

September 1995



M O N T H L Y L A B O R
REVIEW

U.S. Department of Labor

Bureau of Labor Statistics

In this issue:

- Earnings mobility
- Intermittent labor force
- Security brokers and dealers
- Unemployment insurance benefits

G R O W T H

Training



U.S. Department of Labor
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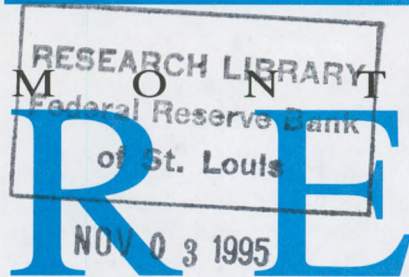
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H L Y L A B O R
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Earnings mobility in the United States, 1967-91

3

Earnings are less stable for the young, blacks, and less educated workers than for older, white, and more educated workers

Maury Gittleman and Mary Joyce

Effects of intermittent labor force attachment on women's earnings

14

Women who leave the labor force lose seniority, are less likely to receive on-the-job training, and their job skills may depreciate

Joyce P. Jacobsen and Laurence M. Levin

Employment trends in the security brokers and dealers industry

20

Over the 1984-93 period, the industry's professional jobs almost doubled; clerical job growth was weak, due to technological advances

Brett Illyse Graff

Trends in unemployment insurance benefits

30

The share of the unemployed receiving unemployment benefits has declined slowly since the 1940's, and remains low

Daniel P. McMurrer and Amy B. Chasanov

Departments

Labor month in review

2

Technical notes

40

Industrial relations

45

Workplace performance

49

Book reviews

51

Current labor statistics

55

The September Review

Where most studies of earnings distribution compare snapshots of the labor force as it is divided into earnings classes at particular points in time, Maury Gittleman and Mary Joyce of the BLS Division of Special Studies examine the transitions among classes during the interval *between* points in time. One positive finding is that workers in the bottom quintile of earnings are slightly more likely to move out of that class than are those in the top fifth. On a more somber note, they warn that their results "do not suggest that mobility patterns have changed in such a way as to offset the recent rise in earnings inequality."

Joyce P. Jacobsen, professor of economics at Wesleyan, and Laurence M. Levin, research associate at Cornerstone Research, calculate the cost of taking an intermission in one's career in terms of the difference in wages between women who work continuously and those who have one or more gaps in their work history. According to their calculations, the wage ratio in the first month of their study was 1.33. This indicates that women who had not left the labor force were earning about a third again as much as those who had at least one break. This disparity persisted at very close to that level throughout the 32 months of data analyzed. Even after accounting for differences in other individual characteristics, they find that the difference diminishes, but never disappears.

The 9 years ending in 1993 saw major economic, technological, and regulatory changes in the way business was done in the securities brokers and dealers industry. Brett Illyse Graff, an economist in the BLS Division of Occupational and Administrative Statistics, uses the extremely detailed information available from the Occupational Employment Statistics (OES) survey to trace the impact of those changes on the staffing patterns of the industry. Today's industry has a far greater share of its workers in professional and sales jobs

and far fewer in clerical or managerial positions.

Daniel P. McMurrer and Amy B. Chasanov draw on their experience as policy analysts at the Advisory Council on Unemployment Compensation to analyze recent developments in unemployment insurance programs and their impact on the ability of the system to carry out its wage replacement and stabilization functions.

Harley Frazis, Michelle Harrison Ports, and Jay Stewart contribute a technical note on the impact of question changes prior to the 1994 CPS redesign on that survey's measures of educational attainment. Markley Roberts of the AFL-CIO reviews *Trade Union Growth and Decline: An International Study* (by Walter Galensen). Michael H. Cimini and Charles A. Muhl summarize developments in industrial relations and Polly A. Phipps analyzes recent findings on workplace performance.

Wage flexibility varies widely

In the June 1995 issue of *Labour Economics*, Geraint Johnes and Thomas Hyclak derive measures of real wage flexibility for each of the 48 contiguous States in "The determinants of real wage flexibility." These measures are based on three-stage least squares estimates of the coefficient on unemployment in State-specific, expectations-augmented Phillips curves. According to Johnes and Hyclak, the five States with the most flexible wages were North Dakota, South Dakota, Nebraska, Utah, and Maryland. The five States with the most rigid wages were New Mexico, Connecticut, Delaware, New Jersey, and New York.

Netsurfing?

On Labor Day, the Bureau hit the Internet with a new and improved World Wide Web site. The BLS Home Page URL is <http://stats.bls.gov/blshome.html>. For on-line help contact: labstat.helpdesk@bls.gov

Shiskin Award to IRS statistician

The Washington Statistical Society and the National Association of Business Economists awarded the 1995 Julius Shiskin Award to Fritz Scheuren, former Director of the Statistics of Income Division of the Internal Revenue Service. The award committee cited Dr. Scheuren's contributions to the construction of microeconomic data files, the statistical use of administrative data for economic research, and providing complex data on the American tax system to other government agencies and to researchers around the world.

Dr. Martin Fleming, chair of the Julius Shiskin Award Committee, declared "We can be proud that the United States produces what is without question the finest database of its kind in the world, thanks being due in large part to Fritz's dedication, talents, and abilities."

The award is named in honor of the ninth U.S. Commissioner of Labor Statistics. It is designed to honor original and important contributions to the development of economic statistics or in the use of economic statistics in interpreting the economy.

Reader survey '95

The October issue will carry our tear-out reader survey. Your responses last year were extremely useful, and we hope to hear from even more of you this time. When you pick up your *Review* next month, please take a few minutes to fill out and return the short questionnaire.

The October Review

The October *Review* compares compensation in the United States and 29 countries or areas, discusses employment in Japan, examines new measures of unemployment that take advantage of data collected in the redesigned CPS, describes the new BLS quarterly productivity measures, reports on productivity in retail stores, and takes a look at employer-sponsored health benefits.

Earnings mobility in the United States, 1967-91

*The young, the less educated,
and blacks have more instability
in their earnings than do those
who are older, more educated, or white*

Maury Gittleman
and
Mary Joyce

In recent years, the gap between high earners and low earners in the United States has widened. Information about this phenomenon is generally reported in relation to a particular point in time. The Census Bureau, for example, reports on the percentage of families whose income is below the poverty line during a particular year and releases annual data on the share of household income by quintile. While such statistics reveal important insights into how individuals are faring economically, they paint an incomplete picture.

To gain a fuller appreciation of the impact of poverty, one must understand not only trends in poverty rates, but also the extent to which a family that is in poverty in a given year will remain there in a particular specified period that follows. In a similar way, those concerned about equity will want to know not only whether the share of income going to the top fifth of the income distribution is growing or declining, but also whether there are patterns in the degree to which households move in and out of a given portion of the income distribution.

To move from the static view of the economy inherent in most economic data on the income distribution to a more dynamic perspective, it is necessary to have information on the *mobility* of individuals, families, and households over time—that is, the extent to which these economic units change positions in the income distribution over a given period. What proportion of families in poverty this year will escape poverty next year? Are those in the middle class now likely to be there 5 years from now? Do the rich in one year tend to be the rich in the next, or do individuals from other income classes move into the top tiers? A study of

mobility can provide insights relevant to answering important questions such as these. In addition, the degree of earnings mobility is important not only for developing a more comprehensive view of the workings of the economy, but also in such areas as designing pension schemes or income-contingent student loan programs, where benefits or repayment responsibilities depend on a person's earnings over his or her working life and not during a particular year. Further, mobility patterns contribute to an understanding of labor markets, as certain patterns will be consistent with some labor market theories but not with others.¹

This article addresses two important questions concerning earnings mobility in the United States. First, how do patterns of earnings mobility differ by sex, age, race, and education? While many recent studies examine trends in earnings across demographic groups,² much less attention has been devoted to the extent to which those of a given group are able to maintain or improve their relative economic status from one year to the next. And, second, how have mobility patterns changed over time? A vast literature has developed that seeks to document and explain the large increase in earnings inequality in the United States,³ but little is known about whether—as the earnings distribution became more pulled apart—it got harder or easier for individuals to work their way up the economic ladder. Trends in mobility have implications both for the causes of the rise in earnings inequality and for the extent to which inequities in earnings in a given year even out over time.

A number of important findings emerge from this study. First, important differences appear

Maury Gittleman and Mary Joyce are economists in the Office of Publications and Special Studies, Bureau of Labor Statistics.

across demographic groups in regard to their mobility within the overall earnings distribution: women are more likely to remain in the bottom quintile and less likely to remain in the top quintile of the overall earnings distribution than are men; and blacks are more likely than whites to slip out of the top quintile and to remain in the bottom quintile of the overall distribution. Second, differences also appear in relative mobility within various earnings distributions for groups defined by their demographic characteristics: the young, the less educated, and blacks have more instability in their earnings than those who are older, more highly educated, or white. Third, short-term mobility levels have not undergone major changes over the time span 1967–91.

Measuring mobility

Before mobility can be measured, a number of methodological issues must be addressed. First is the choice of the unit of analysis—that is, whether it is to be families or individuals.⁴ Because this article examines the way in which the labor market distributes rewards and how the process changes over time, the focus is on individuals. For the same reason, earnings are emphasized rather than income, as the latter may include income from property, government programs, and other sources outside of the labor market. If the goal were to assess changes in the distribution of economic well-being, the family would probably be the appropriate choice, because one's welfare is determined not only by one's own income, but also by the income of other household members.⁵ In addition, in that instance, it would be advisable to include as broad a measure of a family's economic resources as possible, not just its labor-market earnings.

The article focuses on two different concepts of earnings mobility. The first is concerned with the positions and movements of various demographic groups within the earnings distribution of the entire population. Measures of this type of mobility seek to provide answers to questions such as the following: What proportion of the blacks that are in the top quintile (top fifth) of the overall earnings distribution in a given year maintain that position over time? Or, what proportion of white males in the bottom quintile in a particular year will have moved to a higher quintile the following year? Such a concept of mobility highlights differences in various demographic groups' ability to change or maintain their relative positions within the overall earnings distribution.

The second type of mobility examines relative earnings movements within subdistributions defined by demographic characteristics. For example, it is well known that those with less education will have lower earnings, on average, than the more educated. But focusing, say, on high school dropouts, do the better off within this group tend to be the same year after year, or is there a substantial reshuffling of eco-

nomic positions? And how does this "churning" in the earnings distribution for high school dropouts compare with that for other groups?

Issues in interpreting findings. A number of important issues must be kept in mind in interpreting the results to be presented. Suppose one of the findings is that individuals experienced substantial changes in their relative positions within the overall earnings distribution or within that of a subpopulation. This can be thought of as evidence of either a high degree of short-term earnings mobility or a high level of short-term earnings instability, depending on one's perspective. To most ears, "earnings mobility" sounds like something to be favored on equity grounds, as it connotes the opportunity to change one's relative economic position. The term "earnings instability," on the other hand, suggests a negative flip side to this, hinting at potential difficulties involved in attempting to maintain one's economic status. Thus, the normative aspects of the findings are a matter of interpretation, open to debate about whether the glass is "half empty" or "half full."

It is also important to keep in mind the distinction between earnings *mobility* and earnings *growth*. The measures presented in this article of earnings mobility over a given period are concerned solely with the degree to which individuals shift *relative positions* within the earnings distribution, not with *absolute growth* in real earnings levels over time.⁶ Thus, by definition, mobility implies that one person's upward movement within the earnings distribution is accompanied by another person's downward shift.

Data

The analysis to be presented uses March-March matched files from the Annual Demographic Files of the Current Population Survey (CPS)⁷ from 1968 to 1992. The CPS is designed so that potentially half of the individuals surveyed in a given March will also be present in the sample in the following March.⁸ By linking surveys, one can follow an individual for 2 years and see how his or her position in the earnings distribution changes over that period. While earnings mobility is best studied over as long a time span as possible, there are several important advantages to using the sequence of 2-year panels made available by linking CPS data. First, the CPS is a nationally representative data set, so one can follow all age groups over time.⁹ Second, the samples obtainable from the matched CPS's are generally larger than those from the longitudinal data sets, allowing more precise estimates of mobility for various subpopulations than is possible using smaller panel data sets. Third, 2-year panels can be constructed to cover a lengthy period—nearly 25 years.

Construction of samples. From the 25 March CPS's from 1968 to 1992, it was possible to construct 20 matched

samples.¹⁰ Each of these was divided into the following four main subsamples, using annual wage and salary income as the measure of economic status in a given year: men with positive wage and salary income in both years; men working full time, year round (at least 50 weeks' work, usually working at least 35 hours per week) in both years; women with positive earnings in both years; and women working full time, year round in both years.¹¹ For all samples, the following criteria had to be met for both years: age between 25 and 59 years; not self-employed; and not in the top percentile of the earnings distribution of the appropriate subsample. The trimming of the top 1 percent of earners is done both because some of the measures of mobility used in this article are sensitive to outliers and because it is desirable to eliminate from the sample those for whom data on earnings have been censored or "top coded." For the latter individuals, it is known that their earnings are above a certain threshold, but it is not known by how much.¹² To be included in the group of those with positive wage and salary income in a given 2-year sample (either men or women; referred to later as the positive samples), annual earnings merely had to be nonzero in both years. To be included in the group of those working full time, year round in both years of the sample (again, either men or women; referred to later as the full-time, year-round samples), which implicitly controls for differences across individuals in hours worked, annual earnings had to exceed 1,750 (50 weeks times 35 hours) times one-half the applicable minimum nonfarm hourly wage rate in both years.

Results are presented for both samples because they represent different aspects of mobility. For the full-time, year-round samples, the movement within the distributions is due mainly to relative changes in the rate of pay, while in the positive samples, changes in hours worked also play a role. In part because not all changes in hours worked are voluntary, it is important to assess mobility for both samples.

In addition to these four subsamples, the following samples, divided along three demographic dimensions, were used: age—intervals of 25–29, 30–39, 40–49, and 50–59 years; years of schooling completed—fewer than 12 years, 12 years, 13–15 years, and 16 or more years; and race—white and black.¹³

Mobility patterns, 1967–91

Mobility within the overall earnings distribution. To measure both kinds of mobility defined earlier, appropriate yardsticks are required.¹⁴ For the first type of mobility—movement in the overall earnings distribution—consider a device known as a *transition matrix*. If the overall earnings distribution is divided into quintiles in year $t - 1$ and year t , a 5×5 matrix can be calculated wherein each cell (i, j) shows the proportion of those in quintile i in year $t - 1$ that are in quintile j in year t . Table 1 presents a hypothetical example of such a matrix. The

matrix shows that, of those who are in the second quintile in year 1, 0.3, or 30 percent, will fall to the bottom quintile in year 2. The percentages in each row must sum to 1, because all of the individuals who were in a given quintile in year 1 must be in some quintile in year 2. By similar reasoning, the columns must sum to 1 as well. While every cell is of potential interest, for purposes of discussing movements within the overall distribution, consider cells $(1, 1)$ and $(5, 5)$ —that is, the percentage of those who start off in the bottom quintile of the overall earnings distribution and remain there, and the same measure for the top quintile.

How do demographic groups differ in terms of their positions and movements within the overall earnings distribution? To answer this question, let us examine the patterns of the two sexes and then, separately by sex, of the 10 demographic groups defined by age, years of schooling, and race. The first two columns of table 2 report the percentage of each demographic group that was in the first (bottom) and in the fifth (top) quintile of the overall earnings distribution during 1990, and the second two columns show the percentage of these that remained in those quintiles during 1991. The percentages are given for the positive and the full-time, year-round samples. While the results shown are for 1990–91 only, the basic patterns hold for any pair of years during the 1967–91 period.

Although differences in mean earnings between men and women have been declining,¹⁵ striking differences remain at the extremes of the distribution, with women being much more likely than men to be in the bottom quintile and much less likely to be in the top quintile. In fact, about the same percentage of women were in the bottom quintile (30 percent) as men were in the top quintile (31 percent) of the earnings distribution for the positive sample during 1990. As regards each of the sexes, blacks were much more likely to be in the lowest quintile, and much less likely to be in the highest quintile, than whites were. White men were the least likely to be at the bottom and the most likely to be at the top, whereas the tendency for black women was just the opposite.

Mobility patterns within the overall distribution also differ by sex and race. In general, the lower a group's average earnings, the lower is the likelihood that individuals from

Table 1. Hypothetical transition matrix

Quintile in year $t-1$	Quintile in year t				
	1	2	3	4	5
1	0.4	0.2	0.2	0.1	0.1
2 .....	.3	.3	.2	.1	.1
3 .....	.2	.2	.3	.2	.1
4 .....	.1	.1	.2	.4	.2
5 .....	.0	.2	.1	.2	.5

Table 2. Sex and race differences in mobility within the overall earnings distribution in 1990-91, using matched cps data

Sex and race	Percent in quintile—		Percent that stay in quintile—	
	1	5	1	5
Positive sample				
Full sample	20	20	66	74
Sex:				
Men	10	31	51	77
Women	30	8	72	63
Race:				
White men	8	33	48	78
Black men	23	17	57	59
White women	29	9	72	65
Black women	31	6	73	44
Full-time, year-round sample				
Full sample	20	20	68	74
Sex:				
Men	12	30	58	76
Women	30	8	73	64
Race:				
White men	10	31	56	77
Black men	26	17	65	54
White women	29	9	73	66
Black women	38	5	73	42

that group will stay in the highest quintile, and the greater is the likelihood that they will stay in the bottom quintile. For example, women are more likely to stay at the bottom than men: some 72 percent of women who were in the bottom quintile of the earnings distribution of the positive sample in 1990 stayed there in 1991, compared with only 51 percent of men. By contrast, 77 percent of men at the top in 1990 remained there in 1991, compared with only 63 percent of women. Low-earning women appear to be stuck at the bottom, even when the labor supply is controlled for by restricting the sample to those who work full time, year round in both years, which suggests that persistently low hours of work are not the sole source of these women's lack of upward mobility. It may be that women in the bottom quintiles are more likely to work in occupations that consistently pay low wages and have limited promotion potential.

A caveat must be mentioned before continuing with the findings: even within quintiles, groups will have different earnings distributions. For example, among those in the bottom quintile, men are closer than women, on average, to the boundary between the first and second quintiles. Thus, even if men and women have the same increase in earnings from one year to the next, men will be more likely than women to move out of the bottom quintile, boosting the measure of mobility presented for men. Experimentation with other

measures, however, suggests that the results would be qualitatively similar even if these intraquintile differences were taken into account when measuring mobility.

The ability to maintain one's position at the top of the overall earnings distribution appears to be more elusive for blacks than for whites—even for black men relative to white women. About 65 percent of white women who were in the top quintile in 1990 were there in 1991, compared with 59 percent of black men and 44 percent of black women. Similar racial differences in the ability to maintain the top economic status were also found by Bradley R. Schiller, Greg Duncan and Saul Hoffman, and Linda Datcher-Loury.¹⁶ Datcher-Loury found that high-earning black men and high-earning white men differ in their distribution across occupations, which may contribute to their differences in earnings mobility. High-earning white men were more likely to work in managerial or professional occupations, in which earnings are more stable, whereas high-earning black men were more likely to be employed in sales and clerical jobs, in which earnings tend to fluctuate more. Significant differences across races in movements out of the bottom quintile exist only for men, with 52 percent of white men leaving the bottom quintile, compared with 43 percent of black men. These general patterns hold for both earnings samples.

Table 3 reports differences in mobility within the overall earnings distributions across age and education groups. Not surprisingly, younger, less educated workers are more likely than older, more educated workers to be in the bottom quintile, and less likely to be in the top quintile, of both earnings distributions. The percentage of each age group that remains in the bottom quintile decreases with age, except for the oldest group, whose percentage is higher than that of the youngest group. Similarly, the percentage of each age group that remains in the top quintile increases with age, also except for the oldest group, whose percentage is lower than that of the youngest group. These patterns are consistent with the human capital view of the pattern of earnings over the life cycle, which suggests that as a worker ages, earnings rise rapidly at first, then flatten out, and ultimately begin to fall.¹⁷

The percentage of each education group that stays in the bottom quintile decreases consistently with years of schooling, and the percentage that stays in the top quintile increases consistently with years of schooling, indicating that it is easier for more educated workers to move out of the bottom and to remain at the top than it is for workers with less education. These mobility patterns are similar for men and women within both earnings distributions. The education mobility patterns are not surprising if one believes that education represents a permanent improvement in an individual's human capital and thus earnings capacity. In that case, the highly educated workers would be more likely to

Table 3. Age and education differences in mobility within the overall earnings distribution in 1990-91, using matched CPS data

Sex, age, and education	Positive sample				Full-time, year-round sample			
	Percent in quintile—		Percent that stay in quintile—		Percent in quintile—		Percent that stay in quintile—	
	1	5	1	5	1	5	1	5
Men								
Age, years:								
25-29	18	14	53	74	22	12	58	71
30-39	10	28	49	79	13	27	61	77
40-49	6	41	46	79	8	38	50	79
50-59	9	40	57	71	9	38	64	69
Education, years:								
Fewer than 12	23	10	64	50	31	8	65	61
12	11	20	47	67	14	19	59	62
13-15	7	34	50	75	8	30	51	75
16 or more	5	56	37	86	5	52	49	83
Women								
Age, years:								
25-29	32	6	73	55	34	5	74	46
30-39	30	8	73	63	31	7	72	66
40-49	28	10	69	66	24	11	74	66
50-59	31	8	74	64	36	7	75	63
Education, years:								
Fewer than 12	55	2	81	10	67	1	85	33
12	36	3	71	54	40	4	75	55
13-15	25	7	71	59	25	6	66	58
16 or more	15	20	63	69	10	19	57	68

have the necessary skills to reach the top quintile and remain there. If a less educated worker, on the other hand, reaches the top quintile, then it is more likely to be due to a favorable transitory shock that will dissipate with time.

Levels of mobility within various subdistributions. With regard to the second type of mobility examined in this article—movement within the earnings distribution of a particular demographic group—transition matrices are also calculated, except that in this case an individual is assigned to a quintile for a pair of years in terms of his or her position in the earnings distribution for a given demographic group, not for the entire population. In addition to the proportions that remain in the top and bottom quintiles, two further measures are calculated. The first reflects the percentage of people that stay in the same quintile for both years or, in other words, stay on the diagonal of the transition matrix. To calculate this measure, it is necessary to add up the percentages in the diagonal and then divide by 5 (because each of the percentages is calculated with a base that represents one-fifth of the population).

If there is perfect immobility—that is, if every individual stays in the same quintile—then the measure will equal 1.0,

because all the diagonal elements will be 1.0 (and all the other elements 0.0). If, on the other hand, there is perfect mobility—that is, if an individual's position in the beginning year has no impact on his or her position in the ending year—then the measure will equal 0.2, because all the diagonal elements—and, in fact, all elements—will equal 0.2. Making the relevant calculations for the transition matrix in table 1 results in a value of 0.38 $([0.4 + 0.3 + 0.3 + 0.4 + 0.5]/5)$ for this measure of mobility.

An additional measure calculates the percentage of individuals who either stay in the same quintile or move into an adjacent one—in other words, those who stay on or near the diagonal of the transition matrix. Under perfect immobility, this measure will also be 1.0, as everyone stays on the diagonal. With perfect mobility, it will be 0.52 because there are 13 elements on or adjacent to the diagonal, each of which would equal 0.2 $([13 \times 0.2]/5 = 0.52)$. As applied to table 1, the measure equals 0.68.¹⁸

The final measure for assessing the extent of mobility within a given distribution is the *correlation coefficient*, which gives a guide to the extent to which individuals maintain their positions within the earnings distribution. The

measure ranges from -1.0 to 1.0, with 1.0 indicating perfect immobility, 0.0 perfect mobility, and negative values (not observed in the calculations carried out) some reversal of positions.

In this section, mobility patterns are examined for 1967-91, and both the levels and trends in various relative immobility indexes are documented. As noted earlier, what is of interest is mobility within the earnings distributions defined by the four main subsamples and mobility within various distributions for particular demographic groups. Table 4 reports average immobility measures for the 1967-91 period for the four main subsamples. As expected, the measures are slightly higher for the full-time, year-round samples than for the positive earnings samples, because, for the former, fluctuations in hours of work are largely eliminated.

How do mobility indexes differ across sex, age, education, and racial groups? Table 5 gives the 1990-91 immobility indexes for both the positive earnings and full-time, year-round samples. The 1990-91 immobility measures for the positive earnings sample are slightly higher for women than for men, with differences in mobility being more pronounced at the extremes of the earnings distributions. The table shows that 62 percent of men remain in the bottom quintile of their earnings distribution, compared with 70 percent of women. Similarly, the proportion of men who stay at the top of their distribution is 5 percentage points lower than the corresponding proportion of women. However, among full-time, year-round workers, the differences in mobility between the sexes are smaller.

Table 5 also suggests that short-term immobility is typically lower among young workers, both male and female. This finding is in accord with that of Donald Parsons, who compares the National Longitudinal Survey cohorts of young men and older men.¹⁹ Given the wider range of ages covered in the CPS, the current study is able to examine more closely the relationship between short-term mobility and age. Table 5 indicates that short-term earnings immobility initially increases with age and then levels off. In other words, those in their twenties have higher mobility rates than other workers, but there is little

difference across other age groups, except within the positive earnings sample, where workers in their fifties have significantly higher mobility rates than do workers in their forties. This difference in regard to older workers does not exist in the full-time, year-round sample, which implicitly controls for variations in hours, and thus may be the result of a change in the degree of labor force attachment as workers approach retirement age. The difference in mobility rates for the young is greater for the positive earnings sample than for the full-time, year-round sample, indicating that the high mobility rates for the young are also partly the result of greater fluctuations in hours. In addition, greater job mobility among the young probably is an important contributor.²⁰ The findings presented in this article differ from the strictly positive relationship found between 1-year earnings correlation coefficients and age in the United Kingdom, but are broadly consistent with recent findings in regard to Sweden.²¹

Table 5 also shows a positive relationship between education and earnings stability or immobility. Within the men's positive earnings sample, the 1990-91 correlation coefficient was 12 percent higher for college graduates than for high school dropouts. Short-term earnings mobility or instability levels were highest for those who did not complete high school, particularly high school dropouts in the positive earnings sample. In both the positive earnings and full-time, year-round samples, college graduates had significantly lower earnings instability than those in the other education groups. Parsons also found a positive relationship between schooling and 1-year earnings correlation coefficients for the National Longitudinal Survey cohort of older men, but not for that of young men, among whom he found mobility levels to be highest for college graduates.²² This suggests that the relationship between education and mobility might differ across age groups.

Perhaps the most striking difference in short-term mobility levels recorded in table 5 occurs between blacks and whites. Over the 1990-91 period, the correlation coefficient for black men was 16 percent lower than for their white counterparts. These racial differences—particularly with regard to men—persist across both earnings samples, indi-

Table 4. Average immobility measures, by earnings sample, 1967-91

Sample	Correlation coefficient	Percent that stay on diagonal	Percent that stay on or near diagonal	Percent that stay in first quintile	Percent that stay in fifth quintile
Men:					
Positive sample	0.76	57	88	65	71
Full-time, year-round sample .....	.77	59	89	69	72
Women:					
Positive sample .....	.77	58	89	64	72
Full-time, year-round sample .....	.78	59	89	67	74

Table 5. Immobility measures by demographic group in 1990-91, using matched CPS positive earnings sample

Sex, age, education, and race	Correlation coefficient	Percent that stay on diagonal	Percent that stay on or near diagonal	Percent that stay in first quintile	Percent that stay in fifth quintile
Men					
Full sample	0.77	59	88	62	70
Age, years:					
25-29 .....	.73	53	85	62	70
30-39 .....	.77	59	89	64	74
40-49 .....	.75	59	88	64	70
50-59 .....	.74	57	87	65	72
Education, years:					
Fewer than 12 .....	.66	53	83	58	69
12 .....	.70	54	85	60	67
13-15 .....	.72	57	87	69	69
16 or more .....	.74	61	88	68	72
Race:					
White .....	.77	59	88	65	74
Black .....	.65	51	83	55	70
Women					
Full sample .....	.78	60	89	70	75
Age, years:					
25-29 .....	.76	59	89	70	72
30-39 .....	.79	61	88	71	74
40-49 .....	.80	59	89	68	76
50-59 .....	.76	59	88	66	72
Education, years:					
Fewer than 12 .....	.66	53	85	61	62
12 .....	.74	57	87	68	71
13-15 .....	.75	58	86	72	69
16 or more .....	.75	58	88	67	68
Race:					
White .....	.75	61	89	68	73
Black .....	.75	52	86	66	67

cating that the differences are largely due to blacks' greater instability in pay rates, rather than greater fluctuations in hours worked. Evidence of a higher degree of earnings mobility or instability among blacks was also found by Duncan, who used hourly earnings of males from the Panel Study of Income Dynamics.²³ The differences across races in short-term earnings mobility appear larger for men than for women. This is consistent with the fact that the earnings differential between blacks and whites is much smaller for women than for men.²⁴

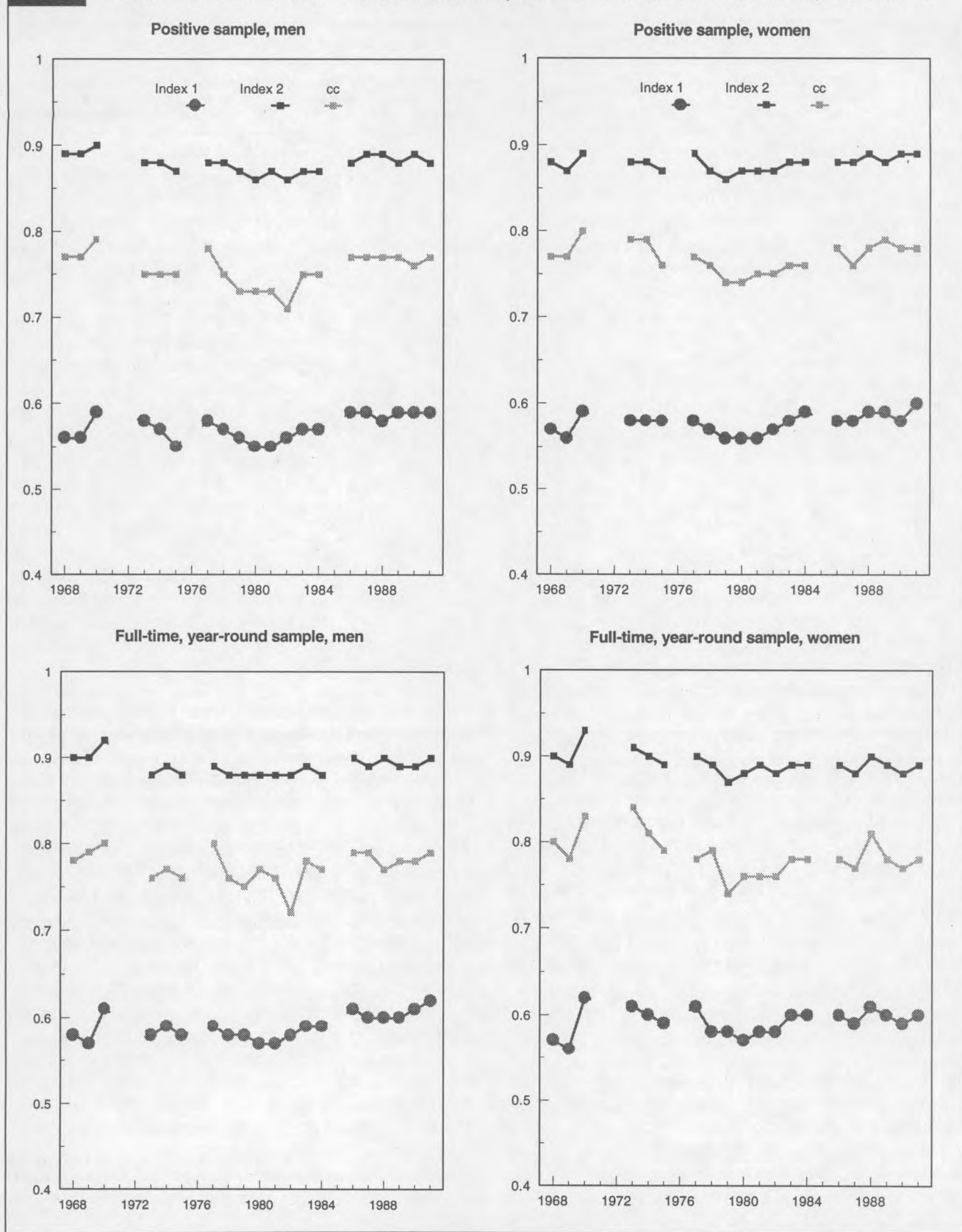
Trends

This section examines the trends in three measures of earnings immobility over the 1967-91 period: the percentage of individuals that stay on the diagonal in the transition matrix, the proportion that stay at or near the diagonal, and the correlation coefficient. The trends in earnings mobility are particularly interesting in light of the increase in cross-sectional earnings inequality observed during the 1980's, because

these trends affect patterns in long-run inequality. To give a simple example, suppose an economy has just two people. In 1994, person A earns \$100,000 and person B earns nothing. Clearly, a good deal of inequality is present in this economy, and from an equity standpoint, it may be a matter of concern. But suppose now that in 1995, the fortunes of A and B are reversed, so that A earns nothing and B earns \$100,000. Then, when earnings are summed up over the 2-year span, both individuals have earned \$100,000, so no inequality is present. Thus, in this example, mobility is such that, even though there is a great deal of inequality in 1 year, over a longer span the distribution of earnings is exactly equal.

Certainly, in the U.S. economy, the degree of mobility is not high enough so that an individual's position in the earnings distribution in any year is not relevant to his or her position as earnings are summed up over a lifetime. Even so, there is enough mobility that the degree of inequality over longer spans is less than that over 1 year. For example, Lee A. Lillard estimated that inequality in a single year was 50 percent greater than over a lifetime.²⁵

Chart 1. One-year correlation coefficients and immobility indexes, 1968-70, 1973-75, 1977-84, and 1986-91



The preceding example of a two-person economy demonstrates how, with annual inequality staying constant, movement in the earnings distribution can still work to reduce inequality when earnings are summed over a longer period. Just as mobility may help allay concerns about a degree of inequality in one particular year, it can also help alleviate worries about a rise in annual inequality. If annual inequality rises, as it did in the 1980's in the United States, then this will automatically translate into higher inequality over a longer period if there is no change in the extent to which individuals exchange positions in the earnings distribution. If the degree of mobility increases, however, it will reduce the extent to which increases in annual inequality are translated into increases in long-run inequality. On the other hand, a reduction in mobility would reinforce the inequality-increasing effects of rises in annual inequality.²⁶

What is the pattern for recent trends in earnings mobility? Chart 1 graphs the trends in 1-year correlation coefficients and two transition matrix measures for the men's and women's positive earnings and full-time, year-round samples for the period 1967–91. As mentioned earlier, four pairs of years are missing from the time series. The missing pairs make it difficult to distinguish much of a trend over the early portion of the series. After this, however, short-term immobility indexes appear to follow a stable trend. For the men's positive earnings sample, immobility, as measured by the correlation coefficient, declined from 0.78 in 1977 to 0.71 in 1982 and increased moderately thereafter. This U-shaped pattern applies as well to the men's full-time, year-round sample. For the women's positive earnings and full-time, year-round samples, 1-year correlation coefficients began to decline sometime in the early 1970's and rose gradually after 1978. Note, however, that the fluctuations in the correlation coefficient graphed in chart 1 take place over a fairly limited range. On the whole, then, the findings suggest that mobility patterns have not been that different in the 1980's from what they were in the 1970's.

What are the implications of these findings for the extent to which increased annual inequality is being translated into increases in long-run inequality? Clearly, additional research is needed here, but the results presented in this article do not suggest that mobility patterns have changed in such a way as to offset the recent rise in earnings inequality.

More speculatively, these same results can also be used to

shed additional light on the causes of the recent rise in earnings inequality. While a detailed review of the literature on inequality is beyond the scope of the article, one view holds that a key factor behind the rise in earnings inequality is that the demand for skilled workers has increased, leading to a widening of the earnings gap between those who are skilled and those who are not.²⁷ Given that such a shift in favor of the skilled would be likely to persist over time, this has an important implication for patterns of mobility: if the distance in earnings across skill levels has widened, it becomes more difficult for individuals to pass each other on the earnings ladder, implying that mobility will decline over time.

It is also possible that the increase in inequality in a given year has been caused by increased randomness in the economy. As Robert Moffitt and Peter Gottschalk maintain, the amount of turbulence in the economy may have increased because of growing international competition, a reduction in regulations, the waning influence of labor unions, and a variety of other factors.²⁸ This increased influence of transitory factors would imply that mobility would increase, as it is more likely that, with regard to the economic ladder, someone who has the good fortune of benefiting from the increased turbulence will surpass someone who has not. Because we do not see strong trends in mobility—either a rise or a fall—the results suggest that both the permanent factors associated with a rise in returns to skill and the transitory factors associated with growing turbulence in the economy may be important in the recent rise in earnings inequality.

THIS ARTICLE HAS UNCOVERED several interesting differences in short-term earnings mobility across demographic groups. First, men have higher short-term earnings mobility levels than women do. Second, workers in their twenties have high levels of earnings mobility or instability relative to their older counterparts. Aside from this, however, mobility levels do not show any clear pattern with age. Third, higher education levels generally mean higher 1-year correlations—in other words, more stability—in short-term earnings. Fourth, black men have more instability in their earnings than their white counterparts have, and this racial difference in mobility levels is present, but less pronounced, for women. Last, mobility measures followed a general U-shaped pattern during the 1967–91 period, although the magnitude of the shifts that occurred indicates that short-term mobility in the 1980's was not profoundly different from that in the 1970's. □

Footnotes

¹ For a more detailed discussion of the importance of data on mobility, see A. B. Atkinson, F. Bourguignon, and C. Morrisson, "Earnings Mobility," *European Economic Review*, vol. 32 (1988), pp. 619–32.

² See Lawrence F. Katz and Kevin M. Murphy, "Changes in Relative Wages, 1963–87: Supply and Demand Factors," *Quarterly Journal of Economics*,

February 1992, pp. 35–78, for a recent study of changes in the pattern of pay by age (experience), education, and sex; and Francine D. Blau and Andrea H. Beller, "Black-White Earnings over the 1970s and 1980s: Gender Differences in Trends," *Review of Economics and Statistics*, May 1992, pp. 276–86, for an examination of earnings differentials by race.

³ For a survey of this literature, see Frank Levy and Richard J. Murnane, "U.S. Earnings Levels and Earnings Inequality: A Review of Recent Trends and Proposed Explanations," *Journal of Economic Literature*, September 1992, pp. 1333–81.

⁴ See Lynn Karoly, "The Trend in Inequality among Families, Individuals, and Workers in the United States: A Twenty-Five Year Perspective," in Sheldon Danziger and Peter Gottschalk, eds., *Uneven Tides: Rising Inequality in America* (New York, Russell Sage Foundation, 1993), for an illuminating discussion of similar issues in studies of earnings inequality.

⁵ For two recent studies of mobility based on family income, see Thomas L. Hungerford, "U.S. Income Mobility in the Seventies and Eighties," *Review of Income and Wealth*, December 1993, pp. 403–17; and Isabel V. Sawhill and Mark Condon, "Is U.S. Income Inequality Really Growing?" *Policy Bites*, The Urban Institute, June 1992, pp. 1–4.

⁶ Of course, the two may be connected, as the pace of economic growth may have implications for earnings mobility.

⁷ The cps is a monthly survey of approximately 60,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. The March survey contains a special supplement that asks about income earned in the year prior to the interview.

⁸ See the appendix for more information on matching cps's over time, including a discussion of biases that may arise in using the matched cps's for analysis.

⁹ In lieu of the cps, the Panel Study of Income Dynamics might have been used; however, while the "split-offs" from the original members enable this survey to maintain representation across all groups, the impact of attrition on the representativeness of the sample is an issue of concern.

¹⁰ See the appendix for further information.

¹¹ As an alternative to selecting those who are full-time, year-round workers as a way to control for differences in hours worked, calculations were done with samples for which the measure of economic status was the hourly wage. These results, which were broadly similar to the findings in this article, were not reported for two reasons: the data necessary to calculate hourly wages from the March cps—weeks worked in the previous year and usual hours worked per week—are available only beginning with the 1976 cps; and there is likely to be substantial measurement error in calculating hourly wages by dividing annual wage and salary income by number of weeks worked multiplied by usual number of hours worked per week, making the results less reliable.

¹² While the 99th percentile was used as a cutoff, the bunching of incomes, in some cases at the top codes, caused those that were trimmed to constitute a somewhat larger portion of the distribution for some years. See Karoly, "Inequality among Families, Individuals, and Workers," for a discussion of alternative treatments of the top code and their impact on measures of inequality.

¹³ Results are not reported separately for the racial group defined as "other," because of its small size and heterogeneity.

¹⁴ See A. B. Atkinson, F. Bourguignon, and C. Morrisson, *Empirical Studies of Earnings Mobility* (Chur, Switzerland, Harwood Publishers, 1992), for a fuller discussion of ways to measure mobility.

¹⁵ For a discussion of this trend and potential explanations of it, see June

O'Neill and Solomon Polachek, "Why the Gender Gap in Wages Narrowed in the 1980s," *Journal of Labor Economics*, January 1993, pp. 205–28.

¹⁶ See Bradley R. Schiller, "Relative Earnings Mobility in the U.S.," *American Economic Review*, December 1977, pp. 926–41; Greg Duncan and Saul Hoffman, "Dynamics of Wage Change," in Martha Hill, Daniel Hill, and James N. Morgan, eds., *Five Thousand American Families—Patterns of Economic Progress*, vol. IX (Ann Arbor, MI, Institute for Social Research, 1981); and Linda Datcher-Lourey, "Racial Differences in the Stability of High Earnings among Young Men," *Journal of Labor Economics*, July 1986, pp. 301–17.

¹⁷ See Jacob Mincer, *Schooling, Experience and Earnings* (New York, Columbia University Press, 1974), for an elaboration of this view.

¹⁸ Note that no summary measures were used to assess mobility within the overall distribution, as such measures are potentially misleading. By definition, in assessing mobility within a demographic group, 20 percent of the population will be in each quintile. This is not the case when one examines the mobility of a demographic group within the overall earnings distribution, because a group is not likely to be evenly spread across the overall distribution. As a result, in calculating summary measures, differences across demographic groups in the degree of movement in and out of quintiles will get confounded with differences across these groups in their initial distribution over the quintiles.

¹⁹ See Donald Parsons, "The Autocorrelation of Earnings, Human Wealth Inequality and Income Contingent Loans," *Quarterly Journal of Economics*, November 1978, pp. 551–69. The National Longitudinal Survey cohort of young men is a nationally representative group of 5,225 men aged 14 to 24 years in 1966 who were surveyed periodically beginning that year. The cohort of older men, with whom interviews also began in 1966, is a nationally representative group of men aged 45 to 59 years in 1966.

²⁰ See Jacob Mincer and Boyan Jovanovic, "Labor Mobility and Wages," in Sherwin Rosen, ed., *Studies in Labor Markets* (Chicago, University of Chicago Press, 1981), for a discussion of variation in job mobility by age.

²¹ See Atkinson, Bourguignon, and Morrisson, *Empirical Studies of Earnings Mobility*; and Björn Gustaffson, "The Degree and Pattern of Income Imobility in Sweden," *Review of Income and Wealth*, March 1994, pp. 67–86.

²² Parsons, "Earnings, Inequality and Loans."

²³ See Greg Duncan, "An Empirical Model of Wage Growth," in Greg Duncan and James Morgan, eds., *Five Thousand American Families—Patterns of Economic Progress*, vol. VII (Ann Arbor, MI, Institute for Social Research, 1979).

²⁴ See Blau and Beller, "Black-White Earnings."

²⁵ See Lee A. Lillard, "Inequality: Earnings Versus Human Wealth," *American Economic Review*, March 1977, pp. 42–53.

²⁶ For a more detailed discussion of the connections between mobility and inequality in the context of the recent rise in earnings dispersion in the United States, see Paul R. Krugman, *The American Prospect*, Fall 1992, pp. 19–31.

²⁷ For a detailed elaboration of this view, see Chinhui Juhn, Kevin M. Murphy, and Brooks Pierce, "Wage Inequality and the Rise in Returns to Skill," *Journal of Political Economy*, June 1993, pp. 410–42.

²⁸ Robert Moffitt and Peter Gottschalk, "Trends in the Covariance Structure of Earnings in the U.S.: 1969–87," mimeograph, Boston College, March 1993.

APPENDIX: Construction and evaluation of matched samples from the cps

The data used in this article are from March-March matched files from the Annual Demographic Files of the Current Population Survey (cps). At the time of the analysis, the cps was available for the period 1968–92, containing earnings data for the year prior to the interview. While that implies the existence of 24 adjacent-year pairs of records (1968–69 through 1991–92), changes in household identifiers across adjacent years make it impossible to perform matches for 1971–72, 1972–73, 1976–77, and 1985–86. Thus, we were able to construct matched files for 20 pairs of years between 1968 and 1992.

Under the sample design of the cps, half of any March sample can be matched

with the March sample of an adjacent year. A household will be in the sample for 4 months, out for 8 months, and then back in for an additional 4. Thus, households that are in their first through fourth months in the sample in March of year t will be in their fifth through eighth months in the sample in year $t + 1$. In practice, it is not possible to match fully half of the sample, given that individuals leave it for various reasons. The match rates used in this article result from a fairly conservative algorithm and tend to fall in the range of 60 percent to 70 percent of individuals who are eligible to be matched. This attrition rate raises the concern as to whether matched samples can be considered rep-

representative. Franco Peracchi and Finis Welch recently subjected matched March samples to a rigorous testing and concluded that, while the matched and unmatched populations are different in important dimensions, "no major biases appear in the estimates of transitions between labor force states after controlling for sex, age and labor force status at the time of the first survey."¹ While the research focus of the current article is different from theirs, Peracchi and Welch's results provide some support for using matched cps data in analyzing labor force dynamics. One caveat they mention is that attrition rates are highest among the very young. Similar conclusions were reached in an earlier analysis by Francis W. Horvath.² Accordingly, to minimize attrition problems in the present research, very young workers were omitted from the samples and analyses were performed

separately by age group. One of the sensitivity tests that was carried out involved the calculation of inequality statistics for various samples from the matched data. The results indicated that both the levels and trends obtained are comparable to those calculated from the full March CPS.

Footnotes to the appendix

¹ See Franco Peracchi and Finis Welch, "How Representative Are Matched Cross-Sections: Evidence from the Current Population Survey," unpublished manuscript, October 1992.

² See Francis W. Horvath, "Tracking Individual Earnings Mobility with the Current Population Survey," *Monthly Labor Review*, May 1980, pp. 43-46.

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Effects of intermittent labor force attachment on women's earnings

Women who leave the labor market for family reasons often return to wages lower than those of women who did not; they lose seniority, are less likely to receive on-the-job training, their job skills may depreciate, and employers may believe they will again take a leave

Joyce P. Jacobsen
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Women who interrupt their careers and leave the labor market for family responsibilities often return to find that their wages lag behind those of women at comparable stages in their careers who did not leave the labor force.

Many reasons account for this lag. First, women who leave the labor force and later re-enter do not build up seniority, which, by itself, often leads to higher wages. Second, women who return to the labor force are less likely to receive on-the-job training to increase their productivity and thereby raise their pay. Third, when women are not in the work force, their job skills may depreciate. Finally, employers may view gaps in work history as a signal that women who leave may do so again. Some employers would therefore hire them for less important, lower-paying jobs to limit the impact of a future decision to leave.

But calculating the cost of intermittent labor force attachment is difficult. Typically, these costs are measured in terms of earnings paths; women who leave the labor force have lower earnings paths than those of women who remain.

This article calculates the cost of taking a break from work in terms of the wage difference between women who work continuously and women who take one or more leaves. We attempt to control for observable and unobservable heterogeneity to uncover temporary and lasting effects a gap in labor force attachment can have on wages.

Previous research

Most researchers would agree that earnings will be less for workers who take a break from work than for those who work continuously. But researchers are generally less likely to agree on the magnitude of this effect. Those who do not leave the work force tend to be younger and better educated than those who do. Therefore, using the group that has worked continuously as the standard for what would have been earned had a worker not taken a break would over-estimate foregone earnings.

In addition, cross-sectional estimates may be biased by cohort effects that obscure the wage changes a woman may experience when she re-enters the labor market. Nevertheless, studies that run earnings regressions to correct for observable differences and that include some measurement of effects of gaps in labor force participation reveal that gaps affect earnings.¹ In qualifying these results, researchers have focused on different aspects of the effects of intermittency. One hypothesis is that earnings will rebound soon after women re-enter the work force.² However, L.S. Stratton suggests that the rebound effect after re-entry doesn't occur.³ She hypothesizes that women returning to the work force who find their wages lower than they had expected are quite likely to leave again. Thus, Stratton concludes, over time only the relatively high-earning women who have had a break in labor force participation will be left in the work force.

This article tests for the rebound effect by re-

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stricting the sample of women with labor force breaks to those women who display continuous labor force attachment for an extended period after a break. By limiting the sample to this subgroup of women, one source of unobservable heterogeneity is eliminated. Furthermore, by holding the sample constant and examining wages at several points in time, we can closely study the effects of increasing time following a work gap.

Our results differ from those of J. Mincer and H. Ofek, and Stratton. We find that when women re-enter the labor market, their earnings are much lower than those of a comparable group of women who did not leave the labor market. Over time, that difference diminishes (due to the rebound effect), but never disappears, even after as long as 20 years.

The data

The data used in this study are from the 1984 panel of the Survey of Income and Program Participation.⁴ Each individual in the data set was placed in 1 of 4 rotation groups that were interviewed in successive months, and was interviewed eight times at 4-month intervals. Participants were asked in each interview about their labor force participation in the previous 4 months.

This technique produced data for 32 consecutive months for each individual, with a sample period covering June 1983 to April 1986. In addition, the survey contains detailed work histories of individuals before they entered the sample. These work histories are used to identify gaps that occurred before the sample period began.

How the sample was selected. Only women aged 30 to 64 at the start of the sample are included. The lower age limit allows women sufficient time to have had at least one work interruption. Second, only women who work relatively continuously during the 32 months of the sample are included. To be included in the sample, a woman must report earnings in the 1st, 6th, 12th, 18th, 24th, and 32nd months of the sample.⁵ Thus, women are included only if their gaps in the sample period were shorter than 6 months. In this study, we are not interested in modeling earnings effects from short leaves, such as maternity leaves; we are trying to include the majority of women, such as teachers, who have seasonally intermittent work schedules.

To be included among the sample of women with labor force breaks, a woman must have taken at least one break from work of 6 months or longer between the year she received her last educational degree⁶ and the beginning of the survey.⁷ This includes women who worked before taking a break, and women who had an initial gap between the year of their last degree and the year in which they started working.⁸

The unadjusted geometric mean wage ratio of those who left the work force and those who did not is 1.33 at the start of the sample and falls to 1.30 after 32 months.⁹ (See table 1.) Women who did not leave the work force are significantly younger and have more education on average than

Table 1. Sample means for women who remained in the labor force (no gaps) and women who left the labor force (1 or more gaps) in the first month of the sample

Item	Women who remained in the work force (no gaps)	Women who left the work force (1 or more gaps)
Number of people	696	1,730
Wage (T=1)	8.83	6.61
(T=18)	9.72	7.23
(T=32)	9.76	7.49
Log wage (T=1)	2.07	1.78
(T=18)	2.16	1.87
(T=32)	2.17	1.91
Years of education	14	12
Percent without high school diploma	6	21
Percent with high school diploma	33	47
Percent with some college ..	27	19
Percent with college degree	15	7
Percent with graduate work	19	6
Age distribution	39	45
Percent part-time	12	24
Total years worked	17	17
Occupational group:		
Percent professional/executive	38	21
Percent service occupations	10	17
Percent craft occupations ...	2	3
Percent pink collar/blue collar	50	59
Residence in South	20	16
Residence outside Metropolitan Statistical Areas	24	25
Race/ethnicity:		
White (non-Hispanic)	81	82
Black (non-Hispanic)	13	11
Hispanic	3	3
Other	3	4
Marital status:		
Married	58	70
Widowed	3	5
Divorced	21	21
Never married	18	4
Number of children ever born:		
None	39	9
1	18	14
2	24	33
3 or more	19	44
Years since last gap (at T=1):		
0 to 1 year	—	6
2 years	—	5
3 to 5 years	—	14
6 to 10 years	—	24
11 to 20 years	—	33
More than 20 years	—	18

NOTE: Dash indicates data are not applicable.

those who did leave. Total work experience is the same for the two groups, which reflects the higher age and lower educational attainment of the women who left the work force. These women are much more likely to be working part-time and are more heavily represented in the service occupations and the lesser-skilled occupations, both blue-collar and "pink-collar" (such as administrative support occupations, medical technicians, and machine operators).

Women who leave the work force are more likely to be married and to have children than are their counterparts who remain in the work force. For the women who leave work, the average length of time since their last gap was 13 years.¹⁰ This last gap lasted an average of 7.5 years, although the median, at 4.5 years, was shorter. Of the women who answered the question, "What was the reason for the last gap?" 85 percent responded that this leave from the labor force was for family reasons. Other possible reasons included poor health and inability to find a job; leaving work to attend school is not counted as a gap.

The unadjusted data show an average annual rate of wage growth of 3.9 percent for women who don't leave the labor force and 4.7 percent for women who have left the labor force. However, over the last 14 months of the sample, the annual rate of wage growth is 0.6 percent for women who haven't left work, compared with 3.1 percent for those who have.

The observed differences between the two groups in education and occupational distribution, and in marital status and number of children, are significant, and lead to our use of multiple regression analysis below. We do not attempt to address the issue of whether women plan their human capital investments in anticipation of future gaps, nor do we attempt to differentiate between people who did or did not intend to leave the labor force. However, anticipation of leaving the labor force can lead to lower earnings over a woman's worklife if she invests in less human capital, or in human capital that yields lower returns, but depreciates at a slower rate during periods when a woman has left the work force.¹¹ These investment effects on earnings are not measured here.

One argument that could be made is that women who leave the labor force earn less money to begin with than do their counterparts who remain at work. According to this argument, their lower wage upon reentry does not indicate a significant loss relative to their earning power before exiting employment. To address that question, we looked at the subset of this group (25 percent of women who leave the labor force) who reported the wage they were receiving at the time they began their last separation from work.

This subsample is slightly younger than women in general who have left work (43 instead of 45 on average); the length of time they have been out of work is skewed toward

shorter lengths (54 percent have been working 5 or fewer years since ending their last period away from work;¹² and their wage in the first month of the sample is lower (\$5.93 instead of \$6.61).¹³ We expressed their previous wage in 1984 dollars to correct for the rate of price change, as measured by the Consumer Price Index.

Because the CPI generally increased by less than the rate of growth of nominal wages, we are biasing against a finding that would support our work, which is that wages depreciate significantly during a gap. Yet we find that the wage earned by sample members before beginning their last gap had a mean of \$7.76, which is more than 30 percent higher than their wage in the first month of the SIPP sample. This implies that because the majority of women who left the work force had been working for several years when they entered the survey, their wage upon reentry to employment was even lower.

This is a substantially different result than was found in the work of Corcoran and Stratton, who also use U.S. data, but from the Panel Study of Income Dynamics and the National Longitudinal Survey of Young Women. Their studies find little depreciation when comparing the wage before leaving work with the wage earned upon returning to work. Our data are telling a different story about wage changes due to gaps in work.

Empirical results

The next step in our analysis was to estimate regressions whose dependent variable was the natural logarithm of the hourly wage. A regression equation will show the direct effects on wages of gaps occurring at different times in the past, and will allow for calculation of wage ratios that control for differences in age, education, work experience, and other factors between those who have left the work force and those who remained at work. (See table 2.) The regression equation is estimated at three different points in the sample: the 1st, 18th, and 32nd month of the sample period.¹⁴ The independent variables are divided into two types. The first includes variables that control for individual characteristics including age, geographic location, occupation class, and human capital.

The second type of variables is a set of dummy variables for number of years since a worker ended her last absence from the labor force, measured from the beginning of the survey; for any observation, the values of these dummy variables are the same in all three equations. For example, a woman who concluded a work gap in the year before the survey began will be assigned the dummy variable for a 1-year absence for all 3 years; as a result, for her the coefficient on the dummy will stand for the effect of one year since the absence ended in the first equation, two years since the

Table 2. Regressions on log wage, at three points during the sample period

Item	T=1	T=18	T=32
Time since gap (at T=1):			
0 to 1 year	-0.33 (7.51)	-0.29 (6.85)	-0.20 (4.61)
2 years	-.27 (5.58)	-.27 (5.99)	-.24 (5.13)
3 to 5 years	-.20 (6.28)	-.14 (4.76)	-.16 (5.30)
6 to 10 years	-.12 (4.73)	-.10 (4.23)	-.07 (2.64)
11 to 20 years	-.10 (4.08)	-.07 (3.17)	-.06 (2.61)
More than 20 years	-.07 (2.11)	-.08 (2.77)	-.05 (1.76)
Total years worked .....	.003 (2.67)	.004 (3.64)	.003 (2.89)
Hours and weeks less than 35 (1=yes)	-.13 (6.28)	-.15 (7.67)	-.15 (7.17)
South (1=yes)	-.07 (2.90)	-.07 (3.49)	-.08 (3.45)
Rural (1=yes)	-.15 (7.91)	-.15 (8.15)	-.16 (8.59)
Age .....	.02 (2.06)	.01 (1.24)	.01 (1.43)
Age ² 1,000	-.24 (2.24)	-.16 (1.60)	-.18 (1.74)
Education level (no high school diploma is omitted class):			
High school diploma .....	.13 (5.11)	.11 (4.59)	.10 (4.20)
Some college .....	.27 (9.28)	.25 (8.81)	.25 (8.70)
Bachelor's degree .....	.32 (8.62)	.32 (8.95)	.30 (8.29)
Graduate work .....	.41 (10.35)	.44 (11.70)	.43 (11.19)
Occupation (pink collar/blue collar omitted class):			
Professional .....	.20 (8.54)	.21 (9.57)	.17 (7.79)
Service	-.25 (10.16)	-.29 (12.37)	-.28 (11.25)
Craft .....	.14 (2.85)	.10 (2.25)	.06 (1.21)
Intercept	1.39 (6.69)	1.67 (7.91)	1.63 (7.21)
Log wage (dependent variable mean)	1.86	1.96	1.98
Adjusted R ² .....	.35	.40	.36

NOTE: Coefficients significant at the .05 level. t-statistics in parenthesis.

absence in the second equation and three years since the absence in the third. Measuring the dummy variables this way allows us to examine if the wages of the same group of women change as the amount of time lengthens over the duration of the survey since the end of their last period out of the labor force.

A lasting negative effect and a gradual rebound effect resulted from the period out of the labor force. (See table 2). The coefficients on the dummy variables that control for the number of years since the last period out of the work force clearly show that the large initial negative effect of the work gap decreases as the gap recedes into the past. In addition, examining

the 3-year pattern of the dummy coefficients provides strong evidence that the decline in the negative effect of a gap is not due solely to women with low wages leaving the labor market.

For every period out of the labor force, the value of the dummy coefficient is largest in the first period and smallest in the last, implying that for any particular length of time out of the labor force, 2-1/2 years of continuous labor force attachment will, on average, diminish the difference in wages between those who have left the work force and those who remained. For example, in the initial period, women whose gaps ended less than 1 year ago had wages that were 33 percent lower than those of women who did not leave the labor force. By the third year (when they would have returned to the work force more than 3 years ago) these women's wages were only 20 percent lower than those of women who remained in the labor force. This coefficient is the same as the coefficient on the dummy variable that women whose last gap was between 3 years and 5 years ago received in the regression for the first period.

The results reported above held, regardless of changes to the equations described below.¹⁵ Initially, different equations were used for those who left and those who remained in the labor force. The two groups were combined and an F-test¹⁶ of whether the two groups could be pooled was conducted; the test did not reject the hypothesis that the two groups could be pooled. Therefore, only the pooled results are shown. Alternative specifications included three possibilities:

- including a variable for the total length of the last period out of work, or including a set of variables for length of this period interacted with the dummies modeling time since the end of this period;
- marital status, either as a dummy variable for whether or not the woman was currently married, or as a dummy variable for whether or not the woman had ever been married;
- either a dummy variable noting whether the woman had ever had children, or a continuous variable for the number of children ever born.

These alternative specifications did not substantively change the results, although the above variables had a very small (but statistically significant) negative effect. However, the dummy variable that indicated currently married was statistically insignificant.

Another alternative specification included a set of variables using a dummy indicating whether the length of time out of the labor force was more than 4 years (the median gap length), which was interacted with the dummies modeling elapsed time since the gap. This set of additional variables did not pass an F-test for significance of their inclusion. A variable indicating whether the person had numerous periods out of the labor force was not significant; neither was a

quadratic term in experience, nor a variable indicating whether the employee generally worked full-time or part-time throughout her worklife.¹⁷

Including local labor market features, such as monthly unemployment rates by State, also was not significant.¹⁸ Finally, including a dummy signifying nonwhite or Hispanic status was not significant, and a pooling test for whites and nonwhites did not reject the hypothesis that the two groups could be pooled.

Although there is strong evidence for a partial rebound effect, the wages of women who have taken a leave from the labor market never catch up to the wages of women who never left. Even women whose labor force gap occurred more than 20 years ago still earn between 5 percent and 7 percent less than women who never left the labor force and have comparable levels of experience; in the last year, however, this difference is significant only at the 10-percent significance level.

One possible interpretation is that even after many years, employers view work gaps as a signal that the individual is not as dedicated a worker as a woman who did not leave the work force. This view may be reflected in reduced promotion possibilities, different job assignments, and other actions by employers that reduce wages.

To illustrate the cost of taking an employment gap for a particular case, assume a woman with the following characteristics: graduates college at age 21, immediately begins full-time work (40 hours a week, 50 weeks a year) in a pink-collar occupation, lives in a city outside the South. She leaves work when she is 25 years old for 7 years and re-enters full-time work in 1984 at age 32. We assume a real interest rate equal to the rate of real wage growth and use the growth rates calculated from the regression for time $t=1$. In this case, the present (1984) value of the difference between her earnings for the 20 years after she re-enters and what they would have been had she remained constantly employed is \$52,000. Part of this is caused by her fewer years of experience; part is due to her decision to leave the labor force. This amount is equal to 15 percent of her prospective earnings had she worked constantly, or approximately 3 years of wages—a considerable difference. Thus, the cost of taking a 7-year gap is 10 years of earnings.

Unadjusted geometric mean wage ratios and adjusted geometric mean wage ratios that are calculated using the regressions reported are listed in the following tabulation. The adjusted geometric mean wage that is calculated using the regressions illustrates how much of a wage differential remains between the groups of women who did not leave the work force and those who did, even after controlling for

differences in mean values between the two groups:

	<i>Unadjusted</i>	<i>Adjusted</i>
t=1	1.33	1.14
t=18	1.34	1.12
t=32	1.30	1.10

The first column displays the unadjusted ratios of wages of women who did not leave the work force to those who did at the three points in time of the sample. The second column holds differences in mean values for age, education, total years experience, and so on, constant for the two groups. It is calculated by taking the antilog of the negative of the summation of each gap dummy coefficient multiplied by the proportion of the women who left work experiencing the length of the gap in labor force participation. This has the effect of reducing the wage differential at each point in time, but does not eradicate it, indicating that a work gap is important in explaining differences in earnings between the two groups.

Additionally, the pattern of a rebound effect is demonstrated more clearly by holding constant other factors affecting the wage. After 32 months, the adjusted ratio has dropped from 1.14 to 1.10, indicating that women who remained at work still receive a wage 10 percent higher than their counterparts who left the labor force.

IN SUM, optimists and pessimists can take some solace from our results. On the optimistic side, wages that drop because of a break from the work force rise over time. On the pessimistic side, however, the negative effects of a break in earnings are quite persistent; they remain discernible even 20 years after the last break has ended.

In addition, the effect of a gap on a woman's lifetime earnings is significantly larger than just her foregone wages during the time away from work. This last finding has significant implications for the way in which compensation between husband and wife is calculated in divorce proceedings.

One obvious extension of this work is to discuss the male-female wage ratio and the contribution that gaps in work make toward explaining the gender pay gap. Another extension is to develop a model that simultaneously predicts who will take a leave from work with what women's wages will be in various life situations. This will allow our analysis to be extended to all women rather than just the specific subset we analyze in this article. The narrower focus of this article, however, has allowed for discussion of the rebound effect, and has provided a clearer idea of how sustained gaps in employment can influence female earnings. □

Footnotes

ACKNOWLEDGMENT: The data used in this paper were made available by the Inter-university Consortium for Political and Social Research. The data for Survey of Income and Program Participation, 1984 panel, were collected by

the U.S. Bureau of the Census. Neither the collectors of the original data nor the Consortium bears any responsibility for the analyses or interpretations presented here.

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¹ M.B. Stewart and C.A. Greenhalgh, "Work History Patterns and the Occupational Attainment of Women," *Economic Journal*, September 1984, pp. 493-519, using British data; M.E. Corcoran, "Work Experience, Labor Force Withdrawals, and Women's Wages: Empirical Results Using the 1976 Panel of Income Dynamics" in C.B. Lloyd, E.S. Andrews, and C.L. Gilroy, eds., *Women in the Labor Market* (New York, Columbia University Press), 1977, using U.S. data.

² Jacob Mincer and Haim Ofek, "Interrupted Work Careers: Depreciation and Restoration of Human Capital," *Journal of Human Resources*, Winter 1982, pp. 3-24.

³ "The Effect Interruptions in Work Experience Have on Wages," *Southern Economic Journal*, April 1995, pp. 955-70. Stratton acknowledges that the direction of causality can go both ways—from low wages to labor force experience or from planned experience to low wages.

⁴ Later panels of the SIPP do not contain equally detailed data concerning work gaps. The extracted data and the programs used to create and analyze the data set are available upon request from the researchers.

⁵ This corresponds to data from the 1st, 2nd, 3rd, 5th, 6th, and 8th waves of the panel.

⁶ Seven percent of the women counted as those who did not leave the work force reported a gap, but continued their formal education during that period.

⁷ Gaps shorter than 6 months are not coded in the data, so the minimum gap length was determined by data availability.

⁸ Of the women who are counted as those who left the labor force, 15.8 percent did not report a gap since beginning work; for these people, the existence and timing of a gap since completing their formal education was calculated in one or both of two ways: by determining if subtracting the total number of years they reported working continuously left time unaccounted for between then and when they finished school; or by determining if the year that they first reported having a job was more than 1 year after they reported finishing school. Exclusion of these women does not substantially change the numbers reported in tables 1 and 2.

⁹ The reported normal hourly wage rate is used when available; when not reported, a measure of average hourly earnings was constructed to proxy for the wage rate. This measure was constructed as monthly earnings divided by monthly hours worked. This measure was used for 42 percent of the sample in the 1st month, 45 percent in the 18th month, and 43 percent in the 32nd month.

¹⁰ Only 7 percent of the women who left work reported more than one gap of 6 months or longer.

¹¹ Unlike Stratton, our focus in this article is not on a woman's earnings upon reentry relative to what she made before leaving the work force, but rather on her earnings relative to what she would be making had she been working continuously. We are unable to address the first issue because we do not have observations that would apply to more than a small percentage of the women of each woman's wage before she left the work force. However, these are different questions, and the rebound effect can be measured in either case (although relative to a different base) over the period of work following work force reentry.

¹² This skewing toward shorter lengths is caused by the availability of the data on previous wage. Women were not asked in the SIPP what their wage was before their last gap; they were asked what their wage was on their previous job. Women who have been working for longer periods since their last period out of the work force have had more opportunity to switch jobs. As the SIPP also contained data on years in which the previous job had ended and how much time had elapsed before the current job began, we could determine which reportings of previous wage corresponded to a wage earned before a period out of the work force.

¹³ Of these women reporting their previous wage, 58 percent reported their hourly wage, 17 percent their weekly wage, 15 percent their monthly wage, and 10 percent their annual wage. All wages were translated into hourly wage rates using the additional reported variable of usual hours worked per week on previous jobs; for monthly and yearly wages, the hours variable was multiplied by 4.3 or 50 to estimate total monthly and total yearly hours.

¹⁴ This corresponds to data from the first, fifth, and eighth waves of the SIPP panel.

¹⁵ All of these alternative regressions are available from the authors upon request. The sample size is reduced to 1,823 women, 523 of whom worked continuously, upon inclusion of information about the presence of children.

¹⁶ This test, often referred to as the Chow test, consists of estimating the regression equation for the two groups separately and then together, and calculating the statistic:

$$F = \frac{(RRSS - URSS)/(k + 1)}{URSS/(n_1 + n_2 - 2k - 2)}$$

where $RRSS$ = the sum of the residual sum of squares from the separate equations, $URSS$ = the residual sum of squares from the pooled equation, k = the number of independent variables, n_1 and n_2 = number of observations in the two groups respectively. Then the statistic has an F distribution with degrees of freedom $(k + 1)$, $(n_1 + n_2 - 2k - 2)$. If it is not sufficiently greater than zero, then the hypothesis that the equation structure and the two groups are not different cannot be rejected.

¹⁷ Seventeen percent of women who left work and 9 percent of women who worked continuously reported they generally worked part-time.

¹⁸ Thanks to Jean Kimmel for providing these data.

Employment trends in the security brokers and dealers industry

Employment of wage and salary workers in this industry grew by 28 percent between 1984 and 1993; professional jobs almost doubled, while weak job growth for clerical workers reflected productivity gains from technological advances

Brett Illyse Graff

As global markets have expanded and computerized trading has increased, tasks performed by workers in many occupations in the security brokers and dealers industry have been transformed. The most recent data collected on occupational staffing patterns in the industry reflect the component firms' adaptation to consequences of the 1987 market crash and to decades of electronic advances. The industry has responded to these changes by increasing employment in highly technical professional occupations such as computer scientists and statistical financial analysts, and by streamlining managerial and internal analysis jobs. The increase in the professional share of the industry's employment has largely offset a decrease in the managerial share. This article examines the changes in occupational employment within the security brokers and dealers industry through some of the steepest bull and bear markets of the post-World War II period.

Industry profile

The security brokers and dealers industry (SIC 621)¹ includes bond dealers and brokers, mutual fund agents, security traders, securities underwriters, oil and gas lease brokers, and tax certificate

dealers. In May 1993, it employed 349,880 workers. (See table 1.) The industry is a component of securities and commodities brokers, dealers, exchanges, and services (SIC 62).

Brokers in this industry act as agents in security transactions for individual and institutional clients. Dealers buy and sell securities for their firm's own account and risk.² Investment bankers, also included in this industry, are primarily engaged in the initial public offering of securities. They underwrite and distribute shares, while generally continuing to act as market makers in those issues.

Broker-dealers are required to register with the Securities and Exchange Commission (SEC), a Federal agency that governs several self-regulated organizations (SRO's). They also must obtain membership in the National Association of Securities Dealers (NASD). A broker-dealer distributing new issues underwritten by NASD members, or distributing shares of investment companies sponsored by NASD members,³ must become a member of the NASD.

Firms trading on the Nasdaq market (the over-the-counter market) as either strictly order-entry firms (trading as brokers or dealers) or market makers (dealers that hold an inventory of Nasdaq

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listed securities) must meet NASD requirements. Nasdaq is an electronic trading network. The Nasdaq Workstation II provides a centralized quotation service, as well as automated executions, trade reporting, and trade negotiation.⁴ Traders using the Nasdaq system can link to the major exchanges through the Computer Assisted Execution System Intermarket Trading System (CAES/ITS).

If a firm is brokering or dealing stocks listed on an exchange, it is often a member of that exchange. To become a market maker in an exchange listed security, a firm must apply to the exchange. Unlike the case for Nasdaq, each security trading on an exchange can only have one market maker. By using a correspondent firm to clear and execute its trades, a firm can trade on an exchange without being a member.

Chart 1 shows the trading volume within the major world securities markets. It displays the significance of both the New York Stock Exchange (NYSE) and Nasdaq. The high number of members and the consequential trading volume on the NYSE cause the resulting data from this organization to be used as a proxy for the operations of the entire industry.

Industry employment

Inflation during the late 1970's caused many companies to begin to trade at undervalued prices, and by the early 1980's, lower interest rates helped to make purchasing securities lucrative. In August 1982, the market began a 5-year ascent.

Industry employment for March of that year totaled 219,620.⁵ By 1984, brokerage firm profits were down from the previous year, but stock prices continued to rise. The Quarterly Dow Jones Industrial Average (DJIA) had increased by 26.3 percent,⁶ and total industry employment in May of that year had risen by 24 percent (to 273,330) from the 1982 level.

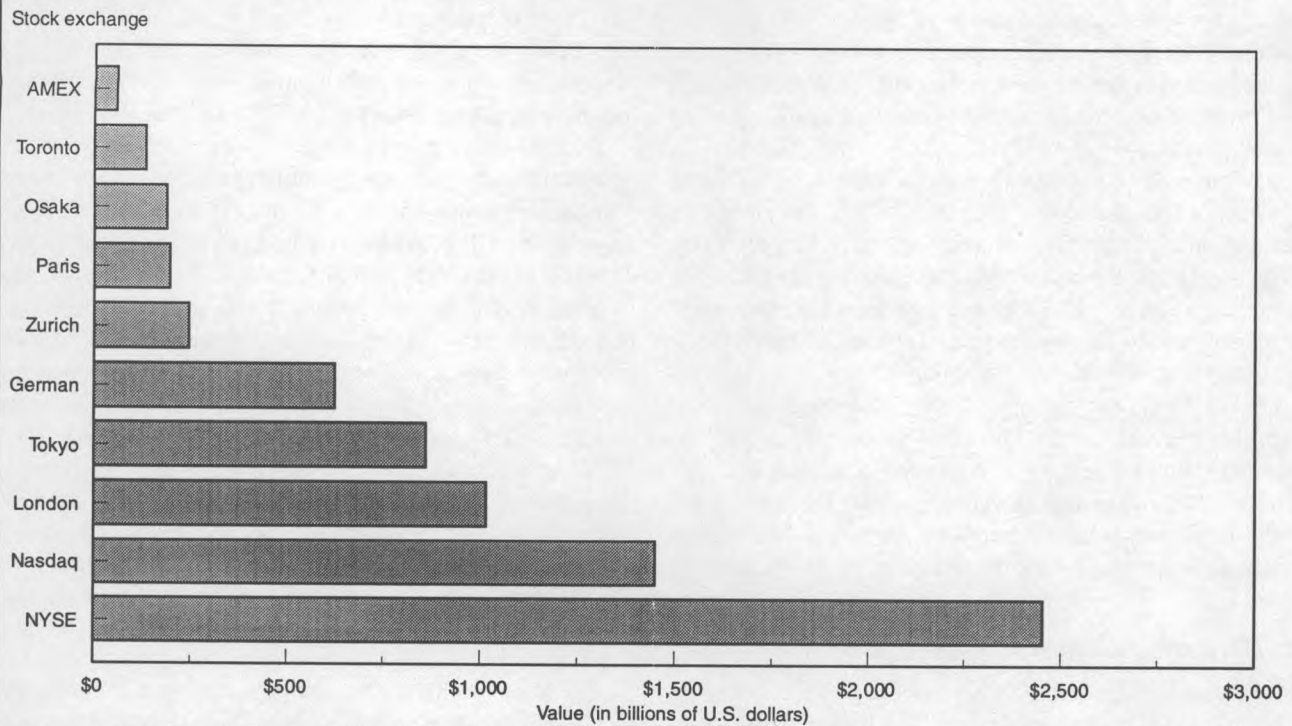
By 1987, stock prices in relation to their underlying value, as measured by earnings potential, had become inflated.⁷ The Quarterly DJIA was up 113.5 percent from its 1984 level. As of May of 1987, industry employment had increased by 25.6 percent (273,330 to 343,170) from the 1984 level. By October, several factors, including a weakening U.S. dollar, expectations of rising inflation and interest rates, and widening yield spreads between stocks and bonds, sent investors on a selling spree. The market crashed and the Quarterly DJIA fell 657.45 points between the third and fourth quarters (September 30 to December 31). Pretax profits of firms in the industry were down \$4.379 billion⁸ from the previous year.⁹ Even so, employment rose to 358,475 in December,¹⁰ but decreased by 0.9 percent by the end of the first quarter of 1988.¹¹ By the end of that year, total trading volume was down on the American Stock Exchange (AMEX), NYSE, and Nasdaq.

The crash resulted in extreme cost cutting in the industry. In 1989, bonuses were down, on average, approximately 20 percent. Some firms sought to conserve cash by giving stock to their employees.¹² By May of 1990, employment had

Table 1. Occupational employment within security brokers and dealers, selected years, 1984-93

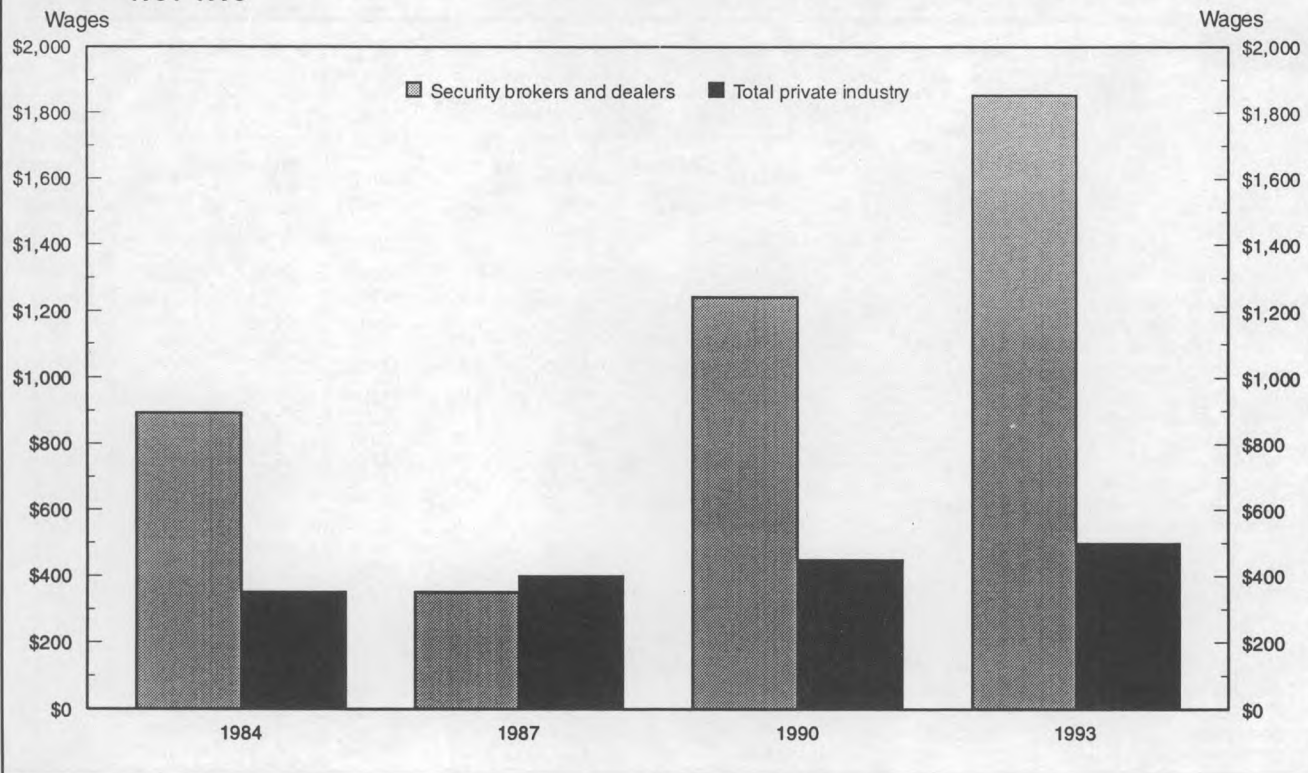
Occupation	1984		1987		1990		1993	
	Employment	Percent distribution	Employment	Percent distribution	Employment	Percent distribution	Employment	Percent distribution
Total industry	273,330	100.00	343,170	100.00	325,230	100.00	349,880	100.0
Managerial occupations	21,450	7.81	33,170	9.63	31,050	9.51	25,360	7.25
Financial managers	3,890	1.42	8,420	2.45	10,480	3.22	9,290	2.66
General managers and top executives (brokerage managers)	8,360	3.05	15,470	4.50	12,080	3.71	11,020	3.15
Professional occupations	27,720	10.01	44,490	12.81	47,290	14.50	54,380	15.50
Accountants and auditors	4,230	1.54	4,960	1.44	5,570	1.71	4,950	1.41
All other financial specialists	1,720	.62	6,120	1.78	13,560	4.16	17,000	4.86
Systems analysts	2,180	.79	2,930	.85	4,090	1.25	3,080	.88
Computer programmers	3,440	1.25	5,680	1.65	4,900	1.50	5,040	1.44
Operations and systems analysts, except computer ...	260	.09	1,490	.43	1,110	.34	350	.10
Financial analysts, statistical	3,700	1.35	5,300	1.54	5,330	1.63	6,380	1.82
Economists, including market researchers	1,940	.70	1,840	.53	1,570	.48	2,040	.58
Sales and related occupations	105,530	38.60	119,470	34.78	123,430	37.90	138,010	39.40
First-line supervisors	5,500	2.01	5,020	1.46	7,680	2.36	4,410	1.26
Sales agents—securities, commodities, and financial services	89,100	32.60	103,210	30.07	103,770	31.90	122,500	35.01
Clerical and administrative support workers	116,930	42.60	142,200	41.26	119,930	36.70	129,140	36.90
First-line supervisors	4,800	1.75	11,640	3.39	9,210	2.83	10,700	3.06
Brokerage clerks	37,660	13.77	40,410	11.77	35,390	10.88	44,230	12.64
Secretaries	26,700	9.76	31,660	9.22	29,070	8.93	26,040	7.44
Data-entry keyers	3,440	1.25	4,070	1.18	2,810	.86	2,030	.58

Chart 1. Dollar volume of equity trading in major world markets, 1994



SOURCE: National Association of Securities Dealers, Inc., *1995 Nasdaq Fact Book & Company Directory* (Washington, NASD, 1995). Reprinted by permission.

Chart 2. Average weekly wages in security brokers and dealers and in total private industry, selected years, 1984-1993



decreased by 5.2 percent from the 1987 level, and totaled 325,230. That year, firms in the industry posted a loss of \$162 million before taxes. Between the second and third quarters (June 29 to September 28) of 1990, the Quarterly DJIA plummeted again, dropping 428.21 points. It moved up 181.18 points the following quarter and a total of 535.17 points over the following year.

In 1991, the market began a dramatic recovery, which led to spectacular performances in almost every product category. Lower short-term interest rates caused investors to favor stocks and bonds over low-yielding bank instruments.¹³ The pretax profits of firms surpassed those of 1986. Industry employment, however, continued to fall until February of 1992. Later that year, the average daily trading volume on the Nasdaq doubled, while NYSE trading volume increased 69 percent.¹⁴ Employment began to inch back up. Trading volume alone was enough to move up the market, but the cost cutting resulting from the 1987 crash and the privatization of state-owned enterprises worldwide also contributed to the prosperity. Mutual fund sales set successive records in 1991, 1992, and 1993.¹⁵ Pretax profits for industry establishments in 1993 reached a record \$8,600 billion.¹⁶ By May of that year, the industry's employment had increased 7.6 percent from 1990, totaling 349,880.

The following tabulation shows the employment for the industry stratified by size (number of employees) of the unit:

<i>Employment size</i>	<i>Percent distribution</i>
1 to 19 workers	14.5
20 to 49 workers	15.2
50 to 99 workers	13.2
100 to 249 workers	13.4
250 workers or more	41.8

Fifty-eight percent of the employment in the security brokers and dealers industry was fairly evenly distributed among the first four size groups. The remaining 42 percent was in the units with at least 250 workers. The analysis that follows shows that employment size is a key factor in determining a unit's staffing pattern.

Industry payrolls

The security brokers and dealers industry had the highest payroll per employee of any industry in 1993.¹⁷ The average weekly wage in this industry was \$1,853, some 371 percent of the economy-wide private sector average of \$499. (In 1990, the industry was the second highest paying, with an average of \$1,242 per week. The services allied with securities industry (SIC 628) had the highest pay in 1990 and the second highest in 1993.) The high pay levels and their percent increase between 1990 and 1993 reflect how well the industry has recovered from the downturn of the late 1980's.

Employment in the security brokers and dealers industry is concentrated in relatively few States. Eight States (New York, California, New Jersey, Massachusetts, Florida, Illinois, Texas, and Pennsylvania) accounted for 71 percent of the total industry employment in 1993. Chart 3 shows each State's employment as a percentage of national employment for the industry and for the United States as a whole. While New York had only 7 percent of total U.S. private industry wage and salary employment, it had almost 33 percent of all employment in the security brokers and dealers industry. California recorded the second highest share of industry employment with 9 percent of the national employment. This was, however, a smaller share than the 11 percent California had of total employment in all industries.

Occupational employment

The data used for the analysis of occupational staffing patterns in the security brokers and dealers industry are from the Occupational Employment Statistics (OES) survey.¹⁸ The OES survey is a Federal-State cooperative survey of establishments that produces estimates of current occupational employment by industry. The survey follows a 3-year cycle. In the first year, manufacturing industries, hospitals, and agricultural services are covered, followed by mining, construction, finance, and services industries in the second year. Trade, transportation, communications, public utilities, and education industries as well as State and local government are surveyed in the third year. The survey is based on a probability sample and is stratified by industry, geographic area, and size (number of employees) of the unit.

The OES occupational classification system divides workers into seven major groups: managerial and administrative occupations; professional, paraprofessional, and technical occupations; sales and related occupations; clerical and administrative support occupations; service occupations; agriculture, forestry, fishing, and related occupations; and production, construction, operating, maintenance, and material-handling occupations.

The 1993 OES survey shows that almost 99 percent of employment in the securities industry was concentrated in four of the major occupational groups: managerial, professional, sales, and clerical. The data and analysis that follow relate to these groups. The 3-year cycle for the security industry resulted in data collected for 1984, 1987, 1990, and 1993. Table 2 shows the resulting occupational estimates. May was the reference month in each case. Thus, the 1987 data from the OES survey reflect a period 6 months before the October 1987 stock market crash.

The end of the discussion for each occupational group addresses the occupational distribution of workers by the employment size of the establishment. The occupational es-

estimates for employment by size of the establishment are shown in table 1.

Managerial workers

This group includes top and middle managers, administrators, and executives. They are responsible for policymaking, planning, staffing, and directing the activities of the establishment. The two managerial occupations with the greatest employment in the industry in 1993 were financial managers and general managers. Financial managers plan and direct financial activities, including the investment strategies of the organization. The general managers and top executives, who include brokerage managers, have diverse responsibilities that are not confined to a single functional area such as finance or marketing.

Many managers in this industry are designated by the NASD as registered principals. They are defined as persons engaged in the management of a member's investment banking or securities business. Their duties may include supervision and training. Registered principals are sole proprietors,¹⁹ officers, partners, managers of offices of supervisory jurisdiction, and directors of corporations.²⁰ Holders of these positions must pass the appropriate NASD exam. (Sales manag-

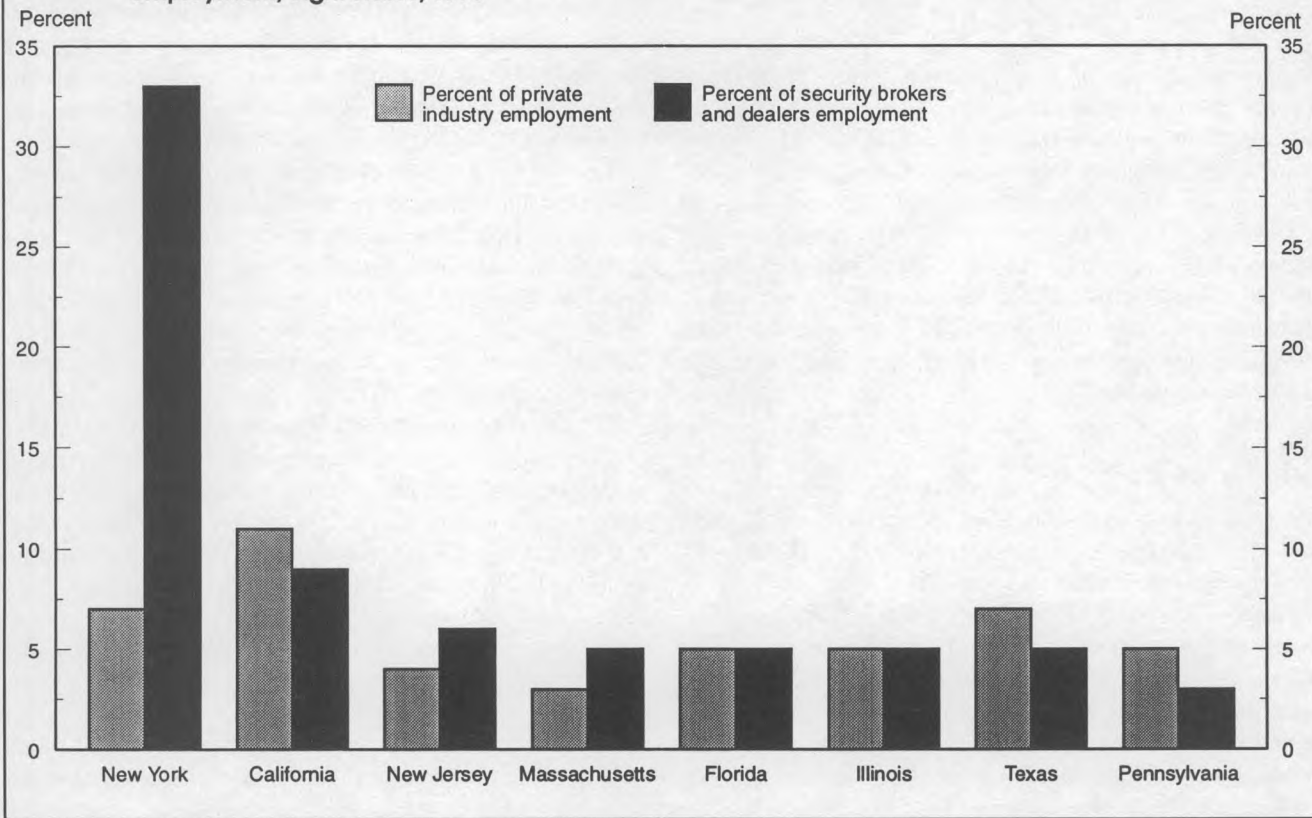
ers, who must also be registered with the NASD, are discussed under sales and related occupations.)

By the end of the 5-year bull market that began in 1982,²¹ firms had greatly increased their employment of managers. In 1984, the reported employment for this occupational group totaled 21,450. (See table 1.) By May of 1987 (approximately 6 months before the October crash), the number of managers had grown by 55 percent, reaching its highest level at 33,170. Their share of industry employment rose from 7.8 percent to 9.6 percent over the 3-year period.

Although financial managers and general managers experienced the largest percentage increases within this period (approximately 116 percent and 85 percent, respectively), notable percentage gains also occurred for managers directing other operations. The numbers of marketing, advertising, and public relations managers and personnel, training, and labor relations managers each grew by approximately 79 percent.

After the crash in 1987, firms began to reduce the number of managerial positions in order to streamline operations. At the outset, employment reductions were mainly of support staff, but in the first quarter of 1990, the industry reported its worst profits in years and further cutbacks were inevitable.²²

Chart 3. Share of U.S. security brokers and dealers employment and share of total private wage and salary employment, eight States, 1993



By May of that year, the number of managers had declined by slightly over 6 percent from the 1987 total. Decreases occurred mainly among purchasing managers, whose number declined by 42 percent, and general managers and top executives, for whom employment dropped by 22 percent.

Firms in the industry further trimmed their managerial ranks from 1990 to 1993, even though, in the first half of 1993, net income for broker-dealers (doing public business, as opposed to specialist firms that deal only with institutions)²³ topped that for all of 1992. The industry showed a managerial decline of 18 percent, and a decrease in managerial concentration to 7.3 percent from the 9.5 percent reported in 1990. This drop, together with only a modest gain in industry employment (325,230 to 349,880) over the same period, resulted in a decrease in the employment level of managers, from 31,050 to 25,360.

During this period, the employment levels of almost all managerial occupations in the industry fell. The two largest, financial and general managers, together accounted for 2,250 of the 5,690-worker decrease for all managers. Other functional managers such as mathematical managers,²⁴ who decreased in number from 1,350 in 1990 to 450 in 1993, experienced much more severe relative effects of the downsizing process. The number of marketing, advertising, and public relations managers declined from 1,440 to 930, while employment of personnel, training, and labor relations managers decreased from 700 to 490.

Employment by size of establishment, 1993. Managers' share of employment within a firm varied by the size of the unit reporting, with the highest percentage in the smallest employment size group. Within security brokers and dealers, units with fewer than 20 employees had 13 percent of workers in the managerial ranks. (See table 1.) General managers made up 6.6 percent and financial managers comprised 6.1 percent of employment in these units. The units with wage and salary employment between 20 and 49, between 50 and 99, and between 100 and 249 reported 6.4, 4.6, and 6.8 percent, respectively, of their workers as managers. Units with more than 250 employees reported 7.3 percent of workers as managers. These large units had a high percentage of "specialized managers," such as personnel managers, marketing managers, or administrative services managers.

Professional and technical workers

Professional, paraprofessional, and technical workers within the security brokers and dealers industry are involved in analysis, trading, research, and advising. Substantial postsecondary education or on-the-job training usually is required for occupations in this group. Persons in occupations concerned with the trading of securities must be registered with the NASD. In 1993,

security brokers, dealers, and flotation companies employed 54,380 professional workers, accounting for 15.5 percent of industry employment. (See table 2.)

Cost cutting measures within the industry over the study period have included consolidations and intercompany mergers of back office operations. The brokering and dealing of securities requires specially trained professional workers for functions such as the handling of computations, analysis, daily statements, regulatory reports, and settling and clearing trades. Smaller units have often determined that it is not cost-effective to have each of these specialized functions performed by a professional on their payroll. Another cost factor in the industry is that the operations require constant implementation of more advanced technology.

Many of the smaller brokers and dealers use the greater capacity of larger firms. Through a formal agreement, sometimes called "outsourcing," a smaller firm clears trades through a larger firm. By outsourcing, a small firm can focus solely on investing, while competing at the same level of technology as larger firms. Some of the establishments with excess back office capacity have found providing this service profitable enough to create affiliates dedicated purely to doing so.

Clearing trades through other firms is not the only factor that allows some units to conduct business with very few or no professional workers. The bulk of computation, research, and trading done within each firm is generally performed at one central location. Other units may be front offices, employing mostly registered representatives who deal directly with clients.

Due to the aforementioned factors, only a small percentage of establishments reported employing professionals, as they are defined for this study. The 1993 employment level for financial analysts was 6,380, yet only 10 percent²⁵ of units reported employment for this occupation. An estimated 4,950 accountants and auditors employed within the securities brokers and dealers industry were reported by 12 percent of the units. Workers in computer science occupations totaled 9,850 within security brokers and dealers. Of these, systems analysts and computer programmers were reported by 7 and 8 percent of firms, respectively. Credit analysts, budget analysts, management analysts, and systems researchers each were reported by approximately 2 percent of establishments in the industry.

Employment trends, 1984-93. The overall industry demand for this occupational group is illustrated by increases in its employment level over the 1984-93 period. The amount of growth, however, was largely a function of the profitability of firms. Post-crash cost cutting and vital restructuring proved some occupations to be more indispensable than others.

Employment of professionals expanded rapidly from 1984 to 1987. The total number increased by 60 percent, from 27,720 to 44,490. These workers accounted for 24 percent of the overall industry employment expansion during this period.

Professional occupations with rising employment levels for the 1984–87 period were mainly concerned with financial and operational analysis. Employment of statistical financial analysts grew by 1,600 to total 5,300, and that of operations and systems research analysts moved up by 1,230, to 1,490. The number of accountants and auditors grew by 730 during this time. Although the increase for accountants was not as great as those for the aforementioned occupations, total occupational employment for accountants was high in 1987, at 4,960 or 1.4 percent of industry employment. While there were large increases in the number of workers in professional occupations in the 1984–87 period, the detailed professional occupations did not all fare well in less prosperous markets.

Shortly after October of 1987, firms began cost cutting, which included an employment reduction. Previously, total industry employment had increased in almost every quarter. Between 1987 and 1990, however, the total employment level declined by slightly more than 5 percent, although the number of professional workers grew by 6 percent to total 47,290. The occupational share for these workers grew by approximately 2 percentage points, such that professional workers accounted for 14.5 percent of industry employment in 1990.

Restructuring did, however, trim employment of most analytical positions. The residual occupational group of management support workers²⁶ took the largest hit, dropping from 6,640

workers to 2,210, for a 67-percent decrease. Employment of management analysts declined by 300 to total 410. The number of operations and systems analysts, except computer, dropped by 380 to 1,110 in 1990, and that of economists declined by 270, to 1,570 workers. The employment of statistical financial analysts, however, barely changed (a 30-worker increase); this group numbered 5,330 in the latter year.

By May of 1993, the market had recovered and firms reconfigured staffing patterns accordingly. In the first half of the year, the industry saw an increase in mergers and acquisitions, as well as highly profitable Initial Public Offerings.²⁷ With increasing momentum, firms picked up employment of statistical financial analysts, raising the level by 1,050 workers to total 6,380. Also, the employment level for economists rose to 2,040, surpassing its 1987 level.

Professional workers dealing with internal operations declined in employment between 1987 and 1990. The group of accountants and auditors, which had grown by 12 percent from 1987 to 1990, declined almost an equal percent (11) between 1990 and 1993. The employment level for management analysts, which had fallen over the 1987–90 period, changed little. The number of operations and systems analysts, except computer, dropped to a mere 350 workers, a 68-percent decline over 3 years.

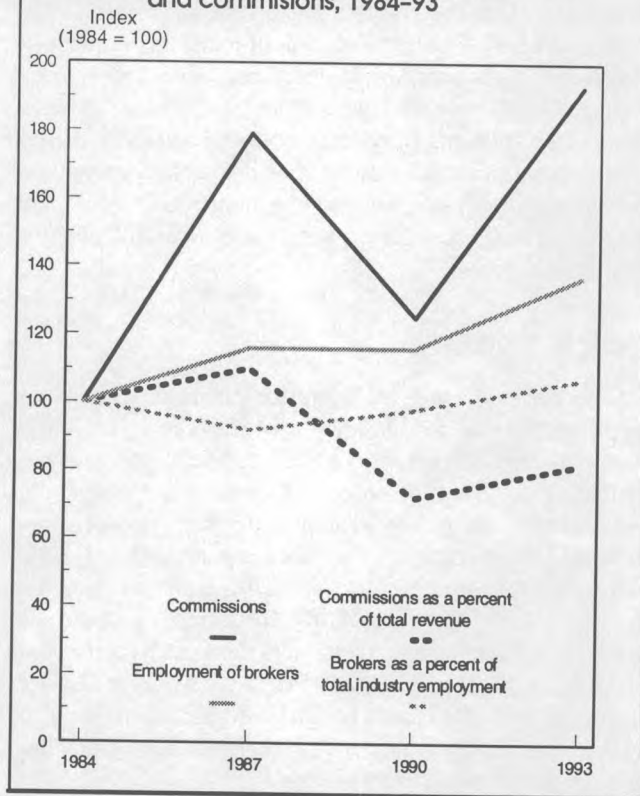
The most dramatic employment change throughout the four survey rounds examined is the increase for “all other financial specialists.” This occupation is a residual within the OES structure. Firms report employment in this category for financial occupations not individually specified. This

Table 2. Percent distribution of workers by detailed occupation and establishment size class, security brokers and dealers, 1993

Occupation	1–19 workers	20–49 workers	50–99 workers	100–249 workers	250 workers or more
Managerial occupations	13.04	6.40	4.62	6.76	7.27
Financial managers	6.14	1.86	1.2	1.59	2.31
General managers (brokerage managers)	6.55	4.15	2.13	3.19	1.70
Professional occupations	3.75	5.07	6.00	8.59	27.91
Accountants and auditors .....	.85	.51	.59	.87	2.53
All other financial specialists .....	.55	.86	1.54	1.01	8.70
Systems analysts, electronic data processing .....	.17	.15	.28	.42	2.03
Computer programmers .....	.11	.21	.10	.69	3.24
Financial analysts, statistical	1.10	1.83	2.23	1.32	1.72
Economists, including market researchers .....	.14	.06	.24	.36	1.06
Public relations specialists .....	.02	—	—	.07	.11
Sales and related workers	46.33	54.15	60.16	50.34	18.72
First-line supervisors	1.80	1.03	1.73	1.73	.74
Sales agents—security, commodity, and financial services	42.9	50.84	55.64	43.12	14.63
Clerical and administrative support workers	36.09	34.34	29.07	34.01	44.27
First-line supervisors	3.53	2.29	1.12	2.10	3.85
Brokerage clerks	17.64	11.46	10.36	11.60	14.48
Secretaries	6.17	11.51	7.34	5.89	6.95

NOTE: Dash indicates no data, or data not available.

Chart 4. Trends in security broker employment and commissions, 1984-93



residual occupation includes traders.²⁸ The occupation totaled 1,720 workers in 1984 and had increased, by 256 percent, to 6,120 in 1987. It more than doubled to 13,560 in 1990, and then rose another 25 percent, to 17,000, in 1993. Because this residual occupation is composed of various financial specialists, it is difficult to link its increase to any specific factors.

The number of computer scientists and related workers within security brokers and dealers increased more than 63 percent from 1984 to 1993. Within this occupational group, the employment level of systems analysts was at its highest in 1990, with 4,090 workers. That level had declined to 3,080 by 1993. Total growth for this occupation during all four survey rounds amounted to 41 percent. For computer programmers, the overall increase between 1984 and 1993 was 47 percent. Their employment totaled 3,440 in 1984, peaked at 5,680 in 1987, and then declined slightly to 5,040 in 1993.

Employment by size of establishment, 1993. Size of establishment data from 1993 show that the percentage of professional workers in security brokers and dealers increases with unit employment. In establishments with fewer than 20 employees, 3.8 percent of workers were professionals. (See table 2.) Occupations related to finance, including financial analysts, accountants and auditors, and the residual "all other

financial specialists" (that is, traders, including those assigned to exchange floors) each made up around 1 percent of industry employment. In contrast, units that employed at least 250 workers had 27.9 percent of their workers in the professional group. These units also employed the finance-related occupations in greater percentages. In addition, the larger units reported the majority of the employment of computer related workers, economists, labor relations specialists, and lawyers within the industry. The fact that employment for these occupations in the smaller firms is low is partly due to the concentration of such jobs in centralized departments in multi-location firms, as well as to outsourcing.

Sales and related workers

Any employee of a firm who participates in the business of investment banking or securities transactions, including account solicitation, must be recognized by the NASD as a registered representative.²⁹ To qualify, an employee must first be sponsored by a member firm. The association performs an investigation of the applicant for involvement in any violation of Federal or State laws, or NASD or exchange rules. Applicants must pass the exam appropriate for the securities brokered, and can then engage in the solicitation of instruments for which they are qualified. Supervisors of these workers are considered principals, and must pass the NASD exam that pertains to the securities solicited by themselves and their workers. In the security brokers and dealers industry, the OES occupation "sales agents—securities, commodities, and financial services" is made up largely of brokers.

Brokers are generally paid on a commission basis. Each firm formulates a grid, with payments determined by both the price and number of shares traded. Every trade produces a commission, of which a percentage is identified as broker earnings. The Securities Industry Association reported in 1994, however, that a "growing number of firms are changing compensation practices, paying brokers by portfolio performance, assets managed, or other alternatives."³⁰

The employment level for these sales agents or brokers did not decline through any of the survey rounds. In fact, their number increased dramatically between 1984 and 1987, from 89,100 to 103,210. (See table 2.) Between 1987 and 1990, however, the level barely changed. This was contrary to the experience of the overall industry, which lost 5 percent of its employment in the aftermath of the 1987 crash.

By 1993, the employment of "sales agents—securities, commodities, and financial services" reached 122,500, an 18-percent rise from 1990. Although stock prices plummeted again towards the end of 1990, the following year brought low interest rates and favorable investing conditions. By 1993, average daily trading volume on the majority of exchanges had increased substantially. Because the number of

trades is a key determinant of commissions, the favorable market conditions brought greater earnings potential for brokers.

While the percentage fluctuations in employment for sales agents (mostly brokers) in the industry tended to correspond with overall market performance over the study period, the trend of their earnings (commissions) was an even better match. (See chart 4.) Between 1984 and 1987, the employment level of these workers rose by 15.8 percent. Over the same period, commissions increased from \$7.095 billion to \$12.67 billion, an increase of 78 percent. Between 1987 and 1990, when employment grew by only 0.5 percent, broker commissions declined. By 1990, commissions had fallen about 13 percent from the 1989 level, which in turn was down 20 percent from 1988.³¹ The total drop in commissions for the 1987–90 period was 30 percent (\$12.674 billion to \$8.878 billion).

By 1993, both the employment and commissions of the industry's brokers had surpassed pre-crash levels. Occupational employment was up 18 percent over the 1990 level, totaling 122,150. Commissions had risen to \$13.707 billion, a 54.4-percent increase from the previous survey round.

From 1984 to 1993, the movement of broker commissions as a percent of total revenues was inverse to that of broker employment as a percent of industry employment. (See chart 4.) Highs and lows for this period occurred in 1987, when commissions accounted for 24.93 percent of total revenues and in 1990, when they accounted for 16.43 percent. In contrast to the commission ratio, broker employment comprised its highest percentage in 1993, and its lowest in 1987, when the occupation accounted for 30.1 percent of industry employment.

A comparison of data for 1984 with those for 1993 reveals that the decline of commissions as a percent of total revenues was almost equal to the increase of brokers as a percent of industry employment. In 1984, commissions amounted to 22.73 percent of total revenues and brokers accounted for 32.6 percent of industry employment. By 1993, commissions accounted for 19.21 percent of total industry revenues, and brokers, 35.01 percent of total industry employment.

From 1984 to 1987, the employment level of sales supervisors moved inversely to that of the workers they supervised. The level decreased between 1984 and 1987, from 5,500 to 5,020, but then grew dramatically through 1990, to total 7,684. By 1993, the number of sales supervisors had fallen to 4,410. This fluctuation may be due to the interchanging of supervisory and front-line sales jobs.

Employment by size of establishment 1993. Employment staffing patterns show that units with fewer than 20 employees had 46.3 percent of their workers in sales. (See table 2.) The 60.2 percent of sales workers in establishments employ-

ing 50 to 99 workers was the highest concentration of such workers in any establishment-size group. In units employing 20 to 49 workers and 100 to 249 workers, sales occupations accounted for 54.2 and 50.3 percent of total employment, respectively. In contrast, the largest firms, with 250 or more employees, had only 18.7 percent of their workers in sales. Large establishments provide in-house or outsourced back office operations, and trading and research departments. Because these activities require large numbers of professional and clerical staff, the sales worker share of total firm employment is lower.

Clerical workers

Advances in equipment, including computers, have increased the productivity of the industry's clerical workers. Previously, brokers were required to pass a ticket for each order to a wire operator, who keyed the order into a processing system that sent it to an exchange. Now, some order entry systems allow brokers to input trades as they are requested, directly from their desks. The process takes about 1 minute as opposed to 10 minutes under the old system. The efficiency of the current system is such that market transactions often can be completed before a security experiences any movement in price. Electronic trading systems transmit orders directly to a receiving unit. Both advances eliminate paper tickets, and thus the need for clerks to handle them.

Electronic systems allowed management to trim the employment of clerical workers to 36.9 percent of the total in 1993, down from 42.6 percent in 1984. (See table 2.) In 1984, there were 116,930 clerical workers employed by security brokers and dealers. By 1987, employment in the industry as a whole had grown by almost 22 percent, and the number of clerical workers had risen by almost 28 percent, to 142,200. Between 1987 and 1990, however, industry employment declined by about 5 percent, while the number of clerical workers fell by more than 19 percent, to 119,930. By 1993, when total industry employment had risen by more than 8 percent from its 1990 level, there were 129,140 clerical workers, also an increase of 8 percent.

The clerical occupation that experienced the sharpest decline in share of industry employment between 1984 and 1993 was secretaries, whose numbers fell from 9.8 percent to 7.4 percent of the total. Furthermore, while 73 percent of firms reported employing secretaries in the 1987 survey, only 57 percent reported such employment in 1993. While secretaries still are one of the most numerically significant clerical occupations, more firms are able to provide their customers services without having someone designated to perform traditional secretarial duties. In some units, these duties have been assigned to other workers such as receptionists and information clerks, whose numbers increased from 2,360 to

4,460 over the 1987-93 period.

While there has been a decline in numbers of clerical workers as technological advances are further implemented, clerical jobs are not disappearing as quickly as the paperwork. Many firms are altering the tasks performed by these workers so that the difference between their work and that of other occupational groups is less clearly defined. In addition, many clerical workers are being assigned to trading desks, where they are being retrained for work of a more professional nature.²²

Employment by size of establishment, 1993. In 1993, clerical workers were most abundant in offices with more than 250 workers. Their 44.3-percent share of employment (table 2) is attributable to the back office operations located in these establishments. In addition to brokerage, accounting and

auditing, and general office clerks, large establishments also employed greater percentages of statistical and adjustment clerks. Units with fewer than 20 workers employed the second greatest percentage of clerical workers (36.1 percent). Included were large numbers of brokerage clerks, secretaries, and general office clerks.

THE SECURITY BROKERS AND DEALERS industry witnessed a major overhaul in the way that business was conducted over the 9-year period ending in 1993. The technological changes introduced affected both the staffing patterns of firms and the tasks performed by workers in various occupations. The result is an industry that today encompasses greater shares of professional and sales occupations, and relatively fewer managerial and clerical occupations, than in the past. □

Footnotes

¹ *Standard Industrial Classification Manual* (U.S. Office of Management and Budget, 1987).

² *NASDAQ Investor Series, The NASDAQ Investor Glossary* (The National Association of Securities Dealers, Inc. (NASD), December 1992), p. 6.

³ An explanation of the NASD registration and examination requirements, September 1994.

⁴ The NASDAQ Stock Market, Inc., "The future of intelligent trading is here..." (The NASDAQ Stock Market, Inc., 1994).

⁵ Bureau of Labor Statistics ES-202 program, unpublished data.

⁶ The "Quarterly Dow Jones Industrial Stock Averages" in this passage are the closing average for the month stated. Fluctuations were calculated using the two time frames stated, not a compilation of all quarters in-between. See *Barron's National Business and Financial Weekly*, various issues, 1993.

⁷ *Standard and Poors Industry Surveys*, Apr. 13, 1989, p. I-43.

⁸ NYSE firms' income statement. Source: Securities Industry DataBank.

⁹ The pretax profit data in this section is from the NYSE firms' income statement.

¹⁰ Bureau of Labor Statistics ES-202 program, unpublished data.

¹¹ *Ibid.*

¹² *Standard and Poors Industry Surveys*, July 12, 1990, p. I-40.

¹³ *Standard and Poors Industry Surveys*, Nov. 3, 1994, p. B-55.

¹⁴ *Ibid.*

¹⁵ *Ibid.*

¹⁶ NYSE firms' income statement. Source: Securities Industry DataBank.

¹⁷ BLS 1993 Employment and Wages Annual Averages. The reference to any industry is at the 3-digit SIC level. The weekly wage number is derived by dividing the total annual pay of employees covered by unemployment insurance programs by annual average employment. A further division by 52 yields average weekly wages per employee. Average wages are affected

by the ratio of full-time to part-time workers as well as the number of individuals in high-paying and low-paying occupations.

¹⁸ *Handbook of Methods*, Bulletin 2414 (Bureau of Labor Statistics, 1992), pp. 29-31.

¹⁹ Sole proprietors are not included in the employment data for this article.

²⁰ An explanation of the NASD registration and examination requirements, September 1994.

²¹ *Standard and Poors Industry Surveys*, Apr. 3, 1989, p. I-43.

²² *Standard and Poors Industry Surveys*, July 12, 1990, p. I-40.

²³ *Standard and Poors Industry Surveys*, Nov. 18, 1993.

²⁴ The actual OES title for this occupation is "engineering, mathematical, and natural sciences managers." Given the services provided by this industry, it is assumed that the reported employment is for the mathematical managers.

²⁵ The percent of firms reporting each occupation is produced with the OES estimates. Due to space limitations, this number is not shown in the tables in this article.

²⁶ The OES occupation structure includes "all other" occupations that allow respondents to report employment for workers not covered within the definition for any of the specified detailed occupations. In order to obtain information on the content of these "all other" or residual occupations, the OES program is currently implementing a plan to disaggregate residual occupations on the survey forms.

²⁷ *Standard and Poors Industry Surveys*, Nov. 18, 1993, p. B-64.

²⁸ Traders, like principals and brokers, must be registered with the NASD.

²⁹ An explanation of the NASD registration and examination requirements, September 1994.

³⁰ Securities Industry Association, Media Release No. 516, Aug. 8, 1994.

³¹ *Standard and Poors Industry Surveys*, Dec. 5, 1991, p. I-42.

³² *Wall Street and Technology*, vol. 11, no. 13, pp. 55-58.

Trends in unemployment insurance benefits

The share of the unemployed receiving unemployment insurance declined slowly, but consistently, starting in the 1940's, dropped dramatically during the 1980-84 period, and remains low

Daniel P. McMurrer
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The Federal-State unemployment insurance (UI) system, created in 1935, was designed to provide temporary wage replacement for unemployed workers who have demonstrated a strong attachment to the labor force and to assist in stabilizing the national economy during cyclical economic downturns.

The nature of the system assigns different responsibilities to the Federal and State governments. Although broad Federal laws ensure consistency in areas where uniformity is considered essential, States determine most of the details of program operations and administration. As a result, many features of the system vary greatly among States.

Insurance programs

Two separate, but interrelated, programs currently provide income support to qualified unemployed workers: the permanent, regular, State UI programs and the Federal-State Extended Benefits program. In addition, during every recession since 1958, emergency supplemental UI benefit programs have been enacted by Congress on an *ad hoc* basis. The characteristics of the three components of the UI system are discussed in more detail below.

Regular State unemployment insurance. Regular State UI programs generally provide up to 26 weeks of benefits to qualified unemployed

workers. The eligibility of an unemployed worker is determined by State laws regarding monetary factors (such as recent earnings history) and nonmonetary factors (such as the reason for separation from employment and current availability for work). The duration and amount of benefits for eligible individuals are based primarily on an individual's recent earnings history.

State taxes on employers¹ finance most benefits paid by the program.² Tax rates vary among employers in the same State and are based partially upon the level of past UI claims that were made by an employer's former employees. Federal taxes imposed by the Federal Unemployment Tax Act pay for the administration of State UI programs and the Federal share of the Extended Benefits program. The total amount paid by the regular program is cyclical with the level increasing as the number of unemployed increase during periods of economic downturn. In 1993, more than \$22 billion was paid in regular benefits.

Federal-State Extended Benefits. The Federal-State Extended Benefits program provides up to 13 additional weeks of benefits to individuals who have exhausted their regular UI benefits. Half of the cost of extended benefits is financed by the Federal government and half is paid by the State distributing the benefits. Extended Benefit amounts are the same level as the State's regular benefits.

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Extended Benefits are available only when a measure—usually, the Insured Unemployment Rate—of State unemployment rises above a particular level. Most States currently use the insured unemployment rate as the only “trigger” for the program. Because this rate is determined by the number of regular UI claimants in a State, eligibility for extended benefits in most States is affected directly by States’ UI eligibility laws. As a result, a decline in the percentage of the unemployed who receive regular UI benefits has contributed directly to a drop in the number of States in which Extended Benefits are available.

Emergency benefit programs. The Emergency Unemployment Compensation program is a temporary benefits program that the Congress enacted in November 1991 and extended on several occasions. The Congress allowed the program to expire in February 1994. This emergency compensation program was similar in many ways to several previous emergency programs, which the Congress enacted during recessions. For example, the Federal Supplemental Benefits program paid benefits between 1975 and 1978, and the Federal Supplemental Compensation program paid benefits between 1982 and 1985.

The number of additional weeks of benefits that were available in the Emergency Unemployment Compensation program depended on three factors: when the claimant first applied for these benefits, a State’s unemployment rate, and the national unemployment rate. Claimants for Emergency Unemployment Compensation were required to meet their State’s eligibility criteria, in addition to Federal requirements recompensation while it operated.

Because the Federal Government finances all the costs of emergency unemployment benefits, but only 50 percent of Extended Benefits costs, States took advantage of the option to provide Emergency Unemployment Compensation. Following the most recent recession, the Emergency Unemployment Compensation program nearly replaced the Extended Benefits program entirely (payments of extended benefits since 1991 have been less than \$400 million). In total, the Emergency Unemployment Compensation program cost more than \$26 billion; a significant proportion was financed out of general government revenues.

The unemployed

Characteristics of the unemployed differ slightly in comparison with the civilian labor force. (See table 1.) In particular, younger individuals, men, and blacks are disproportionately represented among the unemployed. Individuals who seek UI benefits tend to be older than unemployed workers in general; men also are disproportionately represented.

The percentage of UI claimants who have exhausted their regular benefits during recessions has increased in most re-

cessions since 1970. Similarly, the average duration of unemployment spells has increased, as has the percentage of individuals who have been unemployed for particularly long periods. The number of job losers on layoff has increased, while the percentage of the unemployed who are new entrants to the labor force has decreased.

Trends in regular State UI programs

The regular UI system can be examined, using several measures: the percent of the labor force that is covered under the UI program; standards regarding eligibility for UI benefits among the unemployed; the amount of UI benefits received; the duration of the benefits; and the percentage of the covered population that receives UI benefits.

Coverage. The percentage of the work force covered by the UI system (workers whose employers pay UI taxes on their wages) has increased. (See chart 1.) The most recent significant increases in coverage were legislated in the 1970’s, when several groups, including State and local government employees, many household workers, and employees of small businesses, were covered for the first time. Now, UI coverage is nearly universal, extending to more than 90 percent of civilian employment in the United States. This includes nearly all wage and salaried workers, representing 106 million employees. The only major groups that currently remain uncovered are workers on farms defined as “small,” and the self-employed.

Eligibility. Eligibility criteria for UI benefits vary among States. However, three general principles apply in all States: individuals must earn a certain minimum amount in a particular period to be eligible; eligible individuals must be avail-

Table 1. Characteristics of the labor force and recipients of unemployment insurance, 1993

[In percent]

Characteristics	Civilian labor force	Total unemployed	Unemployment insurance claimants
Age:			
16 to 34	43	58	42
35 to 54	45	34	46
55 and over	12	8	12
Gender:			
Men	54	56	60
Women	46	44	40
Race:			
White	85	75	—
Black	11	21	—
Other	4	4	—

NOTE: Dash indicates data are not available.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics (1994) and unemployment insurance data.

able and able to work, and, according to requirements of most States, must actively seek work; and eligible individuals must have lost their jobs due to no fault of their own. This latter requirement tends to exclude most employees who quit their jobs and individuals who have been fired for cause.

Although many State policy changes have restricted eligibility, individual wages have simultaneously increased as a result of inflation, allowing more individuals to reach the minimum earnings threshold. Estimates suggest that these two trends have nearly canceled out one another, with eligibility remaining fairly constant at approximately 43 percent of the unemployed.³

Level of benefits. State formulas based on previous recent earnings determine the weekly benefit amount for eligible individuals. Each State has minimum and maximum levels of weekly benefits. For individuals not eligible for the maximum amount, weekly benefits in most States are ap-

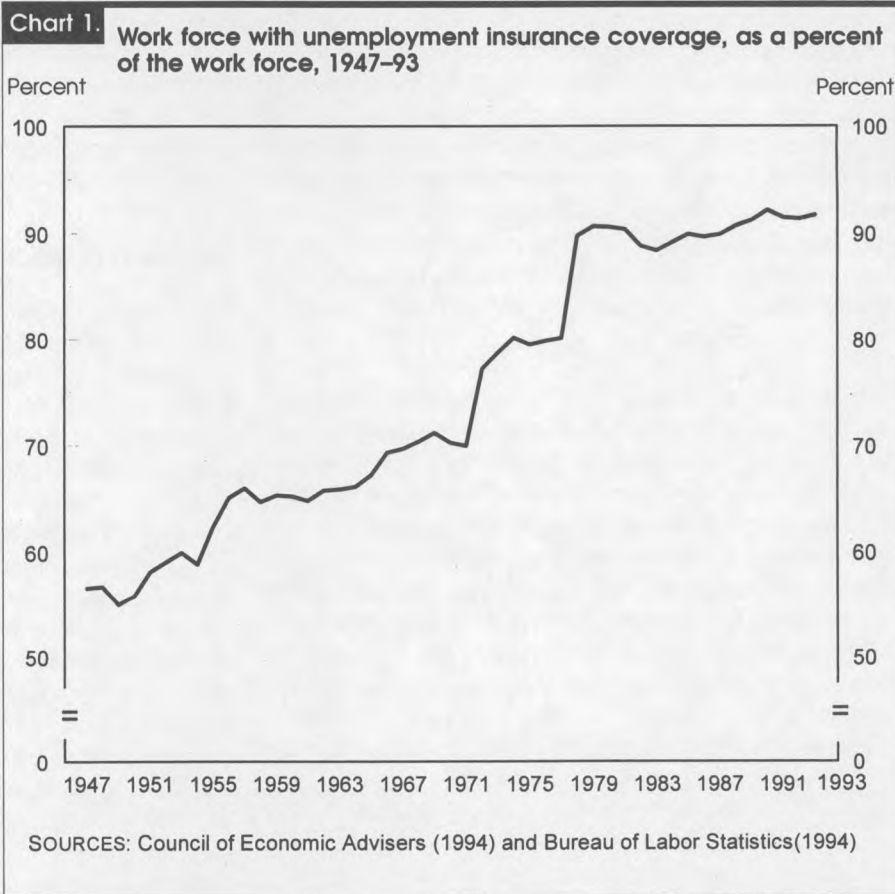
proximately 50 percent of some measure of his or her previous weekly earnings. The average amount received by workers in 1993 was approximately \$180 per week.⁴

Duration of benefits. In most States, the potential duration of UI benefits also is based on an individual's recent earnings.⁵ Maximum duration is uniform among States; all but two provided a maximum of 26 weeks of benefits in 1993.⁶ In general, the average potential duration of benefits has increased gradually, as has the average duration of unemployment spells. (See chart 2.)

Trends in receipt of UI benefits

Two trends have become apparent in the UI benefits program. The percentage of the unemployed who receive UI benefits (referred to as "recipiency") has declined slowly, but consistently, since the 1940's; and the percentage of recipients has dropped dramatically between 1980 and 1984 and has remained at a low rate throughout the 1980's and early 1990's.

These declines are of considerable concern. They threaten to undermine the two primary functions of the UI system: partial replacement of wages for unemployed workers, and countering



economic downturns by automatically injecting more money into the economy during periods of high unemployment. The insured unemployment rate is the primary method that activates the Extended Benefits program during recessions. Because the decline in the percentage of recipients is reflected in the insured unemployment rate, the decline also has had the effect of weakening the countercyclical effectiveness of the Extended Benefits component of the UI system.

The two declines have likely been caused by a combination of factors that tend to have similar effects on the UI system. The long-term decline is probably a partial result of broad shifts in labor market demographics, with industrial shifts such as the decline in manufacturing, and increases in UI coverage. To the extent that the percentage of the unemployed who receive UI benefits has decreased over the long-term, the UI program no longer responds to the needs of a growing portion of the unemployed population.

Several researchers have identified the causes of the recent, more short-term decline in recipiency nationwide. Four factors have been identified as the primary causes, although the results have not been wholly consistent and researchers have had substantial difficulty in separating the effects fully.

First, policy changes were made on the Federal and State levels that appear to have reduced the percent of the unemployed who receive benefits. Second, an increasing percentage of the unemployed live in States in which the percent of the unemployed who receive benefits is consistently below the national average. Third, the unionized percentage of the work force, in which rates of UI claims have historically been high, has declined. Fourth, the percentage of the work force employed in the manufacturing sector, in which rates of UI claims also have been high, has declined.

Who receives benefits?

Two primary statistics that generally measure reciprocity are the ratio of the insured unemployment rate to the total unemployment rate,⁷ and the ratio of UI claimants to the total number of unemployed.⁸ The two ratios are highly correlated. (See chart 3.) The ratio of the insured unemployment rate to the total unemployment rate is more difficult to interpret than the ratio of UI claimants to the total number of unemployed because of various mathematical complications related to the definitions of the populations that are counted. This can result in a measure that is above 100 percent. Still, the ratio of insured unemployment rate to the total unemployment rate

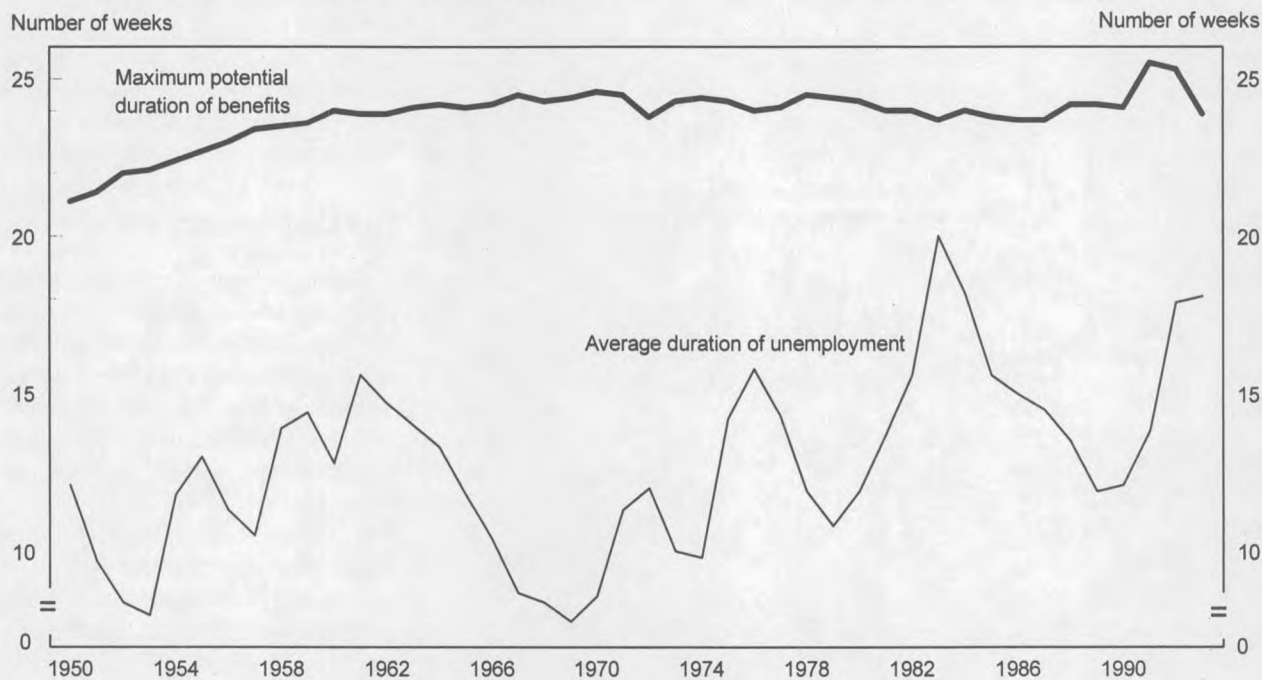
ratio is widely reported, and the insured unemployment rate is particularly important because it represents the primary trigger for the Federal-State Extended Benefits program.

Both ratios are based on a measure of the number of UI claimants, which is collected weekly by States. The total number of claimants, however, includes some individuals who do not receive UI benefits but are counted among the insured unemployed for a particular week. Three primary groups of individuals fall into this category: individuals who are on a 1-week waiting period before they begin to receive benefits; claimants who ultimately are denied benefits for nonmonetary reasons; and claimants who are disqualified from collecting benefits in a particular week for reasons that include the requirements that recipients be able and available for work and that claimants who are working do not exceed a particular level of income in a week. Including these groups has tended to inflate the measure of UI reciprocity by 10 to 15 percent per year.

Trends and implications

Both reciprocity measures have shown a long-term decline and a more short-term decline. (See chart 3.) The measures also vary considerably across States: in 1993, the ratio of claimants to total unemployed ranged from 15 percent in

Chart 2. Duration, in weeks, of unemployment spells and maximum potential duration, in weeks, of unemployment insurance benefits, 1950-93



NOTE: The 1979 figure for duration of benefits was interpolated and substituted for erroneous data.
 SOURCES: Council of Economic Advisers (1994) and U.S. Department of Labor (1994).

South Dakota to 64 percent in Alaska. (See table 2.) An additional measure, the ratio of UI claimants to total job losers, also has demonstrated long-term and short-term declines. (See chart 4.)

In an analysis of the characteristics of unemployed individuals who were not receiving benefits, the Congressional Research Service found that they were typically young, did not head families, and were not the primary source of income in their families. Generally, they have lower-than-average incomes before and after unemployment. However, only 42 percent of those who were employed full-time for 1 year before the start of their unemployment spell received benefits.⁹

Long-term trends. In the long term, the ratio of insured unemployment rate to total unemployment rate has dropped approximately 60 percent since 1947, and the ratio of UI claimants to the total number of unemployed has declined approximately 40 percent over the same period. These trends suggest that the UI program has been serving an ever-decreasing percentage of the unemployed, with periodic increases during recessions. This was largely the result of recessionary increases in the percentage of the unemployed who are job losers.

Short-term trends. In addition to the long-term decline in reciprocity, the ratio of the insured unemployment rate to the

total unemployment rate and the ratio of UI claimants to the total number of unemployed declined sharply in the early 1980's. By 1984, the number of unemployed collecting UI as a percentage of total unemployment had dropped to 28.5 percent, the lowest recorded percentage since 1947, when such data were first collected. The ratio has increased slightly since 1984, but has remained lower than its historical average. The period of the early 1980's was the first during which the ratio of UI claimants to the total number of unemployed did not increase significantly as the unemployment rate peaked. (See chart 5.) This represents a fundamental shift from the dynamic trends that had marked the UI program since its inception.¹⁰ Gary Burtless and Daniel Saks noted that the strong and stable statistical relationship between the number of UI claimants and number of job losers ended in the early 1980's.¹¹

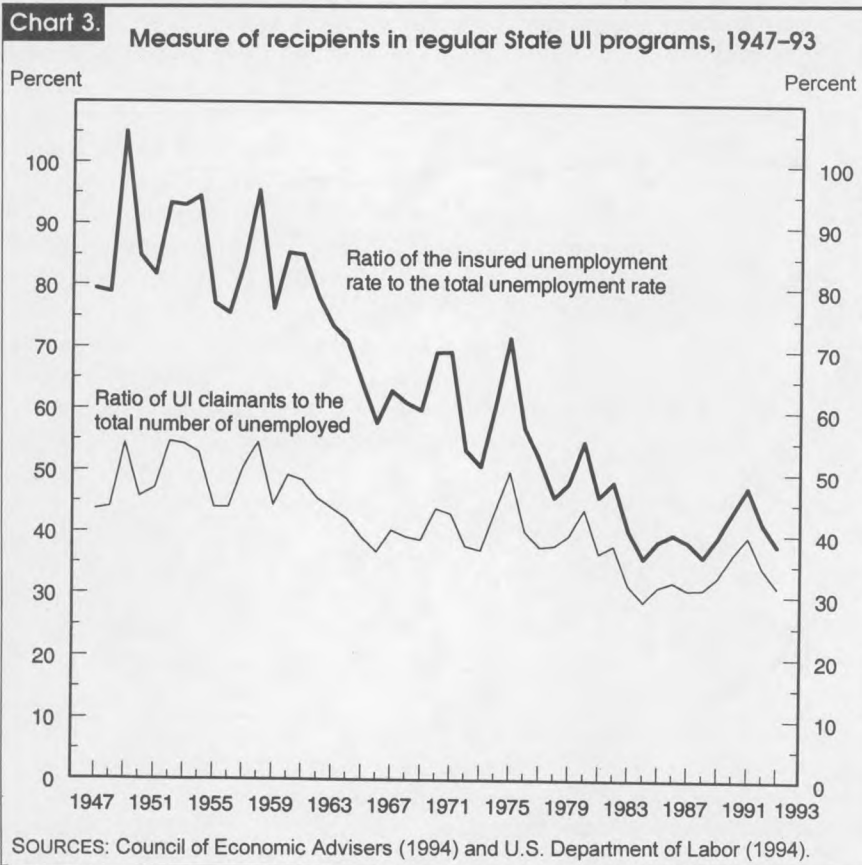
The declines in reciprocity are potentially significant for several reasons. First, they threaten to undermine the capacity of the UI system to provide partial wage replacement for unemployed workers and to counter economic downturns by automatically pumping more money into the economy during periods of high unemployment. The effectiveness of the system in performing these two roles is a direct function of the percentage of the unemployed whom the program serves.

Furthermore, the decline of the insured unemployment rate relative to total unemployment has weakened the countercyclical effectiveness of the UI system: the insured unemployment rate is the primary mechanism to activate the Extended Benefits program during recessions. Thus, the decline in the insured unemployment rate has resulted in a significant reduction in the number of States in which extended benefits are available.

The long-term decline

Research suggests that the long-term decline is primarily a result of changes in the demographic composition of the labor force and that the decline in one measure (the ratio of the insured unemployment rate to the total unemployment rate) is partially the result of increases in UI coverage.

Broad demographic changes. A primary cause of the decline in the ratio of UI claimants to the total number of unemployed before 1980 was the changing demographic composition of the jobless, according to Burtless and Saks.¹² Throughout the 1960's and 1970's, as many women and young



workers from the baby-boom generation entered the labor force, they also made up a higher percentage of the unemployed. As a result, men of prime working age, who are the most likely to receive UI benefits, declined considerably as a percentage of the unemployed. Burtless and Saks found that such demographic changes explain a large percentage of the decline in the ratio of UI claimants to the total number of unemployed before 1980.

While the impact of demographic changes described by Burtless and Saks declined after 1980, other demographic changes have continued or even accelerated in the 1980's and 1990's. Perhaps the most significant change is the continuing increase in the number of two-earner families. Although empirical research has not addressed this issue, the increase in two-earner households has most likely reduced the need among some workers to apply for UI benefits when they become unemployed. Thus, it is possible that various broad demographic changes continue to have a negative impact on the rate of UI reciprocity.

Increases in UI coverage. Newly covered employees in the 1970's were probably less likely to apply for UI compensation than previously covered groups.¹³ As a result, the insured unemployment rate (the number of UI claimants as a percentage of jobs covered by UI), declined because of the increased coverage of the system. Burtless and Saks suggest that the insured unemployment rate may have declined by between 0.5 and 0.8 percentage points because coverage was extended twice in the 1970's.¹⁴ Such a decline would account for a large percentage of the decline in the ratio of the insured unemployment rate to the total unemployment rate in this period, although it would not be expected to have the same effect on the ratio of UI claimants to the total number of unemployed.

Decline in manufacturing. Burtless and Saks also identified the shift of workers from manufacturing and other industries with high reciprocity rates as a primary cause of the long-term decline in the number of recipients. They report that estimating with precision the magnitude of this effect is difficult. The decline in manufacturing also has been identified as a significant cause of the decline during the 1980's.¹⁵

The short-term decline

Research examining the decline in UI reciprocity that occurred in the early 1980's continues to be inconsistent. The variability of the results is an indication of the difficulty researchers have had quantifying the impact of the four factors identified earlier: changes in Federal and State policy, population shifts, declining unionization rates and the decline in manufacturing. A combination of some or all of these factors probably contributed significantly to the short-term decline.

Policy changes. During the 1980's, several changes in Federal and State law appear to have contributed to the drop in the percentage of the unemployed who received unemployment benefits. Overall, the Federal General Accounting Office found that policies designed to improve the solvency of State trust funds reduced the reciprocity among unemployed individuals.¹⁶ Most significantly, numerous State laws were changed to restrict eligibility and reduce benefit levels, partly in response to Federal policies that encouraged States to adopt more restrictive legislation for regular State unemployment programs. Several Federal laws, most notably the decision to tax UI benefits, also directly reduced the value of unemployment benefit levels.

Federal policies. During the 1980's, Federal regulations governing State UI trust funds were changed significantly. Beginning in 1982, States were required to repay with interest Federal loans to their trust funds. Previously, the loans were interest-free and repayment requirements were unclear. States with loans also were required to adopt other specific measures to ensure solvency.

Overall, these changes provided incentives to States to avoid the need for future loans by reducing the scope of State programs. In addition, States were given other direct incentives, linked to Federal Extended Benefits funds, to tighten UI eligibility requirements and to reduce UI benefits. Taken as a whole, State policy reflected these changes in Federal policy. Federal laws also were changed in ways that directly affected the reciprocity rate. In 1979, UI benefits for the first time were partially taxed, and in 1986, all unemployment benefits became subject to taxation. States also were required to reduce or eliminate UI payments to unemployed workers who received pensions or Social Security payments. Walter Corson and Walter Nicholson found that, overall, between 11 percent and 23 percent of the total decline can be attributed directly to various Federal policy changes. Specifically, between 11 percent and 16 percent of the decline is due to partial taxation of benefits and up to 7 percent is the result of less generous Extended Benefits programs.¹⁷

State policies. The GAO reported that, between 1981 and 1987, 44 States adopted tighter monetary eligibility standards or stricter disqualification provisions for their regular UI programs. Many of these State changes probably were the result of Federal incentives to tighten eligibility, although determining the precise impact that changes in Federal legislation alone had on the policy decisions of States is impossible. Some research has found that these and other changes in State policy account for a significant percentage of the decline in reciprocity.

Corson and Nicholson found that between 21 percent and 55 percent of the decline in the number of recipients is attrib-

utable to State policy changes. Specifically, the decline is due to:

- 9 to 11 percent to increases in denial rates for disqualifying income;
- 3 to 11 percent to increases in the minimum earnings required to qualify for UI;
- 2 to 11 percent to increases in the denial rate for misconduct;
- up to 13 percent to changes in voluntary separation standards;
- 5 percent to reductions in maximum duration of benefits;
- 2 to 4 percent to changes in wage replacement rates.¹⁸

Corson and Nicholson also found that the ratio of UI claimants to the total number of unemployed would have increased between 1 percent and 13 percent as the result of reductions in work test denials, partially canceling the effects of the other factors.¹⁹

Burtless and Saks also concluded that State legislative and administrative changes are the primary cause of the decline in rates of change in the number of recipients, but they did not present estimates of the magnitude of the effects of these changes.²⁰

Marc Baldwin and Richard McHugh suggested that State policy changes account for 54 percent of the 1979–90 decline in reciprocity.²¹ An updated work by Baldwin, however, found sharp reductions in the apparent effects of State policy changes.²² Baldwin and McHugh attributed the decline to:

- 21 percent to increases in the minimum earnings required to qualify for UI;
- 16 percent to increases in the earnings required to qualify for the maximum benefit;
- 8 percent to increases in the number of States with disqualification periods for job quitters;
- 7 percent to increases in the number of States with disqualification periods for refusal of suitable work;
- 1 percent to increases in the number of States with right-to-work laws.²³

But Rebecca Blank and David Card found little evidence that State policy changes had any impact on reciprocity. They found that individual eligibility for UI benefits appeared to decline slightly as the result of tighter State eligibility standards, although these effects were offset by increasing wage levels.²⁴

Population shifts. An increasing share of U.S. unemployment is in Southern and Mountain states, where the ratio of UI claimants to the total number of unemployed has consistently been lower than the national average. As the percentage of national unemployment in these States increases, the

national ratio of UI claimants to the total number of unemployed would be expected to fall accordingly. This is a long-term demographic trend, occurring throughout the last three decades and continuing into the present. Blank and Card found that these regional shifts in population accounted for approximately 50 percent of the decline in the national ratio of UI claimants to the total number of unemployed between 1977 and 1987.²⁵ Wayne Vroman asserted that 25 percent is a more appropriate figure,²⁶ and Corson and Nicholson attributed 16 percent of the variation to geographic population shifts.²⁷

However, these analyses do not explain the underlying variations in ratio of UI claimants to the total number of unemployed across States that have caused the national rate to be affected by interstate migrations. Much of this variation can likely be attributed to differences in State policy, although the exact extent to which this is the case has not yet been determined.

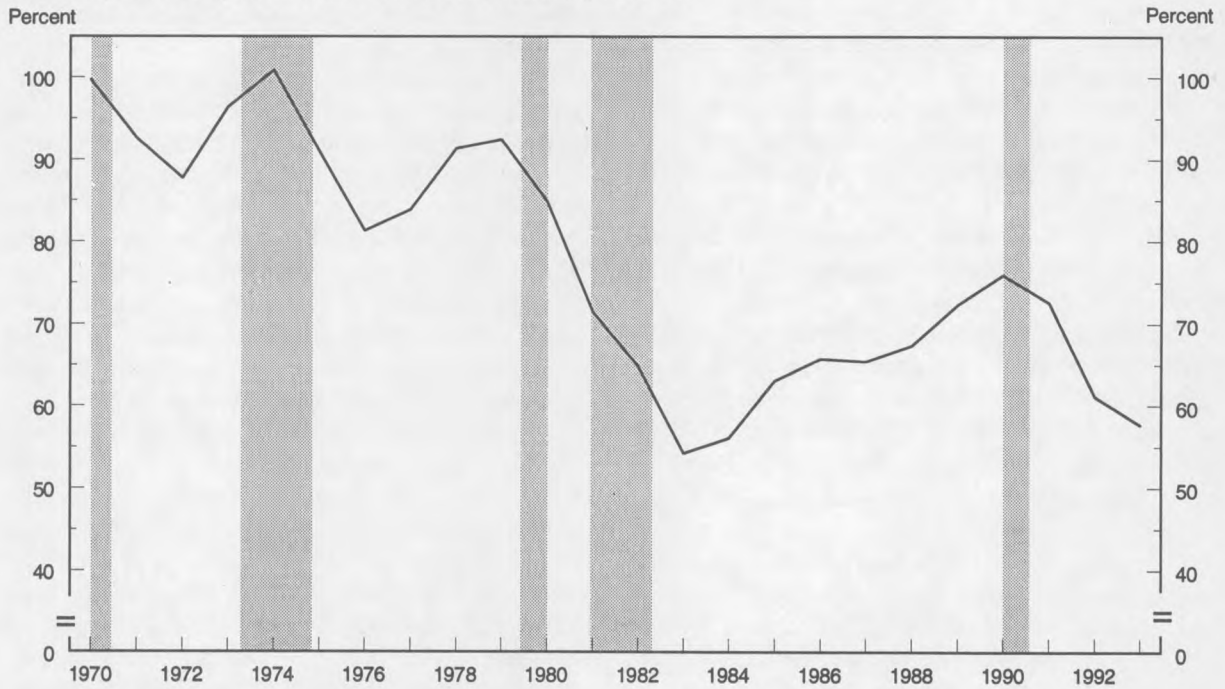
Decline in unionization. Between 1979 and 1988, the percentage of unionized employees decreased 25 percent.²⁸ Because unions have traditionally represented a powerful source

Table 2. Percent of total unemployed who are unemployment insurance claimants, by State 1993

State	Percent	State	Percent
Alaska	63.6	Florida	30.1
Hawaii	53.1	North Dakota	30.0
Vermont	53.1	Michigan	29.8
District of Columbia	45.3	Missouri	29.4
Connecticut	45.0	Colorado	28.5
Washington	44.4	Wyoming	28.5
Oregon	43.3	Arizona	28.3
Idaho	40.5	Mississippi	27.7
Pennsylvania	39.9	Kentucky	27.5
Wisconsin	39.8	Maryland	27.5
Rhode Island	39.7	North Carolina	27.2
Montana	38.9	Utah	27.0
New Jersey	38.7	Maine	26.2
Arkansas	37.6	South Carolina	25.4
Massachusetts	36.5	Ohio	24.9
Iowa	36.4	West Virginia	23.5
Nebraska	35.8	Alabama	22.5
California	34.6	Louisiana	21.8
New York	34.5	Texas	21.4
Tennessee	33.7	Georgia	21.3
Puerto Rico	33.0	Oklahoma	21.1
Delaware	32.1	New Mexico	20.7
Nevada	32.0	Indiana	20.6
Illinois	31.8	New Hampshire	20.3
Kansas	31.8	Virginia	17.0
Minnesota	31.6	South Dakota	15.3

NOTE: Data for the Virgin Islands are not available.
SOURCE: U.S. Department of Labor (1994).

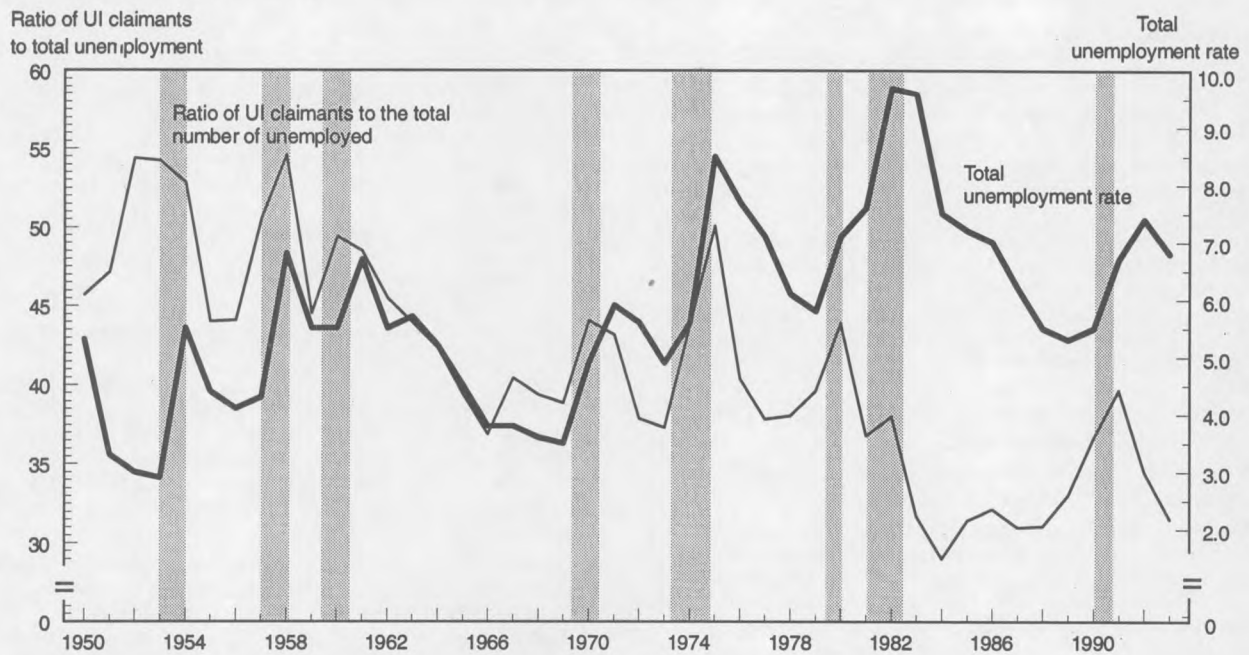
Chart 4. Proportion of job losers who are UI claimants, 1970-93



NOTE: Shaded regions denote recession from peak to trough.

SOURCE: Council of Economic Advisers (1994).

Chart 5. Reciprocity rate for regular State unemployment insurance programs and total unemployment rate, in percent, 1950-93



NOTE: Shaded regions denote recession from peak to trough.

SOURCES: Council of Economic Advisers (1994) and U.S. Department of Labor (1994).

of information regarding available benefits for unemployed workers, the decline in union membership could have exacerbated problems related to distributing information among the unemployed. In addition, unions have often helped members file UI claims by guiding them through the UI system. Finally, many union members are eligible only for supplemental unemployment benefits paid by their union if they apply for regular UI.

Blank and Card attributed 25 percent of the decline in reciprocity to the decline in unionization.²⁹ Baldwin and McHugh assigned 29 percent of the drop in reciprocity to the decline in unionization.³⁰ Vroman also points to the potential importance of the unions' information role by noting that the most important reason for nonapplication for UI benefits by unemployed individuals is their belief that they are ineligible for UI.³¹ Inability to understand eligibility conditions may cause eligible workers to fail to apply.

Decline in the manufacturing sector. As noted above, Burtless and Saks suggested that industrial shifts contributed to the long-term decline in reciprocity. This trend continued in the 1980's as manufacturing as a percentage of total employment fell by 22 percent between 1979 and 1990. This factor also has been identified as a significant cause of the short-term decline. Corson and Nicholson found that between 4 percent and 18 percent of the decrease in the UI claims ratio can be attributed to the decline in the manufacturing sector.³²

Baldwin and McHugh attributed 16 percent of the total decline in the ratio of UI claimants to the total number of unemployed to this factor.³³

In addition, Corson and Nicholson noted that an unemployed worker who had been employed in manufacturing is 25 percent more likely to collect UI than a similar worker from another industry. These findings are partially called into question, however, in analyses by Corson and Anu Rangarajan,³⁴ and Baldwin.³⁵ They found that a decline in manufacturing employment leads to an increase in the insured unemployment rate. Overall, it should be noted that because unions traditionally have been composed disproportionately of workers in the manufacturing sector, the decline in manufacturing is closely linked to the decline in unionization. As a result, the effects of the factors may be difficult to separate.

IN SUM, the percentage of the unemployed who receive Unemployment Insurance benefits has declined steadily, with a particularly sharp decline in the early 1980's. This suggests that the relevance of the system to the needs of today's work force has been eroded. A number of factors have contributed to this erosion, including Federal and State policy changes, broad demographic changes, and the decline in the manufacturing sector and in unionization. The resulting decline in reciprocity has jeopardized the program's capacity to carry out its two primary functions: wage replacement for involuntarily unemployed individuals and the countercyclical stabilization of the economy. □

Footnotes

¹ Employees also pay UI taxes in Alaska, New Jersey, Pennsylvania, and West Virginia. In some of the four States, payment by employees depends on the status of the UI trust fund.

² State and local governments and many nonprofit organizations do not pay UI taxes. They reimburse the UI system directly for benefits paid to their former employees.

³ Rebecca M. Blank and David E. Card, "Recent Trends in Insured and Uninsured Unemployment: Is There an Explanation?" *Quarterly Journal of Economics*, November, 1991.

Marc Baldwin and Richard McHugh, "Unprepared for Recession: the Erosion of State Unemployment Insurance Coverage Fostered by Public Policy in the 1980s," Economic Policy Institute Briefing Paper, February 1992, also find results that are consistent with this conclusion.

⁴ Data produced by U.S. Department of Labor, Unemployment Insurance Service, Division of Actuarial Services.

⁵ In nine States, all eligible claimants have uniform potential durations.

⁶ Massachusetts and Washington allow benefits for up to 30 weeks.

⁷ The insured unemployment rate is defined as the number of regular UI benefit claimants divided by the average number of employees covered by UI over 4 of the last 6 completed calendar quarters. The total unemployment rate is defined as the number of all active unemployed job seekers divided by the total civilian labor force.

⁸ The specific measure of reciprocity used by researchers in examining this question has varied. Walter Corson and Walter Nicholson, *An Examination of Declining UI Claims During the 1980s*, Unemployment Insurance Occasional Paper 88-3 (U.S. Department of Labor, 1988) examined both ratios, but focused upon the ratio of UI claimants to the total number of unemployed, which they call the UI claims ratio.

Blank and Card, in "Recent Trends," also examined this measure, which they call the fraction of insured unemployment.

Wayne Vroman, *The Decline in Unemployment Insurance Claims Activity in the 1980s*, Unemployment Insurance Occasional Paper 91-2, (U.S. Department of Labor, 1991) also focused on the ratio of UI claimants to the total number of unemployed.

Baldwin and McHugh, "Unprepared for Recession," also examine the ratio of UI claimants to the total number of unemployed, but include Extended Benefits recipients in addition to regular State UI recipients.

⁹ "The Uncompensated Unemployed: An Analysis of Unemployed Workers Who Do Not Receive Unemployment Compensation," Congressional Research Service, 1990.

¹⁰ The ratio of the insured unemployment rate to the total unemployment rate and the ratio of UI claimants to the total number of unemployed can be statistically predicted quite accurately for the years up to 1980 by knowing two variables: the year, which reflects the long-term decline of the system, and the unemployment rate, because the ratio tends to increase significantly during periods of high unemployment. Since 1980, however, the reciprocity ratios no longer have the same statistical relationship to these two variables.

¹¹ Gary Burtless and Daniel Saks, "The Decline in Insured Unemployment During the 1980s," Unpublished Brookings Institution Report to the Department of Labor, March 1984, p. 42.

¹² Burtless and Saks, "The Decline in Insured Unemployment During the 1980s," p. 20.

¹³ This particularly was likely to be true for State and local government employees because they experienced low levels of unemployment in the early 1980's.

¹⁴ Burtless and Saks, "The Decline in Insured Unemployment," p. 17.

¹⁵ *Ibid.*, p. 19-20.

¹⁶ *Unemployment Insurance: Program's Ability to Meet Objectives Jeopardized* (Washington, DC, U.S. General Accounting Office, 1993), pp. 30–37.

¹⁷ Corson and Nicholson, *An Examination of Declining UI Claims*, pp. 119–20.

¹⁸ Any apparent discrepancy in totals is due to rounding.

¹⁹ Corson and Nicholson, *An Examination of Declining UI Claims*, pp. 119–20.

²⁰ Burtless and Saks "The Decline in Insured Unemployment," 1984, pp. 54–80.

²¹ To facilitate greater comparability between the findings of Baldwin and McHugh, "Unprepared for Recession," and those of other studies, Baldwin and McHugh's findings have been reformulated in the text. In particular, they report that State policy changes account for 97.4 percent of the total net change in ratio of UI claimants to the total number of unemployed, rather than 54 percent reported in the text. Overall, they find three primary factors that contributed to the decline in the ratio of UI claimants to the total number of unemployed and other factors that partially offset the decrease. As a result, when only the three factors that decrease the ratio are combined, they are larger than the net decline. Each of the factors independently appears to be a large percentage of the net decrease. To determine the relative impact of each factor, the percentage of the overall negative impact upon the ratio of UI claimants to the total number of unemployed that is attributable to each of those factors that decreases in the ratio of UI claimants to the total number of unemployed must be calculated. These calculations indicate that State policy changes account for 54 percent of the decrease in the ratio of UI claimants to the total number of unemployed, declining unionization for 29 percent, and decreases in the manufacturing sector for 16 percent. The remaining 1 percent is attributable to the lagged unemployment level.

²² The research literature has not yet reconciled the variations in the results found by Marc Baldwin, "Benefit Reciprocity Rates Under the Federal/State Unemployment Insurance Program: Explaining and Reversing Decline," Un-

published Ph.D. diss., Massachusetts Institute of Technology, 1993), and by Baldwin and McHugh, "Unprepared for Recession," 1992, p. 18.

²³ Any apparent discrepancy in totals is due to rounding.

²⁴ Blank and Card, "Recent Trends in Insured and Uninsured Unemployment," p. 1166.

²⁵ *Ibid.*, p. 1177.

²⁶ Vroman, *The Decline in Unemployment Insurance*, p. 13.

²⁷ Burtless dismissed regional shifts as a possible explanation. However, later studies have appeared to confirm the merit of this factor. "Why is Insured Unemployment So Low?" *Brookings Papers on Economic Activity* (Washington, DC, Brookings Institution, 1983), pp. 225–49.

²⁸ Michael A. Curme, et al. "Union Membership and Contract Coverage in the United States, 1983–1988," *Industrial and Labor Relations Review*, October 1990, pp. 5–34, and Edward C. Kokkelenberg and Donna R. Sockell, "Union Membership in the United States, 1973–1981," *Industrial and Labor Relations Review*, July 1985, pp. 497–542.

²⁹ Blank and Card, "Recent Trends in Insured and Uninsured Unemployment," p. 1179.

³⁰ Baldwin and McHugh, "Unprepared for Recession," p. 18.

³¹ Vroman, *The Decline in Unemployment Insurance*, p. 25.

³² Corson and Nicholson, *An Examination of Declining UI Claims*, pp. 119–20.

³³ Baldwin and McHugh, "Unprepared for Recession," p. 18.

³⁴ Walter Corson and Anu Rangarajan, "Extended UI Benefit Triggers," (Princeton, NJ, Mathematica Policy Research, 1993, emphasize that this result is unexpected, and suggest that it should be viewed with caution.

³⁵ Baldwin, "Benefit Reciprocity Rates," p. 201.

Comparing measures of educational attainment in the CPS

Harley Frazis,
Michelle Harrison Ports,
and Jay Stewart

Educational attainment is an important demographic variable about which information is collected in household surveys such as the Current Population Survey (CPS). However, survey measures of education, like measures of other population characteristics, are imperfect. Educational attainment can be an ambiguous concept. At the elementary and high school levels of education, it is relatively clear what is meant by a grade or year of schooling. But the distinction is less clear at postsecondary levels: a "year" may represent the amount of time spent in schooling, or it may represent a certain amount of progress toward a degree.

College degrees and high school diplomas are key elements in most people's perceptions of educational attainment, but until 1992, the attainment of a degree was not explicitly part of the education measure used in the CPS. In January of that year, the CPS introduced a new education item consisting of a single question: "What is the highest level of school . . . has completed or the highest degree . . . has received?"¹ The old item (prior to January 1992) asked respondents two questions: (1) "What is the highest grade or year of regular school . . . has ever attended?" and (2) "Did . . . complete the grade?"

While the old item did not explicitly ask about the attainment of a de-

gree, the interviewer's instructions made it clear that certain levels of education carried the connotation of a degree. For example, people who passed a high school equivalency test or who completed high school in the Armed Forces were supposed to be coded as having completed the 12th grade, regardless of the highest grade they actually completed. Similarly, for college, CPS interviewers were instructed that "school years are determined by the number of credits required for completing . . . a degree."² However, interviewers were not instructed to probe for high school diplomas and college degrees, which means that these credentials were probably not picked up in many cases when respondents took less than 4 years to finish high school or college.

Before the new item was introduced, it was field tested by the Census Bureau in February 1990. All respondents were asked the three questions constituting the new and the old items. To minimize the number of people who relied on their response to the old item, the new item was placed at the end of the survey, while the old item was asked at the beginning of the survey, as usual. These data present a unique opportunity to examine the information elicited by each question.

This article compares the responses on the two education items in order to shed light on how successfully educational attainment is measured by each item. A finding which emerges is that the old item led to more consistent measurement of precollege-level educational attainment, probably due to the distinction made between attending and completing a grade. However, use of the old item leads to a substantial number of errors in attributing degrees to individuals.

The basic tool used in investigating this issue is the examination of conflicting responses. Two different levels of conflicting responses are distinguished: *inconsistent responses* and *classification errors*. A pair of responses to the new and old items is *inconsistent* if it is im-

possible for both responses to be correct; a *classification error* occurs if the answer to the old item is not consistent with the degree-based intent of the old item. As an example of the latter, consider a person who responded to the old item that she completed ninth grade, but also responded to the new item that she has a general equivalency diploma (GED). This response pattern conflicts with the degree-based intent of the old question, even though the responses are consistent as the term is defined above.

Note that the classification scheme is hierarchical: all inconsistent responses are classification errors, but not all classification errors are inconsistent responses. Throughout the article, the term *conflicting responses* is used when it is not necessary to distinguish between inconsistent responses and classification errors.

When responses are consistent, the intent of the old question (to make the completion of certain grades equivalent to specific degrees) is used as a criterion for determining whether a pair of responses is a classification error. For example, if the responses to the old and new items were "12th grade, completed" and "12th grade, no diploma," this would be a classification error. Associate's degrees are treated as equivalent to 2 years of college, so that cases with associate's degrees but fewer than 14 years of school completed are classification errors. Similarly, because 4 years of college are supposed to be equivalent to a bachelor's degree, cases with bachelor's degrees and fewer than 16 years of school completed are classification errors, as are those with associate's degrees or "some college, no degree" and 16 or more years of school. At the postgraduate level, things become somewhat more ambiguous. Those with fewer than 17 years of school completed and possessed of master's degrees, as well as those with fewer than 18 years completed and holding professional or doctoral degrees, are also classification errors.³

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Table 1. Rates of inconsistent responses and classification errors in responses to the education items, by response to old item

[Percent]		
Years of school completed	Inconsistent responses	Classification errors
Total	6.1	9.6
Elementary:		
0	6.3	6.3
1	16.2	17.7
2	6.1	12.4
3	3.9	3.9
4	12.1	12.3
5	3.5	3.7
6	3.3	4.6
7	2.9	3.6
8	8.0	9.5
High school:		
1	17.8	19.4
2	14.9	17.1
3	4.5	12.0
4	7.2	10.2
College:		
1	6.3	10.4
2	4.2	4.2
3	2.6	7.7
4 .....	.9	9.5
5 .....	.2	7.3
6 or more .....	.2	1.6

Conflicts by education

Tables 1 and 2 indicate that conflicting responses are more common at some education levels than others. In particular, inconsistent responses occur primarily at grade levels that are at the low or high end of the new categories. For example, inconsistency rates are higher than average for people with 1, 4, and 8 years of education. Inconsistency rates also are higher than average for people with 9 and 10 years of education. In all these cases, the discrepancy arises because, when answering the new question, many people did not make the distinction between the highest grade they attended and the highest grade they completed.

Most of the conflicting responses for people who have completed 9 to 12 years of schooling are due to a particular response pattern. In that pattern, the person responded to the old question that he or she attended, but did not complete, for instance, 10th grade. When asked the new question, the person responded "10th grade." This is not consistent because the new question asks for the highest grade *completed*. Such a response pattern accounts for 2.1 percent of all responses, which is more than one-third of all inconsistent responses.

Table 2. Rates of inconsistent responses and classification errors in responses to the education items, by response to new item

[Percent]		
Highest grade completed or degree received	Inconsistent responses	Classification errors
Total	6.1	9.6
No school	5.1	5.1
Nursery school	—	—
Kindergarten	—	—
First through fourth grade	6.2	6.2
Fifth through eighth grade	3.9	3.9
Ninth grade	13.0	13.0
Tenth grade	14.6	14.6
Eleventh grade	18.0	18.0
Twelfth grade, no diploma	6.5	62.9
Twelfth grade, with diploma or graduate equivalency degree	4.8	6.8
Some college, no degree	6.8	9.3
Associate's degree:		
Occupational	8.7	26.9
Academic	2.3	18.4
Bachelor's degree	1.7	3.0
Master's degree .....	.5	5.2
Professional degree	10.3	13.2
Doctoral degree .....	.6	1.8

NOTE: Dashes indicate fewer than 10 observations.

Why are the high school years confusing? The inconsistent response pattern just described has two possible explanations: (1) Individuals may have remembered their response to the old question and simply repeated that response. For example, an individual who responded that he attended, but did not complete, ninth grade may again have responded, unthinkingly, "ninth grade" to the new question. (2) Respondents may not be very careful in making the "attended-completed" distinction unless they are specifically asked questions that would lead them to do so.

Using the February 1990 data alone, one cannot determine which of these hypotheses is correct. To do this requires data sets that contain responses

to the two education items from two different interviews. In that case, the respondent is not likely to have remembered the response to the first question in answering the second question.

To shed light on which of the two hypotheses is correct, data from December 1991 were matched with data from January 1992.⁴ The matched data set, like the data of February 1990, contains both the new and old education items (the old item from December 1991, the new item from January 1992). As noted earlier, the key difference between the two is that the questions were not asked during the same interview in the matched data set. If the inconsistencies noted above appear in the matched sample, then, clearly, the respondents did not hear the word "completed" in the new item. The absence of these inconsistencies in the matched data would indicate that the response to the old question affected the response to the new question.

Evidence from the December 1991-

January 1992 matched data contradicts hypothesis (1), but supports hypothesis (2). The "attended-completed" inconsistency occurs more frequently in the matched data. If hypothesis (1) were correct, then one would expect that the "attended-completed" inconsistency would occur less frequently in the matched data because the answer to the new item could not have been affected by the answer to the old item. It appears that having answered the old item helped respondents answer the new item in the February 1990 data. Matched January 1990-February 1990 data, which contain two independent measures using the old item, also support hypothesis (2): respondents do make a careful distinction between completing a grade and merely attending a grade *when specifically asked* questions that would lead them to do so. For people with 9 to 11 years of schooling, error rates⁵ were between 9.3 percent and 11.9 percent in the February 1990 data, but only 2.5 percent to

3.0 percent in the January-February matched data.

Correspondence between years of schooling and highest degree attained. A major reason for changing the education item was that it is difficult to infer whether a person holds a degree from the number of years of schooling the person has. The new item represents a significant improvement in that it is now possible to identify six types of college degree (two types of associate's degree, in addition to the bachelor's, master's, professional, and doctoral degrees), as well as high school diplomas. A BLS news release explains the rationale for the change:⁶

The years-of-school-completed concept had been used to measure educational attainment in the Current Population Survey since 1948 and, until recently, was considered adequate for this purpose. Persons who reported that they had attended high school for 4 years, for example, could reasonably be considered high school

Table 3. Correspondence between number of years of schooling and highest degree held, high school and college graduates

Age, years	Percent of people with—			
	12 years of schooling who have a high school diploma, but no college	16 years of schooling who have a bachelor's degree, but no postgraduate degree	12 or more years of schooling who have a high school diploma	16 or more years of schooling who have a bachelor's degree
Total	85.1	90.2	97.9	94.4
16-19	62.3	—	97.1	—
20-24	80.9	90.8	97.9	91.2
25-29	85.2	91.9	98.0	93.6
30-34	86.5	91.3	98.3	94.4
35-39	86.1	90.4	98.4	94.9
40-44	85.9	89.6	98.5	95.1
45-49	86.7	87.6	98.4	94.9
50-54	88.3	88.6	97.8	94.5
55-59	88.2	89.9	97.3	94.8
60-64	89.1	91.3	97.5	95.5
65-69	89.5	89.9	97.2	95.2
70-74	88.1	88.3	97.1	93.4
75 and older	85.7	88.2	95.9	93.8

NOTE: Dashes indicate category is not applicable.

graduates; those with 4 or more years of college could be considered college graduates. Prior to 1970, the number of years of schooling did, indeed, correspond quite well with the attainment of certain degrees (in the manner noted above). Several studies conducted by the Bureau of the Census over the last several years, however, indicated that this relationship had weakened. That is, many people who said they had a particular number of years of schooling had not in fact received the degree typically associated with that level of schooling.

Much of the increased discrepancy between administrative and survey estimates of the stock of college graduates can be attributed to increases in the number of people who have attended college. However, it is less clear that there is an increased discrepancy in terms of percentages. For example, administrative data from the decade 1940–50 underestimate the 1950 stock of those with 16 or more years of education by 419 thousand, which is 7.2 percent of the total of 5.8 million; 1970–80 administrative data underestimate the 1980 stock by 1,659,000, which is 7.0 percent of the total of 23.5 million.⁷

Although the old item attempted to identify the degrees earned to the fullest extent possible, it had no way of dealing with people who completed 12 or 16 years of schooling but did not have high school diplomas or bachelor's degrees. Table 3 examines the correspondence between the number of years of education a person has and the degree conferred on that person for both high school and college graduates, and whether the relationship has weakened over time. The findings support the notion that it is difficult to infer whether a person holds a degree from the number of years of schooling the person has, but the extent of misclassification depends on the way in which the degree categories are defined. However, the February 1990 data do not support the contention that the relationship between the two variables has weakened over time.

When the Census Bureau and the Bureau of Labor Statistics tabulate statistics by educational attainment, it is generally assumed that people who have completed exactly 12 years of schooling have a high school diploma and no college, and that people who have completed exactly 16 years of schooling have a bachelor's degree and no graduate education. The first two columns of the table show the extent to which this assumption is accurate: only 85.1 percent of people with exactly 12 years of schooling have a high school diploma (and no college), which means that nearly 15 percent of these people are misclassified. This suggests that the number of years of schooling is not a good way of identifying people who stop their education with a high school diploma. The correspondence for people with exactly 16 years of schooling is somewhat better, but still quite imperfect: only 90.2 percent have a bachelor's degree (and no graduate education).

It is worth noting that the number of years of schooling refers to *completed* years. Hence, people who completed less than a year of college or less than

a year of graduate school are counted as having exactly 12 and 16 years of schooling, respectively. The correspondence between these two classifications improves when the definition excludes people who attended, but did not complete, the next grade. For people with 12 years of schooling, the correspondence increases to 91.6 percent; for people with 16 years of schooling, it increases only slightly, to 90.7 percent.

While people with 13 or more years of school are virtually certain to have a high school diploma, many with more than 16 years of school do not have a bachelor's degree. Nearly 98 percent of people with 12 or more years of schooling have a high school diploma, while 94.4 percent of people with 16 or more years of schooling have a bachelor's degree.

One can infer whether the relationship between the number of years of schooling and holding either a high school diploma or a bachelor's degree has changed over time by looking at these percentages for different cohorts. If the correspondence has been deteriorating over time, then it should be greater for older cohorts. From table 3, however,

Table 4. Rates of inconsistent responses and classification errors in responses to education items, by type of respondent and month-in-sample

[Percent]		
Category	Inconsistent responses	Classification errors
Total	6.1	9.6
Type of respondent:		
Self	5.6	9.3
Proxy	6.6	10.0
Self and proxy	6.2	9.2
Month-in-sample:		
1 ¹	4.1	6.9
2	6.0	9.6
3	6.5	9.8
4	6.7	10.5
5 ¹	5.0	8.1
6	7.0	10.5
7	6.5	10.2
8	7.1	11.0*

¹ Interviews in these months are more likely to be in person. The vast majority of interviews during months-in-sample 2–4 and 6–8 are conducted over the telephone.

this does not appear to be true. For people with 12 or more years of schooling, the correspondence is fairly constant across cohorts. For people with exactly 12 years of schooling, the correspondence is low for 16- to 19- and 20- to 24-year-olds. Between the ages of 25 and 50 years, the correspondence is relatively constant at 85 percent to 86 percent. There is a slight increase, to about 88 percent, at age 50. For people with 16 years and 16 or more years of schooling, there is not much difference by cohort.

Other survey issues

As noted previously, responses to the new item at the time of the test may have been affected by the response to the old item; that is, the order of the questions in the survey may have affected the outcome. Two other aspects of the survey instrument that could affect consistency rates also were examined: whether the response was self-reported or by proxy and the individual's month-in-sample.⁸ (See table 4.)

As expected, self-respondents are less likely than proxies to give conflicting responses, but the difference is not large. When the respondent type is self and proxy (that is, both provided information), the percentage of classification errors is very close to that of self-

spondents, while the percentage of inconsistent responses is between that for self- and proxy respondents.

With regard to rotation group, incoming rotations (months-in-sample 1 and 5) give fewer conflicting responses. The most likely explanation is that interviews in these months are conducted in person. Interviews in the other 6 months are conducted predominantly by telephone. This is an important distinction because, in responding to questions posed in the new item, respondents are shown flashcards with the possible responses when the interview is in person, whereas if the interview is by telephone, the possible responses are read only if the respondent is unsure.

IN THIS ARTICLE, data collected in February 1990 were used to examine conflicting responses in reporting educational attainment in the cps in order to shed light on how well educational attainment is measured by the old and new questions. Results of the study show that consistency rates vary by education level. Some of the variation is due to respondents failing to make the distinction between having completed a grade and merely attending school during that grade. It appears that presenting the old education item before the new one (as was done in February 1990) helps respondents make the dis-

inction more readily. On the other hand, much of the inconsistency in responses is due to the old question not picking up information about the degrees the respondents have or have not earned. Other aspects of the survey instrument also have an effect on the rate of conflicting responses: face-to-face interviews produce fewer conflicting responses than do telephone interviews, and proxy respondents are slightly more likely than self-respondents to give conflicting responses.

The current education item in the cps represents a completely different way to measure educational attainment than the old item did. The current measure provides detailed information about educational credentials that was unobtainable under the old measure, although some precision has been lost at both the college and lower levels.

In cps surveys starting in January 1996, the Census Bureau and the Bureau of Labor Statistics plan to expand the level of detail available in the college range and to distinguish between regular high school diplomas and GED's. The 1996 item will ask the current question first. Then, depending on the answer, follow-up questions may gather more detail on the respondent's educational attainment. This should further improve the measurement of education in the cps. □

Footnotes

¹ The new item is discussed in Robert Kominski and Paul M. Siegel, "Measuring education in the Current Population Survey," *Monthly Labor Review*, September 1993, pp. 34-38.

² *CPS Interviewers Manual* (Bureau of the Census, February 1987).

³ Note that the absence of a category designating some graduate school, but no graduate degree, precludes those with more than 16 years of school completed and holding a bachelor's degree from having their responses classified as inconsistent.

⁴ The 4-8-4 rotation scheme in the cps makes it possible to match individuals in consecutive months. A household is interviewed each month for 4 consecutive months, is out of the survey for 8 months, and then is back in the survey for 4 months. Households are identified by their *month-in-sample*, which ranges from 1 to 8. In any given month, it is

possible to match the responses of individuals whose month-in-sample is 2 through 4 or 6 through 8 with their responses in the previous month.

⁵ In the February 1990 data, an observation was considered an error if respondents did not make the "attended-completed" distinction. To illustrate, consider people who reported having attended 11th grade when asked the old item and responded "11th grade" to the new item. The responses are consistent if (1) the person responded "11th grade" and "did not complete" to the old item and "10th grade" to the new item; or (2) the person responded "11th grade" and "completed" to the old item and "11th grade" to the new item. Of all the pairs of responses, 2,663 fit (1) and 2,117 fit (2). A pair of responses is inconsistent if the person responded "11th grade" and "did not complete" to the old item and "11th grade" to the new item. There were 647 pairs of

responses that fit this pattern, resulting in an inconsistency rate of 11.9 percent. In the January-February matched data, the analogous population is those who responded that they attended 11th grade both times that the old item was asked. Of these people, 2.8 percent gave different answers to the "attended-completed" questions.

⁶ *Educational Attainment of American Workers: Some New Data*, USDL 93-238 (Bureau of Labor Statistics, Jul. 16, 1993).

⁷ The numbers are taken from R. Kominski and P. M. Siegel, "Measuring Educational Attainment in the 1990 Census," paper presented at the annual meeting of the American Sociological Association, August 1987. The 1960 and 1970 discrepancies are lower.

⁸ See footnote 4 for an explanation of *month-in-sample*.

Strike averted at AT&T

Negotiators for the American Telephone & Telegraph Co. (AT&T) and its two major unions—the Communications Workers of America (CWA) and the International Brotherhood of Electrical Workers (IBEW)—averted a threatened strike when they reached tentative agreement on new 3-year master contracts covering some 110,000 workers nationwide. Terms of the pacts, which are similar to those negotiated by the unions with NYNEX last year, are expected to serve as a framework for settlements at the regional Bell telephone companies currently negotiating new agreements with the unions. (See *Monthly Labor Review*, January 1995, page 35.) The major sticking points in the AT&T negotiations were the level of wages, health care premiums for retirees, and union access to AT&T subsidiaries for organizing purposes.

According to CWA president Morton Bahr, “We made substantial improvement in the areas of wages, health care, pension benefits, employment security and training, and education for our members. We also protected the health care of our retirees, both ensuring that they won’t have out-of-pocket costs for premiums and also improving coverage.”

The contracts provide wage increases of 3.6 percent immediately, 3.5 percent in the second year, and 3.4 percent in the third year. Terms also call for an immediate \$1,000 ratification bonus and \$800 lump-sum payments in 1996, 1997, and 1998, which will be converted into AT&T stock with a share price equal to AT&T’s average stock price during the week of August 28, 1995. At the expiration of the prior contract, average wage rates ranged from \$435 per week for account representatives to \$807 per week for equipment installers.

“Industrial Relations” is prepared by Michael H. Cimini and Charles J. Muhl of the Division of Developments in Labor-Management Relations, Bureau of Labor Statistics, and is largely based on information from secondary source.

The accords improve health benefits for active workers, particularly those enrolled in managed care plans, and protect retirees from having to contribute to health insurance premiums. Managed care plan participants will have 100-percent coverage for all services, including in-hospital services and surgery, and will have newly added coverage for routine physicals, certain preventive care treatments, hospices, and air ambulance services. The deductibles for in-network services will be replaced by a flat \$10 copayment for doctors’ office visits, and maximum annual out-of-pocket expenses will be cut from \$1,000 to \$750. The settlement also introduces improvements in the prescription drug plan, mental health and drug abuse program, hospice care, and dental plan.

Employees going out-of-network for health care will incur greater costs, including annual deductibles of \$200 per person and \$400 per family, annual maximum out-of-pocket expenses of \$2,500 per person and \$5,000 per family, and a \$150 employee copayment for an in-hospital stay.

Retirees will be covered under the same managed care networks, with benefits and copayments identical to those of active employees. Workers who retired before March 1, 1990, will continue to receive medical benefits fully paid by the company. Those retiring after March 1, 1990, will continue to receive medical benefits without out-of-pocket costs for insurance premiums during the term of the agreement only, because of increased caps on AT&T’s contributions towards premiums in 1995 and 1996 and the planned establishment of a retiree Medical Spending Account in 1997.

The settlement includes several other changes in benefits. It increases pension benefits for active employees by 12 percent over the term of the agreement, and boosts minimum pension benefits for current retirees to \$400 per month. The pact obligates AT&T to contribute \$67 million over the term to build employees’ skills. It improves the savings and security and stock purchase

plans. Other changes in benefits amend dependents’ group life insurance to provide separate coverage for spouses and children and increase coverage at lower rates; continue the employee assistance program; increase the maximum reimbursement for adoption expenses to \$3,000 less taxes; and provide up to \$7.5 million for projects to serve employees’ family needs.

In the job and union security areas, the parties agreed to language giving union members access to jobs in AT&T units that are not unionized and strengthening the concept of “union values” to help nonunion workers to organize. They adopted a list of “do’s” and “don’ts” for future organizing campaigns at AT&T units, and agreed to a process for organizing campaigns at two affiliates, AT&T Transtech and Universal Card Services. The parties also agreed to create a joint committee to annually review issues of inclusion or exclusion of certain AT&T affiliates for organizing purposes, the applicability of card checks and the company’s pledge of neutrality in the unions’ organizing efforts, and the use of joint participation models established by other bargaining partners.

The settlement expands employees’ rights under the AT&T Transfer System plan (ATS), which originally was designed to provide regular full-time and part-time employees with a vehicle to request new career opportunities and to provide “surplus” employees with an increased opportunity to continue employment with the company. New contract language gives surplus and laid-off workers simultaneous access to job openings at AT&T and all its affiliates, except McCaw Cellular. It also gives these employees immediate access to job opportunities when plants are closed, instead of placing them in a “force freeze” as was done in the past.

The Workplace of the Future (WPOF) program, which was designed to facilitate greater union participation in human resource and business planning, is continued. The program will be the focal point for addressing problems dealing with technological change, subcon-

tracting, and outsourcing through Business Unit Council meetings and local negotiations.

Rule changes featured in utility pacts

Members of Local 223 of the Utility Workers Union narrowly ratified a new 4-year labor contract covering some 2,700 power plant workers, cable splicers, substation operators, and other production and maintenance employees at Detroit Edison facilities in southeastern Michigan. The low approval rate reportedly reflected rank-and-file dissatisfaction over rule changes that give the utility more operational flexibility, including language making employees exercise their seniority rights on a multiplant basis, rather than on a plant-wide basis as stipulated under the previous contract.

The pact provides wage increases of 2.5 percent in the first and third years of the contract, and lump-sum payments in the second and fourth years equal to 2.5 percent of an employee's gross salary earned in the preceding 12 months. At the expiration of the prior agreement, the average hourly base rate reportedly was about \$21.65.

The settlement introduces several changes in benefits. The formula used to calculate normal pensions is enhanced to provide annual benefits equal to 1.5 percent (was 1.4 percent) of the average of the highest 5 years' earnings multiplied by the number of years of credited service for each of the first 30 years of service and 1.4 percent of the average of the highest 5 years' earnings multiplied by the number of years of credited service over 30. The penalty (reduction in pension benefits) for early retirement decreases in June 1997, from 8 to 3 percent for employees retiring at age 59, from 16 to 11 percent for those retiring at age 58, from 24 to 19 percent for those retiring at age 57, from 32 to 26 percent for those retiring at age 56, and from 40 to 35 percent for those retiring at age 55. The supplementary early retirement allowance, which is paid to employees who retire before

reaching age 62, is increased to yield a minimum monthly benefit, when combined with regular retirement benefit total payments, of \$1,250 in the first year of the contract, \$1,500 in the second year, \$1,550 in the third year, and \$1,750 in the fourth year. The minimum age requirement to qualify for such benefits—which are paid until the retiree reaches age 62—drops from 56 to 55.

Other changes, all effective in 1996, increase maximum annual orthodontic benefits from \$850 to \$1,250 and ambulance service benefits from \$300 to \$400; change the employee copayment for prescription drugs from 20 percent of cost to \$25 per prescription; and eliminate the employee copayment for health insurance premiums when the employee is on long-term disability.

In another development, the Illinois Power Company and four separate locals of the International Brotherhood of Electrical Workers (IBEW) have agreed to separate but essentially identical 4-year contracts providing early retirement incentives and more flexible work rules in response to the company's plan to restructure its operations. The agreement covers some 2,600 production, maintenance, office, and technical employees working throughout Illinois—part of the Decatur-based gas and electric utility's total work force of 4,400.

When the prior contract expired in June 1994, the parties agreed to a 9-month extension that included a 3-percent "premium payment" on June 30, 1994, while Illinois Power developed its restructuring plan. Under the final plan, several hundred unionized positions will be eliminated after a number of functions, including billing and customer service, are centralized at the company's headquarters.

Thus, as part of the current settlement, the parties negotiated early retirement incentives and improvements in severance benefits intended to cushion the effects of staff reductions. Under changes to the early retirement program, employees will be credited with an additional 5 years of age when calculating pension eligibility, enabling an employee aged 57 or older to retire

without penalty. Severance language is improved to provide 3 weeks of pay for each year of credited service, with a minimum payment of 8 weeks and a maximum of 52 weeks. Employees accepting severance payments lose their recall rights.

Work rule changes improve Illinois Power's flexibility when responding to power outages and other emergency repairs, as well as conducting normal operations at its power plants and construction sites. The pact also includes modifications to overtime policy and emergency repair procedures to give the utility more flexibility in redirecting its work force.

The settlement rolls in the 3-percent premium payment negotiated as part of the 9-month contract extension and provides wage increases of 3.5 percent in the second year of the contract and 3 percent in both the third and fourth years. In addition, employees may receive annual bonuses of up to 6 percent of earnings paid in the preceding 12 months if established corporate goals are met.

The contract also allows employees to take vacation in single- or half-day increments; and precludes a strike or lockout during the next round of negotiations and requires interest arbitration in the event of a bargaining impasse.

New pact at Kelly-Springfield

Some 1,400 production and maintenance workers at Kelly-Springfield Tire Co. in Freeport, IL, will be working under a new 3-year labor contract negotiated by Local 745 of the United Rubber Workers. Terms of the pact deviate somewhat from those agreed to last year by the Rubber Workers and Goodyear Tire and Rubber Co., Kelly-Springfield's parent company. (See *Monthly Labor Review*, September 1994, pp. 60–61.) Unlike its Goodyear counterpart, Local 745 agreed to language allowing management to add continuous operations on the weekends (two 12-hour shifts a day) and to start new hires at rates that are below nor-

mal base rates but that reach normal base rates over a specified period. In the first year of the contract, work on weekends will be on a voluntary basis; thereafter, the company will have the right to assign workers to weekend shifts.

The Kelly pact calls for a wage freeze during the term of the contract, moderated by quarterly cost-of-living adjustments equal to 1 cent an hour for each 0.26-point change in the Consumer Price Index for Wage Earners and Clerical Workers, with 18 cents per worker being diverted each year to help fund the company's performance recognition plan. That plan establishes a target bonus of \$1,000 per year for each employee, with half coming from the company and half from the COLA diversion. Each employee will receive a minimum of \$500 and a maximum of \$1,500, with the actual amount based in equal proportions on the financial performance of Goodyear and Kelly-Springfield. Last year, the plan payout averaged \$1,375 per employee.

Other terms guarantee that the company will make a capital investment of about \$17 million for radial light truck tire production; and continue the company-provided medical plan, pension benefits, accident and sickness coverage, supplemental workers' compensation benefits, and the vision and dental care plans at current levels.

Farmer Jack/A&P pact

The Great Atlantic and Pacific Tea Company and Local 876 of the United Food and Commercial Workers reached agreement on a 3-year contract covering some 6,500 clerks at 88 Farmer Jack and A&P grocery stores in the Detroit, MI, metropolitan area. According to a prepared statement, the accord provides "job security for employees and continued growth for the company in Michigan." The two chains, subsidiaries of New Jersey-based Great Atlantic, negotiated a single contract covering all unionized employees for the first time, thus giving workers the opportunity to move freely among stores in both chains. With the settlement in hand,

Great Atlantic announced that 15 stores originally scheduled to be closed will remain open. In addition, the company pledged to open 15 new stores in the metro area over the next 2 years.

The pact provides wage increases for top-rated employees of 25 cents per hour on August 6, 1995, 30 cents per hour on January 1, 1996, and 35 cents per hour on January 1, 1997. At the expiration of the prior contract, the top hourly rate was \$11.82 for employees hired before 1988 and \$9.82 for employees hired thereafter.

A number of work rule changes were included in the accord. The ratio of full-time to part-time positions was reduced from 50/50 to 30/70. In return for giving Great Atlantic this added flexibility, the union received a guarantee from the company that at least 2,000 full-time positions will remain in the bargaining unit during the term of the agreement. When eligibility for dependent health care is determined, part-time workers will now be credited for hours worked on Sundays and holidays, which previously had not been included in the computation. Employees must average at least 34 hours of work per week to be eligible for dependent health care.

Other terms provide employees hired after 1985 with 1 additional week of vacation and 5 additional national holidays; and maintain the current levels of pension and health care benefits.

Hawaiian hotels settle

The Hawaii Hotel Council and Local 5 of the Hotel Employees and Restaurant Employees settled on a 5-year master contract that provides wage increases and benefits improvements for some 5,000 employees. The Council bargained for seven hotels—the Hyatt Regency Waikiki, the Sheraton Princess Kaiulani, the Sheraton Moana Surf Rider, the Sheraton Royal Hawaiian, the Sheraton Waikiki, the Hilton Hawaiian Village, and the Ilikai Hotel.

The pact calls for wage increases of around 4 percent in the first year of the contract, and around 3 percent each in

the second and third years, with the exact amount dependent on an employee's job classification. The settlement also includes a reopener covering wages and health and welfare funding in 1998, and a 6-month postponement for implementing "most of the money items" at the Ilikai because of its financial difficulties. Under the prior agreement, wage rates averaged \$12.45 per hour and ranged between \$10 and \$18 per hour.

Besides maintaining health care benefits at their current levels without additional employee premium sharing, the contract calls for several benefit improvements. Pension benefits are increased by approximately \$1 per month per year of credited service in the second and third contract years, to \$24 per month in 1997, and to \$25 per month in 1998. Bereavement leave is broadened to cover special religious ceremonies for deceased family members. Employees with at least 1 year of service are eligible for up to 3 months of unpaid leave to care for newborn or adopted newborn children—which may be extended for an additional 3 months by mutual agreement.

Other changes streamline grievance and arbitration procedures, strengthen contract language protecting employees from employer subcontracting of work, and create a procedure for alerting the union of workers' compensation claims that the hotels have denied. The pact also includes changes in language dealing with sick leave, vacations, and job descriptions.

The parties' previous agreement expired on March 1, 1995, but bargaining continued without resolution on a number of noneconomic issues, including workload, scheduling, and short-shift premiums. These issues will be submitted to a labor-management committee for possible recommendations and mid-term inclusion in the contract.

Monfort accord

Monfort, Inc. and Local 540 of the United Food and Commercial Workers signed a 3-year agreement covering

some 1,800 workers at the company's beef slaughtering and fabrication plant in Dumas, TX. The contract provides wage increases, job upgrades, and improved pension benefits. The pact includes hourly wage increases of 20 cents in the first year of the contract and 15 cents in the second and third years. To stem a high turnover rate at the plant, some 900 to 1,000 workers in the bargaining unit also will receive job upgrades resulting in wage increases ranging from 20 to 70 cents per hour, with the amount depending on the employee's job classification. In addition, the accord stretches out the wage progression for maintenance workers, resulting in a \$3.05 per hour difference (was \$2) between the base rate and the top rate. At the expiration of the prior agreement, the hourly base wage rate was \$8.55 in the processing department and \$8.85 in the slaughter and maintenance departments.

Other terms increase the company contribution to the 401(k) savings plan from \$60 a year to two-thirds of an employee's investment, which is limited to 6 percent of annual gross wages; implement new methods of monitoring work time in the slaughter division; and

add 100-percent reimbursement for doctor's office visits and medical treatment for pregnancy, contingent on the patient visiting a doctor at least once a month during pregnancy, and continue 80-percent reimbursement for all other doctor's office visits.

Supreme Court rules on affirmative action

In *Adarand Constructors, Inc. v. Peña*, the Supreme Court examined the Federal Government's authority to implement affirmative action programs. In its decision, the Court held that "federal racial classifications, like those of a State, must serve a compelling government interest, and must be narrowly tailored to further that interest." The court added, "(A)ny person, of whatever race, has the right to demand that any governmental actor subject to the Constitution justify any racial classification subjecting that person to unequal treatment under the strictest judicial scrutiny."

The petitioner, Adarand Constructors, Inc., is a Colorado-based construction company specializing in guard rail work. In 1989, Adarand, a nonminority owned firm, bid as a subcontractor for

the guard rail portion of a construction contract that had been awarded to Mountain Gravel & Construction Company by the Central Lands Highway Division, currently part of the Department of Transportation. Even though Adarand submitted the lowest bid, it lost the contract to Gonzales Construction Company, a minority owned firm. Mountain Gravel accepted Gonzales' bid instead of Adarand's because under Federal law it would receive additional funds for using a minority owned ("disadvantaged") company as a subcontractor. Without the extra payment, Mountain Gravel said it would have selected Adarand for the work. Adarand sued, claiming that the presumption behind giving preference to all minorities—that they are "socially and economically disadvantaged" by definition—discriminates on the basis of race, thus violating the Fifth Amendment, which gives each individual equal protection under the law.

The District Court found for the respondents, as did the Court of Appeals. After review, the Supreme Court vacated the Court of Appeal's decision and remanded the case to the lower courts for further consideration "consistent with its opinion." □

Workplace practices, company performance, and unionization

Two major questions are addressed in a study by William N. Cooke in the July 1994 *Industrial and Labor Relations Review*: do employee-participation programs and group-based pay incentives have an effect on company performance and, if so, does the effect vary across union and nonunion companies?

According to Cooke, employee-participation programs are based on the assumption that front-line workers have more complete information about work processes and are better able to organize tasks and identify obstacles to high performance than managers. Group-based pay incentives, such as profit and gain sharing, are based on the assumption that by linking earnings to performance, employees will adjust their effort to optimize income. Employees also have an incentive to work cooperatively, as bonuses based on profit or other performance measures are tied to work force effort.

Cooke suggests that a combination of employee-participation programs and group-based pay incentives could exceed the gains of either one alone. Employees would have little reason to share performance-increasing knowledge with management without financial incentives. Conversely, employees with little participation in workplace decisions cannot respond effectively to such incentives.

How might unionization affect employee-participation programs and group-based pay incentives? Cooke provides hypotheses that unions establish a more direct and open channel for a collective voice, which may insure that employee-participation programs are shaped with greater employee input. This, along with the longer term employment relationship and narrower pay differentials in union settings, may in-

crease commitment to employee participation. Alternatively, existing contract language, insistence on voluntary participation and confrontational negotiations may work against employee participation programs in union settings.

Cooke's survey of Michigan manufacturing companies provides fairly strong evidence that both employee-participation programs and group-based pay incentives increase company performance, defined as value added net of labor cost per employee. He also finds strong differences by union/nonunion status, some contrary to expectations. Analyzing various combinations of work teams, group-based pay incentives, and union status, Cooke finds that unionized companies with work teams and no group pay incentives achieve the highest level of performance—35 percent higher than comparable nonunion companies with no teams or group pay. Four other combinations attain a level of performance 18–21 percent higher: union and nonunion companies with both group incentives and work teams, and union and nonunion companies with group incentives and no work teams. Finally, unionized companies without work teams or group incentives achieve a 13 percent higher level of performance compared to nonunion companies without teams or groups incentives, or nonunion companies with work teams, but no group incentives. Based on his findings, Cooke suggests that unionized companies may have an environment which taps employee-participation programs most effectively, and nonunion companies are more effective in tapping the incentive effects of group-based pay.

Work organization and training

Paul Osterman, reporting in the April 1995 *Industrial Relations*, tackles the question of whether firms that utilize high-performance workplace practices provide more training to their employees than other firms. Osterman first provides an interesting discussion of

the debate on skill, performance, and training, beginning with deskilling theories in the 1970's and 1980's, through the current literature that suggests that technology can be used in different ways and with different impacts on skill. The focus now is directed toward the pace of upskilling and the circumstances under which it occurs. The link between skill and training is critical for high-performance work, because increased training is usually necessary to reap any productivity gains.

Osterman surveyed 875 establishments to assess the relationship between skill, training, and high-performance workplace systems. His survey focuses on an establishment's "core" employees, defined as the largest group of nonsupervisory, nonmanagement workers at the location. He finds a strong trend in upskilling for professional/technical employees, and a less pronounced, but upward trend in complex work for blue-collar workers. For professional/technical workers, the change in skill is due to increased computer usage, while for blue-collar workers, the change is behavioral, such as increased interpersonal and cognitive skills.

Osterman uses off-the-job training as his measure of training because more comprehensive concepts of training are difficult to measure, due to limited establishment records and because much training is on-the-job and informal. He finds that professional/technical core employees are more likely to receive off-the-job training than are blue-collar employees. Blue-collar employees at larger establishments fare better in receiving off-the-job training; the size effect does not hold for professional/technical employees.

Osterman also asks about the use of five workplace practices in relation to core employees: self-directed work teams, job rotation, employee problem-solving groups, statistical process control, and total quality management. Using a multivariate regression model, he finds that the use of these high-performance systems is associated with increased training effort.

"Workplace Performance" is prepared by Polly A. Phipps of the Office of Publications and Special Studies, Bureau of Labor Statistics.

In conclusion, Osterman points out that while work organization appears to drive training, it could be the case that establishments engaging in more training find it easier to adopt high-performance systems. His data provide evidence for the former hypothesis, as survey respondents indicate that some years after introducing new work systems, training efforts plateau, although he notes the necessity of longitudinal data to answer this question.

Assessing employee involvement programs

John L. Cotton provides a comprehensive guide to the vast literature on employee involvement in his 1993 book, *Employee Involvement: Methods for Improving Performance and Work Attitudes*. Cotton begins with the history of employee involvement and a review of theories and models. He then turns to specific techniques designed to achieve employee involvement, including quality of work life programs, quality circles, gainsharing plans, representative participation, job enrichment, work teams and employee ownership. In chapters on each form of employee involvement, Cotton proves a concrete example of a firm using the technique in his description. He then reviews and summarizes research findings and discusses implementation issues, integrating scientific findings and applied advice.

In one of the final chapters, Cotton categorizes employee-involvement techniques into those with strong (self-directed work teams, gainsharing), intermediate (quality of work life, job enrichment, employee ownership), and weak (quality circles, representative participation) effects, based on his review. Successful techniques have four major features: involvement is directed on everyday work, employees have a degree of control to make decisions, improvements can be initiated by employees, and more successful techniques require major changes in an employee's work life. Cotton points out that while

outcomes differed across various techniques, recommended processes for involvement did not. These processes include: management commitment, employee training, and management education.

Computer integration and enterprises

Computer integration of the different functions of an enterprise has been progressing for the last 40 years, according to Eric Alsene, writing in the 1994 *International Labour Review*. The first concept of computerized integration in the 1950's and 1960's involved a "total system" to electronically integrate all activities, including design, production, management, marketing and finance. Since then, a number of different concepts, including programs feeding off a central data base, modular systems, and "islands" of computerization linking administrative units of enterprises, have emerged.

However, most studies on computerized integration speculate on what should or might happen—"virtual corporations," "extended enterprises," "new corporate cultures,"—rather than collecting and analyzing data. Alsene, in contrast, conducts case studies of two up-and-running systems in order to assess the actual effects of computerized integration in enterprises. His cases include a hospital dietary system that links two departments and an integrated maintenance-management system linking three administrative units of a industrial headquarters and plant. Alsene analyzes the before and after content and organization of work, operational management style and control systems, staffing, hierarchies and organizational culture through observation and interviews.

His results in the hospital setting suggest an upgrading of the work of dietitians, through the elimination of certain routine tasks, which free them to concentrate on professional duties.

However, technicians and clerks in the dietary unit experience a narrowing of their tasks and reduction in numbers. In patient-care units, head nurses take on the task of entering standardized codes into the system, a downgrading of their job, as the task was originally carried out by assistant nurses more informally over the telephone. These latter two examples are contrary to the speculation that integration always leads to job enrichment.

Alsene finds a different result for work content in the industrial company, where the computerized system affects the accounts payable, procurement, and maintenance supervision departments. The work of clerks in accounts payable and procurement becomes less repetitive and monotonous. For example, the payment slips filled out in several copies are eliminated, a predicted transformation. However, other aspects of their work becomes more standardized and less flexible, as they must follow established procedures. However, new tasks are added to their workload, and with the most tedious tasks eliminated, the changes result in clerks identifying more with the objectives of the enterprise.

Alsene thus sees confirmation of some elements of predicted change due to computerized systems in both cases, including the emergence of new computer-specialist occupations, the facilitation of the verification of orders and purchases, and reduction of office work towards more professional tasks for dietitians, and office and maintenance supervisors, at the industrial company. Alsene also asserts that the changes he considers more positive occur through integration by a common data base in the industrial company, as opposed to integration by interface, in the hospital setting. He suggests that integration by interface leads to emergence of routine tasks, while integration through a common data base lessens horizontal boundaries of the organizations, and produces a new form of communication between people and data. □

After the fall

Trade Union Growth and Decline: An International Study. By Walter Galenson. Westport, CT, Praeger, 1994, 176 pp. \$49.95.

Why has there been a decline in unionization in most industrial nations? What has happened to unions in developing countries? And what is the future of trade unionism?

Trade Union Growth and Decline: An International Study, by Walter Galenson, professor emeritus of industrial relations at Cornell University and a top expert in comparative international labor movements, reports his research on causes of trade union growth and decline in the 1980's. His measure of "union density" is the ratio of trade union membership to the labor force.

As with other variables Galenson explores, he warns of difficulties in both parts of the ratio. In fact, for experts in comparative labor movements, Galenson's methods will be more interesting than his results. He recognizes the difficulties of dealing with deficient data, but he brings subjective judgments and regression analysis to measure the impact on union density of government policies toward unions, the quality of union services to members, employer attitudes, and public opinion.

Galenson finds general decline in trade union membership as a percent of employed wage and salary workers in 13 industrial countries he examines, with the exception of Norway and Sweden. The other nations include Australia, Canada, Denmark, France, Germany, Italy, Japan, New Zealand, Spain, the United Kingdom, and the United States.

By contrast, in 12 developing countries—Argentina, Brazil, Chile, Egypt, India, Kenya, Korea, Malaysia, Mexico, the Philippines, Taiwan, and Thailand—he finds a much more mixed picture: Big gains in union membership as a percent of the labor force in Korea and

Taiwan after the introduction of more political democracy in 1987, some stability elsewhere, and "catastrophic" declines under authoritarian governments in Chile and Kenya.

Only at the extremes of pro-union or anti-union government policies is there an effect on union density, says Galenson. But the role of government "is more important to developing countries, where unions are fragile and tend to be pawns in political struggles."

The relative shift of employment from manufacturing to services accounts for much of the union membership losses in most industrial nations, Galenson writes. "But the question is why employees in the service sector have not joined unions in sufficient numbers to offset the losses in manufacturing."

After examining effects of earnings, inflation, unemployment, and female employment, Galenson finds that "the only factor that proved to be significant was unemployment in the industrial countries."

The quality of union services—representation of members in bargaining and grievances, independence of government or employer domination, union financial resources, and freedom from corruption—appears to have some positive effect on union density in industrial countries but not in developing countries, according to Galenson. He speculates that although union quality is important in developing countries, it is overshadowed by other factors, such as the role of government (pro-union, neutral, or anti-union) and employer hostility.

Employer hostility to unions is not a major factor in the decline in union density in industrial nations, Galenson claims: "In any event, except perhaps in developing countries in which employers contribute to the suppression of union activity, the decline in union density, where it has taken place, cannot be attributed to growing employer antipathy."

Public opinion doesn't help Galenson explain union density. For example, he does not find useful public opinion surveys providing information in developing countries. However, a chapter on public opinion polls in industrial nations presents interesting findings. "The data do not reveal any consistent relationship between general public attitudes and union density," he writes.

In the final chapter, Galenson argues that "unions were the victims of their own success...The rise of the welfare state—the expansion of government programs and services—reduced the appeal of unionism by generalizing the benefits that had attracted employees in the past. When potential members began to weigh the costs of joining unions against the anticipated benefits, they began to stay out."

Galenson concludes that "continued reliance on traditional appeals are not likely to serve the cause of trade unionism well." Participation in enterprise decisionmaking is a growing issue for workers: "Unions that do not press for participatory schemes are denying themselves a potent organizing weapon." He sees skilled workers, service workers, and women as good targets for union organizing efforts. But he notes that unions in developing countries have a long way to go before the traditional union focus on wages and hours loses its appeal.

Galenson's report is far richer in detail than outlined here. I think he wrongly ignores the mobility of capital that helps employers avoid unions and underestimates anti-union employer behavior in the United States. Nevertheless, his findings merit the attention of anyone interested in the future of unions in the United States and other nations.

—Markley Roberts

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LABSTAT, the Bureau of Labor Statistics public database, provides current and historical data for many BLS surveys as well as numerous news releases.

LABSTAT Public Access has introduced a new production Internet service over the World Wide Web. BLS and regional offices programs are described using hypertext pages. Access to LABSTAT data and news releases is provided by a link to the BLS gopher server. The URL is:

<http://stats.bls.gov/blshome.html>

If you have questions or comments regarding the LABSTAT system on the Internet, address e-mail to:

labstat.helpdesk@bls.gov

Notes on Labor Statistics 56

Comparative indicators

- 1. Labor market indicators 66
- 2. Annual and quarterly percent changes in compensation, prices, and productivity 67
- 3. Alternative measures of wages and compensation changes 67

Labor force data

- 4. Employment status of the population, seasonally adjusted 68
- 5. Selected employment indicators, seasonally adjusted 69
- 6. Selected unemployment indicators, seasonally adjusted 70
- 7. Duration of unemployment, seasonally adjusted 70
- 8. Unemployed persons by reason for unemployment, seasonally adjusted 71
- 9. Unemployment rates by sex and age, seasonally adjusted 71
- 10. Unemployment rates by States, seasonally adjusted 72
- 11. Employment of workers by States, seasonally adjusted 72
- 12. Employment of workers by industry, seasonally adjusted 73
- 13. Average weekly hours by industry, seasonally adjusted 75
- 14. Average hourly earnings by industry, seasonally adjusted 75
- 15. Average hourly earnings by industry 76
- 16. Average weekly earnings by industry 77
- 17. Diffusion indexes of employment change, seasonally adjusted 78
- 18. Annual data: Employment status of the population 78
- 19. Annual data: Employment levels by industry 79
- 20. Annual data: Average hours and earnings levels by industry 79

Labor compensation and collective bargaining data

- 21. Employment Cost Index, compensation, by occupation and industry group 80
- 22. Employment Cost Index, wages and salaries, by occupation and industry group 82
- 23. Employment Cost Index, benefits, private industry workers, by occupation and industry group 83
- 24. Employment Cost Index, private nonfarm workers, by bargaining status, region, and area size 84
- 25. Participants in employer-provided benefit plans 85
- 26. Specified compensation and wage rate changes from contract settlements, and effective wage rate changes, agreements covering 1,000 workers or more 86

Labor compensation and collective bargaining data—Continued

- 27. Average specified compensation and wage rate changes, bargaining agreements covering 1,000 workers or more 87
- 28. Specified changes in cost of compensation in private industry settlements covering 5,000 workers or more 88
- 29. Specified compensation and wage adjustments, State and local government bargaining situations covering 1,000 workers or more 89
- 30. Work stoppages involving 1,000 workers or more 89

Price data

- 31. Consumer Price Index: U.S. city average, by expenditure category and commodity and service groups 90
- 32. Consumer Price Index: U.S. city average and local data, all items 93
- 33. Annual data: Consumer Price Index, all items and major groups 94
- 34. Producer Price Indexes by stage of processing 95
- 35. Producer Price Indexes for the net output of major industry groups 96
- 36. Annual data: Producer Price Indexes by stage of processing 96
- 37. U.S. export price indexes by Standard International Trade Classification 97
- 38. U.S. import price indexes by Standard International Trade Classification 98
- 39. U.S. export price indexes by end-use category 99
- 40. U.S. import price indexes by end-use category 99
- 41. U.S. international price indexes for selected categories of services 100

Productivity data

- 42. Indexes of productivity, hourly compensation, and unit costs, data seasonally adjusted 100
- 43. Annual indexes of multifactor productivity 101
- 44. Annual indexes of productivity, hourly compensation, unit costs, and prices 101
- 45. Annual indexes of output per hour for selected industries 102

International comparisons data

- 46. Unemployment rates in nine countries, data seasonally adjusted 104
- 47. Annual data: Employment status of the civilian working-age population, 10 countries 105
- 48. Annual indexes of productivity and related measures, 12 countries 106

Injury and illness data

- 49. Annual data: Occupational injury and illness incidence rates 107

Notes on Current Labor Statistics

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

General notes

The following notes apply to several tables in this section:

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect on the data of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might prevent short-term evaluation of the statistical series. Tables containing data that have been adjusted are identified as "seasonally adjusted." (All other data are not seasonally adjusted.) Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years.

Seasonally adjusted data appear in tables 1-14, 16-17, 42, and 46. Seasonally adjusted labor force data for 1994 in tables 1 and 4-9 were revised in the February 1995 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 12-14 and 16-17 were revised in the July 1995 *Review* and reflect the experience through March 1995. A brief explanation of the seasonal adjustment methodology appears in "Notes on the data."

Revisions in the productivity data in table 42 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month-to-month and quarter-to-quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All-Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data—such as the "real" earnings shown in table 14—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 appro-

priate 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 1982 = 100, the hourly rate expressed in 1982 dollars is \$2 ($\$3/150 \times 100 = \2). The \$2 (or any other resulting values) are described as "real," "constant," or "1982" dollars.

Sources of information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. Definitions of each series and notes on the data are contained in later sections of these Notes describing each set of data. For detailed descriptions of each data series, see *BLS Handbook of Methods*, Bulletin 2414. Users also may wish to consult *Major Programs of the Bureau of Labor Statistics*, Report 871. News releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule appearing on the back cover of this issue.

More information about labor force, employment, and unemployment data and the household and establishment surveys underlying the data are available in the Bureau's monthly publication, *Employment and Earnings*. Historical unadjusted data from the household survey are published in *Labor Force Statistics Derived From the Current Population Survey*, BLS Bulletin 2307. Historical seasonally adjusted data are available from the Bureau upon request. Historically comparable unadjusted and seasonally adjusted data from the establishment survey are published in *Employment, Hours, and Earnings, United States*, a BLS annual bulletin. Additional information on labor force data for sub-States are provided in the BLS annual report, *Geographic Profile of Employment and Unemployment*.

More detailed information on employee compensation and collective bargaining settlements is published in the monthly periodical, *Compensation and Working Conditions*. For a comprehensive discussion of the Employment Cost Index, see *Employment Cost Indexes and Levels, 1975-93*, BLS Bulletin 2447. The most recent data from the Employee Benefits Survey appear in the following Bureau of Labor Statistics bulletins: *Employee Benefits in Medium and Large Firms; Employee Benefits in Small Private Establishments; and Employee Benefits in State and Local Governments*. Historical data on the collective bargaining settlements series appear in the March issue of *Compensation and Working Conditions*.

More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report* and *Producer Price Indexes*. For an overview of the CPI reflecting 1982-84 expenditure patterns, see *The Consumer Price Index: 1987 Revision*, BLS Report 736. Additional data on international prices appear in monthly news releases.

For a listing of available industry productivity indexes and their components, see *Productivity Measures for Selected Industries and Government Services*, BLS Bulletin 2440.

For additional information on international comparisons data, see *International Comparisons of Unemployment*, BLS Bulletin 1979.

Detailed data on the occupational injury and illness series are published in *Occupational Injuries and Illnesses in the United States, by Industry*, a BLS annual bulletin.

Finally, the *Monthly Labor Review* carries analytical articles on annual and longer term developments in labor force, employment, and unemployment; employee compensation and collective bargaining; prices; productivity; international comparisons; and injury and illness data.

Symbols

n.e.c. = not elsewhere classified.

n.e.s. = not elsewhere specified.

p = preliminary. To increase the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.

r = revised. Generally, this revision reflects the availability of later data, but may also reflect other adjustments.

Comparative Indicators

(Tables 1-3)

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

Labor market indicators include employment measures from two major surveys and information on rates of change in compensation provided by the Employment Cost Index (ECI) program. The labor force participation rate, the employment-to-population

ratio, and unemployment rates for major demographic groups based on the Current Population ("household") Survey are presented, while measures of employment and average weekly hours by major industry sector are given using nonfarm payroll data. The Employment Cost Index (compensation), by major sector and by bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation, prices, and productivity** are presented in table 2. Measures of rates of change of compensation and wages from the Employment Cost Index program are provided for all civilian nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in consumer prices for all urban consumers; producer prices by stage of processing; overall prices by stage of processing; and overall export and import price indexes are given. Measures of productivity (output per hour of all persons) are provided for major sectors.

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

Notes on the data

Definitions of each series and notes on the data are contained in later sections of these notes describing each set of data.

Employment and Unemployment Data

(Tables 1; 4-20)

Household survey data

Description of the series

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 60,000 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 those 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. 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 are also counted among the unemployed. **The unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population. Persons **not in the labor force** are those not classified as employed or unemployed. This group includes discouraged workers, defined as persons who want and are available for a job and who have looked for work sometime in the the past 12 months (or since the end of their last job if they held one within the past 12 months), but are not currently looking, because they believe there are no jobs available or there are none for which they would qualify. The **civilian 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. The **civilian labor force participation rate** is the proportion of the civilian noninstitutional population that is in the labor force. The **employment-population ra-**

tio is employment as a percent of the civilian 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 intercensal years. These adjustments affect the comparability of historical data. A description of these adjustments and their effect on the various data series appears in the Explanatory Notes of *Employment and Earnings*.

Labor force data in tables 1 and 4-9 are seasonally adjusted. Since January 1980, national labor force data have been seasonally adjusted with a procedure called X-11 ARIMA which was developed at Statistics Canada as an extension of the standard X-11 method previously used by BLS. A detailed description of the procedure appears in the X-11 *ARIMA Seasonal Adjustment Method*, by Estela Bee Dagum (Statistics Canada, Catalogue No. 12-564E, January 1983).

At the end of each calendar year, seasonally adjusted data for the previous 5 years usually are revised, and projected seasonal adjustment factors are calculated for use during the January-June period. Because of the changes introduced into the CPS in January 1994, only seasonally adjusted data for 1994 were revised at the end of 1994. In July, new seasonal adjustment factors, which incorporate the experience through June, are produced for the July-December period, but no revisions are made in the historical data.

FOR ADDITIONAL INFORMATION on national household survey data, contact the Division of Labor Force Statistics: (202) 606-6378.

Establishment survey data

Description of the series

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by about 390,000 establishments representing all industries except agriculture. Industries are classified in accordance with the 1987 *Standard Industrial Classification (SIC) Manual*. 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

Revisions to household data

Data relating to 1994 and subsequent years are not directly comparable with data for 1993 and earlier years because of the introduction of a major redesign of the survey questionnaire and collection methodology, and the introduction of 1990 census-based population controls, adjusted for the estimated undercount. An explanation of the changes and their effect on labor force data appears in the February 1994 issue of *Employment and Earnings*, a monthly publication of the Bureau of Labor Statistics.

Seasonally adjusted data for 1994 were revised at the end of 1994. Additional information on the revisions appears in the January 1995 issue of *Employment and Earnings*.

because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

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

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

Production workers in manufacturing include working supervisors and nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 11–16 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in the following industries: transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for about four-fifths of the total employment on private 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).

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 average weekly hours which was in excess of regular hours and for which overtime premiums were paid.

The Diffusion Index represents the percent of industries in which employment was rising over the indicated period, plus one-half of the industries with unchanged employment; 50 percent indicates an equal balance between industries with increasing and decreasing employment. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. Data are centered within the span. Table 17 provides an index on private nonfarm employment based on 356 industries, and a manufacturing index based on 139 industries. These indexes are useful for measuring the

dispersion of economic gains or losses and are also economic indicators.

Notes on the data

Establishment survey data are annually adjusted to comprehensive counts of employment (called "benchmarks"). The latest adjustment, which incorporated March 1994 benchmarks, was made with the release of May 1995 data, published in the July 1995 issue of the *Review*. Coincident with the benchmark adjustment, seasonally adjusted data were revised to reflect the experience through March 1995. Comparable revisions in State data (table 11) occurred with the publication of January 1995 data. Unadjusted data from April 1994 forward and seasonally adjusted data from January 1991 forward are subject to revision in future benchmarks.

The BLS also uses the X-11 ARIMA methodology to seasonally adjust establishment survey data. Beginning in June 1989, projected seasonal adjustment factors are calculated and published twice a year. The change makes the procedure used for the establishment survey data more parallel to that used in adjusting the household survey data. Revisions of data, usually for the most recent 5-year period, are made once a year coincident with the benchmark revisions.

In the establishment survey, estimates for the most recent 2 months are based on incomplete returns and are published as preliminary in the tables (12–17 in the *Review*). When all returns have been received, the estimates are revised and published as "final" (prior to any benchmark revisions) in the third month of their appearance. Thus, December data are published as preliminary in January and February and as final in March. For the same reasons, quarterly establishment data (table 1) are preliminary for the first 2 months of publication and final in the third month. Thus, fourth-quarter data are published as preliminary in January and February and as final in March.

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.

FOR ADDITIONAL INFORMATION on establishment survey data, contact the Division of Monthly Industry Employment Statistics: (202) 606–6555.

Unemployment data by State

Description of the series

Data presented in this section are obtained from two major sources—the Current Popu-

lation Survey (CPS) and the Local Area Unemployment Statistics (LAUS) program, which is conducted in cooperation with State employment security agencies.

Monthly estimates of the labor force, employment, and unemployment for States and sub-State areas are a key indicator of local economic conditions, and form the basis for determining the eligibility of an area for benefits under Federal economic assistance programs such as the Job Training Partnership Act. Seasonally adjusted unemployment rates are presented in table 10. Insofar as possible, the concepts and definitions underlying these data are those used in the national estimates obtained from the CPS.

Notes on the data

Data refer to State of residence. Monthly data for 11 States—California, Florida, Illinois, Massachusetts, Michigan, New York, New Jersey, North Carolina, Ohio, Pennsylvania, and Texas—are obtained directly from the CPS because the size of the sample is large enough to meet BLS standards of reliability. Data for the remaining 39 States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates for the 11 States are revised to new population controls, usually with publication of January estimates. For the remaining States and the District of Columbia, data are benchmarked to annual average CPS levels. Data for 1994 are not directly comparable with those for 1993 as a result of the redesign of the CPS and other methodological changes. See "Revisions in State and Area Estimates Effective January 1994," *Employment and Earnings*, March 1994.

FOR ADDITIONAL INFORMATION on data in this series, call (202) 606–6392 (table 10) or (202) 606–6589 (table 11).

Compensation and Wage Data

(Tables 1–3; 21–30)

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

Employment Cost Index

Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of em-

ployee benefits. It uses a fixed market basket of labor—similar in concept to the Consumer Price Index's fixed market basket of goods and services—to measure change over time in employer costs of employing labor.

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

The Employment Cost Index probability sample consists of about 4,400 private nonfarm establishments providing about 23,000 occupational observations and 1,000 State and local government establishments providing 6,000 occupational observations selected to represent total employment in each sector. On average, each reporting unit provides wage and compensation information on five well-specified occupations. Data are collected each quarter for the pay period including the 12th day of March, June, September, and December.

Beginning with June 1986 data, fixed employment weights from the 1980 Census of Population are used each quarter to calculate the civilian and private indexes and the index for State and local governments. (Prior to June 1986, the employment weights are from the 1970 Census of Population.) These fixed weights, also used to derive all of the industry and occupation series indexes, ensure that changes in these indexes reflect only changes in compensation, not employment shifts among industries or occupations with different levels of wages and compensation. For the bargaining status, region, and metropolitan/non-metropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1980 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

Definitions

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

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

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

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

Notes on the data

The Employment Cost Index for changes in wages and salaries in the private nonfarm economy was published beginning in 1975. Changes in total compensation cost—wages and salaries and benefits combined—were published beginning in 1980. The series of changes in wages and salaries and for total compensation in the State and local government sector and in the civilian nonfarm economy (excluding Federal employees) were published beginning in 1981. Historical indexes (June 1981 = 100) of the quarterly rates of change are presented in the March issue of the BLS periodical, *Compensation and Working Conditions*.

FOR ADDITIONAL INFORMATION on the Employment Cost Index, contact the Division of Employment Cost Trends: (202) 606-6199.

Employee Benefits Survey

Description of the series

Employee benefits data are obtained from the Employee Benefits Survey, an annual survey of the incidence and provisions of selected benefits provided by employers. The survey collects data from a sample of approximately 6,000 private sector and State and local government establishments. The data are presented as a percentage of employees who participate in a certain benefit, or as an average benefit provision (for example, the average number of paid holidays provided to employees per year). Selected data from the survey are presented in table 25.

The survey covers paid leave benefits such as lunch and rest periods, holidays and vacations, and personal, funeral, jury duty, military, parental, and sick leave; sickness and accident, long-term disability, and life insurance; medical, dental, and vision care plans; defined benefit and defined contribution plans; flexible benefits plans; reimbursement accounts; and unpaid parental leave.

Also, data are tabulated on the incidence of several other benefits, such as severance pay, child-care assistance, wellness programs, and employee assistance programs.

Definitions

Employer-provided benefits are benefits that are financed either wholly or partly by the employer. They may be sponsored by a union or other third party, as long as there is some employer financing. However, some benefits that are fully paid for by the employee also are included. For example, long-term care insurance and postretirement life insurance paid entirely by the employee are included because the guarantee of insurability and availability at group premium rates are considered a benefit.

Participants are workers who are covered by a benefit, whether or not they use that benefit. If the benefit plan is financed wholly by employers and requires employees to complete a minimum length of service for eligibility, the workers are considered participants whether or not they have met the requirement. If workers are required to contribute towards the cost of a plan, they are considered participants only if they elect the plan and agree to make the required contributions.

Defined benefit pension plans use predetermined formulas to calculate a retirement benefit, and obligate the employer to provide those benefits. Benefits are generally based on salary, years of service, or both.

Defined contribution plans generally specify the level of employer and employee contributions to a plan, but not the formula for determining eventual benefits. Instead, individual accounts are set up for participants, and benefits are based on amounts credited to these accounts.

Tax-deferred savings plans are a type of defined contribution plan that allow participants to contribute a portion of their salary to an employer-sponsored plan and defer income taxes until withdrawal.

Flexible benefit plans allow employees to choose among several benefits, such as life insurance, medical care, and vacation days, and among several levels of care within a given benefit.

Notes on the data

Surveys of employees in medium and large establishments conducted over the 1979-86 period included establishments that employed at least 50, 100, or 250 workers, depending on the industry (most service industries were excluded). The survey conducted in 1987 covered only State and local governments with 50 or more employees. The surveys conducted in 1988 and 1989 included medium and large establishments with 100 workers or more in private industries. All surveys conducted over the 1979-89 period

excluded establishments in Alaska and Hawaii, as well as part-time employees.

Beginning in 1990, surveys of State and local governments and small establishments are conducted in even-numbered years and surveys of medium and large establishments are conducted in odd-numbered years. The small establishment survey includes all private nonfarm establishments with fewer than 100 workers, while the State and local government survey includes all governments, regardless of the number of workers. All three surveys include full- and part-time workers, and workers in all 50 States and the District of Columbia.

FOR ADDITIONAL INFORMATION on the Employee Benefits Survey, contact the Division of Occupational Pay and Employee Benefit Levels: (202) 606-6222.

Collective bargaining settlements

Description of the series

Collective bargaining settlements data provide statistical measures of negotiated changes (increases, decreases, and zero change) in wage rates alone and in compensation (wages and benefits), quarterly for private nonagricultural industries and semi-annually for State and local governments. Wage rate changes cover collective bargaining settlements negotiated in the reference period involving 1,000 or more workers, and compensation changes cover settlements reached in the reference period involving 5,000 or more workers. These data are not seasonally adjusted and are calculated using information obtained from bargaining agreements on file with the Bureau, parties to the agreements, and secondary sources, such as newspaper accounts.

The wage and compensation rate changes are the percent difference between the average rate per work hour just prior to the start of a new agreement and the average rate per work hour that would exist at the end of the first 365 days of the new agreement (first-year measure) or at its expiration date (over-the-life measure). These data exclude lump-sum payments.

The compensation cost change is the percent difference between the average cost of compensation per work hour, including the hourly cost of lump-sum payments made during the term of the expiring agreement, just prior to the start of a new agreement and the average cost of compensation per work hour under the settlement. The timing of the changes in compensation rates is reflected in the compensation cost series, but not in compensation rate series.

Data on changes in settlements exclude potential changes under cost-of-living adjustment clauses. Averages reflect the change under each settlement weighted by the number of workers covered. Estimates of changes are based on the assumption that conditions existing at the time of the settlement (for example, composition of the labor force or methods of funding pensions) will remain constant over the term of the agreement.

Wage rate changes under all major agreements (those covering 1,000 or more workers) measure all wage increases, decreases, and zero changes occurring in the reference period, regardless of the settlement date. Included are changes from settlements reached in the calendar year, changes deferred from settlements negotiated in earlier years, and changes under cost-of-living adjustment (COLA) clauses. The change in the wage rate for each agreement is the percent difference between the average wage rate just prior to the start of the reference period and the average wage rate at the end of the reference period. The change for each agreement is weighted by the number of workers covered to determine the average change under all agreements.

Definitions

Wage rate is the average straight-time hourly wage rate plus shift premiums.

Compensation rates include the wage rate, premium pay (for example, for overtime and holidays); paid leave; life, health, and sickness and accident insurance; pension and other retirement plans; severance pay; and legally required benefits.

Compensation costs include the items covered by compensation rates plus specified lump-sum payments, the cost of contractually required training programs that are not a cost of doing business, and the additional costs of changes in legally required insurance known at the time of settlement to be mandated during the contract term.

Cash payments include wages and lump-sum payments.

Contingent pay provisions are clauses which could provide compensation changes beyond those specified in the settlement. COLA clauses and lump-sum provisions that call for a payment only if a company's profits exceed a specific amount are examples.

Notes on the data

Comparisons of major collective bargaining settlements for State and local government with those for private industry should note differences in occupational mix, bargaining practices, and settlement characteristics.

Professional and white-collar employees, for example, make up a much larger proportion of the workers covered by government than by private industry settlements. Lump-sum payments and COLA clauses, on the other hand, are rare in government but common in private industry settlements. Also, State and local government bargaining frequently excludes items such as pension benefits and holidays, that are prescribed by law, while these items are typical bargaining issues in private industry.

FOR ADDITIONAL INFORMATION on collective bargaining settlements, contact the Division of Developments in Labor-Management Relations: (202) 606-6276 (private industry data) or (202) 606-6280 (State and local government data).

Work stoppages

Description of the series

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

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

Definitions

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

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

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

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

Notes on the data

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

FOR ADDITIONAL INFORMATION on work stoppages data, contact the Division of De-

velopments in Labor-Management Relations: (202) 606-6288.

Price Data

(Tables 2; 31-41)

PRICE DATA are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period—1982 = 100 for many Producer Price Indexes, 1982-84 = 100 for many Consumer Price Indexes (unless otherwise noted), and 1990 = 100 for International Price Indexes.

Consumer Price Indexes

Description of the series

The **Consumer Price Index (CPI)** is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner index (CPI-W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all-urban consumer index (CPI-U), introduced in 1978, is representative of the 1982-84 buying habits of about 80 percent of the noninstitutional population of the United States at that time, compared with 32 percent represented in the CPI-W. In addition to wage earners and clerical workers, the CPI-U covers professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctors' and dentists' fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items are kept essentially unchanged between major revisions so that only price changes will be measured. All taxes directly associated with the purchase and use of items are included in the index.

Data collected from more than 19,000 retail establishments and 57,000 housing units in 85 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 15 major urban cen-

ters are presented in table 32. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are measured for the CPI-U. A rental equivalence method replaced the asset-price approach to homeownership costs for that series. In January 1985, the same change was made in the CPI-W. The central purpose of the change was to separate shelter costs from the investment component of home-ownership so that the index would reflect only the cost of shelter services provided by owner-occupied homes. An updated CPI-U and CPI-W were introduced with release of the January 1987 data.

FOR ADDITIONAL INFORMATION on consumer prices, contact the Division of Consumer Prices and Price Indexes: (202) 606-7000.

Producer Price Indexes

Description of the series

Producer Price Indexes (PPI) measure average changes in prices received by domestic producers of commodities in all stages of processing. The sample used for calculating these indexes currently contains about 3,200 commodities and about 80,000 quotations per month, selected to represent the movement of prices of all commodities produced in the manufacturing; agriculture, forestry, and fishing; mining; and gas and electricity and public utilities sectors. The stage-of-processing structure of PPI organizes products by class of buyer and degree of fabrication (that is, finished goods, intermediate goods, and crude materials). The traditional commodity structure of PPI organizes products by similarity of end use or material composition. The industry and product structure of PPI organizes data in accordance with the Standard Industrial Classification (SIC) and the product code extension of the SIC developed by the U.S. Bureau of the Census.

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 gener-

ally are reported for the Tuesday of the week containing the 13th day of the month.

Since January 1992, price changes for the various commodities have been averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1987. The detailed data are aggregated to obtain indexes for stage-of-processing groupings, commodity groupings, durability-of-product groupings, and a number of special composite groups. All Producer Price Index data are subject to revision 4 months after original publication.

FOR ADDITIONAL INFORMATION on producer prices, contact the Division of Industrial Prices and Price Indexes: (202) 606-7705.

International Price Indexes

Description of the series

The **International Price Program** produces monthly and quarterly export and import price indexes for nonmilitary goods traded between the United States and the rest of the world. The export price index provides a measure of price change for all products sold by U.S. residents to foreign buyers. ("Residents" is defined as in the national income accounts; it includes corporations, businesses, and individuals, but does not require the organizations to be U.S. owned nor the individuals to have U.S. citizenship.) The import price index provides a measure of price change for goods purchased from other countries by U.S. residents.

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

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

In addition to general indexes of prices for U.S. exports and imports, indexes are also published for detailed product categories of exports and imports. These catego-

ries are defined according to the five-digit level of detail for the Bureau of Economic Analysis End-use Classification (SITC), and the four-digit level of detail for the Harmonized System. Aggregate import indexes by country or region of origin are also available.

BLS publishes indexes for selected categories of internationally traded services, calculated on an international basis and on a balance-of-payments basis.

Notes on the data

The export and import price indexes are weighted indexes of the Laspeyres type. Price relatives are assigned equal importance within each harmonized group and are then aggregated to the higher level. The values assigned to each weight category are based on trade value figures compiled by the Bureau of the Census. The trade weights currently used to compute both indexes relate to 1990.

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

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

FOR ADDITIONAL INFORMATION on international prices, contact the Division of International Prices: (202) 606-7155.

Productivity Data

(Tables 2; 42-45)

Business sector and major sectors

Description of the series

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

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

Definitions

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

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

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

Unit labor costs are the labor compensation costs expended in the production of a unit of output and are derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation,

interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current-dollar value of output and dividing by output. **Unit nonlabor costs** contain all the components of unit nonlabor payments except unit profits.

Unit profits include corporate profits with inventory valuation and capital consumption adjustments per unit of output.

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

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

Combined units of labor and capital inputs are derived by combining changes in labor and capital input 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

The output measure for the business sector is equal to constant-dollar gross national product, but excludes the rental value of owner-occupied dwellings, the rest-of-world sector, the output of nonprofit institutions, the output of paid employees of private households, general government, and the statistical discrepancy. Output of the nonfarm business sector is equal to business sector output less farming. The measures are derived from data supplied by the U.S. Department of Commerce's Bureau of Economic Analysis and the Federal Reserve Board. Quarterly manufacturing output indexes are adjusted by the Bureau of Labor Statistics to annual estimates of manufacturing output (gross product originating) from the Bureau of Economic Analysis. Compensation and hours data are developed from data of the Bureau of Labor Statistics and the Bureau of Economic Analysis.

The productivity and associated cost measures in tables 42-45 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 ADDITIONAL INFORMATION on this productivity series, contact the Division of Productivity Research: (202) 606-5606.

Industry productivity measures

Description of the series

The BLS industry productivity data supplement the measures for the business economy and major sectors with annual measures of labor productivity for selected industries at the three- and four-digit levels of the Standard Industrial Classification system. The industry measures differ in methodology and data sources from the productivity measures for the major sectors because the industry measures are developed independently of the National Income and Product Accounts framework used for the major sector measures.

Definitions

Output per employee hour is derived by dividing an index of industry output by an index of aggregate hours of all employees. Output indexes are based on quantifiable units of products or services, or both, combined with value-shared weights. Whenever possible, physical quantities are used as the unit of measurement for output. If quantity data are not available for a given industry, data on the constant-dollar value of production are used.

The **labor input** series consist of the hours of all employees (production and nonproduction workers), the hours of all persons (paid employees, partners, proprietors, and unpaid family workers), or the number of employees, depending upon the industry.

Notes on the data

The industry measures are compiled from data produced by the Bureau of Labor Statistics, the Departments of Commerce, Interior, and Agriculture, the Federal Reserve Board, regulatory agencies, trade associations, and other sources.

For most industries, the productivity indexes refer to the output per hour of all employees. For some transportation industries, only indexes of output per employee are prepared. For some trade and service industries, indexes of output per hour of

all persons (including self-employed) are constructed.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Industry Productivity Studies: (202) 606-5618.

International Comparisons

(Tables 46-48)

Labor force and unemployment

Description of the series

Tables 46 and 47 present comparative measures of the labor force, employment, and unemployment—approximating U.S. concepts—for the United States, Canada, Australia, Japan, and several European countries. The unemployment statistics (and, to a lesser extent, employment statistics) published by other industrial countries are not, in most cases, comparable to U.S. unemployment statistics. Therefore, the Bureau adjusts the figures for selected countries, where necessary, for all known major definitional differences. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country.

Definitions

For the principal U.S. definitions of the **labor force**, **employment**, and **unemployment**, see the Notes section on Employment and Unemployment Data: Household survey data.

Notes on the data

The adjusted statistics have been adapted to the age at which compulsory schooling ends in each country, rather than to the U.S. standard of 16 years of age and older. Therefore, the adjusted statistics relate to the population age 16 and older in France, Sweden, and from 1973 onward in the United Kingdom; 15 and older in Canada, Australia, Japan, Germany, Italy, the Netherlands, and prior to 1973, the United Kingdom; and 14 and older in Italy prior to 1993. The institutional population is included in the denominator of the labor force participation rates and employment-population ratios for Japan and Germany; it is excluded for the United States and the other countries.

In the U.S. labor force survey, persons on layoff who are awaiting recall to their jobs are classified as unemployed. European and Japanese layoff practices are quite dif-

ferent in nature from those in the United States; therefore, strict application of the U.S. definition has not been made on this point. For further information, see *Monthly Labor Review*, December 1981, pp. 8-11.

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

There are breaks in the data series for the United States (1994), Italy (1986, 1991, 1993), and Sweden (1987, 1993). For the United States, the break in series reflects a number of changes in the labor force survey beginning with data for January 1994. Data for 1994 are not directly comparable with those for earlier years. See the Notes section on Employment and Unemployment Data of this *Review*.

For Italy, the 1986 break in series reflects more accurate enumeration of the number of people reported as seeking work in the last 30 days. The impact was to increase the Italian unemployment rates approximating U.S. concepts by about 1 percentage point. In 1991, the survey sample was modified to obtain more reliable estimates by sex and age. The impact was to raise the adjusted Italian unemployment rate by approximately 0.3 percentage point. In 1993, the survey methodology was revised and the definition of unemployment was changed to include only those who were actively looking for a job within the 30 days preceding the survey and who were available for work. In addition, the lower age limit for the labor force was raised from 14 to 15 years. (Prior to these changes, BLS adjusted Italy's published unemployment rate downward by excluding from the unemployed persons who had not actively sought work in the past 30 days.) The break in the series also reflects the incorporation of the 1991 population census results. The impact of these changes was to raise Italy's adjusted unemployment rate by approximately 1.1 percentage points. These changes did not affect employment significantly, except in 1993. Estimates by the Italian Statistical Office indicate that employment declined by about 3 percent in 1993, rather than the 4.5 percent indicated by the data shown in table 47. This difference is attributable mainly to the incorporation of the 1991 population census benchmarks in the 1993 data. Data for earlier years have not yet been adjusted to incorporate the 1991 census results.

Sweden introduced a new questionnaire in 1987. Questions regarding current availability were added and the period of active

workseeking was reduced from 60 days to 4 weeks. These changes result in lowering Sweden's unemployment rate by 0.5 percentage point. In 1993, the measurement period for the labor force survey was changed to represent all 52 weeks of the year, rather than one week each month, and a new adjustment for population totals was introduced. The impact was to raise the unemployment rate by approximately 0.5 percentage point. The data for 1993 onward are not seasonally adjusted because the previous seasonal adjustment pattern is not applicable following the 1993 break in series.

Preliminary estimates by the Swedish Statistics Bureau indicate that employment linked for the 1993 break in series declined by about 5-1/2 percent in 1993, rather than the nearly 7 percent indicated by the data shown in table 47.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 606-5654.

Manufacturing productivity and labor costs

Description of the series

Table 48 presents comparative measures of manufacturing labor productivity, hourly compensation costs, and unit labor costs for the United States, Canada, Japan, and nine European countries. These measures are limited to trend comparisons—that is, intercountry series of changes over time—rather than level comparisons because reliable international comparisons of the levels of manufacturing output are unavailable. The hours and compensation measures refer to all employed persons, including self-employed persons and unpaid family workers, in the United States and Canada and to all employees (wage and salary earners) in the other countries.

Definitions

Output, in general, refers to value added in manufacturing (gross product originating) in constant prices from the national accounts of each country. However, output for Japan prior to 1970 and the Netherlands from 1969 to 1977 are indexes of industrial production. The national accounts measures for the United Kingdom are essentially identical to its indexes of industrial production. While methods of deriving national accounts measures differ substantially from country to country, the use of different procedures does not, in itself, connote lack of comparability—rather, it reflects differences among countries in the availability and reliability of underlying data series.

Hours refer to hours worked in all countries. The measures are developed from statistics of manufacturing employment and average hours. The series used for France (from 1970 forward), Norway, and Sweden are official series published with the national accounts. Where official total hours series are not available. The measures are developed by the Bureau using employment figures published with the national accounts, or other comprehensive employment series, and estimates of annual hours worked.

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

Notes on the data

In general, the measures relate to total manufacturing as defined by the International Standard Industrial Classification. However, the measures for France (beginning 1970), and the United Kingdom (beginning 1971) refer to mining and manufacturing less energy-related products; the measures for Denmark include mining and exclude manufacturing handicrafts from 1960 to 1966; and the measures for the Netherlands exclude petroleum refining and include coal mining from 1969 to 1976.

The figures for one or more recent years are generally based on current indicators of manufacturing output (such as industrial production indexes), employment, average hours, and hourly compensation and are considered preliminary until the national accounts and other statistics used for the long-term measures becomes available.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 606-5654.

Occupational Injury and Illness Data

(Table 49)

Description of the series

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

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

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

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

Definitions

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

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

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

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

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

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

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

The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness or

any days on which the employee would not have worked even though able to work.

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

Notes on the data

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

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

Comparable data for individual States are available from the BLS Office of Safety, Health, and Working Conditions.

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

The Supplementary Data System provides detailed information describing various factors associated with work-related injuries and illnesses. These data are obtained from information reported by employers to State workers' compensation agencies. The Work Injury Report program examines selected types of accidents through an employee survey which focuses on the circumstances surrounding the injury. These data are available from the BLS Office of Safety, Health, and Working Conditions.

The definitions of occupational injuries and illnesses and lost workdays are from *Recordkeeping Requirements under the Occupational Safety and Health Act of 1970*.

FOR ADDITIONAL INFORMATION on occupational injuries and illnesses, contact the Division of Safety and Health Statistics: (202) 606-6166.

Current Labor Statistics: Comparative Indicators

1. Labor market indicators

Selected indicators	1993	1994	1993		1994				1995	
			III	IV	I	II	III	IV	I	II
Employment data¹										
Employment status of the civilian noninstitutionalized population (household survey): ²										
Labor force participation rate	66.2	66.6	66.1	66.2	66.7	66.5	66.5	66.6	66.9	66.6
Employment-population ratio	61.6	62.5	61.7	61.9	62.3	62.4	62.5	62.9	63.2	62.8
Unemployment rate	6.8	6.1	6.7	6.5	6.6	6.2	6.0	5.6	5.5	5.7
Men	7.1	6.2	7.1	6.7	6.7	6.2	6.0	5.6	5.5	5.7
16 to 24 years	14.3	13.2	14.2	13.5	14.1	13.3	13.1	12.2	11.9	12.0
25 years and over	5.8	4.8	5.8	5.5	5.2	4.8	4.7	4.4	4.2	4.4
Women	6.5	6.0	6.4	6.3	6.4	6.2	5.9	5.6	5.6	5.7
16 to 24 years	12.2	11.6	11.7	11.6	12.1	11.9	11.6	11.0	11.2	11.5
25 years and over	5.4	4.9	5.3	5.3	5.3	5.0	4.8	4.5	4.4	4.5
Employment, nonfarm (payroll data), in thousands: ²										
Total	110,730	114,034	111,021	111,816	112,655	112,995	114,481	115,329	116,078	116,352
Private sector	91,889	94,917	92,143	92,877	93,656	93,990	95,314	96,099	96,841	97,094
Goods-producing	23,352	23,913	23,345	23,481	23,646	23,534	23,978	24,162	24,329	24,265
Manufacturing	18,075	18,303	18,049	18,096	18,181	18,020	18,333	18,436	18,517	18,461
Service-producing	87,378	90,121	87,676	88,335	89,008	89,461	90,503	91,167	91,749	92,087
Average hours:										
Private sector	34.5	34.7	34.5	34.5	34.6	34.7	34.7	34.7	34.7	34.4
Manufacturing	41.4	42.0	41.5	41.7	41.7	42.1	42.0	42.1	42.1	41.5
Overtime	4.1	4.7	4.1	4.4	4.5	4.7	4.7	4.8	4.8	4.4
Employment Cost Index										
Percent change in the ECI, compensation:										
All workers (excluding farm, household, and Federal workers)	3.5	3.0	1.0	.6	.9	.7	1.0	.4	.8	.6
Private industry workers	3.6	3.1	.9	.6	1.0	.8	.8	.4	.8	.7
Goods-producing ³	3.9	3.1	.7	.6	1.0	1.0	.7	.3	.8	.5
Service-producing ³	3.6	2.9	1.0	.7	.9	.7	.9	.4	.9	.8
State and local government workers	2.8	3.0	1.5	.4	.6	.4	1.5	.5	.6	.4
Workers by bargaining status (private industry):										
Union	4.3	2.7	.8	.8	.8	.9	.7	.3	.7	.6
Nonunion	3.5	3.1	.9	.6	1.0	.8	.8	.4	.9	.7

¹ Data for 1994 are not directly comparable with data for 1993 and prior years. For additional information, see the box note under "Employment and Unemployment Data" in the notes to this section.

² Quarterly data seasonally adjusted.

³ Goods-producing industries include mining, construction, and manufacturing. Service-producing industries include all other private sector industries.

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

Selected measures	1993	1994	1993		1994				1995		
			III	IV	I	II	III	IV	I	II	
Compensation data:^{1, 2}											
Employment Cost Index--compensation (wages, salaries, benefits):											
Civilian nonfarm	3.5	3.0	1.0	0.6	0.9	0.7	1.0	0.4	0.8	0.6	
Private nonfarm	3.6	3.1	.9	.6	1.0	.8	.8	.4	.8	.7	
Employment Cost Index--wages and salaries											
Civilian nonfarm	3.1	2.8	1.0	.6	.6	.7	1.0	.5	.7	.7	
Private nonfarm	3.1	2.8	1.0	.6	.7	.8	.8	.5	.8	.7	
Price data:¹											
Consumer Price Index (All urban consumers): All items	2.7	2.7	.5	.5	1.0	.5	.9	.2	1.1	.7	
Producer Price Index:											
Finished goods .....	.2	1.7	-1.4	.2	.6	.6	.0	.5	.7	.9
Finished consumer goods	-2	1.6	-1.5	-2	.6	.6	.2	.3	.6	1.0	
Capital equipment	1.8	2.0	-5	1.7	.8	.4	-5	1.2	.8	.3	
Intermediate materials, supplies, components	1.0	4.4	.1	-7	.7	1.2	1.6	.8	2.4	1.5	
Crude materials .....	.1	-5	-3.1	.0	3.1	-9	-3.4	.8	1.8	1.1
Productivity data:³											
Output per hour of all persons:											
Business sector	1.3	2.1	2.2	5.0	1.8	-1.4	3.2	4.3	2.1	3.0	
Nonfarm business sector	1.3	1.9	2.9	4.2	1.7	-1.4	2.7	4.3	2.5	3.0	
Nonfinancial corporations ⁴	2.8	2.2	3.2	3.9	2.0	-8	1.6	3.4	1.7	-	

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

² Excludes Federal and private household workers.

³ Annual rates of change are computed by comparing annual averages.

Quarterly percent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

⁴ Output per hour of all employees.

- Data not available.

3. Alternative measures of wage and compensation changes

Components	Quarterly average						Four quarters ended--					
	1994				1995		1994				1995	
	I	II	III	IV	I	II	I	II	III	IV	I	II
Average hourly compensation:¹												
All persons, business sector	5.1	0.9	3.1	3.6	3.8	3.8	2.9	2.3	2.7	3.2	2.8	3.6
All persons, nonfarm business sector	4.9	1.4	2.7	3.8	4.1	3.6	2.6	2.3	2.6	3.2	3.0	3.6
Employment Cost Index--compensation:												
Civilian nonfarm ² .....	.9	.7	1.0	.4	.8	.6	3.2	3.2	3.2	3.0	2.9	2.9
Private nonfarm	1.0	.8	.8	.4	.8	.7	3.3	3.4	3.3	3.1	2.9	2.8
Union .....	.8	.9	.7	.3	.7	.6	3.5	3.3	3.2	2.7	2.6	2.3
Nonunion	1.0	.8	.8	.4	.9	.7	3.3	3.4	3.3	3.1	3.0	2.9
State and local governments .....	.6	.4	1.5	.5	.6	.4	2.8	2.9	3.0	3.0	3.1	3.1
Employment Cost Index--wages and salaries:												
Civilian nonfarm ² .....	.6	.7	1.0	.5	.7	.7	2.9	3.0	2.9	2.8	3.0	3.0
Private nonfarm .....	.7	.8	.8	.5	.8	.7	2.9	3.1	2.9	2.8	2.9	2.9
Union .....	.7	.9	.9	.4	.6	.7	3.0	3.2	3.3	2.9	2.8	2.6
Nonunion .....	.7	.8	.8	.5	.8	.8	2.9	3.0	2.8	2.7	2.9	3.0
State and local governments .....	.6	.2	1.7	.5	.7	.2	2.7	2.8	2.9	3.1	3.2	3.2
Total effective wage adjustments³												
From current settlements .....	.4	.8	.9	.6	.3	.8	2.9	2.7	2.9	2.7	2.6	2.6
From prior settlements .....	.1	.2	.1	.2	.1	.2	.9	.9	.8	.6	.5	.5
From cost-of-living provision .....	.3	.6	.7	.3	.2	.5	1.8	1.7	1.9	1.9	1.9	1.8
From cost-of-living provision	(*)	.1	.1	.1	(*)	.1	.2	.2	.2	.2	.3	.3
Negotiated wage adjustments from settlements:³												
First-year adjustments	3.0	2.0	1.0	2.2	1.9	2.1	2.4	2.2	2.3	2.0	1.8	1.8
Annual rate over life of contract	2.4	2.4	1.9	2.5	2.1	2.2	2.1	2.1	2.2	2.3	2.3	2.2
Negotiated wage and benefit adjustments from settlements:⁵												
First-year adjustment	3.0	3.4	(*)	1.5	1.4	1.8	3.0	3.1	3.1	2.3	2.1	1.2
Annual rate over life of contract	2.6	2.9	1.4	2.1	1.7	1.8	2.3	2.4	2.5	2.4	2.3	1.7

¹ Seasonally adjusted.

² Excludes Federal and household workers.

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

⁴ Data round to zero.

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

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

(Numbers in thousands)

Employment status	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
TOTAL															
Civilian noninstitutional population ¹	193,550	196,814	196,859	197,043	197,248	197,430	197,607	197,765	197,753	197,886	198,007	198,148	198,286	198,453	198,615
Civilian labor force	128,040	131,056	130,774	131,086	131,291	131,646	131,718	131,725	132,136	132,308	132,511	132,737	131,811	131,869	132,519
Participation rate	66.2	66.6	66.4	66.5	66.6	66.7	66.7	66.6	66.8	66.9	66.9	67.0	66.5	66.4	66.7
Employed	119,306	123,060	122,781	123,197	123,644	124,141	124,403	124,570	124,639	125,125	125,274	125,072	124,319	124,485	124,959
Employment-population ratio ²	61.6	62.5	62.4	62.5	62.7	62.9	63.0	63.0	63.0	63.2	63.3	63.1	62.7	62.7	62.9
Unemployed	8,734	7,996	7,993	7,889	7,647	7,505	7,315	7,155	7,498	7,183	7,237	7,665	7,492	7,384	7,559
Unemployment rate	6.8	6.1	6.1	6.0	5.8	5.7	5.6	5.4	5.7	5.4	5.5	5.8	5.7	5.6	5.7
Not in labor force	65,509	65,758	66,085	65,957	65,957	65,784	65,889	66,040	65,617	65,578	65,496	65,412	66,476	66,583	66,096
Men, 20 years and over															
Civilian noninstitutional population ¹	85,907	87,151	87,123	87,248	87,321	87,439	87,529	87,617	87,528	87,572	87,622	87,664	87,691	87,750	87,818
Civilian labor force	66,069	66,921	66,747	66,817	66,909	67,177	67,345	67,450	67,539	67,552	67,643	67,563	67,250	67,232	67,258
Participation rate	76.9	76.8	76.6	76.6	76.6	76.8	76.9	77.0	77.2	77.1	77.2	77.1	76.7	76.6	76.6
Employed	61,865	63,294	63,076	63,271	63,517	63,820	64,051	64,281	64,133	64,478	64,465	64,224	63,841	63,994	64,066
Employment-population ratio ²	72.0	72.6	72.4	72.5	72.7	73.0	73.2	73.4	73.3	73.6	73.6	73.3	72.8	72.9	73.0
Agriculture	2,263	2,351	2,314	2,377	2,293	2,329	2,377	2,410	2,390	2,512	2,519	2,384	2,242	2,344	2,327
Nonagricultural industries	59,602	60,943	60,762	60,894	61,224	61,491	61,674	61,871	61,743	61,965	61,961	61,840	61,599	61,649	61,739
Unemployed	4,204	3,627	3,671	3,546	3,392	3,357	3,294	3,169	3,406	3,074	3,178	3,339	3,410	3,238	3,192
Unemployment rate	6.4	5.4	5.5	5.3	5.1	5.0	4.9	4.7	5.0	4.6	4.7	4.9	5.1	4.8	4.7
Women, 20 years and over															
Civilian noninstitutional population ¹	94,388	95,467	95,469	95,544	95,658	95,729	95,821	95,873	95,961	96,020	96,037	96,099	96,141	96,204	96,265
Civilian labor force	55,146	56,655	56,536	56,747	57,031	56,951	56,984	56,725	56,951	57,096	57,042	57,360	56,819	56,773	57,471
Participation rate	58.4	59.3	59.2	59.4	59.6	59.5	59.5	59.2	59.3	59.5	59.4	59.7	59.1	59.0	59.7
Employed	51,912	53,606	53,541	53,722	54,044	54,090	54,129	54,037	54,134	54,334	54,242	54,403	54,097	53,915	54,519
Employment-population ratio ²	55.0	56.2	56.1	56.2	56.5	56.5	56.5	56.4	56.4	56.6	56.5	56.6	56.3	56.0	56.6
Agriculture	599	809	790	815	847	863	850	882	877	898	913	925	828	791	787
Nonagricultural industries	51,313	52,796	52,751	52,907	53,197	53,227	53,279	53,155	53,257	53,436	53,329	53,477	53,268	53,124	53,732
Unemployed	3,234	3,049	2,995	3,025	2,987	2,861	2,855	2,888	2,817	2,763	2,800	2,957	2,722	2,857	2,952
Unemployment rate	5.9	5.4	5.3	5.3	5.2	5.0	5.0	4.7	4.9	4.8	4.9	5.2	4.8	5.0	5.1
Both sexes, 16 to 19 years															
Civilian noninstitutional population ¹	13,255	14,196	14,267	14,251	14,269	14,261	14,257	14,274	14,263	14,294	14,348	14,385	14,454	14,498	14,531
Civilian labor force	6,826	7,481	7,491	7,522	7,351	7,518	7,389	7,550	7,646	7,660	7,826	7,814	7,742	7,864	7,790
Participation rate	51.5	52.7	52.5	52.8	51.5	52.7	51.8	52.9	53.6	53.6	54.5	54.3	53.6	54.2	53.6
Employed	5,530	6,161	6,164	6,204	6,083	6,231	6,223	6,252	6,372	6,313	6,567	6,446	6,381	6,576	6,375
Employment-population ratio ²	41.7	43.4	43.2	43.5	42.6	43.7	43.6	43.8	44.7	44.2	45.8	44.8	44.1	45.4	43.9
Agriculture	212	249	229	244	271	302	273	240	308	245	266	285	287	316	295
Nonagricultural industries	5,317	5,912	5,935	5,960	5,812	5,929	5,950	6,012	6,064	6,068	6,300	6,160	6,094	6,261	6,080
Unemployed	1,296	1,320	1,327	1,318	1,268	1,287	1,166	1,298	1,274	1,347	1,260	1,369	1,360	1,288	1,415
Unemployment rate	19.0	17.6	17.7	17.5	17.2	17.1	15.8	17.2	16.7	17.6	16.1	17.5	17.6	16.4	18.2
White															
Civilian noninstitutional population ¹	163,921	165,555	165,576	165,696	165,832	165,954	166,072	166,175	166,361	166,444	166,521	166,613	166,708	166,822	166,931
Civilian labor force	109,359	111,082	110,911	111,186	111,381	111,555	111,637	111,715	111,876	111,830	111,999	112,153	111,568	111,541	112,197
Participation rate	66.7	67.1	67.0	67.1	67.2	67.2	67.2	67.2	67.2	67.2	67.3	67.3	66.9	66.9	67.2
Employed	102,812	105,190	105,006	105,401	105,740	106,010	106,242	106,352	106,366	106,604	106,698	106,500	105,935	106,145	106,770
Employment-population ratio ²	62.7	63.5	63.4	63.6	63.8	63.9	64.0	64.0	63.9	64.0	64.1	63.9	63.5	63.6	64.0
Unemployed	6,547	5,892	5,905	5,785	5,641	5,545	5,395	5,363	5,510	5,226	5,301	5,653	5,633	5,396	5,427
Unemployment rate	6.0	5.3	5.3	5.2	5.1	5.0	4.8	4.8	4.9	4.7	4.7	5.0	5.0	4.8	4.8
Black															
Civilian noninstitutional population ¹	22,329	22,879	22,883	22,917	22,955	22,990	23,023	23,052	23,089	23,117	23,142	23,169	23,192	23,221	23,249
Civilian labor force	13,943	14,502	14,380	14,429	14,477	14,649	14,578	14,541	14,697	14,868	14,818	14,938	14,803	14,707	14,856
Participation rate	62.4	63.4	62.8	63.0	63.1	63.7	63.3	63.1	63.7	64.3	64.0	64.5	63.8	63.3	63.0
Employed	12,146	12,835	12,767	12,795	12,927	13,022	13,054	13,119	13,192	13,362	13,370	13,337	13,336	13,142	13,033
Employment-population ratio ²	54.4	56.1	55.8	55.8	56.3	56.6	56.7	56.9	57.1	57.8	57.8	57.6	57.5	56.6	56.1
Unemployed	1,796	1,666	1,613	1,634	1,550	1,627	1,524	1,422	1,505	1,505	1,448	1,601	1,467	1,565	1,623
Unemployment rate	12.9	11.5	11.2	11.3	10.7	11.1	10.5	9.8	10.2	10.1	9.8	10.7	9.9	10.6	11.1

See footnotes at end of table.

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

(Numbers in thousands)

Employment status	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Hispanic origin															
Civilian noninstitutional population ¹	15,753	18,117	18,143	18,193	18,244	18,291	18,339	18,385	18,368	18,413	18,458	18,509	18,554	18,604	18,653
Civilian labor force	10,377	11,975	11,956	12,002	11,997	12,222	12,324	12,224	12,036	12,017	12,001	12,131	12,111	12,229	12,323
Participation rate	65.9	66.1	65.9	66.0	65.8	66.8	67.2	66.5	65.5	65.3	65.0	65.5	65.3	65.7	66.1
Employed	9,272	10,788	10,760	10,786	10,806	11,074	11,236	11,105	10,811	10,943	10,903	11,058	10,895	11,131	11,235
Employment-population ratio ²	58.9	59.5	59.3	59.3	59.2	60.5	61.3	60.4	58.9	59.4	59.1	59.7	58.7	59.8	60.2
Unemployed	1,104	1,187	1,196	1,216	1,191	1,148	1,088	1,119	1,224	1,073	1,098	1,073	1,216	1,098	1,088
Unemployment rate	10.6	9.9	10.0	10.1	9.9	9.4	8.8	9.2	10.2	8.9	9.1	8.8	10.0	9.0	8.8

¹ The population figures are not seasonally adjusted.

² Civilian employment as a percent of the civilian noninstitutional population.

NOTE: Data for 1994 are not directly comparable with data for 1993 and earlier years. For additional information, see the box note under "Employment and Unemployment

Data" in the notes to this section.

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.

5. Selected employment indicators, monthly data seasonally adjusted

(In thousands)

Selected categories	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
CHARACTERISTIC															
Employed, 16 years and over	119,306	123,060	122,781	123,197	123,644	124,141	124,403	124,570	124,639	125,125	125,274	125,072	124,319	124,485	124,959
Men	64,700	66,450	66,226	66,458	66,682	67,059	67,244	67,483	67,386	67,709	67,811	67,588	67,110	67,390	67,383
Women	54,606	56,610	56,555	56,739	56,962	57,082	57,159	57,087	57,252	57,416	57,462	57,484	57,208	57,095	57,576
Married men, spouse present ..	40,869	41,414	41,281	41,487	41,557	41,511	41,530	41,608	41,601	42,190	42,132	42,086	41,874	41,956	42,137
Married women, spouse present	30,512	31,536	31,462	31,593	31,905	31,764	31,775	31,723	31,705	31,893	32,135	32,108	32,022	31,918	32,309
Women who maintain families ..	6,764	7,053	7,016	6,974	7,029	7,098	7,141	7,074	7,199	7,067	7,071	7,152	7,175	7,201	7,081
CLASS OF WORKER															
Agriculture:															
Wage and salary workers	1,637	1,715	1,669	1,728	1,712	1,764	1,767	1,738	1,866	1,970	1,987	1,884	1,747	1,848	1,832
Self-employed workers	1,332	1,645	1,619	1,654	1,630	1,652	1,677	1,714	1,663	1,684	1,674	1,649	1,560	1,593	1,551
Unpaid family workers	105	49	50	50	63	43	48	49	35	27	57	70	55	46	45
Nonagricultural industries:															
Wage and salary workers	107,011	110,517	110,345	110,576	111,100	111,686	111,770	111,960	111,987	112,461	112,649	112,578	112,111	112,160	112,331
Government	18,504	18,293	18,281	18,225	18,306	18,201	18,357	18,340	18,295	18,504	18,685	18,646	18,493	18,387	18,358
Private industries	88,507	92,224	92,064	92,351	92,794	93,485	93,413	93,620	93,692	93,957	93,964	93,932	93,619	93,773	93,973
Private households	1,105	966	940	881	903	935	999	1,023	1,075	1,075	1,039	988	913	866	887
Other	87,402	91,258	91,124	91,470	91,891	92,550	92,414	92,597	92,617	92,882	92,925	92,945	92,705	92,907	93,086
Self-employed workers	9,003	9,003	8,962	9,021	8,989	8,878	8,915	8,959	9,039	8,904	8,865	8,848	8,763	8,765	9,098
Unpaid family workers	218	131	140	131	134	131	120	121	95	118	129	110	125	106	103
PERSONS AT WORK PART TIME¹															
All industries:															
Part time for economic reasons ..	6,348	4,625	4,467	4,348	4,333	4,411	4,411	4,422	4,693	4,460	4,530	4,469	4,476	4,442	4,402
Slack work or business conditions	3,140	2,432	2,431	2,396	2,404	2,394	2,394	2,384	2,504	2,372	2,333	2,517	2,502	2,304	2,497
Could only find part-time work ..	2,908	1,871	1,698	1,618	1,697	1,791	1,736	1,734	1,777	1,739	1,902	1,686	1,720	1,785	1,672
Part time for noneconomic reasons	15,062	17,638	17,922	17,955	17,609	17,644	17,756	17,576	17,940	18,041	17,627	18,121	17,666	17,745	18,299
Nonagricultural industries:															
Part time for economic reasons ..	6,106	4,414	4,273	4,173	4,154	4,226	4,246	4,254	4,430	4,187	4,347	4,171	4,289	4,185	4,234
Slack work or business conditions	2,977	2,311	2,318	2,272	2,290	2,257	2,282	2,272	2,359	2,216	2,226	2,328	2,364	2,158	2,385
Could only find part-time work ..	2,832	1,824	1,661	1,583	1,646	1,756	1,689	1,690	1,737	1,687	1,854	1,624	1,698	1,747	1,613
Part time for noneconomic reasons	14,637	17,007	17,308	17,314	16,982	16,992	17,101	16,917	17,307	17,381	16,991	17,232	17,034	17,056	17,660

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

NOTE: Data for 1994 are not directly comparable with data for 1993 and earlier years. For additional information, see the box note under "Employment and Unemployment Data" in the notes to this section.

6. Selected unemployment indicators, monthly data seasonally adjusted

(Unemployment rates)

Selected categories	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
CHARACTERISTIC															
Total, all workers	6.8	6.1	6.1	6.0	5.8	5.7	5.6	5.4	5.7	5.4	5.5	5.8	5.7	5.6	5.7
Both sexes, 16 to 19 years	19.0	17.6	17.7	17.5	17.2	17.1	15.8	17.2	16.7	17.6	16.1	17.5	17.6	16.4	18.2
Men, 20 years and over	6.4	5.4	5.5	5.3	5.1	5.0	4.9	4.7	5.0	4.6	4.7	4.9	5.1	4.8	4.7
Women, 20 years and over	5.9	5.4	5.3	5.3	5.2	5.0	5.0	4.7	4.9	4.8	4.9	5.2	4.8	5.0	5.1
White, total	6.0	5.3	5.3	5.2	5.1	5.0	4.8	4.8	4.9	4.7	4.7	5.0	5.0	4.8	4.8
Both sexes, 16 to 19 years	16.2	15.1	14.7	14.6	14.8	14.4	13.5	14.7	14.1	14.7	13.6	14.6	14.8	13.1	14.8
Men, 16 to 19 years	17.6	16.3	16.1	15.4	16.2	15.2	14.3	16.0	15.0	16.1	14.7	15.3	15.2	14.5	14.6
Women, 16 to 19 years	14.6	13.8	13.1	13.7	13.3	13.5	12.6	13.2	13.1	13.1	12.4	13.8	14.3	11.6	15.0
Men, 20 years and over	5.6	4.8	4.8	4.6	4.4	4.4	4.3	4.2	4.4	4.0	4.2	4.4	4.6	4.3	4.1
Women, 20 years and over	5.1	4.6	4.7	4.6	4.6	4.4	4.3	4.1	4.3	4.1	4.2	4.5	4.3	4.4	4.4
Black, total	12.9	11.5	11.2	11.3	10.7	11.1	10.5	9.8	10.2	10.1	9.8	10.7	9.9	10.6	11.1
Both sexes, 16 to 19 years	38.9	35.2	37.3	36.1	32.1	37.5	33.0	34.6	35.5	35.7	31.2	35.6	35.1	37.8	39.0
Men, 16 to 19 years	40.1	37.6	41.4	39.9	30.8	35.9	32.0	34.3	34.0	38.7	31.7	35.4	40.0	38.7	41.6
Women, 16 to 19 years	37.5	32.6	32.7	31.9	33.4	39.1	34.1	35.0	37.1	32.4	30.7	35.8	30.5	36.8	36.3
Men, 20 years and over	12.1	10.3	10.4	10.2	9.8	9.5	9.2	8.3	9.2	7.9	7.8	8.9	8.8	9.0	9.1
Women, 20 years and over	10.6	9.8	8.8	9.4	9.0	9.2	8.9	8.3	8.5	9.0	9.1	9.3	7.8	8.7	9.4
Hispanic origin, total	10.6	9.9	10.0	10.1	9.9	9.4	8.8	9.2	10.2	8.9	9.1	8.8	10.0	9.0	8.8
Married men, spouse present	4.4	3.7	3.6	3.5	3.4	3.3	3.2	3.2	3.4	3.0	3.2	3.4	3.4	3.4	3.4
Married women, spouse present	4.6	4.1	4.0	4.1	4.0	4.0	3.9	3.7	3.7	3.6	3.9	4.2	3.9	3.8	4.1
Women who maintain families	9.5	8.9	7.9	8.8	8.9	8.9	8.7	8.8	8.9	8.1	7.6	9.0	8.0	8.4	8.5
Full-time workers	7.4	6.8	6.1	6.1	6.0	5.8	5.8	5.6	5.3	5.5	5.3	5.4	5.6	5.6	5.5
Part-time workers	7.4	7.1	5.9	6.0	6.2	5.8	5.6	5.4	5.9	6.2	6.0	5.8	6.3	6.1	6.3
INDUSTRY															
Nonagricultural private wage and salary workers ...	7.0	6.3	6.3	6.1	6.0	5.9	5.9	5.6	5.7	5.5	5.5	5.9	6.0	5.7	5.9
Mining	7.3	5.4	6.0	5.0	5.1	4.7	4.5	3.9	5.1	5.2	6.1	4.3	4.9	4.4	3.4
Construction	14.3	11.8	11.1	10.7	10.7	10.7	10.7	10.9	11.7	10.5	10.8	11.8	12.6	10.6	10.9
Manufacturing	7.2	5.6	5.6	5.3	5.3	5.1	5.1	4.9	4.7	4.4	4.5	4.8	5.5	5.2	5.2
Durable goods	7.1	5.2	5.5	5.3	5.3	4.8	4.3	4.6	4.2	3.9	4.2	4.4	5.3	4.2	4.8
Nondurable goods	7.3	6.0	5.8	5.3	5.4	5.6	6.0	5.4	5.4	5.0	4.9	5.4	6.0	6.6	5.8
Transportation and public utilities	5.1	4.8	5.1	4.8	4.5	4.4	4.6	4.2	4.7	4.5	4.5	4.6	4.0	4.5	4.7
Wholesale and retail trade	7.8	7.4	7.5	7.4	7.0	7.2	7.0	6.7	6.6	6.4	6.2	6.8	6.7	6.2	6.6
Finance, insurance, and real estate	4.1	3.6	3.7	3.7	4.3	3.4	3.6	2.9	2.9	3.5	3.3	3.4	3.7	3.3	3.5
Services	6.5	6.1	5.9	5.7	5.5	5.3	5.4	5.2	5.2	5.2	5.3	5.6	5.5	5.5	5.8
Government workers	3.3	3.4	3.4	3.6	3.2	3.2	2.7	3.1	3.2	2.8	2.7	3.1	2.8	3.2	2.8
Agricultural wage and salary workers	11.6	11.3	12.1	11.1	11.1	10.3	10.4	11.1	10.7	9.1	10.5	11.3	12.5	11.9	9.7

NOTE: Data for 1994 are not directly comparable with data for 1993 and earlier years. For additional information, see the box note under "Employment and Unemployment Data" in the notes to this section.

7. Duration of unemployment, monthly data seasonally adjusted

(Numbers in thousands)

Weeks of unemployment	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Less than 5 weeks	3,160	2,728	2,768	2,655	2,675	2,434	2,599	2,587	2,937	2,600	2,523	2,629	2,598	2,742	2,600
5 to 14 weeks	2,522	2,408	2,365	2,572	2,294	2,256	2,163	2,149	2,122	2,165	2,319	2,430	2,304	2,348	2,621
15 weeks and over	3,052	2,860	2,823	2,773	2,768	2,934	2,661	2,456	2,386	2,298	2,266	2,505	2,585	2,299	2,319
15 to 26 weeks	1,274	1,237	1,234	1,198	1,213	1,344	1,187	1,088	1,033	1,090	920	1,115	1,282	1,096	1,023
27 weeks and over	1,778	1,623	1,589	1,575	1,555	1,590	1,474	1,368	1,353	1,207	1,347	1,390	1,303	1,203	1,297
Mean duration, in weeks	18.1	18.8	19.0	18.9	18.8	19.3	18.2	17.8	16.7	16.9	17.5	17.7	16.9	15.6	16.5
Median duration, in weeks	8.4	9.2	9.2	9.2	9.5	10.1	9.1	8.7	7.9	7.8	7.9	8.5	9.0	7.5	9.1

NOTE: In the three tables above, data for 1994 are not directly comparable with data for 1993 and earlier years. For additional information, see the box note under "Employment and Unemployment Data" in the notes to this section.

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

(Numbers in thousands)

Reason for unemployment	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Job losers ¹	4,769	3,815	3,863	3,706	3,574	3,513	3,495	3,442	3,658	3,339	3,352	3,532	3,614	3,423	3,615
On temporary layoff	1,104	977	1,031	1,012	824	848	881	930	1,061	1,025	1,032	1,145	958	1,066	1,184
Not on temporary layoff	3,664	2,838	2,832	2,694	2,750	2,665	2,614	2,512	2,598	2,314	2,320	2,387	2,657	2,357	2,431
Job leavers	946	791	770	786	874	755	710	704	694	773	811	817	870	834	832
Reentrants	2,145	2,786	2,766	2,758	2,620	2,626	2,575	2,525	2,488	2,474	2,430	2,779	2,458	2,526	2,593
New entrants	874	604	594	621	600	614	578	555	597	582	604	637	522	540	571
PERCENT OF UNEMPLOYED															
Job losers ¹	54.6	47.7	48.3	47.1	46.6	46.8	47.5	47.6	49.2	46.6	46.6	45.5	48.4	46.7	47.5
On temporary layoff	12.6	12.2	12.9	12.9	10.7	11.3	12.0	12.9	14.3	14.3	14.3	14.7	12.8	14.6	15.6
Not on temporary layoff	42.0	35.5	35.4	34.2	35.9	35.5	35.5	34.8	34.9	32.3	32.2	30.7	35.6	32.2	31.9
Job leavers	10.8	9.9	9.6	10.0	11.4	10.1	9.6	9.7	9.3	10.8	11.3	10.5	11.7	11.4	10.9
Reentrants	24.6	34.8	34.6	35.0	34.2	35.0	35.0	34.9	33.4	34.5	33.8	35.8	32.9	34.5	34.1
New entrants	10.0	7.6	7.4	7.9	7.8	8.2	7.9	7.7	8.0	8.1	8.4	8.2	7.0	7.4	7.5
PERCENT OF CIVILIAN LABOR FORCE															
Job losers ¹	3.7	2.9	3.0	2.8	2.7	2.7	2.7	2.6	2.8	2.5	2.5	2.7	2.7	2.6	2.7
Job leavers .....	.7	.6	.6	.6	.7	.6	.5	.5	.5	.6	.6	.6	.7	.6	.6
Reentrants	1.7	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.8	2.1	1.9	1.9	2.0
New entrants .....	.7	.5	.5	.5	.5	.5	.4	.4	.5	.4	.5	.5	.4	.4	.4

¹ Includes persons who completed temporary jobs.

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

(Civilian workers)

Sex and age	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Total, 16 years and over	6.8	6.1	6.1	6.0	5.8	5.7	5.6	5.4	5.7	5.4	5.5	5.8	5.7	5.6	5.7
16 to 24 years	13.3	12.5	12.5	12.6	12.1	11.8	11.4	11.6	11.4	11.7	11.6	11.8	11.8	11.7	12.5
16 to 19 years	19.0	17.6	17.7	17.5	17.2	17.1	15.8	17.2	16.7	17.6	16.1	17.5	17.6	16.4	18.2
16 to 17 years	21.3	19.9	20.3	19.9	18.8	17.8	17.2	18.1	20.0	20.7	20.0	20.6	21.5	18.5	21.4
18 to 19 years	17.5	16.0	15.7	15.6	16.0	16.8	14.7	16.6	14.2	15.3	13.0	15.7	14.7	15.2	15.4
20 to 24 years	10.5	9.7	9.7	9.9	9.4	9.0	9.1	8.6	8.5	8.5	9.1	8.7	8.6	9.0	9.3
25 years and over	5.6	4.8	4.8	4.7	4.6	4.5	4.5	4.3	4.5	4.2	4.2	4.6	4.5	4.4	4.3
25 to 54 years	5.8	5.0	4.9	4.8	4.8	4.7	4.5	4.4	4.6	4.3	4.3	4.7	4.6	4.5	4.5
55 years and over	4.3	4.1	4.2	4.2	3.8	3.9	3.9	3.5	3.9	3.4	3.5	3.8	3.8	3.8	3.9
Men, 16 years and over	7.1	6.2	6.3	6.1	5.8	5.7	5.5	5.5	5.7	5.4	5.4	5.7	5.8	5.5	5.5
16 to 24 years	14.3	13.2	13.4	13.3	12.6	12.4	11.8	12.2	12.0	12.1	11.7	11.8	12.3	12.0	12.5
16 to 19 years	20.4	19.0	19.4	18.8	18.5	18.1	16.5	18.5	17.4	19.4	17.0	17.8	18.4	17.4	18.7
16 to 17 years	22.8	21.0	20.9	20.7	19.4	18.2	16.5	18.8	20.9	22.6	20.2	21.7	22.6	18.4	21.9
18 to 19 years	18.8	17.6	18.0	17.1	17.5	18.1	16.5	18.2	14.5	16.7	14.6	16.1	15.2	17.4	15.9
20 to 24 years	11.3	10.2	10.3	10.5	9.5	9.4	9.5	9.0	9.1	8.2	8.9	8.6	8.9	9.0	9.0
25 years and over	5.8	4.8	4.9	4.7	4.5	4.5	4.4	4.3	4.5	4.0	4.1	4.5	4.6	4.3	4.2
25 to 54 years	5.9	4.9	4.9	4.8	4.6	4.6	4.4	4.3	4.6	4.2	4.2	4.5	4.7	4.3	4.3
55 years and over	4.7	4.3	4.5	4.2	3.9	4.1	4.0	3.5	4.0	3.6	3.7	4.3	4.0	3.9	3.9
Women, 16 years and over	6.5	6.0	5.9	6.0	5.8	5.7	5.6	5.4	5.6	5.5	5.5	5.9	5.5	5.7	5.9
16 to 24 years	12.2	11.6	11.5	11.7	11.6	11.2	10.9	10.9	10.7	11.2	11.5	11.9	11.4	11.3	12.6
16 to 19 years	17.4	16.2	15.9	16.1	15.9	16.0	15.0	15.8	15.9	15.6	15.2	17.2	16.7	15.2	17.6
16 to 17 years	19.6	18.7	19.7	19.0	18.2	17.4	17.9	17.4	19.1	18.7	19.8	19.4	20.4	18.6	21.0
18 to 19 years	16.0	14.3	13.1	14.0	14.2	15.4	12.8	14.9	13.9	13.7	11.3	15.2	14.0	12.8	14.9
20 to 24 years	9.6	9.2	9.1	9.3	9.3	8.6	8.7	8.1	7.8	8.7	9.4	8.8	8.2	9.0	9.7
25 years and over	5.4	4.9	4.8	4.8	4.7	4.6	4.6	4.3	4.6	4.3	4.3	4.7	4.4	4.5	4.6
25 to 54 years	5.6	5.0	5.0	4.9	5.0	4.8	4.7	4.4	4.6	4.5	4.4	5.0	4.6	4.7	4.6
55 years and over	3.8	3.9	3.7	4.1	3.6	3.7	3.8	3.4	3.7	3.2	3.4	3.3	3.6	3.7	3.9

10. Unemployment rates by State, seasonally adjusted

State	June 1994	May 1995	June 1995 ^P	State	June 1994	May 1995	June 1995 ^P
Alabama	6.0	5.9	6.2	Montana	4.9	5.5	5.5
Alaska	7.7	6.4	6.7	Nebraska	2.9	2.6	2.5
Arizona	6.6	5.6	5.1	Nevada	6.1	6.0	5.7
Arkansas	5.5	4.1	4.1	New Hampshire	4.6	3.8	3.6
California	8.5	8.5	7.6	New Jersey	7.0	6.5	6.6
Colorado	4.3	3.9	4.2	New Mexico	6.1	5.7	5.6
Connecticut	5.5	5.1	5.1	New York	7.0	6.3	5.9
Delaware	4.9	4.3	4.2	North Carolina	3.9	4.3	4.4
District of Columbia	8.4	8.6	8.7	North Dakota	3.9	3.3	3.1
Florida	6.3	5.1	5.3	Ohio	5.6	4.7	4.8
Georgia	5.2	4.8	5.0	Oklahoma	5.9	4.7	4.7
Hawaii	6.1	5.1	5.0	Oregon	5.4	5.2	5.2
Idaho	5.4	5.2	4.8	Pennsylvania	6.0	5.7	6.2
Illinois	5.1	5.5	4.1	Rhode Island	7.1	6.4	6.8
Indiana	4.9	4.7	4.8	South Carolina	6.3	4.9	4.7
Iowa	3.7	3.3	3.4	South Dakota	3.2	2.3	2.3
Kansas	5.3	4.7	4.4	Tennessee	4.9	4.6	4.9
Kentucky	5.4	5.0	4.9	Texas	6.6	6.0	6.3
Louisiana	8.1	7.1	7.0	Utah	3.7	3.7	3.5
Maine	7.2	6.3	6.0	Vermont	4.7	3.9	4.0
Maryland	5.1	5.0	5.1	Virginia	4.9	4.5	4.4
Massachusetts	6.0	5.0	5.6	Washington	6.5	6.1	6.2
Michigan	5.6	5.7	6.2	West Virginia	8.9	7.7	7.6
Minnesota	4.0	3.9	3.8	Wisconsin	4.6	3.9	3.3
Mississippi	6.6	6.0	6.0	Wyoming	5.3	4.8	4.7
Missouri	4.7	5.1	4.8				

P = preliminary

11. Employment of workers on nonfarm payrolls by State, seasonally adjusted

(In thousands)

State	June 1994	May 1995	June 1995 ^P	State	June 1994	May 1995	June 1995 ^P
Alabama	1,756.2	1,771.5	1,776.0	Montana	338.6	350.6	349.3
Alaska	259.4	262.0	261.6	Nebraska	793.8	808.6	812.6
Arizona	1,667.9	1,753.3	1,754.8	Nevada	734.5	773.8	777.3
Arkansas	1,031.6	1,070.1	1,070.8	New Hampshire	522.1	532.2	529.9
California	12,143.8	12,242.0	12,256.4	New Jersey	3,556.9	3,605.0	3,603.4
Colorado	1,750.3	1,791.6	1,790.3	New Mexico	655.8	684.7	688.1
Connecticut	1,544.8	1,544.3	1,546.7	New York	7,809.7	7,832.9	7,848.3
Delaware	354.9	359.7	357.3	North Carolina	3,359.0	3,434.3	3,433.6
District of Columbia	658.9	645.2	642.5	North Dakota	294.0	301.7	301.7
Florida	5,785.0	5,986.0	6,002.1	Ohio	5,077.1	5,171.9	5,169.8
Georgia	3,256.6	3,383.9	3,396.3	Oklahoma	1,277.3	1,299.6	1,302.8
Hawaii	536.7	534.3	533.6	Oregon	1,359.9	1,415.1	1,419.6
Idaho	462.5	473.9	476.0	Pennsylvania	5,197.1	5,203.5	5,204.7
Illinois	5,474.7	5,531.7	5,534.9	Rhode Island	435.1	432.5	432.7
Indiana	2,707.4	2,756.1	2,750.0	South Carolina	1,608.2	1,626.1	1,632.8
Iowa	1,322.2	1,349.4	1,355.1	South Dakota	332.4	341.4	343.3
Kansas	1,166.0	1,196.4	1,202.4	Tennessee	2,421.5	2,487.9	2,486.4
Kentucky	1,597.0	1,632.7	1,636.2	Texas	7,727.9	7,985.9	8,015.8
Louisiana	1,713.8	1,793.9	1,797.1	Utah	858.8	902.5	907.5
Maine	530.7	541.4	542.4	Vermont	264.2	267.7	267.4
Maryland	2,148.0	2,159.9	2,162.1	Virginia	3,001.7	3,073.4	3,080.1
Massachusetts	2,895.7	2,948.3	2,953.8	Washington	2,300.9	2,361.7	2,368.2
Michigan	4,137.4	4,258.6	4,241.5	West Virginia	672.9	687.0	687.5
Minnesota	2,315.7	2,362.1	2,369.1	Wisconsin	2,478.1	2,537.8	2,541.8
Mississippi	1,058.4	1,055.5	1,052.4	Wyoming	216.1	218.8	217.9
Missouri	2,465.8	2,540.8	2,542.4				

P = preliminary

NOTE: Some data in this table may differ from data published elsewhere because of the continual updating of the database.

12. Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

(In thousands)

Industry	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June ^a	July ^a
TOTAL	110,730	114,034	114,171	114,510	114,762	114,935	115,427	115,624	115,810	116,123	116,302	116,310	116,248	116,498	116,553
PRIVATE SECTOR	91,889	94,917	95,061	95,327	95,555	95,740	96,152	96,405	96,588	96,882	97,054	97,049	97,005 ^a	97,229	97,286
GOODS-PRODUCING	23,352	23,913	23,922	23,981	24,030	24,081	24,175	24,230	24,293	24,324	24,370	24,331	24,228	24,235	24,146
Mining¹	610	600	596	597	598	595	592	592	590	588	589	583	582	582	578
Metal mining	50	49	49	49	49	49	49	50	50	51	51	51	51	52	52
Oil and gas extraction	350	336	332	333	336	331	328	326	325	323	323	319	320	320	316
Nonmetallic minerals, except fuels	102	103	103	103	103	104	104	104	105	105	106	105	104	104	104
Construction	4,668	5,010	5,029	5,038	5,077	5,088	5,144	5,166	5,201	5,213	5,256	5,242	5,190	5,231	5,231
General building contractors	1,120	1,201	1,199	1,206	1,214	1,222	1,234	1,241	1,250	1,250	1,258	1,255	1,237	1,242	1,236
Heavy construction, except building	713	736	743	738	740	734	740	739	742	740	747	743	730	737	742
Special trades contractors	2,836	3,073	3,087	3,094	3,123	3,132	3,170	3,186	3,209	3,223	3,251	3,244	3,223	3,252	3,253
Manufacturing	18,075	18,303	18,297	18,346	18,355	18,398	18,439	18,472	18,502	18,523	18,525	18,506	18,456	18,422	18,337
Production workers	12,341	12,615	12,610	12,658	12,671	12,709	12,759	12,785	12,813	12,832	12,833	12,818	12,772	12,736	12,653
Durable goods	10,221	10,431	10,422	10,465	10,481	10,513	10,550	10,574	10,596	10,622	10,633	10,632	10,611	10,594	10,556
Production workers	6,849	7,092	7,088	7,128	7,145	7,175	7,218	7,239	7,259	7,288	7,297	7,296	7,271	7,251	7,218
Lumber and wood products	709	752	755	757	758	761	766	766	767	766	767	761	757	753	750
Furniture and fixtures	487	502	504	504	504	505	507	507	508	509	509	506	501	497	494
Stone, clay, and glass products ..	517	533	533	534	535	537	539	540	542	545	547	546	542	544	540
Primary metal industries	683	699	700	699	704	708	712	715	716	718	718	719	718	716	712
Blast furnaces and basic steel products	240	239	240	238	239	239	240	240	239	240	240	240	241	241	240
Fabricated metal products	1,339	1,387	1,390	1,396	1,397	1,405	1,412	1,421	1,428	1,435	1,439	1,442	1,439	1,432	1,431
Industrial machinery and equipment	1,931	1,985	1,983	1,992	1,995	1,999	2,006	2,010	2,017	2,025	2,029	2,036	2,034	2,040	2,039
Computer and office equipment ..	363	351	352	350	348	345	344	342	341	340	336	337	336	337	336
Electronic and other electrical equipment	1,526	1,571	1,570	1,581	1,586	1,589	1,595	1,603	1,608	1,613	1,614	1,616	1,620	1,620	1,625
Electronic components and accessories	528	544	545	549	552	554	556	560	563	565	569	571	574	577	583
Transportation equipment	1,756	1,749	1,736	1,751	1,753	1,761	1,764	1,764	1,764	1,766	1,767	1,766	1,761	1,754	1,734
Motor vehicles and equipment ..	837	899	893	908	913	921	924	926	932	934	937	938	936	934	927
Aircraft and parts	542	480	475	473	469	467	465	462	459	457	455	455	452	449	442
Instruments and related products ..	896	863	859	859	857	854	853	853	850	849	847	846	846	845	842
Miscellaneous manufacturing industries	378	390	392	392	392	394	395	395	396	396	396	394	393	393	389
Nondurable goods	7,854	7,872	7,875	7,881	7,874	7,885	7,889	7,898	7,906	7,901	7,892	7,874	7,845	7,828	7,781
Production workers	5,492	5,523	5,522	5,530	5,526	5,534	5,541	5,546	5,554	5,545	5,535	5,522	5,501	5,485	5,435
Food and kindred products	1,680	1,680	1,681	1,679	1,677	1,677	1,683	1,684	1,690	1,689	1,690	1,687	1,687	1,694	1,686
Tobacco products	44	42	42	42	41	41	41	41	40	40	39	40	39	40	39
Textile mill products	675	673	673	674	671	674	674	673	672	671	670	669	664	659	651
Apparel and other textile products	989	969	969	972	971	970	963	960	957	951	946	940	931	920	909
Paper and allied products	692	691	692	691	689	692	692	692	693	692	691	692	690	689	688
Printing and publishing	1,517	1,542	1,544	1,547	1,547	1,550	1,551	1,556	1,557	1,561	1,561	1,557	1,555	1,561	1,555
Chemicals and allied products ..	1,081	1,061	1,060	1,057	1,056	1,055	1,054	1,054	1,055	1,054	1,053	1,051	1,048	1,044	1,039
Petroleum and coal products	152	149	148	150	149	149	149	150	147	148	148	146	145	145	144
Rubber and miscellaneous plastics products	909	952	953	956	960	965	970	975	982	983	982	981	976	968	963
Leather and leather products	117	114	113	113	113	112	112	113	113	112	112	111	110	108	107
SERVICE-PRODUCING	87,378	90,121	90,249	90,529	90,732	90,854	91,252	91,394	91,517	91,799	91,932	91,979	92,020	92,263	92,407
Transportation and public utilities	5,829	6,006	6,022	6,045	6,048	6,061	6,092	6,121	6,129	6,156	6,175	6,184	6,177	6,189	6,197
Transportation	3,615	3,775	3,794	3,810	3,813	3,821	3,846	3,870	3,886	3,900	3,914	3,919	3,910	3,918	3,930
Railroad transportation	248	241	240	237	240	240	242	241	241	242	242	242	240	238	238
Local and interurban passenger transit	379	410	415	425	418	417	421	425	428	431	433	437	439	441	449
Trucking and warehousing	1,698	1,797	1,813	1,819	1,824	1,828	1,843	1,857	1,864	1,871	1,877	1,879	1,872	1,877	1,881
Water transportation	168	169	171	168	168	167	165	164	166	165	164	164	161	159	158
Transportation by air	740	748	744	746	746	748	750	754	754	756	760	759	758	762	763
Pipelines, except natural gas	18	18	17	18	18	18	18	18	17	17	17	17	17	17	16
Transportation services	363	392	394	397	399	403	407	411	416	418	421	421	423	424	425
Communications and public utilities	2,214	2,231	2,228	2,235	2,235	2,240	2,246	2,251	2,243	2,256	2,261	2,265	2,267	2,271	2,267
Communications	1,269	1,305	1,305	1,314	1,314	1,320	1,325	1,331	1,327	1,343	1,351	1,355	1,359	1,365	1,364
Electric, gas, and sanitary services	944	927	923	921	921	920	921	920	916	913	910	910	908	906	903
Wholesale trade	5,981	6,140	6,138	6,163	6,181	6,195	6,210	6,229	6,251	6,275	6,287	6,300	6,298	6,317	6,334
Retail trade	19,773	20,437	20,459	20,497	20,565	20,580	20,703	20,759	20,760	20,794	20,760	20,762	20,747	20,798	20,852
Building materials and garden supplies	779	828	833	835	838	840	844	846	851	851	849	852	849	849	846
General merchandise stores	2,488	2,545	2,542	2,551	2,555	2,563	2,598	2,585	2,562	2,545	2,530	2,539	2,532	2,532	2,530
Department stores	2,140	2,212	2,211	2,219	2,225	2,232	2,268	2,256	2,236	2,223	2,207	2,218	2,213	2,216	2,214
Food stores	3,224	3,289	3,292	3,297	3,296	3,298	3,308	3,320	3,325	3,328	3,332	3,345	3,343	3,353	3,361

See footnotes at end of table.

12. Continued—Employment of workers on nonfarm payrolls by industry, monthly data seasonally adjusted

(In thousands)

Industry	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June ^p	July ^p
Automotive dealers and service stations	2,014	2,123	2,122	2,135	2,145	2,154	2,165	2,173	2,182	2,191	2,202	2,205	2,205	2,206	2,206
New and used car dealers	908	964	967	971	975	979	984	989	993	996	998	1,000	1,000	998	999
Apparel and accessory stores	1,144	1,134	1,134	1,132	1,135	1,136	1,130	1,126	1,122	1,118	1,110	1,103	1,095	1,096	1,091
Furniture and home furnishings stores	828	890	893	899	906	915	926	927	933	936	943	945	944	947	947
Eating and drinking places	6,821	7,069	7,076	7,084	7,103	7,086	7,134	7,182	7,188	7,221	7,191	7,170	7,169	7,208	7,253
Miscellaneous retail establishments	2,476	2,560	2,567	2,564	2,587	2,588	2,598	2,600	2,597	2,604	2,603	2,603	2,610	2,607	2,618
Finance, insurance, and real estate	6,757	6,933	6,947	6,948	6,942	6,935	6,937	6,931	6,927	6,929	6,938	6,924	6,925	6,934	6,941
Finance	3,238	3,323	3,332	3,329	3,324	3,320	3,319	3,317	3,312	3,312	3,313	3,305	3,307	3,307	3,310
Depository institutions	2,089	2,075	2,076	2,074	2,072	2,072	2,071	2,070	2,067	2,066	2,066	2,063	2,060	2,057	2,055
Commercial banks	1,497	1,492	1,492	1,492	1,492	1,496	1,498	1,498	1,497	1,497	1,499	1,494	1,492	1,491	1,492
Savings institutions	324	308	308	305	303	300	296	295	293	291	289	288	285	284	283
Nondepository institutions	455	499	502	499	494	490	485	481	478	475	475	473	476	479	484
Security and commodity brokers	472	518	522	524	525	525	528	530	530	532	532	528	528	528	527
Holding and other investment offices	223	231	232	232	233	233	235	236	237	239	240	241	243	243	244
Insurance	2,197	2,237	2,238	2,238	2,236	2,236	2,236	2,232	2,233	2,233	2,238	2,239	2,237	2,240	2,240
Insurance carriers	1,529	1,551	1,551	1,549	1,546	1,544	1,542	1,537	1,535	1,534	1,536	1,536	1,534	1,535	1,536
Insurance agents, brokers and service	668	686	687	689	690	692	694	695	698	699	702	703	703	705	704
Real estate	1,322	1,373	1,377	1,381	1,382	1,379	1,382	1,382	1,382	1,384	1,387	1,380	1,381	1,387	1,391
Services¹	30,197	31,488	31,573	31,693	31,789	31,888	32,035	32,135	32,228	32,404	32,524	32,548	32,630	32,756	32,816
Agricultural services	519	565	567	571	574	578	584	588	575	580	584	589	577	582	588
Hotels and other lodging places	1,596	1,618	1,625	1,620	1,617	1,612	1,605	1,612	1,614	1,614	1,616	1,611	1,615	1,625	1,626
Personal services	1,137	1,139	1,135	1,139	1,139	1,140	1,140	1,138	1,148	1,160	1,158	1,152	1,146	1,144	1,143
Business services	5,735	6,239	6,274	6,314	6,358	6,392	6,457	6,487	6,513	6,555	6,570	6,538	6,567	6,593	6,612
Services to buildings	823	855	858	860	861	861	869	870	868	870	871	866	866	869	871
Personnel supply services	1,906	2,254	2,281	2,296	2,321	2,337	2,373	2,386	2,408	2,427	2,399	2,368	2,371	2,377	2,381
Help supply services	1,669	2,002	2,026	2,040	2,061	2,077	2,107	2,118	2,138	2,152	2,138	2,097	2,096	2,099	2,102
Computer and data processing services	893	950	949	958	967	974	984	991	994	1,006	1,017	1,026	1,039	1,046	1,051
Auto repair services, and parking	925	971	971	979	984	989	995	1,000	1,006	1,010	1,014	1,016	1,016	1,021	1,028
Miscellaneous repair services	349	334	333	334	334	335	337	338	340	342	344	342	341	340	340
Motion pictures	412	471	470	481	491	505	519	529	545	566	577	580	596	593	601
Amusement and recreation services	1,258	1,344	1,361	1,365	1,354	1,364	1,371	1,375	1,380	1,398	1,434	1,462	1,471	1,509	1,521
Health services	8,756	9,001	9,011	9,037	9,055	9,074	9,096	9,121	9,141	9,168	9,197	9,211	9,223	9,250	9,265
Offices and clinics of medical doctors	1,506	1,541	1,541	1,549	1,548	1,553	1,557	1,562	1,563	1,570	1,576	1,578	1,580	1,585	1,586
Nursing and personal care facilities	1,585	1,649	1,654	1,657	1,659	1,661	1,663	1,667	1,672	1,676	1,679	1,682	1,683	1,688	1,693
Hospitals	3,779	3,774	3,772	3,776	3,779	3,781	3,785	3,790	3,792	3,796	3,802	3,810	3,810	3,810	3,812
Home health care services	469	555	560	566	572	575	579	588	591	596	599	597	600	605	608
Legal services	924	927	925	927	928	928	930	930	931	932	933	932	930	928	928
Educational services	1,711	1,822	1,826	1,831	1,840	1,843	1,851	1,854	1,843	1,864	1,863	1,866	1,875	1,886	1,877
Social services	2,070	2,181	2,191	2,205	2,211	2,216	2,226	2,233	2,244	2,254	2,264	2,265	2,275	2,286	2,253
Child day care services	473	502	506	518	509	510	512	512	514	517	519	519	522	522	526
Residential care	567	602	603	606	610	613	617	620	623	626	629	631	634	635	635
Museums and botanical and zoological gardens	76	79	79	80	79	79	80	80	80	81	81	81	81	81	82
Membership organizations	2,035	2,059	2,058	2,060	2,065	2,066	2,066	2,062	2,062	2,060	2,059	2,057	2,060	2,060	2,065
Engineering and management services	2,521	2,567	2,575	2,578	2,589	2,595	2,606	2,616	2,634	2,648	2,658	2,674	2,685	2,705	2,714
Engineering and architectural services	757	775	778	780	785	785	787	790	793	795	795	799	799	800	803
Management and public relations	688	716	716	719	725	731	737	742	752	762	773	785	790	808	808
Government	18,841	19,118	19,110	19,183	19,207	19,195	19,275	19,219	19,222	19,241	19,248	19,261	19,243	19,269	19,267
Federal	2,915	2,870	2,864	2,861	2,863	2,858	2,854	2,853	2,838	2,831	2,828	2,826	2,831	2,831	2,831
Federal, except Postal Service	2,128	2,053	2,045	2,041	2,039	2,031	2,022	2,014	2,004	1,997	1,992	1,987	1,995	1,987	1,985
State	4,488	4,562	4,572	4,594	4,589	4,589	4,596	4,598	4,599	4,610	4,613	4,608	4,602	4,607	4,605
Education	1,834	1,875	1,882	1,900	1,891	1,888	1,892	1,891	1,889	1,901	1,904	1,905	1,906	1,916	1,922
Other State government	2,654	2,687	2,690	2,694	2,698	2,701	2,704	2,707	2,710	2,709	2,709	2,703	2,696	2,691	2,683
Local	11,438	11,685	11,674	11,728	11,755	11,748	11,825	11,768	11,785	11,800	11,807	11,827	11,810	11,831	11,831
Education	6,353	6,490	6,497	6,548	6,554	6,544	6,549	6,557	6,577	6,591	6,599	6,614	6,606	6,602	6,621
Other local government	5,085	5,195	5,177	5,180	5,201	5,204	5,276	5,211	5,208	5,209	5,208	5,213	5,204	5,229	5,210

¹ Includes other industries not shown separately.

^p = preliminary

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

13. Average weekly hours of production or nonsupervisory workers on private nonfarm payrolls by industry, monthly data seasonally adjusted

Industry	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June ^P	July ^P
PRIVATE SECTOR	34.5	34.7	34.7	34.6	34.7	34.9	34.6	34.7	34.8	34.6	34.6	34.6	34.2	34.5	34.6
GOODS-PRODUCING	40.9	41.4	41.4	41.4	41.4	41.4	41.4	41.5	41.6	41.4	41.3	40.7	40.6	40.9	40.8
MINING	44.3	44.7	45.4	44.6	44.9	44.8	44.9	44.7	44.9	44.9	44.6	44.7	44.3	44.9	44.9
MANUFACTURING	41.4	42.0	42.0	42.0	42.1	42.1	42.1	42.1	42.2	42.1	42.0	41.5	41.4	41.5	41.3
Overtime hours	4.1	4.7	4.7	4.7	4.8	4.7	4.8	4.8	4.9	4.8	4.7	4.5	4.4	4.2	4.3
Durable goods	42.1	42.8	42.7	42.9	42.9	42.9	43.0	43.0	43.0	43.0	42.8	42.3	42.1	42.3	41.9
Overtime hours	4.3	5.0	5.0	5.0	5.1	5.0	5.1	5.1	5.3	5.2	5.1	4.9	4.6	4.5	4.6
Lumber and wood products	40.8	41.2	41.2	41.2	41.0	41.3	41.1	41.2	41.2	40.9	40.7	40.4	40.3	40.6	40.1
Furniture and fixtures	40.1	40.4	40.5	40.5	40.7	40.7	40.6	40.4	40.8	40.5	39.8	38.7	39.2	39.4	39.0
Stone, clay, and glass products	42.7	43.4	43.5	43.4	43.6	43.5	43.5	43.5	43.6	43.3	43.4	42.5	42.4	42.9	43.0
Primary metal industries	43.7	44.7	44.6	44.7	44.9	44.9	45.0	45.0	44.8	44.8	44.5	43.5	43.8	43.8	42.8
Blast furnaces and basic steel products	44.1	44.9	44.8	45.1	45.3	45.5	45.6	45.6	45.7	45.4	45.1	45.4	44.1	43.7	42.6
Fabricated metal products	42.1	42.9	42.7	42.9	42.9	42.9	43.0	43.0	43.2	43.1	42.8	42.0	42.1	42.2	41.9
Industrial machinery and equipment	43.0	43.7	43.6	43.6	43.8	43.7	43.8	43.8	44.0	44.0	43.9	43.3	43.4	43.3	43.1
Electronic and other electrical equipment	41.8	42.2	42.2	42.2	42.0	42.2	42.1	42.0	42.1	41.9	41.8	41.5	41.4	41.6	41.4
Transportation equipment	43.0	44.3	43.6	44.4	44.3	44.4	44.7	44.7	44.6	44.7	44.5	44.3	43.4	43.8	43.2
Motor vehicles and equipment	44.3	46.0	44.8	45.9	45.9	45.8	46.4	46.2	46.1	46.1	45.8	43.1	44.2	44.6	44.3
Instruments and related products	41.1	41.7	41.9	41.8	41.8	41.9	41.8	41.7	41.8	41.7	41.7	41.5	41.3	41.2	41.2
Miscellaneous manufacturing	39.8	40.0	40.2	40.0	39.9	40.1	40.0	39.9	40.1	40.2	39.9	40.1	39.8	40.0	39.4
Nondurable goods	40.6	40.9	41.1	40.9	41.0	41.0	41.0	41.1	41.0	41.0	40.9	40.4	40.4	40.5	40.4
Overtime hours	4.0	4.3	4.3	4.2	4.3	4.3	4.3	4.3	4.4	4.3	4.2	4.0	4.0	3.9	4.0
Food and kindred products	40.7	41.3	41.6	41.3	41.4	41.3	41.5	41.5	41.5	41.3	41.3	40.7	41.0	41.3	41.3
Textile mill products	41.4	41.6	41.7	41.6	41.6	41.8	41.5	41.6	41.8	41.9	41.8	41.0	40.4	40.3	40.2
Apparel and other textile products	37.2	37.5	37.6	37.6	37.6	37.7	37.6	37.7	37.5	37.7	37.6	37.0	36.9	36.9	36.6
Paper and allied products	43.6	43.9	44.2	44.1	43.9	44.0	43.9	44.0	44.0	43.9	43.7	43.0	42.9	42.9	43.0
Printing and publishing	38.3	38.6	38.6	38.6	38.6	38.7	38.6	38.7	38.5	38.5	38.4	38.2	38.4	38.1	38.2
Chemicals and allied products	43.1	43.2	43.3	43.2	43.2	43.4	43.4	43.2	43.3	43.4	43.4	43.4	43.2	43.5	43.2
Rubber and miscellaneous plastics products	41.8	42.2	42.3	42.2	42.3	42.3	42.3	42.3	42.3	42.3	42.0	41.2	41.6	41.4	41.1
Leather and leather products	38.6	38.6	38.0	38.6	38.6	39.0	38.7	38.6	38.0	38.4	38.4	38.1	38.5	38.3	36.5
SERVICE-PRODUCING	32.7	32.8	32.8	32.7	32.8	33.0	32.7	32.8	32.9	32.7	32.7	32.9	32.4	32.7	32.9
TRANSPORTATION AND PUBLIC UTILITIES	39.6	39.9	39.9	39.7	40.0	40.0	39.8	39.6	39.8	39.7	39.5	39.8	39.1	39.3	39.7
WHOLESALE TRADE	38.2	38.4	38.3	38.2	38.4	38.6	38.4	38.4	38.4	38.4	38.2	38.3	37.9	38.2	38.4
RETAIL TRADE	28.8	28.9	29.0	28.9	28.9	29.2	28.9	28.9	29.0	28.8	28.8	29.1	28.7	28.9	28.9

^P = preliminary

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

14. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls by industry, seasonally adjusted

Industry	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June ^P	July ^P
PRIVATE SECTOR (in current dollars)	\$10.83	\$11.13	\$11.13	\$11.14	\$11.18	\$11.25	\$11.24	\$11.27	\$11.29	\$11.32	\$11.34	\$11.40	\$11.37	\$11.42	\$11.49
Goods-producing	12.37	12.71	12.72	12.74	12.78	12.81	12.83	12.83	12.84	12.89	12.91	12.94	12.94	13.01	13.11
Mining	14.60	14.89	14.84	14.85	14.95	15.04	15.04	15.08	15.08	15.12	15.15	15.17	15.18	15.29	15.42
Construction	14.38	14.72	14.76	14.74	14.82	14.90	14.84	14.81	14.74	14.88	14.90	14.95	14.99	15.10	15.09
Manufacturing	11.74	12.06	12.06	12.09	12.12	12.14	12.17	12.18	12.21	12.24	12.25	12.28	12.28	12.31	12.42
Excluding overtime	11.18	11.42	11.42	11.44	11.47	11.49	11.52	11.53	11.56	11.60	11.61	11.72	11.67	11.71	11.81
Service-producing	10.30	10.57	10.57	10.57	10.62	10.70	10.68	10.71	10.74	10.76	10.79	10.87	10.83	10.87	10.94
Transportation and public utilities	13.62	13.86	13.84	13.87	13.88	13.99	14.02	14.01	14.03	14.00	14.05	14.15	14.13	14.18	14.22
Wholesale trade	11.74	12.05	12.06	12.05	12.08	12.22	12.15	12.20	12.23	12.24	12.27	12.41	12.31	12.37	12.45
Retail trade	7.29	7.49	7.50	7.51	7.53	7.56	7.56	7.60	7.59	7.60	7.61	7.63	7.65	7.67	7.72
Finance, insurance, and real estate	11.35	11.83	11.82	11.81	11.90	12.05	11.99	12.01	12.06	12.09	12.16	12.28	12.19	12.32	12.44
Services	10.78	11.05	11.06	11.06	11.11	11.20	11.17	11.21	11.26	11.28	11.30	11.39	11.34	11.37	11.43
PRIVATE SECTOR (in constant (1982) dollars)	7.39	7.41	7.39	7.37	7.38	7.42	7.40	7.40	7.39	7.39	7.38	7.40	7.36	7.39	-

- Data not available.

^P = preliminary

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

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

Industry	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June ^P	July ^P
PRIVATE SECTOR	\$10.83	\$11.13	\$11.05	\$11.05	\$11.22	\$11.28	\$11.27	\$11.28	\$11.36	\$11.36	\$11.36	\$11.41	\$11.38	\$11.36	\$11.41
MINING	14.60	14.89	14.73	14.69	14.92	14.91	14.97	15.09	15.25	15.26	15.24	15.31	15.21	15.24	15.30
CONSTRUCTION	14.38	14.72	14.75	14.79	14.97	15.05	14.87	14.83	14.67	14.82	14.84	14.88	14.96	14.99	15.09
MANUFACTURING	11.74	12.06	12.04	12.01	12.14	12.10	12.17	12.26	12.23	12.24	12.25	12.29	12.28	12.30	12.40
Durable goods	12.33	12.67	12.62	12.62	12.76	12.70	12.77	12.87	12.81	12.83	12.83	12.80	12.83	12.85	12.92
Lumber and wood products	9.61	9.84	9.87	9.87	9.95	9.96	9.93	9.97	9.95	9.94	9.95	9.98	10.01	10.10	10.20
Furniture and fixtures	9.27	9.55	9.54	9.56	9.69	9.70	9.67	9.76	9.67	9.66	9.67	9.75	9.71	9.79	9.88
Stone, clay, and glass products	11.85	12.13	12.17	12.19	12.27	12.22	12.21	12.21	12.19	12.23	12.25	12.43	12.31	12.35	12.44
Primary metal industries	13.99	14.33	14.40	14.34	14.40	14.37	14.44	14.53	14.54	14.43	14.41	14.72	14.50	14.61	14.65
Blast furnaces and basic steel products	16.36	16.85	16.93	16.95	17.05	17.08	17.13	17.16	17.30	17.09	17.03	17.50	17.23	17.38	17.27
Fabricated metal products	11.69	11.93	11.86	11.87	11.99	11.92	12.03	12.09	12.04	12.03	12.05	12.03	12.07	12.05	12.15
Industrial machinery and equipment	12.73	12.99	12.94	12.92	13.04	13.03	13.11	13.19	13.15	13.15	13.15	13.05	13.15	13.15	13.21
Electronic and other electrical equipment	11.24	11.50	11.56	11.52	11.57	11.51	11.54	11.59	11.59	11.53	11.54	11.51	11.55	11.59	11.67
Transportation equipment	15.80	16.48	16.41	16.44	16.71	16.52	16.62	16.83	16.60	16.71	16.66	16.48	16.57	16.62	16.81
Motor vehicles and equipment	16.10	16.98	16.89	16.92	17.27	16.98	17.11	17.37	17.12	17.26	17.23	17.03	17.13	17.17	17.47
Instruments and related products	12.23	12.47	12.46	12.48	12.55	12.54	12.55	12.63	12.54	12.63	12.63	12.69	12.66	12.68	12.78
Miscellaneous manufacturing	9.39	9.66	9.61	9.63	9.71	9.72	9.79	9.90	9.98	9.94	9.90	9.95	9.98	9.95	10.04
Nondurable goods	10.98	11.25	11.28	11.20	11.31	11.30	11.35	11.42	11.44	11.43	11.45	11.58	11.52	11.55	11.69
Food and kindred products	10.45	10.66	10.68	10.59	10.64	10.65	10.81	10.85	10.85	10.83	10.87	10.93	10.91	10.92	10.93
Tobacco products	16.89	19.10	20.60	18.91	18.89	18.71	19.46	18.64	18.71	19.67	20.44	20.12	21.05	21.75	22.08
Textile mill products	8.88	9.13	9.12	9.12	9.20	9.19	9.26	9.31	9.35	9.31	9.30	9.36	9.35	9.39	9.39
Apparel and other textile products	7.09	7.34	7.31	7.36	7.44	7.43	7.45	7.47	7.53	7.48	7.51	7.61	7.56	7.60	7.60
Paper and allied products	13.42	13.77	13.83	13.80	13.96	13.89	13.92	13.98	14.01	14.02	14.03	14.27	14.17	14.14	14.43
Printing and publishing	11.93	12.13	12.12	12.12	12.26	12.23	12.20	12.26	12.24	12.24	12.26	12.21	12.22	12.25	12.37
Chemicals and allied products	14.82	15.14	15.16	15.08	15.27	15.30	15.29	15.42	15.40	15.42	15.43	15.72	15.53	15.52	15.72
Petroleum and coal products	18.53	19.07	18.94	18.76	19.32	19.29	19.25	19.32	19.19	19.55	19.38	19.57	19.18	19.15	19.39
Rubber and miscellaneous plastics products	10.57	10.70	10.75	10.65	10.65	10.66	10.69	10.79	10.82	10.76	10.80	10.77	10.86	10.90	11.02
Leather and leather products	7.63	7.98	7.98	7.97	7.99	8.03	8.05	8.06	8.13	8.14	8.13	8.32	8.19	8.13	8.04
TRANSPORTATION AND PUBLIC UTILITIES	13.62	13.86	13.81	13.84	13.91	14.01	14.07	14.04	14.08	14.04	14.06	14.14	14.07	14.08	14.19
WHOLESALE TRADE	11.74	12.05	12.04	12.00	12.09	12.20	12.15	12.21	12.30	12.28	12.25	12.45	12.32	12.32	12.43
RETAIL TRADE	7.29	7.49	7.46	7.44	7.54	7.57	7.57	7.59	7.64	7.63	7.63	7.65	7.65	7.65	7.67
FINANCE, INSURANCE, AND REAL ESTATE	11.35	11.83	11.72	11.73	11.85	12.02	11.98	12.05	12.17	12.19	12.21	12.32	12.24	12.21	12.33
SERVICES	10.78	11.05	10.90	10.90	11.11	11.20	11.22	11.29	11.39	11.38	11.36	11.40	11.34	11.24	11.27

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

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

Industry	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June ^P	July ^P
PRIVATE SECTOR															
Current dollars	\$373.64	\$386.21	\$386.75	\$386.75	\$390.46	\$394.80	\$389.94	\$392.54	\$390.78	\$388.51	\$389.65	\$391.36	\$390.33	\$393.06	\$398.21
Seasonally adjusted	-	-	386.21	385.44	387.95	392.63	388.90	391.07	392.89	391.67	392.36	394.44	388.85	393.99	397.55
Constant (1982) dollars	254.87	256.96	256.98	255.79	257.56	260.25	256.54	258.42	256.25	253.93	253.84	253.96	252.80	254.08	-
MINING	646.78	665.58	661.38	661.05	677.37	673.93	679.64	680.56	683.20	677.54	670.56	678.23	673.80	684.28	680.85
CONSTRUCTION	553.63	572.61	587.05	588.64	598.80	595.98	572.50	573.92	553.06	546.86	565.40	559.49	574.46	593.60	603.60
MANUFACTURING															
Current dollars	486.04	506.52	500.86	504.42	514.74	511.83	517.23	525.95	513.66	510.41	510.83	496.52	508.39	511.68	505.92
Constant (1982) dollars	331.54	337.01	332.80	333.61	339.54	337.40	340.28	346.25	336.83	333.80	332.79	322.21	329.27	330.76	-
Durable goods	519.09	542.28	532.56	538.87	549.96	547.37	552.94	563.71	549.55	546.56	546.56	524.80	541.43	544.84	533.60
Lumber and wood products	392.09	405.41	404.67	410.59	412.93	414.34	409.12	414.75	404.97	397.60	401.98	400.20	406.41	412.08	406.98
Furniture and fixtures	371.73	385.82	383.51	389.09	399.23	399.64	396.47	406.02	392.60	383.50	381.00	367.58	375.78	385.73	381.37
Stone, clay, and glass products	506.00	526.44	533.05	536.36	542.33	540.12	533.58	528.69	515.64	512.44	520.63	525.79	529.33	537.23	538.65
Primary metal industries	611.36	640.55	639.36	636.70	648.00	642.34	652.69	662.57	652.85	643.58	639.80	637.38	636.55	642.84	624.09
Blast furnaces and basic steel products	721.48	756.57	766.93	764.45	780.89	772.02	779.42	787.64	787.15	769.05	761.24	794.50	759.84	764.72	744.34
Fabricated metal products	492.15	511.80	498.12	508.04	517.97	514.94	523.31	531.96	518.92	513.68	512.13	484.81	508.15	510.92	499.37
Industrial machinery and equipment	547.39	567.66	557.71	556.85	569.85	569.41	575.53	590.91	581.23	578.60	577.29	545.49	570.71	569.40	562.75
Electronic and other electrical equipment	469.83	485.30	479.74	483.84	488.25	486.87	491.60	499.53	489.10	478.50	478.91	462.70	477.02	482.14	474.97
Transportation equipment	679.40	730.06	697.43	725.00	748.61	735.14	747.90	767.45	735.38	741.92	741.37	693.81	724.11	731.28	706.02
Motor vehicles and equipment	713.23	781.08	729.65	771.55	801.33	779.38	797.33	818.13	780.67	792.23	790.86	730.59	769.14	774.37	744.22
Instruments and related products	502.65	520.00	515.84	517.92	524.59	524.17	528.36	538.04	525.43	524.15	526.67	513.95	521.59	523.68	520.15
Miscellaneous manufacturing	373.72	386.40	379.60	384.24	389.37	394.63	398.45	399.96	397.20	395.61	395.01	387.06	395.21	397.01	388.55
Nondurable goods	445.79	460.13	460.22	460.32	468.23	466.69	471.03	476.21	465.61	462.92	463.73	458.57	464.26	467.78	468.77
Food and kindred products	425.32	440.26	444.29	442.66	450.07	445.17	456.18	457.87	445.94	438.62	441.32	435.01	444.04	449.90	451.41
Tobacco products	631.69	750.63	782.80	746.95	778.27	783.95	776.45	767.97	731.56	759.26	778.76	774.62	844.11	904.80	867.74
Textile mill products	367.63	379.81	375.74	382.13	387.32	385.98	387.07	391.02	388.03	383.57	383.16	373.46	378.68	383.11	372.78
Apparel and other textile products	263.75	275.25	272.66	278.21	281.23	282.34	283.10	284.61	280.12	279.00	280.12	270.92	279.72	282.72	275.88
Paper and allied products	585.11	604.50	607.14	605.82	619.82	615.33	615.26	626.30	616.44	607.07	604.69	603.62	606.48	606.61	616.16
Printing and publishing	456.92	468.22	464.20	469.04	479.37	475.75	477.02	481.82	466.34	466.34	470.78	460.32	464.36	463.05	468.82
Chemicals and allied products	638.74	654.05	653.40	646.93	658.14	664.02	668.17	678.48	666.82	666.14	668.12	680.68	670.90	675.12	675.96
Petroleum and coal products	819.03	846.71	829.57	816.06	894.52	869.98	854.70	853.94	840.52	868.02	841.09	859.12	828.58	836.86	851.22
Rubber and miscellaneous plastics products	441.83	451.54	447.20	448.37	450.50	450.92	455.39	463.97	456.80	451.92	451.44	434.03	451.78	453.44	445.21
Leather and leather products	294.52	308.03	302.44	307.84	310.81	314.78	313.95	314.34	307.31	309.32	309.75	308.67	315.32	314.63	292.66
TRANSPORTATION AND PUBLIC UTILITIES	539.35	553.01	556.54	556.37	557.79	563.20	559.99	555.98	554.75	551.77	549.75	559.94	551.54	556.16	569.02
WHOLESALE TRADE	448.47	462.72	462.34	459.60	464.26	472.14	466.56	470.09	469.86	467.87	465.50	476.84	469.39	471.86	478.56
RETAIL TRADE	209.95	216.46	222.31	220.97	218.66	220.29	217.26	222.39	215.45	214.40	215.93	221.09	219.56	223.38	227.80
FINANCE, INSURANCE, AND REAL ESTATE	406.33	423.51	418.40	416.42	420.68	435.12	425.29	430.19	441.77	435.18	433.46	447.22	433.30	434.68	448.81
SERVICES	350.35	359.13	356.43	356.43	359.96	366.24	362.41	365.80	369.04	367.57	365.79	370.50	364.01	365.30	370.78

- Data not available.

^P = preliminary

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

17. Diffusion indexes of employment change, seasonally adjusted

(In percent)

Time span and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Private nonfarm payrolls, 356 industries												
Over 1-month span:												
1993	57.6	61.5	51.4	58.3	61.4	55.1	57.7	56.3	61.4	59.7	61.1	60.7
1994	60.0	63.3	65.9	62.4	58.0	63.8	60.5	61.5	60.7	61.1	65.3	61.1
1995	60.3	61.7	57.6	51.3	46.2	54.6	48.6	-	-	-	-	-
Over 3-month span:												
1993	64.0	61.2	61.8	58.8	61.4	61.8	59.3	61.8	62.6	66.7	65.7	63.6
1994	68.8	70.9	69.8	67.1	66.0	66.0	68.4	68.3	67.8	67.3	68.1	67.4
1995	66.4	64.9	57.9	49.3	50.0	47.2	-	-	-	-	-	-
Over 6-month span:												
1993	63.2	63.8	62.8	64.2	60.8	63.9	64.5	64.7	66.2	67.3	70.8	70.8
1994	71.2	70.2	70.5	69.5	69.8	69.1	70.5	70.9	69.0	69.0	67.4	67.0
1995	65.9	58.8	55.8	51.7	-	-	-	-	-	-	-	-
Over 12-month span:												
1993	64.9	63.9	64.0	65.4	67.0	67.6	67.6	67.0	70.2	69.4	68.8	69.4
1994	68.4	70.8	71.9	70.2	69.5	69.7	70.4	70.8	70.4	70.2	66.0	64.9
1995	62.4	-	-	-	-	-	-	-	-	-	-	-
Manufacturing payrolls, 139 industries												
Over 1-month span:												
1993	52.2	57.9	52.9	44.2	51.4	46.0	50.7	48.6	56.1	54.7	56.5	54.3
1994	59.4	61.2	59.4	56.5	55.0	59.0	54.0	56.5	53.2	59.4	59.0	57.6
1995	56.8	54.7	49.6	44.2	36.7	41.0	35.3	-	-	-	-	-
Over 3-month span:												
1993	60.8	60.4	57.2	46.4	46.4	50.7	49.6	54.3	53.2	60.1	56.1	57.6
1994	65.1	66.5	64.4	59.0	58.6	58.3	61.5	59.0	61.5	60.4	64.0	62.2
1995	61.5	56.1	47.1	35.6	32.0	25.2	-	-	-	-	-	-
Over 6-month span:												
1993	57.6	56.5	56.1	55.0	49.3	52.2	55.4	57.9	56.8	57.6	65.1	62.9
1994	61.9	62.9	64.4	61.5	60.8	59.0	62.2	62.6	61.5	64.0	61.5	61.5
1995	57.2	47.1	39.6	29.1	-	-	-	-	-	-	-	-
Over 12-month span:												
1993	56.8	57.9	55.8	58.6	57.2	57.6	58.6	59.0	61.2	60.4	60.1	59.4
1994	58.3	59.7	61.9	61.5	61.5	61.5	61.9	63.3	61.5	59.7	56.5	49.6
1995	45.7	-	-	-	-	-	-	-	-	-	-	-

- Data not available.

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing

employment. Data for the 2 most recent months shown in each span are preliminary. See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

18. Annual data: Employment status of the population

(Numbers in thousands)

Employment status	1986	1987	1988	1989	1990	1991	1992	1993	1994
Civilian noninstitutional population	180,587	182,753	184,613	186,393	188,049	189,765	191,576	193,550	196,814
Civilian labor force	117,834	119,865	121,669	123,869	124,787	125,303	126,982	128,040	131,056
Labor force participation rate	65.3	65.6	65.9	66.5	66.4	66.0	66.3	66.2	66.6
Employed	109,597	112,440	114,968	117,342	117,914	116,877	117,598	119,306	123,060
Employment-population ratio	60.7	61.5	62.3	63.0	62.7	61.6	61.4	61.6	62.5
Agriculture	3,163	3,208	3,169	3,199	3,186	3,233	3,207	3,074	3,409
Nonagricultural industries	106,434	109,232	111,800	114,142	114,728	113,644	114,391	116,232	119,651
Unemployed	8,237	7,425	6,701	6,528	6,874	8,426	9,384	8,734	7,996
Unemployment rate	7.0	6.2	5.5	5.3	5.5	6.7	7.4	6.8	6.1
Not in labor force	62,752	62,888	62,944	62,523	63,262	64,462	64,593	65,509	65,758

20. Annual data: Average hours and earnings of production or nonsupervisory workers on nonfarm payrolls, by industry

Industry	1986	1987	1988	1989	1990	1991	1992	1993	1994
Private sector:									
Average weekly hours	34.8	34.8	34.7	34.6	34.5	34.3	34.4	34.5	34.7
Average hourly earnings (in dollars)	8.76	8.98	9.28	9.66	10.01	10.32	10.57	10.83	11.13
Average weekly earnings (in dollars)	304.85	312.50	322.02	334.24	345.35	353.98	363.61	373.64	386.21
Mining:									
Average weekly hours	42.2	42.4	42.3	43.0	44.1	44.4	43.9	44.3	44.7
Average hourly earnings (in dollars)	12.46	12.54	12.80	13.26	13.88	14.19	14.54	14.60	14.89
Average weekly earnings (in dollars)	525.81	531.70	541.44	570.18	603.29	630.04	638.31	646.78	665.58
Construction:									
Average weekly hours	37.4	37.8	37.9	37.9	38.2	38.1	38.0	38.5	38.9
Average hourly earnings (in dollars)	12.48	12.71	13.08	13.54	13.77	14.00	14.15	14.38	14.72
Average weekly earnings (in dollars)	466.75	480.44	495.73	513.17	526.01	533.40	537.70	553.63	572.61
Manufacturing:									
Average weekly hours	40.7	41.0	41.1	41.0	40.8	40.7	41.0	41.4	42.0
Average hourly earnings (in dollars)	9.73	9.91	10.19	10.48	10.83	11.18	11.46	11.74	12.06
Average weekly earnings (in dollars)	396.01	406.31	418.81	429.68	441.86	455.03	469.86	486.04	506.52
Transportation and public utilities:									
Average weekly hours	39.2	39.2	38.8	38.9	38.9	38.7	38.9	39.6	39.9
Average hourly earnings (in dollars)	11.70	12.03	12.26	12.60	12.97	13.22	13.45	13.62	13.86
Average weekly earnings (in dollars)	458.64	471.58	475.69	490.14	504.53	511.61	523.21	539.35	553.01
Wholesale trade:									
Average weekly hours	38.3	38.1	38.1	38.0	38.1	38.1	38.2	38.2	38.4
Average hourly earnings (in dollars)	9.34	9.59	9.98	10.39	10.79	11.15	11.39	11.74	12.05
Average weekly earnings (in dollars)	357.72	365.38	380.24	394.82	411.10	424.82	435.10	448.47	462.72
Retail trade:									
Average weekly hours	29.2	29.2	29.1	28.9	28.8	28.6	28.8	28.8	28.9
Average hourly earnings (in dollars)	6.03	6.12	6.31	6.53	6.75	6.94	7.12	7.29	7.49
Average weekly earnings (in dollars)	176.08	178.70	183.62	188.72	194.40	198.48	205.06	209.95	216.46
Finance, insurance, and real estate:									
Average weekly hours	36.4	36.3	35.9	35.8	35.8	35.7	35.8	35.8	35.8
Average hourly earnings (in dollars)	8.36	8.73	9.06	9.53	9.97	10.39	10.82	11.35	11.83
Average weekly earnings (in dollars)	304.30	316.90	325.25	341.17	356.93	370.92	387.36	406.33	423.51
Services:									
Average weekly hours	32.5	32.5	32.6	32.6	32.5	32.4	32.5	32.5	32.5
Average hourly earnings (in dollars)	8.18	8.49	8.88	9.38	9.83	10.23	10.54	10.78	11.05
Average weekly earnings (in dollars)	265.85	275.93	289.49	305.79	319.48	331.45	342.55	350.35	359.13

19. Annual data: Employment levels by industry

(In thousands)

Industry	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total employment	99,344	101,958	105,210	107,895	109,419	108,256	108,604	110,730	114,034
Private sector	82,651	84,948	87,824	90,117	91,115	89,854	89,959	91,889	94,917
Goods-producing	24,533	24,674	25,125	25,254	24,905	23,745	23,231	23,352	23,913
Mining	777	717	713	692	709	689	635	610	600
Construction	4,810	4,958	5,098	5,171	5,120	4,650	4,492	4,668	5,010
Manufacturing	18,947	18,999	19,314	19,391	19,076	18,406	18,104	18,075	18,303
Service-producing	74,811	77,284	80,086	82,642	84,514	84,511	85,373	87,378	90,121
Transportation and public utilities	5,247	5,362	5,514	5,625	5,793	5,762	5,721	5,829	6,006
Wholesale trade	5,761	5,848	6,030	6,187	6,173	6,081	5,997	5,981	6,140
Retail trade	17,880	18,422	19,023	19,475	19,601	19,284	19,356	19,773	20,437
Finance, insurance, and real estate	6,273	6,533	6,630	6,668	6,709	6,646	6,602	6,757	6,933
Services	22,957	24,110	25,504	26,907	27,934	28,336	29,052	30,197	31,488
Government	16,693	17,010	17,386	17,779	18,304	18,402	18,645	18,841	19,118
Federal	2,899	2,943	2,971	2,988	3,085	2,966	2,969	2,915	2,870
State	3,893	3,967	4,076	4,182	4,305	4,355	4,408	4,488	4,562
Local	9,901	10,100	10,339	10,609	10,914	11,081	11,267	11,438	11,685

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

21. Employment Cost Index, compensation,¹ by occupation and industry group

(June 1989=100)

Series	1993			1994			1995			Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 1995										
Civilian workers²	118.3	119.5	120.2	121.3	122.1	123.3	123.8	124.8	125.6	0.6	2.9
Workers, by occupational group:											
White-collar workers	118.6	119.9	120.6	121.8	122.6	123.9	124.4	125.5	126.3	.6	3.0
Professional specialty and technical	120.6	122.0	122.5	123.7	124.2	125.7	126.2	127.0	127.5	.4	2.7
Executive, administrative, and managerial	117.5	118.6	119.4	120.6	121.6	122.9	123.6	125.2	125.7	.4	3.4
Administrative support, including clerical	119.3	120.4	121.3	122.6	123.5	124.6	125.2	126.5	127.3	.6	3.1
Blue-collar workers	117.8	118.8	119.4	120.4	121.3	122.4	122.7	123.6	124.5	.7	2.6
Service occupations	118.7	119.9	120.5	121.6	122.1	123.5	124.3	125.0	125.8	.6	3.0
Workers, by industry division:											
Goods-producing	119.1	120.0	120.6	121.9	123.0	123.9	124.4	125.3	126.0	.6	2.4
Manufacturing	119.7	120.6	121.3	122.5	123.5	124.4	125.1	126.2	126.9	.6	2.8
Service-producing	118.0	119.3	120.0	121.0	121.7	123.1	123.6	124.6	125.5	.7	3.1
Services	120.6	122.2	122.9	123.8	124.2	125.8	126.4	127.2	127.8	.5	2.9
Health services	123.2	124.4	125.4	126.1	126.6	127.8	128.5	129.4	130.2	.6	2.8
Hospitals	122.6	123.9	125.0	125.9	126.4	127.5	128.4	128.8	129.7	.7	2.6
Educational services	120.2	122.6	122.9	123.2	123.6	126.0	126.4	126.9	127.4	.4	3.1
Public administration ³	118.0	119.3	120.0	121.5	122.2	123.7	124.2	125.4	126.1	.6	3.2
Nonmanufacturing	117.9	119.2	119.8	120.9	121.7	123.0	123.4	124.4	125.2	.6	2.9
Private industry workers	118.0	119.1	119.8	121.0	122.0	123.0	123.5	124.5	125.4	.7	2.8
Excluding sales occupations	118.5	119.5	120.2	121.4	122.3	123.4	123.9	125.0	125.7	.6	2.8
Workers, by occupational group:											
White-collar workers	118.3	119.4	120.2	121.5	122.5	123.5	124.1	125.3	126.2	.7	3.0
Excluding sales occupations	119.2	120.2	121.0	122.4	123.3	124.4	125.1	126.3	127.0	.6	3.0
Professional specialty and technical occupations	121.3	122.2	122.9	124.6	125.3	126.3	126.8	127.7	128.4	.5	2.5
Executive, administrative, and managerial occupations	117.2	118.1	118.9	120.3	121.3	122.6	123.3	124.9	125.4	.4	3.4
Sales occupations	113.8	115.6	116.5	117.2	118.8	119.2	119.6	120.2	122.4	1.8	3.0
Administrative support occupations, including clerical	119.2	120.3	121.2	122.5	123.5	124.5	125.1	126.5	127.3	.6	3.1
Blue-collar workers	117.7	118.7	119.3	120.3	121.2	122.3	122.6	123.5	124.4	.7	2.6
Precision production, craft, and repair occupations	117.6	118.7	118.9	120.2	121.2	122.5	122.5	123.4	124.4	.8	2.6
Machine operators, assemblers, and inspectors	119.0	120.0	120.8	121.3	122.2	122.9	123.4	124.2	124.8	.5	2.1
Transportation and material moving occupations	115.2	115.9	117.0	118.5	119.1	120.3	120.6	121.8	122.4	.5	2.8
Handlers, equipment cleaners, helpers, and laborers	117.6	118.4	119.1	120.2	121.4	122.7	122.9	124.1	125.3	1.0	3.2
Service occupations	118.0	118.9	119.5	120.6	121.0	121.8	122.9	123.4	124.0	.5	2.5
Production and nonsupervisory occupations ⁴	117.9	119.0	119.7	120.7	121.6	122.6	123.1	124.1	125.0	.7	2.8
Workers, by industry division:											
Goods-producing	119.1	119.9	120.6	121.8	123.0	123.9	124.3	125.3	125.9	.5	2.4
Excluding sales occupations	118.8	119.6	120.1	121.4	122.5	123.5	124.0	124.9	125.6	.6	2.5
White-collar occupations	119.6	120.5	121.1	123.0	124.3	125.1	125.9	127.2	127.6	.3	2.7
Excluding sales occupations	119.0	119.7	119.9	121.9	123.2	124.1	125.0	126.2	126.7	.4	2.8
Blue-collar occupations	118.7	119.6	120.2	121.1	122.2	123.1	123.4	124.1	124.9	.6	2.2
Service occupations	120.6	121.5	122.4	123.5	123.8	126.5	126.3	127.3	127.9	.5	3.3
Construction	116.0	116.8	116.5	118.6	120.2	121.4	120.8	121.1	122.0	.7	1.5
Manufacturing	119.7	120.6	121.3	122.5	123.5	124.4	125.1	126.2	126.9	.6	2.8
White-collar occupations	119.7	120.5	121.3	122.7	123.9	124.9	126.0	127.4	128.0	.5	3.3
Excluding sales occupations	118.8	119.5	119.9	121.3	122.5	123.6	124.9	126.1	126.6	.4	3.3
Blue-collar occupations	119.6	120.5	121.3	122.3	123.2	124.0	124.5	125.3	126.0	.6	2.3
Service occupations	120.7	121.7	122.7	123.8	124.1	127.0	127.0	128.0	128.6	.5	3.6
Durables	120.0	121.0	121.9	122.9	123.8	125.1	125.8	127.0	127.7	.6	3.2
Nondurables	119.0	119.7	120.3	121.7	122.8	123.2	123.8	124.7	125.4	.6	2.1
Service-producing	117.3	118.5	119.3	120.4	121.2	122.3	122.8	123.9	124.9	.8	3.1
Excluding sales occupations	118.3	119.3	120.2	121.4	122.1	123.3	123.8	125.0	125.8	.6	3.0
White-collar occupations	117.8	119.0	119.8	121.0	121.9	122.9	123.4	124.6	125.6	.8	3.0
Excluding sales occupations	119.3	120.4	121.4	122.7	123.4	124.6	125.1	126.4	127.1	.6	3.0
Blue-collar occupations	115.5	116.6	117.2	118.4	119.1	120.6	120.7	122.1	123.1	.8	3.4
Service occupations	117.7	118.6	119.1	120.2	120.7	121.3	122.5	123.0	123.6	.5	2.4
Transportation and public utilities	116.0	116.8	117.5	119.2	119.8	121.4	122.1	124.0	124.7	.6	4.1
Transportation	114.1	114.8	115.7	117.1	117.7	119.7	120.3	122.3	123.0	.6	4.5
Public utilities	118.3	119.2	119.9	121.7	122.6	123.6	124.4	126.1	126.8	.6	3.4
Communications	117.5	118.5	119.2	121.0	122.1	122.9	124.0	126.3	126.6	.2	3.7
Electric, gas, and sanitary services	119.4	120.2	120.8	122.7	123.2	124.4	124.8	125.9	127.0	.9	3.1
Wholesale and retail trade	115.9	116.4	117.1	117.6	119.4	120.5	120.6	121.7	122.8	.9	2.8
Excluding sales occupations	116.2	117.0	118.0	118.6	119.8	120.9	120.9	122.4	123.1	.6	2.8
Wholesale trade	116.4	116.6	117.8	117.9	119.7	120.6	121.5	123.2	124.8	1.3	4.3
Excluding sales occupations	116.8	117.6	118.7	119.3	120.3	121.3	122.0	124.4	125.1	.6	4.0
Retail trade	115.6	116.2	116.8	117.5	119.2	120.4	120.1	120.9	121.8	.7	2.2
Food stores	117.2	117.1	118.3	119.6	120.6	120.3	120.0	120.8	120.7	-.1	.1
General merchandise stores	114.7	115.5	116.3	115.3	118.0	118.7	119.3	120.1	120.7	.5	2.3

See footnotes at end of table.

21. Continued—Employment Cost Index, compensation,¹ by occupation and industry group

(June 1989=100)

Series	1993			1994				1995		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 1995	
Finance, insurance, and real estate	113.1	115.7	116.4	117.7	117.7	118.5	118.9	120.2	121.8	1.3	3.5
Excluding sales occupations	116.4	117.5	118.2	119.7	120.3	121.5	121.8	123.7	124.6	.7	3.6
Banking, savings and loan, and other credit agencies	116.0	116.9	117.8	118.7	119.4	120.8	120.5	123.5	124.1	.5	3.9
Insurance	116.1	117.4	119.7	119.9	120.5	121.5	122.3	123.5	124.6	.9	3.4
Services	120.9	122.3	123.1	124.4	124.9	125.9	126.6	127.5	128.2	.5	2.6
Business services	117.4	118.1	118.6	121.3	122.1	122.4	123.0	124.5	125.3	.6	2.6
Health services	124.0	125.0	126.0	126.7	127.1	127.9	128.7	129.7	130.3	.5	2.5
Hospitals	123.4	124.5	125.6	126.7	127.1	127.7	128.6	128.9	129.7	.6	2.0
Educational services	120.6	123.8	124.1	124.5	125.4	128.2	128.4	128.8	130.3	1.2	3.9
Colleges and universities	121.5	125.0	125.3	125.7	128.0	128.5	128.8	129.3	131.3	1.5	4.2
Nonmanufacturing	117.2	118.4	119.0	120.3	121.2	122.3	122.6	123.7	124.6	.7	2.8
White-collar occupations	117.9	119.0	119.9	121.1	122.1	123.1	123.5	124.7	125.6	.7	2.9
Excluding sales occupations	119.4	120.4	121.4	122.8	123.6	124.7	125.1	126.4	127.1	.6	2.8
Blue-collar occupations	115.6	116.6	117.1	118.2	119.1	120.5	120.5	121.5	122.5	.8	2.9
Service occupations	117.7	118.6	119.1	120.2	120.7	121.3	122.4	123.0	123.5	.4	2.3
State and local government workers	119.6	121.4	121.9	122.6	123.1	125.0	125.6	126.4	126.9	.4	3.1
Workers, by occupational group:											
White-collar workers	119.6	121.5	121.9	122.6	122.9	124.9	125.5	126.2	126.6	.3	3.0
Professional specialty and technical	119.7	121.7	122.0	122.5	122.7	125.0	125.5	126.0	126.3	.2	2.9
Executive, administrative, and managerial	119.2	121.0	121.6	122.8	123.4	124.7	125.3	126.9	127.4	.4	3.2
Administrative support, including clerical	119.6	121.0	121.6	122.7	123.3	124.9	125.6	126.3	126.9	.5	2.9
Blue-collar workers	118.7	120.5	121.4	122.3	122.7	124.2	124.7	125.4	126.3	.7	2.9
Workers, by industry division:											
Services	120.2	122.2	122.6	123.1	123.4	125.6	126.1	126.7	127.1	.3	3.0
Services excluding schools ⁵	120.0	121.4	121.9	122.8	123.3	124.9	125.6	126.4	127.7	1.0	3.6
Health services	120.7	122.2	123.1	124.2	125.2	127.2	127.7	128.4	129.8	1.1	3.7
Hospitals	120.4	122.0	123.3	123.7	124.5	127.0	127.7	128.4	129.9	1.2	4.3
Educational services	120.1	122.3	122.7	122.9	123.1	125.5	126.0	126.5	126.8	.2	3.0
Schools	120.3	122.5	122.9	123.2	123.4	125.9	126.3	126.8	127.1	.2	3.0
Elementary and secondary	120.8	123.0	123.6	123.7	123.8	126.3	126.5	127.1	127.4	.2	2.9
Colleges and universities	118.5	120.8	120.7	121.5	122.0	124.5	125.5	126.0	126.1	.1	3.4
Public administration ³	118.0	119.3	120.0	121.5	122.2	123.7	124.2	125.4	126.1	.6	3.2

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

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

³ Consist of legislative, judicial, administrative, and regulatory activities.

⁴ This series has the same industry and occupational coverage as the Hourly Earnings Index, which was discontinued in January 1989.

⁵ Includes, for example, library, social, and health services.

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

(June 1989=100)

Series	1993				1994				1995				Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended	June 1995		
Civilian workers¹	115.2	116.4	117.1	117.8	118.6	119.8	120.4	121.3	122.2	0.7	3.0			
Workers, by occupational group:														
White-collar workers	116.0	117.4	118.1	118.8	119.7	120.8	121.5	122.4	123.1	.6	2.8			
Professional specialty and technical	118.0	119.5	120.0	120.7	121.3	122.8	123.5	124.2	124.7	.4	2.8			
Executive, administrative, and managerial	115.5	116.5	117.3	118.1	119.0	120.2	120.8	122.2	122.8	.5	3.2			
Administrative support, including clerical	116.1	117.1	118.0	118.9	119.8	120.9	121.6	122.8	123.4	.5	3.0			
Blue-collar workers	113.4	114.4	115.0	115.8	116.7	117.8	118.2	119.2	120.3	.9	3.1			
Service occupations	115.2	116.1	116.6	117.5	118.1	119.4	120.4	121.2	121.8	.5	3.1			
Workers, by industry division:														
Goods-producing	114.6	115.4	116.2	117.0	118.0	119.0	119.6	120.5	121.4	.7	2.9			
Manufacturing	115.5	116.3	117.3	118.0	119.0	120.0	120.8	121.9	122.9	.8	3.3			
Service-producing	115.5	116.8	117.5	118.2	118.9	120.2	120.7	121.7	122.5	.7	3.0			
Services	117.8	119.5	120.0	120.9	121.3	122.8	123.5	124.4	124.8	.3	2.9			
Health services	120.3	121.4	122.2	122.8	123.4	124.4	125.4	126.1	126.6	.4	2.6			
Hospitals	119.5	120.7	121.7	122.4	123.0	124.0	124.9	125.5	126.0	.4	2.4			
Educational services	118.0	120.4	120.7	121.0	121.3	123.8	124.3	125.0	125.1	.1	3.1			
Public administration ²	114.9	115.9	116.6	117.9	118.5	119.9	120.6	121.9	122.3	.3	3.2			
Nonmanufacturing	115.1	116.4	117.0	117.7	118.5	119.7	120.2	121.1	121.9	.7	2.9			
Private industry workers	114.6	115.7	116.4	117.2	118.1	119.1	119.7	120.6	121.5	.7	2.9			
Excluding sales occupations	115.0	115.9	116.6	117.5	118.3	119.4	120.0	121.0	121.8	.7	3.0			
Workers, by occupational group:														
White-collar workers	115.5	116.7	117.5	118.3	119.3	120.2	120.8	121.7	122.7	.8	2.8			
Excluding sales occupations	116.4	117.4	118.2	119.0	119.9	121.0	121.7	122.8	123.4	.5	2.9			
Professional specialty and technical occupations	117.9	118.9	119.5	120.4	121.3	122.2	123.0	123.7	124.4	.6	2.6			
Executive, administrative, and managerial occupations	115.3	116.2	117.0	117.8	118.8	120.0	120.5	121.9	122.5	.5	3.1			
Sales occupations	111.6	113.8	114.7	114.8	116.2	116.5	116.7	116.9	119.3	2.1	2.7			
Administrative support occupations, including clerical	116.1	117.1	118.0	119.0	119.9	120.9	121.6	122.9	123.5	.5	3.0			
Blue-collar workers	113.2	114.1	114.8	115.6	116.5	117.5	118.0	119.0	120.1	.9	3.1			
Precision production, craft, and repair occupations	113.2	114.2	114.7	115.5	116.5	117.8	117.9	118.8	119.9	.9	2.9			
Machine operators, assemblers, and inspectors	113.8	114.7	115.6	116.2	117.2	118.0	118.8	119.6	120.9	1.1	3.2			
Transportation and material moving occupations	111.2	111.7	112.6	113.5	114.0	115.2	115.6	117.0	117.8	.7	3.3			
Handlers, equipment cleaners, helpers, and laborers	114.3	114.9	115.7	116.6	117.3	117.9	118.9	120.1	121.2	.9	3.3			
Service occupations	114.1	114.9	115.3	116.3	116.8	117.6	118.8	119.4	120.0	.5	2.7			
Production and nonsupervisory occupations ³	114.2	115.3	115.9	116.6	117.5	118.5	119.1	119.9	121.0	.9	3.0			
Workers, by industry division:														
Goods-producing	114.5	115.3	116.1	116.9	118.0	118.9	119.6	120.4	121.4	.8	2.9			
Excluding sales occupations	114.2	114.9	115.6	116.4	117.4	118.4	119.1	119.9	120.9	.8	3.0			
White-collar occupations	116.4	117.3	118.2	119.1	120.3	121.1	122.0	123.0	123.8	.7	2.9			
Excluding sales occupations	115.6	116.4	116.8	117.7	118.8	119.8	120.8	121.8	122.5	.6	3.1			
Blue-collar occupations	113.4	114.1	114.9	115.6	116.6	117.5	118.1	118.8	119.9	.9	2.8			
Service occupations	114.4	115.7	116.9	116.4	117.7	120.1	119.7	120.6	121.9	1.1	3.6			
Construction	110.4	111.3	111.1	112.2	113.6	114.6	114.7	114.8	115.7	.8	1.8			
Manufacturing	115.5	116.3	117.3	118.0	119.0	120.0	120.8	121.9	122.9	.8	3.3			
White-collar occupations	116.9	117.7	118.8	119.5	120.6	121.7	122.7	123.9	124.7	.6	3.4			
Excluding sales occupations	115.9	116.7	117.2	118.0	119.1	120.2	121.4	122.4	123.2	.7	3.4			
Blue-collar occupations	114.5	115.2	116.2	116.9	117.8	118.7	119.5	120.4	121.6	1.0	3.2			
Service occupations	114.5	116.0	117.3	116.8	118.2	120.6	120.6	121.5	122.8	1.1	3.9			
Durables	115.1	115.9	117.2	117.8	118.7	119.8	120.8	121.9	122.9	.8	3.5			
Nondurables	116.3	116.9	117.5	118.3	119.5	120.3	120.8	121.9	122.9	.8	2.8			
Service-producing	114.7	115.9	116.6	117.3	118.2	119.2	119.7	120.7	121.6	.7	2.9			
Excluding sales occupations	115.6	116.6	117.4	118.3	119.0	120.2	120.7	121.8	122.5	.6	2.9			
White-collar occupations	115.2	116.5	117.3	118.0	118.9	119.9	120.4	121.3	122.3	.8	2.9			
Excluding sales occupations	116.8	117.8	118.7	119.6	120.4	121.5	122.1	123.2	123.8	.5	2.8			
Blue-collar occupations	112.9	114.1	114.6	115.5	116.2	117.5	117.6	119.2	120.3	.9	3.5			
Service occupations	114.1	114.9	115.2	116.3	116.7	117.3	118.7	119.3	119.8	.4	2.7			
Transportation and public utilities	114.0	114.7	115.4	116.4	117.2	118.9	119.6	121.2	122.0	.7	4.1			
Transportation	112.0	112.6	113.4	114.2	114.8	116.7	117.5	119.0	119.8	.7	4.4			
Public utilities	116.4	117.2	117.9	119.1	120.1	121.4	122.3	123.9	124.5	.5	3.7			
Communications	115.6	116.5	117.1	118.4	119.5	121.0	122.1	124.3	124.6	.2	4.3			
Electric, gas, and sanitary services	117.4	118.2	118.8	119.9	120.9	121.9	122.4	123.4	124.4	.8	2.9			

See footnotes at end of table.

22. Continued— Employment Cost Index, wages and salaries, by occupation and industry group

(June 1989=100)

Series	1993			1994				1995		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
Wholesale and retail trade	114.2	114.7	115.4	115.5	117.4	118.3	118.4	119.4	120.6	1.0	2.7
Excluding sales occupations	114.4	115.2	116.1	116.5	117.8	118.7	118.8	120.2	120.9	.6	2.6
Wholesale trade	115.1	115.1	116.4	116.2	118.3	118.9	119.9	120.9	122.7	1.5	3.7
Excluding sales occupations	115.5	116.3	117.5	117.8	118.8	119.6	120.2	122.2	122.9	.6	3.5
Retail trade	113.8	114.5	115.0	115.2	117.0	118.0	117.8	118.7	119.6	.8	2.2
Food stores	115.4	114.9	115.9	117.0	117.8	117.4	117.3	117.8	117.6	-.2	-.2
General merchandise stores	113.4	114.5	115.0	114.0	116.4	116.5	117.5	117.9	118.6	.6	1.9
Finance, insurance, and real estate	109.3	112.3	112.9	113.7	113.2	113.8	114.2	115.0	117.0	1.7	3.4
Excluding sales occupations	113.1	114.0	114.6	115.5	116.0	117.2	117.4	119.3	120.2	.8	3.6
Banking, savings and loan, and other credit agencies	112.9	113.7	114.5	114.7	115.0	116.5	116.2	119.2	119.7	.4	4.1
Insurance	112.9	113.9	116.6	116.0	116.8	117.7	118.6	119.8	120.8	.8	3.4
Services	117.6	118.9	119.6	120.8	121.3	122.2	123.0	123.9	124.4	.4	2.6
Business services	114.6	115.3	115.7	118.8	119.4	119.9	120.4	122.1	122.9	.7	2.9
Health services	120.7	121.7	122.6	123.1	123.5	124.3	125.4	126.2	126.7	.4	2.6
Hospitals	119.9	121.0	122.0	122.8	123.3	123.9	124.8	125.4	125.9	.4	2.1
Educational services	117.4	120.7	120.9	121.2	122.2	124.9	125.1	125.6	125.9	.2	3.0
Colleges and universities	117.7	121.3	121.6	122.0	122.2	124.5	124.9	125.5	125.9	.3	3.0
Nonmanufacturing	114.2	115.4	116.0	116.8	117.7	118.7	119.1	120.0	120.9	.8	2.7
White-collar occupations	115.2	116.4	117.2	117.9	118.9	119.7	120.2	121.1	122.1	.8	2.7
Excluding sales occupations	116.6	117.6	118.5	119.4	120.2	121.3	121.8	122.9	123.5	.5	2.7
Blue-collar occupations	111.9	113.0	113.4	114.2	115.1	116.4	116.4	117.5	118.5	.9	3.0
Service occupations	114.1	114.8	115.1	116.3	116.7	117.3	118.6	119.2	119.8	.5	2.7
State and local government workers	117.4	119.3	119.7	120.4	120.7	122.8	123.4	124.3	124.6	.2	3.2
Workers, by occupational group:											
White-collar workers	117.6	119.6	119.9	120.6	120.9	122.9	123.6	124.4	124.6	.2	3.1
Professional specialty and technical	118.2	120.4	120.7	121.1	121.3	123.6	124.2	124.8	125.0	.2	3.1
Executive, administrative, and managerial	116.6	118.2	118.8	119.8	120.3	121.6	122.4	124.1	124.3	.2	3.3
Administrative support, including clerical	115.9	117.2	117.8	118.9	119.4	120.9	121.7	122.5	122.9	.3	2.9
Blue-collar workers	116.5	118.4	119.0	119.7	120.1	121.8	122.5	123.1	123.8	.6	3.1
Workers, by industry division:											
Services	118.2	120.3	120.6	121.1	121.3	123.6	124.2	124.9	125.1	.2	3.1
Services excluding schools ⁴	118.7	120.1	120.4	121.3	121.9	123.2	124.0	125.0	125.5	.4	3.0
Health services	118.8	120.4	121.0	121.9	122.9	124.7	125.3	126.0	126.6	.5	3.0
Hospitals	118.2	119.9	120.7	121.2	122.0	124.2	125.1	125.8	126.3	.4	3.5
Educational services	118.1	120.3	120.6	120.9	121.1	123.6	124.2	124.8	124.9	.1	3.1
Schools	118.0	120.3	120.7	121.0	121.2	123.8	124.3	125.0	125.1	.1	3.2
Elementary and secondary	118.8	121.1	121.6	121.7	121.8	124.5	124.9	125.5	125.8	.2	3.3
Colleges and universities	115.6	117.8	117.7	118.6	119.2	121.5	122.5	123.2	122.9	-.2	3.1
Public administration ²	114.9	115.9	116.6	117.9	118.5	119.9	120.6	121.9	122.3	.3	3.2

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

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

³ This series has the same industry and occupational coverage as the Hourly Earnings Index, which was discontinued in January 1989.

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

23. Employment Cost Index, benefits, private industry workers by occupation and industry group

(June 1989 = 100)

Series	1993			1994				1995		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
Private industry workers	126.7	127.7	128.3	130.7	131.7	132.8	133.0	134.5	135.1	0.4	2.6
Workers, by occupational group:											
White-collar workers	125.9	126.8	127.6	130.5	131.6	132.8	133.3	135.2	136.0	.6	3.3
Blue-collar workers	127.3	128.4	128.9	130.5	131.5	132.7	132.5	133.3	133.6	.2	1.6
Workers, by industry group:											
Goods-producing	129.0	130.0	130.3	132.7	133.9	134.8	134.8	135.9	135.9	.0	1.5
Service-producing	124.6	125.7	126.7	128.9	129.7	131.2	131.5	133.2	134.1	.7	3.4
Manufacturing	128.6	129.7	130.0	132.0	133.0	133.9	134.3	135.4	135.2	-.1	1.7
Nonmanufacturing	125.5	126.5	127.4	129.9	130.8	132.2	132.3	133.9	134.7	.6	3.0

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

(June 1989=100)

Series	1993			1994				1995		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 1995										
COMPENSATION											
Workers, by bargaining status¹											
Union	119.1	120.0	120.9	121.9	123.0	123.8	124.2	125.1	125.8	0.6	2.3
Goods-producing	120.0	121.0	121.9	122.5	123.8	124.4	124.7	125.2	125.9	.6	1.7
Service-producing	117.7	118.6	119.6	121.0	121.8	122.9	123.6	124.8	125.6	.6	3.1
Manufacturing	121.1	121.9	123.0	123.6	124.8	125.3	125.8	126.3	126.6	.2	1.4
Nonmanufacturing	117.4	118.5	119.3	120.5	121.5	122.6	123.0	124.0	125.0	.8	2.9
Nonunion	117.7	118.8	119.5	120.7	121.7	122.7	123.2	124.3	125.2	.7	2.9
Goods-producing	118.6	119.4	119.9	121.5	122.6	123.6	124.1	125.2	125.9	.6	2.7
Service-producing	117.2	118.4	119.2	120.3	121.1	122.2	122.7	123.8	124.8	.8	3.1
Manufacturing	119.0	120.0	120.6	122.0	122.9	124.0	124.8	126.1	126.9	.6	3.3
Nonmanufacturing	117.2	118.3	119.0	120.2	121.1	122.2	122.5	123.6	124.5	.7	2.8
Workers, by region¹											
Northeast	119.1	120.2	120.7	121.6	122.8	124.0	124.3	125.6	126.6	.8	3.1
South	117.0	118.1	118.8	120.0	120.8	121.8	122.5	123.7	124.3	.5	2.9
Midwest (formerly North Central)	119.3	120.1	121.2	122.8	123.6	124.6	125.0	125.8	126.9	.9	2.7
West	116.4	117.8	118.1	119.4	120.5	121.3	121.7	122.6	123.4	.7	2.4
Workers, by area size¹											
Metropolitan areas	118.1	119.1	119.8	120.9	121.9	122.9	123.4	124.5	125.4	.7	2.9
Other areas	117.8	118.7	119.7	121.3	122.5	123.2	123.5	124.8	125.3	.4	2.3
WAGES AND SALARIES											
Workers, by bargaining status¹											
Union	113.9	114.8	115.7	116.5	117.6	118.6	119.1	119.8	120.6	.7	2.6
Goods-producing	113.0	113.8	114.8	115.4	116.7	117.5	117.9	118.4	119.3	.8	2.2
Service-producing	115.1	116.0	116.8	118.0	118.7	120.1	120.6	121.6	122.3	.6	3.0
Manufacturing	113.9	114.6	115.9	116.6	117.8	118.5	119.2	119.8	120.5	.6	2.3
Nonmanufacturing	113.9	114.9	115.5	116.4	117.3	118.6	119.0	119.9	120.6	.7	2.8
Nonunion	114.8	115.9	116.6	117.4	118.3	119.2	119.8	120.8	121.8	.8	3.0
Goods-producing	115.2	116.0	116.7	117.6	118.6	119.5	120.3	121.3	122.2	.7	3.0
Service-producing	114.6	115.9	116.6	117.2	118.1	119.0	119.5	120.5	121.5	.8	2.9
Manufacturing	116.1	117.0	117.9	118.6	119.5	120.5	121.5	122.7	123.8	.9	3.6
Nonmanufacturing	114.3	115.5	116.1	116.9	117.8	118.7	119.1	120.0	121.0	.8	2.7
Workers, by region¹											
Northeast	115.7	116.8	117.3	117.8	118.8	120.0	120.2	121.3	122.1	.7	2.8
South	114.3	115.3	116.0	116.6	117.4	118.5	119.1	120.0	120.8	.7	2.9
Midwest (formerly North Central)	114.6	115.2	116.5	117.5	118.3	119.5	120.1	120.9	122.2	1.1	3.3
West	113.7	115.3	115.7	116.6	117.9	118.1	119.0	119.9	120.9	.8	2.5
Workers, by area size¹											
Metropolitan areas	114.7	115.8	116.5	117.2	118.1	119.1	119.7	120.6	121.6	.8	3.0
Other areas	114.4	115.0	115.8	117.0	118.1	118.6	119.0	120.5	121.3	.7	2.7

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

Monthly Labor Review Technical Note, "Estimation procedures for the Employment Cost Index," May 1982.

25. Percent of full-time employees participating in employer-provided benefit plans, 1980-91

Item	Medium and large private establishments ¹										Small private establishments ²	State and local governments ³	
	1980	1981	1982	1983	1984	1985	1986	1988	1989	1991	1990	1987	1990
Time-off plans													
Participants with:													
Paid lunch time	10	10	9	11	9	10	10	11	10	8	8	⁴ 17	11
Average minutes per day	-	-	25	25	26	27	27	29	26	30	37	34	36
Paid rest time	75	75	76	74	73	72	72	72	71	67	48	⁴ 58	56
Average minutes per day	-	-	25	25	26	26	26	26	26	26	27	29	29
Paid funeral leave	-	-	-	-	-	88	88	85	84	80	47	56	63
Average days per occurrence	-	-	-	-	-	3.2	3.2	3.2	3.3	3.3	2.9	3.7	3.7
Paid holidays	99	99	99	99	99	98	99	96	97	92	84	81	74
Average days per year	10.1	10.2	10.0	9.8	9.8	10.1	10.0	9.4	9.2	10.2	9.5	10.9	13.6
Paid personal leave	20	23	24	25	23	26	25	24	22	21	11	38	39
Average days per year	-	-	3.8	3.7	3.6	3.7	3.7	3.3	3.1	3.3	2.8	2.7	2.9
Paid vacations	100	99	99	100	99	99	100	98	97	96	88	72	67
Paid sick leave	62	65	67	67	67	67	70	69	68	67	47	97	95
Unpaid maternity leave	-	-	-	-	-	-	-	33	37	37	17	57	51
Unpaid paternity leave	-	-	-	-	-	-	-	16	18	26	8	30	33
Insurance plans													
Participants in medical care plans	97	97	97	96	97	96	95	90	92	83	69	93	93
Participants with coverage for:													
Home health care	-	-	-	37	46	56	66	76	75	81	79	76	82
Extended care facilities	58	60	62	58	62	67	70	79	80	80	83	78	79
Mental health care	98	99	99	99	99	99	99	98	97	98	98	98	99
Alcohol abuse treatment	-	-	50	53	61	68	70	80	97	97	97	87	99
Drug abuse treatment	-	-	37	43	52	61	66	74	96	96	94	86	98
Participants with employee contribution required for:													
Self coverage	26	27	27	33	36	36	43	44	47	51	42	35	38
Average monthly contribution	-	-	-	\$10.13	\$11.93	\$12.05	\$12.80	\$19.29	\$25.31	\$26.60	\$25.13	\$15.74	\$25.53
Family coverage	46	49	51	54	58	56	63	64	66	69	67	71	65
Average monthly contribution ⁵	-	-	-	\$32.51	\$35.93	\$38.33	\$41.40	\$60.07	\$72.10	\$96.97	\$109.34	\$71.89	\$117.59
Participants in life insurance plans	96	96	96	96	96	96	96	92	94	94	64	85	88
Participants with:													
Accidental death and dismemberment insurance	69	72	72	72	74	73	72	76	71	71	78	67	67
Survivor income benefits	-	-	-	-	-	13	10	8	7	6	1	1	1
Retiree protection available	-	64	64	66	64	62	59	49	42	44	19	55	45
Participants in long-term disability insurance plans	40	41	43	45	47	48	48	42	45	40	19	31	27
Participants in sickness and accident insurance plans	54	50	51	49	51	52	49	46	43	45	26	14	21
Retirement plans													
Participants in defined benefit pension plans ⁶	84	84	84	82	82	80	76	63	63	59	20	93	90
Participants with:													
Normal retirement prior to age 65	55	56	58	64	63	67	64	59	62	55	54	92	89
Early retirement available	98	98	97	97	97	97	98	98	97	98	95	90	88
Ad hoc pension increase in last 5 years	-	-	-	51	47	41	35	26	22	7	7	33	16
Terminal earnings formula	53	50	52	54	54	57	57	55	64	56	58	100	100
Benefit coordinated with Social Security	45	43	45	55	56	61	62	62	63	54	49	18	8
Participants in defined contribution plans	-	-	-	-	-	⁷ 53	⁷ 60	45	48	48	31	9	9
Participants in plans with tax-deferred savings arrangements	-	-	-	-	-	26	33	36	41	44	17	28	45
Other benefits													
Employees eligible for:													
Flexible benefits plans	-	-	-	-	-	-	2	5	9	10	1	5	5
Reimbursement accounts	-	-	-	-	-	-	5	12	23	36	8	5	31

¹ From 1979 to 1986, data were collected in private sector establishments with a minimum employment varying from 50 to 250 employees, depending upon industry. In addition, coverage in service industries was limited. Beginning in 1988, data were collected in all private sector establishments employing 100 workers or more in all industries.

² Includes private sector establishments with fewer than 100 workers.

³ In 1987, coverage excluded local governments employing fewer than 50 workers. In 1990, coverage included all State and local governments.

⁴ Data exclude college teachers.

⁵ Data for 1983 refer to the average monthly employee contribution for dependent coverage, excluding the employee. Beginning in 1984, data refer

to the average monthly employee contribution for family coverage, which includes the employee.

⁶ Prior to 1985, data on participation in defined benefit pension plans included a small percentage of workers participating in money purchase pension plans. Beginning in 1985, these workers were classified as participating in defined contribution plans.

⁷ Includes employees who participated in Payroll-based Employee Stock Ownership Plans. Beginning in 1987, these plans were no longer available.

NOTE: Dash indicates data were not collected in this year.

26. Specified compensation and wage rate changes from contract settlements, and wage rate changes under all agreements, private industry collective bargaining agreements covering 1,000 workers or more

(In percent)

Measure	Annual average		Quarterly average							
	1993	1994	1993		1994				1995	
			III	IV	I	II	III	IV	I	II ^P
Rate changes under settlements:										
Specified total compensation changes, settlements covering 5,000 workers or more:										
First year of contract	3.0	2.3	1.0	3.8	3.0	3.4	0.0	1.5	1.4	1.8
Annual average over life of contract	2.4	2.4	1.4	2.5	2.6	2.9	1.4	2.1	1.7	1.8
Specified wage changes, settlements covering 1,000 workers or more:										
First year of contract	2.3	2.0	1.1	2.8	3.0	2.0	1.0	2.2	1.9	2.1
Annual average over life of contract	2.1	2.3	1.7	2.0	2.4	2.4	1.9	2.5	2.1	2.2
Wage rate changes under all agreements:										
Average wage change ¹	3.0	2.7	.8	.7	.4	.8	.9	.6	.3	.8
Source:										
Current settlements .....	.9	.6	.1	.5	.1	.2	.1	.2	.1	.2
Prior settlements	1.9	1.9	.6	.2	.3	.6	.7	.3	.2	.5
COLA provisions .....	.2	.2	.0	(²)	(²)	(²)	.1	.1	.0	.1

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

² More than zero but less than 0.05 percent.

^P = preliminary.

27. Specified compensation and wage rate changes from contract settlements, and wage rate changes under all agreements, private industry collective bargaining agreements covering 1,000 workers or more during 4-quarter periods

(In percent)

Measure	Average for four quarters ending--							
	1993		1994				1995	
	III	IV	I	II	III	IV	I	II ^P
Rate changes under settlements:								
Specified total compensation changes, settlements covering 5,000 workers or more, all industries:								
First year of contract	2.1	3.0	3.0	3.1	3.1	2.3	2.1	1.2
Annual average over life of contract	2.4	2.4	2.3	2.4	2.5	2.4	2.3	1.7
Specified wage changes, settlements covering 1,000 workers or more:								
All industries:								
First year of contract	2.0	2.3	2.4	2.2	2.3	2.0	1.8	1.8
Contracts with COLA clauses	2.5	2.8	2.7	3.0	2.9	2.7	2.5	1.7
Contracts without COLA clauses	1.8	2.1	2.3	1.9	2.0	1.8	1.6	1.8
Contracts with either lump sums, COLA, or both	2.3	2.6	2.6	2.8	2.7	2.5	2.2	1.6
Contracts with neither lump sums nor COLA	1.7	2.0	2.1	1.5	1.6	1.6	1.5	1.8
Annual average over life of contract	2.3	2.1	2.1	2.1	2.2	2.3	2.3	2.2
Contracts with COLA clauses	2.1	1.4	1.0	1.5	1.7	2.5	2.4	1.8
Contracts without COLA clauses	2.4	2.5	2.5	2.4	2.3	2.3	2.2	2.2
Contracts with either lump sums, COLA, or both	2.1	1.9	1.8	2.0	2.1	2.3	2.2	1.8
Contracts with neither lump sums nor COLA	2.5	2.5	2.5	2.2	2.2	2.3	2.3	2.3
Manufacturing:								
First year of contract	2.5	2.7	2.5	2.7	2.6	2.4	2.2	1.9
Contracts with COLA clauses	2.6	2.9	2.7	3.0	3.0	3.0	2.6	(¹)
Contracts without COLA clauses	2.5	2.3	1.9	1.9	1.9	1.8	1.8	(¹)
Contracts with either lump sums, COLA, or both	2.3	2.7	2.4	2.7	2.7	2.4	2.2	1.7
Contracts with neither lump sums nor COLA	3.1	2.9	2.6	2.6	2.2	2.2	2.2	2.2
Annual average over life of contract	2.1	1.5	1.3	1.5	1.7	2.3	2.1	2.0
Contracts with COLA clauses	1.9	1.3	1.0	1.3	1.5	2.5	2.3	(¹)
Contracts without COLA clauses	2.5	2.1	1.9	2.0	1.9	2.1	2.0	(¹)
Contracts with either lump sums, COLA, or both	1.8	1.3	1.0	1.4	1.5	2.3	2.1	1.7
Contracts with neither lump sums nor COLA	2.9	2.5	2.3	2.3	2.0	2.2	2.3	2.3
Nonmanufacturing:								
First year of contract	1.7	2.1	2.3	2.0	2.0	1.8	1.6	1.7
Contracts with COLA clauses	2.5	1.8	1.9	2.9	2.5	2.2	2.2	(¹)
Contracts without COLA clauses	1.6	2.1	2.3	1.9	2.0	1.8	1.5	(¹)
Contracts with either lump sums, COLA, or both	2.3	2.4	2.8	2.9	2.8	2.6	2.3	1.5
Contracts with neither lump sums nor COLA	1.5	1.8	2.0	1.3	1.4	1.6	1.4	1.8
Annual average over life of contract	2.4	2.5	2.6	2.4	2.5	2.3	2.3	2.2
Contracts with COLA clauses	2.7	2.3	2.5	2.7	2.7	2.6	2.6	(¹)
Contracts without COLA clauses	2.4	2.6	2.6	2.4	2.5	2.3	2.3	(¹)
Contracts with either lump sums, COLA, or both	2.5	2.6	2.7	2.7	2.7	2.4	2.4	1.9
Contracts with neither lump sums nor COLA	2.4	2.5	2.5	2.2	2.3	2.3	2.3	2.3
Construction:								
First year of contract	2.0	2.1	2.4	1.7	1.8	1.8	1.5	2.3
Annual average over life of contract	2.4	2.6	2.7	2.5	2.6	2.5	2.4	2.7
Wage rate changes under all agreements:								
Average wage change ²	2.6	3.0	2.9	2.7	2.9	2.7	2.6	2.6
Source:								
Current settlements .....	.6	.9	.9	.9	.8	.6	.5	.5
Prior settlements	1.8	1.9	1.8	1.7	1.9	1.9	1.9	1.8
COLA provisions .....	.3	.2	.2	.2	.2	.2	.3	.3

¹ Data do not meet publication standards.

² Because of rounding, total may not equal sum of parts.

^P = preliminary.

28. Specified changes in the cost of compensation and components annualized over the life of the contract in private industry collective bargaining settlements covering 5,000 workers or more, by quarter, and during 4-quarter periods

(In percent)

Measure	1993		1994				1995	
	III	IV	I	II	III	IV	I	II
	Quarterly average							
All industries:								
Compensation	0.9	1.8	2.0	1.9	0.8	1.2	1.1	1.1
Cash payments .....	.8	1.4	1.9	1.4	.9	1.5	1.2	1.1
Wages .....	.7	1.4	1.7	1.4	.9	1.5	1.0	1.1
Benefits	1.1	2.4	2.1	2.7	.5	.6	.9	1.1
Average for four quarters								
All industries:								
Compensation	1.4	1.6	1.6	1.6	1.7	1.6	1.4	1.1
Cash payments	1.2	1.3	1.3	1.3	1.4	1.4	1.3	1.2
Wages	1.3	1.3	1.3	1.3	1.4	1.3	1.3	1.1
Benefits	1.7	2.1	2.0	2.2	2.2	1.8	1.6	.8
With contingent pay provisions:								
Compensation	1.4	1.5	1.4	1.7	1.9	2.2	2.1	1.4
Cash payments	1.2	1.2	1.2	1.3	1.4	1.8	1.7	1.5
Wages	1.4	1.4	1.3	1.4	1.6	1.7	1.6	1.3
Benefits	1.8	2.0	1.8	2.3	2.5	3.0	2.8	1.1
Without contingent pay provisions:								
Compensation	1.4	1.7	1.8	1.6	1.5	1.3	1.1	1.0
Cash payments	1.3	1.4	1.6	1.3	1.3	1.3	1.1	1.1
Wages	1.2	1.3	1.4	1.1	1.1	1.2	1.1	1.1
Benefits	1.6	2.1	2.2	2.1	1.8	1.3	1.1	.8
Manufacturing:								
Compensation	1.1	1.2	1.1	1.3	1.5	1.9	1.7	1.2
Cash payments	1.0	.8	.7	.9	1.0	1.7	1.6	1.3
Wages	1.2	1.1	.9	1.1	1.2	1.6	1.4	1.2
Benefits	1.4	1.6	1.5	1.9	2.1	2.3	2.0	1.0
Nonmanufacturing:								
Compensation	1.5	1.9	2.0	1.8	1.8	1.4	1.3	1.0
Cash payments	1.3	1.6	1.8	1.5	1.6	1.3	1.2	1.1
Wages	1.3	1.5	1.6	1.4	1.5	1.3	1.2	1.1
Benefits	1.8	2.4	2.3	2.4	2.2	1.6	1.5	.8
Goods-producing:								
Compensation	1.6	1.4	1.4	1.4	1.4	1.6	1.4	1.3
Cash payments	1.4	1.1	1.2	1.1	1.2	1.5	1.3	1.4
Wages	1.5	1.2	1.2	1.1	1.2	1.4	1.2	1.3
Benefits	2.1	1.9	1.8	1.8	1.8	1.6	1.5	1.2
Service-producing:								
Compensation	1.2	1.8	1.8	2.0	2.0	1.5	1.5	.8
Cash payments	1.1	1.5	1.6	1.6	1.6	1.3	1.3	1.0
Wages	1.0	1.5	1.5	1.5	1.6	1.3	1.3	1.0
Benefits	1.3	2.3	2.2	2.7	2.6	1.9	1.7	.4

29. Specified compensation and wage rate changes from contract settlements, and wage rate changes under all agreements, State and local government collective bargaining agreements covering 1,000 workers or more (in percent)

Measure	Annual average		
	1992	1993	1994
Changes under settlements:			
Total compensation ¹ changes, ² settlements covering 5,000 workers or more:			
First year of contract	0.6	0.9	2.8
Annual average over life of contract	1.9	1.8	3.1
Wage changes, settlements covering 1,000 workers or more:			
First year of contract	1.1	1.1	2.7
Annual average over life of contract	2.1	2.1	3.0
Wage changes under all agreements:			
Average wage change ³	1.9	2.8	3.3
Source:			
Current settlements .....	.8	1.6	1.4
Prior settlements	1.1	1.1	1.9
COLA provisions	(⁴)	(⁴)	(⁴)

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

² Changes are the net result of increases, decreases, and zero change in

compensation or wages.

³ Because of rounding, total may not equal sum of parts.

⁴ Less than 0.05 percent.

30. Work stoppages involving 1,000 workers or more

Measure	Annual totals		1994						1995					
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. ^P	Feb. ^P	Mar. ^P	Apr. ^P	May ^P	June ^P
Number of stoppages:														
Beginning in period	35	45	4	5	7	4	1	0	1	1	4	2	1	2
In effect during period	36	45	9	11	14	9	6	4	4	4	7	5	3	3
Workers involved:														
Beginning in period (in thousands)	18.2	322.2	14.3	58.6	32.0	8.0	2.6	.0	37.7	3.0	17.6	32.0	14.0	2.0
In effect during period (in thousands)	18.4	322.2	33.1	88.2	59.4	32.7	26.8	17.2	52.9	18.2	32.8	56.9	28.2	13.0
Days idle:														
Number (in thousands)	3,981.0	5,020.5	436.1	678.5	638.5	505.9	420.8	342.2	368.5	306.8	367.8	529.7	336.2	262.0
Percent of estimated working time ¹ .....	.01	.02	.02	.02	.02	.02	.02	.02	.02	.01	.01	.01	.02	.01

¹ Agricultural and government employees are included in the total employed and total working time; private household, forestry, and fishery employees are excluded. An explanation of the measurement of idleness as a percentage of the total time

worked is found in "'Total economy' measure of strike idleness," *Monthly Labor Review*, October 1968, pp. 54-56.

^P = preliminary.

31. Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

(1982-84=100, unless otherwise indicated)

Series	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS:															
All items	144.5	148.2	148.4	149.0	149.4	149.5	149.7	149.7	150.3	150.9	151.4	151.9	152.2	152.5	152.5
All items (1967=100)	432.7	444.0	444.4	446.4	447.5	448.0	448.6	448.4	450.3	452.0	453.5	455.0	455.8	456.7	457.0
Food and beverages	141.6	144.9	144.8	145.3	145.6	145.6	145.9	147.2	147.9	147.8	147.9	148.9	148.7	148.4	148.6
Food	140.9	144.3	144.2	144.8	145.0	145.0	145.3	146.8	147.5	147.4	147.4	148.4	148.3	147.9	148.1
Food at home	140.1	144.1	144.0	144.7	145.0	144.8	145.1	147.3	148.2	147.9	147.6	149.2	148.7	148.1	148.2
Cereals and bakery products	156.6	163.0	163.9	164.7	164.8	164.6	163.7	164.2	164.6	165.8	165.3	166.9	166.6	167.5	168.2
Meats, poultry, fish, and eggs	135.5	137.2	136.7	137.1	137.3	136.8	136.9	136.4	137.3	137.6	138.4	137.7	137.3	137.1	137.3
Dairy products	129.4	131.7	131.8	131.8	131.3	131.5	131.7	131.6	132.7	132.1	132.2	132.1	132.8	132.2	132.9
Fruits and vegetables	159.0	165.0	164.4	162.8	163.2	162.9	165.7	180.3	180.4	177.1	174.0	183.1	181.0	177.5	176.7
Other foods at home	130.5	135.6	135.7	138.9	139.4	139.5	139.0	138.8	140.3	140.6	140.7	140.9	140.8	140.6	140.7
Sugar and sweets	133.4	135.2	135.2	135.1	135.4	135.6	134.5	134.5	135.5	135.8	136.4	136.7	137.3	137.3	138.1
Fats and oils	130.0	133.5	135.1	134.1	134.2	135.0	134.3	134.2	136.4	136.8	136.8	137.2	137.1	136.4	138.0
Nonalcoholic beverages	114.6	123.2	122.8	131.3	132.1	132.7	132.4	131.7	133.3	133.7	132.9	132.9	131.7	131.5	130.8
Other prepared foods	143.7	147.5	147.6	148.4	148.8	148.5	148.1	148.1	149.4	149.7	150.5	150.6	151.3	151.2	151.4
Food away from home	143.2	145.7	145.6	145.9	146.2	146.4	146.8	147.1	147.4	147.6	148.1	148.3	148.6	148.8	149.1
Alcoholic beverages	149.6	151.5	151.6	151.3	151.4	151.6	151.9	151.8	152.0	152.4	153.1	153.6	153.9	154.0	153.8
Housing	141.2	144.8	145.4	145.9	145.8	145.7	145.5	145.4	146.4	147.0	147.4	147.4	147.6	148.5	149.2
Shelter	155.7	160.5	160.8	161.7	161.6	162.0	162.1	161.8	162.9	163.8	164.5	164.7	164.8	165.5	166.4
Renters' costs (12/82=100)	165.0	169.4	171.0	172.1	169.4	169.8	168.9	168.2	170.1	172.9	174.6	174.1	173.7	174.7	176.7
Rent, residential	150.3	154.0	153.9	154.5	155.0	155.2	155.6	155.7	156.1	156.4	156.7	157.0	157.2	157.5	157.9
Other renters' costs	190.3	196.3	203.2	205.9	193.5	194.0	189.2	186.2	195.0	202.9	208.7	206.0	203.4	206.6	213.5
Homeowners' costs (12/82=100)	160.2	165.5	165.3	166.1	167.1	167.5	167.9	167.8	168.4	168.9	169.2	169.6	170.0	170.6	171.2
Owners' equivalent rent (12/82=100)	160.5	165.8	165.5	166.4	167.3	167.8	168.2	168.1	168.7	169.1	169.5	169.9	170.3	170.9	171.4
Household insurance (12/82=100)	146.9	152.3	153.2	154.0	154.3	154.5	155.0	155.4	155.9	156.1	157.1	157.2	157.4	158.1	158.3
Maintenance and repairs	130.6	130.8	131.3	131.2	131.6	130.8	131.2	132.7	133.1	133.8	134.2	134.2	134.6	135.0	135.1
Maintenance and repair services	135.0	134.5	135.4	135.4	135.8	135.9	136.4	137.0	137.3	137.9	138.8	139.0	139.4	139.4	139.8
Maintenance and repair commodities	124.6	125.8	125.9	125.6	126.0	123.8	124.3	126.8	127.5	128.2	128.2	127.6	128.1	129.0	128.7
Fuel and other utilities	121.3	122.8	124.3	124.3	124.2	122.4	121.8	122.0	122.9	122.6	122.3	122.1	122.5	125.0	125.1
Fuels	111.2	111.7	114.1	114.0	113.8	110.8	109.9	110.1	110.7	110.4	109.8	109.3	109.8	113.8	113.7
Fuel oil, coal, and bottled gas	90.3	88.8	87.1	86.8	86.8	87.0	87.7	88.4	89.4	89.6	89.0	88.4	88.3	87.9	87.1
Gas (piped) and electricity	118.5	119.2	122.3	122.2	122.1	118.5	117.3	117.4	118.0	117.6	117.1	116.6	117.2	121.9	121.9
Other utilities and public services	147.0	150.2	150.4	150.6	150.3	150.4	150.5	150.6	152.1	151.8	151.9	152.2	152.3	152.7	153.0
Household furnishings and operations	119.3	121.0	121.5	121.4	121.4	121.4	121.1	120.8	121.8	122.4	122.6	122.6	122.7	122.5	123.0
Housefurnishings	109.5	111.0	111.8	111.5	111.2	110.9	110.8	110.3	110.5	111.1	111.2	111.2	111.0	110.7	111.1
Housekeeping supplies	130.7	132.3	132.2	132.2	132.6	133.7	132.6	132.9	133.8	134.6	135.7	135.9	136.4	136.4	137.4
Housekeeping services	135.8	138.3	138.6	138.9	139.3	139.4	139.1	139.1	142.4	142.8	142.9	142.9	143.3	143.1	143.6
Apparel and upkeep	133.7	133.4	130.9	131.1	134.2	135.2	134.2	130.5	129.4	131.1	134.4	134.8	133.4	130.5	128.3
Apparel commodities	131.0	130.4	127.6	127.8	131.2	132.3	131.1	127.2	126.0	127.7	131.3	131.7	130.2	127.1	124.8
Men's and boys' apparel	127.5	126.4	124.9	125.7	128.4	128.9	129.2	125.3	124.0	125.6	127.2	127.0	127.9	125.5	123.4
Women's and girls' apparel	132.6	130.9	125.7	125.5	131.1	133.4	130.5	125.7	123.0	125.9	131.5	132.2	129.6	124.4	121.1
Infants' and toddlers' apparel	127.1	128.1	129.2	128.6	129.5	128.6	131.2	131.3	129.0	126.8	127.1	127.1	123.6	121.6	123.0
Footwear	125.9	126.0	125.0	124.5	125.1	125.5	125.7	123.6	124.0	124.8	125.9	127.2	126.6	124.6	123.3
Other apparel commodities	145.6	149.5	150.6	152.4	152.3	151.4	150.8	146.5	150.1	150.4	155.0	154.4	150.3	153.6	151.8
Apparel services	151.7	155.4	155.7	155.9	156.3	156.4	156.3	156.4	157.0	157.3	157.6	157.7	157.7	156.9	157.2
Transportation	130.4	134.3	134.6	135.9	135.9	136.1	137.1	137.1	137.3	137.5	138.0	139.1	140.3	141.1	140.1
Private transportation	127.5	131.4	131.8	133.0	133.1	133.6	134.8	134.9	134.9	135.0	135.2	136.2	137.5	137.9	136.9
New vehicles	132.7	137.6	137.4	137.3	137.5	138.4	139.4	140.1	140.6	140.7	140.7	141.1	141.1	141.0	140.3
New cars	131.5	136.0	135.8	135.6	135.7	136.6	137.7	138.5	139.0	139.1	139.0	139.3	139.3	139.1	138.3
Used cars	133.9	141.7	142.6	144.0	145.4	147.7	150.1	151.5	152.4	153.3	154.8	156.7	157.7	158.3	157.5
Motor fuel	98.0	98.5	100.5	104.1	103.7	101.8	102.7	100.4	98.7	98.0	97.5	99.5	104.2	106.1	103.6
Gasoline	97.7	98.2	100.4	104.1	103.6	101.7	102.6	100.2	98.4	97.7	97.2	99.3	104.2	106.3	103.7
Maintenance and repair	145.9	150.2	150.0	150.7	151.2	151.7	151.8	151.9	152.0	152.5	152.7	153.2	153.8	153.6	154.0
Other private transportation	156.8	162.1	161.5	162.0	162.1	164.1	166.2	167.6	168.8	169.4	170.2	170.9	170.5	169.9	169.6
Other private transportation commodities	103.4	103.5	103.3	103.3	103.2	103.1	104.0	104.3	104.2	104.6	104.6	104.5	104.7	104.6	104.8
Other private transportation services	169.1	175.8	175.1	175.7	175.8	178.4	180.7	182.4	184.0	184.6	185.6	186.5	185.9	185.2	184.8
Public transportation	167.0	172.0	171.4	173.2	171.7	168.4	167.2	165.6	168.4	169.9	174.5	176.7	176.7	182.5	181.8
Medical care	201.4	211.0	211.5	212.2	212.8	214.0	214.7	215.3	216.6	217.9	218.4	218.9	219.3	219.8	220.8
Medical care commodities	195.0	200.7	201.3	201.7	201.7	202.2	202.7	202.9	203.1	203.5	203.7	203.6	203.4	203.8	204.4
Medical care services	202.9	213.4	213.8	214.7	215.4	216.8	217.5	218.2	219.8	221.3	221.8	222.4	223.0	223.5	224.6
Professional services	184.7	192.5	193.0	193.5	194.0	195.1	195.5	196.0	197.2	198.5	199.1	199.5	200.2	200.8	201.6
Hospital and related services	231.9	245.6	246.1	247.3	248.1	249.8	250.6	251.3	253.2	254.7	254.7	255.3	255.6	255.9	257.6
Entertainment	145.8	150.1	150.2	150.2	150.7	151.0	151.6	151.2	152.1	152.5	152.6	153.3	153.6	153.2	153.6
Entertainment commodities	133.4	136.1	136.5	136.5	137.0	136.9	137.3	136.8	137.5	137.4	137.3	138.1	138.1	138.1	138.5
Entertainment services	160.8	166.8	166.7	166.6	167.1	167.7	168.6	168.3	169.4	170.2	170.7	171.3	171.8	171.2	171.4
Other goods and services	192.9	198.5	198.0	199.4	201.4	201.9	202.3	202.4	2						

31. Continued— Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

(1982-84=100, unless otherwise indicated)

Series	Annual average		1994								1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July		
All items	144.5	148.2	148.4	149.0	149.4	149.5	149.7	149.7	150.3	150.9	151.4	151.9	152.2	152.5	152.5		
Commodities	131.5	133.8	133.7	134.3	134.8	134.9	135.2	135.1	135.1	135.4	135.9	136.6	136.9	136.6	136.2		
Food and beverages	141.6	144.9	144.8	145.3	145.6	145.6	145.9	147.2	147.9	147.8	147.9	148.9	148.7	148.4	148.6		
Commodities less food and beverages	125.3	126.9	126.8	127.5	128.1	128.3	128.6	127.6	127.4	127.9	128.6	129.2	129.7	129.4	128.5		
Nondurables less food and beverages	128.1	128.4	128.1	129.2	130.3	130.2	130.1	128.1	127.5	128.1	129.2	129.9	130.8	130.4	129.1		
Apparel commodities	131.0	130.4	127.6	127.8	131.2	132.3	131.1	127.2	126.0	127.7	131.3	131.7	130.2	127.1	124.8		
Nondurables less food, beverages, and apparel	129.6	130.3	131.3	132.8	132.8	132.2	132.5	131.5	131.2	131.3	131.1	132.0	134.2	135.1	134.3		
Durables	121.3	124.8	125.1	125.1	125.1	125.7	126.5	126.9	127.2	127.6	127.7	128.1	128.1	128.0	127.8		
Services	157.9	163.1	163.4	164.2	164.4	164.6	164.7	164.7	165.9	166.7	167.3	167.5	167.7	168.6	169.2		
Rent of shelter (12/82=100)	162.0	167.0	167.3	168.2	168.2	168.6	168.6	168.3	169.4	170.4	171.2	171.3	171.5	172.2	173.2		
Household services less rent of shelter (12/82=100)	134.2	136.3	137.9	138.0	137.9	136.3	135.8	135.9	137.2	137.0	136.9	136.7	137.1	139.5	139.7		
Transportation services	162.9	168.6	168.1	168.9	168.8	169.5	170.5	171.1	172.6	173.4	175.0	176.1	175.9	176.8	176.5		
Medical care services	202.9	213.4	213.8	214.7	215.4	216.8	217.5	218.2	219.8	221.3	221.8	222.4	223.0	223.5	224.6		
Other services	177.0	185.4	184.7	185.8	187.8	188.5	189.0	188.9	189.7	190.9	191.1	191.4	191.7	191.5	192.1		
Special indexes:																	
All items less food	145.1	149.0	149.1	149.8	150.2	150.4	150.6	150.2	150.8	151.5	152.1	152.5	152.9	153.3	153.4		
All items less shelter	141.4	144.8	144.9	145.5	146.0	146.1	146.3	146.3	146.8	147.2	147.7	148.3	148.6	148.8	148.6		
All items less homeowners' costs (12/82=100)	146.0	149.5	149.8	150.4	150.6	150.7	150.9	150.8	151.5	152.1	152.7	153.2	153.4	153.7	153.7		
All items less medical care	141.2	144.7	144.8	145.5	145.8	145.9	146.1	146.0	146.6	147.1	147.6	148.1	148.4	148.7	148.7		
Commodities less food	126.3	127.9	127.8	128.4	129.0	129.3	129.5	128.5	128.3	128.8	129.5	130.1	130.6	130.4	129.5		
Nondurables less food	129.3	129.7	129.4	130.4	131.4	131.4	131.2	129.5	128.9	129.5	130.5	131.3	132.1	131.7	130.5		
Nondurables less food and apparel	130.7	131.6	132.4	133.7	133.7	133.2	133.5	132.6	132.4	132.5	132.4	133.3	135.2	136.0	135.3		
Nondurables	135.1	136.8	136.6	137.4	138.1	138.1	138.2	137.8	138.1	138.7	138.1	138.7	139.6	139.9	139.6		
Services less rent of shelter (12/82=100)	164.8	170.7	171.0	171.7	172.2	172.2	172.4	172.7	174.0	174.7	175.1	175.5	175.8	176.9	177.3		
Services less medical care	153.6	158.4	158.7	159.4	159.6	159.7	159.8	159.7	160.9	161.6	162.2	162.4	162.6	163.5	164.1		
Energy	104.2	104.6	106.8	108.5	108.2	105.8	105.7	104.7	104.2	103.7	103.2	103.9	106.3	106.3	108.1		
All items less energy	150.0	154.1	154.0	154.6	155.0	155.5	155.7	155.7	156.5	157.2	157.8	158.3	158.3	158.3	158.5		
All items less food and energy	152.2	156.5	156.4	157.0	157.5	158.0	158.2	157.9	158.7	159.6	160.4	160.7	160.8	160.9	161.1		
Commodities less food and energy	135.2	137.1	136.8	136.8	137.7	138.3	138.4	137.6	137.7	138.4	139.4	139.7	139.6	138.9	138.3		
Energy commodities	97.3	97.6	99.2	102.4	102.0	100.4	101.2	99.2	97.9	97.2	96.7	98.4	102.6	104.3	101.9		
Services less energy	161.9	167.6	167.7	168.5	168.8	169.3	169.6	169.6	170.8	171.7	172.4	172.7	172.9	173.4	174.1		
Purchasing power of the consumer dollar:																	
1982-84=\$1.00	69.2	67.5	67.4	67.1	66.9	66.9	66.8	66.8	66.5	66.3	66.0	65.8	65.7	65.6	65.6		
1967=\$1.00	23.1	22.5	22.5	22.4	22.3	22.3	22.3	22.3	22.2	22.1	22.0	22.0	21.9	21.9	21.9		
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS:																	
All items	142.1	145.6	145.8	146.5	146.9	147.0	147.3	147.2	147.8	148.3	148.7	149.3	149.6	149.9	149.9		
All items (1967=100)	423.1	433.8	434.3	436.4	437.5	437.8	438.6	438.6	440.2	441.7	443.0	444.6	445.6	446.5	446.5		
Food and beverages	141.2	144.4	144.4	144.9	145.1	145.1	145.3	146.6	147.2	147.3	147.3	148.3	148.1	147.8	148.0		
Food	140.5	143.9	143.8	144.4	144.6	144.6	144.8	146.2	146.9	146.9	146.8	147.9	147.7	147.4	147.6		
Food at home	139.6	143.4	143.4	144.1	144.4	144.1	144.3	146.3	147.2	147.1	146.8	148.2	147.8	147.2	147.4		
Cereals and bakery products	156.3	162.7	163.6	164.4	164.6	164.3	163.5	163.9	164.3	165.6	165.1	166.7	166.3	167.3	167.9		
Meats, poultry, fish, and eggs	135.4	137.0	136.4	136.9	137.2	136.6	136.7	136.0	137.1	137.4	138.1	137.3	136.9	136.6	137.0		
Dairy products	129.1	131.5	131.6	131.6	131.0	131.2	131.4	131.4	132.4	131.8	131.9	131.8	132.5	131.9	132.5		
Fruits and vegetables	158.2	164.2	163.8	162.3	162.6	162.0	164.5	178.8	178.5	178.7	182.1	179.8	176.7	176.1			
Other foods at home	130.4	135.3	135.4	138.3	138.8	139.0	138.5	138.3	139.7	140.2	140.3	140.4	140.4	140.2	140.3		
Sugar and sweets	133.1	135.2	135.1	135.1	135.4	135.7	134.5	134.4	135.5	135.8	136.4	136.6	137.3	137.3	138.0		
Fats and oils	129.9	133.5	135.1	134.0	134.2	135.0	134.1	134.1	136.3	136.7	137.1	136.9	136.3	137.9			
Nonalcoholic beverages	115.1	122.9	122.4	130.2	130.9	131.5	131.1	130.6	132.2	132.9	132.2	132.1	131.0	130.7	130.0		
Other prepared foods	143.5	147.2	147.4	148.1	148.5	148.2	147.8	148.0	149.1	149.5	150.2	150.3	151.0	151.0	151.1		
Food away from home	143.1	145.5	145.5	145.8	146.1	146.3	146.7	147.0	147.3	147.5	147.9	148.2	148.5	148.7	149.0		
Alcoholic beverages	149.3	151.0	151.1	150.7	150.9	151.1	151.3	151.4	151.6	152.0	152.7	153.2	153.4	153.4	153.1		
Housing	138.5	142.0	142.5	143.0	143.0	142.8	142.7	142.7	143.5	144.0	144.3	144.4	144.6	145.5	146.1		
Shelter	151.6	156.2	156.4	157.2	157.4	157.7	157.9	157.7	158.6	159.3	159.9	160.1	160.3	160.9	161.7		
Renters' costs (12/84=100)	144.7	148.5	149.5	150.3	148.9	149.2	148.8	148.5	149.9	151.3	152.3	152.1	152.0	152.6	153.9		
Rent, residential	150.0	153.7	153.6	154.2	154.7	154.9	155.4	155.4	155.7	156.1	156.4	156.7	156.9	157.2	157.5		
Other renters' costs	190.2	196.6	204.2	206.7	194.1	194.4	189.6	187.2	195.3	202.9	208.5	205.8	203.8	206.2	213.7		
Homeowners' costs (12/84=100)	146.1	150.9	150.7	151.5	152.3	152.8	153.1	153.1	153.6	154.0	154.3	154.7	155.1	155.6	156.1		
Owners' equivalent rent (12/84=100)	146.3	151.1	150.9	151.7	152.6	153.0	153.3	153.3	153.8	154.2	154.5	154.9	155.3	155.8	156.3		
Household insurance (12/84=100)	134.4	139.7	140.5	141.4	141.7	141.9	142.4	142.9	143.2	143.4	144.2	144.5	144.6	145.2	145.4		
Maintenance and repairs	130.9	130.8	131.4	131.3	131.8	131.0	131.4	132.4	132.8	133.2	133.7	133.7	134.1	134.4	134.7		
Maintenance and repair services	138.6	138.1	139.1	139.1	139.4	139.5	140.0	140.3	140.5	140.8	141.7	141.9	142.3	142.4	142.9		
Maintenance and repair commodities	120.7	121.1	121.1	120.9	121.6	120.0	121.9	122.5	123.0	123.1	122.9	122.9	123.2	123.8	124.0		
Fuel and other utilities	121.1	122.5	124.0	124.0	123.9	122.0	121.5	121.6	122.5	122.2	121.9	121.6	122.0	124.6	124.6		
Fuels	110.7	111.1	113.6	113.5	113.3	110.2	109.3	109.5	110.1	109.7	109.1	108.4	109.1	113.1	113.1		
Fuel oil, coal, and bottled gas	90.2	88.7	87.0	86.6	86.7	86.9	86.9	88.3	89.3	89.5	89.9	88.3	88.2	87.8	87.0		
Gas (piped) and electricity	118.0	118.7	121.7	121.6	121.5	117.8	116.7	116.8	117.4	116.9	116.3	115.6	116.3	121.1	121.2		
Other utilities and public services	147.7	150.8	150.9	151.1	150.9	150.9	151.1	152.4	152.2								

31. Continued— Consumer Price Indexes for All Urban Consumers and for Urban Wage Earners and Clerical Workers: U.S. city average, by expenditure category and commodity or service group

(1982-84=100, unless otherwise indicated)

Series	Annual average		1994						1995						
	1993	1994	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Apparel and upkeep	132.4	132.2	129.8	130.2	133.1	133.9	133.0	129.3	128.3	130.0	133.2	133.6	132.1	129.6	127.4
Apparel commodities	129.8	129.4	126.7	127.2	130.2	131.1	130.1	126.1	125.0	126.8	130.3	130.7	129.1	126.4	124.0
Men's and boys' apparel	126.8	125.8	124.6	125.3	127.8	128.1	128.4	124.5	123.5	125.2	126.7	126.5	127.8	125.6	123.1
Women's and girls' apparel	130.4	129.2	124.2	124.5	129.4	131.7	129.1	124.0	121.2	124.3	129.8	130.6	128.1	123.2	120.0
Infants' and toddlers' apparel	128.9	129.3	130.8	129.9	131.1	130.3	133.2	132.9	130.3	127.0	127.4	127.7	123.9	122.4	123.5
Footwear	126.5	126.9	125.8	125.3	126.0	126.3	126.1	124.2	124.4	125.3	126.8	127.9	127.4	125.5	124.2
Other apparel commodities	145.4	148.7	148.3	151.5	151.3	149.9	149.1	144.1	149.1	149.7	154.6	153.5	146.9	151.5	149.3
Apparel services	151.2	154.9	155.1	155.4	155.9	156.0	155.8	155.9	156.5	156.8	157.1	157.2	157.1	156.5	156.8
Transportation	129.4	133.4	133.9	135.2	135.3	135.6	136.7	136.7	136.9	137.1	137.6	138.7	140.1	140.8	139.8
Private transportation	127.4	131.4	132.0	133.3	133.5	133.9	135.1	135.2	135.2	135.4	135.7	136.8	138.3	138.7	137.7
New vehicles	133.3	138.3	138.3	138.2	138.4	139.2	140.1	140.9	141.2	141.4	141.5	141.9	141.9	141.8	141.3
New cars	131.2	135.7	135.6	135.3	135.4	136.3	137.3	138.1	138.6	138.7	138.7	139.0	138.9	138.7	138.1
Used cars	134.6	142.4	143.3	144.7	146.1	148.4	150.8	152.1	153.0	154.0	155.5	157.4	158.4	159.1	158.4
Motor fuel	97.9	98.4	100.5	104.2	103.7	101.7	102.6	100.2	98.5	97.8	97.3	99.5	104.2	106.2	103.5
Gasoline	97.6	98.2	100.4	104.3	103.7	101.5	102.5	100.0	98.3	97.5	97.0	99.3	104.3	106.4	103.6
Maintenance and repair	146.5	150.9	150.8	151.4	151.9	152.4	152.5	152.6	152.7	153.3	153.5	154.0	154.6	154.5	154.9
Other private transportation	152.9	157.9	157.5	157.8	158.0	160.0	162.0	163.4	164.7	165.4	166.3	166.9	166.5	166.0	165.6
Other private transportation commodities	102.8	102.8	102.6	102.6	102.4	102.4	103.2	103.5	103.4	103.8	103.8	103.7	103.9	103.8	104.0
Other private transportation services	165.0	171.5	171.0	171.5	171.8	174.3	176.6	178.4	180.0	180.9	181.9	182.8	182.2	181.6	181.1
Public transportation	163.0	167.7	167.1	168.7	167.6	164.8	163.8	162.5	164.8	166.5	170.1	172.3	172.5	177.2	176.6
Medical care	200.9	210.4	210.8	211.5	212.0	213.4	214.0	214.6	215.9	217.3	217.7	218.2	218.7	219.2	220.2
Medical care commodities	193.2	198.6	199.0	199.5	199.3	199.9	200.6	200.8	200.9	201.3	201.5	201.3	201.0	201.5	202.2
Medical care services	202.7	213.0	213.4	214.2	214.9	216.4	217.1	217.7	219.3	220.9	221.4	222.0	222.6	223.2	224.3
Professional services	185.2	193.4	193.9	194.4	194.9	196.0	196.5	196.9	198.1	199.4	200.0	200.5	201.2	201.9	202.7
Hospital and related services	229.2	242.7	243.2	244.4	245.2	246.9	247.7	248.5	250.5	252.1	252.2	252.8	253.1	253.4	255.0
Entertainment	144.1	148.2	148.4	148.3	148.6	149.0	149.6	149.2	150.1	150.4	150.6	151.3	151.5	151.2	151.5
Entertainment commodities	132.9	135.5	136.0	135.9	136.0	136.2	136.6	136.1	136.8	136.8	136.7	137.5	137.5	137.4	137.7
Entertainment services	160.5	166.7	166.5	166.5	167.0	167.5	168.5	168.3	169.2	170.1	170.6	171.2	171.8	171.2	171.4
Other goods and services	192.2	196.4	196.3	197.5	198.9	199.4	199.8	200.0	200.5	201.5	201.4	201.7	202.5	203.0	203.3
Tobacco products	228.3	220.1	221.4	222.1	221.1	221.6	221.7	222.2	222.4	222.9	222.6	223.1	225.4	226.5	226.3
Personal care	141.6	144.8	145.1	145.2	145.4	145.5	145.9	146.1	146.0	146.4	146.1	146.5	146.8	146.8	146.9
Toilet goods and personal care appliances	139.6	142.2	142.5	142.6	142.6	142.8	143.1	143.5	143.1	143.4	142.9	143.1	143.7	143.5	143.3
Personal care services	143.9	147.9	148.2	148.2	148.6	148.6	149.1	149.2	149.5	150.1	150.7	150.7	150.6	150.9	151.3
Personal and educational expenses	206.9	219.2	217.9	220.2	223.6	224.4	224.9	224.9	226.0	227.5	227.7	227.8	228.0	228.4	229.2
School books and supplies	199.2	207.1	206.9	207.5	209.8	208.8	208.8	208.5	213.4	213.6	213.6	213.7	213.2	213.6	213.8
Personal and educational services	207.8	220.4	219.0	221.5	225.0	225.9	226.5	226.5	227.2	228.9	229.0	229.2	229.5	229.8	230.6
All items	142.1	145.6	145.8	146.5	146.9	147.0	147.3	147.2	147.8	148.3	148.7	149.3	149.6	149.9	149.9
Commodities	131.2	133.4	133.4	134.1	134.6	134.7	135.0	134.8	134.9	135.3	135.7	136.5	136.9	136.7	136.2
Food and beverages	141.2	144.4	144.4	144.9	145.1	145.1	145.3	146.6	147.2	147.3	147.3	148.3	148.1	147.8	148.0
Commodities less food and beverages	125.0	126.6	126.7	127.5	128.1	128.2	128.6	127.6	127.4	127.9	128.6	129.3	130.0	129.9	128.9
Nondurables less food and beverages	127.7	127.9	127.8	129.1	129.9	129.7	129.7	127.7	127.0	127.6	128.5	129.4	130.5	130.3	128.9
Apparel commodities	129.8	129.4	126.7	127.2	130.2	131.1	130.1	126.1	125.0	126.8	130.3	130.7	129.1	126.4	124.0
Nondurables less food, beverages, and apparel	129.7	130.1	131.2	133.0	132.8	132.0	132.4	131.3	130.9	130.8	130.6	131.7	134.2	135.2	134.2
Durables	120.1	123.8	124.2	124.3	124.4	125.1	126.0	126.5	126.8	127.2	127.5	128.0	128.1	128.1	127.9
Services	155.5	160.6	160.9	161.6	161.9	162.1	162.3	162.4	163.4	164.1	164.6	164.8	165.1	166.0	166.5
Rent of shelter (12/84=100)	145.8	150.3	150.5	151.3	151.4	151.8	151.9	151.7	152.5	153.3	153.8	154.0	154.2	154.8	155.5
Household services less rent of shelter (12/84=100)	123.5	125.4	126.8	126.9	126.9	125.2	124.7	124.9	126.1	125.8	125.6	125.4	125.9	128.2	128.3
Transportation services	160.0	165.7	165.2	165.9	166.0	167.2	168.4	169.2	170.6	171.5	172.8	173.8	173.6	174.0	173.7
Medical care services	202.7	213.0	213.4	214.2	214.9	216.4	217.1	217.7	219.3	220.9	221.4	222.0	222.6	223.2	224.3
Other services	174.1	182.4	181.8	182.9	184.7	185.3	185.9	185.9	186.6	187.7	188.0	188.3	188.6	188.5	189.0
Special indexes:															
All items less food	142.3	145.9	146.1	146.8	147.2	147.4	147.7	147.4	147.9	148.5	149.0	149.5	149.9	150.3	150.3
All items less shelter	139.7	143.0	143.1	143.8	144.2	144.3	144.6	144.6	145.0	145.5	145.9	146.5	146.9	147.1	146.8
All items less homeowners' costs (12/84=100)	133.9	137.0	137.3	137.9	138.1	138.2	138.4	138.4	139.0	139.4	139.9	140.4	140.7	141.0	140.9
All items less medical care	139.2	142.6	142.7	143.4	143.8	143.8	144.1	144.0	144.6	145.0	145.5	146.0	146.3	146.6	146.6
Commodities less food	125.9	127.6	127.7	128.4	128.9	129.1	129.4	128.5	128.3	128.8	129.5	130.2	130.9	130.8	129.9
Nondurables less food	128.9	129.2	129.1	130.3	131.1	130.9	130.8	129.0	128.4	129.0	129.9	130.7	131.8	131.6	130.3
Nondurables less food and apparel	130.7	131.2	132.2	133.7	133.6	133.0	133.3	132.4	132.0	132.0	131.9	132.9	135.1	136.0	135.1
Nondurables	134.7	136.4	136.4	137.3	137.8	137.7	137.8	137.4	137.4	137.7	138.2	139.1	139.6	139.4	138.8
Services less rent of shelter (12/84=100)	147.0	152.1	152.5	153.0	153.5	153.4	153.7	154.0	155.2	155.8	156.1	156.4	156.7	157.7	157.9
Services less medical care	151.4	156.1	156.4	157.1	157.3	157.4	157.6	157.6	158.6	159.3	159.7	160.0	160.2	161.1	161.5
Energy	103.6	104.1	106.3	108.2	107.8	105.3	105.3	104.2	103.6	103.1	102.5	103.3	106.0	109.0	107.6
All items less energy	147.5	151.5	151.4	151.9	152.4	152.9	153.2	153.3	154.0	154.6	155.2	155.7	155.7	155.7	155.8
All items less food and energy	149.3	153.5	153.4	153.9	154.4	155.0	155.3	155.1	155.8	156.6	157.3	157.7	157.8	157.9	158.0
Commodities less food and energy	134.3	136.2	135.9	136.1	136.9	137.5	137.7	137.1	137.1	137.9	138.8	139.3	139.1	138.6	138.1
Energy commodities	97.5	97.8	99.6	102.9	102.4	100.6	101.5	99.4	98.0						

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

(1982-84=100, unless otherwise indicated)

Area ¹	Pricing schedule ²	All Urban Consumers							Urban Wage Earners						
		1994		1995					1994		1995				
		June	July	Mar.	Apr.	May	June	July	June	July	Mar.	Apr.	May	June	July
U.S. city average	M	148.0	148.4	151.4	151.9	152.2	152.5	152.5	145.4	145.8	148.7	149.3	149.6	149.9	149.9
Region and area size³															
Northeast urban	M	154.8	155.2	158.0	158.3	158.5	158.9	159.2	152.3	152.7	155.5	155.8	156.1	156.4	156.6
Size A - More than 1,200,000	M	155.4	155.7	158.7	159.0	159.2	159.6	159.8	151.9	152.2	155.1	155.4	155.7	156.1	156.1
Size B - 500,000 to 1,200,000	M	153.5	154.3	155.9	156.3	156.4	156.5	157.5	151.4	152.3	153.9	154.2	154.3	154.5	155.3
Size C - 50,000 to 500,000	M	153.2	152.9	156.6	157.0	157.1	157.2	157.8	154.6	154.4	158.1	158.6	158.8	158.9	159.2
North Central urban	M	144.0	144.3	147.3	148.1	148.3	148.7	148.8	140.9	141.3	144.2	145.0	145.2	145.6	145.5
Size A - More than 1,200,000	M	145.1	145.4	148.5	149.0	149.0	149.5	149.5	141.4	141.6	144.7	145.3	145.2	145.7	145.6
Size B - 360,000 to 1,200,000	M	143.0	143.6	146.1	146.9	147.3	147.7	148.0	139.5	140.1	142.6	143.4	143.9	144.2	144.1
Size C - 50,000 to 360,000	M	144.7	145.0	148.3	149.5	150.0	149.9	149.6	142.2	142.6	145.6	146.9	147.5	147.4	147.1
Size D - Nonmetropolitan (less than 50,000)	M	139.8	140.2	142.7	143.9	144.6	145.4	146.0	138.4	138.9	141.0	142.2	142.9	143.7	144.2
South urban	M	144.7	145.0	148.0	148.4	148.8	149.1	149.2	143.2	143.6	146.5	147.0	147.4	147.8	147.8
Size A - More than 1,200,000	M	145.3	145.3	148.0	148.3	148.7	148.8	148.8	143.4	143.6	146.1	146.4	147.1	147.2	147.2
Size B - 450,000 to 1,200,000	M	146.6	147.1	150.4	150.9	150.8	151.3	151.5	143.2	143.7	146.9	147.4	147.4	147.8	147.9
Size C - 50,000 to 450,000	M	143.5	143.8	146.6	147.3	147.6	148.5	148.4	143.3	143.7	146.5	147.3	147.8	148.6	148.5
Size D - Nonmetropolitan (less than 50,000)	M	142.5	142.7	146.6	147.1	148.0	147.8	148.1	142.7	142.9	146.7	147.3	148.2	148.1	148.3
West urban	M	148.9	149.5	152.8	153.2	153.5	153.6	153.5	146.1	146.7	149.8	150.3	150.6	150.7	150.5
Size A - More than 1,250,000	M	150.4	150.9	153.6	154.0	154.2	154.1	154.0	146.0	146.5	149.1	149.6	149.7	149.8	149.5
Size C - 50,000 to 330,000	M	148.6	150.0	155.2	155.9	156.4	156.6	156.7	146.4	147.7	152.2	152.8	153.8	153.8	153.7
Size classes:															
A (12/86=100)	M	134.3	134.6	137.2	137.5	137.7	137.9	137.9	133.3	133.6	136.2	136.6	136.8	137.0	136.9
B	M	147.5	148.1	151.1	151.6	151.8	152.1	152.6	145.0	145.5	148.5	148.9	149.1	149.4	149.7
C	M	146.4	146.8	150.2	151.0	151.4	151.8	151.8	145.6	146.1	149.3	150.2	150.7	151.1	150.9
D	M	143.4	143.8	147.1	147.7	148.5	148.9	149.1	142.8	143.2	146.3	147.0	147.9	148.2	148.4
Selected local areas															
Chicago, IL-Northwestern IN ...	M	148.1	148.3	152.6	153.1	153.0	153.5	153.6	143.6	143.7	147.8	148.3	148.2	148.5	148.7
Los Angeles-Long Beach, Anaheim, CA	M	151.3	151.7	154.6	154.7	155.1	154.8	154.5	146.1	146.5	149.3	149.5	149.8	149.7	149.3
New York, NY-Northeastern NJ	M	157.8	158.2	160.9	161.4	161.8	162.2	162.3	154.2	154.4	157.1	157.5	158.0	158.4	158.3
Philadelphia, PA-NJ	M	154.6	155.3	158.0	157.8	157.8	158.4	158.9	154.2	154.9	157.5	157.4	157.4	158.1	158.5
San Francisco-Oakland, CA	M	148.1	148.9	151.1	151.5	151.3	151.7	151.5	145.7	146.6	148.9	149.4	149.0	149.6	149.3
Baltimore, MD	1	-	148.2	150.3	-	150.4	-	151.5	-	147.3	149.1	-	149.4	-	150.5
Boston, MA	1	-	153.9	158.4	-	157.7	-	157.8	-	152.9	156.9	-	156.5	-	156.6
Cleveland, OH	1	-	143.7	147.3	-	147.4	-	148.1	-	136.3	139.7	-	139.9	-	140.3
Miami, FL	1	-	143.4	148.7	-	148.6	-	148.3	-	141.4	146.6	-	146.8	-	146.5
St. Louis, MO-IL	1	-	141.9	144.5	-	144.6	-	145.6	-	141.4	143.9	-	144.2	-	145.2
Washington, DC-MD-VA	1	-	151.8	155.1	-	154.7	-	156.1	-	149.4	152.4	-	152.3	-	153.5
Dallas-Ft. Worth, TX	2	141.4	-	-	145.0	-	144.4	-	140.6	-	-	144.5	-	144.4	-
Detroit, MI	2	144.8	-	-	148.1	-	148.3	-	140.2	-	-	143.6	-	143.7	-
Houston, TX	2	137.4	-	-	138.0	-	139.9	-	137.0	-	-	137.6	-	139.5	-
Pittsburgh, PA	2	144.0	-	-	148.9	-	149.2	-	137.8	-	-	142.6	-	143.0	-

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

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

M - Every month.

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

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

³ Regions are defined as the four Census regions.

- Data not available.

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

33. Annual data: Consumer Price Index, U.S. city average, all items and major groups

(1982-84=100)

Series	1986	1987	1988	1989	1990	1991	1992	1993	1994
Consumer Price Index for All Urban Consumers:									
All items:									
Index	109.6	113.6	118.3	124.0	130.7	136.2	140.3	144.5	148.2
Percent change	1.9	3.6	4.1	4.8	5.4	4.2	3.0	3.0	2.6
Food and beverages:									
Index	109.1	113.5	118.2	124.9	132.1	136.8	138.7	141.6	144.9
Percent change	3.3	4.0	4.1	5.7	5.8	3.6	1.4	2.1	2.3
Housing:									
Index	110.9	114.2	118.5	123.0	128.5	133.6	137.5	141.2	144.8
Percent change	3.0	3.0	3.8	3.8	4.5	4.0	2.9	2.7	2.5
Apparel and upkeep:									
Index	105.9	110.6	115.4	118.6	124.1	128.7	131.9	133.7	133.4
Percent change .....	.9	4.4	4.3	2.8	4.6	3.7	2.5	1.4	-2
Transportation:									
Index	102.3	105.4	108.7	114.1	120.5	123.8	126.5	130.4	134.3
Percent change	-3.9	3.0	3.1	5.0	5.6	2.7	2.2	3.1	3.0
Medical care:									
Index	122.0	130.1	138.6	149.3	162.8	177.0	190.1	201.4	211.0
Percent change	7.5	6.6	6.5	7.7	9.0	8.7	7.4	5.9	4.8
Entertainment:									
Index	111.6	115.3	120.3	126.5	132.4	138.4	142.3	145.8	150.1
Percent change	3.4	3.3	4.3	5.2	4.7	4.5	2.8	2.5	2.9
Other goods and services:									
Index	121.4	128.5	137.0	147.7	159.0	171.6	183.3	192.9	198.5
Percent change	6.0	5.8	6.6	7.8	7.7	7.9	6.8	5.2	2.9
Consumer Price Index for Urban Wage Earners and Clerical Workers:									
All items:									
Index	108.6	112.5	117.0	122.6	129.0	134.3	138.2	142.1	145.6
Percent change	1.6	3.6	4.0	4.8	5.2	4.1	2.9	2.8	2.5

34. Producer Price Indexes, by stage of processing

(1982=100)

Grouping	Annual average		1994					1995						
	1993	1994	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Finished goods	124.7	125.5	126.5	125.6	125.8	126.1	126.2	126.6	126.9	127.1	127.6	128.0	128.2	128.3
Finished consumer goods	125.7	126.8	126.6	126.3	126.1	126.9	128.6	127.9	128.4	128.7	128.5	127.9	127.4	128.5
Finished consumer goods excluding foods	121.7	121.6	123.4	122.2	122.0	122.3	121.8	122.4	122.6	122.9	123.8	124.7	125.2	124.8
Nondurable goods less food	117.6	116.2	118.7	117.8	116.3	116.7	115.9	116.7	116.9	117.3	118.7	120.0	120.8	120.2
Durable goods	128.0	130.9	131.0	129.2	132.1	132.1	132.2	132.6	132.7	132.4	132.4	132.4	132.3	132.1
Capital equipment	78.0	77.0	81.4	79.6	77.1	77.7	75.9	76.6	76.6	76.8	78.8	80.4	81.5	80.0
Intermediate materials, supplies, and components	116.2	118.5	119.5	120.1	120.0	120.9	121.1	122.5	123.4	124.0	124.7	125.3	125.9	126.0
Materials and components for manufacturing	118.9	122.1	122.5	123.7	124.5	125.5	126.2	128.1	129.3	129.9	130.6	130.8	131.0	131.5
Materials for food manufacturing	115.6	118.5	117.8	118.5	116.8	118.0	117.5	117.8	118.4	119.0	117.1	116.5	117.2	119.3
Materials for nondurable manufacturing	115.5	119.2	119.7	122.3	124.3	125.4	126.7	129.7	132.1	133.2	135.7	136.5	137.4	137.8
Materials for durable manufacturing	119.1	125.2	126.0	127.4	128.5	130.6	131.8	134.6	136.1	136.6	136.8	136.5	136.1	136.4
Components for manufacturing	123.0	124.3	124.3	124.5	124.6	124.8	124.9	125.7	126.0	126.1	126.2	126.3	126.3	126.5
Materials and components for construction	84.6	83.0	87.3	86.5	83.0	83.4	82.2	82.2	82.4	82.6	83.9	85.6	87.7	86.3
Processed fuels and lubricants	123.8	127.1	127.3	128.3	129.2	130.2	130.9	132.6	133.8	134.4	135.2	135.5	135.7	136.1
Containers	135.8	137.1	137.2	136.4	137.8	137.8	138.1	138.7	139.0	139.2	139.4	139.7	139.8	140.0
Supplies	125.0	127.0	126.9	127.2	127.5	127.9	128.4	129.5	130.0	130.6	131.2	131.3	131.8	132.5
Crude materials for further processing	102.4	101.8	101.9	99.7	98.2	99.1	100.5	101.5	102.6	102.3	103.9	103.5	103.4	101.9
Foodstuffs and feedstuffs	108.4	106.5	101.8	101.3	98.9	100.4	101.6	102.2	104.1	103.2	101.9	99.5	102.2	104.7
Crude nonfood materials	76.7	72.1	75.6	71.3	70.2	69.3	69.9	69.8	69.6	69.1	72.9	74.1	71.6	67.7
Special groupings:														
Finished goods, excluding foods	124.4	125.1	126.4	125.3	125.6	125.8	125.5	126.2	126.4	126.6	127.3	128.0	128.4	128.1
Finished energy goods	78.0	77.0	81.4	79.6	77.1	77.7	75.9	76.6	76.6	76.8	78.8	80.4	81.5	80.0
Finished goods less energy	132.9	134.2	134.2	133.6	134.5	134.7	135.4	135.7	136.0	136.2	136.3	136.3	136.3	136.7
Finished consumer goods less energy	133.5	134.2	134.1	133.6	134.4	134.7	135.5	135.6	136.0	136.3	136.3	136.3	136.2	136.7
Finished goods less food and energy	135.8	137.1	137.2	136.4	137.8	137.8	138.1	138.7	139.0	139.2	139.4	139.7	139.8	140.0
Finished consumer goods less food and energy	138.5	139.0	139.0	138.2	139.6	139.7	140.0	140.5	140.8	141.1	141.3	141.7	141.8	142.0
Consumer nondurable goods less food and energy	146.1	144.4	144.4	144.6	144.7	144.8	145.2	145.9	146.4	147.1	147.4	148.2	148.5	149.0
Intermediate materials less foods and feeds	116.4	118.7	119.8	120.4	120.4	121.3	121.6	123.0	124.0	124.5	125.4	126.0	126.6	126.7
Intermediate foods and feeds	112.7	114.8	113.6	113.9	112.2	112.1	111.5	111.8	111.8	112.6	111.7	110.7	111.6	113.5
Intermediate energy goods	84.6	83.0	87.3	86.5	83.0	83.4	82.2	82.2	82.4	82.6	83.9	85.6	87.7	86.3
Intermediate goods less energy	123.2	126.3	126.5	127.5	128.2	129.1	129.7	131.4	132.5	133.1	133.8	134.0	134.3	134.8
Intermediate materials less foods and energy	123.8	127.1	127.3	128.3	129.2	130.2	130.9	132.6	133.8	134.4	135.2	135.5	135.7	136.1
Crude energy materials	76.7	72.1	75.6	71.3	70.2	69.3	69.9	69.8	69.6	69.1	72.9	74.1	71.6	67.7
Crude materials less energy	116.3	119.3	116.4	116.4	114.6	117.0	119.1	121.0	123.2	123.1	122.6	120.6	122.7	123.6
Crude nonfood materials less energy	140.2	156.2	157.9	159.2	159.3	164.1	168.4	174.1	177.0	179.1	180.7	179.8	180.4	176.7

35. Producer price indexes for the net output of major industry groups

(December 1984=100, unless otherwise indicated)

Industry	SIC	Annual average		1994					1995						
		1993	1994	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Total mining industries		76.4	73.3	75.0	72.4	71.0	70.5	72.0	72.1	71.2	70.7	73.5	74.3	72.6	70.0
Metal mining	10	69.7	81.4	84.4	87.6	88.3	91.1	94.2	101.9	102.3	103.7	105.0	99.1	99.4	103.4
Coal mining (12/85=100)	12	93.3	93.2	92.7	94.3	95.0	94.9	92.0	88.4	91.3	93.7	94.4	92.1	91.0	91.0
Oil and gas extraction (12/85=100)	13	76.2	71.1	73.3	69.2	67.1	66.2	68.6	68.7	66.9	65.7	69.4	71.2	69.1	65.2
Mining and quarrying of nonmetallic minerals, except fuels	14	118.8	120.5	120.4	120.5	120.7	120.8	120.9	122.4	123.3	123.6	123.1	123.1	123.3	123.7
Total manufacturing industries		119.1	120.7	121.5	121.1	121.5	121.9	121.7	122.6	123.1	123.4	124.0	124.5	124.5	124.4
Food and kindred products	20	118.7	120.1	120.1	119.9	119.6	119.6	119.4	120.2	120.8	121.1	120.2	120.2	120.4	121.4
Tobacco manufactures	21	218.0	187.8	187.7	187.9	187.6	188.1	187.9	188.1	188.7	190.6	190.8	195.3	195.3	195.1
Textile mill products	22	113.6	113.6	113.8	113.8	113.9	114.2	114.3	114.7	115.5	115.7	116.0	116.6	116.5	116.7
Apparel and other finished products made from fabrics and similar materials	23	119.2	119.7	119.7	119.7	119.8	119.7	119.8	120.0	120.3	120.6	120.6	120.5	120.4	120.5
Lumber and wood products, except furniture	24	148.3	154.4	153.3	154.1	153.9	155.9	155.5	155.7	155.0	155.5	155.0	154.6	153.1	154.1
Furniture and fixtures	25	125.4	129.7	130.1	130.3	130.5	130.9	131.0	131.5	132.0	132.1	132.5	132.9	133.4	133.4
Paper and allied products	26	120.2	123.7	123.3	125.5	128.2	130.4	132.8	136.0	139.1	141.4	143.7	145.6	148.2	149.6
Printing, publishing, and allied industries	27	145.6	149.7	149.6	150.3	150.8	151.7	152.4	154.7	155.6	156.4	157.0	157.4	157.9	159.4
Chemicals and allied products	28	127.2	130.0	130.3	132.0	133.6	134.4	136.1	138.4	140.6	141.4	143.3	145.0	144.2	144.7
Petroleum refining and related products	29	77.6	74.8	82.5	79.5	76.2	77.8	73.5	74.3	74.6	75.3	80.6	84.4	83.1	78.6
Rubber and miscellaneous plastic products	30	115.4	117.1	117.0	117.9	118.8	119.5	120.1	121.3	121.8	122.5	123.1	123.2	124.1	124.2
Leather and leather products	31	129.0	130.6	130.6	131.3	131.7	132.1	132.5	133.3	133.7	133.8	134.1	134.4	134.2	134.2
Stone, clay, glass, and concrete products ..	32	115.4	119.6	120.4	120.7	121.1	121.4	121.6	122.4	123.1	123.8	124.6	124.8	124.5	124.5
Primary metal industries	33	111.4	117.0	117.5	118.7	119.7	121.7	122.9	126.6	128.2	129.1	129.4	129.1	128.9	128.7
Fabricated metal products, except machinery and transportation equipment	34	118.2	120.3	120.6	120.8	121.2	121.6	121.8	122.6	123.6	124.1	124.6	124.7	124.9	125.1
Machinery, except electrical	35	116.8	117.5	117.6	117.7	117.7	117.7	117.8	118.3	118.6	118.7	119.0	119.0	119.3	119.3
Electrical and electronic machinery, equipment, and supplies	36	112.0	112.7	112.7	112.6	112.6	112.6	112.7	113.1	113.3	113.1	113.1	113.4	113.2	113.2
Transportation equipment	37	126.3	130.1	130.1	128.2	131.5	131.2	131.6	132.2	132.2	132.0	132.0	131.8	131.9	131.7
Measuring and controlling instruments; photographic, medical, optical goods; watches, clocks	38	120.8	122.1	122.2	122.0	122.3	122.6	122.6	122.9	123.4	123.4	123.7	123.6	124.1	124.6
Miscellaneous manufacturing industries (12/85=100)	39	121.5	123.3	123.5	123.6	123.6	123.8	124.0	125.0	125.3	125.4	125.5	125.6	125.8	126.1
Service industries:															
Motor freight transportation and warehousing (06/93=100)	42	-	101.9	102.2	102.3	102.7	102.7	102.9	103.1	104.2	104.4	104.6	104.5	104.4	104.7
U.S. Postal Service (06/89=100)	43	119.8	119.8	119.8	119.8	119.8	119.8	119.8	132.1	132.1	132.1	132.1	132.1	132.1	132.3
Water transportation (12/92=100)	44	99.7	100.0	100.1	100.3	102.9	101.4	101.6	102.6	102.8	102.6	101.9	102.2	102.6	103.5
Transportation by air (12/92=100)	45	105.6	108.5	109.0	108.5	108.3	108.1	107.9	108.1	109.6	110.1	110.1	113.6	114.2	115.6
Pipelines, except natural gas (12/86=100) ..	46	96.6	102.6	102.9	103.0	103.7	106.5	107.0	110.9	110.9	110.9	110.9	110.9	110.7	110.7

- Data not available.

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

(1982=100)

Index	1986	1987	1988	1989	1990	1991	1992	1993	1994
Finished goods:									
Total	103.2	105.4	108.0	113.6	119.2	121.7	123.2	124.7	125.5
Foods	107.3	109.5	112.6	118.7	124.4	124.1	123.3	125.7	126.8
Energy	63.0	61.8	59.8	65.7	75.0	78.1	77.8	78.0	77.0
Other	110.6	113.3	117.0	122.1	126.6	131.1	134.2	135.8	137.1
Intermediate materials, supplies, and components:									
Total	99.1	101.5	107.1	112.0	114.5	114.4	114.7	116.2	118.5
Foods	102.2	105.3	113.2	118.1	118.7	118.1	117.9	118.9	122.1
Energy	72.6	73.0	70.9	76.1	85.5	85.1	84.3	84.6	83.0
Other	104.9	107.8	115.2	120.2	120.9	121.4	122.0	123.8	127.1
Crude materials for further processing:									
Total	87.7	93.7	96.0	103.1	108.9	101.2	100.4	102.4	101.8
Foods	93.2	96.2	106.1	111.2	113.1	105.5	105.1	108.4	106.5
Energy	71.8	75.0	67.7	75.9	85.9	80.4	78.8	76.7	72.1
Other	103.1	115.7	133.0	137.9	136.3	128.2	128.4	140.2	156.2

37. U.S. export price indexes by Standard International Trade Classification

(1990=100, unless otherwise indicated)

Category	SITC Rev. 3	1994					1995					
		Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Food and live animals												
Meat and meat preparations	0	102.6	102.4	103.9	105.2	106.7	105.7	106.6	108.2	111.3	112.4	113.7
Cereals and cereal preparations	01	105.9	107.7	108.8	112.4	109.0	109.3	108.7	112.4	113.5	113.0	115.0
Vegetables, fruit, and nuts, prepared fresh or dry	04	93.7	96.1	99.6	100.8	103.9	102.8	104.6	103.1	106.8	110.2	113.9
Other	05	117.5	109.6	106.6	109.2	113.3	109.9	109.2	116.8	122.5	122.2	117.2
Crude materials, inedible, except fuels												
Hides, skins, and furskins, raw	2	109.4	108.9	108.9	112.7	116.8	120.4	124.3	127.4	131.0	131.1	131.9
Oilseeds and oleaginous fruits	21	101.0	103.9	107.2	109.9	110.4	111.2	110.7	109.6	108.6	107.3	103.5
Crude rubber (including synthetic and reclaimed)	22	96.0	96.2	87.4	89.5	91.9	92.0	93.7	96.3	95.0	96.7	
Cork and wood	23	100.8	99.3	102.0	104.5	104.7	109.6	115.4	115.9	120.7	119.0	117.7
Pulp and waste paper	24	149.9	149.1	149.0	151.0	151.5	154.6	157.9	157.3	159.5	158.2	157.0
Textile fibers and their waste	25	110.5	105.0	108.6	118.5	126.8	135.5	145.9	156.0	168.3	167.0	172.8
Crude fertilizers and crude minerals	26	102.1	101.8	100.2	103.8	110.5	116.2	122.7	132.5	130.7	131.4	133.9
Metaliferous ores and metal scrap	27	95.8	96.2	95.4	96.4	96.4	97.5	97.2	98.4	98.2	99.3	98.2
Other	28	98.7	100.2	104.3	108.9	116.5	119.9	124.4	124.9	130.2	134.1	133.5
Mineral fuels, lubricants, and related products												
Coal, coke, and briquettes	3	91.0	87.6	87.5	88.2	89.3	89.3	89.4	88.9	90.8	92.6	93.2
Petroleum, petroleum products, and related materials	32	93.1	93.3	93.6	93.9	94.1	94.0	94.7	94.7	96.4	96.5	97.7
Other	33	87.0	81.1	80.6	81.1	82.8	82.8	82.4	81.9	83.9	86.9	87.2
Animal and vegetable oils, fats, and waxes												
Other	4	109.0	116.2	118.1	119.1	132.1	134.7	124.2	122.0	116.1	113.9	114.8
Chemicals and related products, n.e.s.												
Medicinal and pharmaceutical products	5	101.5	103.8	106.6	108.1	109.2	112.4	113.8	115.4	116.7	117.4	116.7
Essential oils; polishing and cleaning preparations	54	107.9	107.9	107.6	107.5	107.5	107.5	107.7	108.3	108.3	108.4	109.5
Plastics in primary forms (12/92=100)	55	109.4	109.7	109.5	109.7	109.4	109.7	110.1	110.4	110.7	110.5	110.2
Plastics in nonprimary forms (12/92=100)	57	113.8	121.5	129.5	132.5	134.0	137.0	138.6	141.9	144.6	143.9	141.4
Chemical materials and products, n.e.s.	58	100.2	101.4	104.6	104.2	104.8	105.7	106.0	106.5	108.4	109.4	109.6
Other	59	108.9	109.0	109.2	109.7	110.9	113.1	114.7	113.3	114.7	114.9	115.1
Manufactured goods classified chiefly by materials												
Rubber manufactures, n.e.s.	6	106.1	106.6	108.0	109.3	110.9	112.1	113.1	113.9	115.1	116.3	115.8
Paper, paperboard, and articles of paper, pulp, and paperboard	62	109.3	110.2	110.7	110.3	110.5	111.6	112.6	115.8	114.7	116.0	116.3
Nonmetallic mineral manufactures, n.e.s.	64	100.3	101.8	105.9	108.2	111.0	115.6	117.1	118.5	123.8	128.1	127.4
Nonferrous metals	66	107.4	107.6	107.6	107.4	108.6	108.6	108.5	109.3	109.3	109.1	109.2
Other	68	97.6	98.7	102.5	107.1	111.4	113.8	116.1	115.2	115.4	115.8	113.5
Machinery and transport equipment												
Power generating machinery and equipment	7	103.8	103.7	103.7	103.8	103.7	104.0	104.1	104.2	104.5	104.5	104.7
Machinery specialized for particular industries	71	113.5	113.7	113.6	114.5	114.6	115.1	115.3	114.5	114.9	115.0	114.9
General industrial machines and parts, n.e.s., and machine parts	72	109.3	109.9	109.9	109.9	109.9	110.6	111.1	111.6	112.1	112.2	112.6
Computer equipment and office machines	74	110.3	110.5	110.5	110.5	110.5	111.2	111.8	111.8	111.9	112.0	111.2
Telecommunications and sound recording and reproducing apparatus and equipment	75	78.8	78.8	78.5	78.4	78.1	77.6	77.2	76.9	77.1	76.7	76.5
Electrical machinery and equipment	76	107.3	106.8	106.7	106.7	106.4	107.1	107.1	106.4	106.0	106.2	106.7
Road vehicles	77	103.1	101.8	101.9	101.7	101.5	101.8	101.5	102.2	102.9	102.9	104.0
Other	78	106.5	106.6	107.2	107.2	107.3	107.4	107.7	107.8	107.8	107.9	108.0
Professional, scientific, and controlling instruments and apparatus												
Other	87	111.9	112.5	112.2	113.1	112.6	113.5	113.4	113.2	113.4	113.2	113.9

38. U.S. import price indexes by Standard International Trade Classification

(1990=100, unless otherwise indicated)

Category	SITC Rev.3	1994				1995					
		Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Food and live animals	0	118.8	120.6	118.4	118.7	120.1	116.9	120.6	115.9	117.8	116.4
Meat and meat preparations	01	91.9	91.0	90.9	91.7	90.3	89.7	88.6	86.6	85.1	85.2
Fish and crustaceans, mollusks, and other aquatic invertebrates	03	123.5	126.1	126.5	127.9	125.7	125.6	127.7	127.2	126.3	126.1
Cereals and cereal preparations	04	100.5	102.5	101.9	101.9	101.6	101.5	102.2	91.6	96.3	101.4
Vegetables and fruit, prepared fresh or dried	05	100.1	99.4	100.6	112.6	120.3	110.0	114.4	104.1	111.6	110.6
Sugars, sugar preparations, and honey	06	96.8	97.1	96.7	97.2	98.3	98.8	98.1	99.6	98.4	103.9
Coffee, tea, cocoa, spices, and manufactures thereof	07	202.2	212.0	194.5	172.3	172.2	168.6	183.7	176.6	178.3	167.4
Beverages and tobacco	1	113.4	113.6	113.7	113.5	114.0	113.4	114.4	115.0	114.6	114.9
Beverages	11	113.5	113.6	113.8	113.6	114.2	113.6	114.5	114.7	114.7	114.8
Crude materials, inedible, except fuels	2	108.5	110.4	113.9	114.6	118.9	121.6	121.3	123.1	122.2	123.1
Crude rubber (including synthetic and reclaimed)	23	121.0	134.0	135.7	143.8	159.8	164.8	165.6	168.6	166.3	156.8
Cork and wood	24	155.4	151.3	157.2	149.6	152.7	150.0	143.3	141.1	139.2	131.0
Pulp and waste paper	25	80.1	86.4	90.0	90.7	97.4	97.4	104.7	108.1	109.5	116.0
Crude fertilizers	27	82.3	86.0	86.1	85.6	87.9	87.9	90.2	92.4	97.8	100.4
Metalliferous ores and metal scrap	28	92.3	92.8	94.3	97.2	98.6	101.1	106.6	105.8	105.6	106.3
Crude animal and vegetable materials, n.e.s.	29	118.3	117.4	126.6	139.2	142.8	166.3	140.1	155.5	146.5	160.8
Mineral fuels, lubricants, and related products	3	73.5	73.9	76.9	75.3	76.0	77.8	79.1	82.5	85.4	82.7
Petroleum, petroleum products, and related materials	33	72.6	73.1	76.1	74.5	75.4	77.5	79.0	82.6	85.6	82.7
Gas, natural and manufactured	34	87.4	86.0	87.5	88.3	84.8	81.7	79.5	77.9	79.1	79.9
Electrical energy	35	88.8	86.2	83.3	83.5	82.3	79.9	78.0	77.4	81.1	78.8
Animal and vegetable oils, fats, and waxes	4	140.0	141.6	144.1	155.0	152.2	145.4	152.4	154.4	157.6	159.0
Chemicals and related products, n.e.s.	5	105.7	106.6	107.8	108.8	109.1	110.1	110.8	111.3	112.5	112.3
Inorganic chemicals	52	102.7	105.6	106.8	107.6	108.5	109.4	113.1	112.0	113.2	114.3
Dyeing, tanning, and coloring materials	53	102.5	102.9	103.2	102.9	102.4	103.3	106.4	110.9	109.0	108.6
Medicinal and pharmaceutical products	54	119.7	120.2	121.4	120.5	120.2	120.7	121.6	124.7	129.1	128.0
Essential oils; polishing and cleaning preparations	55	110.5	111.8	112.7	113.4	114.5	115.3	116.8	120.1	124.1	123.4
Fertilizers	56	102.1	105.0	107.0	107.2	108.2	109.7	112.0	113.1	112.8	111.0
Plastics in primary forms (12/92=100)	57	101.6	101.4	102.1	102.9	107.3	107.3	106.8	109.0	110.3	109.8
Plastics in nonprimary forms (12/92=100)	58	102.8	102.1	105.8	107.1	110.0	112.8	115.5	116.5	117.4	117.9
Chemical materials and products, n.e.s.	59	105.2	103.1	103.4	103.7	102.6	103.4	103.8	105.0	105.6	106.8
Manufactured goods classified chiefly by material	6	103.0	103.9	105.4	106.4	107.4	108.8	109.1	110.8	112.1	111.7
Rubber manufactures, n.e.s.	62	101.5	102.5	102.6	102.3	102.4	102.1	102.8	103.7	105.1	105.0
Paper, paperboard, and articles of paper pulp, paper, or paperboard	64	99.4	99.2	101.3	105.2	108.6	109.9	114.4	119.5	125.2	125.1
Nonmetallic mineral manufactures, n.e.s.	66	109.8	109.6	109.9	110.5	110.4	110.7	110.8	111.3	111.2	111.4
Nonferrous metals	68	91.0	95.6	99.1	103.1	105.6	110.8	105.9	106.4	106.5	103.8
Manufactures of metals, n.e.s.	69	106.0	106.2	107.0	106.4	106.3	107.0	108.4	110.0	110.8	110.8
Machinery and transport equipment	7	107.4	108.1	108.2	108.0	107.9	108.2	108.5	109.5	110.1	110.1
Machinery specialized for particular industries	72	111.5	112.0	112.8	112.5	112.3	113.2	114.0	116.0	117.1	117.2
General industrial machinery and equipment, n.e.s., and machine parts	74	110.3	110.9	111.6	111.6	112.1	112.8	113.0	115.8	116.5	116.7
Computer equipment and office machines	75	86.0	85.7	84.5	84.8	84.7	84.6	84.0	84.2	84.2	84.0
Telecommunications and sound recording and reproducing apparatus and equipment	76	97.5	97.6	97.7	97.7	97.4	97.6	97.6	98.4	98.9	98.7
Electrical machinery and equipment	77	106.6	106.9	106.7	106.5	106.4	106.6	106.9	107.6	109.0	108.8
Road vehicles	78	113.5	115.0	115.3	115.1	115.0	115.3	115.8	116.3	116.8	116.9
Footwear	85	101.0	101.0	101.3	101.1	100.7	101.0	101.1	101.4	101.5	101.9
Photographic apparatus, equipment, and supplies, and optical goods, n.e.s.	88	110.8	111.1	110.8	110.6	109.9	110.7	111.0	113.4	115.5	115.5

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

(1990 = 100 unless otherwise indicated)

Category	1994				1995					
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
ALL COMMODITIES	103.8	104.4	105.1	105.8	106.7	107.3	107.9	108.9	109.2	109.4
Foods, feeds, and beverages	101.3	101.5	102.9	104.7	103.8	104.5	106.0	108.7	109.5	111.1
Agricultural foods, feeds, and beverages	100.3	100.1	101.5	103.4	102.5	102.8	103.9	106.8	107.8	109.5
Nonagricultural (fish, beverages) food products	107.9	112.1	112.8	113.0	113.5	117.1	122.1	123.1	122.6	122.5
Industrial supplies and materials	104.3	106.0	107.9	109.9	112.5	114.1	115.3	117.1	117.9	117.7
Agricultural industrial supplies and materials	107.1	107.7	109.7	114.4	117.7	118.7	121.8	120.7	120.3	120.7
Fuels and lubricants	90.3	90.0	90.6	91.4	91.5	91.6	91.0	92.9	94.2	94.8
Nonagricultural supplies and materials, excluding fuel and building materials	102.6	104.9	107.1	109.2	112.2	114.2	115.6	117.9	119.0	118.6
Selected building materials	147.2	147.3	148.6	149.7	151.4	153.3	153.4	153.5	151.1	150.7
Capital goods	103.7	103.6	103.7	103.6	103.9	104.0	104.3	104.7	104.7	104.9
Electric and electrical generating equipment	106.6	106.7	106.8	106.4	106.9	107.0	107.2	108.1	107.8	108.1
Nonelectrical machinery	100.8	100.6	100.8	100.6	100.9	100.9	101.0	101.5	101.5	101.8
Automotive vehicles, parts, and engines	106.7	107.2	107.2	107.3	107.4	107.7	107.4	107.4	107.4	107.6
Consumer goods, excluding automotive	108.1	108.2	108.3	108.2	108.3	108.8	109.1	109.3	109.5	109.5
Nondurables, manufactured	110.1	110.1	110.2	110.0	110.3	110.9	111.3	111.8	111.9	111.9
Durables, manufactured	106.3	106.5	106.6	106.3	106.3	106.9	106.9	106.8	107.3	107.2
Nonmanufactured consumer goods	98.4	99.3	98.9	100.7	-	-	99.9	.0	.0	99.4
Agricultural commodities	101.7	101.6	103.2	105.7	105.6	106.1	107.6	109.7	110.3	111.8
Nonagricultural commodities	104.2	104.9	105.5	106.0	107.0	107.7	108.1	109.0	109.2	109.3

- Data not available.

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

(1990 = 100)

Category	1994				1995					
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
ALL COMMODITIES	102.8	103.5	104.2	104.1	104.4	105.1	105.7	106.7	107.7	107.3
Foods, feeds, and beverages	120.0	121.8	120.1	120.2	121.1	118.7	121.9	118.8	120.2	119.2
Agricultural foods, feeds, and beverages	118.5	120.2	117.7	117.6	119.4	116.2	119.9	115.7	117.9	116.6
Nonagricultural (fish, beverages) food products	123.5	125.3	125.7	126.7	125.1	125.0	126.7	126.5	125.7	125.5
Industrial supplies and materials	90.6	91.5	93.8	93.7	94.8	96.6	97.7	99.9	101.7	100.2
Fuels and lubricants	74.5	74.8	77.7	76.1	77.0	78.7	80.3	83.7	86.6	83.9
Petroleum and petroleum products	72.2	72.8	75.8	74.2	75.1	77.1	78.6	82.1	85.0	82.1
Paper and paper base stocks	93.0	94.7	96.8	100.1	104.7	107.2	112.3	117.1	121.3	123.3
Materials associated with nondurable supplies and materials	106.4	107.5	109.4	110.3	111.5	112.7	113.3	113.7	114.2	114.3
Selected building materials	128.6	126.5	129.8	125.7	125.7	125.2	123.1	122.4	121.9	117.9
Unfinished metals associated with durable goods	95.3	98.1	100.1	102.5	103.8	107.5	106.1	107.1	106.9	105.2
Nonmetals associated with durable goods	98.0	100.4	100.5	100.7	100.8	101.2	103.0	104.1	106.4	107.0
Capital goods	104.8	105.1	105.0	104.9	104.7	105.1	105.2	106.2	107.1	107.1
Electric and electrical generating equipment	107.4	107.7	108.3	108.1	107.9	109.2	109.6	111.0	112.3	112.2
Nonelectrical machinery	103.7	103.9	103.7	103.6	103.4	103.7	103.8	104.8	105.7	105.7
Transportation equipment, excluding motor vehicles and spacecraft (12/92 = 100)	105.2	105.7	105.8	105.3	-	-	-	-	-	-
Automotive vehicles, parts and engines	111.6	112.9	113.2	113.0	112.9	113.2	113.6	114.3	114.9	115.0
Consumer goods, excluding automobiles	106.0	106.2	106.4	106.4	106.3	106.8	106.9	107.2	107.7	107.9
Nondurables, manufactured	106.0	106.2	106.5	106.4	106.1	106.4	107.0	107.0	107.6	107.9
Durables, manufactured	105.6	105.6	105.6	105.6	105.6	106.0	106.2	106.6	107.2	107.3
Nonmanufactured consumer goods	110.3	110.6	112.0	113.4	114.0	117.2	112.1	114.2	112.8	112.5

- Data not available.

41. U.S. international price indexes for selected categories of services

(1990 = 100 unless otherwise indicated)

Category	1993			1994			1995		
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June
Air freight (inbound)	106.4	106.6	106.1	105.9	108.1	108.6	110.4	115.3	118.0
Air freight (outbound)	96.6	95.6	96.4	96.5	96.2	96.2	97.3	98.4	98.2
Air passenger fares (U.S. carriers)	117.2	119.0	111.4	113.1	119.7	121.4	113.8	116.1	128.6
Air passenger fares (foreign carriers)	115.7	117.0	107.2	108.1	114.6	118.1	110.0	113.8	125.2
Ocean liner freight (inbound)	103.5	103.3	102.1	103.4	106.3	106.2	106.6	108.5	106.6

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

(1982 = 100)

Item	Quarterly Indexes										
	1992	1993				1994				1995	
	IV	I	II	III	IV	I	II	III	IV	I	II
Business:											
Output per hour of all persons	116.8	116.2	116.3	117.0	118.4	118.9	118.5	119.5	120.7	121.3	122.2
Compensation per hour	157.7	158.7	159.9	160.6	161.3	163.3	163.6	164.9	166.4	167.9	169.5
Real compensation per hour	107.1	107.0	107.0	107.0	106.6	107.4	106.9	106.8	107.2	107.3	107.4
Unit labor costs	135.1	136.6	137.5	137.3	136.2	137.3	138.1	138.0	137.8	138.4	138.7
Unit nonlabor payments	150.2	149.5	149.6	150.5	154.0	153.4	155.6	157.8	159.0	159.3	159.8
Implicit price deflator	140.1	140.8	141.4	141.6	142.1	142.6	143.8	144.5	144.8	145.3	145.6
Nonfarm business:											
Output per hour of all persons	115.0	114.3	114.5	115.3	116.5	117.0	116.6	117.3	118.6	119.3	120.2
Compensation per hour	156.4	157.2	158.1	158.7	159.3	161.2	161.8	162.9	164.4	166.1	167.6
Real compensation per hour	108.2	105.9	105.8	105.7	105.3	106.0	105.7	105.5	105.9	106.2	106.2
Unit labor costs	136.1	137.4	138.1	137.7	136.8	137.8	138.8	138.8	138.7	139.2	139.4
Unit nonlabor payments	152.1	151.5	151.8	153.6	156.3	155.5	158.3	160.9	161.8	162.1	162.6
Implicit price deflator	141.2	142.0	142.5	142.8	143.1	143.5	145.1	145.9	146.1	146.6	146.9
Nonfinancial corporations:											
Output per hour of all employees	120.6	119.9	121.2	122.2	123.4	124.0	123.8	124.3	125.3	125.8	-
Compensation per hour	153.1	153.9	154.4	154.8	155.0	156.5	156.8	157.9	159.1	160.5	-
Real compensation per hour	104.0	103.7	103.3	103.1	102.5	102.9	102.4	102.3	102.5	102.6	-
Total unit costs	123.8	125.0	124.1	123.6	122.6	123.5	123.4	124.0	123.8	124.2	-
Unit labor costs	127.0	128.3	127.3	126.7	125.7	126.2	126.7	127.1	127.0	127.5	-
Unit nonlabor costs	115.7	116.8	115.8	115.8	114.8	116.6	115.2	116.2	115.9	116.0	-
Unit profits	191.2	183.7	199.4	202.5	220.9	218.2	228.7	228.8	230.3	224.0	-
Unit nonlabor payments	129.9	129.4	131.5	132.1	134.8	135.7	136.6	137.4	137.4	136.3	-
Implicit price deflator	127.9	128.7	128.7	128.5	128.7	129.4	129.9	130.5	130.4	130.4	-
Manufacturing:											
Output per hour of all persons	129.1	130.8	131.3	132.1	133.6	135.4	136.8	138.0	139.3	140.5	141.2
Compensation per hour	150.7	149.9	151.7	152.5	153.3	154.3	153.6	154.5	155.9	157.7	157.9
Real compensation per hour	102.3	101.0	101.5	101.6	101.4	101.4	100.3	100.0	100.4	100.8	100.1
Unit labor costs	116.8	114.6	115.5	115.4	114.7	113.9	112.2	111.9	112.0	112.3	111.8

- Data not available.

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

(1987=100)

Item	1960	1970	1973	1980	1986	1987	1988	1989	1990	1991	1992	1993
Private business:												
Productivity:												
Output per hour of all persons	53.5	74.8	83.0	89.1	99.6	100.0	100.9	101.0	101.9	102.9	105.9	106.6
Output per unit of capital services	116.0	115.1	120.1	105.8	99.7	100.0	101.4	101.3	99.8	96.8	97.9	98.8
Multifactor productivity	70.5	87.2	95.3	96.0	99.8	100.0	100.5	100.3	100.0	99.0	100.5	101.1
Output	37.8	57.4	67.9	79.9	96.7	100.0	104.3	107.0	107.9	106.5	109.3	112.5
Inputs:												
Labor input	66.7	74.2	78.7	86.8	96.8	100.0	104.2	107.2	107.8	106.5	107.5	110.1
Capital services	32.6	49.8	56.6	75.5	97.0	100.0	102.9	105.6	108.2	110.0	111.6	113.8
Combined units of labor and capital input	53.6	65.8	71.3	83.2	96.8	100.0	103.8	106.7	107.9	107.5	108.8	111.3
Capital per hour of all persons	46.1	65.0	69.1	84.2	99.9	100.0	99.6	99.7	102.1	106.3	108.1	107.9
Private nonfarm business:												
Productivity:												
Output per hour of all persons	57.7	77.3	85.6	90.6	99.8	100.0	100.9	100.7	101.3	102.5	105.1	105.9
Output per unit of capital services	122.6	120.5	125.3	108.2	100.0	100.0	101.3	100.9	99.1	96.0	96.8	97.8
Multifactor productivity	74.9	89.9	98.1	97.7	100.0	100.0	100.5	99.9	99.4	98.5	99.6	100.3
Output	37.4	57.4	68.3	80.2	96.7	100.0	104.5	107.1	107.8	106.4	108.9	112.4
Inputs:												
Labor input	61.4	72.0	76.9	85.7	96.6	100.0	104.4	107.6	108.3	106.8	108.0	110.9
Capital services	30.5	47.7	54.5	74.2	96.7	100.0	103.2	106.1	108.8	110.8	112.6	115.0
Combined units of labor and capital input	49.9	63.9	69.6	82.1	96.7	100.0	104.0	107.1	108.5	108.0	109.3	112.1
Capital per hour of all persons	47.0	64.1	68.3	83.8	99.9	100.0	99.6	99.9	102.3	106.7	108.7	108.2

NOTE: Productivity and output in this table have not been revised for consistency with the December 1991 comprehensive revisions to the

National Income and Product Accounts.

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

(1982=100)

Item	1960	1970	1973	1983	1985	1987	1988	1989	1990	1991	1992	1993	1994
Business:													
Output per hour of all persons	65.6	87.0	95.1	102.3	106.3	109.6	110.7	109.9	110.7	112.1	115.5	117.0	119.4
Compensation per hour	21.1	36.7	45.1	103.8	113.2	123.1	128.5	133.0	140.6	147.4	154.9	160.1	164.5
Real compensation per hour	68.8	91.3	98.1	100.6	101.5	104.6	104.8	103.5	103.8	104.4	106.6	106.9	107.1
Unit labor costs	32.2	42.2	47.5	101.5	106.5	112.3	116.0	121.0	127.1	131.5	134.2	136.9	137.8
Unit nonlabor payments	33.6	42.7	52.1	107.5	120.8	125.5	130.6	136.6	139.8	144.9	148.3	150.9	156.4
Implicit price deflator	32.6	42.4	49.0	103.4	111.2	116.6	120.8	126.1	131.2	135.9	138.8	141.5	143.9
Nonfarm business:													
Output per hour of all persons	69.9	88.5	96.4	102.5	105.6	108.6	109.6	108.6	109.1	110.7	113.7	115.2	117.4
Compensation per hour	22.2	37.0	45.4	104.0	112.8	122.5	127.7	132.0	139.2	146.2	153.7	158.3	162.6
Real compensation per hour	72.4	92.0	98.7	100.8	101.1	104.1	104.2	102.7	102.8	103.6	105.7	105.7	105.9
Unit labor costs	31.8	41.8	47.1	101.5	106.8	112.8	116.5	121.5	127.6	132.1	135.2	137.5	138.5
Unit nonlabor payments	33.3	43.0	49.6	109.2	121.6	126.6	131.8	137.1	140.6	146.5	149.7	153.4	159.2
Implicit price deflator	32.3	42.2	47.9	104.0	111.6	117.2	121.4	126.5	131.8	136.7	139.9	142.6	145.2
Nonfinancial corporations:													
Output per hour of all employees	75.3	90.3	95.0	103.8	106.5	111.2	113.3	111.5	112.7	115.0	118.5	121.8	124.4
Compensation per hour	23.6	38.4	46.6	103.4	112.0	120.9	125.9	130.2	137.1	143.8	150.4	154.6	157.7
Real compensation per hour	77.0	95.4	101.2	100.2	100.4	102.7	101.3	101.3	101.9	103.5	103.3	102.7	
Total unit costs	29.5	40.5	46.5	99.5	103.7	107.0	109.8	115.7	120.1	123.7	124.4	123.8	123.7
Unit labor costs	31.4	42.5	49.0	99.6	105.2	108.8	111.1	116.8	121.7	125.0	126.9	127.0	126.7
Unit nonlabor costs	24.8	35.5	40.2	99.3	100.1	102.5	106.4	112.9	116.3	120.5	118.0	115.8	116.0
Unit profits	75.1	69.5	87.9	135.9	168.1	172.1	183.5	168.5	167.5	164.7	177.2	201.9	226.5
Unit nonlabor payments	34.2	41.9	49.2	106.2	112.9	115.6	120.9	123.3	125.9	128.8	129.1	132.0	136.8
Implicit price deflator	32.3	42.3	49.1	101.8	107.7	111.0	114.3	119.0	123.1	126.3	127.7	128.6	130.0
Manufacturing:													
Output per hour of all persons	-	-	-	102.2	106.7	116.6	119.2	119.9	122.1	124.9	127.5	132.0	137.4
Compensation per hour	-	-	-	102.7	111.3	118.4	123.1	127.9	134.7	141.9	147.9	152.0	154.5
Real compensation per hour	-	-	-	99.5	99.8	100.6	100.4	99.5	99.5	100.5	101.7	101.5	100.6
Unit labor costs	-	-	-	100.5	104.2	101.6	103.2	106.7	110.4	113.7	116.0	115.1	112.5
Unit nonlabor payments	-	-	-	113.5	120.1	134.5	147.4	153.3	153.7	157.0	157.0	160.8	-
Implicit price deflator	-	-	-	103.8	108.2	109.8	114.3	118.4	121.2	124.5	126.3	126.5	-

- Data not available.

45. Annual indexes of output per hour for selected industries

(1987=100)

Industry	SIC	1973	1979	1985	1986	1987	1988	1989	1990	1991
Iron mining, usable ore	101	51.7	51.8	76.6	79.6	100.0	103.7	99.5	90.0	87.0
Copper mining, recoverable metal	102	42.4	48.5	93.6	109.7	100.0	109.8	107.8	104.5	102.9
Coal mining	12	68.9	54.5	85.1	92.4	100.0	110.6	116.5	118.5	122.1
Crude petroleum and natural gas	131	173.5	110.3	83.0	90.3	100.0	101.0	98.1	97.0	98.1
Nonmetallic minerals, except fuels	14	86.5	92.6	95.1	95.1	100.0	102.2	101.9	108.3	103.6
Meatpacking plants	2011	65.1	75.0	98.3	98.7	100.0	99.5	92.2	92.9	94.9
Sausages and other prepared meats	2013	67.2	92.8	97.8	98.6	100.0	105.6	99.8	93.6	90.8
Poultry dressing and processing	2015	58.0	81.7	100.5	95.6	100.0	95.9	101.2	107.7	114.2
Cheese, natural and processed	2022	56.6	79.8	94.7	101.1	100.0	106.4	104.3	101.1	98.9
Fluid milk	2026	49.5	62.7	88.3	94.0	100.0	103.9	106.7	108.0	110.7
Canned fruits and vegetables	2033	66.0	74.0	93.0	98.4	100.0	100.2	92.5	96.2	103.4
Frozen fruits and vegetables	2037	80.1	86.6	97.0	104.9	100.0	95.1	98.9	92.3	98.7
Flour and other grain mill products	2041	68.5	80.5	95.8	95.9	100.0	102.0	101.6	107.0	107.4
Cereal breakfast foods	2043	65.6	74.2	97.1	98.6	100.0	98.6	96.0	102.0	105.3
Rice milling	2044	59.3	69.3	68.6	72.7	100.0	83.8	98.6	106.9	101.1
Wet corn milling	2046	24.1	47.1	74.6	97.3	100.0	96.6	103.0	104.7	100.1
Prepared feeds for animals and fowls	2047,48	51.6	66.5	96.9	95.2	100.0	101.2	103.1	106.6	107.2
Bakery products	2051,52	82.3	83.8	95.6	100.1	100.0	93.8	93.2	96.2	92.9
Raw and refined cane sugar	2061,62	76.7	96.4	96.6	96.9	100.0	97.5	97.4	100.9	101.3
Beet sugar	2063	75.9	78.3	73.4	80.8	100.0	95.3	87.9	91.1	93.4
Malt beverages	2082	43.3	63.8	73.7	85.1	100.0	99.1	102.0	110.9	110.1
Bottled and canned soft drinks	2086	49.2	64.4	85.2	91.4	100.0	109.9	119.3	126.7	135.1
Fresh or frozen fish and seafood	2092	93.2	93.8	88.0	91.2	100.0	99.2	92.9	87.1	84.8
Cigarettes, chewing and smoking tobacco	211,3	79.4	90.3	93.5	95.3	100.0	106.8	107.3	112.9	119.2
Cotton and synthetic broadwoven fabrics	221,2	58.1	75.6	93.4	99.0	100.0	100.3	104.5	109.3	115.2
Hosiery	2251,52	63.2	93.3	100.9	102.5	100.0	107.0	108.4	106.0	111.3
Yarn spinning mills	2281	55.9	68.3	89.6	93.2	100.0	98.6	103.6	106.7	106.3
Men's and boys' suits and coats	231	75.6	95.9	106.3	103.5	100.0	102.5	101.9	98.8	91.3
Sawmills and planing mills, general	2421	68.3	73.3	93.5	102.3	100.0	101.7	101.0	101.5	105.0
Hardwood dimension and flooring	2426	84.0	83.0	95.1	98.8	100.0	97.4	96.5	95.4	98.2
Millwork	2431	104.2	95.4	97.4	102.2	100.0	98.3	97.7	97.9	95.8
Wood kitchen cabinets	2434	80.5	89.1	87.1	85.2	100.0	97.8	91.0	93.7	92.6
Hardwood veneer and plywood	2435	80.2	79.6	84.5	83.2	100.0	98.3	97.4	90.2	90.7
Softwood veneer and plywood	2436	67.7	65.6	88.3	90.4	100.0	100.3	102.0	107.3	113.0
Wood containers	244	-	72.9	99.6	98.7	100.0	103.4	108.9	112.0	114.2
Wood household furniture	2511,17	91.2	90.4	93.3	100.2	100.0	101.0	100.1	98.8	100.2
Upholstered household furniture	2512	71.9	82.8	98.6	100.6	100.0	99.8	101.0	98.5	103.4
Metal household furniture	2514	75.6	72.5	98.8	101.7	100.0	100.6	100.0	103.9	107.3
Mattresses and bedsprings	2515	71.6	86.2	77.2	83.1	100.0	99.2	105.0	105.7	110.3
Wood office furniture	2521	82.5	117.0	99.4	96.2	100.0	94.8	94.2	95.8	99.1
Office furniture, except wood	2522	70.6	76.7	96.9	100.6	100.0	96.0	99.0	95.7	93.0
Pulp, paper, and paperboard mills	261,2,3	67.1	77.3	87.6	93.3	100.0	102.9	103.2	102.1	101.5
Corrugated and solid fiber boxes	2653	70.3	87.2	96.6	102.8	100.0	99.6	97.7	100.3	100.0
Folding paperboard boxes	2657	86.4	90.7	90.0	88.5	100.0	99.6	101.1	99.4	102.8
Paper and plastic bags	2673,74	90.7	94.1	99.7	101.8	100.0	97.4	93.6	91.4	88.6
Alkalies and chlorine	2812	38.4	50.8	70.8	97.7	100.0	100.9	92.6	90.7	84.0
Inorganic pigments	2816	72.6	67.8	84.4	88.6	100.0	101.2	107.3	102.5	96.3
Industrial inorganic chemicals, not elsewhere classified	2819 pt.	90.6	91.5	87.3	88.6	100.0	96.8	104.3	106.8	99.0
Synthetic fibers	2823,24	38.4	70.9	79.3	90.8	100.0	102.7	103.5	98.3	97.1
Soaps and detergents	2841	89.1	91.0	91.5	92.3	100.0	103.4	110.7	132.1	131.7
Cosmetics and other toiletries	2844	88.6	93.6	90.3	96.6	100.0	105.0	101.6	100.8	103.4
Paints and allied products	285	63.2	79.8	96.9	98.0	100.0	103.0	106.6	111.4	111.2
Industrial organic chemicals, not elsewhere classified	2869	73.1	93.0	87.8	92.3	100.0	110.7	109.9	99.5	93.2
Nitrogenous fertilizers	2873	65.4	72.7	100.7	90.5	100.0	101.7	105.4	108.9	110.1
Phosphatic fertilizers	2874	62.4	68.3	84.2	79.6	100.0	93.4	85.6	104.5	114.5
Fertilizers, mixing only	2875	90.5	110.9	100.8	95.1	100.0	103.4	110.8	108.7	109.3
Agricultural chemicals, not elsewhere classified	2879	74.3	83.6	92.9	93.2	100.0	108.4	108.9	106.2	102.8
Petroleum refining	291	84.0	82.6	84.7	94.9	100.0	105.3	109.6	109.1	106.7
Tires and inner tubes	301	56.0	63.9	89.3	92.6	100.0	104.6	107.2	108.3	109.5
Rubber and plastics hose and belting	3052	79.3	80.6	100.5	102.2	100.0	107.3	96.3	100.9	93.0
Miscellaneous plastic products, not elsewhere classified	308	72.8	74.3	88.2	88.9	100.0	98.4	97.5	100.4	100.9
Footwear	314	89.9	94.5	99.9	101.7	100.0	102.4	101.4	93.0	93.3
Glass containers	3221	75.2	83.8	93.4	98.5	100.0	101.1	104.8	112.5	114.9
Cement, hydraulic	324	71.3	68.7	91.8	97.1	100.0	103.3	110.1	112.5	108.3
Clay construction products	3251,53,59	78.5	79.0	94.2	95.5	100.0	103.9	96.7	100.5	95.1
Clay refractories	3255	80.1	93.9	94.9	100.8	100.0	101.3	97.3	102.2	96.2
Concrete products	3271,72	92.5	91.3	99.5	104.4	100.0	102.3	105.2	104.6	105.9
Ready-mixed concrete	3273	99.1	96.2	93.7	96.1	100.0	100.3	101.0	99.7	96.1
Steel	331	64.2	65.9	85.8	89.7	100.0	113.4	108.5	110.5	108.1
Gray and ductile iron foundries	3321	91.3	92.4	96.9	99.3	100.0	106.8	104.1	104.1	99.3
Steel foundries	3324,25	105.8	104.5	99.5	104.9	100.0	95.3	96.6	95.9	93.2
Primary copper	3331	32.8	41.1	73.8	88.7	100.0	103.7	96.8	86.3	84.7
Primary aluminum	3334	73.6	74.7	97.6	102.7	100.0	102.2	104.6	106.3	110.3
Copper rolling and drawing	3351	77.5	82.0	86.2	92.3	100.0	100.0	94.1	93.9	96.9
Aluminum rolling and drawing	3353,54,55	79.0	84.3	85.7	95.8	100.0	96.9	91.2	92.4	92.0

See footnotes at end of table.

45. Continued—Annual indexes of output per hour for selected industries

(1987 = 100)

Industry	SIC	1973	1979	1985	1986	1987	1988	1989	1990	1991
Metal cans	3411	59.2	75.2	99.2	95.9	100.0	107.4	109.0	119.1	126.0
Hand and edge tools, not elsewhere classified	3423	108.6	111.6	98.8	97.1	100.0	100.9	102.1	96.4	95.0
Heating equipment, except electric	3433	78.0	86.2	91.9	96.2	100.0	112.7	103.2	111.2	115.4
Fabricated structural metal	3441	98.1	86.0	98.6	98.8	100.0	98.9	94.7	96.8	98.3
Metal doors, sash, and trim	3442	90.5	92.6	104.8	102.0	100.0	102.4	101.5	97.0	94.7
Bolts, nuts, rivets, and washers	3452	75.8	78.9	88.8	91.0	100.0	97.0	93.8	93.7	96.2
Automotive stampings	3465	74.9	81.4	94.5	95.7	100.0	104.5	104.7	100.8	104.2
Metal stampings, not elsewhere classified	3469	96.8	100.2	88.6	93.9	100.0	99.6	98.3	95.1	96.3
Valves and pipe fittings	3491,92,94	93.6	95.7	94.4	93.9	100.0	101.3	101.0	101.9	101.2
Fabricated pipe and fittings	3498	140.8	116.0	120.0	121.4	100.0	99.2	101.7	106.5	113.3
Internal combustion engines, not elsewhere classified	3519	83.1	86.4	92.0	98.5	100.0	105.1	110.9	105.0	98.9
Farm machinery and equipment	3523	108.6	112.6	101.6	95.7	100.0	112.5	123.1	130.6	123.6
Lawn and garden equipment	3524	70.0	83.3	82.4	93.2	100.0	97.2	91.9	93.4	94.5
Construction machinery	3531	87.9	91.5	92.2	99.1	100.0	107.2	109.7	108.9	98.2
Mining machinery	3532	102.2	89.3	93.7	95.1	100.0	102.2	107.3	99.0	90.7
Oil and gas field machinery	3533	105.9	100.6	92.3	95.0	100.0	99.3	104.6	107.4	109.2
Metal-cutting machine tools	3541	101.4	100.9	89.9	92.0	100.0	96.1	101.2	103.1	100.2
Metal-forming machine tools	3542	112.5	98.5	93.1	93.7	100.0	113.8	109.9	100.6	91.9
Machine tool accessories	3545	105.9	100.6	92.3	95.0	100.0	99.3	104.6	107.4	109.2
Pumps and pumping equipment	3561,94	84.0	91.4	91.9	92.7	100.0	105.8	101.5	103.5	102.7
Ball and roller bearings	3562	108.0	110.2	91.6	94.1	100.0	102.4	98.2	92.1	88.3
Air and gas compressors	3563	87.6	86.1	92.2	96.0	100.0	104.1	106.1	109.2	111.8
Refrigeration and heating equipment	3585	100.3	98.8	98.1	95.8	100.0	103.5	105.7	104.6	102.6
Carburetors, pistons, rings, and valves	3592	102.9	82.0	98.9	95.7	100.0	108.8	117.1	110.9	110.7
Transformers, except electronic	3612	100.2	109.8	97.0	99.3	100.0	102.9	103.9	107.8	111.4
Switchgear and switchboard apparatus	3613	88.2	87.5	95.1	95.9	100.0	109.5	106.6	107.8	105.7
Motors and generators	3621	89.0	89.7	94.9	96.8	100.0	103.3	103.8	102.4	106.4
Household cooking equipment	3631	61.8	79.1	90.3	104.6	100.0	116.4	99.4	100.1	106.2
Household refrigerators and freezers	3632	70.1	86.8	104.1	101.2	100.0	103.1	106.9	107.4	112.3
Household laundry equipment	3633	72.3	84.7	93.8	97.4	100.0	106.6	100.8	104.8	111.4
Household appliances, not elsewhere classified	3639	63.7	76.1	86.3	89.1	100.0	101.0	98.4	91.9	81.1
Electric lamps	3641	61.3	76.1	94.2	91.5	100.0	101.1	86.2	91.4	97.0
Lighting fixtures and equipment	3645,46,47,48	84.1	86.2	96.7	103.0	100.0	98.3	97.2	96.5	94.7
Household audio and video equipment	3651	22.3	39.1	96.3	106.9	100.0	107.3	122.3	128.4	142.0
Motor vehicles and equipment	371	68.7	77.7	95.3	95.1	100.0	103.2	103.3	102.5	96.9
Aircraft	3721	79.2	98.6	94.2	93.5	100.0	104.8	108.2	109.8	126.7
Instruments to measure electricity	3825	63.7	70.8	95.4	90.4	100.0	106.6	109.6	108.2	111.5
Photographic equipment and supplies	386	58.9	79.0	86.1	94.1	100.0	106.8	115.7	111.7	115.6
Railroad transportation, revenue traffic	4011	49.3	54.0	79.8	86.1	100.0	109.3	115.4	122.6	128.1
Bus carriers, class 1	411,13,14 pts.	116.8	108.3	96.1	95.6	100.0	107.9	104.6	-	-
Trucking, except local	4213	69.5	83.9	93.8	96.8	100.0	105.2	109.4	-	-
Air transportation	4512,13,22 pts.	54.3	75.5	92.0	93.8	100.0	99.5	95.1	92.2	92.5
Petroleum pipelines	4612,13	93.2	96.9	99.9	102.0	100.0	104.8	103.2	102.5	99.1
Telephone communications	481	46.2	68.7	92.6	98.1	100.0	107.8	113.4	115.1	121.8
Electric utilities	491,493 pt.	88.4	95.3	93.0	95.2	100.0	104.9	107.7	110.0	113.3
Gas utilities	492,493 pt.	145.5	141.4	111.9	102.1	100.0	105.5	103.6	95.0	94.2
Scrap and waste materials	5093	-	81.1	93.4	97.7	100.0	94.3	87.8	92.2	93.1
Hardware stores	525	83.3	97.5	95.6	101.6	100.0	108.7	115.4	110.5	102.5
Department stores	531	60.8	74.0	92.6	97.4	100.0	99.4	97.4	94.8	99.2
Variety stores	533	148.9	123.3	129.2	106.7	100.0	97.3	113.7	132.1	130.2
Grocery stores	541	109.1	106.8	105.7	103.8	100.0	98.6	95.8	94.8	94.0
Retail bakeries	546	125.6	112.3	87.6	93.6	100.0	94.2	87.3	84.8	90.0
New and used car dealers	551	85.1	86.3	99.8	101.6	100.0	102.7	103.8	107.1	105.6
Auto and home supply stores	553	71.1	80.1	94.5	94.3	100.0	106.5	108.9	114.2	114.6
Gasoline service stations	554	59.5	73.7	93.5	101.8	100.0	102.4	104.0	101.0	102.0
Men's and boys' clothing stores	561	77.6	82.3	98.3	100.7	100.0	102.6	102.3	101.6	102.0
Women's clothing stores	562	58.9	72.8	99.8	107.0	100.0	99.4	102.9	106.7	110.1
Family clothing stores	565	76.2	75.4	103.1	103.3	100.0	101.3	103.2	101.5	102.3
Shoe stores	566	81.3	90.9	97.6	105.5	100.0	102.7	107.3	106.3	105.5
Furniture and homefurnishings stores	571	83.9	91.0	94.8	101.2	100.0	99.5	102.6	104.3	104.2
Household appliance stores	572	59.8	72.9	94.9	106.5	100.0	101.1	108.7	111.2	117.4
Radio, television, and computer stores	573	45.6	53.0	89.3	94.1	100.0	122.2	122.0	131.4	146.2
Eating and drinking places	581	110.3	106.6	96.2	99.3	100.0	102.6	101.9	103.1	104.5
Drug and proprietary stores	591	92.2	101.8	102.5	101.6	100.0	102.0	102.8	104.1	105.5
Liquor stores	592	95.0	90.2	101.9	93.8	100.0	99.9	104.7	110.6	112.3
Commercial banks	602	81.2	84.1	94.3	96.2	100.0	103.4	102.2	108.6	112.3
Hotels and motels	701	102.4	109.7	101.2	98.9	100.0	95.8	91.4	90.6	91.3
Laundry, cleaning, and garment services	721	110.8	109.9	103.3	100.8	100.0	97.1	98.6	99.0	96.6
Beauty shops	723	85.9	89.4	96.1	96.9	100.0	93.3	96.0	91.3	87.6
Automotive repair shops	753	109.3	105.0	99.4	96.1	100.0	105.6	107.8	106.3	99.9

- Data not available.

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

Country	Annual average		1993	1994				1995	
	1993	1994	IV	I	II	III	IV	I	II
United States ¹	6.8	6.1	6.5	6.6	6.2	6.0	5.6	5.5	5.7
Canada	11.2	10.4	11.2	11.0	10.6	10.2	9.8	9.7	9.5
Australia	10.9	9.7	10.8	10.4	10.0	9.5	9.1	8.9	8.4
Japan	2.5	2.9	2.8	2.8	2.9	3.0	2.9	2.9	3.2
France	11.9	12.7	12.3	12.7	12.7	12.7	12.6	12.5	-
Germany	5.8	6.5	6.2	6.4	6.5	6.5	6.5	6.5	-
Italy ²	10.3	11.4	11.0	11.0	11.6	11.1	11.8	12.2	12.2
Sweden	9.3	9.6	9.8	9.8	9.7	9.7	9.3	9.3	9.4
United Kingdom	10.5	9.6	10.1	9.9	9.7	9.5	9.0	8.7	-

¹ Data for 1994 are not directly comparable with data for 1993 and earlier years. For additional information, see the box note under "Employment and Unemployment Data" in the notes to this section.

² Quarterly rates are for the first month of the quarter. Break in series beginning in 1993.

- Data not available.

NOTE: Quarterly figures for France, Germany, and the United Kingdom are calculated by applying annual adjustment factors to current published data and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures. See "Notes on the data" for information on breaks in series.

47. Annual data: Employment status of the working-age population, approximating U.S. concepts, 10 countries

(Numbers in thousands)

Employment status and country	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Civilian labor force										
United States ¹	115,461	117,834	119,865	121,669	123,869	124,787	125,303	126,982	128,040	131,056
Canada	13,123	13,378	13,631	13,900	14,151	14,329	14,408	14,482	14,663	14,832
Australia	7,300	7,588	7,758	7,974	8,228	8,444	8,490	8,562	8,619	8,776
Japan	58,820	59,410	60,050	60,860	61,920	63,050	64,280	65,040	65,470	65,780
France	23,620	23,760	23,890	23,980	24,170	24,300	24,490	24,600	24,710	24,970
Germany	28,020	28,240	28,390	28,610	28,840	29,410	29,760	30,040	29,960	29,840
Italy	21,800	22,290	22,350	22,660	22,530	22,670	22,940	22,910	22,570	22,450
Netherlands	6,250	6,380	6,500	6,530	6,640	6,770	6,870	6,970	7,070	-
Sweden	4,418	4,443	4,437	4,494	4,552	4,597	4,591	4,520	4,443	4,418
United Kingdom	27,210	27,380	27,720	28,150	28,420	28,540	28,450	28,400	28,310	28,310
Participation rate²										
United States ¹	64.8	65.3	65.6	65.9	66.5	66.4	66.0	66.3	66.2	66.6
Canada	65.8	66.3	66.7	67.2	67.5	67.3	66.7	65.9	65.5	65.3
Australia	61.6	62.8	63.0	63.3	64.0	64.6	64.1	63.9	63.6	63.9
Japan	62.3	62.1	61.9	61.9	62.2	62.6	63.2	63.4	63.3	63.1
France	56.9	56.9	56.7	56.4	56.1	55.6	55.6	55.9	55.7	56.0
Germany	54.7	54.9	55.0	55.1	55.2	55.0	55.4	55.1	54.5	-
Italy	47.2	47.8	47.6	47.4	47.3	47.2	48.6	48.5	48.3	48.0
Netherlands	55.5	56.0	56.3	56.1	56.5	56.8	57.5	57.9	58.6	-
Sweden	66.9	67.0	66.4	66.9	67.3	67.0	66.6	65.3	64.2	63.6
United Kingdom	62.1	62.1	62.5	63.2	63.6	63.7	63.3	62.9	62.8	62.7
Employed										
United States ¹	107,150	109,597	112,440	114,968	117,342	117,914	116,877	117,598	119,306	123,060
Canada	11,742	12,095	12,422	12,819	13,086	13,165	12,916	12,842	13,015	13,292
Australia	6,697	6,974	7,129	7,398	7,720	7,859	7,676	7,637	7,680	7,921
Japan	57,260	57,740	58,320	59,310	60,500	61,710	62,920	63,620	63,810	63,860
France	21,150	21,240	21,320	21,520	21,850	22,100	22,140	22,010	21,780	21,810
Germany	26,010	26,380	26,590	26,800	27,200	27,950	28,480	28,660	28,220	27,900
Italy	20,490	20,610	20,590	20,870	20,770	21,080	21,360	21,230	20,240	19,890
Netherlands	5,650	5,740	5,850	5,920	6,070	6,260	6,380	6,470	6,450	-
Sweden	4,293	4,326	4,340	4,410	4,480	4,513	4,447	4,265	4,028	3,992
United Kingdom	24,150	24,300	24,860	25,730	26,350	26,550	25,930	25,520	25,340	25,590
Employment-population ratio³										
United States ¹	60.1	60.7	61.5	62.3	63.0	62.7	61.6	61.4	61.6	62.5
Canada	58.9	59.9	60.8	62.0	62.4	61.9	59.8	58.4	58.2	58.5
Australia	56.5	57.7	57.9	58.7	60.1	60.1	57.9	57.0	56.6	57.7
Japan	60.6	60.4	60.1	60.4	60.8	61.3	61.8	62.0	61.7	61.3
France	51.0	50.8	50.6	50.6	50.7	50.5	50.3	50.0	49.1	48.9
Germany	50.7	51.3	51.5	51.6	52.0	52.2	53.0	52.6	51.3	-
Italy	44.4	44.2	43.8	43.7	43.6	43.9	45.3	44.9	43.3	42.5
Netherlands	50.1	50.3	50.7	50.8	51.7	52.5	53.4	53.8	53.4	-
Sweden	65.0	65.2	65.0	65.7	66.2	65.8	64.5	61.7	58.2	57.4
United Kingdom	55.1	55.1	56.1	57.8	59.0	59.2	57.7	56.5	56.2	56.7
Unemployed										
United States ¹	8,312	8,237	7,425	6,701	6,528	6,874	8,426	9,384	8,734	7,996
Canada	1,381	1,283	1,208	1,082	1,065	1,164	1,492	1,640	1,649	1,541
Australia	603	613	629	576	508	585	814	925	939	856
Japan	1,560	1,670	1,730	1,550	1,420	1,340	1,360	1,420	1,660	1,920
France	2,470	2,520	2,570	2,460	2,320	2,200	2,350	2,590	2,930	3,160
Germany	2,010	1,860	1,800	1,810	1,640	1,460	1,280	1,380	1,740	1,940
Italy	1,310	1,680	1,760	1,790	1,760	1,590	1,580	1,680	2,330	2,560
Netherlands	600	640	650	610	570	510	490	500	620	-
Sweden	125	117	97	84	72	84	144	255	415	426
United Kingdom	3,060	3,080	2,860	2,420	2,070	1,990	2,520	2,880	2,970	2,720
Unemployment rate										
United States ¹	7.2	7.0	6.2	5.5	5.3	5.5	6.7	7.4	6.8	6.1
Canada	10.5	9.6	8.9	7.8	7.5	8.1	10.4	11.3	11.2	10.4
Australia	8.3	8.1	8.1	7.2	6.2	6.9	9.6	10.8	10.9	9.7
Japan	2.6	2.8	2.9	2.5	2.3	2.1	2.1	2.2	2.5	2.9
France	10.5	10.6	10.8	10.3	9.6	9.1	9.6	10.5	11.9	12.7
Germany	7.2	6.6	6.3	6.3	5.7	5.0	4.3	4.6	5.8	6.5
Italy	6.0	7.5	7.9	7.9	7.8	7.0	6.9	7.3	10.3	11.4
Netherlands	9.6	10.0	10.0	9.3	8.6	7.5	7.1	7.2	8.8	-
Sweden	2.8	2.6	2.2	1.9	1.6	1.8	3.1	5.6	9.3	9.6
United Kingdom	11.2	11.2	10.3	8.6	7.3	7.0	8.9	10.1	10.5	9.6

¹ Data for 1994 are not directly comparable with data for 1993 and earlier years. For additional information, see the box note under "Employment and Unemployment Data" in the notes to this section.

² Labor force as a percent of the working-age population.

³ Employment as a percent of the working-age population.

- Data not available.

NOTE: See "Notes on the data" for information on breaks in series for Italy and Sweden.

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

(1982=100)

Item and country	1960	1970	1973	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Output per hour													
United States	-	-	-	103.5	106.7	109.5	116.6	119.2	119.9	122.1	124.9	127.5	131.6
Canada	51.6	76.9	91.9	116.3	119.8	117.9	119.0	119.5	120.0	122.0	122.9	128.0	130.9
Japan	18.5	50.3	64.4	107.9	114.9	113.0	122.4	129.6	138.7	149.1	156.9	156.8	157.3
Belgium	24.1	44.0	57.4	117.5	119.6	121.4	123.8	128.9	134.5	134.1	137.0	142.2	146.4
Denmark	32.4	57.2	72.7	104.3	105.0	98.9	98.4	102.1	105.6	105.5	105.5	107.7	113.9
France	29.6	58.6	69.4	103.9	107.9	109.7	111.6	119.3	125.4	127.6	128.0	130.9	132.3
Germany	37.1	66.4	77.9	109.0	113.4	114.2	112.7	116.7	120.5	125.6	130.1	128.0	130.0
Italy	29.1	54.6	65.2	115.7	122.3	123.7	127.2	130.0	134.0	139.3	143.8	150.8	159.2
Netherlands	26.5	52.9	67.3	115.0	118.7	120.1	120.7	124.4	128.5	130.1	131.4	132.2	133.8
Norway	46.4	73.0	85.4	112.2	115.8	114.7	120.4	119.5	125.3	129.3	130.3	132.5	135.3
Sweden	36.1	69.0	81.2	111.9	113.6	115.4	117.6	119.3	123.1	125.0	126.1	132.8	141.5
United Kingdom	50.3	72.1	86.2	112.4	116.4	120.6	126.9	133.5	138.4	140.1	145.3	152.4	159.7
Output													
United States	-	-	-	111.3	114.0	115.2	123.5	130.0	131.2	130.6	128.2	130.1	135.4
Canada	44.1	78.5	100.0	120.2	127.0	127.9	134.1	140.9	142.1	136.8	127.5	128.3	134.7
Japan	15.1	55.1	71.8	113.2	121.2	117.9	126.5	138.2	149.3	160.6	170.8	167.7	160.7
Belgium	37.6	70.4	86.3	109.9	111.8	111.9	112.3	118.0	125.0	126.5	125.9	125.8	120.5
Denmark	45.4	75.7	88.5	111.7	115.3	115.3	110.6	112.3	113.6	112.4	111.1	112.5	113.2
France	35.1	72.7	87.0	98.7	99.1	99.1	98.9	104.6	110.3	112.4	110.6	109.8	106.3
Germany	51.0	87.0	96.4	104.6	108.4	110.1	108.1	111.5	115.4	121.7	126.2	123.3	113.8
Italy	28.0	58.4	70.7	105.4	108.9	111.5	116.3	125.0	129.7	132.3	132.1	132.4	129.6
Netherlands	42.7	80.3	91.2	107.9	111.1	113.8	115.4	119.7	125.2	129.3	129.9	129.0	125.8
Norway	56.0	88.4	101.3	105.0	108.8	108.8	110.8	105.5	103.8	104.5	102.3	104.2	105.9
Sweden	51.8	91.1	98.7	113.6	115.7	117.1	120.0	123.7	125.1	124.3	117.4	113.3	115.1
United Kingdom	82.9	110.5	121.9	105.9	108.9	110.3	115.5	123.6	129.1	128.9	121.9	121.1	122.8
Total hours													
United States	94.1	106.5	112.6	107.6	106.8	105.2	106.0	109.0	109.4	107.0	102.6	102.0	102.9
Canada	85.5	102.1	108.8	103.3	106.0	108.5	112.7	117.9	118.4	112.2	103.7	100.3	102.9
Japan	81.7	109.6	111.5	104.9	105.5	104.3	103.4	106.7	107.6	107.7	108.8	106.9	102.2
Belgium	156.2	159.9	150.3	93.6	93.5	92.2	90.7	91.5	93.0	94.3	91.9	88.4	82.3
Denmark	140.0	132.3	121.8	107.1	109.8	116.6	112.4	110.0	107.6	106.6	105.3	104.4	99.4
France	118.5	123.9	125.3	95.0	91.8	90.3	88.6	87.7	88.0	88.1	86.4	83.8	80.3
Germany	137.2	131.1	123.7	96.0	95.6	96.4	95.9	95.6	95.7	96.9	97.0	96.3	87.6
Italy	96.2	107.0	108.3	91.1	89.0	90.1	91.4	96.1	96.8	95.0	91.8	87.8	81.4
Netherlands	160.9	152.0	135.6	93.8	93.6	94.8	95.6	96.2	97.4	99.4	98.9	97.6	94.0
Norway	120.9	121.1	118.7	93.5	94.0	94.8	92.0	88.3	82.9	80.9	78.5	78.6	78.3
Sweden	143.7	132.0	121.6	101.5	101.9	101.5	102.0	103.6	101.6	99.4	93.1	85.4	81.4
United Kingdom	164.9	153.3	141.4	94.2	93.5	91.5	91.0	92.6	93.3	92.0	83.9	79.5	76.9
Compensation per hour													
United States	-	-	-	106.0	111.3	115.8	118.4	123.1	127.9	134.7	141.9	147.9	152.8
Canada	16.4	28.7	35.9	111.1	116.8	121.3	125.0	130.5	135.4	143.0	151.7	158.1	159.0
Japan	6.6	25.0	40.7	105.8	110.1	115.8	118.6	120.6	128.2	138.3	146.2	153.0	157.1
Belgium	9.1	23.2	35.5	114.8	122.0	127.0	130.0	132.7	139.7	147.5	156.8	164.9	171.2
Denmark	7.7	22.3	34.5	113.0	120.6	123.1	134.6	139.4	147.3	156.5	162.2	167.2	171.4
France	7.6	18.5	26.2	119.6	129.6	135.1	140.0	145.4	153.2	161.3	168.3	174.1	179.8
Germany	13.5	34.5	48.2	110.0	116.3	121.2	126.9	131.8	138.2	147.9	157.8	165.6	177.8
Italy	3.9	11.6	17.7	134.3	150.9	157.1	166.0	172.5	189.5	210.8	233.1	249.7	266.1
Netherlands	8.9	27.8	43.4	106.6	111.5	115.4	118.8	119.5	120.1	123.3	129.2	136.6	140.5
Norway	9.9	24.6	35.3	120.9	132.2	145.0	165.6	175.7	183.4	193.7	202.8	208.4	210.4
Sweden	9.3	24.4	34.3	119.6	131.8	142.4	151.9	161.8	179.0	197.5	215.1	225.0	221.6
United Kingdom	7.1	14.7	22.6	114.6	125.1	135.4	149.8	159.4	174.7	180.6	199.4	219.7	236.1
Unit labor costs: National currency basis													
United States	-	-	-	102.4	104.2	105.8	101.6	103.2	106.7	110.4	113.7	116.0	116.1
Canada	31.9	37.3	39.1	95.5	97.6	102.9	105.0	109.2	112.8	117.2	123.4	123.5	121.4
Japan	35.5	49.7	63.2	98.1	95.8	102.4	96.8	93.1	92.4	92.7	93.2	97.5	99.9
Belgium	38.0	52.6	61.8	97.7	102.0	104.7	105.0	103.0	103.8	110.0	114.4	115.9	117.0
Denmark	23.8	39.0	47.4	108.3	114.9	124.5	136.8	136.5	139.5	148.3	153.8	155.1	150.5
France	25.7	31.5	37.7	115.2	120.2	123.2	125.5	121.8	122.2	126.4	131.5	133.0	135.9
Germany	36.4	51.9	61.9	101.0	102.6	106.2	112.6	113.0	114.6	117.8	121.3	129.4	136.8
Italy	13.5	21.3	27.1	116.1	123.4	127.1	130.5	132.6	141.4	151.3	162.1	165.6	167.2
Netherlands	33.4	52.7	64.5	92.7	93.9	96.1	98.4	96.0	93.5	94.7	98.3	103.3	105.1
Norway	21.3	33.7	41.4	107.8	114.2	126.4	137.5	147.1	146.3	149.8	155.6	157.3	155.5
Sweden	25.8	35.4	42.2	106.9	116.1	123.4	129.1	135.6	145.4	158.0	170.6	169.5	156.6
United Kingdom	14.2	20.4	26.3	101.9	107.5	112.3	118.0	119.4	126.2	128.9	137.2	144.2	147.8
Unit labor costs: U.S. dollar basis													
United States	-	-	-	102.4	104.2	105.8	101.6	103.2	106.7	110.4	113.7	116.0	116.1
Canada	40.6	44.1	48.2	91.0	88.2	91.4	97.8	109.5	117.6	124.0	132.9	126.2	116.2
Japan	24.6	34.6	58.1	102.9	100.1	151.5	166.8	180.9	166.7	159.3	172.5	191.6	223.9
Belgium	34.9	48.5	72.8	77.5	78.7	107.3	128.7	128.1	120.6	150.7	153.2	165.1	154.8
Denmark	28.8	43.4	65.7	87.3	90.4	128.3	166.7	169.0	159.0	200.0	200.4	214.4	193.6
France	34.4	37.5	55.9	86.7	88.0	117.0	137.3	134.5	126.0	152.7	153.2	165.3	157.8
Germany	21.2	34.6	56.8	86.2	84.7	118.8	152.1	156.1	148.0	176.9	177.3	201.2	200.8
Italy	29.5	46.0	63.1	89.5	87.5	115.4	136.3	137.9	139.5	170.9	176.8	182.0	143.8
Netherlands	23.7	38.9	62.0	77.2	75.6	104.8	129.8	129.8	117.7	138.9	140.3	157.0	151.0
Norway	19.3	30.4	46.5	85.3	85.8	110.3	131.7	145.5	136.6	154.7	154.8	163.4	141.5
Sweden	31.4	42.8	60.9	81.2	84.8	108.8	127.8	138.8	141.5	167.6	177.1	182.8	126.3
United Kingdom	22.8	28.0	36.8	77.9	79.8	94.3	110.7	121.6	118.3	131.6	138.7	145.7	127.0

- Data not available.

49. Occupational injury and illness incidence rates by industry,¹ United States

Industry and type of case ²	Incidence rates per 100 full-time workers ³								
	1985	1986	1987	1988	1989 ¹	1990	1991	1992	1993 ⁴
PRIVATE SECTOR⁵									
Total cases	7.9	7.9	8.3	8.6	8.6	8.8	8.4	8.9	8.5
Lost workday cases	3.6	3.6	3.8	4.0	4.0	4.1	3.9	3.9	3.8
Lost workdays	64.9	65.8	69.9	76.1	78.7	84.0	86.5	93.8	-
Agriculture, forestry, and fishing⁵									
Total cases	11.4	11.2	11.2	10.9	10.9	11.6	10.8	11.6	11.2
Lost workday cases	5.7	5.6	5.7	5.6	5.7	5.9	5.4	5.4	5.0
Lost workdays	91.3	93.6	94.1	101.8	100.9	112.2	108.3	126.9	-
Mining									
Total cases	8.4	7.4	8.5	8.8	8.5	8.3	7.4	7.3	6.8
Lost workday cases	4.8	4.1	4.9	5.1	4.8	5.0	4.5	4.1	3.9
Lost workdays	145.3	125.9	144.0	152.1	137.2	119.5	129.6	204.7	-
Construction									
Total cases	15.2	15.2	14.7	14.6	14.3	14.2	13.0	13.1	12.2
Lost workday cases	6.8	6.9	6.8	6.8	6.8	6.7	6.1	5.8	5.5
Lost workdays	128.9	134.5	135.8	142.2	143.3	147.9	148.1	161.9	-
General building contractors:									
Total cases	15.2	14.9	14.2	14.0	13.9	13.4	12.0	12.2	11.5
Lost workday cases	6.8	6.6	6.5	6.4	6.5	6.4	5.5	5.4	5.1
Lost workdays	120.4	122.7	134.0	132.2	137.3	137.6	132.0	142.7	-
Heavy construction, except building:									
Total cases	14.5	14.7	14.5	15.1	13.8	13.8	12.8	12.1	11.1
Lost workday cases	6.3	6.3	6.4	7.0	6.5	6.3	6.0	5.4	5.1
Lost workdays	127.3	132.9	139.1	162.3	147.1	144.6	160.1	165.8	-
Special trade contractors:									
Total cases	15.4	15.6	15.0	14.7	14.6	14.7	13.5	13.8	12.8
Lost workday cases	7.0	7.2	7.1	7.0	6.9	6.9	6.3	6.1	5.8
Lost workdays	133.3	140.4	135.7	141.1	144.9	153.1	151.3	168.3	-
Manufacturing									
Total cases	10.4	10.6	11.9	13.1	13.1	13.2	12.7	12.5	12.1
Lost workday cases	4.6	4.7	5.3	5.7	5.8	5.8	5.6	5.4	5.3
Lost workdays	80.2	85.2	95.5	107.4	113.0	120.7	121.5	124.6	-
Durable goods:									
Total cases	10.9	11.0	12.5	14.2	14.1	14.2	13.6	13.4	13.1
Lost workday cases	4.7	4.8	5.4	5.9	6.0	6.0	5.7	5.5	5.4
Lost workdays	82.0	87.1	96.8	111.1	116.5	123.3	122.9	126.7	-
Lumber and wood products:									
Total cases	18.5	18.9	18.9	19.5	18.4	18.1	16.8	16.3	15.9
Lost workday cases	9.3	9.7	9.6	10.0	9.4	8.8	8.3	7.6	7.6
Lost workdays	171.4	177.2	176.5	189.1	177.5	172.5	172.0	165.8	-
Furniture and fixtures:									
Total cases	15.0	15.2	15.4	16.6	16.1	16.9	15.9	14.8	14.6
Lost workday cases	6.3	6.3	6.7	7.3	7.2	7.8	7.2	6.6	6.5
Lost workdays	100.4	103.0	103.6	115.7	-	-	-	128.4	-
Stone, clay, and glass products:									
Total cases	13.9	13.6	14.9	16.0	15.5	15.4	14.8	13.6	13.8
Lost workday cases	6.7	6.5	7.1	7.5	7.4	7.3	6.8	6.1	6.3
Lost workdays	127.8	126.0	135.8	141.0	149.8	160.5	156.0	152.2	-
Primary metal industries:									
Total cases	12.6	13.6	17.0	19.4	18.7	19.0	17.7	17.5	17.0
Lost workday cases	5.7	6.1	7.4	8.2	8.1	8.1	7.4	7.1	7.3
Lost workdays	113.8	125.5	145.8	161.3	168.3	180.2	169.1	175.5	-
Fabricated metal products:									
Total cases	16.3	16.0	17.0	18.8	18.5	18.7	17.4	16.8	16.2
Lost workday cases	6.9	6.8	7.2	8.0	7.9	7.9	7.1	6.6	6.7
Lost workdays	110.1	115.5	121.9	138.8	147.6	155.7	146.6	144.0	-
Industrial machinery and equipment:									
Total cases	10.8	10.7	11.3	12.1	12.1	12.0	11.2	11.1	11.1
Lost workday cases	4.2	4.2	4.4	4.7	4.8	4.7	4.4	4.2	4.2
Lost workdays	69.3	72.0	72.7	82.8	86.8	88.9	86.6	87.7	-
Electronic and other electrical equipment:									
Total cases	6.4	6.4	7.2	8.0	9.1	9.1	8.6	8.4	8.3
Lost workday cases	2.7	2.7	3.1	3.3	3.9	3.8	3.7	3.6	3.5
Lost workdays	45.7	49.8	55.9	64.6	77.5	79.4	83.0	81.2	-
Transportation equipment:									
Total cases	9.0	9.6	13.5	17.7	17.7	17.8	18.3	18.7	18.5
Lost workday cases	3.9	4.1	5.7	6.6	6.8	6.9	7.0	7.1	7.1
Lost workdays	71.6	79.1	105.7	134.2	138.6	153.7	166.1	186.6	-
Instruments and related products:									
Total cases	5.2	5.3	5.8	6.1	5.6	5.9	6.0	5.9	5.6
Lost workday cases	2.2	2.3	2.4	2.6	2.5	2.7	2.7	2.7	2.5
Lost workdays	37.9	42.2	43.9	51.5	55.4	57.8	64.4	65.3	-
Miscellaneous manufacturing industries:									
Total cases	9.7	10.2	10.7	11.3	11.1	11.3	11.3	10.7	10.0
Lost workday cases	4.2	4.3	4.6	5.1	5.1	5.1	5.1	5.0	4.6
Lost workdays	73.2	70.9	81.5	91.0	97.6	113.1	104.0	108.2	-
Nondurable goods:									
Total cases	9.6	10.0	11.1	11.4	11.6	11.7	11.5	11.3	10.7

See footnotes at end of table.

49. Continued— Occupational injury and illness incidence rates by industry,¹ United States

Industry and type of case ²	Incidence rates per 100 full-time workers ³								
	1985	1986	1987	1988	1989 ¹	1990	1991	1992	1993 ⁴
Lost workday cases	4.4	4.6	5.1	5.4	5.5	5.6	5.5	5.3	5.0
Lost workdays	77.6	82.3	93.5	101.7	107.8	116.9	119.7	121.8	-
Food and kindred products:									
Total cases	16.7	16.5	17.7	18.5	18.5	20.0	19.5	18.8	17.6
Lost workday cases	8.1	8.0	8.6	9.2	9.3	9.9	9.9	9.5	8.9
Lost workdays	138.0	137.8	153.7	169.7	174.7	202.6	207.2	211.9	-
Tobacco products:									
Total cases	7.3	6.7	8.6	9.3	8.7	7.7	6.4	6.0	5.8
Lost workday cases	3.0	2.5	2.5	2.9	3.4	3.2	2.8	2.4	2.3
Lost workdays	51.7	45.6	46.4	53.0	64.2	62.3	52.0	42.9	-
Textile mill products:									
Total cases	7.5	7.8	9.0	9.6	10.3	9.6	10.0	9.9	9.7
Lost workday cases	3.0	3.1	3.6	4.0	4.2	4.0	4.4	4.2	4.1
Lost workdays	57.4	59.3	65.9	78.8	81.4	85.1	88.3	87.1	-
Apparel and other textile products:									
Total cases	6.7	6.7	7.4	8.1	8.6	8.8	9.2	9.5	9.0
Lost workday cases	2.6	2.7	3.1	3.5	3.8	3.9	4.2	4.0	3.8
Lost workdays	44.1	49.4	59.5	68.2	80.5	92.1	99.9	104.6	-
Paper and allied products:									
Total cases	10.2	10.5	12.8	13.1	12.7	12.1	11.2	11.0	9.9
Lost workday cases	4.7	4.7	5.8	5.9	5.8	5.5	5.0	5.0	4.6
Lost workdays	94.6	99.5	122.3	124.3	132.9	124.8	122.7	125.9	-
Printing and publishing:									
Total cases	6.3	6.5	6.7	6.6	6.9	6.9	6.7	7.3	6.9
Lost workday cases	2.9	2.9	3.1	3.2	3.3	3.3	3.2	3.2	3.1
Lost workdays	49.2	50.8	55.1	59.8	63.8	69.8	74.5	74.8	-
Chemicals and allied products:									
Total cases	5.1	6.3	7.0	7.0	7.0	6.5	6.4	6.0	5.9
Lost workday cases	2.3	2.7	3.1	3.3	3.2	3.1	3.1	2.8	2.7
Lost workdays	38.8	49.4	58.8	59.0	63.4	61.6	62.4	64.2	-
Petroleum and coal products:									
Total cases	5.1	7.1	7.3	7.0	6.6	6.6	6.2	5.9	5.2
Lost workday cases	2.4	3.2	3.1	3.2	3.3	3.1	2.9	2.8	2.5
Lost workdays	49.9	67.5	65.9	68.4	68.1	77.3	68.2	71.2	-
Rubber and miscellaneous plastics products:									
Total cases	13.4	14.0	15.9	16.3	16.2	16.2	15.1	14.5	13.9
Lost workday cases	6.3	6.6	7.6	8.1	8.0	7.8	7.2	6.8	6.5
Lost workdays	107.4	118.2	130.8	142.9	147.2	151.3	150.9	153.3	-
Leather and leather products:									
Total cases	10.3	10.5	12.4	11.4	13.6	12.1	12.5	12.1	12.1
Lost workday cases	4.6	4.8	5.8	5.6	6.5	5.9	5.9	5.4	5.5
Lost workdays	88.3	83.4	114.5	128.2	130.4	152.3	140.8	128.5	-
Transportation and public utilities									
Total cases	8.6	8.2	8.4	8.9	9.2	9.6	9.3	9.1	9.5
Lost workday cases	5.0	4.8	4.9	5.1	5.3	5.5	5.4	5.1	5.4
Lost workdays	107.1	102.1	108.1	118.6	121.5	134.1	140.0	144.0	-
Wholesale and retail trade									
Total cases	7.4	7.7	7.7	7.8	8.0	7.9	7.6	8.4	8.1
Lost workday cases	3.2	3.3	3.4	3.5	3.6	3.5	3.4	3.5	3.4
Lost workdays	50.7	54.0	56.1	60.9	63.5	65.6	72.0	80.1	-
Wholesale trade:									
Total cases	7.2	7.2	7.4	7.6	7.7	7.4	7.2	7.6	7.8
Lost workday cases	3.5	3.6	3.7	3.8	4.0	3.7	3.7	3.6	3.7
Lost workdays	59.8	62.5	64.0	69.2	71.9	71.5	79.2	82.4	-
Retail trade:									
Total cases	7.5	7.8	7.8	7.9	8.1	8.1	7.7	8.7	8.2
Lost workday cases	3.1	3.2	3.3	3.4	3.4	3.4	3.3	3.4	3.3
Lost workdays	47.0	50.5	52.9	57.6	60.0	63.2	69.1	79.2	-
Finance, insurance, and real estate									
Total cases	2.0	2.0	2.0	2.0	2.0	2.4	2.4	2.9	2.9
Lost workday cases .....	.9	.9	.9	.9	.9	1.1	1.1	1.2	1.2
Lost workdays	15.4	17.1	14.3	17.2	17.6	27.3	24.1	32.9	-
Services									
Total cases	5.4	5.3	5.5	5.4	5.5	6.0	6.2	7.1	6.7
Lost workday cases	2.6	2.5	2.7	2.6	2.7	2.8	2.8	3.0	2.8
Lost workdays	45.4	43.0	45.8	47.7	51.2	56.4	60.0	68.6	-

¹ Data for 1989 and subsequent years are based on the *Standard Industrial Classification Manual*, 1987 Edition. For this reason, they are not strictly comparable with data for the years 1985-88, which were based on the *Standard Industrial Classification Manual*, 1972 Edition, 1977 Supplement.

² Beginning with the 1992 survey, the annual survey measures only nonfatal injuries and illnesses, while past surveys covered both fatal and nonfatal incidents. To better address fatalities, a basic element of workplace safety, BLS implemented the Census of Fatal Occupational Injuries.

³ The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as: (N/EH) X 200,000, where:

N = number of injuries and illnesses or lost workdays.

EH = total hours worked by all employees during the calendar year.

200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

⁴ Beginning with the 1993 survey, lost workday estimates will not be generated. As of 1992, BLS began generating percent distributions and the median number of days away from work by industry and for groups of workers sustaining similar work disabilities.

⁵ Excludes farms with fewer than 11 employees since 1976.

- Data not available.



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Employment situation	September 1	August	October 6	September	November 3	October	1; 4-20
Productivity and costs:							
Nonfinancial corporations	September 7	2 nd quarter					2; 42-45
Nonfarm business and manufacturing					November 7	3 rd quarter	2; 42-45
Producer Price Indexes	September 12	August	October 12	September	November 9	October	2; 34-36
Consumer Price Indexes	September 13	August	October 13	September	November 15	October	2; 31-33
Real earnings	September 13	August	October 13	September	November 15	October	13-16
Employment Cost Indexes			October 31	3 rd quarter			1-3; 21-24
Major collective bargaining settlements			October 31	3 rd quarter			3; 26-29
U.S. Import and Export Price Indexes	September 29	August	November 1	September	November 30	October	37-41
