, *Current Wage Developments*. More detailed price information is published each month in the periodicals, the *CPI Detailed Report* and *Producer Prices and Price Indexes*.

Symbols

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

Schedule of release dates for BLS statistical series

Series	Release date	Period covered	Release date	Period covered	Release date	Period covered	MLR table number
Employment situation	April 5	March	May 3	April	June 7	May	1-11
Producer Price Index	April 12	March	May 10	April	June 14	May	23-27
Consumer Price Index	April 23	March	May 21	April	June 20	May	19-22
Real earnings	April 23	March	May 21	April	June 20	May	12-16
Productivity and costs:							
Nonfarm business and manufacturing	April 25	1st quarter	.....	.....	.....	.....	29-32
Nonfinancial corporations . . . . .	.....	.....	May 29	1st quarter	.....	.....	29-32
Major collective bargaining settlements	April 26	1st quarter	.....	.....	.....	.....	36-37
Employment Cost Index	April 30	1st quarter	.....	.....	.....	.....	33-35

EMPLOYMENT DATA FROM THE HOUSEHOLD SURVEY

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 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 **unemployment**

rate for all civilian workers 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 presented in table 1. A description of these adjustments and their effect on the various data series appear in the Explanatory Notes of *Employment and Earnings*.

Data in tables 2-8 are seasonally adjusted, based on the seasonal experience through December 1984.

Year	Noninstitutional population	Labor force										Not in labor force
		Number	Percent of population	Employed						Unemployed		
				Total	Percent of population	Resident Armed Forces	Civilian			Number	Percent of labor force	
							Total	Agriculture	Nonagricultural industries			
1950	106,164	63,377	59.7	60,087	56.6	1,169	58,918	7,160	51,758	3,288	5.2	42,787
1955	111,747	67,087	60.0	64,234	57.5	2,064	62,170	6,450	55,722	2,852	4.3	44,660
1960	119,106	71,489	60.0	67,639	56.8	1,861	65,778	5,458	60,318	3,852	5.4	46,617
1965	128,459	76,401	59.5	73,034	56.9	1,946	71,088	4,361	66,726	3,366	4.4	52,058
1966	130,180	77,892	59.8	75,017	57.6	2,122	72,895	3,979	68,915	2,875	3.7	52,288
1967	132,092	79,565	60.2	76,590	58.0	2,218	74,372	3,844	70,527	2,975	3.7	52,527
1968	134,281	80,990	60.3	78,173	58.2	2,253	75,920	3,817	72,103	2,817	3.5	53,291
1969	136,573	82,972	60.8	80,140	58.7	2,238	77,902	3,606	74,296	2,832	3.4	53,602
1970	139,203	84,889	61.0	80,796	58.0	2,118	78,678	3,463	75,215	4,093	4.8	54,315
1971	142,189	86,355	60.7	81,340	57.2	1,973	79,367	3,394	75,972	5,016	5.8	55,834
1972	145,939	88,847	60.9	83,966	57.5	1,813	82,153	3,484	78,669	4,882	5.5	57,091
1973	148,870	91,203	61.3	86,838	58.3	1,774	85,064	3,470	81,594	4,355	4.8	57,667
1974	151,841	93,670	61.7	88,515	58.3	1,721	86,794	3,515	83,279	5,156	5.5	58,171
1975	154,831	95,453	61.6	87,524	56.5	1,678	85,845	3,408	82,438	7,929	8.3	59,377
1976	157,818	97,826	62.0	90,420	57.3	1,668	88,752	3,331	85,421	7,406	7.6	59,991
1977	160,689	100,665	62.6	93,673	58.3	1,656	92,017	3,283	88,734	6,991	6.9	60,025
1978	163,541	103,882	63.5	97,679	59.7	1,631	96,048	3,387	92,661	6,202	6.0	59,659
1979	166,460	106,559	64.0	100,421	60.3	1,597	98,824	3,347	95,477	6,137	5.8	59,900
1980	169,349	108,544	64.1	100,907	59.6	1,604	99,303	3,364	95,938	7,637	7.0	60,806
1981	171,775	110,315	65.2	102,042	59.4	1,645	100,397	3,368	97,030	8,273	7.5	61,460
1982	173,939	111,872	64.3	101,194	58.2	1,668	99,526	3,401	96,125	10,578	9.5	62,067
1983	175,891	113,226	64.4	102,510	58.3	1,676	100,834	3,383	97,450	10,717	9.5	62,665
1984	178,080	115,241	64.7	106,702	59.9	1,697	105,005	3,321	101,685	8,539	7.4	62,839

2. Employment status of the population, including Armed Forces in the United States, by sex, seasonally adjusted

[Numbers in thousands]

Employment status and sex	Annual average		1984												1985	
	1983	1984	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	
TOTAL																
Noninstitutional population ^{1,2}	175,891	178,080	177,363	177,510	177,662	177,813	177,974	178,138	178,295	178,483	178,661	178,834	179,004	179,081	179,219	
Labor force ²	113,226	115,241	114,408	114,592	114,895	115,412	115,309	115,566	115,341	115,484	115,721	115,773	116,162	116,572	116,787	
Participation rate ³	64.4	64.7	64.5	64.6	64.7	64.9	64.8	64.9	64.7	64.7	64.8	64.7	64.9	65.1	65.2	
Total employed ²	102,510	106,702	105,572	105,809	106,095	106,852	107,081	107,075	106,860	107,114	107,354	107,631	107,971	108,088	108,388	
Employment-population rate ⁴	58.3	59.9	59.5	59.6	59.7	60.1	60.2	60.1	59.9	60.0	60.1	60.2	60.3	60.4	60.5	
Resident Armed Forces ¹	1,676	1,697	1,684	1,686	1,693	1,690	1,690	1,698	1,712	1,720	1,705	1,699	1,698	1,697	1,703	
Civilian employed	100,834	105,005	103,888	104,123	104,402	105,162	105,391	105,377	105,148	105,394	105,649	105,932	106,273	106,391	106,685	
Agriculture	3,383	3,321	3,364	3,305	3,379	3,367	3,368	3,333	3,264	3,319	3,169	3,334	3,385	3,320	3,340	
Nonagricultural industries	97,450	101,685	100,524	100,818	101,023	101,795	102,023	102,044	101,884	102,075	102,480	102,598	102,888	103,071	103,345	
Unemployed	10,717	8,539	8,836	8,783	8,800	8,560	8,228	8,491	8,481	8,370	8,367	8,142	8,191	8,484	8,399	
Unemployment rate ⁵	9.5	7.4	7.7	7.7	7.7	7.4	7.1	7.3	7.4	7.2	7.2	7.0	7.1	7.3	7.2	
Not in labor force	62,665	62,839	62,955	62,918	62,767	62,401	62,665	62,572	62,954	62,999	62,940	63,061	62,842	62,509	62,432	
Men, 16 years and over																
Noninstitutional population ^{1,2}	84,064	85,156	84,811	84,880	84,953	85,024	85,101	85,179	85,257	85,352	85,439	85,523	85,607	85,629	85,692	
Labor force ²	64,580	65,386	65,081	65,151	65,200	65,304	65,348	65,412	65,357	65,589	65,558	65,657	65,814	65,822	65,818	
Participation rate ³	76.8	76.8	76.7	76.8	76.7	76.8	76.8	76.8	76.7	76.8	76.7	76.8	76.9	76.9	76.8	
Total employed ²	58,320	60,642	60,113	60,262	60,289	60,578	60,758	60,687	60,766	60,959	61,018	61,155	61,252	61,213	61,226	
Employment-population rate ⁴	69.4	71.2	70.9	71.0	71.0	71.2	71.4	71.2	71.3	71.4	71.4	71.5	71.6	71.5	71.4	
Resident Armed Forces ¹	1,533	1,551	1,540	1,542	1,548	1,545	1,545	1,551	1,563	1,571	1,557	1,552	1,550	1,549	1,554	
Civilian employed	56,787	59,091	58,573	58,720	58,741	59,033	59,213	59,136	59,203	59,388	59,461	59,603	59,702	59,664	59,672	
Unemployed	6,260	4,744	4,968	4,889	4,911	4,726	4,590	4,725	4,591	4,630	4,540	4,502	4,562	4,609	4,592	
Unemployment rate ⁵	9.7	7.3	7.6	7.5	7.5	7.2	7.0	7.2	7.0	7.1	6.9	6.9	6.9	7.0	7.0	
Women, 16 years and over																
Noninstitutional population ^{1,2}	91,827	92,924	92,552	92,630	92,709	92,789	92,873	92,958	93,039	93,132	93,222	93,311	93,397	93,452	93,527	
Labor force ²	48,646	49,855	49,327	49,441	49,695	50,108	49,961	50,154	49,984	49,895	50,163	50,116	50,348	50,750	50,970	
Participation rate ³	53.0	53.7	53.3	53.4	53.6	54.0	53.8	54.0	53.7	53.6	53.8	53.7	53.9	54.3	54.5	
Total employed ²	44,190	46,061	45,459	45,547	45,806	46,274	46,323	46,388	46,094	46,155	46,336	46,476	46,719	46,875	47,162	
Employment-population rate ⁴	48.1	49.6	49.1	49.2	49.4	49.9	49.9	49.9	49.5	49.6	49.7	49.8	50.0	50.2	50.4	
Resident Armed Forces ¹	143	146	144	144	145	145	145	147	149	149	148	147	148	148	149	
Civilian employed	44,047	45,915	45,315	45,403	45,661	46,129	46,178	46,241	45,945	46,006	46,188	46,329	46,571	46,727	47,013	
Unemployed	4,457	3,794	3,868	3,894	3,889	3,834	3,638	3,766	3,890	3,740	3,827	3,640	3,629	3,875	3,807	
Unemployment rate ⁵	9.2	7.6	7.8	7.9	7.8	7.7	7.3	7.5	7.8	7.5	7.6	7.3	7.2	7.6	7.5	

¹The population and Armed Forces figures are not adjusted for seasonal variation.

²Includes members of the Armed Forces stationed in the United States.

³Labor force as a percent of the noninstitutional population.

⁴Total employed as a percent of the noninstitutional population.

⁵Unemployment as a percent of the labor force (including the resident Armed Forces).

3. Employment status of the civilian population by sex, age, race, and Hispanic origin, seasonally adjusted

[Numbers in thousands]

Employment status	Annual average		1984										1985		
	1983	1984	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
TOTAL															
Civilian noninstitutional population ¹	174,215	176,383	175,679	175,824	175,969	176,123	176,284	176,440	176,583	176,763	176,956	177,135	177,306	177,384	177,516
Civilian labor force	111,550	113,544	112,724	112,906	113,302	113,722	113,619	113,868	113,629	113,764	114,016	114,074	114,464	114,875	115,084
Participation rate	64.0	64.4	64.2	64.2	64.3	64.6	64.5	64.3	64.4	64.4	64.4	64.4	64.6	64.8	64.8
Employed	100,834	105,005	103,888	104,123	104,402	105,162	105,391	105,377	105,148	105,394	105,649	105,932	106,273	106,391	106,685
Employment-population ratio ²	57.9	59.5	59.1	59.2	59.3	59.7	59.8	59.7	59.5	59.6	59.7	59.8	59.9	60.0	60.1
Unemployed	10,717	8,539	8,836	8,783	8,800	8,560	8,228	8,491	8,481	8,370	8,367	8,142	8,191	8,484	8,399
Unemployment rate	9.6	7.5	7.8	7.8	7.8	7.5	7.2	7.5	7.5	7.4	7.3	7.1	7.2	7.4	7.3
Not in labor force	62,665	62,839	62,955	62,918	62,667	62,401	62,665	62,572	62,954	62,999	62,940	63,061	62,842	62,509	62,432
Men, 20 years and over															
Civilian noninstitutional population ¹	74,872	76,219	75,786	75,880	75,973	76,073	76,176	76,269	76,350	76,451	76,565	76,663	76,753	76,760	76,829
Civilian labor force	58,744	59,701	59,372	59,400	59,474	59,572	59,668	59,730	59,771	59,892	59,913	59,994	60,131	60,033	60,061
Participation rate	78.5	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.2	78.2
Employed	53,487	55,769	55,233	55,352	55,387	55,663	55,861	55,846	55,935	56,075	56,182	56,269	56,372	56,234	56,287
Employment-population ratio ²	71.4	73.2	72.9	72.9	72.9	73.2	73.3	73.2	73.3	73.3	73.4	73.4	73.4	73.3	73.3
Agriculture	2,429	2,418	2,399	2,382	2,446	2,443	2,448	2,444	2,406	2,414	2,334	2,434	2,494	2,417	2,362
Nonagricultural industries	51,058	53,351	52,834	52,970	52,941	53,220	53,413	53,402	53,529	53,661	53,848	53,835	53,878	53,817	53,926
Unemployed	5,257	3,932	4,139	4,048	4,087	3,909	3,807	3,884	3,836	3,817	3,731	3,725	3,759	3,798	3,774
Unemployment rate	8.9	6.6	7.0	6.8	6.9	6.6	6.4	6.5	6.4	6.4	6.2	6.2	6.3	6.3	6.3
Women, 20 years and over															
Civilian noninstitutional population ¹	84,069	85,429	84,962	85,064	85,168	85,272	85,380	85,488	85,581	85,688	85,793	85,897	85,995	86,015	86,086
Civilian labor force	44,636	45,900	45,313	45,482	45,685	46,130	45,958	46,131	46,092	45,950	46,264	46,279	46,463	46,771	46,894
Participation rate	53.1	53.7	53.3	53.5	53.6	54.1	53.8	54.0	53.9	53.6	53.9	53.9	54.0	54.4	54.5
Employed	41,004	42,793	42,178	42,334	42,524	43,003	42,986	43,001	42,878	42,906	43,091	43,252	43,511	43,610	43,768
Employment-population ratio ²	48.8	50.1	49.6	49.8	49.9	50.4	50.3	50.3	50.1	50.1	50.2	50.4	50.6	50.7	50.8
Agriculture	620	595	627	587	613	603	611	580	573	590	569	580	595	592	614
Nonagricultural industries	40,384	42,198	41,551	41,747	41,911	42,400	42,375	42,421	42,305	42,316	42,522	42,672	42,916	43,018	43,153
Unemployed	3,632	3,107	3,135	3,148	3,161	3,127	2,972	3,130	3,214	3,044	3,173	3,027	2,952	3,161	3,126
Unemployment rate	8.1	6.8	6.9	6.9	6.9	6.8	6.5	6.8	7.0	6.6	6.9	6.5	6.4	6.8	6.7
Both sexes, 16 to 19 years															
Civilian noninstitutional population ¹	15,274	14,735	14,931	14,880	14,828	14,778	14,728	14,683	14,653	14,624	14,598	14,575	14,557	14,610	14,600
Civilian labor force	8,171	7,943	8,039	8,024	8,043	8,020	7,993	8,007	7,766	7,922	7,839	7,801	7,870	8,072	8,129
Participation rate	53.5	53.9	53.8	53.9	54.2	54.3	54.3	54.5	53.0	54.2	53.7	53.5	54.1	55.2	55.7
Employed	6,342	6,444	6,477	6,437	6,491	6,496	6,544	6,530	6,335	6,413	6,376	6,411	6,390	6,547	6,630
Employment-population ratio ²	41.5	43.7	43.4	43.3	43.8	44.0	44.4	44.5	43.2	43.9	43.7	44.0	43.9	44.8	45.4
Agriculture	334	309	338	336	320	321	309	309	285	315	266	320	296	311	364
Nonagricultural industries	6,008	6,135	6,139	6,101	6,171	6,175	6,235	6,221	6,050	6,098	6,110	6,091	6,094	6,236	6,266
Unemployed	1,829	1,499	1,562	1,587	1,552	1,524	1,449	1,477	1,431	1,509	1,463	1,390	1,480	1,525	1,499
Unemployment rate	22.4	18.9	19.4	19.8	19.3	19.0	18.1	18.4	18.4	19.0	18.7	17.8	18.8	18.9	18.4
White															
Civilian noninstitutional population ¹	150,805	152,347	152,079	152,285	152,178	152,229	152,295	152,286	152,402	152,471	152,605	152,659	152,734	153,103	153,191
Civilian labor force	97,021	98,492	98,121	98,343	98,419	98,749	98,690	98,627	98,223	98,426	98,631	98,630	99,005	99,496	99,711
Participation rate	64.3	64.6	64.5	64.6	64.7	64.9	64.8	64.8	64.4	64.6	64.6	64.6	64.8	65.0	65.1
Employed	88,893	92,120	91,494	91,750	91,852	92,330	92,516	92,389	91,951	92,177	92,407	92,587	92,884	93,124	93,552
Employment-population ratio ²	58.9	60.5	60.2	60.2	60.4	60.7	60.7	60.7	60.3	60.5	60.6	60.6	60.8	60.8	61.1
Unemployed	8,128	6,372	6,627	6,593	6,567	6,419	6,174	6,238	6,272	6,249	6,224	6,043	6,121	6,372	6,159
Unemployment rate	8.4	6.5	6.8	6.7	6.7	6.5	6.3	6.3	6.4	6.3	6.3	6.1	6.2	6.4	6.2
Black															
Civilian noninstitutional population ¹	18,925	19,348	19,222	19,248	19,274	19,302	19,330	19,360	19,386	19,416	19,449	19,481	19,513	19,518	19,542
Civilian labor force	11,647	12,033	11,890	11,845	11,898	11,968	11,959	12,083	12,142	12,082	12,208	12,276	12,306	12,315	12,309
Participation rate	61.5	62.2	61.9	61.5	61.7	62.0	61.9	62.4	62.6	62.2	62.8	63.0	63.1	63.1	63.0
Employed	9,375	10,119	9,928	9,878	9,913	10,053	10,138	10,079	10,222	10,260	10,340	10,426	10,462	10,475	10,301
Employment-population ratio ²	49.5	52.3	51.6	51.3	51.4	52.1	52.4	52.1	52.7	52.8	53.2	53.5	53.6	53.7	52.7
Unemployed	2,272	1,914	1,962	1,967	1,985	1,915	1,821	2,004	1,920	1,822	1,868	1,850	1,844	1,840	2,008
Unemployment rate	19.5	15.9	16.5	16.6	16.7	16.0	15.2	16.6	15.8	15.1	15.3	15.1	15.0	14.9	16.3
Hispanic origin															
Civilian noninstitutional population ¹	10,795	11,164	11,026	11,058	11,088	11,118	11,148	11,180	11,209	11,240	11,270	11,301	11,332	11,363	11,394
Civilian labor force	6,884	7,247	7,018	7,144	7,113	7,170	7,267	7,299	7,353	7,384	7,394	7,472	7,472	7,255	7,330
Participation rate	63.8	64.9	63.6	64.6	64.2	64.5	65.2	65.0	65.1	65.4	65.5	65.4	65.9	63.8	64.3
Employed	5,943	6,469	6,293	6,333	6,294	6,402	6,519	6,503	6,521	6,573	6,574	6,636	6,698	6,487	6,621
Employment-population ratio ²	55.1	57.9	57.1	57.3	56.8	57.6	58.5	58.2	58.2	58.5	58.3	58.7	59.1	57.1	58.1
Unemployed	940	778	725	811	819	768	748	761	778	780	810	758	774	768	709
Unemployment rate	13.7	10.7	10.3	11.4	11.5	10.7	10.3	10.5	10.7	10.6	11.0	10.3	10.4	10.6	9.7

¹The population figures are not seasonally adjusted.

²Civilian 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.

4. Selected employment indicators, seasonally adjusted

[In thousands]

Selected categories	Annual average		1984										1985		
	1983	1984	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
CHARACTERISTIC															
Civilian employed, 16 years and over	100,834	105,005	103,888	104,123	104,402	105,162	105,391	105,377	105,148	105,394	105,649	105,932	106,273	106,391	106,685
Men	56,787	59,091	58,573	58,720	58,741	59,033	59,213	59,136	59,203	59,388	59,461	59,603	59,702	59,644	59,672
Women	44,047	45,915	45,315	45,403	45,661	46,129	46,178	46,241	45,945	46,006	46,188	46,329	46,571	46,727	47,013
Married men, spouse present	37,967	39,056	38,859	38,895	39,012	39,060	39,060	39,123	39,073	39,073	39,054	39,337	39,443	39,441	39,357
Married women, spouse present	24,603	25,636	25,244	25,286	25,468	25,658	25,734	25,719	25,772	25,715	25,897	25,995	26,122	25,912	26,108
Women who maintain families	5,091	5,465	5,373	5,449	5,482	5,606	5,622	5,626	5,496	5,429	5,378	5,396	5,396	5,584	5,525
MAJOR INDUSTRY AND CLASS OF WORKER															
Agriculture:															
Wage and salary workers	1,579	1,555	1,547	1,522	1,627	1,580	1,578	1,519	1,453	1,565	1,511	1,593	1,733	1,596	1,611
Self-employed workers	1,565	1,553	1,598	1,579	1,545	1,549	1,566	1,557	1,562	1,555	1,487	1,555	1,485	1,531	1,503
Unpaid family workers	240	213	230	211	215	239	211	220	209	195	187	204	212	227	242
Nonagricultural industries:															
Wage and salary workers	89,500	93,565	92,374	92,747	92,908	93,780	93,845	93,768	93,680	94,140	94,415	94,442	94,725	95,068	95,348
Government	15,537	15,770	15,773	15,765	15,765	15,744	15,713	15,639	15,758	15,881	15,997	15,785	15,858	15,738	16,009
Private industries	73,963	77,794	76,601	76,982	77,143	78,036	78,132	78,129	77,922	78,259	78,418	78,657	78,867	79,330	79,339
Private households	1,247	1,238	1,235	1,164	1,280	1,327	1,297	1,238	1,199	1,198	1,228	1,257	1,374	1,374	1,304
Other	72,716	76,556	75,366	75,818	75,863	76,709	76,835	76,891	76,723	77,061	77,205	77,429	77,610	77,956	78,035
Self-employed workers	7,575	7,785	7,824	7,769	7,812	7,745	7,815	7,744	7,807	7,752	7,782	7,731	7,786	7,783	7,673
Unpaid family workers	376	335	331	332	341	323	347	318	321	318	314	357	357	343	340
PERSONS AT WORK PART TIME¹															
All industries:															
Part time for economic reasons	6,266	5,744	5,937	5,619	5,758	5,625	5,831	5,759	5,582	5,690	5,710	5,623	5,814	5,628	5,335
Slack work	2,833	2,430	2,499	2,343	2,390	2,286	2,326	2,373	2,371	2,461	2,514	2,449	2,596	2,431	2,212
Could only find part-time work	3,099	2,948	3,112	3,039	3,085	3,042	2,984	2,832	2,743	2,943	2,879	2,855	2,873	2,848	2,835
Voluntary part time	12,911	13,169	13,091	13,100	13,326	13,250	13,090	13,248	13,210	13,144	13,126	13,142	13,239	13,355	13,647
Nonagricultural industries:															
Part time for economic reasons	5,997	5,512	5,697	5,465	5,520	5,377	5,549	5,482	5,384	5,449	5,483	5,413	5,596	5,389	5,077
Slack work	2,684	2,291	2,354	2,237	2,255	2,153	2,160	2,214	2,254	2,306	2,364	2,319	2,473	2,287	2,040
Could only find part-time work	2,993	2,866	3,012	2,958	2,982	2,949	2,911	2,756	2,675	2,847	2,821	2,782	2,793	2,749	2,751
Voluntary part time	12,417	12,704	12,602	12,592	12,924	12,799	12,621	12,786	12,747	12,669	12,679	12,670	12,778	12,861	13,157

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

5. Selected unemployment indicators, seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		1984										1985		
	1983	1984	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
CHARACTERISTIC															
Total, all civilian workers	9.6	7.5	7.8	7.8	7.8	7.5	7.2	7.5	7.5	7.4	7.3	7.1	7.2	7.4	7.3
Both sexes, 16 to 19 years	22.4	18.9	19.4	19.8	19.3	19.0	18.1	18.4	18.4	19.0	18.7	17.8	18.8	18.9	18.4
Men, 20 years and over	8.9	6.6	7.0	6.8	6.9	6.6	6.4	6.5	6.4	6.4	6.2	6.2	6.3	6.3	6.3
Women, 20 years and over	8.1	6.8	6.9	6.9	6.9	6.8	6.5	6.8	7.0	6.6	6.9	6.5	6.4	6.8	6.7
White, total	8.4	6.5	6.8	6.7	6.7	6.5	6.3	6.3	6.4	6.3	6.3	6.1	6.2	6.4	6.2
Both sexes, 16 to 19 years	19.3	16.0	16.5	16.9	16.2	16.2	15.8	15.2	16.0	16.3	15.9	15.1	15.9	15.8	15.2
Men, 16 to 19 years	20.2	16.8	16.8	17.3	16.8	16.9	16.6	17.4	16.7	17.0	16.6	16.2	16.2	15.9	17.0
Women, 16 to 19 years	18.3	15.2	16.1	16.4	15.7	15.5	15.1	12.9	15.4	15.5	15.2	13.9	15.5	15.8	13.4
Men, 20 years and over	7.9	5.7	6.1	5.9	5.9	5.7	5.4	5.5	5.5	5.5	5.4	5.4	5.4	5.5	5.4
Women, 20 years and over	6.9	5.8	5.9	5.9	6.0	5.8	5.6	5.8	5.9	5.7	5.8	5.5	5.5	5.9	5.6
Black, total	19.5	15.9	16.5	16.6	16.7	16.0	15.2	16.6	15.8	15.1	15.3	15.1	15.0	14.9	16.3
Both sexes, 16 to 19 years	48.5	42.7	43.8	46.6	44.3	44.4	37.1	42.3	41.3	41.9	40.2	41.2	42.1	42.1	43.1
Men, 16 to 19 years	48.8	42.7	46.0	44.3	42.9	41.4	38.2	42.3	40.5	41.0	43.8	42.0	43.8	45.3	41.1
Women, 16 to 19 years	48.2	42.6	41.4	49.4	45.9	48.1	35.8	42.2	42.2	43.0	36.2	40.2	40.1	38.5	45.3
Men, 20 years and over	18.1	14.3	14.6	15.1	15.6	14.3	14.6	15.5	14.1	13.5	13.4	12.8	13.3	12.7	14.4
Women, 20 years and over	16.5	13.5	14.4	13.8	13.6	13.7	12.6	13.8	13.8	12.6	13.4	13.5	12.7	12.8	13.9
Hispanic origin, total	13.7	10.7	10.3	11.5	10.7	10.3	10.5	10.7	10.6	11.0	10.3	10.4	10.6	9.7	9.7
Married men, spouse present	6.5	4.6	4.9	4.7	4.7	4.6	4.6	4.5	4.5	4.6	4.5	4.4	4.4	4.6	4.4
Married women, spouse present	7.0	5.7	5.9	5.8	5.8	5.8	5.7	5.8	5.8	5.7	5.7	5.4	5.4	5.7	5.4
Women who maintain families	12.2	10.3	10.8	10.8	10.5	10.0	9.8	9.8	10.3	10.1	10.4	10.8	9.6	10.0	11.0
Full-time workers	9.5	7.2	7.6	7.5	7.5	7.2	6.7	7.2	7.1	7.1	7.1	6.9	6.9	7.1	7.1
Part-time workers	10.4	9.3	9.4	9.3	9.3	9.4	10.0	9.6	9.6	9.3	9.1	8.6	8.8	9.3	8.7
Unemployed 15 weeks and over	3.8	2.4	2.7	2.6	2.5	2.5	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.0	2.1
Labor force time lost ¹	10.9	8.6	9.0	8.9	8.8	8.6	8.4	8.5	8.5	8.5	8.4	8.2	8.3	8.2	8.2
INDUSTRY															
Nonagricultural private wage and salary workers	9.9	7.4	7.8	7.7	7.7	7.3	7.0	7.4	7.4	7.3	7.2	7.2	7.2	7.3	7.3
Mining	17.0	10.0	11.8	10.8	10.1	8.8	7.5	7.7	10.2	8.6	10.5	11.7	10.7	10.1	10.9
Construction	18.4	14.3	14.9	13.6	14.4	14.7	14.6	14.6	14.1	13.9	13.7	14.2	13.7	13.4	13.4
Manufacturing	11.2	7.5	7.7	7.6	7.7	7.2	7.3	7.5	7.4	7.4	7.3	7.2	7.2	7.6	7.5
Durable goods	12.1	7.2	7.5	7.7	7.5	7.1	7.2	6.9	6.9	6.9	6.9	7.0	7.1	7.2	7.1
Nondurable goods	10.0	7.8	8.0	7.5	8.0	7.3	7.5	8.5	8.1	8.1	7.8	7.4	7.2	8.1	8.2
Transportation and public utilities	7.4	5.5	5.9	5.4	5.5	5.7	5.3	5.9	5.9	5.9	5.3	5.2	5.0	4.9	5.5
Wholesale and retail trade	10.0	8.0	8.3	8.2	8.7	8.0	7.3	7.8	7.7	8.0	7.9	7.6	7.5	7.7	7.7
Finance and service industries	7.2	5.9	6.3	6.3	6.1	5.7	5.5	5.9	6.0	5.6	5.7	5.8	5.9	5.9	5.7
Government workers	5.3	4.5	4.5	4.5	4.4	4.7	4.2	4.5	4.4	4.5	4.4	4.3	4.4	4.1	3.9
Agricultural wage and salary workers	16.0	13.5	14.1	14.6	12.7	13.8	12.3	14.3	13.1	14.7	13.7	11.2	12.2	15.5	13.6

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

6. Unemployment rates by sex and age, seasonally adjusted

[Civilian workers]

Sex and age	Annual average		1984										1985		
	1983	1984	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Total, 16 years and over	9.6	7.5	7.8	7.8	7.8	7.5	7.2	7.5	7.5	7.4	7.3	7.1	7.2	7.4	7.3
16 to 24 years	17.2	13.9	14.3	14.4	14.5	14.1	13.2	13.6	13.9	13.9	13.5	13.2	13.5	13.6	13.7
16 to 19 years	22.4	18.9	19.4	19.8	19.3	19.0	18.4	18.4	19.0	18.7	17.8	18.8	18.9	18.4	
16 to 17 years	24.5	21.2	22.1	22.7	22.1	20.6	20.1	20.7	21.2	20.9	20.2	20.0	21.0	21.2	20.0
18 to 19 years	21.1	17.4	17.8	18.1	17.6	17.9	16.8	16.7	16.7	17.7	17.8	16.8	17.7	17.4	17.4
20 to 24 years	14.5	11.5	11.7	11.7	12.1	11.6	10.8	11.2	11.7	11.4	11.0	10.9	10.9	10.9	11.2
25 years and over	7.5	5.8	6.1	6.0	6.0	5.8	5.7	5.8	5.7	5.6	5.7	5.5	5.5	5.8	5.6
25 to 54 years	8.0	6.1	6.4	6.3	6.3	6.0	5.8	6.1	6.0	5.9	5.9	5.8	5.8	6.1	5.9
55 years and over	5.3	4.5	4.4	4.4	4.3	4.5	4.5	4.5	4.5	4.5	4.7	4.4	4.1	4.2	3.9
Men, 16 years and over	9.9	7.4	7.8	7.7	7.7	7.4	7.2	7.4	7.2	7.2	7.1	7.0	7.1	7.2	7.1
16 to 24 years	18.4	14.4	14.7	14.7	14.9	14.3	13.9	14.5	14.3	14.6	13.8	13.7	14.1	13.8	14.4
16 to 19 years	23.3	19.6	19.9	20.0	19.7	19.5	18.9	20.4	18.8	19.7	19.8	18.9	19.4	19.1	19.5
16 to 17 years	25.2	21.9	22.2	23.0	23.3	21.7	22.4	22.6	22.2	21.0	21.3	20.3	19.8	21.2	20.7
18 to 19 years	22.2	18.3	18.3	18.2	17.7	18.1	17.0	18.5	16.6	18.7	18.9	18.3	19.3	18.0	18.6
20 to 24 years	15.9	11.9	12.2	12.0	12.6	11.7	11.5	11.6	12.1	12.2	10.9	11.2	11.5	11.2	11.8
25 years and over	7.8	5.7	6.1	5.9	5.9	5.7	5.5	5.6	5.5	5.5	5.4	5.4	5.4	5.5	5.4
25 to 54 years	8.2	5.9	6.4	6.1	6.2	5.9	5.7	5.8	5.7	5.6	5.6	5.6	5.6	5.8	5.6
55 years and over	5.6	4.6	4.6	4.7	4.5	4.6	4.5	4.6	4.6	4.8	4.7	4.7	4.4	4.3	4.0
Women, 16 years and over	9.2	7.6	7.9	7.9	7.8	7.7	7.3	7.5	7.8	7.5	7.7	7.3	7.2	7.7	7.5
16 to 24 years	15.8	13.3	13.8	14.1	14.0	13.9	12.5	12.7	13.5	13.2	13.2	12.6	12.8	13.3	12.9
16 to 19 years	21.3	18.0	18.9	19.6	18.8	18.4	17.3	16.4	18.1	18.3	17.4	16.6	18.1	18.6	17.3
16 to 17 years	23.7	20.4	22.1	22.3	20.8	19.4	17.6	18.7	20.3	20.9	19.0	19.7	22.3	21.2	19.4
18 to 19 years	19.9	16.6	17.2	17.9	17.6	17.7	16.5	14.7	16.7	16.6	16.5	15.1	16.0	16.7	16.2
20 to 24 years	12.9	10.9	11.1	11.2	11.4	11.5	10.0	10.8	11.1	10.5	11.1	10.7	10.2	10.5	10.6
25 years and over	7.2	6.0	6.1	6.1	6.0	5.9	5.9	6.0	6.1	5.9	6.0	5.7	5.6	6.1	5.9
25 to 54 years	7.7	6.3	6.5	6.5	6.4	6.2	6.0	6.4	6.5	6.2	6.2	6.1	6.0	6.4	6.3
55 years and over	4.7	4.2	4.1	4.0	4.0	4.3	4.5	4.2	4.3	4.0	4.8	3.9	3.7	4.2	3.8

7. Unemployed persons by reason for unemployment, seasonally adjusted

[Numbers in thousands]

Reason for unemployment	Annual average		1984										1985		
	1983	1984	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Job losers	6,258	4,421	4,739	4,622	4,531	4,373	4,271	4,475	4,227	4,188	4,261	4,141	4,176	4,313	4,251
On layoff	1,780	1,171	1,271	1,248	1,117	1,187	1,162	1,165	1,146	1,110	1,151	1,068	1,070	1,229	1,240
Other job losers	4,478	3,250	3,468	3,374	3,414	3,186	3,109	3,310	3,081	3,078	3,110	3,073	3,106	3,084	3,011
Job leavers	830	823	786	777	792	812	809	850	833	841	829	869	858	884	865
Reentrants	2,412	2,184	2,171	2,208	2,301	2,184	1,989	2,111	2,294	2,254	2,150	2,161	2,218	2,244	2,233
New entrants	1,216	1,110	1,102	1,200	1,197	1,170	1,134	1,092	1,088	1,057	1,060	1,024	1,011	1,049	1,035
PERCENT DISTRIBUTION															
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	58.4	51.8	53.9	52.5	51.4	51.2	52.1	52.5	50.1	50.2	51.3	50.5	50.5	50.8	50.7
On layoff	16.6	13.7	14.4	14.2	12.7	13.9	14.2	13.7	13.6	13.3	13.9	13.0	12.9	14.5	14.8
Other job losers	41.8	38.1	39.4	38.3	38.7	37.3	37.9	38.8	36.5	36.9	37.5	37.5	37.6	36.3	35.9
Job leavers	7.7	9.6	8.9	8.8	9.0	9.5	9.9	10.0	9.9	10.1	10.0	10.6	10.4	10.4	10.3
Reentrants	22.5	25.6	24.7	25.1	26.1	25.6	24.2	24.8	27.2	27.0	25.9	26.4	26.8	26.4	26.6
New entrants	11.3	13.0	12.5	13.6	13.6	13.7	13.8	12.8	12.9	12.7	12.8	12.5	12.2	12.4	12.3
PERCENT OF CIVILIAN LABOR FORCE															
Job losers	5.6	3.9	4.2	4.1	4.0	3.8	3.8	3.9	3.7	3.7	3.7	3.6	3.6	3.8	3.7
Job leavers	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.8	.7	.8	.8
Reentrants	2.2	1.9	1.9	2.0	2.0	1.9	1.8	1.9	2.0	2.0	1.9	1.9	1.9	2.0	1.9
New entrants	1.1	1.0	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0	.9	.9	.9	.9	.9

8. Duration of unemployment, seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		1984										1985		
	1983	1984	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Less than 5 weeks	3,570	3,350	3,359	3,378	3,407	3,275	3,229	3,409	3,513	3,313	3,395	3,352	3,282	3,662	3,524
5 to 14 weeks	2,937	2,451	2,482	2,514	2,485	2,440	2,303	2,449	2,406	2,533	2,406	2,324	2,516	2,552	2,469
15 weeks and over	4,210	2,737	3,002	2,894	2,842	2,833	2,630	2,672	2,621	2,605	2,527	2,428	2,374	2,243	2,416
15 to 26 weeks	1,652	1,104	1,172	1,122	1,102	1,173	1,012	1,088	1,116	1,106	1,092	990	972	941	1,076
27 weeks and over	2,559	1,634	1,830	1,772	1,740	1,660	1,618	1,584	1,505	1,499	1,435	1,438	1,402	1,302	1,340
Mean duration in weeks	20.0	18.2	19.0	18.9	18.7	18.5	18.1	18.0	17.6	17.3	16.7	17.4	17.3	15.3	15.9
Median duration in weeks	10.1	7.9	8.4	8.4	8.1	8.3	7.5	7.6	7.6	7.6	7.3	7.3	7.4	6.7	7.2

EMPLOYMENT, HOURS, AND EARNINGS DATA FROM ESTABLISHMENT SURVEYS

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by over 200,000 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

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

Production workers in manufacturing include blue-collar worker supervisors and all nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 12-16 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in transportation and public utilities; in wholesale and retail trade; in finance, insurance, and real estate; and in services industries. These groups account for about four-fifths of the total employment on private nonagricultural payrolls.

Earnings are the payments production or nonsupervisory workers receive during the survey period, including premium pay for overtime or late-shift work but excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to 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 table 17 of the May 1983 issue, 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 3-, 6-, and 9-month spans are seasonally adjusted, while that for the 12-month span is 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 1984 data, published in the July 1984 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 1982; seasonally adjusted data have been revised back to January 1979. Unadjusted data from April 1983 forward, and seasonally adjusted data from January 1980 forward are subject to revision in future benchmarks. Earlier comparable unadjusted and seasonally adjusted data are published in a *Supplement to Employment and Earnings* (unadjusted data from April 1977 through February 1984 and seasonally adjusted data from January 1974 through February 1984) and in *Employment and Earnings, United States, 1909-78*, BLS Bulletin 1312-11 (for prior periods).

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9-20. See also *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982).

9. Employment, by industry, selected years, 1950-84

[Nonagricultural payroll data, in thousands]

Year	Total	Private sector	Goods-producing				Service-producing									
			Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Government			
													Total	Federal	State	Local
1950	45,197	39,170	18,506	901	2,364	15,241	26,691	4,034	2,635	6,751	1,888	5,357	6,026	1,928	(1)	(1)
1955	50,641	43,727	20,513	792	2,839	16,882	30,128	4,141	2,926	7,610	2,296	6,240	6,914	2,187	1,168	3,558
1960 ²	54,189	45,836	20,434	712	2,926	16,796	33,755	4,004	3,143	8,248	2,629	7,378	8,353	2,270	1,536	4,547
1964	58,283	48,686	21,005	634	3,097	17,274	37,278	3,951	3,337	8,823	2,911	8,660	9,596	2,348	1,856	5,392
1965	60,765	50,689	21,926	632	3,232	18,062	38,839	4,036	3,466	9,250	2,977	9,036	10,074	2,378	1,996	5,700
1966	63,901	53,116	23,158	627	3,317	19,214	40,743	4,158	3,597	9,648	3,058	9,498	10,784	2,564	2,141	6,080
1967	65,803	54,413	23,308	613	3,248	19,447	42,495	4,268	3,689	9,917	3,185	10,045	11,391	2,719	2,302	6,371
1968	67,897	56,058	23,737	606	3,350	19,781	44,160	4,318	3,779	10,320	3,337	10,567	11,839	2,737	2,442	6,660
1969	70,384	58,189	24,361	619	3,575	20,167	46,023	4,442	3,907	10,798	3,512	11,169	12,195	2,758	2,533	6,904
1970	70,880	58,325	23,578	623	3,588	19,367	47,302	4,515	3,993	11,047	3,645	11,548	12,554	2,731	2,664	7,158
1971	71,214	58,331	22,935	609	3,704	18,623	48,278	4,476	4,001	11,351	3,772	11,797	12,881	2,696	2,747	7,437
1972	73,675	60,341	23,668	628	3,889	19,151	50,007	4,541	4,113	11,836	3,908	12,276	13,334	2,684	2,859	7,790
1973	76,790	63,058	24,893	642	4,097	20,154	51,897	4,656	4,277	12,329	4,046	12,857	13,732	2,663	2,923	8,146
1974	78,265	64,095	24,794	697	4,020	20,077	53,471	4,725	4,433	12,554	4,148	13,441	14,170	2,724	3,039	8,407
1975	76,945	62,259	22,600	752	3,525	18,323	54,345	4,542	4,415	12,645	4,165	13,892	14,686	2,748	3,179	8,758
1976	79,382	64,511	23,352	779	3,576	18,997	56,030	4,582	4,546	13,209	4,271	14,551	14,871	2,733	3,273	8,865
1977	82,471	67,344	24,346	813	3,851	19,682	58,125	4,713	4,708	13,808	4,467	15,303	15,127	2,727	3,377	9,023
1978	86,697	71,026	25,585	851	4,229	20,505	61,113	4,923	4,969	14,573	4,724	16,252	15,672	2,753	3,474	9,446
1979	89,823	73,876	26,461	958	4,463	21,040	63,363	5,136	5,204	14,989	4,975	17,112	15,947	2,773	3,541	9,633
1980	90,406	74,166	25,658	1,027	4,346	20,285	64,748	5,146	5,275	15,035	5,160	17,890	16,241	2,866	3,610	9,765
1981	91,156	75,126	25,497	1,139	4,188	20,170	65,659	5,165	5,358	15,189	5,298	18,619	16,031	2,772	3,640	9,619
1982	89,566	73,729	23,813	1,128	3,905	18,781	65,753	5,082	5,278	15,179	5,341	19,036	15,837	2,739	3,640	9,458
1983	90,138	74,288	23,394	957	3,940	18,497	66,744	4,958	5,259	15,545	5,467	19,865	15,851	2,752	3,660	9,439
1984	94,156	78,187	24,904	998	4,316	19,590	69,254	5,170	5,526	16,261	5,665	20,662	15,969	2,783	3,702	9,483

¹ Not available.

² Data include Alaska and Hawaii beginning in 1959.

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

10. Employment, by State

[Nonagricultural payroll data, in thousands]

State	January 1984	December 1984	January 1985 ^P	State	January 1984	December 1984	January 1985 ^P
Alabama	1,345.7	1,385.3	1,370.1	Montana	269.1	285.1	278.4
Alaska	203.7	220.1	215.3	Nebraska	604.2	641.9	630.5
Arizona	1,126.9	1,243.4	1,228.4	Nevada	406.1	438.4	434.5
Arkansas	749.4	796.0	780.9	New Hampshire	419.9	455.6	452.0
California	10,240.4	10,798.4	10,664.8	New Jersey	3,196.7	3,406.1	3,346.3
Colorado	1,345.3	1,415.8	1,393.5	New Mexico	484.5	512.6	503.7
Connecticut	1,469.0	1,575.6	1,535.7	New York	7,332.6	7,698.6	7,525.4
Delaware	265.5	288.3	280.8	North Carolina	2,487.2	2,618.1	2,586.4
District of Columbia	596.9	618.8	610.6	North Dakota	245.8	255.1	249.3
Florida	4,094.1	4,368.5	4,344.3	Ohio	4,107.8	4,332.8	4,243.1
Georgia	2,346.1	2,564.9	2,532.5	Oklahoma	1,166.6	1,194.2	1,176.9
Hawaii	405.8	417.6	414.6	Oregon	968.1	1,015.3	1,004.3
Idaho	315.1	329.3	321.1	Pennsylvania	4,507.4	4,720.4	4,623.3
Illinois	4,543.6	4,654.3	4,617.8	Rhode Island	400.9	418.4	411.1
Indiana	2,050.2	2,169.8	2,138.3	South Carolina	1,214.0	1,310.2	1,291.6
Iowa	1,039.2	1,070.6	1,045.9	South Dakota	234.9	243.9	238.7
Kansas	928.0	979.8	960.4	Tennessee	1,741.7	1,849.9	1,810.6
Kentucky	1,169.1	1,236.4	1,217.6	Texas	6,282.3	6,548.6	6,485.5
Louisiana	1,561.6	1,610.9	1,585.0	Utah	576.3	620.4	611.1
Maine	421.9	448.7	434.8	Vermont	208.3	220.4	217.4
Maryland	1,726.3	1,861.8	1,816.2	Virginia	2,238.0	2,385.8	2,358.9
Massachusetts	2,732.4	2,942.4	2,873.0	Washington	1,579.5	1,663.7	1,637.7
Michigan	3,262.0	3,407.3	3,340.4	West Virginia	578.6	595.6	584.1
Minnesota	1,735.9	1,870.1	1,827.6	Wisconsin	1,863.9	1,982.9	1,931.1
Mississippi	801.0	843.3	831.9	Wyoming	194.6	191.3	187.3
Missouri	1,951.4	2,041.2	1,999.2	Virgin Islands	36.7	36.3	36.0

p = preliminary.

11. Employment, by industry, seasonally adjusted

[Nonagricultural payroll data, in thousands]

Industry division and group	Annual average		1984										1985		
	1983	1984	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ^P	Feb. ^P
TOTAL	90,138	94,156	92,846	93,058	93,449	93,768	94,135	94,350	94,523	94,807	95,157	95,497	95,681	95,993	96,112
PRIVATE SECTOR	74,288	78,187	76,971	77,185	77,546	77,864	78,241	78,422	78,566	78,698	79,054	79,371	79,618	79,957	80,072
GOODS-PRODUCING	23,394	24,904	24,577	24,595	24,760	24,851	24,974	25,059	25,098	25,010	25,080	25,123	25,258	25,332	25,195
Mining	957	998	978	978	984	995	1,007	1,017	1,017	1,020	1,012	1,009	1,000	995	988
Oil and gas extraction	600	627	607	607	612	619	623	629	636	642	643	648	646	639	633
Construction	3,940	4,316	4,226	4,151	4,246	4,286	4,343	4,356	4,356	4,374	4,382	4,396	4,457	4,532	4,480
General building contractors	1,015	1,128	1,111	1,099	1,110	1,126	1,135	1,133	1,132	1,140	1,140	1,146	1,159	1,187	1,171
Manufacturing	18,497	19,590	19,373	19,466	19,530	19,570	19,629	19,696	19,725	19,616	19,686	19,718	19,801	19,805	19,723
Production workers	12,581	13,455	13,326	13,388	13,443	13,465	13,492	13,541	13,558	13,448	13,497	13,505	13,571	13,575	13,503
Durable goods	10,774	11,635	11,440	11,513	11,551	11,598	11,652	11,702	11,758	11,696	11,752	11,776	11,834	11,840	11,785
Production workers	7,151	7,846	7,718	7,769	7,799	7,826	7,860	7,899	7,945	7,876	7,915	7,925	7,969	7,966	7,905
Lumber and wood products	658	710	706	712	714	711	712	708	706	703	710	713	717	716	707
Furniture and fixtures	447	484	480	483	482	482	485	485	484	481	487	492	495	497	499
Stone, clay, and glass products	573	605	604	606	604	605	605	606	603	603	606	606	612	613	608
Primary metal industries	838	874	877	877	879	887	884	880	879	865	866	865	859	860	858
Blast furnaces and basic steel products	343	337	348	347	345	347	345	342	334	324	320	320	318	318	319
Fabricated metal products	1,374	1,476	1,447	1,456	1,459	1,469	1,479	1,490	1,491	1,485	1,495	1,498	1,502	1,499	1,491
Machinery, except electrical	2,038	2,214	2,151	2,166	2,189	2,203	2,226	2,242	2,252	2,243	2,255	2,251	2,253	2,246	2,236
Electrical and electronic equipment	2,024	2,234	2,175	2,202	2,212	2,228	2,237	2,252	2,267	2,263	2,269	2,274	2,281	2,282	2,280
Transportation equipment	1,756	1,928	1,898	1,905	1,905	1,906	1,917	1,926	1,961	1,939	1,945	1,957	1,993	2,009	1,992
Motor vehicles and equipment	758	867	865	863	857	848	855	858	894	864	865	877	904	911	885
Instruments and related products	695	723	715	718	719	722	723	727	726	729	731	732	732	732	735
Miscellaneous manufacturing	371	387	387	388	388	385	384	386	389	388	390	389	390	386	379
Nondurable goods	7,724	7,954	7,933	7,953	7,979	7,972	7,977	7,994	7,967	7,920	7,934	7,942	7,967	7,965	7,943
Production workers	5,430	5,610	5,608	5,619	5,644	5,639	5,632	5,642	5,613	5,572	5,582	5,580	5,602	5,609	5,598
Food and kindred products	1,622	1,643	1,637	1,638	1,648	1,643	1,644	1,655	1,642	1,630	1,640	1,644	1,658	1,660	1,655
Tobacco manufactures	69	67	65	66	67	67	67	66	65	69	69	67	69	70	71
Textile mill products	744	753	767	769	766	762	759	755	751	744	735	731	727	728	720
Apparel and other textile products	1,164	1,202	1,213	1,218	1,226	1,217	1,209	1,206	1,181	1,178	1,178	1,178	1,186	1,185	1,175
Paper and allied products	662	682	680	680	680	681	685	687	686	680	684	683	684	685	686
Printing and publishing	1,296	1,361	1,333	1,339	1,348	1,356	1,362	1,368	1,371	1,375	1,380	1,386	1,386	1,389	1,391
Chemicals and allied products	1,047	1,061	1,054	1,054	1,057	1,057	1,062	1,064	1,067	1,063	1,065	1,066	1,068	1,068	1,060
Petroleum and coal products	195	188	190	190	189	188	188	187	187	186	185	185	184	184	183
Rubber and miscellaneous plastics products	718	796	784	790	790	795	797	801	800	798	805	810	814	814	814
Leather and leather products	208	202	210	209	208	206	204	205	198	194	193	192	191	187	188
SERVICE-PRODUCING	66,744	69,254	68,269	68,463	68,689	68,917	69,161	69,291	69,425	69,797	70,077	70,374	70,423	70,661	70,916
Transportation and public utilities	4,958	5,170	5,105	5,112	5,129	5,144	5,163	5,175	5,202	5,213	5,225	5,226	5,249	5,257	5,264
Transportation	2,739	2,895	2,828	2,839	2,862	2,871	2,883	2,896	2,924	2,937	2,951	2,953	2,974	2,972	2,980
Communication and public utilities	2,219	2,276	2,276	2,273	2,267	2,273	2,280	2,279	2,278	2,276	2,274	2,273	2,275	2,285	2,284
Wholesale trade	5,259	5,526	5,438	5,457	5,473	5,492	5,502	5,528	5,544	5,588	5,612	5,623	5,641	5,669	5,686
Durable goods ¹	3,064	3,254	3,193	3,205	3,215	3,235	3,249	3,268	3,278	3,293	3,301	3,317	3,328	3,343	3,359
Nondurable goods ¹	2,195	2,271	2,245	2,252	2,258	2,257	2,253	2,260	2,266	2,295	2,311	2,306	2,313	2,326	2,327
Retail trade	15,545	16,261	15,980	16,030	16,095	16,166	16,245	16,283	16,295	16,342	16,468	16,644	16,626	16,708	16,805
General merchandise stores	2,161	2,289	2,211	2,230	2,251	2,273	2,295	2,301	2,303	2,318	2,334	2,391	2,331	2,363	2,399
Food stores	2,560	2,649	2,626	2,626	2,635	2,630	2,641	2,648	2,640	2,648	2,677	2,696	2,710	2,715	2,730
Automotive dealers and service stations	1,667	1,754	1,740	1,748	1,743	1,751	1,751	1,762	1,758	1,755	1,763	1,772	1,777	1,780	1,796
Eating and drinking places	5,007	5,212	5,121	5,136	5,154	5,183	5,199	5,211	5,238	5,255	5,280	5,303	5,327	5,356	5,387
Finance, insurance, and real estate	5,467	5,665	5,593	5,613	5,640	5,662	5,676	5,676	5,679	5,684	5,705	5,725	5,749	5,760	5,790
Finance	2,740	2,850	2,812	2,831	2,851	2,863	2,854	2,854	2,850	2,856	2,865	2,874	2,886	2,899	2,922
Insurance	1,721	1,757	1,741	1,742	1,742	1,746	1,752	1,759	1,763	1,766	1,774	1,778	1,785	1,786	1,790
Real estate	1,005	1,058	1,040	1,041	1,047	1,053	1,066	1,063	1,066	1,062	1,066	1,073	1,078	1,075	1,079
Services	19,665	20,662	20,278	20,378	20,449	20,549	20,681	20,701	20,748	20,861	20,964	21,030	21,095	21,231	21,331
Business services	3,539	4,003	3,845	3,875	3,912	3,979	4,014	4,035	4,069	4,085	4,110	4,142	4,151	4,218	4,242
Health services	5,973	6,068	6,040	6,052	6,062	6,073	6,064	6,079	6,034	6,085	6,087	6,104	6,115	6,140	6,152
Government	15,851	15,969	15,875	15,873	15,903	15,904	15,894	15,928	15,957	16,109	16,103	16,126	16,063	16,036	16,040
Federal	2,752	2,783	2,763	2,770	2,771	2,767	2,777	2,779	2,785	2,804	2,793	2,809	2,809	2,794	2,805
State	3,660	3,702	3,682	3,686	3,693	3,699	3,699	3,697	3,714	3,719	3,724	3,711	3,701	3,688	
Local	9,439	9,483	9,430	9,417	9,439	9,438	9,418	9,452	9,458	9,580	9,591	9,598	9,543	9,541	9,547

¹Under Wholesale trade, data for Durable goods and Nondurable goods have been corrected in this table as of the April 1985 issue of the *Monthly Labor Review*.

p = preliminary.

r = revised.

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

12. Average hours and earnings, by industry 1968-84

[Production or nonsupervisory workers on nonagricultural payrolls]

Year	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings
	Private sector			Mining			Construction		
1968	37.8	\$2.85	\$107.73	42.6	\$3.35	\$142.71	37.3	\$4.41	\$164.49
1969	37.7	3.04	114.61	43.0	3.60	154.80	37.9	4.79	181.54
1970	37.1	3.23	119.83	42.7	3.85	164.40	37.3	5.24	195.45
1971	36.9	3.45	127.31	42.4	4.06	172.14	37.2	5.69	211.67
1972	37.0	3.70	136.90	42.6	4.44	189.14	36.5	6.06	221.19
1973	36.9	3.94	145.39	42.4	4.75	201.40	36.8	6.41	235.89
1974	36.5	4.24	154.76	41.9	5.23	219.14	36.6	6.81	249.25
1975	36.1	4.53	163.53	41.9	5.95	249.31	36.4	7.31	266.08
1976	36.1	4.86	175.45	42.4	6.46	273.90	36.8	7.71	283.73
1977	36.0	5.25	189.00	43.4	6.94	301.20	36.5	8.10	295.65
1978	35.8	5.69	203.70	43.4	7.67	332.88	36.8	8.66	318.69
1979	35.7	6.16	219.91	43.0	8.49	365.07	37.0	9.27	342.99
1980	35.3	6.66	235.10	43.3	9.17	397.06	37.0	9.94	367.78
1981	35.2	7.25	255.20	43.7	10.04	438.75	36.9	10.82	399.26
1982	34.8	7.68	267.26	42.7	10.77	459.88	36.7	11.63	426.82
1983	35.0	8.02	280.70	42.5	11.27	478.98	37.2	11.92	443.42
1984	35.3	8.33	294.05	43.4	11.58	502.57	37.8	12.03	454.73
	Manufacturing			Transportation and public utilities			Wholesale trade		
1968	40.7	\$3.01	\$122.51	40.6	\$3.42	\$138.85	40.1	\$3.05	\$122.31
1969	40.6	3.19	129.51	40.7	3.63	147.74	40.2	3.23	129.85
1970	39.8	3.35	133.33	40.5	3.85	155.93	39.9	3.44	137.26
1971	39.9	3.57	142.44	40.1	4.21	168.82	39.5	3.65	129.85
1972	40.5	3.82	154.71	40.4	4.65	187.86	39.4	3.85	144.18
1973	40.7	4.09	166.46	40.5	5.02	203.31	39.3	4.08	151.69
1974	40.0	4.42	176.80	40.2	5.41	217.48	38.8	4.39	160.34
1975	39.5	4.83	190.79	39.7	5.88	233.44	38.7	4.73	183.05
1976	40.1	5.22	209.32	39.8	6.45	256.71	38.7	5.03	194.66
1977	40.3	5.68	228.90	39.9	6.99	278.90	38.8	5.39	209.13
1978	40.4	6.17	249.27	40.0	7.57	302.80	38.8	5.88	228.14
1979	40.2	6.70	269.34	39.9	8.16	325.58	38.8	6.39	247.93
1980	39.7	7.27	288.62	39.6	8.87	351.25	38.5	6.96	267.96
1981	39.8	7.99	318.00	39.4	9.70	382.18	38.5	7.56	291.06
1982	38.9	8.49	330.26	39.0	10.32	402.48	38.3	8.09	309.85
1983	40.1	8.83	354.08	39.0	10.80	421.20	38.5	8.54	328.79
1984	40.7	9.17	373.22	39.4	11.15	439.31	38.6	8.94	345.08
	Retail trade			Finance, insurance, and real estate			Services		
1968	34.7	\$2.16	\$74.95	37.0	\$2.75	\$101.75	34.7	\$2.42	\$83.97
1969	34.2	2.30	78.66	37.1	2.93	108.70	34.7	2.61	90.57
1970	33.8	2.44	82.47	36.7	3.07	112.67	34.4	2.81	96.66
1971	33.7	2.60	87.62	36.6	3.22	117.85	33.9	3.04	103.06
1972	33.4	2.75	91.85	36.6	3.36	122.98	33.9	3.27	110.85
1973	33.1	2.91	96.32	36.6	3.53	129.20	33.8	3.47	117.29
1974	32.7	3.14	102.68	36.5	3.77	137.61	33.6	3.75	126.00
1975	32.4	3.36	108.86	36.5	4.06	148.19	33.5	4.02	134.67
1976	32.1	3.57	114.60	36.4	4.27	155.43	33.3	4.31	143.52
1977	31.6	3.85	121.66	36.4	4.54	165.26	33.0	4.65	153.45
1978	31.0	4.20	130.20	36.4	4.89	178.00	32.8	4.99	163.67
1979	30.6	4.53	138.62	36.2	5.27	190.77	32.7	5.36	175.27
1980	30.2	4.88	147.38	36.2	5.79	209.60	32.6	5.85	190.71
1981	30.1	5.25	158.03	36.3	6.31	229.05	32.6	6.41	208.97
1982	29.9	5.48	163.85	36.2	6.78	245.44	32.6	6.92	225.59
1983	29.8	5.74	171.05	36.2	7.29	263.90	32.7	7.30	238.71
1984	30.0	5.89	176.70	36.5	7.62	278.13	32.8	7.62	249.94

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

13. Average weekly hours, by industry, seasonally adjusted

[Production or nonsupervisory workers on private nonagricultural payrolls]

Industry	Annual average		1984										1985		
	1983	1984	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. P	Feb. P
PRIVATE SECTOR	35.0	35.3	35.3	35.3	35.4	35.3	35.3	35.2	35.2	35.4	35.1	35.2	35.3	35.2	35.0
MANUFACTURING	40.1	40.7	40.9	40.7	41.1	40.6	40.6	40.5	40.5	40.6	40.4	40.5	40.7	40.6	40.0
Overtime hours	3.0	3.4	3.5	3.5	3.7	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.3	3.3
Durable goods	40.7	41.4	41.7	41.4	41.8	41.3	41.2	41.2	41.2	41.5	41.3	41.2	41.4	41.4	40.6
Overtime hours	3.0	3.6	3.8	3.7	4.0	3.5	3.5	3.5	3.4	3.5	3.5	3.6	3.6	3.6	3.6
Lumber and wood products	40.1	39.9	40.4	40.1	40.4	39.6	39.4	39.3	39.4	40.2	39.7	39.5	40.0	39.9	38.6
Furniture and fixtures	39.4	39.7	39.9	39.6	39.7	39.7	39.1	39.8	39.1	39.9	39.6	39.8	39.6	40.4	39.4
Stone, clay, and glass products	41.5	42.0	42.5	41.9	42.3	42.1	41.8	41.9	41.7	42.0	41.8	41.8	41.7	41.6	41.1
Primary metal industries	40.5	41.6	42.0	41.8	42.2	42.1	41.7	41.5	41.0	41.3	41.3	41.5	41.2	41.0	40.7
Blast furnaces and basic steel products	39.5	40.6	41.3	41.2	41.0	41.6	41.1	39.9	39.6	40.0	40.1	40.8	39.7	39.7	40.0
Fabricated metal products	40.6	41.4	41.8	41.3	41.8	41.4	41.3	41.3	41.1	41.5	40.3	41.1	41.4	41.3	40.7
Machinery, except electrical	40.5	41.9	41.9	41.9	42.3	41.9	42.0	41.8	42.0	42.0	41.9	41.7	41.8	41.7	41.0
Electrical and electronic equipment	40.5	41.0	41.2	41.0	41.3	41.0	40.8	40.8	40.9	41.2	40.9	41.0	41.0	40.9	40.2
Transportation equipment	42.1	42.7	43.1	42.9	43.5	42.4	42.3	42.2	42.4	42.8	42.4	42.4	43.0	43.4	42.2
Motor vehicles and equipment	43.3	43.7	44.3	44.4	44.8	42.9	43.1	42.4	43.3	43.9	43.3	43.4	44.4	44.8	42.5
Instruments and related products	40.4	41.3	41.2	41.1	41.4	40.7	41.3	41.3	41.1	41.5	41.2	41.5	41.8	41.2	40.7
Nondurable goods	39.4	39.6	39.9	39.8	40.2	39.6	39.6	39.4	39.5	39.4	39.3	39.4	39.6	39.5	39.0
Overtime hours	3.0	3.1	3.3	3.3	3.4	3.1	3.2	3.1	3.1	3.0	2.9	3.2	3.1	2.9	2.9
Food and kindred products	39.5	39.8	39.7	39.8	40.1	39.7	39.8	39.5	39.7	39.6	39.6	39.7	40.1	39.8	39.5
Textile mill products	40.5	39.9	40.8	40.6	41.2	40.0	40.0	39.8	39.4	39.2	38.7	39.0	39.2	39.1	38.6
Apparel and other textile products	36.2	36.4	36.9	36.7	37.4	36.5	36.4	35.8	36.0	35.9	35.9	36.0	36.4	36.1	35.4
Paper and allied products	42.6	43.1	43.2	43.0	43.2	43.1	42.9	43.3	43.1	43.1	43.0	43.2	43.1	43.1	42.3
Printing and publishing	37.6	37.9	37.9	37.9	38.2	38.0	37.7	37.7	37.8	37.9	37.8	37.9	37.7	37.8	37.6
Chemicals and allied products	41.6	41.9	42.1	42.0	42.0	41.8	41.9	41.9	42.0	41.8	41.6	41.7	41.9	42.0	41.6
Petroleum and coal products	43.9	43.7	44.5	44.7	43.7	43.5	43.1	43.2	43.9	43.1	43.5	43.5	42.9	43.8	43.7
Leather and leather products	36.8	36.8	37.2	36.7	37.5	36.5	36.7	37.0	36.0	36.5	36.4	36.4	36.9	36.8	36.8
TRANSPORTATION AND PUBLIC UTILITIES	39.0	39.4	39.3	39.2	39.5	39.4	39.6	39.8	39.4	39.8	39.1	39.4	39.2	39.4	39.5
WHOLESALE TRADE	38.5	38.6	38.5	38.5	38.7	38.6	38.6	38.6	38.7	38.8	38.6	38.6	38.6	38.6	38.6
RETAIL TRADE	29.8	30.0	30.0	30.1	30.0	30.1	30.2	29.9	29.9	30.0	29.8	29.9	30.1	30.0	29.8
SERVICES	32.7	32.8	32.7	32.8	32.8	32.7	32.7	32.7	32.6	32.8	32.7	32.7	32.8	32.7	32.8

p = preliminary.

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

14. Average hourly earnings, by industry

[Production or nonsupervisory workers on private nonagricultural payrolls]

Industry	Annual average		1984										1985		
	1983	1984	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ^p	Feb. ^p
PRIVATE SECTOR	\$8.02	\$8.33	\$8.24	\$8.24	\$8.29	\$8.28	\$8.29	\$8.32	\$8.30	\$8.43	\$8.40	\$8.43	\$8.46	\$8.50	\$8.51
Seasonally adjusted	(¹)	(¹)	8.23	8.25	8.31	8.29	8.33	8.35	8.34	8.40	8.38	8.42	8.47	8.45	8.49
MINING	11.27	11.58	11.49	11.60	11.62	11.56	11.57	11.57	11.57	11.66	11.52	11.57	11.64	11.77	11.78
CONSTRUCTION	11.92	12.03	11.99	11.97	11.95	11.99	11.94	11.97	12.01	12.15	12.14	12.01	12.17	12.20	12.23
MANUFACTURING	8.83	9.17	9.06	9.09	9.11	9.11	9.14	9.18	9.14	9.23	9.22	9.30	9.38	9.42	9.42
Durable goods	9.38	9.72	9.63	9.66	9.67	9.66	9.69	9.70	9.68	9.77	9.76	9.82	9.94	9.97	9.97
Lumber and wood products	7.79	7.99	7.88	7.87	7.89	7.92	8.04	8.01	8.05	8.15	8.06	8.01	8.04	8.05	8.07
Furniture and fixtures	6.62	6.86	6.75	6.76	6.76	6.80	6.84	6.88	6.90	6.95	6.95	6.96	7.01	7.04	7.04
Stone, clay, and glass products	9.27	9.56	9.38	9.40	9.51	9.54	9.58	9.64	9.62	9.64	9.63	9.66	9.67	9.69	9.73
Primary metal industries	11.34	11.43	11.49	11.44	11.51	11.49	11.46	11.45	11.34	11.39	11.31	11.44	11.44	11.52	11.62
Blast furnaces and basic steel products	12.89	12.99	13.10	12.97	13.12	13.09	13.02	13.02	12.90	13.01	12.86	12.99	12.95	13.10	13.30
Fabricated metal products	9.11	9.36	9.31	9.31	9.34	9.33	9.33	9.33	9.30	9.41	9.38	9.42	9.55	9.57	9.60
Machinery, except electrical	9.55	9.96	9.87	9.90	9.91	9.90	9.93	9.96	9.92	10.01	10.01	10.06	10.16	10.12	10.12
Electrical and electronic equipment	8.65	8.99	8.86	8.88	8.89	8.89	8.91	8.95	9.00	9.08	9.09	9.15	9.27	9.29	9.30
Transportation equipment	11.66	12.19	12.00	12.12	12.06	12.04	12.14	12.13	12.13	12.23	12.29	12.42	12.59	12.62	12.53
Motor vehicles and equipment	12.12	12.69	12.41	12.62	12.56	12.51	12.67	12.61	12.59	12.69	12.81	12.96	13.21	13.32	13.17
Instruments and related products	8.46	8.81	8.66	8.71	8.73	8.71	8.78	8.83	8.85	8.92	8.89	8.91	8.99	8.95	9.06
Miscellaneous manufacturing	6.80	7.00	6.97	6.97	6.97	6.99	6.98	7.02	6.97	7.01	7.02	7.03	7.12	7.21	7.22
Nondurable goods	8.08	8.37	8.24	8.27	8.29	8.30	8.33	8.41	8.37	8.44	8.44	8.52	8.55	8.60	8.60
Food and kindred products	8.20	8.41	8.37	8.39	8.43	8.43	8.44	8.41	8.36	8.37	8.33	8.46	8.48	8.48	8.50
Tobacco manufactures	10.35	11.12	11.13	11.29	11.43	11.55	11.92	11.67	10.75	10.31	10.35	11.76	10.97	11.15	11.33
Textile mill products	6.18	6.46	6.40	6.41	6.43	6.42	6.43	6.46	6.49	6.49	6.55	6.57	6.59	6.60	6.60
Apparel and other textile products	5.37	5.53	5.46	5.48	5.49	5.48	5.50	5.51	5.53	5.61	5.59	5.59	5.65	5.71	5.69
Paper and allied products	9.94	10.44	10.22	10.25	10.29	10.34	10.42	10.56	10.50	10.55	10.56	10.67	10.69	10.68	10.73
Printing and publishing	9.11	9.39	9.30	9.29	9.29	9.31	9.30	9.36	9.42	9.51	9.48	9.54	9.56	9.57	9.59
Chemicals and allied products	10.59	11.11	10.90	10.95	10.97	11.02	11.03	11.12	11.13	11.23	11.32	11.35	11.37	11.43	11.40
Petroleum and coal products	13.29	13.45	13.43	13.44	13.44	13.32	13.33	13.27	13.32	13.54	13.52	13.67	13.63	13.90	13.86
Rubber and miscellaneous plastics products	7.99	8.27	8.16	8.20	8.25	8.20	8.23	8.30	8.28	8.31	8.31	8.39	8.43	8.50	8.49
Leather and leather products	5.54	5.70	5.67	5.68	5.68	5.68	5.67	5.70	5.67	5.72	5.72	5.76	5.80	5.83	5.82
TRANSPORTATION AND PUBLIC UTILITIES	10.80	11.15	11.01	11.02	11.07	11.03	11.07	11.18	11.17	11.27	11.23	11.29	11.32	11.33	11.32
WHOLESALE TRADE	8.54	8.94	8.79	8.79	8.89	8.86	8.90	8.97	8.95	9.05	8.99	9.06	9.18	9.15	9.17
RETAIL TRADE	5.74	5.89	5.89	5.89	5.90	5.88	5.88	5.87	5.84	5.89	5.88	5.94	5.89	5.97	5.99
FINANCE, INSURANCE, AND REAL ESTATE	7.29	7.62	7.54	7.54	7.62	7.55	7.58	7.60	7.57	7.76	7.67	7.71	7.78	7.78	7.83
SERVICES	7.30	7.62	7.55	7.54	7.60	7.55	7.53	7.56	7.53	7.69	7.69	7.74	7.82	7.82	7.86

¹ Not available.

c = corrected.

p = preliminary.

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

15. The Hourly Earnings Index, by industry

[Production or nonsupervisory workers on private nonagricultural payrolls; 1977 = 100]

Industry	Not seasonally adjusted					Seasonally adjusted						Percent change from: Jan. 1985 to Feb. 1985
	Feb. 1984	Dec. 1984	Jan. 1985 ^p	Feb. 1985 ^p	Percent change from: Feb. 1984 to Feb. 1985	Feb. 1984	Oct. 1984	Nov. 1984	Dec. 1984	Jan. 1985 ^p	Feb. 1985 ^p	
PRIVATE SECTOR (in current dollars)	158.8	163.2	163.5	164.0	3.3	158.5	161.3	162.0	163.1	162.8	163.7	0.6
Mining	170.7	176.8	177.1	177.3	3.9	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Construction	145.5	147.9	148.0	148.3	2.0	146.2	146.3	146.5	147.5	147.7	149.1	.9
Manufacturing	160.8	165.5	166.5	166.7	3.7	160.7	163.8	164.5	165.1	165.9	166.6	.4
Transportation and public utilities	160.3	164.9	164.9	165.1	3.0	159.8	163.0	163.1	164.3	163.7	164.6	.5
Wholesale trade	162.7	169.6	169.0	169.4	4.1	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Retail trade	153.4	154.3	155.0	155.8	1.6	152.9	153.9	155.1	155.4	154.5	155.3	.5
Finance, insurance, and real estate	164.0	168.6	168.4	169.6	3.4	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Services	160.8	166.8	166.5	167.2	4.0	159.8	164.0	164.8	166.6	164.9	166.2	.8
PRIVATE SECTOR (in constant dollars)	95.0	94.9	95.0	(²)	(²)	94.8	93.9	94.3	94.7	94.4	(²)	(²)

¹This 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.

p = preliminary.

²Not available.

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

16. Average weekly earnings, by industry

[Production or nonsupervisory workers on private nonagricultural payrolls]

Industry	Annual average		1984										1985		
	1983	1984	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ^P	Feb. ^P
PRIVATE SECTOR															
Current dollars	\$280.70	\$294.05	\$288.40	\$288.40	\$292.64	\$291.46	\$294.30	\$296.19	\$294.65	\$299.27	\$295.68	\$295.89	\$300.33	\$296.65	\$295.30
Seasonally adjusted	(¹)	(¹)	290.52	291.23	294.17	292.64	294.05	293.92	293.57	297.36	294.14	296.38	298.99	297.44	297.15
Constant (1977) dollars	171.37	173.48	172.59	172.59	174.71	173.18	174.45	174.85	172.31	173.99	171.91	172.23	174.61	175.01	(¹)
MINING	478.98	502.57	492.92	496.48	499.66	499.39	505.61	497.51	503.30	513.04	497.66	503.30	514.49	504.93	501.83
CONSTRUCTION	443.42	454.73	443.63	439.30	448.13	458.02	460.88	462.04	462.39	467.78	461.32	449.17	457.97	442.86	441.50
MANUFACTURING															
Current dollars	354.08	373.22	368.74	369.96	372.60	369.87	372.91	369.95	369.26	375.66	373.41	378.51	386.46	379.63	373.97
Constant (1977) dollars	216.17	220.19	220.67	221.40	222.45	219.77	221.05	218.39	215.94	218.41	217.10	220.32	224.69	220.46	(¹)
Durable goods	381.77	402.41	398.68	399.92	402.27	399.92	402.14	396.73	396.88	405.46	403.09	406.55	418.47	409.77	402.79
Lumber and wood products	312.38	318.80	313.62	314.01	317.18	317.59	324.01	316.40	322.00	329.26	320.79	313.99	319.99	312.34	307.47
Furniture and fixtures	260.83	272.34	263.93	267.02	267.02	268.60	270.86	269.70	273.24	278.70	279.39	279.10	284.61	276.67	271.74
Stone, clay, and glass products	384.71	401.52	389.27	389.16	401.32	404.50	407.15	406.81	405.96	408.74	405.42	405.72	403.24	392.45	391.15
Primary metal industries	459.27	475.49	482.58	480.48	488.02	481.43	480.17	472.89	462.67	472.69	462.58	473.62	475.90	472.32	472.93
Blast furnaces and basic steel products	509.16	527.39	539.72	534.36	549.73	540.62	536.42	524.71	506.97	524.30	506.68	524.80	516.71	518.76	532.00
Fabricated metal products	369.87	387.50	386.37	384.50	387.61	386.26	388.13	380.66	381.30	389.57	387.39	389.05	403.01	393.33	388.80
Machinery except electrical	386.78	417.32	413.55	415.80	417.21	413.82	417.06	411.35	411.68	420.42	417.42	422.52	434.85	422.00	414.92
Electrical and electronic equipment	350.33	368.59	364.15	364.08	364.49	363.60	365.31	361.58	366.30	374.10	371.78	376.98	387.49	379.03	372.93
Transportation equipment	490.89	520.51	514.80	521.16	523.40	514.11	519.59	508.25	504.61	517.33	521.10	530.33	552.70	543.92	526.26
Motor vehicles and equipment	524.80	554.55	544.80	560.33	563.94	546.69	557.48	537.19	532.56	548.21	554.67	562.46	593.13	591.41	555.77
Instruments and related products	341.78	363.85	356.79	358.85	358.80	354.50	362.61	361.15	362.85	371.07	365.38	371.55	380.28	366.95	368.74
Miscellaneous manufacturing	265.88	275.80	276.01	276.01	275.32	274.71	273.62	273.08	272.53	277.60	278.69	279.09	284.09	279.75	279.41
Nondurable goods	318.35	331.45	326.30	327.49	329.94	328.68	331.53	331.35	331.45	335.07	332.54	337.39	341.15	337.12	332.82
Food and kindred products	323.90	334.72	327.27	329.73	332.99	333.83	337.60	333.04	335.24	336.47	331.53	338.40	343.44	334.96	330.65
Tobacco manufactures	387.09	432.57	405.13	416.60	451.49	457.38	482.76	437.63	421.40	408.28	412.97	471.58	425.64	414.78	421.48
Textile mill products	250.29	257.75	259.84	258.96	260.42	257.44	259.77	252.70	256.46	255.71	253.11	257.42	258.86	255.69	253.44
Apparel and other textile products	194.39	201.29	200.38	201.12	202.03	200.02	202.40	198.36	200.74	201.96	201.80	201.80	205.66	203.28	200.29
Paper and allied products	423.44	449.96	438.44	437.68	442.47	443.59	449.10	456.19	451.50	457.87	455.14	462.01	468.22	458.17	450.66
Printing and publishing	342.54	355.88	349.68	353.02	353.02	351.92	349.68	351.94	357.02	362.33	358.34	363.47	367.10	357.92	357.71
Chemicals and allied products	440.54	465.51	457.80	458.81	460.74	460.64	463.25	463.70	464.12	471.66	470.91	475.57	482.09	478.92	473.10
Petroleum and coal products	583.43	587.77	584.21	585.98	590.02	580.75	579.86	579.90	584.75	598.47	590.82	597.38	584.73	600.48	591.82
Rubber and miscellaneous plastics products	329.19	344.86	342.72	341.94	347.33	341.94	344.84	341.96	342.79	344.87	344.03	349.02	354.06	351.05	343.00
Leather and leather products	203.87	209.76	208.66	205.05	210.16	209.59	213.76	212.61	206.39	208.21	207.64	210.82	215.18	211.05	211.85
TRANSPORTATION AND PUBLIC UTILITIES	421.20	439.31	429.39	429.78	435.05	432.38	440.59	447.20	443.45	449.67	440.22	445.96	447.14	443.00	443.74
WHOLESALE TRADE	328.79	345.08	335.78	336.66	342.27	342.00	344.43	348.04	347.26	351.14	347.91	350.62	357.10	351.36	351.21
RETAIL TRADE	171.05	176.70	173.17	174.34	175.82	176.40	178.75	180.21	178.70	177.29	174.64	176.42	180.23	174.92	174.91
FINANCE, INSURANCE, AND REAL ESTATE	263.90	278.13	274.46	273.70	278.13	274.07	275.15	278.92	275.55	284.02	279.96	280.64	285.53	283.97	285.80
SERVICES	238.71	249.94	246.13	245.80	248.52	246.13	247.74	250.24	248.49	252.23	250.69	252.32	256.50	254.15	256.24

¹ Not available.

c = corrected.

p = preliminary.

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

17. Indexes of diffusion: Industries in which employment increased, seasonally adjusted

[In percent]

Time span	Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Over 1-month span	1983	54.3	46.5	60.8	68.9	69.5	64.6	74.3	68.6	69.5	75.4	69.7	73.8
	1984	71.1	73.2	67.0	63.8	64.1	63.0	62.4	57.6	40.8	65.7	51.9	63.5
	1985	P56.8	P47.3										
Over 3-month span	1983	46.8	57.3	64.1	75.1	75.7	77.8	74.1	81.6	80.8	78.9	79.5	77.6
	1984	82.2	80.5	76.5	71.1	68.4	68.9	63.5	58.1	58.6	53.5	P64.9	P58.6
	1985	P57.3											
Over 6-month span	1983	50.8	63.0	69.2	75.1	80.0	82.4	84.1	82.4	84.6	85.9	86.8	83.8
	1984	81.9	82.7	79.7	75.4	69.2	63.2	62.4	62.7	63.5	P60.3	P52.2	
Over 12-month span	1983	49.5	54.3	61.9	71.1	77.3	79.5	83.8	88.1	86.8	87.3	85.4	87.3
	1984	86.5	81.9	78.9	76.8	74.3	73.8	P71.9	P62.2				

p = preliminary.

are counted as rising.) Data are centered within the spans. See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

NOTE: Figures are the percent of industries with employment rising. (Half of the unchanged components

UNEMPLOYMENT INSURANCE DATA

NATIONAL UNEMPLOYMENT INSURANCE DATA are compiled monthly by the Employment and Training Administration of the U.S. Department of Labor from monthly reports of unemployment insurance activity prepared by State agencies. Railroad unemployment insurance data are prepared by the U.S. Railroad Retirement Board.

Definitions

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

Under both State and Federal unemployment insurance programs for civilian employees, insured workers must report the completion of at least 1 week of unemployment before they are defined as unemployed. Persons not covered by unemployment insurance (about 10 percent of the labor force) and those who have exhausted or not yet earned benefit rights are excluded from the scope of the survey. **Initial claims** are notices filed by

persons in unemployment insurance programs to indicate they are out of work and wish to begin receiving compensation. A claimant who continued to be unemployed a full week is then counted in the insured unemployment figure. The **rate of insured unemployment** expresses the number of insured unemployed as a percent of the average insured employment in a 12-month period.

Average weekly seasonally adjusted insured unemployment data are computed by BLS' Weekly Seasonal Adjustment program. This procedure incorporated the X-11 Variant of the Census Method II Seasonal Adjustment program.

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

18. Unemployment insurance and employment service operations

[All items except average benefits amounts are in thousands]

Item	1984												1985
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. ^P	Jan. ^P
All programs:													
Insured unemployment	3,374	3,174	2,958	2,613	2,290	2,166	2,327	2,184	2,083	2,149	2,441	2,778	.....
State unemployment insurance program: ¹													
Initial claims ²	2,355	1,528	1,424	1,429	1,368	1,387	1,767	1,459	1,260	1,758	1,825	2,074	.....
Insured unemployment (average weekly volume)	3,249	3,056	2,843	2,515	2,215	2,111	2,270	2,129	2,023	2,072	2,355	2,691	.....
Rate of insured unemployment	3.8	3.6	3.3	2.9	2.6	2.5	2.6	2.5	2.3	2.4	2.7	3.1	.....
Weeks of unemployment compensated	12,232	11,622	11,339	9,695	9,304	8,053	8,380	8,716	7,209	8,092	8,421	9,271	.....
Average weekly benefit amount for total unemployment	\$123.60	\$124.30	\$124.67	\$125.26	\$123.69	\$121.96	\$119.83	\$120.24	\$122.49	\$123.19	\$123.95	\$125.71	.....
Total benefits paid	\$1,457,983	\$1,400,458	\$1,369,536	\$1,173,601	\$1,109,268	\$948,381	\$974,135	\$1,017,804	\$853,424	\$962,856	\$1,005,727	\$1,124,849	.....
State unemployment insurance program: ¹ (Seasonally adjusted data)													
Initial claims ²	1,617	1,572	1,570	1,569	1,614	1,559	1,661	1,618	1,707	1,746	1,765	1,602	.....
Insured unemployment (average weekly volume)	2,510	2,428	2,470	2,507	2,300	2,356	2,457	2,355	2,567	2,461	2,551	2,541	.....
Rate of insured unemployment	2.9	2.8	2.9	2.9	2.7	2.7	2.8	2.7	3.0	2.8	2.9	2.9	.....
Unemployment compensation for ex-servicemen: ³													
Initial claims ¹	15	13	13	12	12	12	13	14	13	15	13	12	.....
Insured unemployment (average weekly volume)	27	24	22	20	18	18	18	19	20	21	22	23	.....
Weeks of unemployment compensated	112	96	89	78	79	71	71	79	72	86	87	89	.....
Total benefits paid	\$14,532	\$12,540	\$11,813	\$10,349	\$10,577	\$9,467	\$9,573	\$10,715	\$9,820	\$11,766	\$11,984	\$12,072	.....
Unemployment compensation for Federal civilian employees: ⁴													
Initial claims	16	10	9	13	9	11	12	10	9	15	12	11	.....
Insured unemployment (average weekly volume)	32	31	28	23	20	19	20	19	19	21	23	24	.....
Weeks of unemployment compensated	133	129	122	98	88	76	80	83	69	85	89	94	.....
Total benefits paid	\$15,588	\$15,003	\$14,778	\$11,844	\$10,529	\$8,994	\$9,489	\$9,776	\$8,198	\$10,088	\$10,830	\$11,442	.....
Railroad unemployment insurance:													
Applications	10	4	3	2	2	11	25	7	6	9	10	11	13
Insured unemployment (average weekly volume)	51	49	41	27	19	16	16	17	18	21	26	29	31
Number of payments	121	104	99	70	54	38	35	37	34	46	52	61	94
Average amount of benefit payment	\$210.73	\$209.56	\$208.96	\$196.32	\$188.45	\$187.37	\$189.06	\$197.85	\$196.15	\$195.20	\$198.85	\$205.26	\$206.99
Total benefits paid	\$23,866	\$23,228	\$20,112	\$13,356	\$10,233	\$7,039	\$6,691	\$6,695	\$6,349	\$8,596	.....	.....	.....
Employment service: ⁵													
New applications and renewals	.....	.....	8,231	.....	.....	9,517	.....	.....	4,132	.....	.....	.....	.....
Nonfarm placements	.....	.....	1,469	.....	.....	1,810	.....	.....	1,000	.....	.....	.....	.....

¹Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.

²Excludes transition claims under State programs.

³Excludes data on claims and payments made jointly with other programs.

⁴Excludes data or claims and payments made jointly with State programs.

⁵Cumulative total for fiscal year (October 1–September 30). Data computed quarterly.

p = preliminary.

NOTE: Data for Puerto Rico and the Virgin Islands included. Dashes indicate data not available.

PRICE DATA

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

Definitions

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

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

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

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

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

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States, from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire. Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

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

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

Notes on the data

Regional CPI's cross classified by population size were introduced in the May 1978 *Review*. These indexes enable users in local areas for which an index is not published to get a better approximation of the CPI for their area by using the appropriate population size class measure for their region. The cross-classified indexes are published bimonthly. (See table 20.)

For details concerning the 1978 revision of the CPI, see *The Consumer Price Index: Concepts and Content Over the Years*, Report 517, revised edition (Bureau of Labor Statistics, May 1978).

As of January 1976, the Producer Price Index incorporated a revised weighting structure reflecting 1972 values of shipments.

Additional data and analyses of price changes are provided in the *CPI Detailed Report* and *Producer Prices and Price Indexes*, both monthly publications of the Bureau.

For a discussion of the general method of computing producer, and industry price indexes, see *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 7. For consumer prices, see *BLS Handbook of Methods for Surveys and Studies* (1976), chapter 13. See also John F. Early, "Improving the measurement of producer price change," *Monthly Labor Review*, April 1978. For industry prices, see also Bennett R. Moss, "Industry and Sector Price Indexes," *Monthly Labor Review*, August 1965.

19. Consumer Price Index for Urban Wage Earners and Clerical Workers, annual averages and changes, 1967-83

[1967 = 100]

Year	All items		Food and beverages		Housing		Apparel and upkeep		Transportation		Medical care		Entertainment		Other goods and services	
	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change
1967	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...
1968	104.2	4.2	103.6	3.6	104.0	4.0	105.4	5.4	103.2	3.2	106.1	6.1	105.7	5.7	105.2	5.2
1969	109.8	5.4	108.8	5.0	110.4	6.2	111.5	5.8	107.2	3.9	113.4	6.9	111.0	5.0	110.4	4.9
1970	116.3	5.9	114.7	5.4	118.2	7.1	116.1	4.1	112.7	5.1	120.6	6.3	116.7	5.1	115.8	5.8
1971	121.3	4.3	118.3	3.1	123.4	4.4	119.8	3.3	118.6	5.2	128.4	6.5	122.9	5.3	122.4	4.8
1972	125.3	3.3	123.2	4.1	128.1	3.8	122.3	2.1	119.9	1.1	132.5	3.2	126.5	2.9	127.5	4.2
1973	133.1	6.2	139.5	13.2	133.7	4.4	126.8	3.7	123.8	3.3	137.7	3.9	130.0	2.8	132.5	3.9
1974	147.7	11.0	158.7	13.8	148.8	11.3	136.2	7.4	137.7	11.2	150.5	9.3	139.8	7.5	142.0	7.2
1975	161.2	9.1	172.1	8.4	164.5	10.6	142.3	4.5	150.6	9.4	168.6	12.0	152.2	8.9	153.9	8.4
1976	170.5	5.8	177.4	3.1	174.6	6.1	147.6	3.7	165.5	9.9	184.7	9.5	159.8	5.0	162.7	5.7
1977	181.5	6.5	188.0	8.0	186.5	6.8	154.2	4.5	177.2	7.1	202.4	9.6	167.7	4.9	172.2	5.8
1978	195.3	7.6	206.2	9.7	202.6	8.6	159.5	3.4	185.8	4.9	219.4	8.4	176.2	5.1	183.2	6.4
1979	217.7	11.5	228.7	10.9	227.5	12.3	166.4	4.3	212.8	14.5	240.1	9.4	187.6	6.5	196.3	7.2
1980	247.0	13.5	248.7	8.7	263.2	15.7	177.4	6.6	250.5	17.7	287.2	11.3	203.7	8.5	213.6	8.8
1981	272.3	10.2	267.8	7.7	293.2	11.4	186.6	5.2	281.3	12.3	295.1	10.4	219.0	7.5	233.3	9.2
1982	288.6	6.0	278.5	4.0	314.7	7.3	190.9	2.3	293.1	4.2	326.9	10.8	232.4	6.1	257.0	10.2
1983	297.4	3.0	284.7	2.2	322.0	2.3	195.6	2.5	300.0	2.4	355.1	8.6	242.4	4.3	286.3	11.4

20. Consumer Price Index for All Urban Consumers and revised CPI for Urban Wage Earners and Clerical Workers, U.S. city average—general summary and groups, subgroups, and selected items

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers							
	1984						1985							
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
All items	305.2	313.0	314.5	315.3	315.3	315.5	316.1	302.7	310.3	312.1	312.2	311.9	312.2	312.6
Food and beverages	291.6	296.9	296.4	296.6	296.3	297.2	299.3	291.9	296.9	296.3	296.5	296.2	297.1	299.1
Housing	329.2	339.5	341.4	341.2	340.9	341.2	342.0	324.7	334.2	336.8	335.5	334.4	335.0	335.7
Apparel and upkeep	196.4	200.1	204.2	205.7	205.2	203.2	199.8	195.3	199.0	203.3	204.8	204.2	202.1	198.5
Transportation	306.0	312.9	313.7	315.5	316.1	315.8	314.7	307.9	315.2	316.0	317.8	318.3	317.9	316.7
Medical care	369.5	381.9	383.1	385.5	387.5	388.5	391.1	367.5	380.1	381.2	383.7	385.6	386.7	389.3
Entertainment	249.9	256.4	257.3	258.3	259.0	260.1	261.0	246.2	252.5	253.4	254.2	254.8	255.8	256.6
Other goods and services	300.5	307.2	314.6	315.8	316.5	316.7	319.1	298.1	305.3	310.9	311.9	312.6	312.8	315.6
Commodities	276.8	281.4	282.3	283.1	283.0	282.8	282.7	277.3	281.4	282.5	283.1	282.8	282.7	282.5
Commodities less food and beverages	265.2	269.3	271.0	272.1	272.2	271.4	270.0	266.4	270.0	271.8	272.5	272.3	271.8	270.3
Nondurables less food and beverages	272.3	274.8	277.2	278.6	278.2	277.0	274.4	274.2	276.6	279.0	280.3	279.9	278.7	275.8
Durables	261.4	267.8	268.7	269.3	270.0	269.8	270.2	258.4	263.0	264.4	264.6	264.5	264.6	264.9
Services	353.9	366.5	368.9	367.9	369.9	370.6	372.1	349.8	363.9	366.8	366.3	365.9	366.8	368.3
Rent, residential	242.9	251.1	252.4	253.8	254.8	256.1	257.1	242.3	250.3	251.7	253.1	254.0	255.3	256.3
Household services less rent of shelter (12/82 = 100)	105.1	110.5	111.0	109.9	108.8	108.5	108.9	...	...	...	...	...	...	...
Transportation services	314.1	323.8	324.6	327.5	328.9	330.1	331.8	310.3	319.6	320.7	323.7	325.1	326.1	327.7
Medical care services	400.2	412.7	413.9	416.5	418.5	419.3	422.4	397.5	410.4	411.5	414.1	416.1	417.0	420.1
Other services	288.0	295.5	302.5	304.2	305.2	306.1	307.1	285.0	292.8	299.0	300.6	301.5	302.3	303.5
Special indexes:														
All items less food	304.8	313.2	315.2	316.1	316.2	316.2	316.3	302.3	310.4	312.7	312.9	312.6	312.7	312.7
All items less homeowners' costs	104.3	106.9	107.4	107.6	107.6	107.6	107.8	...	...	...	...	...	...	...
All items less mortgage interest costs	...	...	...	...	...	...	...	290.0	296.4	297.9	298.4	298.2	298.3	...
Commodities less food	263.0	267.1	268.8	269.8	269.9	269.2	267.8	264.2	267.8	269.6	270.3	270.1	269.6	268.2
Nondurables less food	267.4	270.0	272.3	273.6	273.3	272.2	269.7	269.4	271.8	274.1	275.4	275.0	273.9	271.2
Nondurables less food and apparel	308.6	311.0	312.3	313.5	313.4	312.8	310.9	310.0	312.2	313.5	314.8	314.5	313.8	311.8
Nondurables	283.2	287.1	288.0	288.8	288.5	288.3	288.0	284.1	287.8	288.8	289.5	289.2	289.0	288.6
Services less rent of shelter (12/82 = 100)	105.7	109.7	110.5	110.6	110.5	110.6	111.1	...	...	...	...	...	...	...
Services less medical care	346.6	359.2	361.7	362.3	362.3	363.0	364.3	342.6	356.6	359.6	358.9	358.2	359.2	360.4
Domestically produced farm foods	277.2	281.4	280.0	279.7	278.8	279.9	282.1	276.0	279.8	278.3	278.0	277.2	278.2	280.4
Selected beef cuts	274.6	274.2	271.5	271.0	271.6	276.0	276.2	275.8	275.5	273.2	272.2	273.0	277.4	277.5
Energy	416.7	427.3	429.0	426.7	421.8	418.9	414.5	417.0	426.5	428.3	426.1	421.5	418.5	413.8
Energy commodities	409.9	404.2	405.4	408.2	407.2	404.1	395.7	410.7	404.9	406.3	408.9	407.8	404.7	396.2
All items less energy	297.0	304.6	306.1	307.1	307.7	308.2	309.2	293.5	301.0	302.7	303.1	303.2	303.8	304.7
All items less food and energy	294.6	302.8	304.9	306.1	306.9	307.3	307.9	290.7	298.7	301.0	301.5	301.6	302.1	302.7
Commodities less food and energy	248.3	254.2	256.0	256.8	257.0	256.7	256.5	247.2	252.0	253.8	254.3	254.2	254.0	253.8
Services less energy	348.1	358.6	361.0	362.7	364.0	365.0	366.4	343.4	355.5	358.4	358.9	359.4	360.7	362.0
Purchasing power of the consumer dollar, 1967 = \$1	\$0.328	\$0.319	\$0.318	\$0.317	\$0.317	\$0.317	\$0.316	\$0.330	\$0.322	\$0.320	\$0.320	\$0.321	\$0.320	\$0.320

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

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers							
	1984						1985	1984						1985
	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
FOOD AND BEVERAGES	291.6	296.9	296.4	296.6	296.3	297.2	299.3	291.9	296.9	296.3	296.5	296.2	297.1	299.1
Food	299.4	304.8	304.2	304.4	304.1	305.1	307.3	299.4	304.5	303.8	304.0	303.7	304.7	306.9
Food at home	290.2	294.4	293.4	293.4	292.4	293.2	296.1	289.1	292.9	291.9	291.8	290.9	291.7	294.5
Cereals and bakery products	299.8	307.8	307.9	308.7	309.0	310.7	312.4	298.3	306.3	306.3	307.1	307.4	309.0	310.7
Cereals and cereal products (12/77 = 100)	159.3	165.0	164.5	163.6	163.8	164.2	165.6	160.0	165.7	165.1	164.3	164.4	164.7	166.2
Flour and prepared flour mixes (12/77 = 100)	143.0	148.3	146.3	145.2	143.9	143.4	146.6	143.3	148.6	146.6	145.6	144.4	143.6	146.8
Cereal (12/77 = 100)	178.6	185.9	186.1	186.2	186.7	187.6	189.4	180.8	188.2	188.3	188.4	189.0	189.8	191.7
Rice, pasta, and cornmeal (12/77 = 100)	146.7	150.5	150.4	148.5	149.3	149.9	149.3	147.9	151.7	151.5	149.7	150.5	151.0	150.3
Bakery products (12/77 = 100)	158.4	162.2	162.4	163.3	163.4	164.5	165.2	157.1	160.9	161.1	161.9	162.1	163.1	163.8
White bread	259.1	262.6	263.2	264.3	265.8	265.4	267.2	254.8	258.5	258.8	260.1	261.3	261.0	263.0
Other breads (12/77 = 100)	153.7	154.9	155.8	155.7	155.4	156.2	156.0	155.8	157.3	158.0	158.0	157.6	158.4	158.1
Fresh biscuits, rolls, and muffins (12/77 = 100)	157.9	159.3	159.7	160.7	161.1	161.9	161.8	153.9	155.1	155.6	156.4	157.0	157.5	157.6
Fresh cakes and cupcakes (12/77 = 100)	161.5	164.9	165.9	167.4	166.4	169.6	169.6	159.5	162.7	163.6	165.0	164.1	167.3	167.3
Cookies (12/77 = 100)	161.1	167.9	167.3	168.3	168.5	170.9	171.3	161.9	168.8	168.3	169.5	169.6	171.9	172.3
Crackers, bread, and cracker products (12/77 = 100)	151.2	162.0	161.7	162.7	160.9	164.3	166.3	152.6	163.4	163.0	164.2	162.4	166.0	167.8
Fresh sweetrolls, coffeecake, and donuts (12/77 = 100)	159.7	163.4	162.9	163.8	163.9	164.1	164.9	162.4	166.3	165.9	166.6	166.7	166.9	167.7
Frozen and refrigerated bakery products and fresh pies, tarts, and turnovers (12/77 = 100)	163.3	168.9	169.3	170.0	171.1	171.7	172.9	156.5	161.8	162.0	162.7	163.8	164.3	165.5
Meats, poultry, fish, and eggs	268.9	265.7	264.5	263.5	262.4	265.9	266.6	268.3	265.2	264.1	262.9	261.8	265.3	266.0
Meats, poultry, and fish	269.8	272.7	271.6	270.4	269.4	272.5	275.0	269.1	272.1	271.0	269.7	268.7	271.7	274.2
Meats	266.4	269.9	268.0	267.1	266.1	269.6	270.8	265.8	269.4	267.7	266.6	265.5	268.9	270.2
Beef and veal	274.9	274.3	271.9	271.3	271.9	276.2	276.4	275.4	274.9	272.8	271.9	272.5	276.9	277.0
Ground beef other than canned	256.9	254.8	252.9	252.4	254.3	257.2	256.0	257.5	256.0	254.4	255.5	255.7	258.2	257.0
Chuck roast	282.8	272.7	271.8	276.6	280.9	286.1	281.5	291.6	280.4	280.6	285.1	289.9	294.7	290.6
Round roast	246.2	235.7	234.3	236.5	234.1	239.0	240.7	250.0	239.9	237.8	240.3	237.9	242.3	244.3
Round steak	256.2	254.7	252.4	251.3	248.4	255.7	258.8	253.0	254.4	251.4	248.3	246.4	253.6	256.3
Sirloin steak	265.7	287.7	286.1	273.9	271.6	276.2	272.7	266.0	288.9	288.7	275.3	273.6	279.1	274.5
Other beef and veal (12/77 = 100)	169.7	171.2	169.0	168.5	168.8	171.2	172.6	168.5	169.8	167.8	167.2	167.3	170.0	171.2
Pork	250.8	259.9	257.5	255.0	251.2	254.6	258.5	250.1	259.2	257.0	254.3	250.3	253.7	257.6
Bacon	259.0	272.3	270.3	271.1	266.5	270.5	276.9	262.4	276.3	274.2	275.0	270.4	274.1	280.9
Chops	236.5	250.7	242.3	235.9	232.7	234.1	236.3	234.5	248.3	240.6	234.0	230.4	232.1	234.2
Ham other than canned (12/77 = 100)	113.0	113.5	116.8	117.2	115.6	120.9	120.0	110.0	110.4	113.6	113.8	112.5	117.7	116.7
Sausage	311.0	322.9	321.2	319.0	315.3	316.6	324.5	312.2	323.6	322.7	319.6	315.5	316.7	325.0
Canned ham	252.4	248.1	251.4	252.6	246.8	248.8	255.3	257.5	253.4	256.0	258.4	250.4	253.9	259.2
Other pork (12/77 = 100)	139.7	146.1	142.5	139.0	137.0	137.3	140.4	138.9	145.3	141.7	138.5	136.4	136.7	139.8
Other meats	262.5	268.4	267.7	270.0	269.4	270.2	269.8	262.0	268.0	268.2	269.5	268.6	269.4	269.2
Frankfurters	260.0	267.8	266.6	269.6	265.0	266.6	267.6	258.9	266.3	266.1	268.0	263.3	265.1	266.6
Bologna, liverwurst, and salami (12/77 = 100)	150.6	154.8	155.6	156.2	155.8	156.2	155.6	150.4	154.7	155.4	156.0	155.7	156.1	155.6
Other luncheon meats (12/77 = 100)	135.2	138.2	138.8	139.4	138.6	139.2	138.2	133.2	136.4	137.0	137.5	136.7	137.3	136.2
Lamb and organ meats (12/77 = 100)	137.6	138.6	137.3	138.2	141.1	140.8	141.5	140.9	141.7	140.1	141.0	143.9	143.4	144.4
Poultry	217.5	216.5	217.2	214.0	213.1	213.8	217.4	215.4	214.0	214.7	211.6	210.9	211.3	215.1
Fresh whole chicken	228.7	218.6	220.2	213.8	215.4	210.4	214.3	226.1	216.1	217.5	211.4	213.0	208.0	212.0
Fresh and frozen chicken parts (12/77 = 100)	144.7	144.1	144.7	141.4	140.4	140.4	141.7	142.5	141.8	142.4	139.2	138.4	138.2	139.5
Other poultry (12/77 = 100)	125.4	133.3	132.7	135.1	132.6	138.9	142.4	124.9	132.3	131.8	134.3	131.9	138.0	141.8
Fish and seafood	383.4	387.0	390.6	390.6	389.2	392.2	406.1	382.4	385.7	389.1	389.1	388.2	391.4	405.3
Canned fish and seafood	133.1	134.4	133.7	132.9	133.0	133.4	134.4	132.6	133.9	133.2	132.5	132.5	132.9	134.0
Fresh and frozen fish and seafood (12/77 = 100)	153.7	155.1	157.7	158.2	157.3	158.9	166.7	153.7	155.0	157.5	157.9	157.3	159.1	166.9
Eggs	266.5	179.3	178.6	177.8	175.6	185.7	161.3	268.1	180.4	179.7	178.7	176.4	186.5	162.0
Dairy products	250.8	252.7	254.9	256.1	257.2	258.4	258.8	249.8	251.7	253.8	255.1	256.2	257.3	257.8
Fresh milk and cream (12/77 = 100)	136.4	136.7	137.7	138.7	139.8	140.4	140.4	135.8	136.0	136.9	137.9	139.1	139.6	139.7
Fresh whole milk	222.7	223.2	224.7	226.8	228.7	229.6	229.6	221.7	222.0	223.5	225.6	227.5	228.4	228.4
Other fresh milk and cream (12/77 = 100)	137.3	137.7	138.7	139.0	140.0	140.7	141.0	136.7	137.0	138.0	138.3	139.3	139.9	140.3
Processed dairy products	149.3	151.5	153.1	153.3	153.3	154.1	154.5	149.6	151.8	153.4	153.7	153.6	154.4	154.8
Butter	254.7	264.4	266.0	268.8	268.7	269.4	266.4	257.1	266.7	268.6	271.4	271.5	272.3	269.1
Cheese (12/77 = 100)	147.0	148.2	149.1	149.5	150.1	150.1	150.3	147.3	148.6	149.4	149.9	150.5	150.5	150.6
Ice cream and related products (12/77 = 100)	154.8	157.4	160.9	160.0	158.1	160.1	162.3	153.8	156.5	159.9	159.0	157.1	159.0	161.3
Other dairy products (12/77 = 100)	146.1	148.1	149.9	150.0	150.9	152.5	153.0	146.7	148.6	150.4	150.4	151.3	152.8	153.3
Fruits and vegetables	311.0	327.7	319.7	318.4	314.8	309.7	320.8	307.3	322.4	313.6	312.3	308.9	303.9	314.9
Fresh fruits and vegetables	327.8	345.7	332.5	329.3	323.4	312.6	332.7	322.5	337.6	323.0	319.9	314.6	303.9	323.6
Fresh fruits	289.6	353.3	364.8	354.3	343.9	331.6	341.5	279.5	338.8	349.6	337.4	329.3	317.6	326.1
Apples	277.0	341.8	337.9	298.0	302.8	297.5	304.1	277.6	342.8	339.6	299.9	304.5	299.3	304.9
Bananas	244.3	257.0	249.9	242.1	234.9	225.2	248.6	242.4	254.7	248.4	240.6	232.7	224.0	246.7
Oranges	301.3	530.8	553.6	538.4	473.6	428.0	429.7	275.1	487.7	507.1	489.1	434.1	390.2	388.9
Other fresh fruits (12/77 = 100)	156.9	160.4	170.4	172.7	175.3	174.3	180.0	151.1	153.6	163.6	165.2	168.1	167.0	172.0
Fresh vegetables	363.6	338.7	302.3	306.0	304.4	294.8	324.5	361.4	336.7	299.2	304.2	301.5	291.6	321.5
Potatoes	342.3	478.1	354.1	324.3	313.1	327.3	331.5	337.5	470.0	344.5	318.4	305.1	320.4	323.5
Lettuce	328.3	316.6	337.8	363.6	350.5	276.0	385.6	329.8	319.1	338.0	365.1	349.2	274.4	386.6
Tomatoes	285.6	310.4	252.9	255.1	245.3	232.4	238.0	290.4	314.3	258.2	259.9	249.7	236.0	240.6
Other fresh vegetables (12/77 = 100)	226.1	157.1	152.1	158.7	164.3	167.4	177.3	224.0	155.3	150.2	157.0	162.6	165.2	175.2
Processed fruits and vegetables	295.1	310.7	308.4	309.										

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

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers							
	1984						1985							
	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Fruits and vegetables—Continued														
Processed vegetables (12/77 = 100)	144.2	148.1	146.9	146.5	146.1	146.5	147.1	143.0	146.9	145.7	145.3	145.0	145.3	146.0
Frozen vegetables (12/77 = 100)	153.3	157.0	156.2	157.1	156.9	156.9	158.9	154.9	158.6	157.7	158.9	158.7	158.7	160.9
Cut corn and canned beans except lima (12/77 = 100)	145.9	153.1	150.9	149.8	149.7	150.8	150.7	143.3	150.5	148.3	147.2	147.1	148.0	148.0
Other canned and dried vegetables (12/77 = 100)	138.7	141.2	140.2	139.4	138.9	139.0	139.3	137.1	139.5	138.6	137.8	137.3	137.4	137.8
Other foods at home	346.6	354.0	355.1	356.1	355.0	354.6	358.0	347.4	354.3	355.4	356.5	355.3	354.9	358.3
Sugar and sweets	380.0	392.6	393.7	393.3	390.9	391.7	394.5	379.7	391.9	393.1	392.8	390.5	391.4	394.0
Candy and chewing gum (12/77 = 100)	154.0	161.6	162.1	161.3	161.6	162.3	162.8	153.9	161.3	161.8	161.2	161.5	162.2	162.6
Sugar and artificial sweeteners (12/77 = 100)	170.9	171.0	172.3	172.5	170.3	169.4	171.9	172.0	172.3	173.5	173.7	171.7	170.7	173.2
Other sweets (12/77 = 100)	153.9	160.1	159.7	160.2	158.0	159.1	160.0	151.8	157.6	157.2	157.7	155.5	156.7	157.5
Fats and oils (12/77 = 100)	279.7	295.4	295.1	294.9	293.0	293.7	295.9	279.5	295.0	294.6	294.4	292.5	293.1	295.3
Margarine	278.2	296.0	296.6	297.5	292.9	295.6	298.2	276.4	293.6	294.3	295.0	290.6	292.6	295.5
Nondairy substitutes and peanut butter (12/77 = 100)	152.2	154.9	156.3	157.5	157.3	158.7	160.2	150.4	153.1	154.2	155.3	155.3	156.6	158.1
Other fats, oils, and salad dressings (12/77 = 100)	145.4	155.2	154.2	153.3	152.7	152.1	153.1	145.9	155.7	154.7	153.8	153.2	152.8	153.6
Nonalcoholic beverages	439.1	441.5	444.0	446.8	445.5	443.4	449.4	441.1	442.8	445.2	448.2	446.7	444.7	450.9
Cola drinks, excluding diet cola	319.9	313.3	316.8	319.8	317.3	316.4	324.3	317.2	310.7	314.1	317.0	314.4	313.9	321.6
Carbonated drinks, including diet cola (12/77 = 100)	149.1	149.2	149.4	149.9	148.8	146.8	147.9	147.0	147.0	147.1	147.7	146.6	144.3	145.4
Roasted coffee	359.2	375.9	376.3	377.7	376.0	376.7	376.2	353.9	369.9	370.2	371.5	369.8	370.3	369.9
Freeze dried and instant coffee	353.7	369.6	369.2	371.9	372.7	373.8	373.7	353.1	368.9	368.2	371.2	371.9	372.9	372.9
Other noncarbonated drinks (12/77 = 100)	143.8	147.6	148.3	148.9	150.5	149.7	151.3	144.2	147.9	148.7	149.3	150.8	150.1	151.5
Other prepared foods	279.9	286.9	287.3	287.8	287.5	287.7	289.6	281.5	288.5	288.7	289.3	288.8	289.1	290.9
Canned and packaged soup (12/77 = 100)	142.6	146.4	146.4	146.5	148.1	148.7	149.9	144.4	148.4	148.2	148.3	149.8	150.4	151.6
Frozen prepared foods (12/77 = 100)	157.2	162.0	161.6	162.9	162.6	162.2	163.6	156.5	161.2	160.4	162.0	161.5	160.9	162.2
Snacks (12/77 = 100)	159.5	166.5	166.9	167.8	167.4	166.4	167.6	161.6	168.8	169.2	170.0	169.7	168.7	169.9
Seasonings, olives, pickles, and relish (12/77 = 100)	161.6	164.4	165.6	166.2	164.9	165.9	167.6	160.5	163.5	164.7	165.2	164.0	164.8	166.6
Other condiments (12/77 = 100)	156.6	159.9	159.5	159.3	158.8	159.9	160.9	158.4	161.7	161.4	161.2	160.7	161.8	162.8
Miscellaneous prepared foods (12/77 = 100)	154.3	155.5	155.9	155.9	155.6	155.4	156.3	154.5	155.6	155.9	156.0	155.6	155.4	156.3
Other canned and packaged prepared foods (12/77 = 100)	149.1	152.1	152.8	151.9	152.1	152.7	152.8	150.4	153.2	153.9	153.0	153.1	153.8	154.0
Food away from home	327.2	335.5	335.8	336.6	337.7	339.2	339.9	330.4	338.8	339.0	339.8	340.9	342.3	343.0
Lunch (12/77 = 100)	158.0	161.9	162.4	162.8	163.2	163.8	164.4	159.5	163.5	163.9	164.3	164.7	165.3	165.8
Dinner (12/77 = 100)	157.6	161.7	161.8	162.2	162.8	163.6	163.8	159.3	163.5	163.6	163.9	164.6	165.4	165.6
Other meals and snacks (12/77 = 100)	162.0	166.0	165.7	166.0	166.5	167.3	167.5	162.5	166.5	166.3	166.6	167.1	167.8	168.0
Alcoholic beverages	219.0	222.9	223.1	224.2	223.8	223.9	224.3	222.0	226.2	226.4	227.5	227.1	227.2	227.6
Alcoholic beverages at home (12/77 = 100)	140.8	142.9	142.8	143.7	143.2	143.2	143.5	142.8	145.1	145.1	145.8	145.4	145.4	145.7
Beer and ale	225.7	231.1	231.5	232.7	231.9	232.5	232.9	224.9	230.3	230.5	231.7	230.7	231.6	232.0
Whiskey	153.5	154.0	153.8	154.6	154.3	154.0	154.1	153.7	154.3	154.1	154.9	154.6	154.1	154.1
Wine	233.2	234.2	231.8	234.8	233.0	232.2	233.3	241.0	241.6	239.5	242.5	241.3	239.7	241.0
Other alcoholic beverages (12/77 = 100)	121.7	122.6	123.4	123.2	123.5	122.8	123.2	121.6	122.4	123.2	122.9	123.3	122.5	122.9
Alcoholic beverages away from home (12/77 = 100)	151.6	156.4	157.2	157.7	158.2	158.5	158.6	153.0	157.8	158.6	159.1	159.5	159.8	159.9
HOUSING	329.2	339.5	341.4	341.2	340.9	341.2	342.0	324.7	334.2	336.8	335.5	334.4	335.0	335.7
Shelter (CPI-U)	353.2	364.6	366.5	367.8	368.9	370.1	...	...	...	...	...	...	...	...
Renters' costs	105.7	109.6	110.2	110.7	110.9	111.3	...	...	...	...	...	...	...	...
Rent, residential	242.9	251.1	252.4	253.8	254.8	256.1	...	...	...	...	...	...	...	...
Other renters' costs	361.7	380.7	384.3	382.6	379.1	375.1	...	...	...	...	...	...	...	...
Homeowners' costs	377.4	108.1	108.7	109.1	109.4	109.8	...	...	...	...	...	...	...	...
Owners' equivalent rent	106.2	108.1	108.7	109.1	109.4	109.8	...	...	...	...	...	...	...	...
Household insurance	161.2	108.0	108.6	108.7	108.8	108.9	...	...	...	...	...	...	...	...
Maintenance and repairs	356.7	360.1	362.7	361.6	362.9	364.4	...	...	...	...	...	...	...	...
Maintenance and repair services	402.4	412.3	414.3	414.4	412.6	414.2	...	...	...	...	...	...	...	...
Maintenance and repair commodities	264.6	262.2	264.8	262.9	266.5	267.7	...	...	...	...	...	...	...	...
Shelter (CPI-W)	...	...	...	...	...	...	346.1	356.1	359.3	358.3	357.7	359.0	360.0	...
Rent, residential	...	...	...	...	...	...	242.3	250.3	251.7	253.1	254.0	255.3	256.3	...
Other renters' costs	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lodging while out of town	...	...	...	...	...	...	359.1	380.2	383.6	381.9	378.7	374.6	377.8	...
Tenants' insurance (12/77 = 100)	...	...	...	...	...	...	374.0	407.6	404.8	399.8	394.8	388.3	393.4	...
Homeownership	...	...	...	...	...	...	160.4	162.6	163.4	163.4	163.3	163.5	163.5	...
Home purchase	...	...	...	...	...	...	382.9	393.4	397.2	395.5	394.4	395.9	...	...
Financing, taxes, and insurance	...	...	...	...	...	...	298.0	299.8	302.5	302.4	301.0	301.4	...	...
Property insurance	...	...	...	...	...	...	494.8	519.0	524.9	520.5	519.5	522.4	...	...
Property taxes	...	...	...	...	...	...	438.3	441.8	442.4	443.2	446.6	447.6	...	...
Contracted mortgage interest costs	...	...	...	...	...	...	242.7	248.9	251.4	252.2	252.9	254.4	...	...
Mortgage interest rates	...	...	...	...	...	...	624.1	658.4	666.4	659.3	657.1	661.0	...	...
Maintenance and repairs	...	...	...	...	...	...	207.6	217.4	218.6	216.8	216.9	217.6	...	...
Maintenance and repair services	...	...	...	...	...	...	353.0	357.4	359.4	358.9	358.5	359.8	360.9	...
Maintenance and repair commodities	...	...	...	...	...	...	397.6	405.4	407.9	408.1	406.6	407.7	407.8	...
Paint and wallpaper, supplies, tools, and equipment (12/77 = 100)	...	...	...	...	...	...	259.0	256.9	258.1	256.2	257.8	259.3	260.8	...
Lumber, awnings, glass, and masonry (12/77 = 100)	...	...	...	...	...	...	150.8	147.4	147.8	147.0	149.1	151.0	152.5	...
Plumbing, electrical, heating, and cooling supplies (12/77 = 100)	...	...	...	...	...	...	125.2	123.3	123.5	123.1	122.4	122.5	128.4	...
Miscellaneous supplies and equipment (12/77 = 100)	...	...	...	...	...	...	139.9	142.8	142.7	141.5	142.0	142.0	141.0	...
...	...	...	...	...	...	...	143.1	144.2	146.7	144.0	145.5	145.2	144.8	...

20. Continued—Consumer Price Index—U.S. city average														
[1967 = 100 unless otherwise specified]														
General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers							
	1984						1985	1984						1985
	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Fuel and other utilities	376.0	395.5	397.0	392.4	387.5	386.0	387.2	377.3	396.9	398.4	393.6	388.7	387.1	388.3
Fuels	470.4	498.6	500.1	492.1	482.6	480.2	481.2	469.9	498.2	499.8	491.4	482.1	479.7	480.7
Fuel oil, coal, and bottled gas	642.8	625.5	622.1	626.8	626.9	625.9	621.6	645.1	628.1	624.5	629.4	629.3	628.4	623.9
Fuel oil	652.7	632.4	628.4	633.6	633.0	631.5	626.5	654.9	635.1	630.8	636.3	635.6	634.0	628.8
Other fuels (6/78 = 100)	193.6	193.3	193.1	193.7	194.9	195.6	195.6	194.4	193.9	193.6	194.3	195.4	196.2	196.1
Gas (piped) and electricity	427.3	463.9	466.4	456.0	444.7	442.2	444.1	426.2	463.0	465.5	454.7	443.7	441.0	443.2
Electricity	332.8	374.3	374.9	361.0	350.9	348.2	351.0	331.9	374.8	375.5	360.8	350.5	347.3	350.1
Utility (piped) gas	571.1	592.2	598.4	597.1	584.9	583.0	582.9	568.1	587.1	593.2	592.1	580.9	579.7	580.2
Other utilities and public services	224.6	231.3	232.7	232.9	234.4	234.1	235.3	225.7	232.4	233.7	233.9	235.3	235.0	236.3
Telephone services	183.3	188.4	189.8	190.0	191.1	190.4	190.8	183.9	189.1	190.4	190.5	191.6	190.9	191.3
Local charges (12/77 = 100)	154.3	163.3	165.3	165.5	166.9	166.5	167.1	154.8	164.0	166.0	166.1	167.4	167.0	167.6
Interstate toll calls (12/77 = 100)	121.4	116.1	116.1	116.3	116.2	116.2	116.2	121.9	116.5	116.6	116.6	116.6	116.5	116.5
Intrastate toll calls (12/77 = 100)	122.1	124.9	124.8	124.8	125.4	124.1	124.0	122.2	124.8	124.6	124.6	125.2	124.0	123.9
Water and sewerage maintenance	367.4	378.9	380.2	380.5	382.8	384.4	389.6	371.7	383.2	384.5	384.8	386.8	388.3	393.3
Household furnishings and operations	240.4	242.2	244.1	244.3	244.2	244.2	244.2	237.3	238.6	240.6	240.7	240.6	240.5	240.4
Housefurnishings	197.9	198.1	200.6	200.5	200.2	199.7	198.8	196.3	195.9	198.3	198.2	197.6	197.3	196.3
Textile housefurnishings	227.6	238.6	245.6	242.7	240.5	239.9	237.1	230.9	242.0	249.9	247.1	244.6	244.1	240.5
Household linens (12/77 = 100)	133.0	143.1	146.8	147.1	145.2	141.6	138.9	134.1	144.1	148.1	148.8	146.6	143.0	140.2
Curtains, drapes, slipcovers, and sewing materials (12/77 = 100)	151.3	154.7	159.8	155.8	154.9	158.0	157.3	155.5	158.8	164.8	160.2	159.4	162.9	161.3
Furniture and bedding	219.5	220.8	225.5	228.2	227.4	225.6	224.1	216.7	217.9	222.2	224.5	223.4	222.5	220.4
Bedroom furniture (12/77 = 100)	154.4	151.7	156.6	160.2	160.7	160.1	154.1	151.1	148.4	153.5	155.9	156.3	156.4	150.5
Sofas (12/77 = 100)	119.4	120.6	121.7	121.6	122.2	122.3	121.6	119.2	120.7	121.6	121.8	122.0	121.9	121.2
Living room chairs and tables (12/77 = 100)	124.8	127.1	126.8	128.1	127.5	125.8	125.7	125.9	128.1	127.8	129.0	127.9	126.4	126.2
Other furniture (12/77 = 100)	139.2	142.2	146.9	148.1	145.9	143.9	147.2	135.4	138.4	142.1	143.5	141.4	140.4	142.9
Appliances including TV and sound equipment	151.0	147.2	147.7	147.1	146.0	145.2	145.2	151.9	148.5	149.4	148.8	148.0	147.3	147.1
Television and sound equipment	104.9	101.0	100.8	100.4	99.9	99.2	99.1	104.0	100.0	99.8	99.9	98.9	98.2	98.1
Television	98.8	94.1	93.5	92.5	92.1	92.5	92.0	97.5	92.7	92.2	91.1	90.7	91.3	90.7
Sound equipment (12/77 = 100)	111.3	108.1	108.3	108.4	107.7	106.1	106.4	110.5	107.1	107.2	107.4	106.6	105.0	105.2
Household appliances	189.5	187.5	189.4	188.4	186.7	185.9	186.0	190.7	188.9	190.9	190.2	189.2	188.6	188.5
Refrigerators and home freezers	196.5	194.6	196.8	197.6	197.3	197.5	197.1	202.1	200.6	202.6	203.5	203.2	203.8	203.5
Laundry equipment	145.7	145.4	146.9	147.7	148.1	147.6	146.8	146.6	146.3	147.6	148.0	149.1	148.9	147.8
Other household appliances (12/77 = 100)	125.2	123.6	124.8	123.5	121.8	121.0	121.3	123.6	121.7	123.2	121.7	119.9	118.9	119.1
Stoves, dishwashers, vacuums, and sewing machines (12/77 = 100)	123.3	123.6	127.5	124.4	122.4	121.8	121.5	122.3	121.6	125.5	122.6	120.6	120.2	119.5
Office machines, small electric appliances, and air conditioners (12/77 = 100)	127.2	123.9	122.8	122.9	121.5	120.5	121.4	125.2	121.8	121.5	122.3	119.0	117.4	118.4
Other household equipment (12/77 = 100)	142.1	141.7	141.9	141.2	142.8	143.9	143.6	140.0	138.9	139.1	138.5	139.8	140.7	141.0
Floor and window coverings, infants', laundry, cleaning, and outdoor equipment (12/77 = 100)	145.5	147.7	146.7	147.9	148.4	152.0	150.9	137.5	137.3	136.2	138.2	137.8	141.9	140.5
Clocks, lamps, and decor items (12/77 = 100)	130.9	134.3	137.1	135.6	137.4	137.2	135.2	126.6	129.8	132.8	130.8	132.6	132.5	131.0
Tableware, serving pieces, and nonelectric kitchenware (12/77 = 100)	149.6	147.0	145.5	143.5	147.6	145.5	146.0	145.5	143.1	141.5	139.8	143.4	140.9	142.8
Lawn equipment, power tools, and other hardware (12/77 = 100)	136.9	134.4	135.5	135.5	134.8	139.1	140.0	142.2	139.8	141.4	141.1	140.2	144.3	144.6
Housekeeping supplies	299.4	304.2	304.9	305.4	306.2	307.5	309.9	296.3	301.1	302.0	302.5	303.5	304.6	306.9
Soaps and detergents	296.3	298.8	299.1	299.9	302.3	305.7	308.0	292.2	294.2	294.8	295.4	297.6	301.1	303.3
Other laundry and cleaning products (12/77 = 100)	153.6	154.9	155.8	156.6	157.1	157.1	158.4	152.3	153.4	154.3	155.1	155.7	155.7	156.9
Cleansing and toilet tissue, paper towels and napkins (12/77 = 100)	149.2	153.6	155.2	156.5	156.1	155.8	156.6	149.4	153.4	155.2	156.4	155.8	155.6	156.4
Stationery, stationery supplies, and gift wrap (12/77 = 100)	141.7	144.2	144.2	144.8	145.5	145.2	145.4	144.8	147.7	147.9	148.4	149.1	148.8	149.1
Miscellaneous household products (12/77 = 100)	157.4	162.0	162.2	161.7	162.1	161.5	163.5	152.0	156.6	156.7	156.2	156.7	156.0	158.0
Lawn and garden supplies (12/77 = 100)	145.0	145.7	144.8	143.5	143.4	146.3	147.9	138.0	139.1	138.3	137.1	137.5	140.3	141.6
Housekeeping services	324.1	328.2	329.4	330.2	330.3	330.6	331.3	324.4	328.8	330.0	330.8	330.9	331.1	331.8
Postage	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5
Moving, storage, freight, household laundry, and drycleaning services (12/77 = 100)	171.0	174.6	175.9	176.3	176.0	176.6	177.9	171.1	175.1	176.4	176.8	176.4	176.9	178.2
Appliance and furniture repair (12/77 = 100)	147.5	152.2	153.4	154.7	155.4	155.3	155.0	145.6	150.0	151.0	152.2	152.9	152.8	152.6
APPAREL AND UPKEEP	196.4	200.1	204.2	205.7	205.2	203.2	199.8	195.3	199.0	203.3	204.8	204.2	202.1	198.5
Apparel commodities	183.6	186.6	191.2	192.6	191.9	189.6	185.7	183.1	186.1	190.9	192.3	191.6	189.2	185.1
Apparel commodities less footwear	179.8	183.1	187.8	189.2	188.3	185.9	181.9	178.9	182.2	187.3	188.7	187.8	185.3	180.9
Men's and boys'	189.7	192.6	195.6	197.6	197.8	196.0	193.2	190.2	193.0	196.2	198.1	198.6	196.8	193.6
Men's (12/77 = 100)	119.3	121.2	123.2	124.3	124.5	123.2	121.7	119.8	121.7	123.9	125.0	125.4	124.1	122.5
Suits, sport coats, and jackets (12/77 = 100)	110.8	113.5	115.6	116.4	115.7	113.3	112.3	104.0	106.8	108.9	109.7	109.2	106.8	105.6
Coats and jackets	101.7	100.9	105.7	107.9	106.6	105.6	101.5	104.3	104.0	109.0	111.1	109.9	108.8	104.4
Furnishings and special clothing (12/77 = 100)	145.9	147.6	150.9	151.8	152.0	151.7	149.1	141.9	143.3	146.6	147.7	147.8	147.6	145.2
Shirts (12/77 = 100)	125.7	127.3	128.2	129.5	129.4	128.3	127.4	128.9	130.0	131.0	132.1	132.2	130.7	129.9
Dungarees, jeans, and trousers (12/77 = 100)	111.4	113.7	114.5	115.5	117.6	116.6	116.0	117.1	120.0	120.9	122.0	124.3	123.1	122.4
Boys' (12/77 = 100)	124.0	125.5	126.9	128.6	128.5	128.1	125.0	122.7	124.3	125.7	127.2	127.1	126.5	123.2
Coats, jackets, sweaters, and shirts (12/77 = 100)	118.8	125.5	127.0	126.8	125.9	123.9	117.1	121.1	128.0	129.8	129.2	128.3	125.6	118.0
Furnishings (12/77 = 100)	136.2	134.7	135.8	136.8	138.9	139.2	138.1	132.1	130.5	131.8	132.7	134.4	134.7	133.9
Suits, trousers, sport coats, and jackets (12/77 = 100)	123.3	121.8	123.3	126.7	126.4	126.9	126.0	120.6	119.1	120.4	123.8	123.7	124.2	123.4

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

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers							
	1984						1985							
	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Women's and girls'	158.8	163.1	170.5	172.2	170.4	167.2	161.3	160.0	164.1	172.1	173.8	171.9	168.6	162.1
Women's (12/77 = 100)	105.4	108.6	114.4	115.0	113.4	111.3	107.3	106.8	109.5	115.8	116.4	114.9	112.6	108.3
Coats and jackets	162.8	167.7	181.1	181.7	181.9	175.0	161.7	166.9	176.1	185.2	186.3	186.0	178.2	164.6
Dresses	164.1	172.0	178.3	179.9	175.8	174.3	168.1	150.5	159.9	165.5	165.8	162.4	160.7	154.8
Separates and sportswear (12/77 = 100)	94.5	92.9	102.5	104.3	103.6	100.8	96.1	94.7	93.1	102.9	104.7	104.1	101.5	96.5
Underwear, nightwear, and hosiery (12/77 = 100)	134.8	138.0	139.4	138.5	138.5	138.8	137.9	134.4	137.5	138.9	138.0	138.1	138.3	137.3
Suits (12/77 = 100)	75.2	85.1	93.5	94.1	87.6	81.6	76.8	93.9	96.5	112.1	114.0	106.6	99.9	93.0
Girls' (12/77 = 100)	106.6	107.7	108.6	112.3	112.7	110.9	106.9	104.8	107.5	108.6	112.0	111.8	109.9	105.9
Coats, jackets, dresses, and suits (12/77 = 100)	98.1	101.0	98.6	106.2	106.8	104.0	96.2	95.1	100.4	98.3	105.0	105.8	101.8	94.8
Separates and sportswear (12/77 = 100)	102.6	103.1	106.7	108.2	107.7	106.2	104.1	101.4	103.5	107.5	108.9	106.9	106.3	103.1
Underwear, nightwear, hosiery, and accessories (12/77 = 100)	127.8	127.4	128.3	130.0	131.6	130.9	129.8	126.5	126.0	127.0	128.7	130.2	129.6	128.6
Infants' and toddlers'	283.6	288.7	291.3	291.6	290.2	291.9	290.3	292.4	298.9	303.2	302.5	302.1	302.9	299.7
Other apparel commodities	215.5	216.3	216.5	216.0	215.4	213.3	212.2	203.7	204.9	205.0	204.0	203.1	201.0	199.9
Sewing materials and notions (12/77 = 100)	119.8	123.8	122.8	126.6	120.1	121.9	120.9	117.7	122.3	121.5	119.0	118.4	120.5	119.1
Jewelry and luggage (12/77 = 100)	147.6	146.7	147.3	147.7	147.4	144.7	144.1	138.1	137.1	137.6	137.8	137.2	134.3	133.9
Footwear	206.7	207.7	211.1	212.9	212.9	211.4	208.6	207.3	208.5	211.6	213.2	213.1	211.7	209.5
Men's (12/77 = 100)	134.4	137.4	138.0	138.3	138.4	137.1	136.5	136.4	139.4	139.8	140.1	140.2	138.9	138.5
Boys' and girls' (12/77 = 100)	132.6	131.9	133.5	136.0	136.3	135.3	135.3	135.0	134.8	136.3	138.7	139.0	138.3	138.4
Women's (12/77 = 100)	123.7	123.4	127.0	128.0	127.6	127.0	123.2	120.3	119.9	123.3	124.1	123.6	122.9	119.5
Apparel services	298.3	307.5	307.6	309.5	310.8	311.5	312.5	296.1	305.5	305.6	307.4	308.8	309.3	310.2
Laundry and drycleaning other than coin operated (12/77 = 100)	179.0	184.1	184.3	185.5	186.3	186.9	187.2	177.3	182.3	182.6	183.8	184.4	184.9	185.3
Other apparel services (12/77 = 100)	154.2	159.9	159.7	160.4	161.1	161.2	162.3	155.4	161.3	161.0	161.7	162.5	162.6	163.5
TRANSPORTATION	306.0	312.9	313.7	315.5	316.1	315.8	314.7	307.9	315.2	316.0	317.8	318.3	317.9	316.7
Private	300.9	307.5	308.4	310.2	310.8	310.4	309.1	304.1	311.1	312.1	313.9	314.4	313.9	312.6
New cars	207.6	208.1	208.2	209.6	211.4	212.0	213.1	206.7	207.6	207.6	209.0	210.8	211.3	212.0
Used cars	357.3	383.8	384.2	384.6	383.6	382.7	382.8	357.3	383.8	384.2	384.6	383.6	382.6	382.8
Gasoline	370.3	365.9	368.8	370.3	369.2	365.7	356.8	372.1	367.4	369.4	371.7	370.5	367.1	358.2
Automobile maintenance and repair	336.1	342.7	344.2	345.3	345.8	346.2	346.9	336.6	343.4	344.9	346.2	346.7	347.1	348.2
Body work (12/77 = 100)	170.2	173.5	174.7	175.6	175.8	176.1	176.9	168.9	172.1	173.1	174.1	174.3	174.7	175.5
Automobile drive train, brake, and miscellaneous mechanical repair (12/77 = 100)	163.8	167.2	168.1	169.2	169.6	169.7	170.0	167.6	171.3	172.2	173.4	173.8	174.0	174.2
Maintenance and servicing (12/77 = 100)	152.9	155.9	156.3	156.5	156.8	157.0	157.1	152.0	155.0	155.5	155.8	156.1	156.3	156.6
Power plant repair (12/77 = 100)	160.9	163.9	164.7	164.9	164.9	165.1	165.7	160.4	163.5	164.3	164.6	164.6	164.8	165.4
Other private transportation	267.6	274.9	275.9	278.7	280.7	282.3	283.9	268.4	275.8	277.0	279.8	281.9	283.3	284.7
Other private transportation commodities	203.3	200.8	201.2	199.0	201.0	202.2	202.0	205.6	203.2	203.4	201.0	203.5	204.7	204.2
Motor oil, coolant, and other products (12/77 = 100)	153.3	153.6	155.1	153.2	155.3	156.2	155.7	152.2	153.2	154.5	152.6	154.4	155.2	154.5
Automobile parts and equipment (12/77 = 100)	128.3	126.4	126.5	125.1	126.4	127.1	127.0	130.0	128.1	128.0	128.5	128.1	128.9	128.6
Tires	175.1	170.4	170.9	168.3	170.2	171.4	171.4	178.5	174.0	174.2	171.5	174.0	175.1	174.9
Other parts and equipment (12/77 = 100)	132.1	133.9	133.3	133.2	134.1	134.5	134.2	131.9	133.3	132.7	132.5	133.5	134.0	133.6
Other private transportation services	287.2	297.2	298.4	302.5	304.6	306.2	308.3	287.6	297.5	299.1	303.3	305.3	306.7	308.6
Automobile insurance	318.8	325.2	326.9	332.3	335.9	340.0	345.1	318.0	324.2	325.9	331.3	334.9	338.9	343.9
Automobile finance charges (12/77 = 100)	160.1	168.7	169.9	172.0	172.2	170.9	169.6	159.6	168.2	169.5	171.7	171.9	170.5	169.2
Automobile rental, registration, and other fees (12/77 = 100)	148.9	156.8	156.4	157.6	158.0	158.4	158.5	149.8	157.4	157.7	158.9	159.2	159.6	159.8
State registration	195.1	209.7	212.2	213.5	213.5	213.6	213.6	195.0	208.8	211.7	212.9	212.9	212.9	213.1
Drivers' licenses (12/77 = 100)	158.0	161.3	163.7	163.7	163.7	163.7	164.6	158.3	161.5	164.1	164.1	164.1	164.1	164.9
Vehicle inspection (12/77 = 100)	139.2	139.9	139.9	140.0	142.2	142.2	142.2	139.9	140.5	140.5	140.5	142.3	142.3	142.3
Other vehicle-related fees (12/77 = 100)	163.5	170.0	166.4	168.3	169.1	170.1	170.3	170.4	176.4	173.8	176.0	176.7	177.8	178.0
Public	378.2	390.8	389.5	391.1	391.8	392.8	394.5	371.1	381.6	380.4	381.6	382.4	382.8	384.2
Airline fare	430.3	454.1	450.1	453.5	455.4	456.2	458.9	426.4	450.5	445.4	448.8	450.6	451.1	454.1
Intercity bus fare	425.3	441.1	442.2	445.3	447.0	455.4	459.6	423.9	441.3	442.6	445.4	447.8	455.4	459.3
Intracity mass transit	342.8	345.7	346.5	346.6	345.9	346.7	347.0	342.8	345.8	346.5	346.6	345.9	346.5	346.7
Taxi fare	308.2	310.4	310.8	311.1	311.3	311.3	313.4	317.2	319.7	319.8	320.0	320.1	320.3	322.4
Intercity train fare	373.7	381.9	381.9	382.0	383.5	388.2	390.2	374.0	382.2	382.2	382.2	383.8	388.7	390.7
MEDICAL CARE	369.5	381.9	383.1	385.5	387.5	388.5	391.1	367.5	380.1	381.2	383.7	385.6	386.7	389.3
Medical care commodities	231.2	241.6	242.4	244.1	245.6	247.3	248.2	231.5	241.5	242.3	244.1	245.6	247.2	248.0
Prescription drugs	223.7	236.6	238.0	240.2	242.2	244.4	245.4	225.0	237.9	239.4	241.7	243.8	245.9	247.0
Anti-infective drugs (12/77 = 100)	161.9	167.7	168.4	170.5	171.0	171.8	171.5	164.2	170.0	171.0	173.3	173.8	174.6	174.3
Tranquilizers and sedatives (12/77 = 100)	190.1	207.6	208.7	212.7	216.2	218.8	220.1	190.0	207.5	208.6	212.7	216.3	218.9	220.2
Circulatories and diuretics (12/77 = 100)	161.5	171.3	171.7	172.8	174.4	174.9	176.0	161.1	170.4	170.9	172.1	173.7	174.2	175.3
Hormones, diabetic drugs, biologicals, and prescription medical supplies (12/77 = 100)	205.8	218.1	220.7	222.3	223.8	228.3	228.9	207.9	220.4	223.2	224.7	226.1	230.7	231.2
Pain and symptom control drugs (12/77 = 100)	182.1	191.0	192.0	192.7	194.4	198.2	196.6	184.2	192.8	193.8	194.7	196.3	197.2	198.7
Supplements, cough and cold preparations, and respiratory agents (12/77 = 100)	167.1	175.5	176.1	176.9	178.3	179.1	180.6	167.4	176.2	176.9	177.7	179.0	179.7	181.2
Nonprescription drugs and medical supplies (12/77 = 100)	159.2	164.4	164.5	165.4	166.0	166.8	167.3	160.1	165.2	165.3	166.3	166.9	167.8	168.2
Eyeglasses (12/77 = 100)	137.9	140.5	141.4	141.9	142.2	141.9	142.5	136.8	139.3	140.4	140.8	141.2	140.9	141.4
Internal and respiratory over-the-counter drugs	259.4	269.4	269.5	271.3	271.5	273.7	274.7	260.6	270.4	270.5	272.4	272.7	275.0	275.8
Nonprescription medical equipment and supplies (12/77 = 100)	153.4	157.9	157.1	157.7	159.8	160.3	160.2	155.0	159.4	158.6	159.1	161.5	161.9	161.6

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

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers							
	1984						1985	1984						1985
	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Medical care services	400.2	412.7	413.9	416.5	418.5	419.3	422.4	397.5	410.4	411.5	414.1	416.1	417.0	420.1
Professional services	335.9	348.2	349.8	351.8	353.1	354.0	356.8	336.3	348.6	350.1	352.1	353.4	354.4	357.2
Physicians' services	366.0	379.5	380.8	382.2	383.0	383.8	386.1	369.9	383.6	384.8	386.2	387.0	387.9	390.2
Dental services	316.0	329.1	331.9	334.8	336.6	337.7	339.7	313.9	326.8	329.5	332.4	334.3	335.3	337.2
Other professional services (12/77 = 100)	157.4	160.3	160.0	160.8	161.5	166.1	165.9	153.8	156.6	156.2	157.1	157.8	158.4	162.3
Other medical care services	477.9	490.7	491.5	494.7	497.7	498.2	501.7	474.1	487.7	488.4	491.7	494.6	495.3	498.8
Hospital and other medical services (12/77 = 100)	204.3	212.5	213.0	215.0	217.2	217.6	219.4	202.1	210.4	210.9	212.9	214.7	215.1	216.9
Hospital room	650.2	678.1	679.5	687.1	691.3	690.8	697.7	641.9	669.5	670.8	677.3	680.8	680.9	687.0
Other hospital and medical care services (12/77 = 100)	200.9	208.5	209.1	210.7	213.6	214.4	216.0	199.1	206.8	207.4	209.3	211.7	212.5	214.2
ENTERTAINMENT	249.9	256.4	257.3	258.3	259.0	260.1	261.0	246.2	252.5	253.4	254.2	254.8	255.8	256.6
Entertainment commodities	248.9	254.5	254.8	255.9	256.0	256.8	257.1	243.6	248.8	249.2	249.6	250.2	250.9	251.1
Reading materials (12/77 = 100)	160.7	166.0	166.3	167.7	167.8	168.8	169.6	160.3	165.4	165.6	167.0	167.2	168.2	168.8
Newspapers	308.6	315.2	315.4	317.5	319.2	320.1	320.7	308.6	315.3	315.6	317.7	319.4	320.4	321.0
Magazines, periodicals, and books (12/77 = 100)	165.0	172.5	173.0	174.7	174.1	175.6	176.9	164.9	172.4	172.8	174.6	173.7	175.4	176.6
Sporting goods and equipment (12/77 = 100)	136.1	138.3	138.7	138.8	140.0	139.6	140.2	130.1	131.9	132.3	132.2	133.6	133.0	133.9
Sport vehicles (12/77 = 100)	139.8	143.9	144.4	144.5	146.0	145.9	146.9	130.5	133.7	134.0	133.9	135.8	135.4	136.8
Indoor and warm weather sport equipment (12/77 = 100)	117.8	117.9	117.3	117.2	118.2	118.0	117.3	115.8	115.9	115.5	115.3	116.4	116.1	115.5
Bicycles	200.1	198.3	198.9	198.8	198.1	198.4	198.4	200.9	199.4	200.3	200.0	199.1	199.5	199.8
Other sporting goods and equipment (12/77 = 100)	135.2	134.8	135.5	135.6	137.3	134.4	135.1	134.6	134.0	135.0	135.1	136.5	134.0	134.3
Toys, hobbies, and other entertainment (12/77 = 100)	139.3	141.9	142.0	141.9	141.8	142.5	142.1	138.2	141.0	141.1	263.4	140.9	141.5	141.0
Toys, hobbies, and music equipment (12/77 = 100)	137.0	138.6	138.3	138.2	138.1	139.1	137.7	133.4	135.2	135.1	165.0	134.8	135.6	134.1
Photographic supplies and equipment (12/77 = 100)	130.1	135.0	135.2	135.1	134.9	135.1	134.9	131.2	136.3	136.4	156.1	136.2	136.4	136.1
Pet supplies and expenses (12/77 = 100)	150.1	153.1	153.7	153.5	153.4	154.0	155.2	151.1	154.2	153.6	154.7	154.5	155.3	156.3
Entertainment services	251.8	259.7	261.3	262.8	263.8	265.5	267.0	252.1	260.1	262.0	263.4	264.0	265.6	267.4
Fees for participant sports (12/77 = 100)	157.8	160.1	162.3	163.6	165.1	165.9	166.5	158.8	161.0	163.2	165.0	166.2	166.8	167.6
Admissions (12/77 = 100)	147.3	157.3	156.9	157.2	158.8	158.2	160.3	146.2	156.1	156.2	156.1	155.6	156.9	159.1
Other entertainment services (12/77 = 100)	132.9	136.1	136.2	137.0	136.7	138.0	137.9	133.9	136.8	137.1	137.6	137.0	138.5	138.4
OTHER GOODS AND SERVICES	300.5	307.2	314.6	315.8	316.5	316.7	319.1	298.1	305.3	310.9	311.9	312.6	312.8	315.6
Tobacco products	304.3	313.9	314.1	314.6	314.7	314.6	321.0	304.0	313.5	313.7	314.2	314.3	314.2	320.8
Cigarettes	312.8	322.6	322.8	323.3	323.4	323.2	330.3	311.8	321.5	321.7	322.2	322.2	322.1	329.2
Other tobacco products and smoking accessories (12/77 = 100)	154.9	159.7	159.9	160.0	160.6	161.0	161.6	154.9	159.8	159.9	160.1	160.6	161.0	161.5
Personal care	266.9	272.6	273.6	274.7	276.3	276.6	277.2	265.0	270.5	271.6	272.4	274.0	274.4	274.9
Toilet goods and personal care appliances	266.8	270.6	271.6	272.0	273.4	273.5	274.0	267.5	271.4	272.5	272.6	274.0	274.2	274.6
Products for the hair, hairpieces, and wigs (12/77 = 100)	154.3	156.2	156.1	155.9	156.9	156.5	156.4	153.2	155.3	155.3	155.0	156.2	155.8	155.6
Dental and shaving products (12/77 = 100)	167.8	167.6	167.9	168.2	170.9	172.1	173.5	166.0	165.6	165.8	166.0	168.9	170.0	171.4
Cosmetics, bath and nail preparations, manicure and eye makeup implements (12/77 = 100)	150.0	153.2	154.5	154.9	154.9	155.3	155.3	151.1	154.5	155.9	155.9	155.8	156.3	156.3
Other toilet goods and small personal care appliances (12/77 = 100)	151.0	154.2	155.0	155.4	155.5	154.7	154.8	154.8	158.0	158.7	159.0	159.1	158.3	158.5
Personal care services	268.1	275.4	276.4	278.0	279.9	280.4	281.1	263.0	270.0	271.1	272.6	274.4	275.0	275.7
Beauty parlor services for women	271.2	278.4	279.2	281.2	283.1	283.8	283.9	264.5	271.2	272.0	274.0	275.8	276.6	276.7
Haircuts and other barber shop services for men (12/77 = 100)	148.4	152.8	153.6	154.0	155.0	155.1	156.2	147.2	151.6	152.4	152.8	153.8	153.8	154.9
Personal and educational expenses	353.5	359.3	381.9	384.0	384.1	384.3	385.6	355.4	362.1	384.1	386.0	386.2	386.4	387.9
Schoolbooks and supplies	314.4	319.2	331.5	333.7	333.8	334.0	340.7	318.8	323.8	336.4	338.6	338.7	338.9	345.5
Personal and educational services	362.7	368.7	393.1	295.2	395.4	395.5	395.9	364.5	371.6	395.6	397.4	397.6	397.8	398.3
Tuition and other school fees	183.0	185.0	200.7	201.3	201.3	201.3	201.2	183.4	185.8	201.4	202.3	202.3	202.3	202.3
College tuition (12/77 = 100)	182.9	185.3	200.1	201.4	201.4	201.3	201.3	182.7	186.1	201.1	202.3	202.3	202.2	202.2
Elementary and high school tuition (12/77 = 100)	183.9	184.3	201.1	201.3	201.3	201.4	201.4	184.9	185.4	202.6	202.8	202.8	202.9	202.9
Personal expenses (12/77 = 100)	198.6	206.4	207.3	208.5	208.9	209.5	210.7	199.1	207.0	207.9	208.8	209.2	209.7	211.0
Special indexes:														
Gasoline, motor oil, coolant, and other products	366.3	362.4	364.3	366.6	365.6	362.3	353.8	367.9	363.8	365.7	367.9	366.8	363.6	355.0
Insurance and finance									418.4	437.3	441.6	440.3	440.4	442.8
Utilities and public transportation	344.6	365.6	367.0	362.8	358.5	357.5	359.1	343.6	364.6	366.1	361.5	357.1	355.9	357.6
Housekeeping and home maintenance services	366.4	371.6	373.0	373.7	373.7	374.1	374.9	373.9	380.3	382.3	382.7	381.9	382.7	383.3

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

[December 1977 = 100]

Category and group	Size class A (1.25 million or more)			Size class B (385,000-1,250 million)			Size class C (75,000-385,000)			Size class D (75,000 or less)		
	1984			1984			1984			1984		
	Aug.	Oct.	Dec.	Aug.	Oct.	Dec.	Aug.	Oct.	Dec.	Aug.	Oct.	Dec.
Northeast												
EXPENDITURE CATEGORY												
All items	162.6	163.5	164.3	168.9	170.0	169.9	173.7	175.3	174.4	167.2	169.8	169.7
Food and beverages	154.2	153.7	154.1	152.0	152.6	152.3	157.5	156.1	155.8	152.7	152.0	151.4
Housing	167.4	168.2	169.7	180.6	180.9	181.2	187.7	190.1	187.5	172.3	177.4	176.9
Apparel and upkeep	125.7	128.2	125.5	125.6	129.0	126.7	131.1	139.0	138.2	138.5	141.4	138.7
Transportation	172.0	172.0	173.0	175.6	176.9	176.8	176.2	176.3	176.3	175.7	176.2	176.9
Medical care	176.8	178.3	181.4	181.0	182.7	183.5	178.9	182.7	184.1	184.9	188.7	192.8
Entertainment	149.7	150.9	151.3	148.2	149.9	149.8	153.9	155.3	155.4	153.6	154.8	156.5
Other goods and services	172.3	178.1	178.9	172.0	177.4	177.4	176.6	180.7	181.5	175.6	181.1	180.9
COMMODITY AND SERVICE GROUP												
Commodities	154.9	155.3	155.1	159.8	161.0	161.0	160.2	160.9	160.6	158.7	159.1	159.0
Commodities less food and beverages	154.6	156.1	155.4	163.1	164.7	164.9	161.0	162.8	162.7	161.0	162.2	162.3
Services	172.0	173.4	175.3	182.3	183.3	183.1	195.0	198.0	196.1	179.1	185.2	185.3
North Central Region												
EXPENDITURE CATEGORY												
All items	172.3	173.4	173.2	168.1	168.9	169.2	166.6	167.2	166.4	166.6	167.5	167.6
Food and beverages	150.2	150.0	150.4	149.4	149.2	149.6	150.7	150.2	149.9	158.4	157.8	158.5
Housing	192.0	192.2	191.8	177.3	178.1	178.3	175.3	175.8	174.0	170.0	171.3	171.0
Apparel and upkeep	120.2	122.9	120.8	131.7	134.4	132.5	130.2	132.0	129.3	124.9	128.7	128.0
Transportation	171.9	174.0	173.7	173.4	173.9	174.3	175.1	176.7	176.7	174.9	175.1	174.9
Medical care	180.0	181.5	182.1	182.0	183.0	184.6	175.2	175.6	176.3	185.1	185.6	186.2
Entertainment	146.4	148.3	148.4	139.6	140.3	139.9	153.9	153.4	154.2	142.5	143.3	146.4
Other goods and services	168.7	172.9	173.0	180.6	184.7	186.1	167.1	169.4	169.6	178.4	181.4	181.8
COMMODITY AND SERVICE GROUP												
Commodities	158.6	159.4	159.0	157.2	157.7	157.8	155.8	156.4	155.9	156.3	156.4	156.7
Commodities less food and beverages	162.4	164.0	163.1	160.2	161.1	161.0	157.9	159.1	158.5	155.3	155.7	155.8
Services	192.3	193.7	193.7	185.3	186.7	187.2	183.6	184.3	183.1	182.8	184.7	184.8
South												
EXPENDITURE CATEGORY												
All items	168.7	170.2	170.3	170.6	171.9	172.0	168.6	169.5	170.2	168.7	170.1	170.4
Food and beverages	157.3	157.2	157.8	157.2	157.5	157.4	154.0	153.9	153.8	157.8	158.3	158.1
Housing	175.4	176.9	176.1	176.5	177.0	177.2	174.1	174.2	175.6	177.0	177.1	178.2
Apparel and upkeep	131.5	137.6	137.0	127.8	132.8	132.0	127.4	131.5	130.7	110.8	117.4	117.8
Transportation	175.6	176.7	176.8	179.0	180.2	180.7	177.5	179.0	179.0	173.8	174.8	174.1
Medical care	180.6	182.2	184.2	183.5	184.9	185.3	188.6	191.0	193.1	193.4	197.7	199.0
Entertainment	147.7	148.7	151.8	161.9	162.7	162.6	153.4	154.1	156.2	151.7	152.8	152.7
Other goods and services	172.5	176.7	177.2	174.8	179.9	180.6	174.5	177.6	178.7	171.3	174.5	173.9
COMMODITY AND SERVICE GROUP												
Commodities	159.4	160.7	160.8	161.3	162.6	162.3	159.2	160.0	160.0	158.5	159.8	159.3
Commodities less food and beverages	160.0	162.2	162.0	162.7	164.5	164.1	161.6	162.9	162.8	158.4	160.2	159.5
Services	181.3	183.1	183.1	184.2	185.5	186.2	182.9	184.2	185.9	184.1	185.6	186.9
West												
EXPENDITURE CATEGORY												
All items	170.3	172.2	172.1	169.5	170.6	170.9	161.4	162.7	162.9	167.8	170.1	170.1
Food and beverages	156.5	156.8	157.6	159.8	159.7	161.5	155.4	155.8	155.2	163.0	164.2	164.3
Housing	179.3	180.5	179.8	174.7	175.0	174.1	159.9	161.1	160.9	167.8	172.2	171.2
Apparel and upkeep	126.5	129.3	126.7	130.5	131.2	131.8	122.5	127.7	125.6	145.1	147.1	146.1
Transportation	177.6	181.0	181.2	178.6	181.2	181.8	174.5	176.3	177.0	172.6	172.7	173.4
Medical care	185.7	188.0	187.9	182.7	183.6	184.5	189.5	190.5	193.5	188.2	188.7	189.9
Entertainment	144.8	145.7	146.9	148.8	152.6	154.6	157.9	154.0	158.0	163.2	165.9	169.3
Other goods and services	173.7	182.7	183.0	174.7	179.3	179.8	170.1	174.4	175.0	176.0	179.3	180.3
COMMODITY AND SERVICE GROUP												
Commodities	155.8	158.0	157.8	159.5	160.3	161.4	157.1	158.2	157.9	157.6	158.7	159.0
Commodities less food and beverages	155.3	158.7	157.9	159.0	160.4	161.0	157.2	158.6	158.6	154.7	155.8	156.3
Services	188.4	190.1	190.0	182.7	184.2	183.7	166.5	168.0	168.7	182.8	186.7	186.3

22. Consumer Price Index—U.S. city average, and selected areas

[1967 = 100 unless otherwise specified]

Area ¹	All Urban Consumers						Urban Wage Earners and Clerical Workers							
	1984						1985	1984						1985
	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
U.S. city average ²	305.2	313.0	314.5	315.3	315.3	315.5	316.1	302.7	310.3	312.1	312.2	311.9	312.2	312.6
Anchorage, Alaska (10/67 = 100)	271.5	...	277.9	...	303.2	...	278.3	264.0	...	270.9	...	270.9	...	271.7
Atlanta, Ga.	...	315.9	...	317.8	...	318.2	...	...	315.0	...	318.2	...	316.0	...
Baltimore, Md.	307.6	...	316.4	...	315.3	...	315.2	303.8	...	316.4	...	315.1	...	315.1
Boston, Mass.	297.3	...	307.4	...	307.8	...	309.4	295.1	...	305.3	...	306.5	...	307.8
Buffalo, N.Y.	...	294.5	...	296.1	...	303.4	...	...	288.6	...	292.0	...	289.8	...
Chicago, Ill.—Northwestern Ind.	305.4	313.4	315.1	314.1	313.9	314.0	315.1	298.3	301.2	304.3	301.8	302.6	301.7	302.5
Cincinnati, Ohio—Ky.—Ind.	318.4	...	325.2	...	325.4	...	325.1	313.4	...	320.9	...	319.3	...	318.9
Cleveland, Ohio	...	337.3	...	340.1	...	339.7	...	...	328.1	...	324.4	...	318.6	...
Dallas-Ft. Worth, Tex.	...	329.8	...	333.7	...	330.7	...	...	324.8	...	328.2	...	325.0	...
Denver-Boulder, Colo.	343.5	...	351.3	...	349.4	...	350.6	336.2	...	346.1	...	345.1	...	346.2
Detroit, Mich.	301.3	308.0	311.6	311.9	308.7	309.1	310.9	307.9	298.9	301.3	302.9	299.8	300.0	301.2
Honolulu, Hawaii	...	286.0	...	287.4	...	289.8	...	...	293.6	...	294.5	...	297.6	...
Houston, Tex.	...	332.0	...	334.4	...	333.4	...	...	333.6	...	334.4	...	330.9	...
Kansas City, Mo.—Kansas	...	311.2	...	314.1	...	313.7	...	...	304.5	...	307.7	...	304.0	...
Los Angeles-Long Beach, Anaheim, Calif.	299.1	308.6	310.2	311.9	311.8	311.1	313.0	297.9	305.1	304.2	302.6	304.3	306.5	308.1
Miami, Fla. (11/77 = 100)	165.0	...	167.9	...	168.3	...	168.6	165.9	...	169.7	...	169.6	...	169.8
Milwaukee, Wis.	314.0	...	324.0	...	324.3	...	324.6	327.5	...	347.9	...	342.7	...	343.4
Minneapolis-St. Paul, Minn.—Wis.	...	324.8	...	328.0	...	327.9	...	...	332.5	...	327.0	...	323.8	...
New York, N.Y.—Northeastern N.J.	297.3	305.0	306.9	306.6	308.0	308.0	308.4	290.2	297.1	299.9	300.4	301.2	301.6	302.0
Northeast, Pa. (Scranton)	291.0	...	298.2	...	301.1	...	301.5	293.2	...	297.7	...	300.6	...	301.0
Philadelphia, Pa.—N.J.	294.4	302.9	303.9	303.7	306.0	305.1	306.3	296.7	306.1	308.5	308.7	309.2	307.9	309.4
Pittsburgh, Pa.	...	319.1	...	321.1	...	322.1	...	...	303.3	...	304.2	...	304.6	...
Portland, Oreg.—Wash.	295.1	...	302.5	...	304.8	...	306.8	289.5	...	293.7	...	295.7	...	297.4
St. Louis, Mo.—Ill.	300.9	...	311.4	...	309.1	...	313.3	296.8	...	308.0	...	307.1	...	310.4
San Diego, Calif.	346.2	...	357.1	...	363.7	...	364.1	329.2	...	330.7	...	328.8	...	329.1
San Francisco-Oakland, Calif.	...	323.4	...	327.5	...	325.8	...	...	322.7	...	319.3	...	321.5	...
Seattle-Everett, Wash.	308.7	...	316.5	...	318.1	...	319.5	297.3	...	305.3	...	305.5	...	306.7
Washington, D.C.—Md.—Va.	303.7	...	313.0	...	315.8	...	314.6	308.3	...	317.9	...	319.8	...	317.7

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

²Average of 85 cities.

23. Producer Price Indexes, by stage of processing

[1967 = 100]

Commodity grouping	Annual average 1984	1984											1985	
		Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ¹	Nov.	Dec.	Jan.	Feb.
FINISHED GOODS														
Finished goods	291.2	290.6	291.4	291.2	291.1	290.9	292.3	291.3	289.5	291.5	292.3	292.4	292.7	292.5
Finished consumer goods	290.4	290.1	291.1	290.3	290.3	290.1	291.6	290.4	288.7	290.3	291.1	291.3	291.1	290.7
Finished consumer foods	273.5	274.7	276.6	274.3	271.7	270.8	275.3	274.0	273.0	271.1	272.3	274.4	279.2	275.5
Crude	283.9	313.6	323.7	299.0	270.7	258.9	270.8	274.6	270.3	269.5	265.5	270.8	263.1	287.1
Processed	270.3	269.0	270.2	269.9	269.6	269.7	273.4	271.7	271.1	269.1	270.7	272.5	273.0	272.2
Nondurable goods less foods	337.4	336.1	336.7	336.4	338.9	339.2	336.9	336.9	336.2	337.8	339.1	337.2	335.6	332.8
Durable goods	236.6	236.1	236.6	236.7	236.6	236.4	236.6	236.7	233.0	238.3	238.4	238.8	240.5	241.1
Consumer nondurable goods less food and energy	239.1	236.5	237.1	237.9	238.7	238.7	240.1	240.1	240.8	240.6	241.3	241.1	243.3	243.7
Capital equipment	294.1	292.3	292.3	294.5	293.9	293.9	294.6	294.6	292.5	295.9	296.3	296.4	298.1	299.1
INTERMEDIATE MATERIALS														
Intermediate materials, supplies, and components	320.0	317.6	319.7	320.3	320.9	321.6	321.7	321.1	320.3	320.1	320.5	319.8	319.6	318.6
Materials and components for manufacturing	301.8	299.8	301.8	302.9	303.3	303.4	303.2	302.5	301.9	301.4	301.8	301.1	300.7	300.5
Materials for food manufacturing	271.7	268.3	269.6	271.4	276.0	275.2	276.4	272.4	270.0	267.6	269.2	268.4	264.9	264.1
Materials for nondurable manufacturing	290.5	287.0	290.3	291.8	292.8	292.8	292.7	291.3	290.9	290.4	290.1	289.3	289.2	288.2
Materials for durable manufacturing	325.1	325.6	328.2	329.1	327.2	326.9	325.4	325.1	323.5	322.3	323.2	321.8	320.5	320.9
Components for manufacturing	287.5	285.2	285.6	286.2	287.0	287.5	287.9	288.4	288.9	289.4	289.8	289.7	290.5	290.6
Materials and components for construction	310.3	307.8	309.6	310.5	309.8	310.3	310.9	312.0	311.7	311.8	311.6	312.3	313.2	313.0
Processed fuels and lubricants	566.3	561.3	567.8	562.9	567.2	575.2	576.6	569.2	565.3	564.1	566.2	561.1	556.9	546.5
Manufacturing industries	483.8	477.9	483.4	480.6	485.5	490.4	491.4	484.7	481.8	483.4	485.8	482.9	479.7	470.2
Nonmanufacturing industries	638.2	634.1	641.4	634.5	638.2	649.1	650.9	643.0	638.1	634.3	636.0	628.9	623.8	612.6
Containers	302.1	294.8	297.3	299.4	300.9	301.8	303.0	304.1	305.2	308.8	309.4	309.3	309.9	311.9
Supplies	283.3	282.2	283.0	284.2	284.3	283.9	283.2	284.1	283.6	283.2	283.1	283.1	284.0	283.8
Manufacturing industries	279.0	276.0	276.4	277.8	278.4	279.0	279.2	280.9	280.7	281.5	281.9	282.2	283.3	283.8
Nonmanufacturing industries	285.9	285.7	286.7	287.8	287.6	286.7	286.6	286.0	285.3	284.4	284.0	283.8	284.6	284.1
Feeds	215.8	227.7	232.2	233.5	229.2	221.6	211.7	208.3	203.0	195.4	192.4	191.1	189.9	185.6
Other supplies	300.6	298.0	298.4	299.5	300.0	300.5	301.0	302.2	302.3	302.7	302.8	302.8	304.0	304.2
CRUDE MATERIALS														
Crude materials for further processing	331.0	332.6	338.8	339.4	338.0	333.0	334.1	328.9	326.2	319.6	323.7	323.1	319.4	318.3
Foodstuffs and feedstuffs	259.7	260.5	269.9	269.7	266.4	260.3	263.6	256.5	252.7	244.9	253.4	253.7	251.3	250.7
Nonfood materials	484.7	488.1	487.5	490.1	492.3	489.6	486.4	485.0	484.6	480.3	475.4	473.0	466.1	464.2
Nonfood materials except fuel	380.6	385.5	387.8	388.8	389.9	386.1	380.9	376.8	379.3	374.7	369.4	367.2	361.7	356.9
Manufacturing industries	390.2	395.5	398.8	399.5	400.2	395.7	390.1	386.1	388.5	383.9	377.9	375.4	368.8	362.7
Construction	278.7	280.3	276.5	279.2	282.7	283.5	282.0	277.6	279.9	276.3	276.2	276.2	278.6	283.6
Crude fuel	931.4	926.6	910.6	920.8	928.4	932.6	940.2	953.1	937.6	935.9	934.1	930.9	918.6	931.7
Manufacturing industries	1,092.4	1,086.3	1,064.8	1,079.6	1,088.1	1,094.5	1,103.5	1,120.1	1,100.0	1,097.6	1,095.8	1,091.1	1,074.2	1,091.8
Nonmanufacturing industries	818.1	814.2	802.6	809.1	816.1	818.4	825.1	835.1	823.3	822.1	820.3	818.3	809.6	819.2
SPECIAL GROUPINGS														
Finished goods excluding foods	294.8	293.6	294.0	294.6	295.3	295.4	295.7	294.8	292.7	296.1	296.7	296.1	296.6	295.9
Finished consumer goods excluding foods	294.1	293.1	293.6	293.5	294.9	294.9	295.0	293.8	291.7	295.0	295.7	294.9	294.8	293.6
Finished consumer goods less energy	257.9	257.2	258.2	257.8	257.1	256.7	258.9	258.5	257.2	258.2	258.9	259.6	261.0	261.7
Intermediate materials less foods and feeds	325.0	322.3	324.4	325.0	325.4	326.4	326.7	326.3	325.7	325.8	326.1	325.5	325.4	324.6
Intermediate materials less energy	303.7	301.5	303.3	304.4	304.6	304.7	304.7	304.7	304.2	304.1	304.3	304.0	304.2	304.1
Intermediate foods and feeds	253.1	255.1	257.5	259.1	260.8	257.8	255.3	251.4	248.1	244.0	244.1	243.1	240.4	238.4
Crude materials less agricultural products	547.2	552.0	550.0	553.0	554.0	552.5	549.8	548.8	546.6	542.4	536.6	533.4	525.6	525.8
Crude materials less energy	255.6	257.3	265.1	265.4	263.3	257.6	258.5	251.9	249.9	242.6	248.3	248.3	246.6	245.9

¹Data for October 1984 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

r = revised.

24. Producer Price Indexes, by commodity groupings															
[1967 = 100 unless otherwise specified]															
Code	Commodity group and subgroup	Annual average 1984	1984										1985		
			Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. 1	Nov.	Dec.	Jan.	Feb.
	All commodities	310.3	308.9	311.0	311.3	311.5	311.3	311.9	310.7	309.3	309.4	310.4	309.9	309.8	309.2
	All commodities (1957-59 = 100)	329.3	327.7	330.0	330.3	330.5	330.3	330.9	329.7	328.2	328.3	329.3	328.8	328.7	328.1
	Farm products and processed foods and feeds	262.6	263.4	267.9	267.3	265.8	262.8	264.9	261.4	259.4	255.3	258.4	259.2	258.0	257.8
	Industrial commodities	322.6	320.6	321.9	322.6	323.2	323.8	323.9	323.3	322.3	323.4	323.8	323.0	323.2	322.5
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS														
01	Farm products	255.7	261.6	267.4	265.4	260.8	257.1	258.7	253.3	249.8	240.2	245.5	245.7	243.2	244.6
01-1	Fresh and dried fruits and vegetables	278.0	312.2	308.0	263.8	251.9	273.7	281.9	293.7	290.1	267.3	251.0	251.7	258.6	289.2
01-2	Grains	239.7	235.3	250.9	262.1	256.2	257.8	248.9	236.9	231.4	219.0	219.7	212.5	217.5	217.2
01-3	Livestock	251.8	251.9	260.8	260.8	254.8	250.0	260.1	253.7	244.9	233.9	247.7	252.3	247.4	249.7
01-4	Live poultry	240.6	251.3	258.4	240.8	240.6	227.7	259.2	218.6	239.7	219.2	247.1	231.7	232.7	222.4
01-5	Plant and animal fibers	228.4	232.7	250.3	252.3	259.1	252.7	235.8	211.3	210.3	202.8	201.4	203.0	204.5	200.6
01-6	Fluid milk	278.3	275.7	274.2	272.7	271.7	271.8	273.9	276.8	282.1	286.7	287.6	287.5	284.6	281.0
01-7	Eggs	210.8	280.7	(2)	264.4	201.0	177.9	184.9	181.2	177.6	179.9	176.0	187.5	141.9	161.5
01-8	Hay, hayseeds, and oilseeds	256.3	265.4	281.4	282.1	297.0	272.4	245.8	242.6	228.4	219.1	227.3	227.4	226.2	214.6
01-9	Other farm products	285.4	278.9	277.7	279.7	288.2	279.1	277.4	284.3	296.5	294.0	295.2	293.8	289.4	275.0
02	Processed foods and feeds	265.3	263.4	267.1	267.2	267.5	264.8	267.3	264.8	263.6	262.6	264.4	265.5	265.1	263.9
02-1	Cereal and bakery products	270.4	267.1	267.4	268.3	268.7	271.4	272.3	271.7	270.9	272.7	272.6	273.7	276.1	278.2
02-2	Meats, poultry, and fish	255.1	254.6	264.4	261.7	257.1	247.4	258.7	252.2	249.5	245.5	252.5	258.8	259.1	255.9
02-3	Dairy products	251.7	248.4	248.8	248.9	248.9	249.6	251.4	251.2	255.0	256.4	257.4	255.9	255.4	254.1
02-4	Processed fruits and vegetables	294.2	292.8	295.4	295.1	297.7	298.2	296.2	295.7	291.8	295.8	291.7	292.6	296.7	295.4
02-5	Sugar and confectionery	301.4	300.5	301.1	301.9	303.8	304.1	305.0	303.7	302.4	299.8	297.1	296.3	293.1	290.4
02-6	Beverages and beverage materials	273.2	270.2	269.9	271.4	273.5	272.8	273.9	274.6	274.6	276.1	276.2	275.9	276.2	277.6
02-7	Fats and oils	301.2	273.3	286.2	293.4	328.5	328.1	312.7	305.9	298.5	301.6	310.9	297.6	280.4	286.0
02-8	Miscellaneous processed foods	278.2	275.4	275.2	276.3	276.2	279.9	281.3	280.4	281.1	281.2	282.0	282.2	281.9	280.7
02-9	Prepared animal feeds	220.5	231.1	235.3	236.3	232.3	225.5	216.7	213.9	209.2	202.4	199.7	198.8	197.8	193.7
	INDUSTRIAL COMMODITIES														
03	Textile products and apparel	209.9	209.6	209.9	209.9	210.5	210.2	210.5	210.1	210.7	210.4	210.0	209.8	210.4	210.6
03-1	Synthetic fibers (12/75 = 100)	159.6	161.4	160.7	160.7	160.6	160.5	160.1	159.9	159.2	158.2	157.5	157.4	157.6	157.7
03-2	Processed yarns and threads (12/75 = 100)	142.7	144.0	144.0	143.6	144.3	143.8	143.7	142.1	142.2	141.4	140.9	140.7	141.2	141.9
03-3	Gray fabrics (12/75 = 100)	153.7	152.8	153.2	153.0	153.7	154.3	154.5	154.4	154.6	154.8	154.7	153.7	153.2	153.1
03-4	Finished fabrics (12/75 = 100)	126.5	126.3	127.0	126.9	127.3	127.1	126.9	127.1	127.3	126.9	126.1	125.8	126.5	126.9
03-81	Apparel	201.1	200.5	200.7	200.7	201.3	200.8	201.6	201.0	202.2	201.9	201.6	201.8	202.6	202.8
03-82	Textile housefurnishings	239.2	236.6	237.6	238.1	238.8	239.0	239.1	240.0	240.5	241.3	241.4	241.3	242.2	243.1
04	Hides, skins, leather, and related products	286.5	283.3	286.7	286.8	288.5	290.1	288.9	298.7	288.7	287.7	283.2	282.9	284.3	284.8
04-2	Leather	372.3	362.0	378.0	386.7	390.7	387.8	383.2	378.1	371.4	369.3	360.1	353.1	354.7	351.9
04-3	Footwear	251.2	252.5	253.5	251.6	251.5	250.5	250.1	250.9	252.0	252.1	249.1	249.6	252.4	256.6
04-4	Other leather and related products	265.0	257.3	257.3	258.1	259.8	267.9	267.2	267.7	267.6	268.1	272.1	271.0	273.3	273.5
05	Fuels and related products and power	657.0	656.0	658.7	654.7	660.6	665.9	665.0	657.9	652.3	654.4	655.3	648.9	637.6	625.9
05-1	Coal	546.0	544.7	546.2	542.0	547.4	544.3	550.0	549.1	548.9	548.9	546.4	548.2	550.5	550.1
05-2	Coke	436.4	437.9	438.9	442.8	441.6	442.9	441.9	437.3	435.7	432.4	432.8	435.0	439.7	439.8
05-3	Gas fuels ³	1,109.9	1,107.8	1,091.0	1,102.1	1,104.1	1,109.1	1,110.8	1,116.9	1,104.6	1,112.5	1,110.1	1,101.8	1,075.5	1,068.7
05-4	Electric power	440.0	424.4	426.7	431.5	433.1	446.7	453.5	456.7	456.4	445.4	443.4	441.2	446.4	446.4
05-61	Crude petroleum ⁴	670.5	675.6	675.6	673.9	673.9	673.3	672.6	671.1	670.6	669.8	658.5	652.6	631.1	616.0
05-7	Petroleum products, refined ⁵	665.3	669.8	680.2	667.0	677.6	679.7	673.3	654.8	646.5	655.5	661.8	652.5	636.2	615.9
06	Chemicals and allied products	300.9	296.5	300.1	302.0	302.7	302.2	302.6	301.1	300.9	301.3	301.6	301.0	301.7	302.2
06-1	Industrial chemicals ⁶	341.4	337.6	344.7	345.4	345.3	345.4	345.6	340.9	337.7	335.9	334.7	335.2	337.7	336.4
06-21	Prepared paint	272.5	267.3	267.3	268.7	270.0	270.9	274.0	276.4	277.0	277.8	277.0	277.3	278.2	279.0
06-22	Paint materials	329.7	314.2	317.9	328.7	337.6	337.4	334.8	334.3	333.0	332.5	334.1	334.6	332.0	332.9
06-3	Drugs and pharmaceuticals	240.4	234.4	237.6	239.8	240.1	237.3	240.5	240.7	239.7	244.7	247.7	245.4	248.0	251.5
06-4	Fats and oils, inedible	371.3	349.0	366.7	383.2	399.2	414.3	378.8	350.1	359.4	365.1	378.7	376.2	356.6	342.5
06-5	Agricultural chemicals and chemical products	284.7	285.9	288.1	288.4	286.8	286.5	285.0	283.0	285.0	285.5	281.8	282.6	282.3	281.6
06-6	Plastic resins and materials	308.6	305.0	306.2	307.8	310.6	311.1	310.6	310.3	311.8	309.4	308.8	307.2	302.9	306.8
06-7	Other chemicals and allied products	277.3	273.3	275.2	277.0	277.2	275.9	277.3	278.3	279.6	279.7	281.2	280.4	281.7	282.0
07	Rubber plastic products	247.2	246.2	246.4	247.3	247.5	247.6	247.5	247.7	248.3	246.6	247.7	247.5	248.4	246.7
07-1	Rubber and rubber products	266.9	266.8	265.5	267.2	266.3	266.5	266.5	267.6	268.1	264.8	266.7	267.1	268.0	265.7
07-11	Crude rubber	276.8	282.8	283.0	282.3	277.7	277.2	275.6	273.0	273.9	271.2	270.3	272.2	275.5	273.4
07-12	Tires and tubes	243.7	243.7	241.7	243.5	243.2	243.0	243.5	243.7	244.2	239.2	243.9	243.7	245.1	240.8
07-13	Miscellaneous rubber products	290.5	288.4	287.4	289.8	289.3	290.5	290.0	293.7	294.0	292.9	292.0	292.7	292.1	292.3
07-2	Plastic products (6/78 = 100)	139.5	138.4	139.4	139.4	140.2	140.2	140.2	139.7	140.1	140.1	140.2	139.8	140.4	139.6
08	Lumber and wood products	307.5	315.7	316.8	315.1	308.5	307.1	304.4	304.7	303.3	300.3	301.1	303.3	304.3	303.3
08-1	Lumber	349.8	364.9	370.5	369.4	355.6	350.5	342.6	342.3	338.2	334.3	336.8	339.6	343.2	342.9
08-2	Millwork	307.8	308.8	309.9	307.2	304.2	305.3	306.8	307.2	307.4	307.0	309.8	312.5	312.4	311.5
08-3	Plywood	241.6	249.5	248.6	243.6	235.4	236.3	237.2	245.9	243.4	240.1	235.0	235.8	234.0	226.6
08-4	Other wood products	234.6	230.8	231.8	233.3	234.7	235.0	235.2	236.5	235.9	236.6	236.6	238.8	238.2	236.6

See footnotes at end of table.

24. Continued—Producer Price Indexes, by commodity groupings

[1967 = 100 unless otherwise specified]

Code	Commodity group and subgroup	Annual average 1984	1984									1985			
			Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ¹	Nov.	Dec.	Jan.	Feb.
INDUSTRIAL COMMODITIES—Continued															
09	Pulp, paper, and allied products	318.3	312.0	314.0	316.3	317.7	318.4	319.8	321.3	322.0	[†] 323.1	323.8	323.2	326.6	326.9
09-1	Pulp, paper, and products, excluding building paper and board	293.1	285.0	288.3	291.5	292.7	293.3	295.7	296.3	297.5	[†] 299.3	299.4	298.4	297.8	297.4
09-11	Woodpulp	396.6	374.2	378.6	401.1	407.9	410.3	410.6	410.2	409.1	[†] 408.2	398.4	392.7	383.5	368.4
09-12	Wastepaper	240.1	229.3	242.9	258.8	259.3	257.3	254.7	254.5	249.6	235.6	221.4	206.0	190.8	192.6
09-13	Paper	303.2	296.6	299.8	300.4	301.3	301.6	307.7	307.0	306.7	[†] 306.7	308.2	307.1	307.0	304.7
09-14	Paperboard	281.1	271.8	275.6	277.1	277.8	279.1	279.1	285.1	288.6	[†] 293.7	293.4	292.4	288.9	287.8
09-15	Converted paper and paperboard products	280.9	273.7	276.5	279.1	280.1	280.6	282.1	282.4	284.4	[†] 286.9	288.1	288.0	289.0	291.0
09-2	Building paper and board	258.9	255.1	258.6	263.8	265.2	265.1	262.9	259.8	259.4	[†] 257.7	253.5	253.6	255.2	265.2
10	Metals and metal products	316.0	314.8	316.8	317.9	317.4	317.3	316.1	316.2	315.6	[†] 316.0	316.2	315.3	314.8	315.6
10-1	Iron and steel	357.0	356.2	356.5	356.5	357.3	357.0	357.4	357.4	357.9	[†] 358.4	357.7	357.4	357.4	357.7
10-17	Steel mill products	366.0	365.6	363.6	364.2	364.7	365.4	367.6	368.1	368.1	[†] 368.6	368.1	368.0	367.4	367.2
10-2	Nonferrous metals	277.0	280.2	286.1	289.1	284.1	282.8	277.0	275.3	271.8	[†] 266.8	269.5	265.6	262.8	265.2
10-3	Metal containers	350.1	344.8	345.4	345.3	348.0	348.0	348.0	352.0	352.3	[†] 357.4	357.5	357.5	357.6	358.3
10-4	Hardware	296.5	294.0	294.4	294.6	295.3	296.2	297.1	298.0	299.0	[†] 299.9	299.1	300.2	301.9	302.5
10-5	Plumbing fixtures and brass fittings	300.6	296.4	299.9	301.5	301.6	302.4	302.8	304.6	304.4	[†] 306.2	301.4	302.7	306.4	307.1
10-6	Heating equipment	253.2	248.1	248.5	250.3	252.4	252.7	255.2	255.5	255.7	[†] 256.1	256.3	256.4	256.6	257.4
10-7	Fabricated structural metal products	310.8	307.0	308.3	309.3	310.6	311.2	311.7	312.3	312.1	[†] 313.8	313.0	313.2	312.8	313.3
10-8	Miscellaneous metal products	295.0	291.1	292.1	293.1	293.4	294.3	294.1	295.0	295.8	[†] 301.5	301.3	301.6	301.8	301.9
11	Machinery and equipment	293.1	290.2	291.0	292.2	292.6	293.1	294.0	294.1	294.3	[†] 294.8	295.7	295.6	296.7	297.4
11-1	Agricultural machinery and equipment	336.2	331.4	332.9	335.5	338.2	337.8	338.6	338.8	337.2	[†] 337.3	337.2	337.6	338.5	338.3
11-2	Construction machinery and equipment	357.5	355.9	355.3	357.5	357.8	358.1	358.3	356.9	357.2	[†] 357.5	360.1	358.2	360.4	361.7
11-3	Metalworking machinery and equipment	333.8	330.2	330.6	332.6	333.5	333.4	334.2	334.7	335.6	[†] 337.1	337.8	338.2	338.0	339.4
11-4	General purpose machinery and equipment	314.1	310.9	311.7	313.1	313.2	314.0	315.2	315.5	315.9	[†] 316.0	316.5	316.5	318.0	318.5
11-6	Special industry machinery and equipment	348.5	343.2	344.6	346.8	348.2	348.6	351.9	352.8	351.1	[†] 351.5	351.0	351.8	355.6	356.9
11-7	Electrical machinery and equipment	248.6	245.7	246.7	247.7	248.1	249.1	249.4	249.8	249.8	[†] 250.8	251.2	251.5	252.2	253.0
11-9	Miscellaneous machinery	275.0	274.3	274.5	274.6	273.7	273.9	274.2	274.1	274.5	[†] 274.4	276.9	275.7	276.2	276.7
12	Furniture and household durables	218.6	217.2	217.4	218.2	219.1	219.1	219.2	219.2	219.0	[†] 219.2	219.6	219.7	220.3	220.7
12-1	Household furniture	242.0	239.1	240.0	240.8	241.5	242.3	242.2	242.7	243.4	[†] 244.3	244.9	245.4	247.1	247.4
12-2	Commercial furniture	297.3	294.7	294.7	296.1	297.4	297.0	298.1	298.4	297.5	[†] 297.3	301.0	299.8	300.1	302.3
12-3	Floor coverings	190.5	188.4	188.3	188.2	191.7	192.7	192.7	192.6	192.5	[†] 193.0	189.2	189.3	192.7	191.1
12-4	Household appliances	211.3	210.7	210.9	210.9	210.8	211.1	211.5	211.9	211.6	[†] 211.1	211.8	212.0	211.3	211.2
12-5	Home electronic equipment	83.7	84.1	84.0	84.9	84.5	83.9	84.2	83.8	83.1	[†] 83.1	83.1	82.7	80.9	81.8
12-6	Other household durable goods	318.3	316.8	316.7	319.1	321.6	319.9	318.6	316.8	316.8	[†] 317.7	319.2	320.1	323.1	323.6
13	Nonmetallic mineral products	337.3	332.2	333.4	335.8	337.6	338.3	339.8	340.8	340.5	[†] 340.0	339.5	339.9	342.3	342.7
13-11	Flat glass	224.0	229.9	229.1	230.2	226.1	226.3	226.3	219.6	219.7	[†] 219.9	217.4	218.1	221.0	220.9
13-2	Concrete ingredients	325.8	319.9	324.2	324.3	328.0	326.7	327.1	328.4	328.2	[†] 327.6	329.5	329.3	331.4	334.1
13-3	Concrete products	309.5	305.9	306.3	308.8	309.4	310.0	310.6	311.3	311.7	[†] 312.0	311.4	312.1	314.8	314.3
13-4	Structural clay products, excluding refractories	286.6	283.7	284.3	285.0	285.6	286.2	286.4	288.2	289.4	[†] 289.5	288.4	289.0	290.7	291.0
13-5	Refractories	361.5	356.0	361.1	361.8	361.8	361.8	361.8	361.6	361.6	[†] 361.6	366.6	366.6	367.0	367.0
13-6	Asphalt roofing	399.5	392.3	385.6	396.2	398.7	394.2	394.5	408.4	408.0	[†] 409.1	410.6	412.0	409.9	408.3
13-7	Gypsum products	346.5	339.4	339.6	353.0	360.9	360.3	359.7	359.5	355.4	[†] 339.0	332.3	329.3	328.5	330.2
13-8	Glass containers	360.7	350.6	351.6	358.0	361.9	365.0	366.3	366.1	364.6	[†] 364.9	364.9	364.1	363.7	364.2
13-9	Other nonmetallic minerals	500.0	488.1	490.8	491.3	494.9	499.2	507.1	511.4	509.8	[†] 508.9	505.5	507.2	513.3	513.3
14	Transportation equipment (12/68 = 100)	262.6	262.2	262.4	263.4	262.5	262.2	262.5	262.3	257.8	[†] 265.0	265.2	265.4	267.9	268.1
14-1	Motor vehicles and equipment	261.3	261.2	261.5	261.9	261.5	261.1	261.4	261.1	255.2	[†] 263.8	263.6	263.9	266.6	266.7
14-4	Railroad equipment	356.6	351.5	352.0	380.8	354.4	354.4	356.5	357.7	357.6	[†] 358.8	358.8	358.8	358.9	361.7
15	Miscellaneous products	296.0	294.9	294.9	294.6	294.3	295.7	297.3	298.2	296.7	[†] 296.5	297.0	297.1	299.9	300.7
15-1	Toys, sporting goods, small arms, ammunition	227.1	227.8	227.6	226.5	226.8	226.5	226.5	227.0	227.0	[†] 227.4	227.4	227.5	228.8	231.8
15-2	Tobacco products	399.5	390.3	390.4	390.4	390.6	400.2	408.7	406.7	406.7	[†] 402.3	407.1	406.9	423.8	420.4
15-3	Notions	283.2	282.2	282.2	283.0	283.9	283.9	283.9	283.9	283.9	[†] 283.5	283.5	283.6	283.6	284.1
15-4	Photographic equipment and supplies	214.5	217.9	212.7	213.6	213.6	213.6	213.8	215.5	215.5	[†] 215.6	212.8	212.9	213.8	213.9
15-5	Mobile homes (12/74 = 100)	163.3	162.4	162.5	163.8	163.7	162.7	162.9	163.2	163.6	[†] 163.6	164.8	164.7	164.7	164.4
15-9	Other miscellaneous products	350.4	350.5	354.2	351.9	350.4	350.0	350.1	353.2	346.9	[†] 348.5	349.3	349.3	346.5	350.0

¹Data for October 1984 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

²Not available.

³Prices for natural gas are lagged 1 month.

⁴Includes only domestic production.

⁵Most prices for refined petroleum products are lagged 1 month.

⁶Some prices for industrial chemicals are lagged 1 month.

r = revised.

25. Producer Price Indexes, for special commodity groupings

[1967 = 100 unless otherwise specified]

Commodity grouping	Annual average 1984	1984												1985	
		Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ¹	Nov.	Dec.	Jan.	Feb.	
All commodities—less farm products	313.8	311.9	313.6	314.2	314.7	314.8	315.3	314.4	313.3	^r 314.2	314.7	314.3	314.4	313.6	
All foods	269.4	270.2	272.9	270.6	268.9	267.5	271.7	269.6	268.6	^r 266.6	267.9	269.5	268.5	269.6	
Processed foods	270.0	267.0	271.2	270.9	271.4	269.0	272.8	270.0	269.1	^r 268.3	270.9	272.4	272.0	270.7	
Industrial commodities less fuels	287.6	285.5	286.7	287.8	287.8	288.0	288.2	288.3	287.6	^r 288.7	289.1	288.9	290.2	290.6	
Selected textile mill products (Dec. 1975 = 100)	142.0	141.3	141.7	141.7	142.7	142.7	142.7	142.9	143.0	^r 142.9	141.9	141.7	142.7	143.0	
Hosiery	147.6	147.3	147.4	147.4	147.4	147.4	147.9	148.0	148.0	^r 148.1	148.1	147.9	148.4	148.6	
Underwear and nightwear	229.9	229.8	^r 230.9	229.8	230.9	228.8	230.2	230.3	230.6	^r 230.6	229.9	230.5	232.6	231.9	
Chemicals and allied products, including synthetic rubber and fibers and yarns	289.7	286.2	289.1	290.6	291.1	290.5	291.3	290.2	289.9	^r 290.0	290.0	289.6	290.6	291.2	
Pharmaceutical preparations	243.3	235.9	238.8	241.5	241.9	240.6	244.6	245.1	243.9	^r 249.7	252.2	250.8	254.0	257.3	
Lumber and wood products, excluding millwork	318.5	331.4	334.9	332.5	320.4	317.2	312.2	315.0	311.4	307.6	307.5	309.7	311.5	308.8	
Steel mill products, including fabricated wire products	363.7	361.1	361.2	361.8	362.4	363.1	365.2	365.8	365.9	^r 366.5	366.0	365.8	365.3	365.1	
Finished steel mill products, excluding fabricated wire products	365.5	363.2	363.1	363.6	364.1	364.8	367.0	367.5	367.5	^r 368.1	367.6	367.4	366.9	366.7	
Finished steel mill products, including fabricated wire products	363.0	360.5	360.5	361.0	361.6	362.4	364.4	365.0	365.1	^r 365.7	365.3	365.1	364.6	364.4	
Special metals and metal products	299.9	299.0	300.3	301.2	300.8	300.6	300.0	299.9	297.2	^r 301.0	301.0	300.6	301.4	301.9	
Fabricated metal products	303.9	300.0	301.1	301.9	302.9	303.6	303.9	305.0	305.4	^r 308.7	308.1	308.5	308.8	309.2	
Copper and copper products	185.8	185.1	192.9	199.4	191.8	189.5	184.4	183.3	182.5	^r 178.1	183.4	179.3	178.4	184.9	
Machinery and motive products	286.3	284.5	285.0	286.2	285.9	286.1	286.8	286.8	284.8	^r 288.4	288.9	289.0	290.8	291.3	
Machinery and equipment, except electrical	319.4	316.5	317.1	318.5	318.8	319.2	320.3	320.6	320.6	^r 320.9	322.0	321.7	323.0	323.8	
Agricultural machinery, including tractors	353.8	347.5	349.3	352.9	357.0	356.5	357.2	357.5	355.2	^r 354.8	354.3	354.7	356.1	355.5	
Metalworking machinery	364.9	362.1	361.6	363.0	363.2	363.3	364.6	365.1	366.6	^r 368.8	370.6	371.4	370.1	371.9	
Total tractors	382.4	374.5	376.1	384.1	386.8	386.7	386.9	385.7	382.6	^r 381.0	381.6	379.7	384.7	383.8	
Agricultural machinery and equipment less parts	341.1	335.7	337.4	340.4	343.6	343.0	344.0	344.3	342.3	^r 342.0	341.7	342.1	343.4	343.1	
Farm and garden tractors less parts	361.0	352.9	355.1	362.1	365.8	365.7	366.0	367.0	362.3	^r 359.9	357.6	358.0	360.5	359.0	
Agricultural machinery, excluding tractors less parts	348.2	343.4	344.9	345.7	350.1	349.2	350.4	350.1	349.8	^r 350.8	351.7	352.2	352.8	353.0	
Construction materials	306.3	305.0	306.6	307.1	306.2	306.3	306.7	307.6	307.2	^r 307.2	306.6	307.3	308.5	308.1	

¹Data for October 1984 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

r = revised.

26. Producer Price Indexes, by durability of product

[1967 = 100]

Commodity grouping	Annual average 1984	1984												1985	
		Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ¹	Nov.	Dec.	Jan.	Feb.	
Total durable goods	293.5	292.2	293.2	294.2	293.8	293.8	293.8	293.9	292.7	^r 294.4	294.8	294.8	295.7	296.3	
Total nondurable goods	323.3	321.9	324.8	324.7	325.3	324.9	326.0	323.7	322.3	^r 320.9	322.3	321.5	320.5	318.9	
Total manufactures	302.9	301.2	302.8	303.2	303.8	303.9	304.3	303.3	302.2	^r 303.2	303.9	303.5	303.9	303.2	
Durable	293.9	292.4	293.3	294.3	293.9	294.0	294.2	294.5	293.2	^r 295.1	295.5	295.5	296.4	296.9	
Nondurable	312.3	310.4	312.7	312.5	314.1	314.2	314.8	312.6	311.7	^r 311.6	312.5	311.8	311.6	309.6	
Total raw or slightly processed goods	347.0	347.6	352.4	352.4	350.1	348.0	349.6	346.9	344.4	^r 339.1	341.6	340.7	337.7	337.4	
Durable	266.7	275.2	278.7	280.6	277.9	273.3	264.5	259.6	260.6	^r 255.9	254.1	252.1	255.8	259.6	
Nondurable	351.7	351.8	356.7	356.5	354.3	352.3	354.7	352.2	349.4	^r 344.2	347.0	346.1	342.6	342.0	

¹Data for October 1984 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

r = revised.

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

[1967 = 100 unless otherwise specified]

1972 SIC code	Industry description	Annual average 1984	1984										1985		
			Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ¹	Nov.	Dec.	Jan.	Feb.
MINING															
1092	Mercury ores (12/75 = 100)	264.3	245.4	250.0	267.9	273.7	271.6	264.6	249.1	257.1	271.6	276.6	267.9	264.1	262.1
1311	Crude petroleum and natural gas	914.3	913.0	902.7	909.2	914.1	918.4	921.6	928.3	918.2	^r 916.2	908.6	904.4	880.8	879.2
MANUFACTURING															
2074	Cottonseed oil mills	209.2	201.7	212.7	222.6	245.3	243.1	223.2	210.2	205.0	172.9	166.9	177.7	166.4	169.1
2083	Malt	240.4	241.6	241.6	241.6	241.6	241.6	241.6	241.6	241.6	241.6	234.5	234.5	226.5	226.5
2098	Macaroni and spaghetti	261.6	261.9	261.9	261.9	261.9	261.9	261.9	261.9	261.9	261.9	261.9	258.6	258.6	
2298	Cordage and twine (12/77 = 100)	138.7	139.2	139.2	139.3	139.4	139.4	138.6	138.5	138.5	^r 138.5	138.6	138.6	138.5	138.5
2381	Fabric dress and work gloves	310.5	299.1	302.3	304.8	315.6	315.6	315.6	315.6	315.6	315.6	315.6	315.6	313.5	314.9
2394	Canvas and related products (12/77 = 100)	151.4	150.6	150.6	150.6	150.6	150.6	150.6	150.6	152.1	^r 152.1	152.9	152.9	152.9	152.9
2448	Wood pallets and skids (12/75 = 100)	163.9	156.0	157.9	161.6	165.1	165.4	168.6	168.6	168.7	168.3	168.2	168.5	169.0	169.3
2521	Wood office furniture	290.8	289.1	289.1	289.2	289.2	289.2	289.1	289.2	291.1	^r 291.2	296.3	299.8	301.0	301.0
2654	Sanitary food containers	279.7	273.4	278.4	280.6	280.6	280.7	280.6	280.7	281.3	^r 281.4	283.2	283.1	285.6	288.3
2655	Fiber cans, drums, and similar products (12/75 = 100)	193.7	189.7	191.4	193.1	193.1	193.1	194.7	194.7	194.7	^r 194.8	197.8	197.7	199.1	200.0
2911	Petroleum refining (6/76 = 100)	244.2	246.7	249.8	244.9	248.1	248.8	246.5	240.1	237.5	^r 240.9	242.8	239.4	233.4	225.4
3253	Ceramic wall and floor tile (12/75 = 100)	150.2	149.6	149.6	149.6	149.6	149.6	149.6	153.4	153.4	^r 153.4	150.5	150.5	150.5	150.5
3255	Clay refractories	372.5	367.7	369.3	371.5	371.5	371.7	371.6	371.4	371.4	^r 371.4	380.9	380.8	381.4	381.5
3259	Structural clay products, n.e.c.	232.8	232.1	232.4	232.4	232.4	232.4	232.4	232.3	232.4	^r 232.4	233.0	233.0	237.7	237.6
3261	Vitreous plumbing fixtures	292.7	287.0	290.1	290.4	290.8	292.5	293.1	293.9	295.6	^r 297.7	297.5	298.0	297.9	298.8
3263	Fine earthenware food utensils	377.1	384.0	375.9	382.6	376.5	372.1	373.3	374.0	374.8	375.9	376.3	380.9	391.7	395.2
3269	Pottery products, n.e.c. (12/75 = 100)	191.4	192.2	191.9	192.2	192.2	186.3	187.6	187.6	197.7	^r 195.2	195.3	195.4	199.2	199.4
3274	Lime (12/75 = 100)	183.0	184.4	183.9	184.1	184.2	183.3	180.3	179.6	187.2	^r 180.5	182.2	183.1	187.5	185.2
3297	Nonclay refractories (12/74 = 100)	219.2	215.4	220.6	220.1	220.1	220.1	219.9	219.9	220.3	^r 219.9	220.2	220.3	220.5	220.4
3482	Small arms ammunition (12/75 = 100)	192.4	190.3	190.3	190.3	190.3	190.3	190.3	190.3	190.3	^r 190.3	196.6	196.6	202.5	205.5
3648	Lighting equipment, n.e.c. (12/75 = 100)	186.6	173.5	184.9	185.0	185.6	185.7	186.3	188.1	188.2	^r 194.4	196.9	196.9	196.9	197.4
3671	Electron tubes, receiving type	497.2	490.8	490.8	490.9	490.9	491.3	491.6	491.6	491.8	492.0	527.2	527.2	546.7	547.0
3942	Dolls (12/75 = 100)	134.3	137.8	137.7	131.6	133.4	133.6	133.6	133.6	133.6	^r 133.6	133.3	133.3	134.3	134.4
3944	Games, toys, and children's vehicles	238.0	240.6	240.1	239.7	239.1	239.2	239.1	239.1	239.3	^r 239.4	234.9	234.9	236.7	241.6
3955	Carbon paper and inked ribbons (12/75 = 100)	145.7	149.0	149.0	149.1	149.1	149.1	146.7	146.7	146.7	139.7	139.7	139.7	139.7	139.4
3996	Hard surface floor coverings (12/75 = 100)	167.5	165.2	165.2	166.3	166.4	166.4	168.7	168.8	168.8	169.7	169.7	169.7	171.4	171.4

¹Data for October 1984 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

r = revised.

NOTE: Indexes which were deleted in the March issue may now be found in Table 4 of the BLS monthly report, *Producer Prices and Price Indexes*.

PRODUCTIVITY DATA

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

Definitions

Output is the constant dollar gross product produced by the particular sector. **Output per hour of all persons** (labor productivity) measures the value of goods and services in constant prices produced per hour of labor. **Output per unit of capital services** (capital productivity) measures the value of goods and services in constant dollars per unit of capital services input.

Multifactor productivity measures the output per unit of combined labor and capital input. The traditional measure of output per hour reflects changes in capital per hour and a combination of other factors—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. The multifactor productivity measure differs from the familiar BLS measure of output per hour of all persons in that it excludes the effects of the substitution of capital for labor.

Compensation per hour includes wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. The data also include an estimate of wages, salaries, and supplementary payments for the self-employed, except for nonfinancial corporations, in which there are no self-employed. **Real compensation per hour** is compensation per hour adjusted by the Consumer Price Index for All Urban Consumers.

Unit labor costs measure the labor compensation costs required to produce a unit of output and is derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current dollar gross product 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.

The **implicit price deflator** is the price index for the gross product of the sector reported. It is derived by dividing the current dollar gross product by the constant dollar figures.

Hours of all persons measures the labor input of payroll workers, self-employed persons, and unpaid family workers. **Output per all employee**

hour describes labor productivity in nonfinancial corporations where there are no self-employed. The **capital services** input index used in the multifactor productivity computation is developed by BLS from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset. **Combined units of labor and capital input** are computed 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

In the business sector and the nonfarm business sector, the output measure employed in the computation of output per hour is constructed from Gross Domestic Product rather than Gross National Product. Multifactor productivity measures (table 28) for the *private* business and *private* nonfarm business sectors differ from the business and nonfarm business sector measures used in the traditional labor productivity indexes (tables 29–32) in that they exclude the activities of government enterprises. There is no difference in the sector definition for manufacturing.

Output measures for the business sectors 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 from the Bureau of Labor Statistics and the Bureau of Economic Analysis.

The productivity and associated cost measures in the tables 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. For a more complete description of the methodology underlying the multifactor productivity measures, see Bulletin 2178, "Trends in Multifactor Productivity, 1948–81" (September 1983).

28. Annual indexes of multifactor productivity and related measures, selected years, 1950-83

[1977 = 100]

Item	1950	1960	1970	1973	1974	1975	1976	1978	1979	1980	1981	1982	1983
PRIVATE BUSINESS SECTOR													
Productivity:													
Output per hour of all persons	49.7	64.8	86.1	94.8	92.5	94.5	97.6	100.5	99.3	98.7	100.6	100.8	103.7
Output per unit of capital services	98.6	98.5	98.5	103.0	96.5	92.0	96.1	101.8	100.3	95.6	94.1	89.6	92.3
Multifactor productivity	63.6	75.4	90.2	97.5	93.8	93.6	97.1	101.0	99.7	97.6	98.3	96.8	99.6
Output	39.5	53.3	78.3	91.8	89.9	88.0	93.7	105.5	107.9	106.4	109.2	106.3	111.1
Inputs:													
Hours of all persons	79.4	82.2	90.8	96.8	97.2	93.1	95.9	105.0	108.6	107.8	108.5	105.4	107.2
Capital services	40.1	54.1	79.4	89.1	93.1	95.7	97.5	103.6	107.5	111.4	116.0	118.7	120.3
Combined units of labor and capital input	62.1	70.7	86.7	94.1	95.8	94.0	96.5	104.5	108.2	109.0	111.0	109.8	111.5
Capital per hour of all persons	50.4	65.8	87.4	92.0	95.9	102.8	101.6	98.7	98.9	103.3	106.9	112.6	112.3
PRIVATE NONFARM BUSINESS SECTOR													
Productivity:													
Output per hour of all persons	55.6	68.0	86.8	95.3	92.9	94.8	97.8	100.6	99.0	98.2	99.6	99.9	103.5
Output per unit of capital services	98.2	98.4	98.6	103.2	96.5	91.7	96.1	101.9	100.1	95.2	93.2	88.7	91.9
Multifactor productivity	68.1	77.6	90.7	97.9	94.1	93.6	97.2	101.0	99.4	97.2	97.4	95.9	99.3
Output	38.3	52.3	77.8	91.7	89.7	87.6	93.6	105.7	108.0	106.4	108.7	105.9	111.3
Inputs:													
Hours of all persons	69.0	77.0	89.7	96.2	95.5	92.4	95.7	105.1	109.1	108.4	109.1	106.0	107.6
Capital services	39.0	53.2	78.9	88.8	93.0	95.6	97.4	103.7	107.9	111.7	116.6	119.4	121.2
Combined units of labor and capital input	56.2	67.4	85.9	93.6	95.3	93.5	96.3	104.6	108.7	109.5	111.6	110.4	112.0
Capital per hour of all persons	56.6	69.1	88.0	92.4	96.3	103.4	101.8	98.7	98.9	103.1	106.8	112.6	112.6
MANUFACTURING													
Productivity:													
Output per hour of all persons	49.4	60.0	79.2	93.0	90.8	93.4	97.6	100.9	101.6	101.7	104.9	107.1	111.6
Output per unit of capital services	94.5	88.0	91.8	108.2	99.6	89.4	96.1	101.5	99.5	90.7	89.9	82.9	87.6
Multifactor productivity	59.9	67.0	82.3	96.8	93.1	92.2	97.1	101.1	101.0	98.8	100.8	100.3	104.9
Output	38.6	50.7	77.0	95.9	91.9	85.4	93.6	105.3	108.2	103.5	106.1	99.3	104.4
Inputs:													
Hours of all persons	78.2	84.4	97.3	103.1	101.2	91.4	95.9	104.4	106.5	101.7	101.1	92.7	93.5
Capital services	40.9	57.5	83.9	88.6	92.2	95.5	97.4	103.8	108.8	114.1	118.0	119.8	119.2
Combined units of labor and capital input	64.5	75.6	93.5	99.0	98.7	92.6	96.3	104.2	107.1	104.8	105.2	99.0	99.5
Capital per hour of all persons	52.3	68.2	86.2	85.9	91.1	104.5	101.6	99.4	102.1	112.2	116.7	129.2	127.5

29. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years, 1950-84

[1977 = 100]

Item	1950	1955	1960	1965	1970	1975	1978	1979	1980	1981	1982	1983	1984
Business sector:													
Output per hour of all persons	50.4	58.3	65.2	78.3	86.2	94.6	100.5	99.3	98.8	100.7	100.9	103.7	^r 107.0
Compensation per hour	20.0	26.4	33.9	41.7	58.2	85.6	108.5	118.7	131.1	143.4	155.0	161.7	^r 168.6
Real compensation per hour	50.5	59.7	69.5	80.1	90.8	96.4	100.8	99.1	96.4	95.5	97.3	98.4	^r 98.4
Unit labor costs	39.8	45.2	52.1	53.3	67.5	90.5	108.0	119.5	132.6	142.4	153.6	156.0	^r 157.5
Unit nonlabor payments	43.4	47.6	50.6	57.6	63.2	90.4	106.7	112.8	119.3	136.7	136.8	145.5	^r 157.1
Implicit price deflator	41.0	46.0	51.6	54.7	66.0	90.4	107.5	117.2	128.1	140.4	147.9	152.4	^r 157.4
Nonfarm business sector:													
Output per hour of all persons	56.3	62.8	68.3	80.5	86.8	94.8	100.6	99.0	98.3	99.8	100.0	103.4	^r 106.3
Compensation per hour	21.9	28.3	35.7	42.8	58.7	86.1	108.6	118.4	130.6	143.1	154.5	162.0	^r 168.7
Real compensation per hour	55.1	64.0	73.1	82.3	91.5	96.9	100.8	98.8	96.0	95.3	97.0	98.6	^r 98.4
Unit labor costs	38.8	45.1	52.3	53.2	67.6	90.8	108.0	119.5	132.8	143.5	154.5	156.6	^r 158.8
Unit nonlabor payments	42.7	47.8	50.4	58.0	63.8	88.5	105.3	110.4	118.6	135.0	136.9	147.0	^r 157.1
Implicit price deflator	40.1	46.0	51.6	54.8	66.3	90.0	107.1	116.5	128.1	140.6	148.6	153.4	^r 158.2
Nonfinancial corporations:													
Output per hour of all persons	(¹)	(¹)	68.0	82.0	87.4	95.5	100.8	100.6	99.7	101.6	102.6	106.1	P108.5
Compensation per hour	(¹)	(¹)	37.0	43.9	59.4	86.1	108.4	118.6	130.8	143.1	154.6	161.0	P166.6
Real compensation per hour	(¹)	(¹)	75.8	84.3	92.7	97.0	100.7	99.0	96.2	95.3	97.0	97.9	P 97.2
Unit labor costs	(¹)	(¹)	54.4	53.5	68.0	90.2	107.5	117.8	131.2	140.9	150.6	151.8	P153.6
Unit nonlabor payments	(¹)	(¹)	54.6	60.8	63.1	90.8	104.2	106.9	117.4	135.1	138.1	149.1	P158.9
Implicit price deflator	(¹)	(¹)	54.5	56.1	66.3	90.4	106.4	114.1	126.4	138.9	146.3	150.9	P155.4
Manufacturing:													
Output per hour of all persons	49.4	56.4	60.0	74.6	79.2	93.4	100.9	101.6	101.7	104.9	107.1	111.6	^r 116.8
Compensation per hour	21.5	28.8	36.7	42.8	57.6	85.5	108.3	118.8	132.7	145.2	158.0	163.4	^r 169.4
Real compensation per hour	54.0	65.1	75.1	82.3	89.8	96.2	100.6	99.2	97.6	96.8	99.2	99.4	98.8
Unit labor costs	43.4	51.0	61.1	57.5	72.7	91.5	107.3	117.0	130.5	138.4	147.6	146.4	^r 145.0
Unit nonlabor payments	54.3	58.6	61.1	69.4	65.1	87.3	102.7	99.9	97.9	111.6	110.5	128.8	(¹)
Implicit price deflator	46.6	53.2	61.1	61.0	70.5	90.3	106.0	112.0	120.9	130.6	136.7	141.2	(¹)

¹Not available.

r = revised.

p = preliminary.

30. Annual changes in productivity, hourly compensation, unit costs, and prices, 1974-84

Item	Year											Annual rate of change	
	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1950-84	1974-84
Business sector:													
Output per hour of all persons	-2.4	2.2	3.3	2.4	0.5	-1.2	-0.5	1.9	0.2	2.7	3.2	2.2	1.5
Compensation per hour	9.4	9.6	8.5	7.7	8.5	9.4	10.4	9.4	8.1	4.3	4.2	6.5	8.1
Real compensation per hour	-1.4	0.5	2.6	1.2	0.8	-1.7	-2.7	-0.9	1.9	1.1	0.0	2.0	0.3
Unit labor costs	12.1	7.3	5.1	5.1	8.0	10.7	11.0	7.3	7.9	1.6	1.0	4.1	6.4
Unit nonlabor payments	4.4	15.1	4.0	6.4	6.7	5.8	5.7	14.6	0.1	6.3	8.0	3.9	7.2
Implicit price deflator	9.5	9.8	4.7	5.6	7.5	9.0	9.3	9.6	5.3	3.0	3.2	4.0	6.7
Nonfarm business sector:													
Output per hour of all persons	-2.5	2.0	3.2	2.2	0.6	-1.5	-0.7	1.5	0.2	3.5	2.7	1.9	1.4
Compensation per hour	9.4	9.6	8.1	7.5	8.6	9.0	10.3	9.6	8.0	4.9	4.1	6.2	8.0
Real compensation per hour	-1.4	0.4	2.2	1.0	0.8	-2.0	-2.8	-0.7	1.7	1.6	-0.1	1.7	0.2
Unit labor costs	12.2	7.5	4.7	5.2	8.0	10.7	11.1	8.0	7.7	1.4	1.4	4.2	6.5
Unit nonlabor payments	5.9	16.7	5.7	6.9	5.3	4.8	7.4	13.8	1.4	7.4	6.8	3.9	7.6
Implicit price deflator	10.2	10.3	5.1	5.7	7.1	8.8	10.0	9.8	5.7	3.2	3.1	4.1	6.8
Nonfinancial corporations:													
Output per hour of all employees	-3.7	2.9	2.9	1.8	0.8	-0.2	-0.9	1.9	1.0	3.3	2.3	(¹)	1.5
Compensation per hour	9.4	9.6	7.9	7.6	8.4	9.4	10.3	9.4	8.0	4.2	3.4	(¹)	8.9
Real compensation per hour	-1.5	0.4	2.0	1.1	0.7	-1.7	-2.8	-0.9	1.8	0.9	-0.8	(¹)	0.2
Unit labor costs	13.6	6.5	4.9	5.7	7.5	9.6	11.3	7.4	6.9	0.8	1.1	(¹)	6.7
Unit nonlabor payments	7.1	20.1	4.6	5.3	4.2	2.6	9.8	15.1	2.3	7.9	6.6	(¹)	7.8
Implicit price deflator	11.4	10.9	4.8	5.6	6.4	7.2	10.8	9.8	5.3	3.1	3.0	(¹)	7.1
Manufacturing:													
Output per hour of all persons	-2.4	2.9	4.5	2.5	0.9	0.7	0.2	3.1	2.1	4.3	4.6	2.6	2.6
Compensation per hour	10.6	11.9	8.0	8.3	8.3	9.7	11.7	9.4	8.8	3.4	3.6	6.3	8.3
Real compensation per hour	-0.3	2.5	2.1	1.8	0.6	-1.4	-1.6	-0.9	2.5	0.2	-0.6	1.8	0.5
Unit labor costs	13.3	8.8	3.4	5.7	7.3	9.0	11.5	6.1	6.6	-0.8	-1.0	3.6	5.6
Unit nonlabor payments	-1.8	25.9	7.5	6.5	2.7	-2.6	-2.1	14.1	-1.0	16.5	(¹)	2.6	7.1
Implicit price deflator	9.0	13.1	4.6	6.0	6.0	5.7	7.9	8.0	4.7	3.3	(¹)	3.4	6.6

¹ Not available.

c = corrected.

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

[1977 = 100]

Item	Annual average		Quarterly indexes										
			1982			1983				1984			
	1983	1984	II	III	IV	I	II	III	IV	I	II	III	IV
Business sector:													
Output per hour of all persons	103.7	107.0	100.3	100.9	101.6	102.2	103.6	104.3	104.7	105.7	107.0	107.2	108.2
Compensation per hour	161.7	168.6	153.9	156.7	158.4	160.2	161.0	161.8	164.2	166.7	167.5	169.3	171.1
Real compensation per hour	98.4	98.4	97.2	97.3	98.0	99.0	98.5	98.0	98.4	98.6	98.2	98.3	98.5
Unit labor costs	156.0	157.5	153.4	155.3	155.9	156.8	155.4	155.1	156.8	157.7	156.5	158.0	158.2
Unit nonlabor payments	145.5	157.1	137.0	135.8	136.5	139.8	144.6	147.9	149.1	151.6	157.2	158.5	160.6
Implicit price deflator	152.4	157.4	147.9	148.7	149.3	151.0	151.7	152.7	154.2	155.6	156.7	158.1	159.0
Nonfarm business sector:													
Output per hour of all persons	103.4	106.3	99.4	100.3	100.5	101.6	103.6	104.1	104.4	105.2	106.6	106.3	107.0
Compensation per hour	162.0	168.7	153.2	156.0	157.9	160.1	161.5	162.4	164.0	166.5	168.0	169.5	171.0
Real compensation per hour	98.6	98.4	96.8	96.9	97.7	99.0	98.8	98.3	98.3	98.5	98.4	98.4	98.5
Unit labor costs	156.6	158.8	154.2	155.6	157.1	157.6	155.9	155.9	157.1	158.3	157.6	159.5	159.8
Unit nonlabor payments	147.0	157.1	137.5	136.8	136.4	140.6	146.4	149.4	151.4	152.2	156.8	158.0	160.8
Implicit price deflator	153.4	158.2	148.6	149.3	150.2	151.9	152.7	153.8	155.2	156.3	157.3	159.0	160.1
Nonfinancial corporations:													
Output per hour of all employees	106.1	108.5	102.1	103.3	103.2	104.0	105.8	107.2	107.2	108.1	108.9	108.2	(¹)
Compensation per hour	161.0	166.6	153.5	156.2	157.7	159.2	160.6	161.8	162.6	164.8	165.8	167.1	(¹)
Real compensation per hour	97.9	97.2	97.0	97.0	97.5	98.4	98.2	98.0	97.4	97.5	97.2	97.1	(¹)
Total unit costs	155.2	156.4	154.0	154.7	157.0	156.7	155.2	154.4	154.7	155.0	155.0	157.5	(¹)
Unit labor costs	151.8	153.6	150.3	151.3	152.9	153.1	151.7	150.9	151.7	152.5	152.3	154.5	(¹)
Unit nonlabor costs	164.9	164.4	164.3	164.4	168.8	167.0	165.1	164.4	163.3	162.0	162.8	165.9	(¹)
Unit profits	117.2	148.0	86.8	86.6	75.6	92.5	111.8	126.6	135.9	143.2	151.1	145.3	(¹)
Implicit price deflator	150.9	155.4	146.3	146.9	147.7	149.4	150.2	151.2	152.6	153.6	154.6	156.1	(¹)
Manufacturing:													
Output per hour of all persons	111.6	116.8	106.3	108.8	107.8	109.1	110.8	113.4	113.1	114.2	115.3	117.4	117.1
Compensation per hour	163.4	169.4	157.2	159.8	161.0	162.7	163.0	163.5	164.6	167.1	168.3	169.9	172.1
Real compensation per hour	99.4	98.8	99.4	99.2	99.6	100.6	99.6	99.6	98.6	98.8	98.6	98.6	99.1
Unit labor costs	146.4	145.0	148.0	146.9	149.3	149.1	147.0	144.1	145.5	146.4	146.0	144.7	146.9

¹ Not available.

r = revised.

32. Percent change from preceding quarter and year in productivity, hourly compensation, unit costs, and prices, seasonally adjusted at annual rate

Item	Quarterly percent change at annual rate						Percent change from same quarter a year ago					
	II 1983 to III 1983	III 1983 to IV 1983	IV 1983 to I 1984	I 1984 to II 1984	II 1984 to III 1984	III 1984 to IV 1984	III 1982 to III 1983	IV 1982 to IV 1983	I 1983 to I 1984	II 1983 to II 1984	III 1983 to III 1984	IV 1983 to IV 1984
Business sector:												
Output per hour of all persons	2.8	1.4	4.0	4.9	0.6	3.8	3.4	3.1	3.5	3.3	2.7	3.3
Compensation per hour	2.0	6.1	6.2	1.9	4.4	4.4	3.3	3.7	4.1	4.0	4.6	4.2
Real compensation per hour	r-2.2	1.9	0.8	-1.8	0.7	0.8	0.6	0.4	-0.4	-0.3	0.4	0.1
Unit labor costs	-0.8	4.6	2.1	-2.9	3.7	0.6	-0.1	0.6	0.6	0.7	1.9	0.8
Unit nonlabor payments	9.5	3.1	7.0	15.4	3.4	5.5	8.9	9.2	8.4	8.7	7.1	7.8
Implicit price deflator	2.5	4.1	3.7	2.9	3.6	2.2	2.7	3.3	3.0	3.3	3.6	3.1
Nonfarm business sector:												
Output per hour of all persons	2.1	1.0	2.9	5.5	-1.1	2.9	3.9	3.9	3.5	2.9	2.1	2.5
Compensation per hour	2.2	4.1	6.1	3.7	3.6	3.7	4.1	3.9	4.0	4.0	4.4	4.3
Real compensation per hour	r-2.0	r-0.0	0.7	0.0	0.1	0.2	1.5	0.6	-0.5	-0.3	0.2	0.2
Unit labor costs	0.1	3.0	3.1	-1.7	4.7	0.8	0.2	0.0	0.4	1.1	2.3	1.7
Unit nonlabor payments	8.4	5.3	2.3	12.5	3.1	7.3	9.2	10.9	8.3	7.1	5.7	6.2
Implicit price deflator	2.7	3.7	2.8	2.8	4.2	2.9	3.0	3.3	2.9	3.0	3.4	3.2
Nonfinancial corporations:												
Output per hour of all employees	5.3	-0.2	3.6	2.8	-2.5	(1)	3.8	3.9	4.0	2.9	0.9	(1)
Compensation per hour	3.1	2.0	5.7	2.4	3.2	(1)	3.6	3.1	3.6	3.3	3.3	(1)
Real compensation per hour	-1.0	r-2.1	0.4	-1.3	r-0.4	(1)	1.0	-0.1	-0.9	-1.0	r-0.9	(1)
Total units costs	-2.0	0.8	0.6	0.2	6.5	(1)	-0.2	-1.5	-1.1	-0.1	2.0	(1)
Unit labor costs	-2.1	2.1	2.0	-0.4	5.9	(1)	-0.2	-0.8	-0.4	0.4	2.4	(1)
Unit nonlabor costs	-1.7	-2.6	-3.2	2.0	8.0	(1)	0.0	-3.2	-3.0	-1.4	0.9	(1)
Unit profits	64.8	32.6	23.4	23.8	-14.5	(1)	46.3	79.8	54.8	35.2	14.7	(1)
Implicit price deflator	2.8	3.6	2.7	2.6	3.9	(1)	3.0	3.3	2.8	2.9	3.2	(1)
Manufacturing:												
Output per hour of all persons	9.7	-1.0	3.7	4.0	7.4	-0.9	4.3	4.9	4.7	4.1	3.5	3.5
Compensation per hour	1.3	2.9	6.2	2.9	3.7	5.2	2.3	2.2	2.7	3.3	3.9	4.5
Real compensation per hour	-2.8	-1.2	0.8	-0.8	0.1	1.6	-0.3	-1.0	-1.7	-1.0	-0.2	0.4
Unit labor costs	-7.7	3.9	2.3	-1.1	-3.4	6.2	-1.9	-2.6	-1.9	-0.7	0.4	0.9

¹Not available.

r = revised.

WAGE AND COMPENSATION DATA

DATA FOR THE EMPLOYMENT COST INDEX are reported to the Bureau of Labor Statistics by a sample of 2,000 private nonfarm establishments and 750 State and local government units selected to represent total employment in those sectors. On average, each reporting unit provides wage and compensation information on five well-specified occupations.

Data on negotiated wage and benefit changes are obtained from contracts on file at the Bureau, direct contact with the parties, and secondary sources.

Definitions

The **Employment Cost Index** (ECI) is a quarterly measure of the average change in the cost of employing labor. The rate of total compensation, which comprises wages, salaries, and employer costs for employee benefits, is collected for workers performing specified tasks. Employment in each occupation is held constant over time for all series produced in the ECI, except those by region, bargaining status, and area. As a consequence, only changes in compensation are measured. Industry and occupational employment data from the 1970 Census of Population are used in deriving constant weights for the ECI. While holding total industry and occupational employment fixed, in the estimation of indexes by region, bargaining status, and area, the employment in those measures is allowed to vary over time in accord with changes in the sample. The rate of change (in percent) is available for wages and salaries, as well as for total compensation. Data are collected for the pay period including the 12th day of the survey months of March, June, September, and December. The statistics are neither annualized nor adjusted for seasonal influence.

Wages and salaries consist of earnings before payroll deductions, excluding premium pay for overtime, work on weekends and holidays, and shift differentials. Production bonuses, incentive earnings, commissions, and cost-of-living adjustments are included; nonproduction bonuses are included with other supplemental pay items in the benefits category; and payments-in-kind, free room and board, and tips are excluded. **Benefits** include supplemental pay, insurance, retirement and savings plans, and hours-related and legally required benefits.

Data on negotiated wage changes apply to private nonfarm industry collective bargaining agreements covering 1,000 workers or more. Data on compensation changes apply only to those agreements covering 5,000 workers or more. *First-year* wage or compensation changes refer to average negotiated changes for workers covered by settlements reached in the period

and implemented within the first 12 months after the effective date of the agreement. *Changes over the life of the agreement* refer to all adjustments specified in the contract, expressed as an average annual rate. These measures exclude wage changes that may occur under cost-of-living adjustment clauses, that are triggered by movements in the Consumer Price Index. *Wage-rate changes* are expressed as a percent of straight-time hourly earnings; *compensation changes* are expressed as a percent of total wages and benefits.

Effective wage adjustments reflect all negotiated changes implemented in the reference period, regardless of the settlement date. They include changes from settlements reached during the period, changes deferred from contracts negotiated in an earlier period, and cost-of-living adjustments. The data also reflect contracts providing for no wage adjustment in the period. Effective adjustments and each of their components are prorated over all workers in bargaining units with at least 1,000 workers.

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 a measure of the percent change in employers' cost for employees' 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.

Data for the broad white-collar, blue-collar, and service worker groups, and the manufacturing, nonmanufacturing, and service industry groups are presented in the ECI. Additional occupation and industry detail are provided for the wages and salaries component of total compensation in the private nonfarm sector. For State and local government units, additional industry detail is shown for both total compensation and its wages and salaries component.

Historical indexes (June 1981 = 100) of the quarterly rates of changes presented in the ECI are also available.

For a more detailed discussion of the ECI, see chapter 11, "The Employment Cost Index," of the BLS *Handbook of Methods* (Bulletin 2134-1), and the *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; and "The Employment Cost Index: recent trends and expansion," May 1982.

Additional data for the ECI and other measures of wage and compensation changes appear in *Current Wage Developments*, a monthly publication of the Bureau.

33. Employment Cost Index, by occupation and industry group

[June 1981 = 100]

Series	1982	1983				1984				Percent change		
		Dec.	March	June	Sept.	Dec.	March	June	Sept.	Dec.	3 months ended	12 months ended
											December 1984	
Civilian workers¹	111.4	113.2	114.5	116.5	117.8	119.8	120.8	122.4	123.9	1.2	5.2	
Workers, by occupational group												
White-collar workers	111.9	113.7	114.9	117.6	118.9	120.9	122.1	124.0	125.5	1.2	5.6	
Blue-collar workers	110.5	112.3	113.6	114.8	115.8	117.7	118.6	119.6	120.9	1.1	4.4	
Service workers	112.4	114.3	115.1	116.7	119.1	122.0	122.1	124.6	126.8	1.8	6.5	
Workers, by industry division												
Manufacturing	110.4	112.5	113.5	115.0	116.0	117.9	119.1	120.4	122.0	1.3	5.2	
Nonmanufacturing	111.8	113.5	114.9	117.2	118.6	120.7	121.6	123.3	124.8	1.2	5.2	
Services	115.0	116.6	117.1	121.1	122.6	125.0	125.5	128.8	130.9	1.6	6.8	
Public administration ²	113.6	116.2	117.0	119.8	121.4	122.9	123.7	126.9	128.6	1.3	5.9	
Private industry workers	110.7	112.6	113.9	115.6	117.0	119.0	120.1	121.1	122.7	1.3	4.9	
Workers, by occupational group												
White-collar workers	110.8	112.8	114.2	116.5	117.9	119.9	121.4	122.4	123.9	1.2	5.1	
Blue-collar workers	110.3	112.1	113.5	114.6	115.7	117.5	118.4	119.3	120.6	1.1	4.2	
Service workers	111.8	113.8	114.6	115.1	117.9	121.5	121.2	123.2	125.7	2.0	6.6	
Workers, by industry division												
Manufacturing	110.4	112.5	113.5	115.0	116.0	117.9	119.1	120.4	122.0	1.3	5.2	
Nonmanufacturing	110.8	112.6	114.2	116.0	117.5	119.6	120.7	121.6	123.1	1.2	4.8	
State and local government workers	115.1	116.5	117.1	120.8	122.0	123.9	124.4	128.8	130.1	1.0	6.6	
Workers, by occupational group												
White-collar workers	115.8	117.0	117.5	121.5	122.6	124.5	125.0	129.7	131.1	1.1	6.9	
Blue-collar workers	113.0	114.9	115.8	118.0	119.2	121.9	122.3	125.0	125.9	0.7	5.6	
Workers, by industry division												
Services	115.9	116.8	117.4	121.7	122.6	124.5	125.0	129.9	131.3	1.1	7.1	
Schools	115.8	116.6	116.9	121.9	122.6	124.5	124.7	130.6	132.0	1.1	7.7	
Elementary and secondary	116.6	117.2	117.4	123.3	123.9	125.4	125.7	132.1	133.5	1.1	7.7	
Hospitals and other services ³	116.0	117.5	118.8	121.1	122.6	124.4	125.7	127.9	129.2	1.0	5.4	
Public administration ²	113.6	116.2	117.0	119.8	121.4	122.9	123.7	126.9	128.6	1.3	5.9	

¹Excludes farm, household, and Federal workers.

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

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

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

[June 1981 = 100]

Series	1982	1983				1984				Percent change		
		Dec.	March	June	Sept.	Dec.	March	June	Sept.	Dec.	3 months ended	12 months ended
											December 1984	
Civilian workers¹	110.9	112.2	113.4	115.3	116.5	117.9	118.8	120.3	121.7	1.2	4.5	
Workers, by occupational group												
White-collar workers	111.4	113.0	114.2	116.7	117.9	119.3	120.4	122.2	123.5	1.1	4.7	
Blue-collar workers	109.8	110.8	112.0	113.1	114.0	115.3	116.1	117.0	118.2	1.0	3.7	
Service workers	111.8	113.2	113.9	115.1	117.4	120.0	119.8	122.3	124.3	1.6	5.9	
Workers, by industry division												
Manufacturing	109.8	111.0	112.0	113.3	114.5	115.7	116.8	118.0	119.5	1.3	4.4	
Nonmanufacturing	111.3	112.7	114.0	116.1	117.4	118.9	119.7	121.3	122.6	1.1	4.4	
Services	114.4	115.8	116.3	120.1	121.3	123.3	123.8	127.2	128.9	1.3	6.3	
Public administration ²	112.6	114.6	115.4	118.2	119.4	120.4	121.3	124.4	125.7	1.0	5.3	
Private industry workers	110.3	111.6	112.9	114.5	115.8	117.2	118.2	119.2	120.6	1.2	4.1	
Workers, by occupational group												
White-collar workers	110.6	112.2	113.6	115.9	117.2	118.5	119.9	120.9	122.3	1.2	4.4	
Professional and technical workers	112.9	114.8	115.9	119.9	120.4	122.2	123.8	125.2	127.3	1.7	5.7	
Managers and administrators	109.3	112.0	114.0	114.8	115.7	118.0	119.2	121.0	122.2	1.0	5.6	
Salesworkers	106.2	105.7	107.1	108.4	111.2	110.2	111.9	110.5	111.6	1.0	.4	
Clerical workers	111.6	113.4	114.6	116.7	118.3	119.8	120.7	122.0	122.9	.7	3.9	
Blue-collar workers	109.7	110.7	111.9	112.9	113.9	115.1	115.9	116.7	118.0	1.1	3.6	
Craft and kindred workers	111.2	112.2	113.4	114.3	115.4	116.5	117.3	118.0	119.4	1.2	3.5	
Operatives, except transport	109.3	110.0	111.1	112.3	113.6	114.9	115.8	116.6	117.9	1.1	3.8	
Transport equipment operatives	106.9	108.0	110.3	110.7	110.2	111.7	112.7	113.4	114.0	.5	3.4	
Nonfarm laborers	107.8	109.0	109.8	110.8	112.1	112.9	114.1	114.7	115.9	1.0	3.4	
Service workers	111.4	112.9	113.5	113.7	116.5	119.8	119.3	121.2	123.7	2.1	6.2	
Workers, by industry division												
Manufacturing	109.8	111.0	112.0	113.3	114.5	115.7	116.8	118.0	119.5	1.3	4.4	
Durables	110.3	111.1	111.8	112.9	114.4	115.7	116.6	117.7	119.1	1.2	4.1	
Nondurables	109.1	110.9	112.3	113.9	114.6	115.8	117.1	118.6	120.2	1.3	4.9	
Nonmanufacturing	110.5	112.0	113.4	115.2	116.5	118.0	119.0	119.9	121.2	1.1	4.0	
Construction	109.7	110.4	112.1	112.2	112.9	113.3	114.0	114.3	114.4	.1	1.3	
Transportation and public utilities	111.1	112.9	114.7	115.7	116.8	118.5	119.3	119.9	120.7	.7	3.3	
Wholesale and retail trade	107.2	108.5	110.8	111.5	112.3	114.3	116.0	116.5	118.1	1.4	5.2	
Wholesale trade	109.8	111.8	114.1	115.7	116.5	118.2	120.0	120.7	122.9	1.8	5.5	
Retail trade	106.1	107.2	109.4	109.9	110.6	112.8	114.4	114.9	116.2	1.1	5.1	
Finance, insurance, and real estate	109.0	110.6	111.1	113.5	116.9	116.1	116.9	115.3	115.8	.4	-.9	
Services	114.3	116.0	116.6	120.4	121.9	124.2	124.7	127.1	129.5	1.9	6.2	
State and local government workers	114.0	115.1	115.7	119.2	120.0	121.6	122.0	126.1	127.1	.8	5.9	
Workers, by occupational group												
White-collar workers	114.6	115.6	116.1	119.8	120.6	122.2	122.5	127.1	128.0	.7	6.1	
Blue-collar workers	112.0	113.3	114.3	116.4	116.9	119.1	119.6	121.9	122.5	.5	4.8	
Workers, by industry division												
Services	114.6	115.5	115.9	119.8	120.6	122.2	122.5	127.2	128.1	.7	6.2	
Schools	114.5	115.2	115.4	119.9	120.6	122.2	122.3	127.8	128.7	.7	6.7	
Elementary and secondary	115.1	115.6	115.8	121.1	121.7	122.9	123.0	129.3	130.2	.7	7.0	
Hospitals and other services ³	114.9	116.5	117.7	119.7	120.6	121.9	123.1	125.1	125.9	.6	4.4	
Public administration ²	112.6	114.6	115.4	118.2	119.4	120.4	121.3	124.4	125.7	1.0	5.3	

¹Excludes farm, household, and Federal workers.

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

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

35. Employment Cost Index, private industry workers, by bargaining status, region, and area size

[June 1981 = 100]

Series	1982	1983				1984				Percent change		
		Dec.	March	June	Sept.	Dec.	March	June	Sept.	Dec.	3 months ended	12 months ended
											December 1984	
COMPENSATION												
Workers, by bargaining status ¹												
Union	112.3	114.5	116.0	117.8	118.8	120.6	121.7	122.6	123.9	1.1	4.3	
Manufacturing	111.8	114.0	114.8	116.3	117.2	119.3	120.5	121.6	123.2	1.3	5.1	
Nonmanufacturing	112.8	114.9	117.1	119.2	120.4	121.9	122.8	123.6	124.5	0.7	3.4	
Nonunion	109.7	111.5	112.8	114.4	115.9	118.0	119.2	120.3	121.9	1.3	5.2	
Manufacturing	109.2	111.2	112.3	113.8	114.9	116.6	117.9	119.3	120.8	1.3	5.1	
Nonmanufacturing	109.9	111.6	113.0	114.7	116.4	118.6	119.8	120.7	122.4	1.4	5.2	
Workers, by region ¹												
Northeast	111.7	112.6	114.3	116.0	117.5	118.9	120.7	122.4	123.8	1.1	5.4	
South	110.6	112.5	113.5	115.6	117.1	119.7	120.7	120.7	122.2	1.2	4.4	
North Central	108.6	110.9	112.5	113.9	114.7	117.2	117.9	119.7	120.8	.9	5.3	
West	112.9	115.4	116.6	118.0	120.0	121.0	122.2	122.5	124.9	2.0	4.1	
Workers, by area size ¹												
Metropolitan areas	110.9	112.9	114.2	116.0	117.4	119.4	120.6	121.5	123.2	1.4	4.9	
Other areas	109.1	110.8	112.3	113.4	114.5	116.7	117.4	119.0	119.8	.7	4.6	
WAGES AND SALARIES												
Workers, by bargaining status ¹												
Union	111.8	112.9	114.2	116.0	116.9	118.1	119.0	119.8	120.9	.9	3.4	
Manufacturing	110.8	111.4	112.3	113.7	114.8	116.1	117.1	118.1	119.5	1.2	4.1	
Nonmanufacturing	112.7	114.3	116.0	118.3	118.9	120.1	120.7	121.3	122.1	.7	2.7	
Nonunion	109.5	110.9	112.2	113.7	115.2	116.7	117.8	118.8	120.4	1.3	4.5	
Manufacturing	109.1	110.7	111.8	113.0	114.2	115.4	116.5	117.9	119.5	1.4	4.6	
Nonmanufacturing	109.6	111.0	112.4	114.0	115.6	117.2	118.3	119.2	120.7	1.3	4.4	
Workers, by region ¹												
Northeast	111.5	112.0	113.6	115.3	116.6	117.4	118.9	120.5	121.9	1.2	4.5	
South	109.8	111.4	112.5	114.3	115.7	117.9	119.0	119.0	120.2	1.0	3.9	
North Central	108.6	110.1	111.5	112.8	113.6	115.5	116.0	117.8	118.7	.8	4.5	
West	112.0	114.1	114.9	116.5	118.5	118.8	119.6	120.0	122.5	2.1	3.4	
Workers by area size ¹												
Metropolitan areas	110.5	111.9	113.2	114.9	116.2	117.6	118.6	119.5	121.0	1.3	4.1	
Other areas	108.8	110.1	111.4	112.3	113.4	115.1	116.0	117.5	118.3	.7	4.3	

¹The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see BLS *Handbook of Methods*, Bulletin 1910.

36. Wage and compensation change, major collective bargaining settlements, 1980 to date

[In percent]

Measure	Annual average					Quarterly average								
	1980	1981	1982	1983	1984	1982	1983				1984			
						IV	I	II	III	IV	I	II	III	IV
Total compensation changes, covering 5,000 workers or more, all industries:														
First year of contract	10.4	10.2	3.2	3.4	3.6	3.3	-1.6	4.4	5.0	4.9	5.1	3.5	2.7	3.7
Annual rate over life of contract	7.1	8.3	2.8	3.0	2.8	4.8	1.4	3.6	4.3	3.1	4.7	3.2	3.1	2.0
Wage rate changes covering at least 1,000 workers, all industries:														
First year of contract	9.5	9.8	3.8	2.6	2.4	3.8	-1.2	2.7	3.7	4.2	2.8	2.6	2.1	2.3
Annual rate over life of contract	7.1	7.9	3.6	2.8	2.4	4.8	2.2	2.8	3.6	2.8	3.3	2.7	2.6	1.5
Manufacturing:														
First year of contract	7.4	7.2	2.8	0.4	2.3	4.1	-3.4	1.3	3.4	2.9	2.5	2.6	2.3	2.2
Annual rate over life of contract	5.4	6.1	2.6	2.1	1.5	3.9	4.5	.9	3.5	3.1	2.5	2.8	2.5	1.0
Nonmanufacturing (excluding construction):														
First year of contract	9.5	9.8	4.3	5.0	3.4	3.6	3.3	5.9	5.8	4.8	4.2	4.3	2.0	3.9
Annual rate over life of contract	6.6	7.3	4.1	3.7	3.8	5.2	5.3	5.2	4.3	2.7	4.8	4.2	2.8	3.8
Construction:														
First year of contract	13.6	13.5	6.5	1.5	.5	3.4	.7	1.7	1.5	1.1	-3.6	1.1	2.0	-2.8
Annual rate over life of contract	11.5	11.3	6.3	2.4	1.0	2.9	2.4	2.1	2.9	2.6	-2.8	1.4	2.1	-8

37. Effective wage adjustments in collective bargaining units covering 1,000 workers or more, 1980 to date

Measure	Year					Year and quarter								
	1980	1981	1982	1983	1984	1982	1983				1984			
						IV	I	II	III	IV	I	II	III	IV
Average percent adjustment (including no change):														
All industries	9.9	9.5	6.8	4.0	3.7	1.3	0.3	1.3	1.2	1.1	0.9	0.9	1.2	0.7
Manufacturing	10.2	9.4	5.2	2.7	4.3	1.5	-.5	1.1	1.2	.9	1.2	1.0	1.0	1.1
Nonmanufacturing	9.7	9.5	7.9	4.8	3.3	1.2	.9	1.5	1.2	1.2	.7	.9	1.3	.4
From settlements reached in period	3.6	2.5	1.7	.8	.8	.6	-.2	.3	.2	.6	.1	.1	.2	.3
Deferred from settlements reached in earlier period	3.5	3.8	3.6	2.5	2.0	.4	.4	1.0	.8	.3	.4	.7	.7	.2
From cost-of-living clauses	2.8	3.2	1.4	.6	.9	.3	.1	.1	.2	.2	.3	.2	.3	.2
Total number of workers receiving wage change (in thousands) ¹	—	8,648	7,852	6,530	6,195	3,441	2,875	3,061	3,025	2,887	2,694	2,482	2,386	1,850
From settlements reached in period	—	2,270	1,907	2,327	1,851	825	448	561	599	996	295	355	406	911
Deferred from settlements reached in earlier period	—	6,267	4,846	3,260	3,668	860	812	1,405	1,317	669	984	1,148	1,581	443
From cost-of-living clauses	—	4,593	3,830	2,327	2,518	1,970	1,938	1,299	1,218	1,290	1,459	1,151	1,215	1,070
Number of workers receiving no adjustments (in thousands)	—	145	483	1,187	1,123	4,895	4,842	4,656	4,693	4,830	4,624	4,835	4,932	5,467

¹ The total number of workers who received adjustments does not equal the sum of workers that received each type of adjustment, because some workers received more than one type of adjustment during the period.

WORK STOPPAGE DATA

WORK STOPPAGES include all known strikes or lockouts involving 1,000 workers or more and lasting a full shift or longer. Data are based largely on newspaper accounts and cover all workers idle one shift or more in establishments directly involved in a stoppage. They do not measure the indirect or secondary effect on other establishments whose employees are idle owing to material or service shortages.

Estimates of days idle as a percent of estimated working time measure only the impact of larger strikes (1,000 workers or more). Formerly, these estimates measured the impact of strikes involving 6 workers or more; that is, the impact of virtually *all* strikes. Due to budget stringencies, collection of data on strikes involving fewer than 1,000 workers was discontinued with the December 1981 data.

38. Work stoppages involving 1,000 workers or more, 1947 to date						
Month and year	Number of stoppages		Workers involved		Days idle	
	Beginning in month or year	In effect during month	Beginning in month or year (in thousands)	In effect during month (in thousands)	Number (in thousands)	Percent of estimated working time
1947	270		1,629		25,720	—
1948	245		1,435		26,127	.22
1949	262		2,537		43,420	.38
1950	424		1,698		30,390	.26
1951	415		1,462		15,070	.12
1952	470		2,746		48,820	.38
1953	437		1,623		18,130	.14
1954	265		1,075		16,630	.13
1955	363		2,055		21,180	.16
1956	287		1,370		26,840	.20
1957	279		887		10,340	.07
1958	332		1,587		17,900	.13
1959	245		1,381		60,850	.43
1960	222		896		13,260	.09
1961	195		1,031		10,140	.07
1962	211		793		11,760	.08
1963	181		512		10,020	.07
1964	246		1,183		16,220	.11
1965	268		999		15,140	.10
1966	321		1,300		16,000	.10
1967	381		2,192		31,320	.18
1968	392		1,855		35,567	.20
1969	412		1,576		29,397	.16
1970	381		2,468		52,761	.29
1971	298		2,516		35,538	.19
1972	250		975		16,764	.09
1973	317		1,400		16,260	.08
1974	424		1,796		31,809	.16
1975	235		965		17,563	.09
1976	231		1,519		23,962	.12
1977	298		1,212		21,258	.10
1978	219		1,006		23,774	.11
1979	235		1,021		20,409	.09
1980	187		795		20,844	.09
1981	145		729		16,908	.07
1982	96		656		9,061	.04
1983	81		909		17,461	.08
1984	62		376		8,499	.04
1984 ^f						
January	6	12	28.0	42.9	505.3	.03
February	3	13	9.4	42.4	379.5	.02
March	2	10	3.0	16.5	296.3	.01
April	7	13	28.5	38.4	657.3	.03
May	5	15	8.1	39.2	587.6	.03
June	5	14	23.7	45.9	761.1	.04
July	8	20	70.8	106.4	1,228.0	.06
August	5	19	24.2	103.9	1,634.5	.07
September	10	18	107.9	122.9	731.0	.04
October	4	16	18.0	39.6	562.1	.03
November	4	15	12.0	32.3	500.1	.03
December	3	13	42.5	59.0	655.8	.04
1985 ^p						
January	2	9	4.7	16.0	278.3	.01
February	4	13	29.3	43.9	259.3	.01

p = preliminary.

r = revised.

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FREE PUBLICATIONS

Area Wage Summaries

Augusta, GA-SC, January 1985. 3 pp.

Charlotte-Gastonia, NC, December 1984. 3 pp.

Colorado Springs, CO, December 1984. 3 pp.

Columbia-Sumter, SC, January 1985. 3 pp.

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Dothan, AL, December 1984. 6 pp.

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Southwest Virginia, December 1984. 5 pp.

BLS Reports

Employment in Perspective: Working Women, Fourth Quarter 1984. Report 716, 3 pp. Summarizes developments in women's employment and unemployment throughout 1984, concentrating particularly on changes between the fourth quarters of 1983 and 1984.

Other Summaries

Employee Earnings and Benefits, Men's and Boys' Shirts, May 1984. Summary 85-1, 14 pp.

Occupational Earnings and Wage Trends in Metropolitan Areas, 1984. (No. 2 of 3). Summary 84-10, 10 pp.

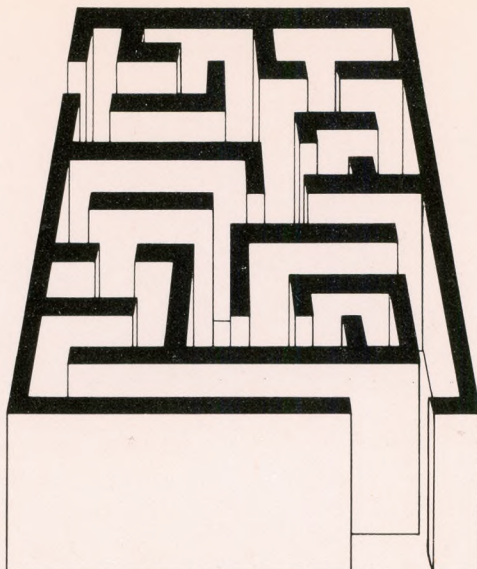
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