MONTHLY·LABOR
REVIEW

U.S. Department of Labor   Bureau of Labor Statistics

GAS

MARKET

REGULAR UNLEADED
154⁹

SAHARA
INN

est
GAS RES
FAMILY ROOMS
CABLE TV
SGL

Gasoline prices

MONTHLY LABOR
REVIEW

The July *Review*

According to the American Automobile Association, 37.4 million people expect to travel 50 miles or more from home the Fourth of July weekend—32.6 million of them by motor vehicle. Given the Department of Transportation's estimate that the total fleet of passenger cars and light trucks gets an average of just under 25 miles per gallon, we can set a lower bound of about 130 million gallons of gasoline being sold to power one holiday weekend's worth of highway travel. Thus, Jonathan Weinhagen's article on gasoline prices is a particularly timely lead for this month's *Review*.

Weinhagen develops both historical and econometric evidence to conclude price changes of inputs to gasoline at the pump significantly affect the CPI for gasoline, but changes in aggregate demand have only a marginal impact on retail gasoline prices. Thus, says Weinhagen, "… the majority of the forecast variance in consumer gasoline prices can be explained by price shocks to inputs, as opposed to shocks to demand."

Paul Paez explores a very detailed set of local data from the Front Range of Colorado to look at the impact of the size of the firm on wages. As has been the case in other studies of firm size and wages, Paez finds that the wage premium in large firms is statistically significant. He also finds that the effect of firm size on entry-level wages may be smaller than other characteristics of the vacancy being filled. Some of these characteristics include experience and education required and the occupation and industry of the job.

Andrew von Nordenflycht and Thomas A. Kochan summarize the way labor negotiations are conducted in the airline industry. They have found that the average length of negotiations, once started, is about 16 months but there is wide variation. The minimum is a bit less than a month; the maximum is more than 4 years. Much of the variation, they add, is due to the particular parties to the negotiations rather than to the regulatory regime or economic conditions.

Location and wages

How much are earnings within an occupation affected by location? For the most part, it seems, not very much. The local wage decile of an occupation exactly matched its national ranking about 35 percent of the time. About 70 percent of the time, local and national ranks were within a single decile of each other.

Relative earnings were especially uniform in occupations with very high or very low earnings. For example, engineering managers matched their high national earnings rank in 99.7 percent of locations studied while dining room and cafeteria attendants and bartender helpers were in the same low rank in 98.7 percent of locations.

Other occupations with very consistent relative wages were chief executives, which matched in 99.5 percent of locations studied; combined food preparation and serving workers, 98.2 percent; pharmacists, 97.9 percent; nuclear engineers, 97.1 percent; dishwashers, 96.9 percent; cashiers, except gaming, 96.7 percent; waiters and waitresses, 96.7 percent; and fast food cooks and counter attendants (cafeteria, food concession, and coffee shop), both 94.4 percent.

To obtain these findings, occupations were ranked by decile for the Nation as a whole and for approximately 390 locations—the top-earning 10 percent of occupations were in the first decile and the lowest earning 10 percent were in the tenth decile. The occupations' local decile ranks were compared to their national decile ranks. Find out more in "Whereabouts and wealth: A study of local earnings and how they vary" by Alan Lacey and Olivia Crosby, *Occupational Outlook Quarterly*, spring 2003.

The high school class of 2002

Among the 2.8 million high school graduates in 2002, 1.8 million (65.2 percent) were enrolled in college the following October. The college enrollment rate of young women (68.4 percent) exceeded that for young men (62.1 percent). The percentage of women attending college following high school graduation has exceeded that of men in almost every year since 1988. White graduates continued to enroll in college in greater proportions (66.7 percent) than either black (58.7 percent) or Hispanic graduates (53.5 percent). Additional information is available from "College Enrollment and Work Activity of 2002 High School Graduates," news release USDL 03–330.

Education and the working poor

The incidence of living in poverty greatly diminishes as workers achieve higher levels of education. In 2001, only 1.5 percent of college graduates were counted among the working poor. This compared with 2.6 percent of workers with associate degrees, 4.4 percent of those with some college but no degree, 5.8 percent of high school graduates with no college, and 13.1 percent of high school dropouts.

At all educational attainment levels other than college graduate, women were more likely than men to be among the working poor. At all educational attainment levels, blacks were more likely to be among the working poor than were whites. For more information see BLS Report 968, *A Profile of the Working Poor, 2001.* □

Consumer gasoline prices: an empirical investigation

*A structural vector autoregression model
indicates that price changes for consumer gasoline
have been driven by changes in supply
rather than changes in demand*

Jonathan Weinhagen

Jonathan Weinhagen
is an economist in the
Office of Prices and
Living Conditions,
Bureau of Labor
Statistics. The views
expressed in this
article are those of
the author and do
not necessarily reflect
those of the Bureau of
Labor Statistics or the
Department of Labor.

According to the BLS Consumer Expenditure Survey, the average consumer spent approximately $1,300 on gasoline and motor oil in 2000, an increase of 22.4 percent over the 1999 figure. Over the same period, the average price of gasoline increased 36.3 percent,[1] indicating that price changes within the gasoline market can substantially affect consumers' expenses. Conventional reasoning suggests that the high level of volatility for gasoline prices is the result of supply forces, as the price of crude petroleum changes rapidly due to production decisions of the Organization of Petroleum Exporting Countries (OPEC) nations. However, shifts in demand also can cause variations in gasoline prices. The purpose of this article is to examine the nature of price changes for consumer gasoline, using econometric techniques as well as historical evidence.

The second section of the article analyzes the impact of crude-oil supply shocks on prices at various stages of gasoline production by visually examining those price changes for crude oil, producer gasoline, and consumer gasoline which occurred subsequent to interruptions in the supply of crude petroleum. The major supply shocks considered are the Yom Kippur War, the Iranian Revolution, the Iran-Iraq War, the Persian Gulf War, and a 1999 OPEC production cut.

The article's third section constructs a structural simultaneous-equations model of the market for consumer gasoline to determine the effects of changes in supply and demand on the price of gasoline. The model developed is a five-variable structural vector autoregression constructed from the Producer Price Indexes (PPI's) for crude petroleum and gasoline, the Consumer Price Index (CPI) for gasoline, the quantity of gasoline consumed domestically, and the industrial production index. The final section of the article presents its conclusion.

Historical evidence

The impact of supply shocks on prices at various stages of processing within the gasoline market can be analyzed by visually examining historical price movements for crude petroleum, producer gasoline, and consumer gasoline. The actions of the OPEC cartel enable petroleum-based supply shocks to be easily identified and their effects on prices throughout the gasoline market to be examined. The analysis begins with a historical overview of OPEC.

OPEC's history. OPEC was established in September 1960 at the Baghdad Conference. Initially, the cartel included Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela. By the end of 1971, Qatar, Indonesia, Libya, the United Arab Emirates, and Nigeria had joined the organization. From OPEC's inception until the early 1970s, the cartel was unable to exert any significant control over crude-petroleum prices. Prices for crude petroleum remained relatively stable in nominal terms at around $3.00 per barrel from 1958 to 1970 and fell in real terms over the same period.[2]

During the 1970s, OPEC's ability to influence crude-petroleum prices increased substantially due to rising demand for petroleum products[3] and the strength the organization gained from

the addition of new members. OPEC's increasing power in the petroleum market becomes apparent from the effects its supply decisions have had on petroleum prices since the 1970s.

OPEC supply shocks.   Chart 1 displays the PPI's for crude petroleum and gasoline and the CPI for gasoline. For a simplified comparison, the three indexes were rebased to March 1973 = 100. The first major interruption in OPEC's petroleum supply resulted from an oil embargo launched in connection with the Yom Kippur War. As a result, U.S. imports of crude petroleum fell by approximately 30 percent while the embargo was in place.[4] The drastic reduction in the supply of crude petroleum caused domestic prices to rise 67 percent from October 1973 to the end of 1974. Over the same period, domestic prices for wholesale and consumer gasoline increased 67 and 32 percent, respectively, indicating a strong pass-through relationship between crude-petroleum prices and gasoline prices. (See chart 1.)

The second crude-petroleum supply shock took place at the time of the Iranian revolution, in conjunction with the Iran-Iraq War. The shock began as a result of panic in the world oil market caused by the revolution. The situation worsened when Iran prohibited oil exports to U.S. firms after the U.S. administration froze Iranian assets in the United States.[5] The war between Iran

and Iraq exacerbated the crisis, and Iran's oil production declined 3.9 million barrels a day from 1978 to 1981. Furthermore, the war caused other Persian Gulf countries to reduce their oil production. By 1981, OPEC's oil production fell 7 million barrels per day, decreasing world oil production by 11.6 percent from its 1978 average.[6] From November 1978 to October 1981, the price of crude petroleum rose 172 percent. Increasing prices were passed forward through the chain of production, with prices for wholesale and consumer gasoline rising 150 and 103 percent, respectively, over the same period. (See chart 1.)

The third crude-oil interruption occurred in 1990 as tensions between Iraq and Kuwait rose. On July 17, 1990, Iraq accused Kuwait of overproducing oil and of stealing oil from the Iraqi Rumaila oil fields. Iraq invaded Kuwait on August 2, 1990, and the ensuing Gulf War resulted in a reduction of about 4.3 million barrels of oil per day from Iraq and Kuwait. This decrease in the oil supply caused world production to decline by approximately 7.2 percent from its average 1989 level. However, non-OPEC countries in Central America, Western Europe, and the Far East, as well as the United States, supplemented OPEC production to offset some of the losses.[7] Chart 1 shows that crude-petroleum prices rose 155 percent between July 1990 and October 1990. Over

Chart 1.   Historical price movements and supply shocks, 1973–2001

NOTE: All year labels are for January.
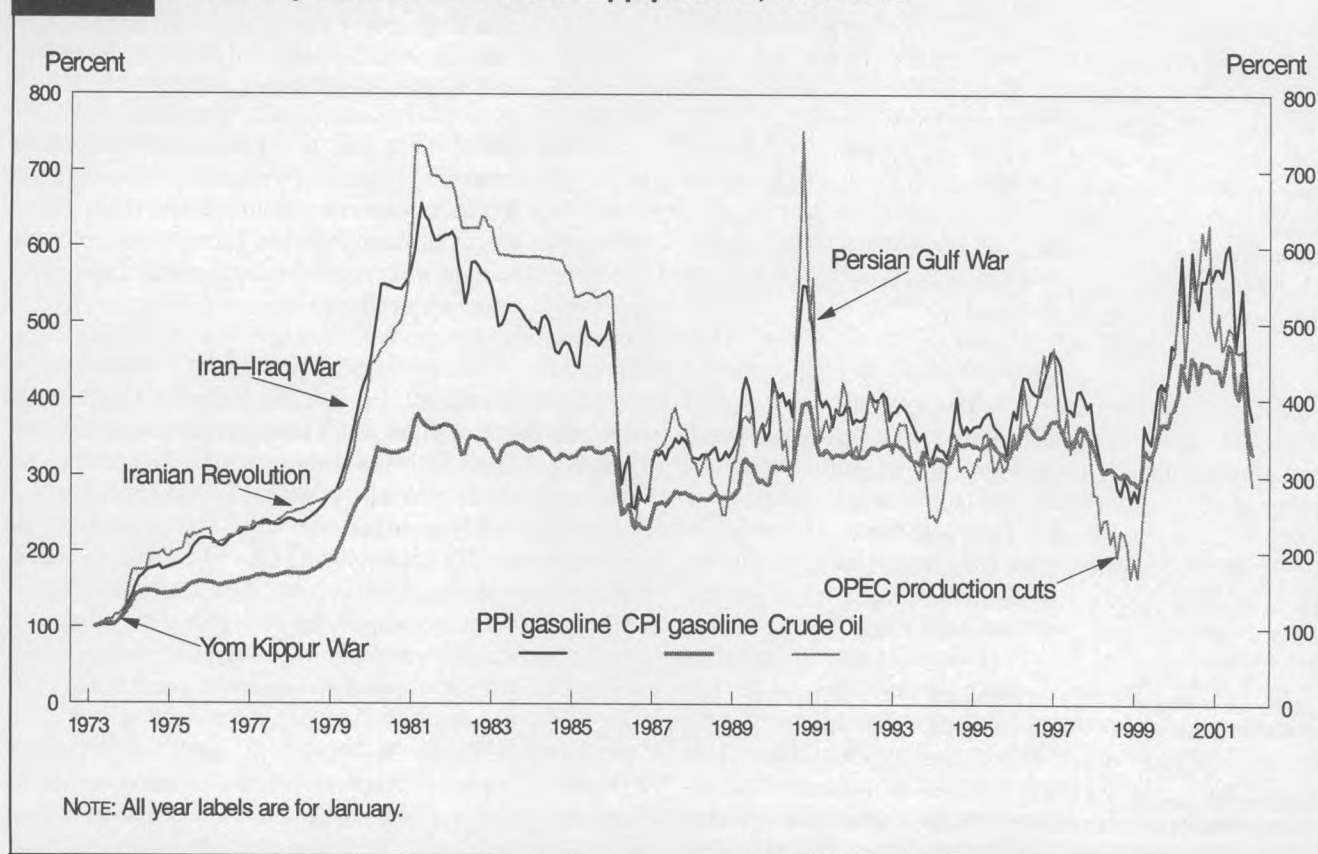
the same period, domestic prices of gasoline at the wholesale and consumer levels increased by 45 percent and 26 percent, respectively, to reflect skyrocketing input costs.

The fourth significant crude-petroleum supply shock took place in 1999, after OPEC reduced its production of oil by 1.7 million barrels per day, representing a 2.5-percent decline in world oil production.[8] In addition, U.S oil production decreased approximately 6 percent from 1998 to 1999.[9] Crude-petroleum prices soared 277 percent from February 1999 to November 2000 in response to drastically reduced supplies. Gasoline prices at the wholesale and consumer levels rose 114 and 55 percent, respectively, due to increasing crude-petroleum input prices.

An examination of historical price movements for crude petroleum, wholesale gasoline, and consumer gasoline indicates that the production decisions of OPEC nations have considerable effects on prices within the gasoline market at all stages of production. The historical price trends also suggest that price volatility resulting from supply shocks diminishes at progressively more advanced stages of processing. In three out of four instances, supply shocks increased prices for crude petroleum more than they did wholesale gasoline prices, and in all four instances crude-petroleum prices rose more than consumer gasoline prices.

Model of gasoline price movements

To examine the source of variations in consumer gasoline prices more rigorously, a five-variable structural vector autoregression model of supply and demand within the gasoline market is presented. Vector autoregressions are an econometric tool used to study systems of interrelated time series in which all variables in a system are expressed as a linear function of the lagged values of every variable in the system.[10] A structural vector autoregression model is developed by imposing theoretically plausible contemporaneous restrictions on the error terms of the unrestricted vector autoregression.

Unrestricted vector autoregression. A five-variable unrestricted vector autoregression model was constructed with 1974–2001 monthly data of the PPI's for crude petroleum and gasoline, the CPI for gasoline, the quantity of domestically consumed gasoline, and the industrial production index. The PPI's for crude petroleum and gasoline were included in the model as supply variables, because both are major inputs into the production of consumer gasoline. To account for shifts in demand, the industrial production index, a major determinant of gasoline demand, was included in the model.

All data are seasonally adjusted and were transformed into percentage growth form by taking the first differences of the natural logarithms of the data. Converting data to percentage growth form usually induces *stationarity*, indicating that the mean, variance, and covariance of the time series are independent of time. Estimation of vector autoregressions with nonstationary data is problematic, because tests used to estimate the significance of the regressions' coefficients will not be valid.[11] Accordingly, to test for stationarity, the augmented Dickey-Fuller test was applied to the variables in percentage growth form; this is a one-tailed test of the null hypothesis that the time series is not stationary. A large negative test statistic rejects the null hypothesis and implies that the time series is stationary.[12] As the following tabulation shows, the tests suggested that, at the significance level of $p = 0.01$, all five time series were stationary when they were expressed in percentage growth form:

Variable	Augmented Dickey-Fuller statistic
Crude petroleum	−8.87
PPI for gasoline	−5.02
CPI for gasoline	−5.22
Quantity of gasoline	−4.71
Industrial production	−5.97

The Akaike, Schwarz, and Hannan-Quinn information criteria were implemented to compare the performance of the vector autoregression model with various lag length specifications. The Schwarz and Hannan-Quinn criteria indicated that a vector autoregression whose equations have two lags is optimal, while the Akaike criterion suggested a three-lag regression. The two-lag specification suggested by the Schwarz and Hannan-Quinn criterion was chosen, and the unrestricted vector autoregression was estimated by using ordinary least squares.

Structural vector autoregression. Innovations within a vector autoregression are generally contemporaneously correlated with each other: a random innovation to one variable often occurs simultaneously with innovations to other variables in the system.[13] To recover the contemporaneous relationships among the vector autoregression's innovations, allowing for economically meaningful conclusions, it is necessary to orthogonalize the residuals from the unrestricted vector autoregression. The conventional method of orthogonalization is based on the Cholesky decomposition, which assumes that the residuals have a recursive structure.[14] However, this approach is often not supported by economic theory and leads to a series of orthogonal shocks that have no particular meaning. Alternatively, the structural impulses can be obtained by imposing theoretically plausible restrictions on the vector autoregression's residuals.[15] The latter of these two approaches is taken in this article.

The estimated variance-covariance matrix of the unrestricted vector autoregression's residuals contains $n(n + 1)/2$ distinct elements. Recovering the structural disturbances requires the estimation of an $n \times n$ matrix of parameters. Therefore, $n^2 - n(n + 1)/2 = n(n - 1)/2$ additional restrictions are required to recover the structural disturbances. These

additional restrictions can be obtained by letting the co-efficients of the structural parameters vanish. Consequently, in the case of the five-variable vector autoregression model that was constructed, identification of the structural disturbances requires at least 10 restrictions.

The following structural specification of the contemporaneous interactions among the vector autoregression's innovations was estimated:

$$(1) \quad PCP = \beta_1 QIP + u_1;$$
$$(2) \quad PPG = \beta_2 PCP + u_2;$$
$$(3) \quad PCG = \beta_3 PCP + \beta_4 PPG + u_3;$$
$$(4) \quad PCG = -\beta_5 QCG + \beta_6 QIP + u_4;$$
$$(5) \quad QIP = u_5.$$

In the preceding equations, PCP, PPG, PCG, QCG, and QIP refer to the innovations in, respectively, the PPI for crude petroleum, the PPI for gasoline, the CPI for gasoline, the quantity of gasoline consumed, and the quantity of industrial production, as estimated by the unrestricted vector autoregression. The u's are uncorrelated error terms. For symmetry purposes, the fourth equation is normalized to the price of consumer gasoline.

In all of the equations, all of the coefficients are positive, with the exception of the coefficient of QCG . The structure of the contemporaneous relationships in the system is derived by assuming a horizontal supply curve and a downward-sloping demand curve in the market for consumer gasoline. Under this framework, shifts in the supply curve affect price and quantity, whereas shifts in the demand curve change only quantity. The error terms u_1, u_2, and u_3 represent supply shocks, u_4 is a demand shock, and u_5 is a simultaneous shock to supply and demand. Given the assumptions about the slopes of the demand and supply curves, the following relationships hold: (1) crude-petroleum prices vary as a result of innovations in industrial production, reflecting shifts in demand due to changes in the level of production; (2) producer gasoline prices are affected by innovations to crude petroleum, which is a major material input to the production of producer gasoline; (3) consumer gasoline prices vary with innovations to crude petroleum and producer gasoline, both of which are inputs to the production of consumer gasoline; (4) consumer gasoline prices are affected by innovations to both the quantities of gasoline consumed and industrial production; and (5) the quantity of industrial production is exogenous to the system and is not affected by innovations to any variables.

To illustrate how shocks to demand and supply affect consumer gasoline market equilibrium, chart 2 shows the effects

Chart 2. Effects of an industrial production shock on the market for consumer gasoline
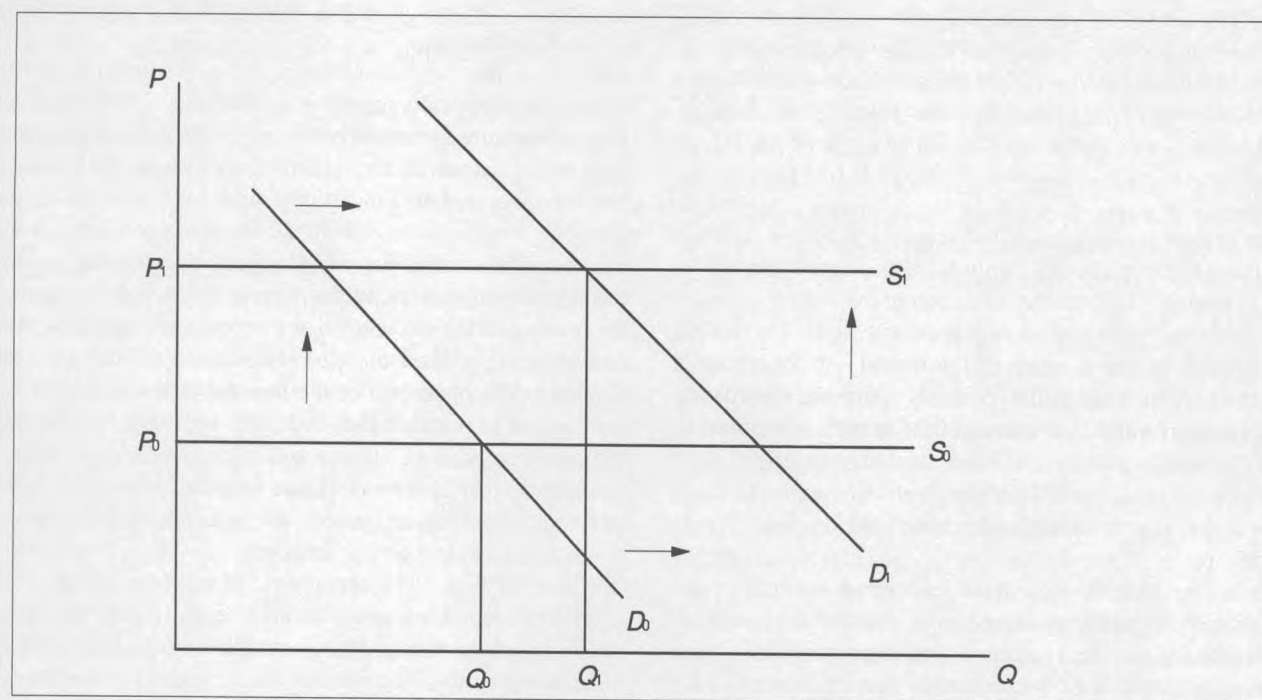
S = supply; D = demand; P = price; Q = quantity

of a shock to u_5 (industrial production) on the equilibrium price and quantity of consumer gasoline. A shock to industrial production causes individuals to desire more gasoline and shifts the demand curve from D_0 to D_1. In turn, the supply curve shifts from S_0 to S_1, reflecting increased production costs as input prices are driven up by the change in industrial production. The effect on price is positive and results from the shifting supply curve. The effect on quantity is ambiguous and depends on the relative size of shifts in the demand and supply curves. In the chart, it is clearly seen that the positive effect on quantity resulting from the shift in demand outweighs the negative effect on quantity from the shift in supply.

The results of the estimation of the structural coefficients are as follows, where [1] indicates significance at the level of $p = 0.1$, [2] indicates significance at the level of $p = 0.05$, and [3] indicates significance at the level of $p = 0.0001$:

$$PCP = 0.36QIP + u_1;$$
$$PPG = 0.38PCP^{[3]} + u_2;$$
$$PCG = 0.014PCP + 0.42PPG^{[3]} + u_3;$$
$$PCG = -12.5QCG^{[2]} + 3.13QIP^{[1]} + u_4;$$
$$QIP = u_5.$$

The signs of the estimated coefficients are as anticipated. Innovations to crude petroleum are positively affected by shocks to industrial production. Innovations to producer gasoline prices are positively correlated with crude-petroleum innovations. Shocks to the CPI for gasoline are positively affected by innovations to crude petroleum and to the PPI for gasoline. Innovations to the CPI for gasoline are negatively correlated with shocks to the quantity of consumer gasoline and are positively correlated with industrial production shocks.

The system of structural disturbances is overidentified, because estimation required only 10 restrictions, whereas 14 were provided. The overidentification of the system allowed the likelihood ratio (LR) test for overidentification to be applied. The LR test is a test of the validity of the system's restrictions, where the null hypothesis is that the identifying restrictions are valid. A p-value of 0.01 or 0.05 is required to reject the null hypothesis. The test's chi-square statistic and p-value were 4.24 and 0.37, respectively. Therefore, the null hypothesis was not rejected, and the restrictions were found to be valid.

Accumulated impulse response functions were constructed from the vector autoregression's coefficients with the use of the orthogonalized set of residuals. Impulse response functions measure the effect of a one-standard-deviation innovation of a variable on current and future values of the other variables in a system of equations.[16] Standard error bands demonstrating the statistical significance of the impulse response functions also were constructed, using analytical methods. The impulse response function is statistically significant when both standard error bands either are above zero or are below zero on the y-axis.

Chart 3 presents the accumulated impulse response functions. The first row of the chart indicates that, on the one hand, the PPI for crude petroleum is not significantly affected by unanticipated changes in the PPI for gasoline, the CPI for gasoline, or the quantity of consumer gasoline. On the other hand, shocks to the quantity of industrial pro-duction result in marginally significant changes in crude-petroleum prices. The second row suggests that innovations to crude-petroleum prices strongly affect producer gasoline prices and that unanticipated changes in the CPI for gasoline and the quantity of industrial production produce only marginal changes in the PPI for gasoline. By contrast, shocks to the quantity of gasoline consumed do not affect producer gasoline prices. The third row indicates that innovations in crude-petroleum prices and producer gasoline prices produce highly significant changes in the CPI for gasoline and that shocks to the quantity of industrial production affect consumer gasoline prices only marginally. Conversely, unanticipated changes in the quantity of gasoline consumed do not affect the CPI for gasoline. The fourth row of the chart shows that price shocks to crude petroleum, producer gasoline, and consumer gasoline tend to reduce the quantity of gasoline consumed, whereas innovations to the quantity of industrial production in-crease the quantity of gasoline consumed. The last row suggests that none of the variables in the system significantly affect the quantity of industrial production.

Variance decompositions were also constructed from the model. Variance decompositions show the percentage of forecast variance in one variable of the vector autoregression caused by innovations in the other variables.[17] The variance decompositions obtained from the analysis are presented in table 1.

The variance decomposition of the CPI for gasoline implies that the majority of the forecast error variance in consumer gasoline prices results from price shocks to production inputs. Innovations in crude petroleum and in the PPI for gasoline account for 73.74 percent of the forecast errors in the CPI for gasoline (40.14 percent from crude petroleum and 33.6 percent from producer gasoline). Conversely, shocks to the quantities of gasoline and industrial production account for only 0.11 and 1.82 percent, respectively, of the CPI's forecast error variance.

THIS ARTICLE HAS PRESENTED BOTH HISTORICAL AND EMPIRICAL EVIDENCE in examining the source of price variations within the gasoline market. The main finding of the article is that price changes for consumer gasoline have histori-cally been driven by changes in supply as opposed to demand.

The initial approach taken was to identify historical supply shocks within the crude-petroleum market and examine how

Chart 3. Accumulated impulse response functions

——————— Response function

············· Plus or minus two
standard deviations

Shock to PPI for crude petroleum

Shock to PPI for gasoline

Response of
PPI for crude
petroleum

Response of
PPI for
gasoline

Response of
CPI for
gasoline

Response of
quantity of
gasoline

Response of
Industrial
production

Period

Period
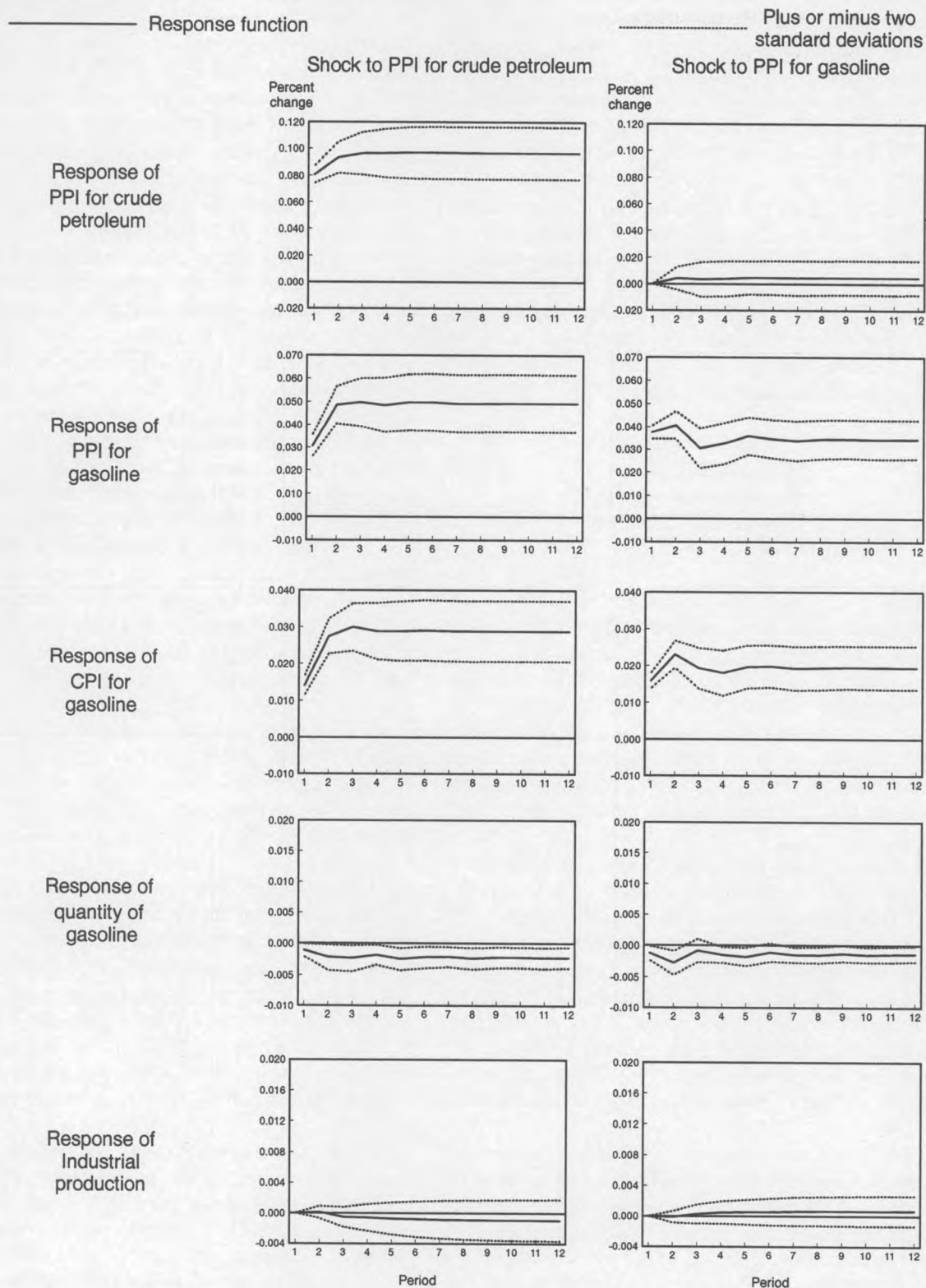
Chart 3. Continued—Accumulated impulse response functions

Response function ·········· Plus or minus two standard deviations

Shock to CPI for gasoline Shock to quantity of gasoline Shock to industrial production
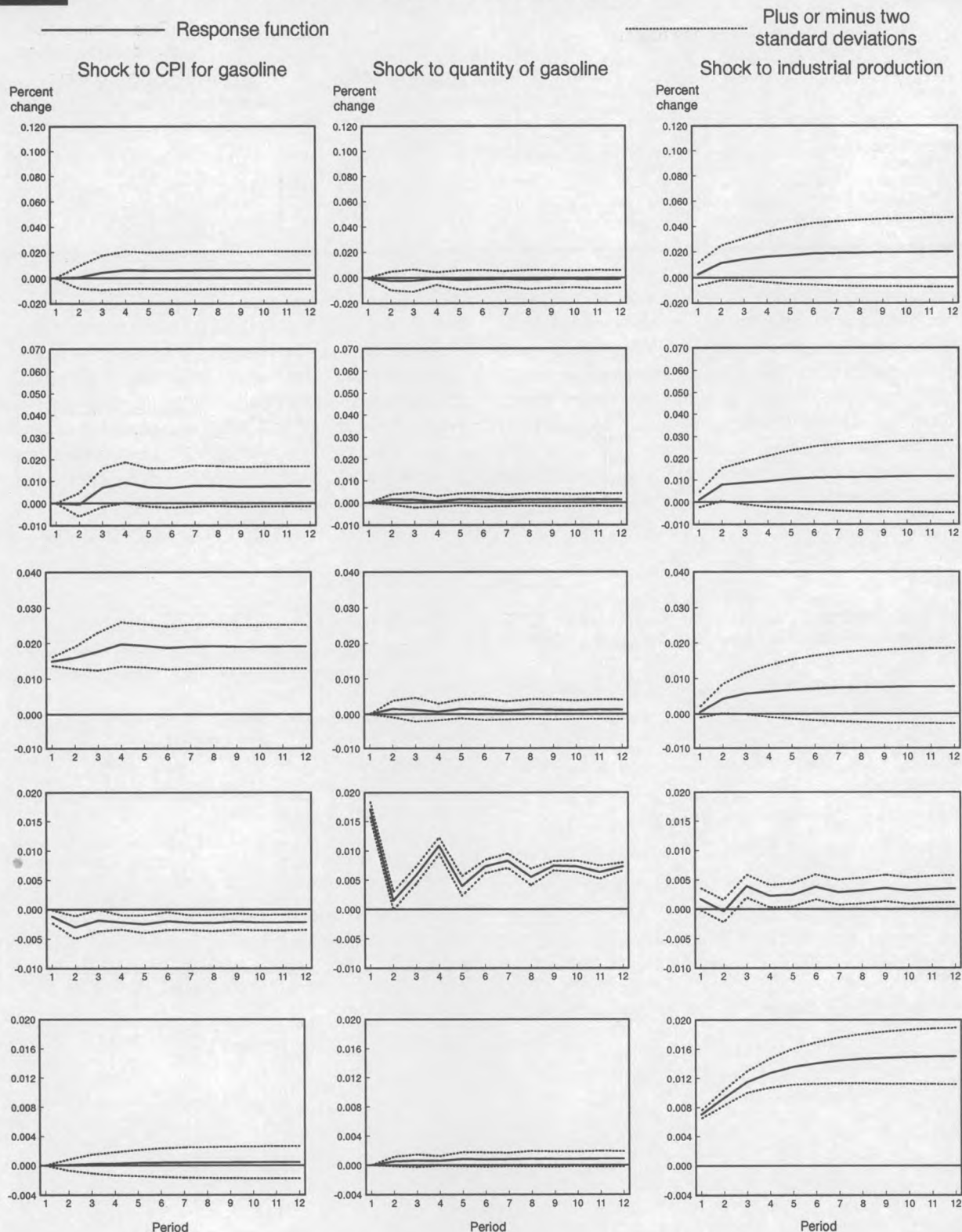
Table 1.	Variance decompositions after 12 months				
Decomposition variable	Percentage of forecast errors due to—				
	PPI for crude Petroleum	PPI for gasoline	CPI for gasoline	Quantity of gasoline	Industrial production
PPI for crude petroleum	97.82	0.31	.26	0.16	1.46
PPI for gasoline	43.08	52.57	2.42	.11	1.82
CPI for gasoline	40.14	33.60	23.97	.40	1.88
Quantity of gasoline	.49	1.28	.97	92.79	4.47
Industrial production	.71	.32	.05	.56	98.36

prices at various stages of processing responded to the shocks. In all cases examined, interruptions in the supply of crude petroleum resulted in significant increases in the prices of crude petroleum, wholesale gasoline, and consumer gasoline.

To analyze pricing relationships within the gasoline market more formally, a five-variable structural vector autoregression model of the gasoline market was developed, using the PPI's for crude petroleum and gasoline, the CPI for gasoline, the quantity of domestically consumed gasoline, and the in-dustrial production index. Impulse response functions constructed from the model's coefficients imply that price changes of inputs to consumer gasoline (crude petroleum and PPI gasoline) significantly affect the CPI for gasoline, but that changes in demand (industrial production) affect gasoline prices only marginally. In addition, variance decompositions indicated that the majority of the forecast variance in consumer gasoline prices can be explained by price shocks to inputs, as opposed to shocks to demand. □

Notes

[1] The 36.3-percent figure represents the percent increase in the annual average of the Consumer Price Index for gasoline from 1999 to 2000.

[2] James L. Williams, *Energy Economics Newsletter*, on the Internet at **http://www.wtrg.com/prices.htm**.

[3] *Ibid.*

[4] *Petroleum Chronology of Events 1970–2000* (U.S. Department of Energy, 2002).

[5] Williams, *Energy Economics Newsletter*.

[6] *Petroleum Chronology of Events*.

[7] *Ibid.*

[8] *Oil Reserve Fact Sheet* (U.S. Department of Energy, 2000).

[9] Eleni Xenofondos and William F. Snyders, "Rising producer prices in 1999 dominated by energy goods," *Monthly Labor Review*, August 2000, pp. 15–25.

[10] William H. Greene, *Econometric Analysis* (Upper Saddle River,

NJ, Prentice Hall, 1997); see especially pp. 815–16.

[11] Philip Hans Franses, *Time Series Models for Business and Economic Forecasting* (Cambridge, U.K., and New York, Cambridge University Press, 1998).

[12] Jack Johnston and John DiNardo, *Econometric Methods* (New York, McGraw-Hill, 1997); see especially pp. 224–25.

[13] *Ibid.*, p. 299.

[14] Christopher A. Sims, "Macroeconomics and Reality," *Econometrica*, January 1980, pp. 1–48.

[15] Ben Bernanke, "Alternative Explanations of the Money-Income Correlation," in Karl Brunner and Allan Meltzer (eds.), *Real Business Cycles, Real Exchange Rates, and Actual Policies*, Carnegie-Rochester Conference Series on Public Policy, Autumn 1986, pp. 49–99 (Amsterdam, North-Holland, 1986); see also Christopher A. Sims, "Are Forecasting Models Usable for Policy Analysis," *Federal Reserve Bank of Minneapolis Quarterly Review*, Winter 1986, pp. 2–16.

[16] Johnston and DiNardo, *Econometric Methods*, pp. 299–300.

[17] *Ibid.*, p. 301.

The effects of firm size on wages in Colorado: a case study

A unique data set from Colorado's Job Vacancy Surveys provides a wealth of employer-reported information including a wage range for jobseekers and a way to examine the effects of firm size on various job vacancy characteristics

Paul Paez

Information on firm size and an employer's willingness to pay more for higher levels of education and experience are of value to jobseekers looking for their highest potential salary in today's labor market. The Job Vacancy Surveys, conducted in Colorado by its Department of Labor and Employment, help jobseekers, labor market analysts, economists, and many others by providing information on the amount and types of jobs that are available and the qualifications that employers demand for those jobs. Data from the survey allow analysts to report the proportion of job vacancies and the average wages offered, with respect to vacancy characteristics, throughout the State. The survey also provides data on the wage range that employers are willing to pay the individual who is eventually hired.

Also of value to jobseekers is the knowledge that larger firms pay higher wages. Economists and sociologists have postulated many theories to explain this positive relationship since first reported in 1911.[1]

This article uses the abundant unique data set provided by Job Vacancy Surveys to explore the relationship between firm size, job vacancy needs and employers' wage offers in the Colorado Front Range. Similar to other research, this study finds that Colorado's large firms offered higher wages to fill vacancies than smaller firms with otherwise similar institutional characteristics and requiring the same levels of both education and experience.

The size-wage premium

In 1989, Charles Brown and James Medoff used a number of data sets to investigate possible explanations for the size-wage premium.[2] Their research concludes that the size-wage premium is "sizeable and omnipresent" and not sufficiently explained by existing theories. Brown and Medoff categorize the various size-wage premium theories as either neoclassical or institutional. Neoclassical explanations include the labor quality hypothesis, the efficiency wage explanation, and the theory of compensating wage differentials. The monopoly power explanation, and the unionization avoidance hypothesis are examples of institutional explanations.

The labor quality hypothesis states that large firms tend to hire more skilled workers. A variety of explanations for this theory have been presented. One theory suggests that large firms employ high-skilled managers who tend to surround themselves with similarly high-skilled employees. A related theory proposes that large firms are more capital intensive and require skilled workers to operate the firms' complex machinery. Another explanation that has been suggested also relates to management. The efficiency wage explanation posits that there is a trade-off between wages and work intensity. The

Paul Paez is an economist at the Colorado Department of Labor and Employment.

larger a firm becomes, the more difficult it is for managers to monitor employees. As a result, employees are more likely to shirk their duties. Firms offer higher wages as an incentive for employees to work harder as an alternative to hiring more managers to monitor employees.

The theory of compensating wage differentials generally refers to the need for employers to offer higher wages in order to attract qualified workers when working conditions are undesirable. Less flexible scheduling, inefficient hierarchies, more rigid regulation, entrepreneurial discouragement, and an impersonal work environment are all examples of undesirable characteristics often associated with large firms.

Institutional explanations include the suggestion that large firms often have greater market power and gain monopoly rents, which they share with employees. Alternatively, nonunion, large firms may offer union-like compensation packages as a deterrent to worker unionization.

To the extent that statistical data measure the relevant worker/firm characteristics, if any of the explanations hold, adding variables to control for these characteristics to a wage-size regression should eliminate the effect of firm size on wages. Recent research in this area has found that employer size-wage premiums remain largely unexplained.[3] Using a variety of human capital and institutional variables, this article investigates the influence of firm size on wages offered by Colorado employers to fill vacant positions.

Job Vacancy Surveys

In 1999, the Colorado Department of Labor and Employment (Colorado Labor Department or Department, for short) received one of six grants issued by the U.S. Department of Labor Employment and Training Administration to conduct a pilot study to determine the feasibility of measuring employers' demand for labor through a Job Vacancy Survey. In cooperation with Arapahoe/Douglas Works,[4] the Colorado Labor Department conducted and issued a report based on the original Denver Metro Job Vacancy Survey. The report was so well received in Colorado that subsequent Denver Metro surveys were conducted and the decision was made to expand the report throughout the entire State. In April 2001, the Department set up its own survey unit to collect the necessary vacancy data. Using Computer Assisted Telephone Interview (CATI) technology, the survey unit was able to collect sample data covering all 11 of the State's Job Vacancy Survey regions by the end of 2001, a period of just 9 months! During those 9 months, the Department contacted approximately 30 percent of all Colorado employers with at least five employees.

During the telephone interview, employers are asked how many workers they currently employ as well as how many positions they were actively recruiting to fill at the time of the survey. The ratio of vacancies to employment, or the job vacancy rate, is then used to estimate the total number of vacancies in the region.[5] In addition to this basic information, employers that report having vacancies are asked a number of questions about those vacancies. For example, they are asked to provide the job status (that is, full-time, part-time, permanent, or temporary); a job title; and a description of the work performed by the position (to assist in classifying job vacancies by codes based on the Standard Occupational Classification). Employers also are asked to provide a wage range that they are willing to pay the individual who eventually fills the position, as well as what levels of education and experience they require of an applicant in order to be considered.[6] The employers are asked to choose from a list of six education levels and four experience levels, which best describe the applicant they are seeking. (An underlying assumption of this analysis is that the lower end of the reported wage range is associated with the education and experience requirements reported by the employer and that higher wages may be available to applicants exceeding these requirements.) Employers are also asked whether prospective employees are offered a sign-on bonus[7] or a medical insurance. Those employers offering to supply access to a medical insurance plan also are asked whether they pay any, part, or all of the insurance premium associated with the plan. In addition to these questions regarding compensation and human capital, employers are asked to choose among three categories (not, somewhat, and very) the level of difficulty that they experience in hiring for the particular type of occupation as well as the amount of time the company has been actively recruiting to fill the vacant position.[8]

The size of the labor force and unemployment rate provide Colorado citizens with an accurate picture of the current labor supply situation, however, they do not provide any detailed information about the skills and knowledge that the labor pool commands nor the industry or occupations for which available workers are qualified to work. The Job Vacancy Survey fills this void by providing useful, timely data regarding the demand for labor by Colorado employers.

This article offers additional analysis of those data. Using ordinary least squares regression/ANOVA techniques, the results found here provide useful wage data by each of the vacancy characteristics included, holding all other characteristics constant. This adds to the analysis provided by the Colorado Department of Labor and Employment because it means that the wage differential associated with a particular firm size, for example, is calculated holding education, experience, and so forth, constant.

The Front Range sample

The four Job Vacancy Survey regions investigated in this

article constitute what is commonly referred to as Colorado's Front Range, reflecting their proximity to the foothills of the Rocky Mountains. The regions, from north to south, are the Larimer/Weld region, the Denver Metro region, the Pikes Peak region, and the Pueblo region. The Larimer/Weld region consists of Larimer and Weld counties. Each county borders Wyoming and each contains a Metropolitan Statistical Area (MSA). Fort Collins is in Larimer County and Greeley is in Weld County. The population of this region is approximately 430,000. The Denver Metro region includes Adams, Arapahoe, Boulder, Denver, Douglas, and Jefferson counties. This region also contains two MSA's; Denver and Boulder. It has the highest concentration of employers in the State and a population of more than 2.3 million. El Paso and Teller counties make up the Pikes Peak region with a population of slightly more than half a million. The Pueblo County region is 1 of only 2 one-county Job Vacancy Survey regions in the State and the smallest of the Front Range regions with slightly fewer than 150,000 residents.

More than half of the firms in each of the four Front Range Job Vacancy Survey regions are classified as either Services or Retail Trade industries. Although government agencies make up only a small proportion of employers in each region, they rank highly in terms of numbers employed. Unemployment rates ranged from 2.6 percent in Teller County to 4.7 percent in Pueblo and El Paso Counties at the time of the surveys. Seasonal employment in each region peaks in late summer and slows in the middle of winter. The surveys used in this article were conducted in periods of peak seasonal employment. (See table 1.)

Between July 31, and November 19, 2001, more than 8,000 employers were contacted in the four Front Range Job Vacancy Survey regions. Those employers reported having nearly half-a-million workers at the time of the surveys as well as actively recruiting to fill an additional 8,605 vacant positions. Upon completion of the surveys, the Colorado Labor Department issued summary reports for each region.[9] In these reports, the proportion of vacancies as well as the average wage range associated with each category of the vacancy characteristics surveyed is provided.

Table 1.	Front Range Job Vacancy Survey description, 2001				
Front Range area	Start date	End date	Number of employers contacted	Employment represented
Total Front Range.....	1/1/01	11/19/01	8,371	483,831
Larimer/Weld	10/8/01	11/6/01	1,960	91,605
Denver Metro	10/23/01	11/19/01	3,141	253,462
Pikes Peak	7/31/01	9/7/01	2,185	102,873
Pueblo County	9/6/01	9/24/01	1,085	35,891

SOURCE: Job Vacancy Surveys, Colorado Department of Labor and Employment, 2001.

The overall average wage offered in the Denver Metro region was the highest of the four Front Range regions, followed by Larimer/Weld, Pikes Peak, and Pueblo County respectively. What constitutes a large firm varies from one region to the next. For the purpose of the Job Vacancy Survey, the Colorado Labor Department defines large firms as those accounting for approximately one third of the region's total, private sector employment in firms with at least five workers.[10] Large firms in each of the four Front Range Job Vacancy Survey regions are defined as: those employing at least 250 employees in Denver Metro, 200 employees in Pikes Peak and Pueblo County, and 150 employees in Larimer/Weld. In each region, the wages reported by large firms were higher than those offered by small to mid-size firms. With few exceptions, the reported wage ranges in each survey increased along with measures of both education and experience. Jobseekers who are hired for full-time, permanent positions were offered the highest wages among the employment statuses in all four surveys. Those vacancies offering the highest wages also offered additional compensation: in each survey, the reported wage ranges increased along with the employer's contribution to the medical insurance premium. The wages offered by both industry and occupational classification varied from one region to the next.

Employers supplied characteristic information for 4,015 vacancies reported in the four Front Range Job Vacancy Survey regions.[11] Table 2 summarizes these characteristics for each of the Front Range regions.

Analysis of the variance

This study compares wages offered by employers to fill open positions in each of the four Colorado Front Range Job Vacancy Survey regions. The differential effects of firms size on average wages offered are estimated holding human capital and institutional vacancy characteristics constant. The regression used to test for the differential affects of each of these characteristics is:

$$\cdot \ ENTRYOFFER_i := \mu + \partial_1 Siz_{i1} + \sum_{j=1}^{3}\alpha_j LOC_{ij} + \sum_{k=1}^{5}\beta_k EDU_{ik} + \sum_{l=1}^{3}\delta_l EXP_{il} + \sum_{m=1}^{7}\phi_m IND_{im}$$
$$+ \sum_{n=1}^{4}\gamma_n OCC_{in} + \lambda_1 TEMP_{i1} + \sum_{O=1}^{3}\pi_o INS_{io} + \sum_{p=1}^{2}\theta_p OUT_{ip} + \varepsilon_i \qquad (1)$$

where $ENTRYOFFER$ is the natural logarithm of the minimum of the wage range offered by an employer for the vacancy, i indexes each of the vacancies, μ represents the baseline[12] average entry-level wage offered, ε is an independent identically distributed random variable with mean 0, and the explanatory variables are described in exhibit 1. The indicator variables representing education, experience, and employer's contribution to medical insurance are included to control for wage variations dependent on measures of human capital.[13]

Table 2. Summary of vacancy characteristics by Colorado Front Range Job Vacancy Survey region, 2001

Characteristic	Larimer/Weld	Denver Metro	Pikes Peak	Pueblo County
Average entry level wage offered	$12.04	$12.15	$9.39	$9.24
Number of vacancies included	836	1,144	1,523	512
Employer size (in percent)				
Small to mid-size employers	46.8	28.2	59.2	71.3
Large employers	53.2	71.8	40.8	28.7
Education requirements (in percent)				
No diploma required	20.8	24.3	40.9	30.5
High school/GED required	33.7	37.2	42.0	36.1
Vocational training/certification required	18.2	12.8	10.0	17.0
Two-year degree required	3.0	3.6	.7	4.3
Bachelors degree required	17.5	20.5	4.9	8.6
Advanced degree required	6.8	1.5	1.6	3.5
Experience requirements (in percent)				
No experience required	33.7	33.3	45.7	50.4
General work experience required	15.8	13.4	17.7	9.8
Experience in a related field required	22.6	23.2	19.1	16.0
Experience in this occupation required	27.9	30.2	17.5	23.8
Employer's industry classification (in percent)				
Construction	7.0	1.2	6.1	2.9
Manufacturing	5.5	8.7	6.1	4.1
Transportation, communications, and public utilities	2.5	5.8	10.8	1.6
Wholesale trade	3.0	3.6	11.4	3.9
Retail trade	20.6	19.4	25.1	35.0
Finance, insurance, and real estate	2.5	11.9	7.2	1.0
Services	33.1	39.0	28.1	42.8
Public administration	25.8	10.5	5.2	8.8
Standard Occupational Classification category (in percent)				
Management, professional, and related occupations	33.6	36.9	11.8	25.8
Service occupations	20.9	15.1	29.3	35.4
Sales and office occupations	23.2	37.7	33.6	19.5
Natural resources, construction, and material moving occupations	9.8	4.8	9.1	7.4
Production, transportation, and material moving occupations	12.4	5.5	16.2	11.9
Employment status (in percent)				
Permanent employment	88.6	90.0	97.1	96.5
Temporary employment	11.4	10.0	2.9	3.5
Employer's offering/contribution to medical insurance (in percent)				
No medical insurance offered	28.1	23.5	18.8	33.0
Medical insurance offered, but no contribution to premium	3.7	1.1	5.5	4.7
Partial contribution to insurance premium	50.7	52.8	52.9	33.2
Total cost of premium paid	17.5	22.6	22.8	29.1

NOTE: Percentages may not total to 100 in each characteristic by region due rounding.

SOURCE: Job Vacancy Surveys, Colorado Department of Labor and Employment, 2001.

Location, industry and broad occupational category hopefully explain a large portion of institutional vacancy characteristics.[14]

The analysis presented in this article uses 37 categories within 8 vacancy characteristic groups. Making full use of the coefficients estimated in the regression would allow for thousands of combinations of wage differentials. The actual results of the regression are provided for anyone wishing to draw additional conclusions. The purpose of this article is to investigate the size-wage premium in each of Colorado's Front Range Job Vacancy Survey regions, therefore, the analysis provided here concerns only employer size classification as it relates to human capital and institutional vacancy characteristics.

Because eight groups of vacancy characteristics were studied and one less indicator variable than the number of categories

was used in each group, the regression estimated includes 29 indicator variables. To avoid multicollinearity, a correlation matrix was analyzed prior to estimation. Of the 416 possible two-way simple correlations between the 29 variables, only 19 were more than 0.3 and only five of those more than 0.5, leaving the author confident that the estimates are not biased due to high correlation among explanatory variables.

Results

The natural logarithm of the entry-level wages offered by Colorado Front Range employers was regressed against indicator variables using ordinary least squares regression. White's test for heteroskedasticity was performed on the

gitized for FRASER Monthly Labor Review   July 2003
ps://fraser.stlouisfed.org
deral Reserve Bank of St. Louis

Exhibit 1. Dummy variables used in ANOVA regression

Variable	Description	Variable	Description
SIZ1	Large firms	IND5	Retail trade
		IND6	Finance, insurance, and real estate
LOC1	Larimer/Weld Job Vacancy Survey region	IND7	Public administration
LOC2	Pikes Peak Job Vacancy Survey region	OCC1	Management, professional, and related occupations
LOC3	Pueblo Job Vacancy Survey region	OCC2	Sales and office occupations
EDU1	High school/GED required	OCC3	Natural resources, construction, and maintenance occupations
EDU2	Vocational/certification required		
EDU3	Two-year degree required	OCC4	Production, transportation, and material moving occupations
EDU4	Bachelor's Degree required		
EDU5	Advanced degree required		
EXP1	General work experience required	TEMP1	Temporary employment
EXP2	Experience in a related field required		
EXP3	Experience in this occupation required	INS1	Medical insurance offered, but no contribution to premium
IND1	Construction	INS2	Partial contribution to insurance premium
IND2	Manufacturing	INS3	Total cost of premium paid
IND3	Transportation, communications, and public utilities	OUT1	Outliers below minimum wage
IND4	Wholesale trade	OUT2	Outliers above $34.99 per hour

NOTE: Baseline category—small to mid-size–Denver Metro–Permanent–no education–no experience–services occupation/industry–no insurance.

SOURCE: Job Vacancy Surveys, Colorado Department of Labor and Employment, 2001.

resulting error terms and it was determined that the residuals displayed nonconstant variance, but the source of the problem was not apparent. Even if the source of the problem had been evident, the traditional corrective measures for this problem do not make sense given the dichotomous nature of the independent variables. As an alternative, White heteroskedastisticity—consistent standard errors and covariances— were used to compensate for the effects on estimate efficiency.[15]

Even with the more restrictive standard error calculations, all but two of the 29 coefficients and one constant estimated were statistically significant at the 99 percent level of confidence. The remaining coefficients were significant with more than 90 percent confidence. (See table 3.) In particular, the coefficient of the indicator variable representing the wage differential paid to large firms as opposed to small to mid-size firms, all else constant, was estimated to be statistically significant with over 99 percent confidence. Together, all of the characteristics examined explain about 75 percent of the total variation in entry-level wages offered by Front Range employers.

Special caution must be taken in interpreting the estimated

coefficients because equation 1 takes the log-linear form. Robert Halvorsen and Raymon Palmquist suggest that taking the antilog of the estimated coefficient and subtracting 1 approximates the relative change in the average value of the dependent variable.[16] Following this methodology, the differential effects of each of the categories within the seven vacancy characteristic groups investigated are listed in table 4.

Like the overall average wages reported in table 2, wages in the Denver Metro region were estimated to be higher than those offered in the other Front Range regions, even while holding the effects of education, experience, and the other vacancy characteristics under consideration constant. The entry-level wages offered to fill vacancies requiring increasing levels of experience were also higher than those requiring no work experience. The differential effects ranged from 6.42 percent for vacancies requiring general work experience to 28 percent for vacancies requiring experience in the specific occupation being recruited. Similarly, the entry-level wage differentials estimated in this article are consistent with traditional findings that, all else constant, jobs requiring successively higher levels of education pay higher wages with the exception

Table 3. Employer size-wage premium regression results, based on the Job Vacancy Survey of the Front Range Colorado region, 2001

[Dependent variable: LOG(ENTRYOFFER)]

Variable	Coefficient	Standard error	t-Statistic	Probability
C	1.829239	0.015631	117.0258	0.0000
SIZ1	.032420	.009670	3.352585	.0008
LOC1	−.054828	.012489	−4.389961	.0000
LOC2	−.081824	.011008	−7.432865	.0000
LOC3	−.148404	.014051	−1.56172	.0000
EDU1	.072699	.009888	7.352055	.0000
EDU2	.244181	.018383	13.28324	.0000
EDU3	.275751	.036473	7.560382	.0000
EDU4	.369004	.022666	16.27998	.0000
EDU5	.329138	.038606	8.525669	.0000
EXP1	.062202	.012325	5.046637	.0000
EXP2	.144346	.013026	11.08153	.0000
EXP3	.279997	.015472	18.09748	.0000
IND1	.217094	.025381	8.553334	.0000
IND2	.080043	.016998	4.708999	.0000
IND3	.172037	.017739	9.698103	.0000
IND4	.151211	.016230	9.316521	.0000
IND5	−.027378	.012287	−2.228244	.0259
IND6	.078310	.017653	4.436107	.0000
IND7	.168613	.017838	9.452297	.0000
OCC1	.276592	.018238	15.16605	.0000
OCC2	.099110	.011250	8.809611	.0000
OCC3	.138384	.021176	6.535100	.0000
OCC4	.113382	.014946	7.585895	.0000
TEMP1	.102132	.018099	5.643087	.0000
INS1	.042913	.022747	1.886507	.0593
INS2	.078433	.011310	6.934750	.0000
INS3	.138586	.015215	9.108718	.0000
OUT1	−.860916	.030107	−28.59503	.0000
OUT2	.966754	.060520	15.97400	.0000

R-squared	751394	Mean dependent variable		2.244435
Adjusted R-squared		S.D. dependent variable		.497205
S.E. of regression	.247908	Akaike info criterion		.055928
Sum squared residual	244.9121	Schwarz criterion		.102985
Log likelihood	−82.27527	F-statistic		419.3459
Durbin-Watson statistic	1.947291	Probability (F-statistic)		.000000

NOTE: Based on least squares method (White Heteroskedasticity-Consistent Standard Errors and Covariance).

SOURCE: Job Vacancy Surveys, Colorado Department of Labor and Employment, 2001.

Table 4. Differential effects of job vacancy characteristics, based on the Job Vacancy Survey of the Front Range Colorado region, 2001

[In percent]

Variable	Effect	Variable	Effect
SIZ1	3.30	LOC1	−5.34
EXP1	6.42	LOC2	−7.86
EXP2	15.53	LOC3	−13.79
EXP3	32.31	IND1	24.25
TEMP1	10.75	IND3	18.77
INS1	4.38	IND4	16.32
INS2	8.16	IND5	−2.70
INS3	14.86	IND6	8.15
		IND7	18.37
EDU1	7.54		
EDU2	27.66	OCC1	31.86
EDU3	31.75	OCC2	10.42
EDU4	44.63	OCC3	14.84
EDU5	38.98	OCC4	12.01

NOTE: Baseline category—small to mid-size, Denver Metro, no education, no experience, services occupation/industry, no insurance.

SOURCE: Job Vacancy Surveys, Colorado Department of Labor and Employment, 2001.

of wages paid for advanced degrees, which are slightly lower than those paid for bachelor's degrees. The differential effects of increasing levels of educational attainment ranged from 7.27 percent for a high school/GED level of education to 36.90 percent for a bachelor's degree. Vacancies requiring an advanced degree were offered an average of 32.91 percent higher wages than those requiring no education.

WHILE THE ESTIMATED WAGE DIFFERENTIAL related to large firms was statistically significant, the effect of employer size on entry-level wages offered by Colorado Front Range employers was smaller than any other category of vacancy characteristic. Similar to previous studies, however, this study finds that the firm size effect still exists and it is not explained by human capital or institutional vacancy characteristics. Even when controlling for the effects of these characteristics, this study finds that large firms offered average wages that were 3.30 percent higher than small to mid-size firms. □

Notes

[1] H. L. Moore, *Laws of Wages: An Essay in Statistical Economics* (New York, Augustus M. Kelley, 1911).

[2] Charles Brown, and James Medoff, "The Employer Size-Wage Effect," *Journal of Political Economy*, 1989, vol. 97, no. 5, pp. 1027–59.

[3] For a review of recent research testing these hypotheses, see W. Y. Oi, and T. L. Idson, "Firm Size and Wages," *Handbook of Labor Economics* (Elsevier Science, 1999) vol. 3, chapter 33, pp. 2166–2214.

[4] Arapahoe/Douglas Works is a cooperative project between Arapahoe and Douglas Counties, funded by the Workforce Investment Act passed by Congress in 1996. The goal of this project was to improve labor market conditions by bringing together compatible employers/recruiters and jobseekers.

[5] Firm-specific effects for multiple vacancy firms is worthy of further analysis, but for this study, because the firm's size, industry, and location are all included in the analysis, vacancies reported by a particular firm would all have the same characteristics.

[6] Although this study does not examine wages other than the lowest within the range, the author considers this worthy of future research. The author opines, however, that many employers are only willing to pay the lower end of the range unless the candidate is overqualified. Also, many employers only report one wage, rather than a range. Looking into the size of the range is an interesting idea as well, this would go well with the firm-specific effects mentioned in the previous note. Without investigating the size of the wage ranges, however, using the lower end should provide a lower bound to the size of the wage premium.

[7] Limiting observations to those vacancies providing statistics regarding sign-on bonuses proved prohibitive relative to the additional explanatory value they provided.

[8] Although both of these measures of how difficult it is to fill the vacant position probably affect the wages offered by the employer, the direction of the causation between wages and difficulty to fill a position is not obvious—that is, employers may offer a higher wage in order to attract qualified candidates to fill positions the employers expect may be more difficult to fill or, the vacancies may be more difficult to fill because the wages offered are insufficient to attract qualified candidates. Because of this uncertainty and unavailability of additional information, which might have been used to produce a system of simultaneous equations accurately describing the relationship between wages and the difficulty employers experience recruiting for the vacancies, these measures were not used in the analysis.

[9] Job Vacancy Survey reports for each region are available on the Internet at: **www.coworkforce.com/lmi/wra/home.htm.**

[10] To determine region-specific large firms, this study ranks all firms from largest to the smallest by employment. Employment is accumulated starting with the largest firm and cuts off when the aggregate is roughly one-third. That is, large employers in a region consist of the largest firms accounting for approximately one-third of the regions total private employment.

All other private sector firms with at least five employees are referred to as small to mid-size firms. Multiple attempts are made to contact every large, private sector employer as well as all Federal, State, and local government agencies in the area. The remaining small to mid-size private sector employers are then stratified by industry and a random sample of employers is contacted in each stratum. The small to mid-size employers in Job Vacancy Survey regions containing Colorado's Metropolitan Statistical Areas (MSA's) are stratified by major industry division based on the U.S. Office of Management Budget *Standard Industrial Classification Manual, 1987*. Manufacturers are further divided into durable and nondurable goods-producing categories. County as well as industry stratify the employers in the six County Denver Metro Job Vacancy Survey region. In the rural areas of Colorado, employers are categorized as either goods or service producing, as there are not a sufficient number of employers in each region to accurately represent each individual industry with statistical reliability.

[11] Vacancies reported by employers in the Agriculture and Mining industries are not included in the sample.

[12] The baseline category in this regression represents vacancies in small to mid-size employers located in the six county Denver Metro Job Vacancy Survey region that require no education and no experience, are permanent positions in the service occupations category, and are offered by employers in the Services industry.

[13] Gary S. Becker, *Human Capital, 2nd Edition* (New York, National Bureau of Economic Research, 1975).

[14] Brown, and Medoff, "The Employer Size-Wage Effect."

[15] The estimated residuals of the regression were also tested against the normal distribution. The test rejected the null hypothesis of a normal distribution. This was largely due to a high kurtosis of 4.45. Given the large sample, however, the estimates should be unbiased and consistent.

[16] Robert Halvorsen and Raymon Palmquist, "The Interpretation of Dummy Variables in Semilogarithmic Equations," *American Economic Review*, vol. 70, no. 3, 1980, pp. 474–75.

Labor contract negotiations in the airline industry

*Airline labor negotiations take 1.3 years, on average,
to conclude, and about half go into Federal mediation;
much of the variance in the duration of negotiations
can be attributed to which particular airlines and unions
are bargaining, not to economic conditions*

Andrew
von Nordenflycht
and
Thomas A. Kochan

In the wake of a sizable slump in demand driven by the confluence of economic downturn, terrorism, war, and disease, as well as increased competition from low-cost carriers, many incumbent U.S. airlines have been attempting a fundamental restructuring of their operations. Arguably, a central element in this restructuring involves labor contract negotiations. Yet, even before the events of September 11, 2001, observers perceived strains in the industry's labor relations system, claiming that contracts were taking longer to negotiate, rank-and-file rejections of tentative agreements were more frequent, and job actions were on the rise. Not surprisingly, then, calls for reform of the Railway Labor Act—the law that has governed airline collective bargaining since 1933—have gained momentum.

Recent work has demonstrated that carrier-level differences in the duration of contract negotiations are associated with the quality of the labor-management relationship and, consequently, with airline productivity, customer service, and profitability.[1] Although the mechanisms of cause and effect are complex, changes in the regulatory framework could enhance the industry's productivity and level of service. However, debate on reforming the Act has been based largely on anecdotal evidence regarding the duration of contract negotiations and the sources of variance in that duration. To date, there has been no systematic analysis of the actual length of time required to reach agreements in airline labor negotiations and only limited published information on how airline labor disputes are actually resolved.

This article presents and analyzes data on contract negotiations between the Nation's largest air carriers and unions from 1982 through 2002. Descriptive statistics are given on the average duration of contract negotiations and the relative frequency of mediation and work stoppages; these averages are compared against National Labor Relations Act averages; and the effect of industry- and carrier-level factors that might be expected to account for variation in the duration of negotiations across carriers and over time is analyzed.

The first finding to come out of the analysis is that airline labor negotiations do take a considerable amount of time, particularly in relation to contracts negotiated under the National Labor Relations Act, and that reliance on Federal intervention is high. Further, the duration of negotiations and the reliance on Federal mediation have increased over time. The second finding is that higher carrier or industry growth rates may be associated with longer negotiations, but that the financial condition of the carrier does not correlate with the duration of negotiations. The third and final finding is that much of the variance in the duration of negotiations can be attributed to the specific identity of the airlines and unions involved in bargaining. Thus, the time required to negotiate airline labor contracts is not determined by the regulatory regime or by economic conditions nearly so much as it is by the relationship between, and practices of, particular organizations.

The article begins with a background description of the regulatory framework surrounding airline labor relations.

Andrew von
Nordenflycht is a
graduate student in
the Sloan School of
Management,
Massachusetts
Institute of
Technology,
Cambridge, MA;
Thomas A. Kochan is
George M. Bunker
Professor of
Management,
Institute for Work and
Employment
Research, Sloan
School of
Management.

Background

The Railway Labor Act has a number of features that distinguish negotiations and dispute resolution in airlines (and railroads) from negotiations governed by the National Labor Relations Act. The regulatory "exception" for airlines and railroads is intended to minimize the potential for disruption of the Nation's transportation system through work stoppages. This section gives an overview of the negotiations process under the Act.

A key difference in the Railway Labor Act is that contracts do not have fixed expiration dates. Instead, they have "amendable" dates. After the amendable date, the provisions of the existing contract remain in effect until the parties reach a new agreement. New contract terms cannot be imposed unilaterally, and strikes or lockouts cannot be initiated, until the parties have progressed through several steps that are regulated by the National Mediation Board.

If the parties cannot reach a contract agreement on their own, either side may then apply for mediation services from the Board. Once mediation begins, negotiations continue until an agreement is reached or until the Board declares an impasse. At that point, the Board offers the option of voluntary binding arbitration. If either party rejects the offer, the Board "releases" the parties. Once released, the parties enter a 30-day "cooling-off period," during which time the existing contract provisions remain in effect. At the end of the cooling-off period, if the parties still have not reached an agreement, the Board chooses whether to let the parties engage in "self-help"—that is, a strike by workers on the part of the union or a lockout or unilateral imposition of new contract terms on the part of management—or to refer the case to a Presidential Emergency Board composed of three neutral experts appointed by the President. The Presidential Emergency Board is allowed 30 days to deliberate and to formulate a recommended settlement. After the Presidential Emergency Board issues its recommendations, another 30-day cooling-off period begins. Finally, at the end of the second cooling-off period, the parties are free to engage in self-help. As a final recourse, after the expiration of the second cooling-off period, the President can refer the case to Congress, requesting that body to legislate a settlement.

In other words, once a contract becomes amendable, the parties are legally barred from self-help until the National Mediation Board releases them and the cooling-off periods expire. Theoretically, the parties could be prevented from self-help indefinitely, because the decision to release them while in mediation is at the discretion of the Board. Once the Board releases the parties, it is still a minimum of 30 days and a maximum of 90 days (the time from the beginning of the first cooling-off period, through the period during which the Presidential Emergency Board deliberates, to the end of the second cooling-off period) before the parties can strike or impose a lockout. It is generally recognized that, since deregulation, both Presidential Emergency Boards and strikes have become relatively rare. However, providing data on the actual frequency of each step—mediation, arbitration, releases, Presidential Emergency Board deliberations, and strikes or lockouts—is one of the contributions of this article.

Data and methods

Sample. The data on the duration of negotiations and the resolution process are drawn from the *Review of Collective Bargaining*, a bulletin produced by the Airline Industrial Relations Conference (AIRCON). AIRCON is a nonprofit airline industry association that collects and distributes information on airline labor contracts and negotiations for its member carriers. Since 1984, AIRCON has periodically published the *Review of Collective Bargaining*, which updates the status of labor negotiations at member carriers. In addition to searching the AIRCON archives, archival searches of major newspapers (through Lexis/Nexis and Dow Jones Interactive) were used to fill in missing data points (for example, ratification dates) wherever possible.

The sample used in this article covers U.S. carriers that were members of AIRCON and includes contracts *ratified* between January 1, 1984, and December 20, 2002 (so that the sample includes contracts that became *amendable* as early as 1982, thus covering negotiating activity from 1982 to 2002). The sample was limited to contracts covering pilots, flight attendants, mechanics, fleet service personnel (when noted separately from mechanics), and clerical/agent personnel. Contracts for dispatchers and those in other miscellaneous occupations with relatively small employee bases were excluded. Next, contracts for which either an amendable date (for the previous contract) or a ratification date could not be identified also were excluded from the sample. This left 265 contracts. Finally, for most of the analyses that follow, initial contracts and midterm negotiations (as described shortly) were excluded. In the end, the core sample consisted of 199 contracts across 39 airlines and 17 unions.

How inclusive or representative is this sample of contracts? The original data source does not include *every* airline labor contract negotiated between 1982 and 2002. The Department of Transportation's Form 41 database includes 142 U.S.-certificated airlines with positive revenue in the 1982–2002 period. Of those, 100 do not appear in the AIRCON bulletins. The average number of years during which these excluded carriers earned positive revenue was 5.5. The average number of contracts per year for the carriers in the sample used for this article was 0.5. Thus, an estimated maximum of about 275 contracts ($100 \times 5.5 \times 0.5$) are excluded from the sample. However, the actual number is probably far lower, because many of the excluded carriers were likely to have been less unionized than the carriers in the sample. The average annual revenue was $94 million (standard deviation of $105 million) for the excluded carriers and $2,016 million (standard deviation of $3,110 million) for the included carriers.

Thus, the missing carriers are considerably smaller than the carriers in the sample. As described later, a carrier's size has a significant effect on the duration of negotiations. Hence, the mean duration reported here is almost certainly higher than the industry's overall mean. To get a sense of the likely magnitude of this bias, the average duration of negotiations for small carriers in the sample was calculated. The maximum revenue of an excluded carrier was $2.4 billion and of an excluded passenger (as opposed to cargo) carrier was $980 million. Two-thirds of the excluded carriers had a maximum revenue of less than $500 million. The average duration of negotiations for carriers in the sample with revenues less than those three benchmarks were 10.39, 10.86, and 10.70 months, respectively. Thus, it would be fair to estimate that the excluded contracts averaged 10.5 months to negotiate, compared with 14.1 months for the overall sample.

Also, not every contract for the carriers that *are* in the sample is reported in the AIRCON bulletins. Nonetheless, there does not appear to be significant bias in those contracts which are selected for the bulletins.[2] Finally, for data on airline characteristics and industry economic conditions, the article relies on Form 41 filings—the quarterly reports on financial and operating results that carriers are required to submit to the Department of Transportation.[3]

Measurements.   The central measurement, that of the duration of negotiations, is calculated in two ways. The first method, the result of which is captured in the variable *duration1*, counts the months elapsed between the date negotiations actually started and the date the contract was ratified. However, the actual starting date of negotiations is available only for about half of the contracts in the sample. The second method, the result of which is given in the variable *duration2*, counts the months elapsed between the *amendable date* of the *previous* contract and the ratification date of the contract under negotiation. The average difference between the starting date of the negotiations and the amendable date (for those contracts with an express starting date) was 1.3 months, with a standard deviation of 3.1 months. Thus, the amendable-date measure (*duration2*), on average, underestimates the actual negotiation time (*duration1*).

One concern in using the amendable-date measure is that there may be systematic patterns to the difference between the starting date of the negotiations and the amendable date. However, analysis of the data alleviates most of this concern. First, there is no systematic relationship between the overall duration of the negotiations and the differences between the two measures: longer negotiations do not systematically start earlier or later in relation to the amendable date. Second, there is no significant trend in the difference between the amendable date and the starting date of the negotiations over time, as long as the year 2000 is excluded. Interestingly, for a number of contracts that became amendable in 2000, talks began long before the amendable date, with the average starting date

being almost 6 months before the contract became amendable. Overall, however, the amendable-date measure should not exhibit any bias over time. Last, while there *is* variation in the average difference between the amendable date and the starting date of negotiations across carriers and unions, only one carrier (Pacific Southwest Airlines, PSA) and one union (the International Association of Machinists and Aerospace Workers, IAM) have means that are significantly different from the overall average. Given this general absence of systematic bias in differences between amendable dates and starting dates, the analyses were conducted with the amendable dates (*duration2*) in order to utilize the larger sample.

Two anomalous types of contracts are worth noting: initial contracts (or "first contracts") and midterm negotiations. An initial contract—the first contract negotiated after an employee group has unionized—does not have an amendable date. For these contracts, the duration was calculated as the number of months between the first date of union representation (that is, when the National Mediation Board certifies an election victory) and the ratification date of the first contract. This tends to make initial contracts quite long in relation to the duration of negotiations for standard contracts. Midterm negotiations—negotiations begun more than a few months before the amendable date of the existing contract and with the intent of signing a new contract before the amendable date— typically end up with a very low duration of negotiations, because (by definition) they begin well before the amendable date and often are ratified before the amendable date arrives (leading to negative values, discussed in the next paragraph). Given the qualitatively different nature of these contracts and their very different average-duration measures (31.5 months for initial contracts, −10.7 months for midterm contracts; see table 1), they are excluded from the analysis, which is performed with only "standard" contracts (neither initial nor midterm contracts).

A few of the contracts in the sample have negative values (for example, −1.5 months) for the amendable-date measure. Negative values result when a new contract is ratified before the existing contract becomes amendable. This occurs primarily with midterm negotiations; hence, many of these negative values are excluded from the analysis. However, a few remain, so the reader is asked to keep in mind that such results do not represent problems or errors in the analysis.

For some analyses, we restrict the sample to "major" carriers only. Carriers identified as major in the sample are Alaska, American, America West, Continental, Delta, Eastern, Northwest, Pan American (Pan Am), Southwest, Trans World (TWA), United, and US Airways.

Descriptive results

Durations of negotiation.   Table 1 summarizes the average duration of contract negotiations for various types of con-

tracts across all carriers and all years from 1982 to 2002. For "standard" contracts—all those except first contracts and those sealed through midterm negotiations—the industry average over those years was 14.1 months between the amendable date of the previous contract and the ratification date of the negotiated contract. The duration varied from as low as –11.5 months (agreements reached almost 1 year *before* the previous contract became amendable) to as high as 72 months (6 years). Contracts with the major carriers took 20 percent longer, with a 16.5-month average. For about half of the sample (121 standard contracts), an actual negotiation starting date, typically 1 or 2 months before the amendable date, was available. Measured from that date, contracts took an average of 16.0 months (1.3 years) to negotiate.[4]

Table 2 shows the distribution of durations of negotiation relative to the amendable date. For example, 7 percent of the contracts were ratified before the amendable date of the previous contract, about half of the contracts were ratified by 1 year after the amendable date, and 81 percent of the contracts were ratified by 2 years after the amendable date, leaving 19 percent still in negotiations after 2 years. The major carriers' distribution is shifted further out, with a smaller percentage of completed negotiations at every period. The two distributions provide a way to compare the airline industry against industries with contracts covered under the National Labor Relations Act.

Comparison with other industries. Although no data are available that allow a direct comparison of the time required to reach agreements in airline negotiations with the time required to reach agreements in industries with contracts covered under the

National Labor Relations Act, a partial comparison can be made from a survey of a nationally representative sample of negotiations conducted under the Act between 1994–96 and 1997–99.[5] Chart 1 compares the percentage of negotiations completed within 1 month of the *amendable* date at all airlines and at major carriers against the percentage of negotiations completed within 1 month of the *expiration* date in the National Labor Relations Act sample. While differences in periods covered by these data, as well as differences between the legal and institutional settings in which the negotiations occur, caution against making too much of the comparisons, the differences are too large to dismiss. Under the National Labor Relations Act, 74 percent of contracts were settled before or within 1 month of their expiration date, compared with 11 percent of the airline contracts. The perception that negotiations in the airline industry take a long time is thus borne out by the data.

Frequency of occurrence of resolution processes. Table 3 presents the frequency of occurrence of the various resolution procedures administered by the National Mediation Board. The first point to note is that the system does seem to produce negotiated settlements: strikes (3 percent of cases) and even Presidential Emergency Boards (1.5 percent of cases) are rare occurrences.

However, it is not at all uncommon for these settlements to require an extended process and government intervention: half of the contracts went into mediation, and one-third of the mediated contracts (16 percent overall) were declared to be at an impasse and released into the cooling-off period. In addition, 19 percent of the contracts were initially rejected at least once by the rank and file.

These events have clear implications as regards the duration

Table 2. Percent of contracts, by duration of negotiations, 1982–2002

Number of months past amendable date	Number of negotiations	Percent of negotiations	Cumulative percent of negotiations
All carriers	199	100.0	100.0
0 or less	14	7.0	7.0
1	8	4.0	11.1
3	16	8.0	19.1
6	21	10.6	30.0
12	44	22.1	51.8
18	40	20.1	71.9
24	19	9.6	81.4
More than 24	37	18.6	100.0
Major carriers	103	100.0	100.0
0 or less	4	3.9	3.9
1	2	1.9	5.8
3	7	6.8	12.6
6	11	10.7	23.3
12	26	25.2	48.5
18	19	18.5	67.0
24	12	11.7	78.6
More than 24	22	21.4	100.0

Table 1. Mean duration of negotiations, in months, by type of contract, 1982–2002

Type of contract	Number	Mean number of months	Standard deviation	Minimum	Maximum
Measured from amendable date:					
All contracts ..	265	12.1	17.6	–40.3	73.6
Midterm negotiations	40	–10.7	13.3	–40.3	34.2
Initial contracts	26	31.5	17.8	6.7	73.6
Standard contracts[1] ...	199	14.1	13.3	–11.5	72.1
Standard contracts with major carriers	103	16.5	14.7	11.5	72.1
Measured from starting date of negotiations:					
Standard contracts[1] ...	121	16.0	12.9	.8	52.8
Standard contracts with major carriers	59	19.3	13.6	.9	52.8

[1] Standard contracts exclude midterm negotiations and initial contracts.

Chart 1. Percent of contracts ratified more than 1 month past their expiration date, National Labor Relations Act (NLRA) and airlines
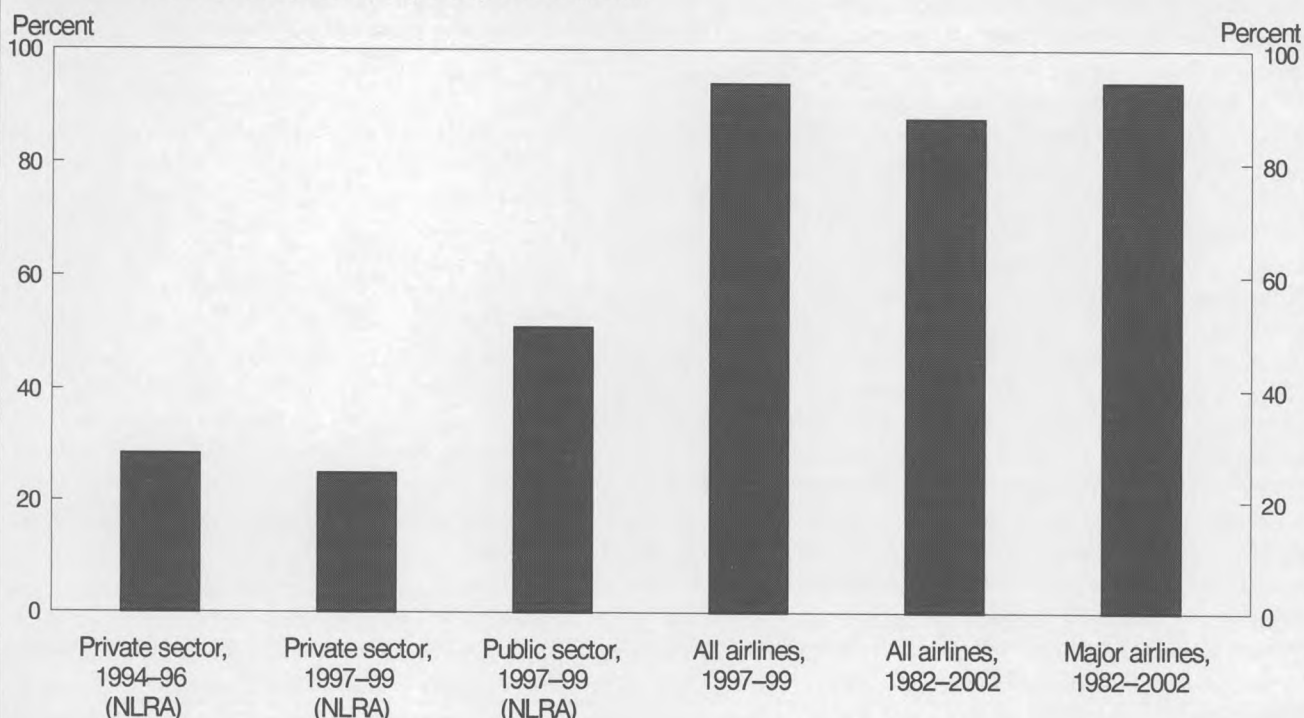
SOURCES: Airline Industrial Relations Conference, 1984–2001; Federal Mediation and Conciliation Service National Performance Review Surveys, 1994–96 and 1997–99.

of negotiations. Table 3 indicates that mediated contracts take more than twice as long to reach agreement as those which settle without mediation (19.2 months, compared with 9.0 months), and a rejected tentative agreement adds about 6 months to negotiations (18.5 months, as opposed to 13.0 months, a 45-percent increase). (Of course, the negotiations that went into mediation could have taken even longer—or had a much higher probability of ending in a strike—without the availability of mediation.) Interestingly, voluntary arbitration is a rare event (3.5 percent of contracts). Clearly, the parties prefer to seek negotiated settlements.

Trends. Table 4 shows the average duration of all negotiations that began in a given year. (That is, the amendable date was in that year.) Chart 2 displays these annual averages graphically. The chart seems to indicate an increase in the duration of negotiations over time, but certainly not at a steady rate. To test whether there has been a statistically significant trend in the duration of negotiations over time, the method of ordinary least squares was used to regress *duration2* on a time trend variable (equal to unity in 1981 and proceeding by increments to 20 in 2000). The resulting coefficient of 0.574 on the time trend variable was significant at the 99-percent con-

fidence level. This suggests that, on average, negotiations took about 19 days longer each successive year. Of course, as chart 2 indicates, the trend was by no means a smooth increase. When the sample is restricted to major carriers only, the trend loses its statistical significance altogether (and decreases in magnitude). Apparently, then, the temporally increasing trend is actually the result of the changing composition of carriers in the industry (or at least in the

Table 3. Frequency of occurrence of resolution procedures administered by the National Mediation Board, 1982–2002

Procedure	Number	Frequency (percent)	Duration of negotiations, in months	
			Mean	Standard deviation
Mediation	99	49.8	19.2	14.0
Arbitration	7	3.5	5.2	14.6
Release	31	15.6	25.5	16.5
Presidential Emergency Board	3	1.5	36.2	18.3
Strike	6	3.0	20.2	11.6
Rejected tentative agreement	38	19.1	18.5	15.6

Table 4.	Mean duration of negotiations, in months, 1983–2000		
Year	Number of negotiations	Mean number of months	Standard deviation
1983	17	13.5	6.9
1984	19	6.4	6.9
1985	26	10.0	17.3
1986	8	10.5	15.1
1987	15	10.9	13.2
1988	10	18.0	15.8
1989	17	14.1	14.7
1990	14	20.1	13.6
1991	4	5.2	3.8
1992	8	19.9	9.8
1993	8	11.7	13.4
1994	6	18.0	12.5
1995	8	19.3	14.0
1996	12	25.3	16.0
1997	11	16.5	8.4
1998	3	21.1	11.7
1999	4	8.3	6.6
2000	8	13.7	5.5

sample). Smaller carriers that also had shorter negotiation times were more prevalent in the early years of the sample and dropped out in the later years.

Table 5 displays the frequencies of resolution procedures

in different periods. The sample time frame is broken into five periods: 1982–85, 1986–89, 1990–93, 1994–97, and 1998–2000. The table shows a much higher reliance on National Mediation Board processes after 1997: in 1998–2000, the percentage of contracts that went into mediation jumped to 73 percent after averaging close to 50 percent for the previous four periods. Arbitration, always rare, did not occur at all in the latest period. No Presidential Emergency Boards were invoked until after 1993, and there have been three since. Curiously, the percentage of released contracts is much lower in the most recent period, after having jumped up slightly in period 4. To some degree, this diminution may result from the fact that not all contracts that became amendable in 2000 had been renegotiated by the end of the study; hence, those contracts were not included in the sample and were certainly likely to be in mediation and perhaps more likely to be released. Overall, table 5 lends more support to the belief that the labor relations system is taking longer and relying more heavily on government intervention in the most recent period, relative to previous periods.

Carrier, occupation, and union averages. Tables 6 and 7 summarize the mean durations of negotiations by carrier,

Chart 2.	Average duration of contract negotiations, by starting year, 1983–2000
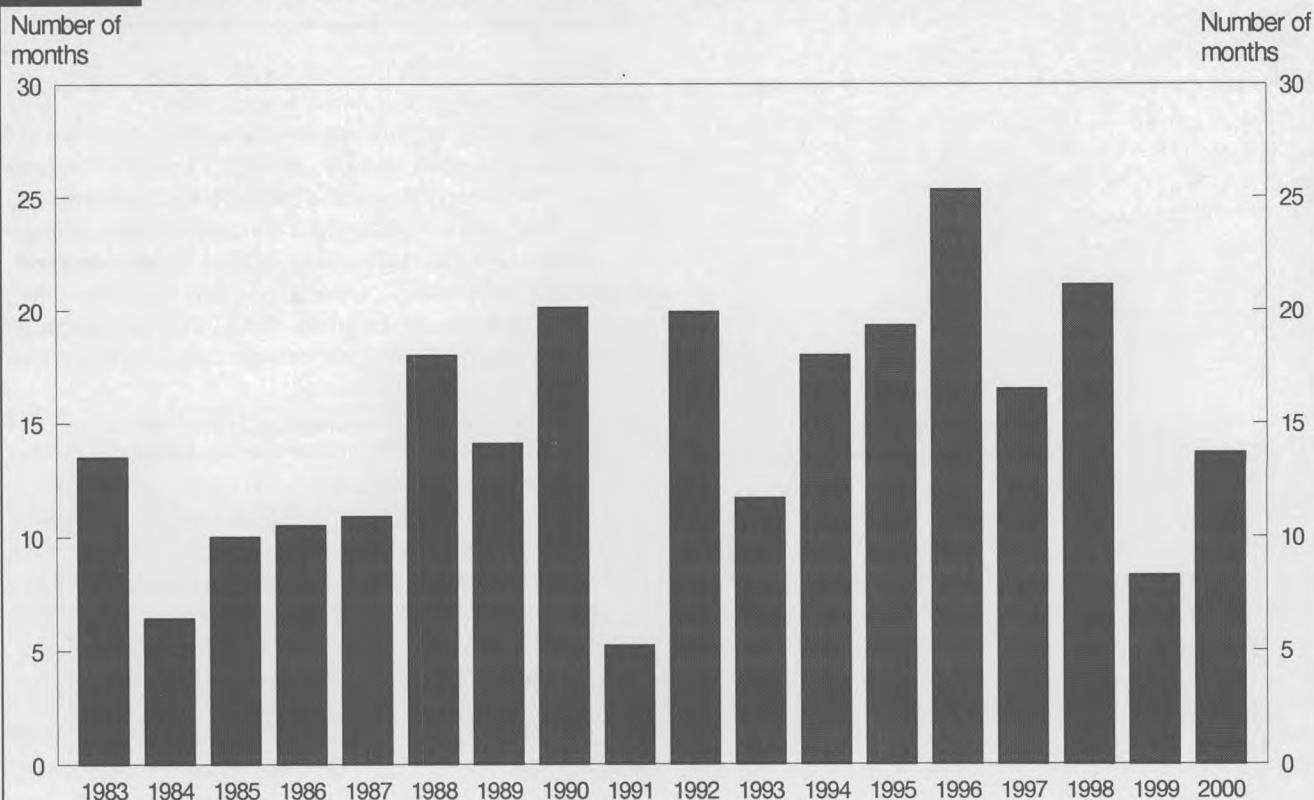
occupation, and union, sorted from longest to shortest. In table 6, only carriers with three or more contracts are included, and in table 7, only unions with two or more contracts are included.[6] Table 6 indicates that there was substantial variation across carriers in the average duration of negotiations. World Airways had the longest average duration, 29.4 months, Western the shortest, 2.6 months. The major carriers can be relatively naturally divided into three groups: (1) those who took more than 20 months, on average (US Airways, TWA, United, and Northwest); (2) those who took about the average time of 14.1 months (Pan Am, American, Delta, and Alaska); and (3) those who took less than 12 months (Southwest and Continental). However, the variation within individual carriers across contracts is rather high. Thus, only US Airways and Northwest have means that are statistically different from the overall mean at greater than 95-percent probability. Note that Continental's small number of contracts makes its very low mean not statistically significantly different from the average.

Table 7 reveals that the differences across occupations are not as large as those across carriers. When not joined with related ground crews, mechanics have a very high average, significantly different from the overall mean despite only four observations. Pilots have a slightly lower average (11.9 months) than the mean, one that is significant at the 90-percent confidence level.

There is more variation across unions. The highest average belongs to the combined International Association of Machinists and Aerospace Workers and Aircraft Mechanics Fraternal Association, or "IAM-AMFA," a designation which indicates that negotiations were begun by the IAM, but were concluded by the AMFA after it replaced the IAM. Not surprisingly, given the change in union representation, these negotiations took a long time. The International Brotherhood of Teamsters, at 20.6 months, is significantly above the average. The IAM and the Association of Flight Attendants are close to the average, while the Air Line Pilots Association International (ALPA) and the Transport Workers Union of America, at 10.4 months and 8.2 months, respectively, are below the average, but only ALPA's average is statistically significantly different from the overall mean.

Table 6.	Mean duration of negotiations, in months, by carrier, 1982–2002		
Carrier	Number of negotiations[1]	Mean number of months	Standard deviation
Total	186	13.6	...
World	3	[5]29.4	2.1
Wien	3	24.6	.0
Airborne Express	3	22.5	1.3
US Airways[2]	13	[5]21.9	14.5
Trans World[2]	9	[4]21.4	12.9
United[2]	11	[4]20.7	12.7
Northwest[2]	15	[5]20.7	16.4
AirWisconsin	7	20.1	13.6
United Parcel Service	4	19.2	5.1
Pan American[2]	7	15.9	25.1
American[2]	10	15.7	13.1
Delta[2]	4	15.2	2.9
Alaska[2]	16	12.8	17.7
Southwest[2]	14	9.2	4.9
PSA	4	9.0	6.4
Aloha	20	[5]8.3	6.3
Ozark	3	7.2	11.1
Hawaiian	12	[5]5.3	5.4
Continental[2]	3	5.1	5.6
Piedmont	6	[4]5.0	3.5
AirCal	3	4.4	3.5
Frontier (old[3])	6	[5]4.0	9.3
Western	4	[4]2.6	8.3

[1] At least three contracts.
[2] Major carrier.
[3] Ceased to exist in 1986. A new Frontier Ailrines that started up in 1994 is not included in the study.
[4] $p < .10$.
[5] $p < .05$.

The wide range in the duration of negotiations suggests that there is nothing inherent in the framework of the Railway Labor Act that makes long negotiations inevitable. While some carriers and unions average almost 2 years, others have been able to average under 1 year. Of particular interest is the fact that the two major carriers with low averages for the duration of negotiations are also the two with reputations for the best labor relations among the majors.[7] (The Continental contracts are all post-1991, and four of the five were ratified after 1994). This fact adds evidence to the idea that contract negotiation durations and overall labor relations are connected.

Still, many observers would suggest that the duration of negotiations is driven by factors that are somewhat out of the control of carrier managements and union leaderships. In particular, a common notion is that negotiations will be shortest in bad times, when the survival of the carrier is more likely to be at stake. The next section tests explicitly whether the duration of negotiations can be partially explained by economic conditions.

Carrier size and economic conditions

Variables and model specification. In order to analyze the effect of carrier size, carrier-level economic conditions, and industry economic conditions on the duration of contract negotiations, detailed financial and operational data from the carriers' Form 41

Table 5.	Frequency of resolution procedure, by period, 1982–2002				
[In percent]					
Procedure	1982–85	1986–89	1990–93	1994–97	1998–2002
Contracts (number)	63	50	34	37	15
Mediation	54	46	41	46	73
Arbitration	3	4	6	3	0
Release	16	14	15	22	7
Presidential Emergency Board	0	0	0	5	7
Strike	5	0	6	3	0
Rejected tentative agreement	14	16	15	35	20

filings to the Department of Transportation were used. From this database, a number of variables were constructed:

1. *Organization size.* To measure carrier size, the carrier's annual revenue is used. To measure the number of employees covered by the negotiations, the number of employees in a given occupation (as reported in the Form 41 filings) at a given carrier in a year is calculated. (For example, this number might be the number of pilots at United in 1984.)

2. *Carrier economic conditions.* A carrier's economic condition is measured in three ways: by its profit rates (operating margin), debt levels, and revenue growth rates. The carrier's operating margin is calculated as operating income (earnings before interest and taxes) divided by revenue. Both the current-period margin and a 3-year average margin (over times t, $t-1$, and $t-2$) were used. A carrier's leverage is calculated as its total debt divided by total assets. Higher levels of debt relative to assets should provide some indication of how great the threat of bankruptcy is. Finally, a carrier's growth rate is calculated as the percent change in revenue from $t-1$ to t. As with margin, both a 1-year and a 3-year growth rate are posited.

In addition, the square of the operating margin was employed to test whether there is a nonmonotonic relationship between profitability and duration of negotiations. (That is, an answer was sought to the question, "Do extremes of profitability in either direction have the same impact on negotiations?")

Finally, anecdotal evidence from the industry suggests that negotiations become particularly difficult—and hence lengthy—if the economic conditions facing the bargaining parties change significantly once bargaining has started. In particular, for negotiations that start near a peak in profits, but extend into the beginning of bust years, unions looking back and expecting wage raises are pitted against managements looking forward and hoping for wage freezes (or cuts). To test whether changes in conditions after the start of negotiations had a significant effect on the duration of the negotiations, the change in operating margin from the year negotiations began to the *next* year was calculated.

3. *Industry economic conditions.* Economic measures similar to those calculated for the carrier were also calculated for the industry as a whole. Industry-level totals are computed by summing revenue and operating income for all carriers in the Form 41 database. With these totals, the various ratios are calculated. For the industry, operating margin and revenue growth were measured, and, again, the 1-year and 3-year average measures were calculated for both. Also, industry margin is squared, to test for nonmonotonic effects. Finally, a change in margin was computed to test the "change-in-conditions" hypothesis.

Results. Summary statistics on the economic variables are presented in table 8. The method of ordinary least squares was used to regress the duration of negotiations (*duration2*) on the variables just described, as well as on dummy variables for the year, airline, occupation, and union. A number of the variables had no significant coefficients, either alone or in various combinations. Carrier size and some measures of growth yielded some significant results, but neither the profitability measures nor the change-in-profitability measures generated any significant coefficients.[8] The results presented use only those measures which had significant coefficients in some specifications. Table 9 gives the results of the ordinary least-squares regressions. Columns 1 through 5 do not include carrier dummies, whereas columns 6 through 12 do.

The coefficient on the time trend is positive and significant in every model, except when year dummies are included. This is true even when carrier dummies are included (columns 6, 7, 9, 10, and 11), suggesting that the duration of negotiations has increased significantly over time, even after controlling for changes in the composition of the sample. However, adding year dummies to control for idiosyncratic year effects renders the trend insignificant.

The coefficient on carrier size (that is, revenue) is positive

Table 7.	Mean duration of negotiations, in months, by occupation and union, 1982–2002		
Occupation or union	Number of negotiations	Mean number of months	Standard deviation
Occupation			
Total	199	14.1	...
Mechanics only	4	[5]33.5	23.0
Fleet service	6	19.0	9.6
Flight attendants	50	15.5	14.0
Agents	30	13.9	15.1
Mechanics and related	40	13.6	11.1
Pilots	69	[3]11.9	11.9
Union[1]			
Total	193	13.9	...
IAM-AMFA	2	[5]39.0	24.1
APFA	3	[3]27.4	11.7
IPA	2	21.8	7.2
IBT[2]	26	[5]20.6	14.8
APA	3	19.0	11.9
IAM[2]	54	15.2	12.4
AFA[2]	30	13.6	13.6
ALPA[2]	54	[4]10.4	12.2
ALEA	3	8.7	12.3
TWU[2]	11	8.2	6.1
SAPA	3	7.3	1.3
IUFA	2	5.4	3.8

[1] At least two contracts.
[2] Major union.
[3] $p < .10$.
[4] $p < .05$.
[5] $p < .01$.

Table 8. Summary statistics, economic variables used in analysis

Variable	Number of observations	Mean	Standard deviation	Minimum	Maximum
Year	199	...	...	1982	2000
Trend	199	9.6	5.14	2	20
duration2 (amendable)	199	14.10	13.27	−11.53	72.06
Employees (thousands)	137	4.0	5.0	.0	26.8
Revenue ($billions)	192	3.2	4.2	.02	19.3
Margin	192	.03	.08	−.29	.18
Three-year margin	174	.03	.06	−.17	.16
Margin squared	192	.006	.010	.000	.084
Debts/assets	192	.34	.17	.001	1.32
Growth	191	.10	.14	−.64	.54
Three-year growth	152	.10	.10	−.29	.43
Margin change ($t+1$)	181	−.01	.07	−.27	.17
Margin change squared	181	.005	.012	.000	.0075
Industry margin	199	.03	.03	−.02	.08
Three-year industry margin	181	.03	.02	−.02	.07
Industry growth	198	.08	.03	−.01	.14
Three-year industry growth	162	.08	.02	.03	.11
Industry margin change ($t+1$)	191	.001	.025	−.051	.045
Industry margin change squared	191	.001	.001	.000	.002

and highly significant in columns 1 through 5, which take into account cross-airline size variation. The revenue coefficient is insignificant, however, in each model with carrier fixed effects, implying that the duration of negotiations for a given carrier does not increase significantly as the carrier grows larger. Nonetheless, in the cross section, in which size differences among airlines can be quite large, larger airlines do take longer to negotiate contracts than smaller airlines

take. The coefficient on carrier size, when it is significant, is approximately 0.7, implying that a $1 billion size differential between carriers entails about a 22-day differential in the duration of negotiations. The difference between the smallest and largest revenue values is $19.3 billion, which translates into a maximum 14-month difference in the duration of negotiations.

There is some evidence that higher carrier growth rates

Table 9. Ordinary least-squares regressions of duration of negotiations on carrier and industry financial conditions, with and without fixed effects

Independent variable	Model number											
	Without carrier fixed effects					With carrier fixed effects						
	1	2	3	4	5	6	7	8	9	10	11	12
Time trend	[1]0.336 (.196)	[2]0.376 (.198)	[2]0.571 (.308)	[1]0.535 (.308)	−0.464 (.275)	[3]0.795 (.206)	[2]0.671 (.304)	0.013 (.508)	[2]0.963 (.403)	[2]0.971 (.403)	[2]0.702 (.294)	0.446 (.509)
Revenue (billions of dollars)	[3].700 (.240)	[3].683 (.239)	[3].703 (.590)	[3].683 (.259)	[3].698 (.222)	− −	.332 (.574)	.261 (.663)	.162 (.677)	.142 (.678)	.198 (.542)	−.205 (.639)
One-year carrier growth	− −	7.25 (6.82)	− −	10.96 (8.35)	6.18 (9.26)	[2]18.86 (8.43)	[2]18.36 (8.49)	14.77 (9.80)	− −	9.77 (10.33)	[2]18.05 (8.01)	[1]15.60 (9.33)
Three-year industry growth (average, $t-3$ to t)	− −	− −	81.5 (59.5)	56.3 (62.4)	− −	− −	− −	− −	[2]128.7 (60.4)	[1]108.0 (64.3)	− −	− −
Fixed effects	− − −	− − −	− − −	− − −	year − −	− carrier −	− carrier −	year carrier −	− carrier −	− carrier −	− carrier union	year carrier union
Adjusted R^2	.082	.085	.075	.079	.206	.225	.221	.249	.215	.214	.329	.350
N	192	191	155	155	191	191	191	191	155	155	191	191

[1] $p<.10$.
[2] $p<.05$.
[3] $p<.01$.

NOTE: Dash indicates variable not included in regression reported in column. Numbers in parentheses are estimated standard errors.

lead to longer negotiations, but these results are not robust, because they depend strongly on the measurement and model chosen. Both a carrier's 1-year growth rate and the industry's 3-year average growth rate have positive coefficients in all models. However, the significance of those coefficients is not consistent. For example, a carrier's 1-year growth rate has a significant positive coefficient in several of the models with carrier fixed effects, implying that, as carriers register higher growth rates, the duration of their contract negotiations gets longer. However, the coefficient is not significant in the cross section (without the carrier fixed effects). The same is true for the 3-year average of industry growth. Furthermore, neither the carrier-level 3-year average growth nor the industry-level 1-year growth has significant coefficients in any model. (These results are not shown in table 9). Hence, there is some evidence that higher growth may lead to a longer duration of negotiations, but the finding is not robust. Adding fixed effects for unions (columns 11 and 12) enhances the precision of the estimated coefficients of the other independent variables, but does not alter any of the basic patterns.

Overall, table 9 indicates that (1) over time, contracts are taking longer to negotiate, even after controlling for the composition of the sample and for increasing carrier size; (2) larger carriers are associated with a longer duration of negotiations; and (3) higher growth rates, too, may correlate with a longer duration of negotiations. Surprisingly, none of the profitability measures, nor the leverage measure, had any important effect on the duration of negotiations. Neither did any of the measures of changing economic conditions after negotiations. These various measures of a carrier's financial health are not significantly correlated with the duration of a carrier's negotiations.

Looking directly at the fixed effects indicates that the identities of the bargaining parties help explain much more of the significance than do objective economic conditions. Table 10 reports the R^2 statistics when duration of negotiation is regressed on various combinations of fixed effects. For example, fixed effects for years by themselves account for 16 percent of the variation in the duration of negotiations across

contracts (column 1). Including fixed effects for the year, airline, occupation, and union accounts for more than 60 percent of the variation in duration (column 11). Controlling only for the identity of the bargaining parties—airline and union—accounts for 48 percent of the variation (column 6). Thus, the identity of the bargaining parties provides more predictive power than does any of the other variables.

DATA ON A LARGE SAMPLE OF AIRLINE LABOR CONTRACTS indicate that the industry's labor negotiations take 1.3 years, on average, to conclude. Only 11 percent of contracts are concluded by 1 month after the amendable date, in contrast to 74 percent of contracts negotiated under the National Labor Relations Act. Half of airline negotiations go into Federal mediation.

The data presented in this article broadly support the notion that the industry's negotiations are lasting longer in recent years, although the trend over time is not at all monotonic and results partly from the fact that carriers which survived longer tended to have longer average negotiations. (That is, carriers with shorter negotiation times exited the sample over time.) The reliance on Federal intervention is clearly higher than ever in recent years, with almost 75 percent of the negotiations begun in 1998 through 2000 going into mediation and with several Presidential Emergency Boards being invoked, whereas there had been none from deregulation until 1994.

Not surprisingly, negotiations take longer at larger airlines. The average duration of negotiations for major carriers was 20 percent higher than the overall sample average. However, the data support neither the hypothesis that a carrier's financial health affects the duration of negotiations nor the hypothesis that a significant change in economic conditions after the start of negotiations adds to the expected duration. There is limited (but not robust) support for the idea that negotiations take longer while the carrier or industry is experiencing high growth rates.

Most interesting is the fact that the identities of the bargaining parties are the major predictors of the duration of negotiations. There is noticeable variation across carriers and unions in the average negotiation time. While one tier of major carriers

Table 10.	Ordinary least-squares regressions of duration of negotiations on dummy variables for year, airline, occupation, and union										
Dependent variable	Number of months between ratification and amendable dates										
	1	2	3	4	5	6	7	8	9	10	11
Year effects............	Year	–	–	–	–	–	–	–	Year	Year	Year
Carrier effects........	–	Carrier	–	–	Carrier	Carrier	–	Carrier	Carrier	Carrier	Carrier
Occupation effects .	–	–	Occupation	–	Occupation	–	Occuption	Occupation	Occupation	–	Occupation
Union effects............	–	–	–	Union	–	Union	Union	Union	–	Union	Union
Adjusted R^2..............	.16	.337	.059	.177	.404	.484	.203	.504	.516	.597	.608
N	199	199	199	199	199	199	199	199	199	199	199

NOTE: Dash indicates variable not included in regression reported in column.

averages almost 2 years to complete negotiations, another tier averages under 1 year. The examples of Southwest Airlines and Continental Airlines are the strongest indications that negotiations conducted under the Railway Labor Act are neither "destined" nor "doomed" to last more than a year.

As participants in, and observers of, the airline's labor relations system discuss proposals to reform the system, the analysis presented in this article provides useful data-driven input into that process. It does seem to be the case that the system is experiencing increasing strains, as is evidenced in long nego-

tiation times and heavy reliance on mediation. However, the source of those strains is not necessarily solely the industry's economic conditions nor the regulatory framework. Some parties are able to agree on and stick to principles and processes that generate noticeably shorter negotiation times, which also helps match their contracts to prevailing economic circumstances. Future research on the comparative practices of carriers with long durations of negotiation and those with short durations of negotiation would be valuable in improving the effectiveness of the industry's overall labor relations system. □

Notes

[1] See Jody Hoffer Gittell, Andrew von Nordenflycht, and Thomas A. Kochan, "Mutual Gains or Zero Sum? Labor Relations and Firm Performance in the Airline Industry, *"Industrial and Labor Relations Review*, in press; and Thomas A. Kochan, Andrew von Nordenflycht, Robert B. McKersie, and Jody Hoffer Gittell, "Out of the Ashes: Options for Rebuilding Airline Labor Relations, " Massachusetts Institute of Technology, Sloan School of Management Working Paper, 2003.

[2] An investigation of the average nunber of contracts per occupation suggests that the coverage is reasonably complete and the exclusions are not systematic. (It does seem, however, that, except for pilots' contracts, contracts at Southwest began appearing only after 1989.)

[3] The Form 41 data were accessed through a database compiled by Data Base Products, Inc., of Dallas, Texas.

[4] For the 121-contract sample, the mean difference between the negotiation starting date and the amendable date was 1.3 months. However, the 16.0-month average duration of the 121-contract sample was 2.1 months longer than the 14.1-month average of the 199-contract sample. This difference implies that the set of contracts for which negotiation starting dates were *not* known took, on average,

slightly less time $(1.9 - 1.3 = 0.6$ month) to negotiate than the set of contracts for which negotiation starting dates were known. The difference is small enough that one should be comfortable comparing the two samples.

[5] For a description of the data and the sample, see Joel Cutcher-Gershenfeld, Thomas A. Kochan, and John Calhoun Wells, "How do labor and management view collective bargaining?" *Monthly Labor Review*, October 1998, pp. 23–31.

[6] For reasons of spaces, only the abbreviations of the names of the unions are listed in the table. The abbreviations and the names they stand for are as follows: IAM—International Association of Machinists and Aerospace Workers; AMFA—Aircraft Mechanics Fraternal Association; APFA—Association of Professional Flight Attendants; IPA—Independent Pilots Association; IBT—International Brotherhood of Teamsters; APA—Allied Pilots Association; AFA—Association of Flight Attendants; ALPA—Air Line Pilots Association; TWU—Transport Workers Union; SAPA—Southwest Airlines Pilots Association; ALEA—Airborne Law Enforcement Association; IUFA—Independent Union of Flight Attendants.

[7] Hoffer Gittell, von Nordenflycht, and Kochan, "Mutual Gains or Zero Sum,"; see also Jody Hoffer Gittell, *The Southwest Airlines Way* (New York: McGraw-Hill, 2003).

[8] The coefficient on margin squared comes up significantly negative in the non-fixed-effects model, but the result is driven by three observations on small carriers with short negotiation times and large operating losses (for example, less than –20 percent). The significance of this coefficient disappears completely when these three observations are dropped from the analysis.

Banks and factories

The structure of the banking system, it seems likely enough, will have an influence on how industry start, grow, decline, and die. One thought, according to Nicola Cetorelli in the Federal Reserve Bank of St. Louis *Review*, is that less competitive banking might favor new firms in the expectation that big banks would be able to secure "rents" when such firms turn profitable. Or, Cetorelli points out, more competitive banks might be the ones to seek out such new business.

Cetorelli uses data from the Longitudinal Research Database the Census maintains for manufacturing establishments, earlier studies of bank deregulation, and data from the Federal Deposit Insurance Corporation to study this issue carefully. The results tended to favor the second hypothesis. Bank deregulation has a significant positive impact on the rate of job creation in new establishments and bank concentration has a significant negative impact on the growth of employment in new firms relative to total employment. Taken together, says Cetorelli, this might even suggest that market power on the part of banks might be a barrier to entry.

As manufacturing establishments become "middle aged"—2 to 10 years old—banking competition has little effect on job creation, but deregulation is associated with lower rates of job destruction. As manufacturers evolve into "mature" firms—over 10 years old—Cetorelli finds that some of these relationships change. Specifically, bank concentration becomes positively associated with expansion.

"More competition in banking," says Cetorelli, "appears to promote job creation among industrial establishments at the start-up stage and to permit them to prosper in the immediate wake of their entry into the market." As a result, more bank competition may tend to encourage an industrial structure with more new firms and higher proportions of total employment in younger establishments.

Money and happiness

Economists have generally been somewhat leery of subjective measures such as "happiness." However, as Carol Graham, Andrew Eggers, and Sandip Sukhtankar point out in "The Effects of Income Losses and Gains on Happiness: Do Temporary Trends Matter?" from the Brookings Institution Center on Social and Economic Dynamics, the increasing availability of survey data has led to their increasing use by economists willing to take into account their margins of error. Graham, Eggers, and Sukhtankar explore using the permanent income hypothesis to understand changes in the reported well-being—economist-ese for "happiness"—of respondents to the Russian Longitudinal Monitoring Survey from 1995 to 2000.

Carefully noting that the results are preliminary and subject to influences ranging from the volatile Russian economy to the difficulty of collecting income data from individuals, the authors find that their proxy for permanent income changes had more influence on happiness than did their measure of transitory income change. This is in accord with the general outlines of the permanent income approach. They also found that while income loss was associated with a decline in happiness, as one would expect, the size of the loss seemed to make little difference. On the other hand, both income gains and the size of the gain had positive effects on the survey's measure of happiness.

According to Graham, Eggers, and Sukhtankar, "These results suggest that respondents evaluate income gains in a more nuanced or sophisticated way than they do losses. Perhaps people who gain income were more likely to consider that income gain as something that they valued and devoted more time to comparing their gain with gains made by other people. People who lost income, by contrast, may have been more likely to accept the loss as a one-shot negative shock, and not to dwell on the extent of their loss. In other words, losers were trying not to cry over spilt milk (or, more accurately, measure the amount spilt), while gainers were more interested in—and happy—counting their gains."

Recovery began in November 2001

The Business Cycle Dating Committee of the National Bureau of Economic Research (NBER) determined that a trough in business activity occurred in the U.S. economy in November 2001, thus ending the recession that began in March 2001. The recession lasted 8 months.

Identifying the trough involved weighing a wide variety of economic indicators, with particular emphasis on real personal income and payroll employment, since both reflect the entire economy. Less emphasis is placed on industrial production and real sales, which mainly cover the manufacturing and goods-producing sectors, and unofficial estimates of monthly real GDP.

All the major indicators of economic activity were flat or declining through September 2001. Real GDP then began to grow and continued growing; this growth in the most comprehensive measure of economic activity ruled out the possibility that the trough came later than the fourth quarter.

Estimated monthly GDP and the sales measures reached their lows in September. However, personal income, employment, and industrial production were all substantially lower in October and November than in September, and some of the depressed level of activity in September 2001 was the result of the events of September 11, and thus should be discounted. From October to November, industrial production and sales fell, employment edged down, personal income rose slightly, and monthly real GDP rose moderately. Based on the balance of this, NBER concluded that the economy reached a trough in November. □

Across-the-pond sports

Transatlantic Sport: The Comparative Economics of North American and European Sports. By Carlos Pestana Barros, Muradali Ibrahimo, and Stefan Szymanski, eds. Northampton, MA, Edward Elgar Publishing, Inc., 2002, 240 pp. $85/hardback.

On the field, sports may be competitive games, but as is the case wherever very large sums of money change hands, the laws of economics, labor relations, and competition policy also come into play. *Transatlantic Sport* takes comparative looks at the way sports leagues and their teams are organized, financed, and staffed in European and North American contexts.

The competitive conundrum of professional grade sports springs from the facts that it takes the joint effort of two teams ("firms") to produce the product; that there has to be some uncertainty of result to make that product interesting; that results are more uncertain if economic resources are more equally distributed among teams; but that good teams in rich markets will gather in often massively disproportionate shares of athletic and economic resources.

In the American model, this conundrum has been solved, with varying degrees of success across the major professional sports, by some combination of labor market restraints and revenue sharing within closed professional leagues. In Europe, a system of promoting top teams from lower rungs of the sporting ladder and relegation of the bottom teams from the higher rungs is seen to provide sufficient spectator interest as new competitors arrive and others leave the league.

The book's paper by Stefan Szymanski and Ron Smith investigates which model works best. On one hand, as we so often say in economics, static measures such as the standard deviations of winning percentages are similar for European soccer leagues and the foot-ball, baseball, and hockey leagues of North America. On the other hand, a dynamic model can explain more of the variation in Europe, implying a greater predictability of results. As Szymanski and Smith characterize their findings, "In short, North American leagues create equality of outcome for the select incumbents, while European leagues display equality of opportunity without equality of outcome."

The papers on the regulation and financing of sports by Peter J. Sloane and H.F. Moorhouse give some insight into the domination of European soccer by a very few large clubs. Sloane focuses on regulatory decisions that have imposed a fairly extreme form of free agency on European sport (the Bosman case), and sometimes awkwardly applied anti-trust or competition law to professional sport (the U.K. Monopoly and Mergers Commission investigation of a proposed acquisition of Manchester United by broadcaster BSkyB and the U.K. Restrictive Practices Court investigation of the collective sale of television rights by the English Premier Soccer League). Moorhouse examines the difficulties faced by very good small-market teams competing with the financial resources of mediocre teams in bigger markets. His major concern is that "gold-rush" soccer economics enable those currently in better markets to corner the broader market.

Where there was thus a range of opinions on the economics and regulation of sport competitions, there was near unanimity of opinion on the economics of hosting major sports events. Robert A. Baade and Victor Matheson found that, with the exception of the Los Angeles Games of 1984, cities often are forced to settle for negative economic returns on their substantial investments in hosting such a mega-event. As one example, they cite their calculation that under the best assumptions, Atlanta spent about $63,000 per permanent job—full- or part-time—created. In previous public works programs, a similar expenditure would have been associated with actual full-time (or at least full-time equivalent) jobs. J. J. Gouguet suggests not only that the economic impacts of sporting events are hard to measure and that they may often be ephemeral, they may not even be the right thing to measure: "[Economic impact] only tells us that the project in question generates a given volume of economic activity, of employment. And that is all. It does not teach us whether this project really deserves to be conducted or not."

As the sport market globalizes, and the discussion by Wladimir Andreff and Paul D. Staudohar of European and North American sports business models leaves little doubt that such globalization is already here, *Transatlantic Sport* and the research agenda underlying it will become more and more widely read and recognized.

—Richard M. Devens
Office of Publications,
Bureau of Labor Statistics

Working-class survival

Laboring Below the Line: A New Ethnography of Poverty, Low-Wage Work, and Survival in the Global Economy. Edited by Frank Munger. New York, Russell Sage Foundation, 2001, 319 pp. $42.50/cloth.

"Let me tell you about the poor. They are not very different from you and me" (with apologies to F. Scott Fitzgerald), appears to be the consensus among the academics represented in *Laboring Below the Line*. And Frank Munger, professor of law and adjunct professor of sociology at the State University of New York, Buffalo, and editor of this book, concludes that "...the most effective social policy for ending poverty begins with the transformation of the social environment in which the poor live" in his final chapter to a compilation of studies by 14 faculty members in the United States and one in Canada.

The social environment, of course, includes low-wage work.

Producer and headquarter sectors of firms are increasingly expanding, consolidating, and locating into the economic core of major cities in highly developed countries. As these companies turn to telephones and computers as a cheap and efficient means of servicing customers and marketing products, their low-wage work that employs these technologies—telemarketing, teleservice, data entry, and rate or credit checking, for example—may be located in remote or offshore areas, where rents, labor, and other costs are generally lower, and the workforce comparatively stable, Saskia Sassen, Ralph Lewis Professor of Sociology at the University of Chicago, points out.

In this kind of work, it is possible to monitor every minute of the employees' work day and implement productivity quotas so that poor performers are weeded out. This work is generally not unionized, so the worker has little recourse under adverse circumstances. And a remote or offshore location may prevent him or her from either moving up in the organization or moving on. Not only teleservicing, but fast-food work, has become routinized, scripted, and monitored. Although these fast-food jobs are not generally located in remote or offshore locations, management also benefits from—but ignores—the invisible skills and competencies workers develop as they work, even though those accomplishments could be transferred if more widely recognized, observes Carol Stack, Professor of Social and Cultural Studies in Education at the University of California, Berkeley.

To complicate things still further, restructuring in many firms brings about a demand for highly specialized and educated workers—notably in high tech—alongside a demand for unskilled workers, whether for clerical work, services, or production jobs. The shrinking demand for intermediate levels of skill and training has reduced the need firms have for internal labor markets with long promotion lines that function as on-the-job training mechanisms.

But low-wage work also exists in small firms. High-income gentrification generates a demand for goods and services that, often, are not mass produced nor sold through mass outlets. Then too, expansion in the low-income population also contributes to the proliferation of small operations to serve them, and low-income customers move away from large-scale standardized factories and chain stores with low-priced goods to these small businesses. No matter which market they serve, these small operations often rely on family and low-wage labor, and working conditions may fall below minimum safety and health standards. They are generally nonunion.

Who are the low-wage workers? They generally have less than a high school education. About 25 percent are immigrants. This leaves natives in 75 percent of the other low-skill jobs. Because of the nature of the migration process, immigrants generally have far stronger networks than similarly disadvantaged native workers. For this reason, once a few immigrants enter a labor market they can more easily "colonize" it than their native counterparts, Sassen contends.

Some characteristics of low-wage work gleaned from *Laboring Below the Line* include the following:

1. In the United States, a growing share of service workers are in part-time jobs, and twice as often as the average worker. Involuntary part-time work has grown significantly over the past decade.

2. Workers in low-wage jobs disproportionately face nontraditional work schedules that may include early-morning, evening, and weekend hours; split shifts; and frequently changing schedules—particularly difficult for a single mother.

3. Low-wage work is often plagued by insecurity. The average unemployment rates for persons with less than 4 years of high school—those most likely to work at low wages—are more than four times as high as corresponding rates for persons with 4 or more years of college.

Philip Harvey, associate professor of law and economics at Rutgers School of Law, points to the outlooks that have led to three public policies, and how those policies approach joblessness:

1. Joblessness is attributed to the failure of the jobless to seek and accept work on available terms. Public assistance is provided, but should be minimal and temporary so as not to discourage job search activity. The assumption is: jobs are available.

2. Joblessness is caused by failure on the part of the economy to generate enough jobs to employ everyone who wants to work. This view dominated public policy response to joblessness during the New Deal era in the 1930s, and it continues to influence public policy responses to it during recessions.

3. Access to work is a problem only for certain population groups. Job shortages are not a problem in general, but barriers to equal employment opportunities limit the ability of certain groups to compete for available jobs. These include employment discrimination, unequal access to job training and educational opportunities, and the geographic mismatch between available jobs and the communities where the unemployed live. This view inspired major reforms in American employment and social welfare law during the 1960s and early 1970s, and it has dominated liberal policy positions since.

Surprisingly little data are available concerning the number and characteristics of vacant jobs, contends Harvey in this book published in 2002 (but presumably researched earlier). In the meantime, the Bureau of Labor Statistics has created a Job Openings and Labor Turnover survey, which provides job opening rates nationally and regionally by major industry. This may, in part, fill that void. Job applicants already working are probably the most attractive to new em-

ployers, Harvey asserts. During a 3-month period in the winter of 1994–95, a total of 5.6 percent of all wage-and-salary workers actively looked for a new job while still employed, he says, citing Bureau of Labor Statistics data.

Low-wage workers are likely to find government-mandated subsidies vital to daily survival.

Child support, for example, has become an important supplement to the income of most single mothers. In 1975, the Federal Government amended the Social Security Act and mandated that child support be established and enforced through thousands of new State child support enforcement agencies. In crafting the Family Support Act of 1988, Federal legislators tried to address the ineffectiveness of child support among the welfare poor. An analysis of the Current Population Survey shows that the percent of single mothers receiving at least some child support increased to 34.5 percent in 1996 from 27.6 percent in 1980, which would seem, to a large degree, to be an indication of this legislation's effectiveness.

For low-income single mothers to get off and stay off welfare, they must spend no more than a third of their income on housing. The role of the single provider

and caregiver often means that poor single mothers with young children must carefully weigh the gain in income from a paid job, versus the expense of childcare that can amount to 25 percent or more of their earnings. These women must also secure housing adequate for a family. To do all of this, they must not earn too much to disqualify them for subsidies, but enough not to have housing expenses eat up 50 percent or more of their income.

The median earnings for women have risen fairly steadily in the past 20 years, writes Sanders Korenman, professor in the School of Public Affairs at Baruch College, City University of New York and a former member of the President's Council of Economic Advisors. Evidence also shows that wages at the bottom end of the wage distribution began to rise in the early 1990s. The reversal of the decline coincides with the modest increase in the minimum wage in the mid-1990s. In addition to rising wages, the Federal Earned Income Tax Credit (EITC) was expanded markedly in the 1990s, boosting the earnings of low-wage workers with children by as much as 40 percent (or by as much as $3,500 annually).

Those who leave welfare and find jobs are likely to earn more than they

would receive in welfare benefits—even if they are able to find only minimum-wage jobs—if they receive the EITC, says Korenman. Moreover, studies find that mean hourly wages exceed the current minimum wage by $1 to $3 an hour. In addition, after adjusting for inflation, both earnings and family income of welfare leavers increased appreciably over time, whereas benefits fell, in real terms, 30 to 40 percent between the early 1970s and the mid-1990s.

Stereotypes of the poor serve a variety of political purposes, at least one of the authors contends. Much of the rhetoric of welfare reform can be said to have served the purpose of reinforcing the work ethic of the working class itself. Welfare reform reminds the working class of its entitlement to respect for being employed. And although some of the chapters in this Russell Sage Foundation book represent old wine in new bottles, and some are repetitive, the book on the whole provides a variety of perceptive insights—such as that one—collected in a single volume.

—Mary Ellen Ayres

Office of Publications,
Bureau of Labor Statistics

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; 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 current and past experiences. 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, 43, and 47. Seasonally adjusted labor force data in tables 1 and 4–9 were revised in the March 2003 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 1, 12–14 and 16–17 were revised in the July 2003 *Review*. A brief explanation of the seasonal adjustment methodology appears in "Notes on the data."

Revisions in the productivity data in table 49 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 appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of $3 and a current price

index number of 150, where 1982 = 100, the hourly rate expressed in 1982 dollars is $2 ($3/150 x 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 2490. Users also may wish to consult *Major Programs of the Bureau of Labor Statistics*, Report 919. 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 and seasonally adjusted data from the household survey are available on the Internet:

http://www.bls.gov/cps/

Historically comparable unadjusted and seasonally adjusted data from the establishment survey also are available on the Internet:

http://www.bls.gov/ces/

Additional information on labor force data for areas below the national level are provided in the BLS annual report, *Geographic Profile of Employment and Unemployment*.

For a comprehensive discussion of the Employment Cost Index, see *Employment Cost Indexes and Levels, 1975–95*, BLS Bulletin 2466. 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*.

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 1998 revision of the CPI, see the December 1996 issue of the *Monthly Labor Review*. Additional data on international prices appear in monthly news releases.

Listings of industries for which productivity indexes are available may be found on the Internet:

http://www.bls.gov/lpc/

For additional information on interna-

tional 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 also may 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; 4–24)

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

Beginning with data for January 2003, monthly Current Population Survey (CPS) estimates appearing in this section are based on population controls derived from Census 2000. (Previously, they were based on updated 1990 census population controls.) CPS data back to January 2000 have been revised to reflect the new population controls. Also, data now are presented for persons who report they are white (and no other race), black or African American (and no other race), and of Hispanic or Latino ethnicity.

In addition, beginning in January 2003, the CPS adopted the 2002 census industry and occupational classification systems derived from the 2002 North American Industry Classification System and the 2000 Standard Occupational Classification system. These new classification systems create breaks in the time series for industry and occupational data at all levels of aggregation (the former industry and occupational categories have been discontinued). For additional information, see "Revisions to the Current Population Survey Effective in January 2003," *Employment and Earnings,* February 2003 (Bureau of Labor Statistics) or the BLS Web site:
http://www.bls.gov/cps/

---

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 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 ratio** 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.*

Effective in January 2003, BLS began using the X-12 ARIMA seasonal adjustment program to seasonally adjust national labor force data. This program replaced the X-11 ARIMA program which had been used since January 1980. See "Revision of Seasonally Adjusted Labor Force Series in 2003," in the February 2003 issue of *Employment and Earnings* for a discussion of the introduction of the use of X-12 ARIMA for seasonal adjustment of the labor force data and the effects that it had on the data.

At the beginning of each calendar year, historical seasonally adjusted data usually are revised, and projected seasonal adjustment factors are calculated for use during the January–June period. The historical seasonally adjusted data usually are revised for only the most recent 5 years. 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) 691–6378.

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 160,000 businesses and government agencies, which represent approximately 400,000 individual worksites and represent all industries except agriculture. The active CES sample covers approximately one-third of all nonfarm payroll workers. Industries are classified in accordance with the 2002 North American Industry Classification System. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and

others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

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

Employed persons are all persons who received pay (including holiday and sick pay) for any part of the payroll period including the 12th 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 the goods-producing industries cover employees, up through the level of working supervisors, who engage directly in the manufacture or construction of the establishment's product. In private service-providing industries, data are collected for nonsupervisory workers, which include most employees except those in executive, managerial, and supervisory positions. Those workers mentioned in tables 11–16 include production workers in manufacturing and natural resources and mining; construction workers in construction; and nonsupervisory workers in all private service-providing industries. Production and nonsupervisory workers 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. Table 17 provides an index on private nonfarm employment based on 278 industries, and a manufacturing index based on 84 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 March 2002 benchmark was made with the release of data in May 2003, published in the July issue of the *Review*. With the release in May, CES completed a conversion from the Standard Industrial Classification (SIC) system to the North American Industry Classification System (NAICS) and completed the transition from its original quota sample design to a probability-based sample design. The industry-coding update including reconstruction of historical estimates in order to preserve time series for data users. Normally 5 years of seasonally adjusted data are revised with each benchmark revision. However, with this release, the entire new time series history for all CES data series has been reseasonally adjusted due to the NAICS conversion, which results in the revision of all CES time series history.

Also in June 2003, the CES program introduced concurrent seasonal adjustment. Under this methodology, the first preliminary estimates for the current reference month and the revised estimates for the 2 prior months will be updated with concurrent factors with each release. Concurrent seasonal adjustment is more accurate because it incorporates all available data, including first preliminary estimates for the most current month, in the adjustment process. For additional information, see the the June 2003 issue of *Employment and Earnings*.

Revisions in State data (table 11) occurred with the publication of January 2003 data.

Beginning in June 1996, the BLS uses the X-12-ARIMA methodology to seasonally adjust establishment survey data. This procedure, developed by the Bureau of the Census, controls for the effect of varying survey intervals (also known as the 4- versus 5-week effect), thereby providing improved measurement of over-the-month changes and underlying economic trends. 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.

FOR ADDITIONAL INFORMATION on establishment survey data, contact the Division of Current Employment Statistics: (202) 691–6555.

Unemployment data by State

Description of the series

Data presented in this section are obtained from 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 all States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates are revised to new population controls, usually with publication of January estimates, and benchmarked to annual average CPS levels.

FOR ADDITIONAL INFORMATION on data in this series, call (202) 691–6392 (table 10) or (202) 691–6559 (table 11).

Covered employment and wage data (ES–202)

Description of the series

EMPLOYMENT, WAGE, AND ESTABLISHMENT DATA in this section are derived from the quarterly tax reports submitted to State employment security agencies by private and State and local government employers subject to State unemployment insurance (UI) laws and from Federal, agencies subject to the Unemployment Compensation for Federal Employees (UCFE) program. Each quarter, State agencies edit and process the data and send the information to the Bureau of Labor Statistics.

The Covered Employment and Wages data, also referred as ES-202 data, are the most complete enumeration of employment and wage information by industry at the national, State, metropolitan area, and county levels. They have broad economic significance in evaluating labor market trends and major industry developments.

Definitions

In general, ES-202 monthly employment data represent the number of **covered workers** who worked during, or received pay for, the pay period that included the 12th day of the month. **Covered private industry employment** includes most corporate officials, executives, supervisory personnel, professionals, clerical workers, wage earners, piece workers, and part-time workers. It excludes proprietors, the unincorporated self-employed, unpaid family members, and certain farm and domestic workers. Certain types of nonprofit employers, such as religious organizations, are given a choice of coverage or exclusion in a number of States. Workers in these organizations are, therefore, reported to a limited degree.

Persons on paid sick leave, paid holiday, paid vacation, and the like, are included. Persons on the payroll of more than one firm during the period are counted by each UI-subject employer if they meet the employment definition noted earlier. The employment count excludes workers who earned no wages during the entire applicable pay period because of work stoppages, temporary layoffs, illness, or unpaid vacations.

Federal employment data are based on reports of monthly employment and quarterly wages submitted each quarter to State agencies for all Federal installations with employees covered by the Unemployment Compensation for Federal Employees (UCFE) program, except for certain national security agencies, which are omitted for security reasons. Employment for all Federal agencies for any given month is based on the number of persons who worked during or received pay for the pay period that included the 12th of the month.

An **establishment** is an economic unit, such as a farm, mine, factory, or store, that produces goods or provides services. It is typically at a single physical location and engaged in one, or predominantly one, type of economic activity for which a single industrial classification may be applied. Occasionally, a single physical location encompasses two or more distinct and significant activities. Each activity should be reported as a separate establishment if separate records are kept and the various activities are classified under different four-digit SIC codes.

Most employers have only one establishment; thus, the establishment is the predominant reporting unit or statistical entity for reporting employment and wages data. Most employers, including State and local governments who operate more than one establishment in a State, file a Multiple Worksite Report each quarter, in addition to their quarterly UI report. The Multiple Worksite Report is used to collect separate employment and wage data for each of the employer's establishments, which are not detailed on the UI report. Some very small multi-establishment employers do not file a Multiple Worksite Report. When the total employment in an employer's secondary establishments (all establishments other than the largest) is 10 or fewer, the employer generally will file a consolidated report for all establishments. Also, some employers either cannot or will not report at the establishment level and thus aggregate establishments into one consolidated unit, or possibly several units, though not at the establishment level.

For the Federal Government, the reporting unit is the **installation**: a single location at which a department, agency, or other government body has civilian employees. Federal agencies follow slightly different criteria than do private employers when breaking down their reports by installation. They are permitted to combine as a single statewide unit: 1) all installations with 10 or fewer workers, and 2) all installations that have a combined total in the State of fewer than 50 workers. Also, when there are fewer than 25 workers in all secondary installations in a State, the secondary installations may be combined and reported with the major installation. Last, if a Federal agency has fewer than five employees in a State, the agency headquarters office (regional office, district office) serving each State may consolidate the employment and wages data for that State with the data reported to the State in which the headquarters is located. As a result of these reporting rules, the number of reporting units is always larger than the number of employers (or government agencies) but smaller than the number of actual establishments (or installations).

Data reported for the first quarter are tabulated into **size** categories ranging from worksites of very small size to those with 1,000 employees or more. The size category is determined by the establishment's March employment level. It is important to note that each establishment of a multi-establishment firm is tabulated separately into the appropriate size category. The total employment level of the reporting multi-establishment firm is not used in the size tabulation.

Covered employers in most States report total **wages** paid during the calendar quarter, regardless of when the services were performed. A few State laws, however, specify that wages be reported for, or based on the period during which services are performed rather than the period during which compensation is paid. Under most State laws or regulations, wages include bonuses, stock options, the cash value of meals and lodging, tips and other gratuities, and, in some States, employer contributions to certain deferred compensation plans such as 401(k) plans.

Covered employer contributions for old-age, survivors, and disability insurance (OASDI), health insurance, unemployment insurance, workers' compensation, and private pension and welfare funds are not reported as wages. Employee contributions for the same purposes, however, as well as money withheld for income taxes, union dues, and so forth, are reported even though they are deducted from the worker's gross pay.

Wages of covered Federal workers represent the gross amount of all payrolls for all pay periods ending within the quarter. This includes cash allowances, the cash equivalent of any type of remuneration, severance pay, withholding taxes, and retirement deductions. Federal employee remuneration generally covers the same types of services as for workers in private industry.

Average annual wages per employee for any given industry are computed by dividing total annual wages by annual average employment. A further division by 52 yields average weekly wages per employee. Annual pay data only approximate annual earnings because an individual may not be employed by the same employer all year or may work for more than one employer at a time.

Average weekly or annual pay is 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. When average pay levels between States and industries are compared, these factors should be taken into consideration. For example, industries characterized by high proportions of part-time workers will show average wage levels appreciably less than the weekly pay levels of regular full-time employees in these industries. The opposite effect characterizes industries with low proportions of part-time workers, or industries that typically schedule heavy weekend and overtime work. Average wage data also may be influenced by work stoppages, labor turnover rates, retroactive payments, seasonal factors, bonus payments, and so on.

Notes on the data

Beginning with the release of data for 2001, publications presenting data from the Covered Employment and Wages (CEW) program have switched to the 2002 version of the North American Industry Classificatiion System (NAICS) as the basis for the assignment and tabulation of economic data by industry. NAICS is the product of a cooperative effort on the part of the statistical agencies of the United States, Canada, and Mexico. Due to difference in NAICS and Standard Industrial Classification (SIC) structures, industry data for 2001 is not comparable to the SIC-based data for earlier years.

Effective January 2001, the CEW program began assigning Indian Tribal Councils and related establishments to local government ownership. This BLS action was in response to a change in Federal law dealing with the way Indian Tribes are treated under the Federal Unemployment Tax Act. This law requires federally recognized Indian Tribes to be treated similarly to State and local governments. In the past the CEW program coded Indian Tribal Councils and related establishments in the private sector. As a result of the new law, CEW data reflects significant shifts in employment and wages between the private sector and local government from 2000 to 2001. Data also reflect industry changes. Those accounts previously assigned to civic and social organizations were assigned to tribal governments. There were no required industry changes for related establishments owned by these Tribal Councils. These tribal business establishments continued to be coded according to the economic activity of that entity.

To insure the highest possible quality of data, State employment security agencies verify with employers and update, if necessary, the industry, location, and ownership classification of all establishments on a 3-year cycle. Changes in establishment classification codes resulting from the verification process are introduced with the data reported for the first quarter of the year. Changes resulting from improved employer reporting also are introduced in the first quarter. For these reasons, some data, especially at more detailed geographic levels, may not be strictly comparable with earlier years.

The 2000 county data used to calculate the 2000–2001 changes were adjusted for changes in industry and county classification to make them comparable to data for 2001. As a result, the adjusted 2000 data differ to some extent from the data available on the Internet at:
http://www.bls.gov/cew/home.htm.

County definitions are assigned according to Federal Information Processing Standards Publications as issued by the National Institute of Standards and Technology. Areas shown as counties include those designated as independent cities in some jurisdictions and, in Alaska, those areas designated by the Census Bureau where counties have not been created. County data also are presented for the New England States for comparative purposes, even though townships are the more common designation used in New England (and New Jersey).

For additional information on the covered employment and wage data, contact the Division of Administrative Statistics and Labor Turnover at (202) 691–6567.

Compensation and Wage Data

(Tables 1–3; 25–31)

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

Employment Cost Index

Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It uses a fixed market basket of labor—similar in concept to the Consumer Price Index's fixed market basket of goods and services—to measure change over time in employer costs of employing labor.

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/nonmetropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1980 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

Definitions

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

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

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

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

Notes on the data

The Employment Cost Index for changes in wages and salaries in the private non-

farm 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) are available on the Internet:

http://www.bls.gov/ect/

FOR ADDITIONAL INFORMATION on the Employment Cost Index, contact the Office of Compensation Levels and Trends: (202) 691–6199.

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 9,000 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 for medium and large private establishments and in table 26 for small private establishments and State and local government.

The survey covers paid leave benefits such as holidays and vacations, and personal, funeral, jury duty, military, family, and sick leave; short-term disability, 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 family 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 (if any), 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 coverage 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 private establishments were conducted in even-numbered years, and surveys of medium and large establishments were 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 Office of Compensation Levels and Trends on the Internet:

http://www.bls.gov/ebs/

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 work time lost because of stoppage. These data are presented in table 31.

Data are largely from a variety of published sources 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 Office of Compensation and Working Conditions: (202) 691–6282, or the Internet:

http:/www.bls.gov/cba/

Price Data

(Tables 2; 32–42)

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 1993–95 buying habits of about 87 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 23,000 retail establishments and 5,800 housing units in 87 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 14 major urban centers are presented in table 33. 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 meaured 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 and January 1998 data.

FOR ADDITIONAL INFORMATION, contact the Division of Prices and Price Indexes: (202) 691–7000.

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 generally 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, contact the Division of Industrial Prices and Price Indexes: (202) 691–7705.

International Price Indexes

Description of the series

The **International Price Program** produces monthly and quarterly export and import price indexes for nonmilitary goods and services 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 categories are defined according to the five-digit level of detail for the Bureau of Economic Analysis End-use Classification, the three-digit level for the Standard Industrial 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. The trade weights currently used to compute both indexes relate to 2000.

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 ADDITIONAL INFORMATION, contact the Division of International Prices: (202) 691–7155.

Productivity Data

(Tables 2; 43–46)

Business and major sectors

Description of the series

The productivity measures relate real output

to real input. As such, they encompass a family of measures which include single-factor input measures, such as output per hour, output per unit of labor input, 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 quantity of goods and services produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the quantity of goods and services produced per unit of capital services input. **Multifactor productivity** is the quantity of goods and services produced per combined inputs. For private business and private nonfarm business, inputs include labor and capital units. For manufacturing, inputs include labor, capital, energy, nonenergy materials, and purchased business services.

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

Unit labor costs are the labor compensation costs expended in the production of a unit of output and are derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current-dollar value of output and dividing by output.

Unit nonlabor costs contain all the components of unit nonlabor payments except unit profits.

Unit profits include corporate profits 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.

Labor inputs are hours of all persons adjusted for the effects of changes in the education and experience of the labor force.

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 cost. Combined units of labor, capital, energy, materials, and purchased business services are similarly derived by combining changes in each input with weights that represent each input's share of total costs. The indexes for each input and for combined units 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

Business sector output is an annually-weighted index constructed by excluding from real gross domestic product (GDP) the following outputs: general government, nonprofit institutions, paid employees of private households, and the rental value of owner-occupied dwellings. Nonfarm business also excludes farming. Private business and private nonfarm business further exclude government enterprises. The measures are supplied by the U.S. Department of Commerce's Bureau of Economic Analysis. Annual estimates of manufacturing sectoral output are produced by the Bureau of Labor Statistics. Quarterly manufacturing output indexes from the Federal Reserve Board are adjusted to these annual output measures by the BLS. Compensation data are developed from data of the Bureau of Economic Analysis and the Bureau of Labor Statistics. Hours data are developed from data of the Bureau of Labor Statistics.

The productivity and associated cost measures in tables 43–46 describe the relationship between output in real terms and the labor and capital inputs 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; shifts in the composition of the labor force; capital investment; level of output; changes in the utilization of capacity, energy, material, and research and development; the organization of production; managerial skill; and characteristics and efforts of the work force.

FOR ADDITIONAL INFORMATION on this productivity series, contact the Division of Productivity Research: (202) 691–5606.

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. In addition to labor productivity, the industry data also include annual measures of compensation and unit labor costs for three-digit industries and measures of multifactor productivity for three-digit manufacturing industries and railroad transportation. 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 hour is derived by dividing an index of industry output by an index of labor input. For most industries, **output** indexes are derived from data on the value of industry output adjusted for price change. For the remaining industries, output indexes are derived from data on the physical quantity of production.

The **labor input** series consist of the hours of all employees (production workers 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.

Unit labor costs represent the labor compensation costs per unit of output produced, and are derived by dividing an index of labor compensation by an index of output. **Labor**

compensation includes payroll as well as supplemental payments, including both legally required expenditures and payments for voluntary programs.

Multifactor productivity is derived by dividing an index of industry output by an index of the combined inputs consumed in producing that output. **Combined inputs** include capital, labor, and intermediate purchases. The measure of **capital input** used represents 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. The measure of **intermediate purchases** is a combination of purchased materials, services, fuels, and electricity.

Notes on the data

The industry measures are compiled from data produced by the Bureau of Labor Statistics and the Bureau of the Census, with additional data supplied by other government agencies, trade associations, and other sources.

For most industries, the productivity indexes refer to the output per hour of all employees. For some trade and services industries, indexes of output per hour of all persons (including self-employed) are constructed. For some transportation industries, only indexes of output per employee are prepared.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Industry Productivity Studies: (202) 691–5618.

International Comparisons

(Tables 47–49)

Labor force and unemployment

Description of the series

Tables 47 and 48 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. For further information on adjustments and comparability issues, see Constance Sorrentino, "International unemployment rates: how comparable are they?" *Monthly Labor Review*, June 2000, pp. 3-20.

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 aged 16 and older in France, Sweden, and the United Kingdom; 15 and older in Australia, Japan, Germany, Italy from 1993 onward, and the Netherlands; and 14 and older in Italy prior to 1993. An exception to this rule is that the Canadian statistics for 1976 onward are adjusted to cover ages 16 and older, whereas the age at which compulsory schooling ends remains at 15. 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 different in nature from those in the United States; therefore, strict application of the U.S. definition has not been made on this point. For further information, see *Monthly Labor Review*, December 1981, pp. 8–11.

The figures for one or more recent years for France, Germany, Italy, the Netherlands, and the United Kingdom are calculated using adjustment factors based on labor force surveys for earlier years and are considered preliminary. The recent-year measures for these countries, 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 (1990, 1994, 1997, 1998, 1999, 2000), Canada (1976) France (1992), Germany (1991), Italy (1991, 1993), the Netherlands (1988), and Sweden (1987).

For the United States, the break in series reflects a major redesign of the labor force survey questionnaire and collection methodology introduced in January 1994. Revised population estimates based on the 1990 census, adjusted for the estimated undercount, also were incorporated. In 1996, previously published data for the 1990–93 period were revised to reflect the 1990 census-based population controls, adjusted for the undercount. In 1997, revised population controls were introduced into the household survey. Therefore, the data are not strictly comparable with prior years. In 1998, new composite estimation procedures and minor revisions in population controls were introduced into the household survey. Therefore, the data are not strictly comparable with data for 1997 and earlier years. See the Notes section on Employment and Unemployment Data of this *Review*.

BLS recently introduced a new adjusted series for Canada. Beginning with the data for 1976, Canadian data are adjusted to more closely approximate U.S. concepts. Adjustments are made to the unemployed and labor force to exclude: (1) 15-year-olds; (2) passive jobseekers (persons only reading newspaper ads as their method of job search); (3) persons waiting to start a new job who did not seek work in the past 4 weeks; and (4) persons unavailable for work due to personal or family responsibilities. An adjustment is made to include full-time students looking for full-time work. The impact of the adjustments was to lower the annual average unemployment rate by 0.1–0.4 percentage point in the 1980s and 0.4–1.0 percentage point in the 1990s.

For France, the 1992 break reflects the substitution of standardized European Union Statistical Office (EUROSTAT) unemployment statistics for the unemployment data estimated according to the International Labor Office (ILO) definition and published in the Organization for Economic Cooperation and Development (OECD) annual yearbook and quarterly update. This change was made because the EUROSTAT data are more up-to-date than the OECD figures. Also, since 1992, the EUROSTAT definitions are closer to the U.S. definitions than they were in prior years. The impact of this revision was to lower the unemployment rate by 0.1 percentage point in 1992 and 1993, by 0.4 percentage point in 1994, and 0.5 percentage point in 1995.

For Germany, the data for 1991 onward refer to unified Germany. Data prior to 1991 relate to the former West Germany. The impact of including the former East Germany was to increase the unemployment rate from 4.3 to 5.6 percent in 1991.

For Italy, the 1991 break reflects a revision in the method of weighting sample data. The impact was to increase the unemployment rate by approximately 0.3 percentage point, from 6.6 to 6.9 percent in 1991.

In October 1992, 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 those 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 1.2 percentage points, from 8.3 to 9.5 percent in fourth-quarter 1992. 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 nearly 4 percent indicated by the data shown in table 44. This difference is attributable mainly to the incorporation of the 1991 population benchmarks in the 1993 data. Data for earlier years have not been adjusted to incorporate the 1991 census results.

For the Netherlands, a new survey questionnaire was introduced in 1992 that allowed for a closer application of ILO guidelines. EUROSTAT has revised the Dutch series back to 1988 based on the 1992 changes. The 1988 revised unemployment rate is 7.6 percent; the previous estimate for the same year was 9.3 percent.

There have been two breaks in series in the Swedish labor force survey, in 1987 and 1993. Adjustments have been made for the 1993 break back to 1987. In 1987, a new questionnaire was introduced. Questions regarding current availability were added and the period of active workseeking was reduced from 60 days to 4 weeks. These changes lowered Sweden's 1987 unemployment rate by 0.4 percentage point, from 2.3 to 1.9 percent. 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, from 7.6 to 8.1 percent. Statistics Sweden re-

vised its labor force survey data for 1987–92 to take into account the break in 1993. The adjustment raised the Swedish unemployment rate by 0.2 percentage point in 1987 and gradually rose to 0.5 percentage point in 1992.

Beginning with 1987, BLS has adjusted the Swedish data to classify students who also sought work as unemployed. The impact of this change was to increase the adjusted unemployment rate by 0.1 percentage point in 1987 and by 1.8 percentage points in 1994, when unemployment was higher. In 1998, the adjusted unemployment rate had risen from 6.5 to 8.4 percent due to the adjustment to include students.

The net effect of the 1987 and 1993 changes and the BLS adjustment for students seeking work lowered Sweden's 1987 unemployment rate from 2.3 to 2.2 percent.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691–5654.

Manufacturing productivity and labor costs

Description of the series

Table 49 presents comparative indexes of manufacturing labor productivity (output per hour), output, total hours, compensation per hour, and unit labor costs for the United States, Canada, Japan, and nine European countries. These measures are trend comparisons—that is, series that measure changes over time—rather than level comparisons. There are greater technical problems in comparing the levels of manufacturing output among countries.

BLS constructs the comparative indexes from three basic aggregate measures—output, total labor hours, and total compensation. The hours and compensation measures refer to all employed persons (wage and salary earners plus self-employed persons and unpaid family workers) in the United States, Canada, Japan, France, Germany, Norway, and Sweden, and to all employees (wage and salary earners) in the other countries.

Definitions

Output, in general, refers to value added in manufacturing from the national accounts of each country. However, the output series for Japan prior to 1970 is an index of industrial production, and the national accounts measures for the United

Kingdom are essentially identical to their indexes of industrial production.

The 1977–97 output data for the United States are the gross product originating (value added) measures prepared by the Bureau of Economic Analysis of the U.S. Department of Commerce. Comparable manufacturing output data currently are not available prior to 1977.

U.S. gross product originating is a chain-type annual-weighted series. (For more information on the U.S. measure, see Robert E. Yuskavage, "Improved Estimates of Gross Product by Industry, 1959–94," *Survey of Current Business*, August 1996, pp. 133–55.) The Japanese value added series is based upon one set of fixed price weights for the years 1970 through 1997. Output series for the other foreign economies also employ fixed price weights, but the weights are updated periodically (for example, every 5 or 10 years).

To preserve the comparability of the U.S. measures with those for other economies, BLS uses gross product originating in manufacturing for the United States for these comparative measures. The gross product originating series differs from the manufacturing output series that BLS publishes in its news releases on quarterly measures of U.S. productivity and costs (and that underlies the measures that appear in tables 43 and 45 in this section). The quarterly measures are on a "sectoral output" basis, rather than a value-added basis. Sectoral output is gross output less intrasector transactions.

Total labor hours refers 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 BLS using employment figures published with the national accounts, or other comprehensive employment series, and estimates of annual hours worked. For Germany, BLS uses estimates of average hours worked developed by a research institute connected to the Ministry of Labor for use with the national accounts employment figures. For the other countries, BLS constructs its own estimates of average hours.

Denmark has not published estimates of average hours for 1994–97; therefore, the BLS measure of labor input for Denmark ends in 1993.

Total compensation (labor cost) includes all payments in cash or in-kind made directly to employees plus employer expenditures for legally required insurance programs and contractual and private benefit plans. The measures are from the national accounts of each country, except those for Belgium, which are developed by BLS using statistics on employ-

ment, average hours, and hourly compensation. For Canada, France, and Sweden, compensation is increased to account for other significant taxes on payroll or employment. For the United Kingdom, compensation is reduced between 1967 and 1991 to account for employment-related subsidies. Self-employed workers are included in the all-employed-persons measures 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 (for all years) and Italy (beginning 1970) refer to mining and manufacturing less energy-related products, and the measures for Denmark include mining and exclude manufacturing handicrafts from 1960 to 1966.

The measures for recent years may be based on current indicators of manufacturing output (such as industrial production indexes), employment, average hours, and hourly compensation until national accounts and other statistics used for the long-term measures become available.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691–5654.

Occupational Injury and Illness Data

(Tables 50–51)

Survey of Occupational Injuries and Illnesses

Description of the series

The Survey of Occupational Injuries and Illnesses collects data from employers about their workers' job-related nonfatal injuries and illnesses. The information that employers provide is based on records that they maintain under the Occupational Safety and Health Act of 1970. Self-employed individuals, farms with fewer than 11 employees, employers regulated by other Federal safety and health laws, and Federal, State, and local government agencies are excluded from the survey.

The survey is a Federal-State cooperative program with an independent sample selected for each participating State. A stratified random sample with a Neyman allocation is selected to represent all private industries in the State. The survey is strati-

fied by Standard Industrial Classification and size of employment.

Definitions

Under the Occupational Safety and Health Act, employers maintain records of nonfatal work-related injuries and illnesses that 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, or amputation that results from a work-related event or a single, instantaneous exposure in the work environment.

Occupational illness is an abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to 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 injuries and illnesses are cases that involve days away from work, or days of restricted work activity, or both.

Lost workdays include the number of workdays (consecutive or not) on which the employee was either away from work or at work in some restricted capacity, or both, because of an occupational injury or illness. BLS measures of the number and incidence rate of lost workdays were discontinued beginning with the 1993 survey. 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, such as a Federal holiday, even though able to work.

Incidence rates are computed as the number of injuries and/or illnesses or lost work days per 100 full-time workers.

Notes on the data

The definitions of occupational injuries and illnesses are from *Recordkeeping Guidelines for Occupational Injuries and Illnesses* (U.S. Department of Labor, Bureau of Labor Statistics, September 1986).

Estimates are made for industries and employment size classes for total recordable cases, lost workday cases, days away from work cases, and nonfatal cases without lost workdays. These data also are shown separately for injuries. Illness data are available for seven categories: occupational skin diseases or disorders, dust diseases of the lungs, respiratory conditions due to toxic agents, poisoning (systemic effects of toxic agents), disorders due to physical agents (other than toxic materials), disorders associated with repeated trauma, and all other

occupational illnesses.

The survey continues to measure the number of new work-related illness cases which are recognized, diagnosed, and reported during the year. Some conditions, for example, long-term latent illnesses caused by exposure to carcinogens, often are difficult to relate to the workplace and are not adequately recognized and reported. These long-term latent illnesses are believed to be understated in the survey's illness measure. In contrast, the overwhelming majority of the reported new illnesses are those which are easier to directly relate to workplace activity (for example, contact dermatitis and carpal tunnel syndrome).

Most of the estimates are in the form of incidence rates, defined as the number of injuries and illnesses per 100 equivalent full-time workers. For this purpose, 200,000 employee hours represent 100 employee years (2,000 hours per employee). Full detail on the available measures is presented in the annual bulletin, *Occupational Injuries and Illnesses: Counts, Rates, and Characteristics.*

Comparable data for more than 40 States and territories are available from the BLS Office of Safety, Health and Working Conditions. Many of these States publish data on State and local government employees in addition to private industry data.

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 both the national and State data published annually.

With the 1992 survey, BLS began publishing details on serious, nonfatal incidents resulting in days away from work. Included are some major characteristics of the injured and ill workers, such as occupation, age, gender, race, and length of service, as well as the circumstances of their injuries and illnesses (nature of the disabling condition, part of body affected, event and exposure, and the source directly producing the condition). In general, these data are available nationwide for detailed industries and for individual States at more aggregated industry levels.

FOR ADDITIONAL INFORMATION on occupational injuries and illnesses, contact the Office of Occupational Safety, Health and Working Conditions at (202) 691–6180, or access the Internet at:

http://www.bls.gov/iif/

Census of Fatal Occupational Injuries

The Census of Fatal Occupational Injuries compiles a complete roster of fatal job-related injuries, including detailed data about the fatally injured workers and the fatal events. The program collects and cross checks fatality information from multiple sources, including death certificates, State and Federal workers' compensation reports, Occupational Safety and Health Administration and Mine Safety and Health Administration records, medical examiner and autopsy reports, media accounts, State motor vehicle fatality records, and follow-up questionnaires to employers.

In addition to private wage and salary workers, the self-employed, family members, and Federal, State, and local government workers are covered by the program. To be included in the fatality census, the decedent must have been employed (that is working for pay, compensation, or profit) at the time of the event, engaged in a legal work activity, or present at the site of the incident as a requirement of his or her job.

Definition

A fatal work injury is any intentional or unintentional wound or damage to the body resulting in death from acute exposure to energy, such as heat or electricity, or kinetic energy from a crash, or from the absence of such essentials as heat or oxygen caused by a specific event or incident or series of events within a single workday or shift. Fatalities that occur during a person's commute to or from work are excluded from the census, as well as work-related illnesses, which can be difficult to identify due to long latency periods.

Notes on the data

Twenty-eight data elements are collected, coded, and tabulated in the fatality program, including information about the fatally injured worker, the fatal incident, and the machinery or equipment involved. Summary worker demographic data and event characteristics are included in a national news release that is available about 8 months after the end of the reference year. The Census of Fatal Occupational Injuries was initiated in 1992 as a joint Federal-State effort. Most States issue summary information at the time of the national news release.

FOR ADDITIONAL INFORMATION on the Census of Fatal Occupational Injuries contact the BLS Office of Safety, Health, and Working Conditions at (202) 691–6175, or the Internet at: **http://www.bls.gov/iif/**

Where to find additional data

Current and historical statistics from Bureau of Labor Statistics surveys are available at the addresses listed on the inside back cover of this *Review*, or on the Internet at

http://www.bls.gov

---

1. Labor market indicators

Selected indicators	2001	2002	2001				2002				2003
			I	II	III	IV	I	II	III	IV	I
Employment data											
Employment status of the civilian noninstitutionalized population (household survey):[1]											
Labor force participation rate..........	66.8	66.6	67.2	66.8	66.7	66.8	66.6	66.7	66.6	66.5	66.3
Employment-population ratio..........	63.7	62.7	64.3	63.8	63.5	63.0	62.8	62.8	62.8	62.5	62.4
Unemployment rate..........	4.7	5.8	4.2	4.4	4.8	5.6	5.6	5.9	5.8	5.9	5.8
Men..........	4.8	5.9	4.2	4.5	4.9	5.7	5.7	6.0	5.9	6.1	6.0
16 to 24 years..........	11.4	12.8	10.5	11.2	11.4	12.7	12.9	12.8	13.1	12.5	12.4
25 years and over..........	3.6	4.7	3.1	3.4	3.7	4.4	4.5	4.8	4.7	4.9	4.9
Women..........	4.7	5.6	4.1	4.3	4.8	5.5	5.5	5.7	5.6	5.7	5.5
16 to 24 years..........	9.6	11.1	8.6	9.2	10.1	10.7	11.0	11.2	10.9	11.4	11.1
25 years and over..........	3.7	4.6	3.3	3.4	3.8	4.4	4.4	4.8	4.6	4.6	4.4
Employment, nonfarm (payroll data), in thousands:[1]											
Total..........	131,922	130,791	132,433	132,193	131,943	131,130	130,759	130,706	130,844	130,795	130,599
Private sector..........	110,989	109,531	111,687	111,332	110,939	110,035	109,594	109,505	109,574	109,438	109,237
Goods-producing..........	24,944	23,836	25,493	25,136	24,786	24,375	24,049	23,879	23,787	23,623	23,491
Manufacturing..........	17,695	16,724	18,196	17,872	17,538	17,174	16,883	16,776	16,691	16,528	16,396
Service-producing..........	106,978	106,955	106,941	107,057	107,157	106,755	106,711	106,827	107,057	107,179	107,108
Average hours:											
Private sector..........	34.2	34.2	34.2	34.2	34.1	34.1	34.2	34.2	34.1	34.2	32.4
Manufacturing..........	40.7	40.9	41.0	40.8	40.7	40.5	40.8	41.0	40.8	40.7	40.8
Overtime..........	3.9	4.1	4.1	3.9	3.9	3.8	4.0	4.2	4.1	4.1	4.1
Employment Cost Index[2]											
Percent change in the ECI, compensation:											
All workers (excluding farm, household and Federal workers)......	4.1	3.4	1.3	.9	1.2	.8	1.0	.9	.9	.6	1.4
Private industry workers..........	4.2	3.2	1.4	1.0	.9	.8	1.1	1.1	.6	.4	1.7
Goods-producing[3]..........	3.8	3.7	1.3	.9	.7	.8	1.2	.9	.6	.9	1.8
Service-producing[3]..........	4.3	3.1	1.4	1.0	1.0	.8	1.1	1.2	.6	.2	1.5
State and local government workers	4.2	4.1	.9	.6	2.1	.6	.6	.4	2.2	.9	.7
Workers by bargaining status (private industry):											
Union..........	4.2	4.2	.7	1.1	1.0	1.4	1.1	1.0	1.2	.9	1.6
Nonunion..........	4.1	3.2	1.5	1.0	.9	.7	1.1	1.1	.5	.4	1.6

[1] Quarterly data seasonally adjusted.

[2] Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter.

[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	2001	2002	2001				2002				2003
			I	II	III	IV	I	II	III	IV	I
Compensation data[1,2]											
Employment Cost Index—compensation (wages, salaries, benefits):											
Civilian nonfarm..............................	4.1	3.4	1.3	0.9	1.2	0.8	1.0	0.9	0.9	0.6	1.4
Private nonfarm...........................	4.2	3.2	1.4	1.0	.9	.8	1.1	1.1	.6	.4	1.7
Employment Cost Index—wages and salaries:											
Civilian nonfarm..............................	3.7	2.9	1.1	.9	1.0	.7	.9	.8	.7	.4	1.0
Private nonfarm...........................	3.8	2.7	1,2	1.0	.8	.8	.9	1.0	.4	.3	1.1
Price data[1]											
Consumer Price Index (All Urban Consumers): All Items......	3.4	1.2	1.3	1.0	.2	−.9	.7	.5	.6	−.1	1.8
Producer Price Index:											
Finished goods...............................	−1.8	−1.2	.9	.8	−.3	−3.2	1.1	.2	.2	−.1	4.0
Finished consumer goods..................	−2.4	−1.6	1.2	1.0	−.3	−4.3	1.5	.4	.0	−.3	5.1
Capital equipment.........................	1.0	−.4	−.1	−7.1	−.1	.1	2.9	−.3	−.7	.6	.7
Intermediate materials, supplies, and components............	−.2	−1.2	.2	.6	−1.0	−3.6	.9	1.1	1.1	.1	5.3
Crude materials...............................	−8.8	−10.6	−3.5	−6.6	−12.0	−12.2	8.0	37.1	1.9	6.5	29.3
Productivity data[3]											
Output per hour of all persons:											
Business sector...............................	1.1	4.8	−1.5	−.2	1.8	7.6	8.3	1.8	5.8	.3	2.2
Nonfarm business sector....................	1.1	4.8	−1.5	−.1	2.1	7.3	8.6	1.7	5.5	.7	1.6
Nonfinancial corporations[4].............	1.4	5.5	−2.6	2.2	3.2	10.7	4.7	5.8	3.4	5.0	2.9

[1] Annual changes are December-to-December changes. 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.

NOTE: Dash indicates data not available.

3. Alternative measures of wage and compensation changes

Components	Quarterly average					Four quarters ending				
	2002				2003	2002				2003
	I	II	III	IV	I	I	II	III	IV	I
Average hourly compensation:[1]										
All persons, business sector................	3.0	4.3	2.2	3.6	3.9	1.4	2.4	2.7	3.3	3.5
All persons, nonfarm business sector............................	2.9	4.0	1.8	3.9	3.5	1.4	2.3	2.5	3.2	3.3
Employment Cost Index—compensation:										
Civilian nonfarm[2]............................	1.0	.9	.9	.6	1.4	3.9	4.0	3.7	3.4	3.9
Private nonfarm...........................	1.1	1.1	.6	.4	1.7	3.9	4.0	3.7	3.2	3.8
Union....................................	1.1	1.0	1.2	.9	1.6	4.7	4.5	4.7	4.2	4.7
Nonunion................................	1.1	1.1	.5	.4	1.6	3.8	3.9	3.5	3.2	3.6
State and local governments.................	.6	.4	2.2	.9	.7	3.9	3.6	3.8	4.1	4.2
Employment Cost Index—wages and salaries:										
Civilian nonfarm[2]............................	.9	.8	.7	.4	1.0	3.5	3.5	3.2	2.9	2.9
Private nonfarm...........................	.9	1.0	.4	.3	1.1	3.5	3.6	3.2	2.7	3.0
Union....................................	.7	.9	1.0	.8	.5	4.4	4.2	4.3	3.5	3.3
Nonunion................................	1.0	1.0	.4	.3	1.2	3.4	3.5	3.1	2.7	2.9
State and local governments.................	.5	.3	1.8	.6	.4	3.4	3.2	3.1	3.2	3.1

[1] Seasonally adjusted. "Quarterly average" is percent change from a quarter ago, at an annual rate.

[2] Excludes Federal and household workers.

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

[Numbers in thousands]

Employment status	Annual average		2002								2003				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
TOTAL															
Civilian noninstitutional population[1]	215,092	217,570	217,198	217,407	217,630	217,866	218,107	218,340	218,548	218,741	219,897	220,114	220,317	220,540	220,768
Civilian labor force	143,734	144,863	144,911	144,852	144,786	145,123	145,634	145,393	145,180	145,150	145,838	145,857	145,793	146,473	146,485
Participation rate	66.8	66.6	66.7	66.6	66.5	66.6	66.8	66.6	66.4	66.4	66.3	66.3	66.2	66.4	66.4
Employed	136,933	136,485	136,487	136,383	136,343	136,757	137,312	136,988	136,542	136,439	137,536	137,408	137,348	137,687	137,487
Employment-population ratio[2]	63.7	62.7	62.8	62.7	62.6	62.8	63.0	62.7	62.5	62.4	62.5	62.4	62.3	62.4	62.3
Unemployed	6,801	8,378	8,424	8,469	8,443	8,366	8,321	8,405	8,637	8,711	8,302	8,450	8,445	8,786	8,998
Unemployment rate	4.7	5.8	5.8	5.8	5.8	5.8	5.7	5.8	5.9	6.0	5.7	5.8	5.8	6.0	6.1
Not in the labor force	71,359	72,707	72,287	72,556	72,844	72,743	72,473	72,947	73,369	73,591	74,059	74,257	74,524	74,067	74,283
Men, 20 years and over															
Civilian noninstitutional population[1]	95,181	96,439	96,205	96,375	96,468	96,552	96,732	96,860	97,022	97,139	97,635	97,762	97,869	97,979	98,083
Civilian labor force	72,816	73,630	73,766	73,689	73,670	73,802	74,108	73,883	73,770	73,744	73,993	74,254	74,236	74,571	74,506
Participation rate	76.5	76.3	76.7	76.5	76.4	76.4	76.6	76.3	76.0	75.9	75.8	76.0	75.9	76.1	76.0
Employed	69,776	69,734	69,918	69,739	69,792	69,895	70,213	69,921	69,617	69,600	69,967	70,293	70,293	70,364	70,144
Employment-population ratio[2]	73.3	72.3	72.7	72.4	72.3	72.4	72.6	72.2	71.8	71.6	71.7	71.9	71.8	71.8	71.5
Unemployed	3,040	3,896	3,848	3,950	3,879	3,906	3,895	3,962	4,153	4,145	4,026	3,962	3,944	4,207	4,362
Unemployment rate	4.2	5.3	5.2	5.4	5.3	5.3	5.3	5.4	5.6	5.6	5.4	5.3	5.3	5.6	5.9
Not in the labor force	22,365	22,809	22,439	22,686	22,797	22,750	22,623	22,977	23,252	23,394	23,642	23,508	23,632	23,408	23,577
Women, 20 years and over															
Civilian noninstitutional population[1]	103,983	105,136	104,977	105,089	105,190	105,334	105,421	105,509	105,594	105,678	106,235	106,322	106,411	106,510	106,613
Civilian labor force	63,016	63,648	63,551	63,556	63,534	63,760	63,858	63,975	63,921	64,036	64,479	64,310	64,477	64,677	64,733
Participation rate	60.6	60.5	60.5	60.5	60.4	60.5	60.6	60.6	60.5	60.6	60.7	60.5	60.6	60.7	60.7
Employed	60,417	60,420	60,262	60,320	60,262	60,581	60,675	60,668	60,697	60,676	61,443	61,073	61,227	61,401	61,436
Employment-population ratio[2]	58.1	57.5	57.4	57.4	57.3	57.5	57.6	57.5	57.5	57.4	57.8	57.4	57.5	57.6	57.6
Unemployed	2,599	3,228	3,289	3,236	3,272	3,180	3,184	3,308	3,224	3,360	3,035	3,237	3,250	3,276	3,297
Unemployment rate	4.1	5.1	5.2	5.1	5.1	5.0	5.0	5.2	5.0	5.2	4.7	5.0	5.0	5.1	5.1
Not in the labor force	40,967	41,488	41,426	41,533	41,656	41,574	41,563	41,533	41,673	41,642	41,757	42,013	41,933	41,834	41,880
Both sexes, 16 to 19 years															
Civilian noninstitutional population[1]	15,929	15,994	16,017	15,943	15,972	15,980	15,954	15,971	15,933	15,925	16,027	16,030	16,038	16,051	16,072
Civilian labor force	7,902	7,585	7,594	7,607	7,581	7,561	7,667	7,535	7,489	7,369	7,366	7,293	7,079	7,226	7,246
Participation rate	49.6	47.4	47.4	47.7	47.5	47.3	48.1	47.2	47.0	46.3	46.0	45.5	44.1	45.0	45.1
Employed	6,740	6,332	6,307	6,324	6,289	6,280	6,425	6,400	6,228	6,164	6,125	6,042	5,829	5,923	5,907
Employment-population ratio[2]	42.3	39.6	39.4	39.7	39.4	39.3	40.3	40.1	39.1	38.7	38.2	37.7	36.3	36.9	36.8
Unemployed	1,162	1,253	1,287	1,283	1,292	1,280	1,243	1,135	1,261	1,206	1,241	1,251	1,251	1,303	1,339
Unemployment rate	14.7	16.5	17.0	16.9	17.0	16.9	16.2	15.1	16.8	16.4	16.8	17.1	17.7	18.0	18.5
Not in the labor force	8,027	8,409	8,422	8,337	8,391	8,419	8,287	8,436	8,444	8,555	8,661	8,736	8,959	8,825	8,826
White[3]															
Civilian noninstitutional population[1]	178,111	179,783	179,524	179,665	179,816	179,979	180,146	180,306	180,450	180,580	180,460	180,599	180,728	180,873	181,021
Civilian labor force	119,399	120,150	120,197	120,152	120,272	120,449	120,502	120,479	120,345	120,093	120,084	120,166	120,200	120,575	120,420
Participation rate	67.0	66.8	67.0	66.9	66.9	66.9	66.9	66.8	66.7	66.5	66.5	66.5	66.5	66.7	66.5
Employed	114,430	114,013	114,003	113,951	114,008	114,250	114,373	114,294	114,128	113,910	113,995	114,135	114,089	114,286	113,882
Employment-population ratio[2]	64.2	63.4	63.5	63.4	63.4	63.5	63.5	63.4	63.2	63.1	63.2	63.2	63.1	63.2	62.9
Unemployed	4,969	6,137	6,195	6,201	6,264	6,199	6,129	6,184	6,218	6,184	6,089	6,031	6,111	6,289	6,539
Unemployment rate	4.2	5.1	5.2	5.2	5.2	5.1	5.1	5.1	5.2	5.1	5.1	5.0	5.1	5.2	5.4
Not in the labor force	58,713	59,633	59,327	59,513	59,545	59,530	59,644	59,828	60,104	60,487	60,376	60,432	60,528	60,298	60,601
Black or African American[3]															
Civilian noninstitutional population[1]	25,138	25,578	25,514	25,552	25,591	25,633	25,675	25,717	25,751	25,784	25,484	25,519	25,552	25,587	25,624
Civilian labor force	16,421	16,565	16,610	16,570	16,390	16,541	16,789	16,682	16,540	16,706	16,374	16,395	16,296	16,521	16,618
Participation rate	65.3	64.8	65.1	64.8	64.0	64.5	65.4	64.9	64.2	64.8	64.3	64.2	63.8	64.6	64.9
Employed	15,006	14,872	14,928	14,816	14,763	14,907	15,148	15,027	14,754	14,827	14,684	14,669	14,641	14,723	148
Employment-population ratio[2]	59.7	58.1	58.5	58.0	57.7	58.2	59.0	58.4	57.3	57.5	57.6	57.5	57.3	57.5	57.8
Unemployed	1,416	1,693	1,682	1,754	1,627	1,634	1,641	1,656	1,786	1,879	1,690	1,726	1,655	1,797	1,799
Unemployment rate	8.6	10.2	10.1	10.6	9.9	9.9	9.8	9.9	10.8	11.2	10.3	10.5	10.2	10.9	10.8
Not in the labor force	8,717	9,013	8,903	8,982	9,201	9,092	8,886	9,034	9,211	9,078	9,110	9,124	9,256	9,066	9,007

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		2002								2003				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov	Dec.	Jan.	Feb	Mar.	Apr.	May
Hispanic or Latino ethnicity															
Civilian noninstitutional population[1]	24,942	25,963	25,827	25,917	26,008	26,096	26,184	26,272	26,355	26,436	26,994	28	27,191	27,291	27,291
Civilian labor force	17,328	17,943	17,843	17,891	18,045	18,030	18,103	18,049	18,169	18,134	18,614	18,658	18,614	18,836	18,811
Participation rate	69.5	69.1	69.1	69.0	69.4	69.1	69.1	68.7	68.9	68.6	69.0	68.9	68.5	69.0	68.7
Employed	16,190	16,590	16,581	16,573	16,685	16,664	16,739	16,637	16,755	16,708	17,155	17,223	17,215	17,428	17,264
Employment-population ratio[2]	64.9	63.9	64.2	63.9	64.2	63.9	63.9	63.3	63.6	63.2	63.5	63.6	63.3	63.9	63.0
Unemployed	1,138	1,353	1,261	1,318	1,360	1,366	1,363	1,412	1,414	1,425	1,459	1,436	1,399	1,408	1,548
Unemployment rate	6.6	7.5	7.1	7.4	7.5	7.6	7.5	7.8	7.8	7.9	7.8	7.7	7.5	7.5	8.2
Not in the labor force	7,614	8,020	7,984	8,026	7,963	8,066	8,082	8,223	8,186	8,303	8,380	8,436	8,577	8,455	8,580

[1] The population figures are not seasonally adjusted.

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

[3] Beginning in 2003, persons who selected this race group only; persons who selected more than one race group are not included. Prior to 2003, persons who reported more than one race were included in the group they identified as the main race.

NOTE: Estimates for the above race groups (white and black or African American) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race.

5. Selected employment indicators, monthly data seasonally adjusted

[In thousands]

Selected categories	Annual average		2002								2003				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Characteristic															
Employed, 16 years and over	136,933	136,485	136,487	136,383	136,343	136,757	137,312	136,988	136,542	136,439	137,536	137,408	137,348	137,687	137,487
Men	73,196	72,903	73,093	72,893	72,931	73,023	73,402	73,151	72,773	72,690	72,994	73,249	73,064	73,182	72,981
Women	63,737	63,582	63,394	63,490	63,412	63,734	63,910	63,837	63,769	63,749	64,542	64,159	64,284	64,505	64,506
Married men, spouse present	44,007	44,116	44,306	44,037	44,150	44,235	44,129	44,245	44,093	44,005	44,401	44,587	44,415	44,552	44,542
Married women, spouse present	34,153	34,153	34,015	34,050	34,035	34,278	34,479	34,322	34,264	34,189	34,525	34,620	34,569	34,685	34,443
Persons at work part time[1]															
All industries:															
Part time for economic reasons	3,715	4,213	4,097	3,982	4,139	4,308	4,356	4,343	4,329	4,273	4,643	4,807	4,696	4,840	4,592
Slack work or business conditions	2,396	2,788	2,685	2,703	2,760	2,811	2,814	2,888	2,855	2,893	3,027	3,152	3,123	3,221	3,058
Could only find part-time work	1,006	1,124	1,110	1,097	1,113	1,153	1,177	1,133	1,159	1,110	1,297	1,275	1,192	1,266	1,265
Part time for noneconomic reasons	18,790	18,843	18,988	19,251	19,143	19,047	18,928	18,685	18,727	18,555	19,314	18,421	18,888	18,886	19,083
Nonagricultural industries:															
Part time for economic reasons	3,627	4,119	3,983	3,887	4,025	4,185	4,266	4,274	4,272	4,219	4,496	4,675	4,587	4,728	4,478
Slack work or business conditions	2,340	2,726	2,611	2,629	2,689	2,806	2,755	2,857	2,816	2,854	2,947	3,062	3,048	3,140	3,003
Could only find part-time work	997	1,114	1,087	1,099	1,103	1,143	1,172	1,122	1,158	1,097	1,267	1,257	1,178	1,258	1,234
Part time for noneconomic reasons	18,415	18,487	18,636	18,985	18,741	18,668	18,555	18,347	18,361	18,197	18,984	18,134	18,529	18,503	18,664

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

6. Selected unemployment indicators, monthly data seasonally adjusted

[Unemployment rates]

Selected categories	Annual average		2002								2003				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Characteristic															
Total, 16 years and over..........................	4.7	5.8	5.8	5.8	5.8	5.8	5.7	5.8	5.9	6.0	5.7	5.8	5.8	6.0	6.1
Both sexes, 16 to 19 years....................	14.7	16.5	17.0	16.9	17.0	16.9	16.2	15.1	16.8	16.4	16.8	17.1	17.7	18.0	18.5
Men, 20 years and over.......................	4.2	5.3	5.2	5.4	5.3	5.3	5.3	5.4	5.6	5.6	5.4	5.3	5.3	5.6	5.9
Women, 20 years and over....................	4.1	5.1	5.2	5.1	5.1	5.0	5.0	5.2	5.0	5.2	4.7	5.0	5.0	5.1	5.1
White, total[1]...................................	4.2	5.1	5.2	5.2	5.2	5.1	5.1	5.1	5.2	5.1	5.1	5.0	5.1	5.2	5.4
Both sexes, 16 to 19 years...............	12.7	14.5	14.6	14.8	15.6	14.8	14.2	13.9	14.5	13.8	15.2	15.5	15.6	15.4	15.3
Men, 16 to 19 years.....................	13.9	15.9	15.5	16.6	17.9	17.1	15.6	14.7	15.8	14.9	16.2	17.3	18.0	17.7	17.0
Women, 16 to 19 years..................	11.4	13.1	13.8	13.0	13.1	12.4	12.7	13.1	13.0	12.7	14.2	13.7	13.1	13.2	13.7
Men, 20 years and over..................	3.7	4.7	4.8	4.8	4.8	4.8	4.8	4.8	5.0	4.9	4.9	4.6	4.7	5.0	5.2
Women, 20 years and over...............	3.6	4.4	4.5	4.4	4.4	4.4	4.4	4.4	4.2	4.4	4.1	4.2	4.4	4.3	4.6
Black or African American, total[1]........	8.6	10.2	10.1	10.6	9.9	9.9	9.8	9.9	10.8	11.2	10.3	10.5	10.2	10.9	10.8
Both sexes, 16 to 19 years...............	29.0	29.8	29.9	30.1	27.1	30.1	28.0	23.9	30.5	33.2	30.4	30.2	33.4	33.1	37.0
Men, 16 to 19 years.....................	30.4	31.3	36.1	30.8	22.7	31.3	34.4	24.9	30.0	34.5	33.2	38.1	45.2	37.7	43.1
Women, 16 to 19 years..................	27.5	28.3	22.2	29.3	31.4	28.9	21.5	22.7	31.0	32.1	28.0	22.2	23.1	29.3	32.0
Men, 20 years and over..................	8.0	9.5	8.7	10.3	9.2	9.1	9.4	9.9	10.6	10.5	10.3	10.1	9.3	10.4	11.2
Women, 20 years and over...............	7.0	8.8	9.3	8.8	8.9	8.5	8.1	8.5	9.0	9.7	8.4	9.0	8.7	9.2	8.0
Hispanic or Latino ethnicity.................	6.6	7.5	7.1	7.4	7.5	7.6	7.5	7.8	7.8	7.9	7.8	7.7	7.5	7.5	8.2
Married men, spouse present..............	2.7	3.6	3.6	4.0	3.5	3.5	3.6	3.6	3.6	3.7	3.5	3.6	3.8	3.7	3.9
Married women, spouse present..........	3.1	3.7	3.9	3.8	3.8	3.6	3.6	3.8	3.8	3.8	3.3	3.6	3.7	3.6	3.7
Full-time workers.............................	4.7	5.9	5.9	6.0	5.9	5.8	5.8	5.9	6.1	6.1	5.8	5.9	5.9	6.1	6.3
Part-time workers.............................	5.1	5.3	5.4	5.0	5.4	5.4	5.3	5.2	5.1	5.3	5.4	5.5	5.5	5.4	5.6
Educational attainment[2]															
Less than a high school diploma..........	7.2	8.4	8.4	8.0	8.6	8.5	7.9	8.7	9.0	9.0	8.5	8.8	8.5	8.2	9.2
High school graduates, no college[3].........	4.2	5.3	5.5	5.5	5.1	5.2	5.0	4.9	5.3	5.3	5.1	5.4	5.5	5.7	5.5
Some college or associate degree..........	3.3	4.5	4.7	4.6	4.4	4.3	4.6	4.7	4.8	5.0	4.8	4.7	4.8	4.7	4.8
Bachelor's degree and higher[4]................	2.3	2.9	3.0	3.0	3.0	2.8	2.9	3.0	2.9	2.9	3.0	3.0	3.1	3.1	3.1

[1] Beginning in 2003, persons who selected this race group only; persons who selected more than one race group are not included. Prior to 2003, persons who reported more than one race were included in the group they identified as the main race.

[2] Data refer to persons 25 years and over.

[3] Includes high school diploma or equivalent.

[4] Includes persons with bachelor's, master's, professional, and doctoral degrees.

7. Duration of unemployment, monthly data seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		2002								2003				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Less than 5 weeks..........................	2,853	2,893	2,900	2,786	2,903	2,895	2,782	2,797	2,912	2,860	2,772	2,749	2,780	2,814	3,056
5 to 14 weeks.................................	2,196	2,580	2,566	2,803	2,520	2,505	2,558	2,515	2,532	2,547	2,577	2,565	2,473	2,630	2,605
15 weeks and over..........................	1,752	2,904	2,911	3,045	2,955	2,891	3,019	3,099	3,143	3,296	3,140	3,155	3,104	3,294	3,250
15 to 26 weeks............................	951	1,369	1,328	1,419	1,381	1,361	1,359	1,374	1,317	1,392	1,457	1,281	1,316	1,392	1,321
27 weeks and over.......................	801	1,535	1,583	1,626	1,573	1,530	1,660	1,724	1,826	1,904	1,683	1,874	1,788	1,903	1,930
Mean duration, in weeks.................	13.1	16.6	16.8	17.1	16.6	16.3	17.8	17.6	17.9	18.4	18.4	18.6	18.0	19.6	19.2
Median duration, in weeks...............	6.8	9.1	9.6	11.6	8.9	8.7	9.5	9.6	9.4	9.6	9.8	9.4	9.6	10.2	10.1

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

[Numbers in thousands]

Reason for unemployment	Annual average		2002								2003				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Job losers[1]	3,476	4,607	4,634	4,650	4,613	4,607	4,608	4,828	4,833	4,863	4,583	4,756	4,613	4,765	5,074
On temporary layoff	1,067	1,124	1,114	1,101	1,236	1,158	1,044	1,098	1,069	1,110	1,080	1,142	1,157	1,101	1,226
Not on temporary layoff	2,409	3,483	3,520	3,550	3,377	3,449	3,565	3,729	3,764	3,753	3,503	3,614	3,456	3,664	3,848
Job leavers	835	866	892	844	840	844	808	850	834	862	825	772	794	829	772
Reentrants	2,031	2,368	2,400	2,379	2,390	2,326	2,321	2,386	2,394	2,462	2,331	2,395	2,391	2,558	2,499
New entrants	459	536	503	544	547	587	542	494	586	534	616	579	626	642	634
Percent of unemployed															
Job losers[1]	51.1	55.0	55.0	55.2	55.0	55.1	55.7	56.4	55.9	55.8	54.9	55.9	54.8	54.2	56.5
On temporary layoff	15.7	13.4	13.2	13.1	14.7	13.8	12.6	12.8	12.4	12.7	12.9	13.4	13.7	12.5	13.7
Not on temporary layoff	35.4	41.6	41.8	42.2	40.2	41.2	42.1	43.6	43.5	43.0	41.9	42.5	41.0	41.7	42.9
Job leavers	12.3	10.3	10.6	10.0	10.0	10.1	9.8	9.9	9.6	9.9	9.9	9.1	9.4	9.4	8.6
Reentrants	29.9	28.3	28.5	28.3	28.5	27.8	28.0	27.9	27.7	28.2	27.9	28.2	28.4	29.1	27.8
New entrants	6.8	6.4	6.0	6.5	6.5	7.0	6.5	5.8	6.8	6.1	7.4	6.8	7.4	7.3	7.1
Percent of civilian labor force															
Job losers[1]	2.4	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.4	3.1	3.3	3.2	3.3	3.5
Job leavers	.6	.6	.6	.6	.6	.6	.5	.6	.6	.6	.6	.5	.5	.6	.5
Reentrants	1.4	1.6	1.7	1.6	1.7	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.7	1.7
New entrants	.3	.4	.3	.4	.4	.4	.4	.3	.4	.4	.4	.4	.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		2002								2003		
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Total, 16 years and over	4.7	5.8	5.8	5.8	5.8	5.8	5.7	5.8	5.9	6.0	5.7	5.8	5.8
16 to 24 years	10.6	12.0	11.8	12.0	12.1	12.1	11.9	11.8	12.2	11.9	11.8	11.9	11.7
16 to 19 years	14.7	16.5	17.0	16.9	17.0	16.9	16.2	15.1	16.8	16.4	16.8	17.1	17.7
16 to 17 years	17.2	18.8	20.4	19.6	19.7	19.3	19.4	16.2	19.4	17.6	18.3	17.9	16.7
18 to 19 years	13.1	15.1	15.3	15.3	15.5	16.2	14.0	14.3	15.3	15.5	15.9	15.9	17.7
20 to 24 years	8.3	9.7	9.1	9.4	9.6	9.6	9.6	10.1	9.8	9.7	9.3	9.3	8.9
25 years and over	3.7	4.6	4.8	4.8	4.7	4.6	4.6	4.7	4.8	4.8	4.6	4.7	4.7
25 to 54 years	3.8	4.8	4.9	4.9	4.8	4.7	4.7	4.9	5.1	5.0	4.7	4.9	5.0
55 years and over	3.0	3.8	4.1	4.1	3.8	4.0	3.9	3.9	3.7	4.2	4.1	3.8	3.8
Men, 16 years and over	4.8	5.9	5.9	6.0	5.9	6.0	6.0	5.9	6.2	6.2	6.0	6.0	6.0
16 to 24 years	11.4	12.8	12.7	12.6	12.8	13.3	13.1	12.3	12.8	12.6	12.4	12.5	12.4
16 to 19 years	16.0	18.1	18.8	18.6	18.9	19.3	18.3	16.0	18.0	17.5	18.2	19.5	20.8
16 to 17 years	19.1	21.1	23.1	22.0	22.2	23.1	21.5	17.2	21.2	18.5	19.3	19.1	18.0
18 to 19 years	14.0	16.4	16.4	16.6	16.6	18.1	16.3	15.2	16.1	16.7	17.6	19.3	21.5
20 to 24 years	9.0	10.2	9.6	9.6	9.7	10.3	10.5	10.4	10.2	10.2	9.7	9.2	8.7
25 years and over	3.6	4.7	4.8	4.9	4.7	4.7	4.6	4.8	5.1	5.0	4.9	4.9	4.9
25 to 54 years	3.7	4.8	4.8	5.0	4.9	4.8	4.7	4.9	5.3	5.2	5.0	5.0	5.0
55 years and over	3.2	4.1	4.4	4.4	4.0	4.1	4.1	4.0	4.0	4.4	4.4	4.2	4.3
Women, 16 years and over	4.7	5.6	5.7	5.6	5.7	5.5	5.5	5.7	5.6	5.8	5.3	5.6	5.5
16 to 24 years	9.6	11.1	10.8	11.2	11.4	10.7	10.5	11.3	11.5	11.3	11.1	11.3	11.0
16 to 19 years	13.4	14.9	15.0	15.0	15.1	14.4	14.0	14.1	15.6	15.2	15.5	14.8	14.6
16 to 17 years	15.2	16.6	17.4	17.2	17.1	15.5	17.4	15.2	17.4	16.6	17.3	16.8	15.5
18 t0 24 years	12.2	13.8	14.1	14.0	14.3	14.1	11.5	13.3	14.4	14.2	14.1	12.3	13.7
20 to 24 years	7.5	9.1	8.6	9.2	9.4	8.8	8.7	9.8	9.4	9.3	8.8	9.5	9.1
25 years and over	3.7	4.6	4.8	4.6	4.6	4.5	4.5	4.6	4.5	4.6	4.2	4.5	4.6
25 to 54 years	3.9	4.8	5.0	4.8	4.8	4.6	4.7	4.8	4.8	4.8	4.4	4.8	4.9
55 years and over[1]	2.7	3.6	3.1	3.9	3.8	4.3	3.6	3.5	3.2	3.8	4.1	3.3	3.3

[1] Data are not seasonally adjusted.

10. Unemployment rates by State, seasonally adjusted

State	Apr. 2002	Mar. 2003[p]	Apr. 2003[p]	State	Apr. 2002	Mar. 2003[p]	Apr. 2003[p]
Alabama	5.9	5.9	5.8	Missouri	5.5	5.5	5.0
Alaska	7.6	7.4	7.2	Montana	4.6	4.8	4.0
Arizona	6.1	6.2	6.0	Nebraska	3.7	3.6	3.9
Arkansas	5.6	5.5	5.3	Nevada	5.7	6.0	5.5
California	6.6	6.6	6.8	New Hampshire	4.6	4.5	4.0
Colorado	5.7	5.8	5.9	New Jersey	5.8	5.7	5.8
Connecticut	4.2	4.1	5.3	New Mexico	5.5	5.4	5.9
Delaware	4.4	4.2	4.3	New York	6.1	6.0	6.1
District of Columbia	6.5	6.4	7.3	North Carolina	6.9	6.9	6.0
Florida	5.5	5.6	5.3	North Dakota	4.1	3.9	3.4
Georgia	5.1	5.1	4.7	Ohio	5.9	5.8	6.3
Hawaii	4.4	4.6	3.8	Oklahoma	4.6	4.5	5.1
Idaho	5.8	5.9	5.6	Oregon	7.8	7.9	8.0
Illinois	6.5	6.4	6.3	Pennsylvania	5.5	5.5	5.9
Indiana	5.3	5.2	5.1	Rhode Island	4.9	4.9	5.3
Iowa	4.0	3.9	4.2	South Carolina	5.9	6.1	6.1
Kansas	5.1	5.0	4.8	South Dakota	3.3	3.4	3.2
Kentucky	5.7	5.7	5.8	Tennessee	5.3	5.4	5.0
Louisiana	6.2	6.0	6.2	Texas	6.3	6.3	6.6
Maine	4.3	4.3	4.8	Utah	6.3	6.2	5.3
Maryland	4.6	4.5	4.4	Vermont	3.8	3.8	4.2
Massachusetts	5.3	5.1	5.5	Virginia	4.4	4.2	4.3
Michigan	6.3	6.3	6.6	Washington	7.7	7.5	7.3
Minnesota	4.6	4.5	4.3	West Virginia	6.1	5.9	6.0
Mississippi	7.0	6.7	6.6	Wisconsin	5.5	5.7	5.4
				Wyoming	4.4	4.2	4.0

[p] = preliminary

Dash indicates data not available.

11. Employment of workers on nonfarm payrolls by State, seasonally adjusted
[In thousands]

State	Apr. 2002	Mar. 2003[p]	Apr. 2003[p]	State	Apr. 2002	Mar. 2003[p]	Apr. 2003[p]
Alabama	1,899.1	1,873.9	1,872.2	Missouri	2,693.1	2,632.5	2,645.6
Alaska	290.6	297.5	296.7	Montana	394.5	393.5	397.3
Arizona	2,243.4	2,273.4	2,278.4	Nebraska	911.0	903.1	906.9
Arkansas	1,152.8	1,147.2	1,148.6	Nevada	1,068.6	1,060.1	1,062.3
California	14,667.7	14,474.1	14,460.5	New Hampshire	627.4	617.3	615.3
Colorado	2,195.6	2,165.5	2,168.5	New Jersey	4,010.7	4,001.9	4,012.4
Connecticut	1,673.6	1,655.2	1,655.7	New Mexico	760.9	777.0	778.9
Delaware	414.6	409.3	410.2	New York	8,534.5	8,390.2	8,386.2
District of Columbia	651.6	667.7	668.0	North Carolina	3,877.2	3,829.8	3,840.9
Florida	7,191.6	7,253.1	7,281.7	North Dakota	329.6	329.0	328.9
Georgia	3,880.2	3,913.5	3,902.0	Ohio	5,520.9	5,381.5	5,403.4
Hawaii	544.8	563.1	562.8	Oklahoma	1,520.6	1,471.2	1,479.5
Idaho	569.8	563.3	567.3	Oregon	1,576.6	1,572.0	1,559.0
Illinois	5,916.3	5,854.7	5,843.0	Pennsylvania	5,645.1	5,623.2	5,629.1
Indiana	2,902.6	2,871.7	2,863.7	Rhode Island	483.3	479.6	479.9
Iowa	1,461.4	1,441.6	1,443.6	South Carolina	1,828.6	1,805.9	1,795.9
Kansas	1,358.1	1,334.1	1,332.0	South Dakota	378.1	375.1	375.6
Kentucky	1,823.6	1,784.3	1,774.6	Tennessee	2,707.5	2,663.9	2,672.2
Louisiana	1,930.4	1,897.4	1,896.5	Texas	9,458.7	9,426.4	9,437.5
Maine	609.9	604.7	605.2	Utah	1,069.2	1,073.4	1,075.2
Maryland	2,454.2	2,474.9	2,488.3	Vermont	295.6	301.8	303.4
Massachusetts	3,299.2	3,203.0	3,209.5	Virginia	3,494.8	3,483.0	3,493.4
Michigan	4,554.4	4,419.3	4,407.6	Washington	2,648.3	2,662.1	2,657.0
Minnesota	2,655.7	2,635.3	2,639.0	West Virginia	734.2	734.2	731.1
Mississippi	1,131.4	1,127.3	1,128.0	Wisconsin	2,821.8	2,775.7	2,776.0
				Wyoming	247.2	248.4	248.3

[p] = preliminary.

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

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

[In thousands]

Industry	Annual average 2001	2002	2002 May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	2003 Jan.	Feb.	Mar.	Apr.	May
TOTAL NONFARM..............	131,826	130,376	130,411	130,383	130,204	130,224	130,289	130,408	130,409	130,198	130,356	130,235	130,384	130,062	129,986
TOTAL PRIVATE....................	110,707	108,886	108,907	108,891	108,756	108,745	108,763	108,864	108,869	108,642	108,780	108,647	108,537	108,536	108,502
GOODS-PRODUCING	23,873	22,619	22,667	22,639	22,588	22,527	22,497	22,435	22,409	22,323	22,288	22,191	22,159	22,119	22,098
Natural resources and mining...................................	606.0	581.0	584	580	576	575	573	572	573	572	568	569	565	564	566
Logging...............................	73.5	69.1	70.5	69.2	67.9	67.3	67.5	66.7	67.6	67.9	67.1	66.6	64.6	64.3	64.8
Mining.................................	532.5	511.9	513.8	511.2	508.0	508.1	505.7	505.7	505.0	503.6	500.5	502.1	500.4	499.8	501.4
Oil amd gas extraction............	123.7	122.5	122.9	122.8	122.0	122.0	121.4	121.5	122.0	121.6	122.1	121.8	122.9	124.4	125.2
Mining, except oil and gas1....	218.7	212.1	212.9	212.1	210.9	210.6	210.7	209.7	209.3	208.1	206.9	206.3	206.9	207.5	208.2
Coal mining........................	74.3	74.9	75.3	74.8	74.4	74.4	74.3	73.6	73.8	73.3	72.2	72.3	72.3	72.7	72.6
Support activities for mining....	190.1	177.2	178.0	176.3	175.1	175.5	173.6	174.5	173.7	173.9	171.5	174.0	170.6	167.9	168.0
Construction.............................	6,826.0	6,732.0	6,716.0	6,725.0	6,703.0	6,719.0	6,728.0	6,720.0	6,745.0	6,731.0	6,738.0	6,700.0	6,720.0	6,760.0	6,786.0
Construction of buildings.........	1,588.9	1,583.9	1,580.4	1,579.6	1,572.9	1,585.3	1,587.9	1,588.0	1,602.9	1,595.3	1,597.7	1,594.4	1,605.6	1,615.8	1,615.0
Heavy and civil engineering....	953.0	929.9	928.4	930.0	922.8	921.0	919.3	918.1	915.2	915.3	916.8	912.5	895.0	898.4	902.8
Speciality trade contractors.....	4283.9	4217.9	4206.7	4,215.0	4207.1	4212.9	4220.7	4214.2	4226.4	4220.7	4223.8	4193.2	4219.5	4245.5	4267.8
Manufacturing..........................	16,441	15,306	15,367	15,334	15,309	15,233	15,196	15,143	15,091	15,020	14,982	14,922	14,874	14,795	14,746
Production workers...............	11,677	10,799	10,836	10,818	10,804	10,740	10,715	10,685	10,648	10,595	10,564	10,516	10,447	10,379	10,342
Durable goods..........................	10,335	9,517	9,567	9,541	9,516	9,472	9,435	9,400	9,362	9,316	9,282	9,236	9,203	9,147	9,114
Production workers...............	7,163	6,551	6,582	6,565	6,550	6,517	6,492	6,474	6,447	6,417	6,392	6,355	6,314	6,267	6,244
Wood products........................	574.1	556.8	557.9	557.2	556	556	554.5	554.2	552.3	548.1	549.2	548.5	544.4	546	544.9
Nonmetallic mineral products	544.5	519	518.8	518.6	518.8	518.1	517.9	516.1	513.6	510.8	507.9	505.9	506.7	504.8	505.1.
Primary metals.......................	570.9	510.9	513.1	511.1	510.1	509.1	507.5	504.4	503.3	499.7	500.1	496.5	494.7	491.1	486.4
Fabricated metal products......	1,674.4	1,547.8	1,556.7	1,553.6	1,549.2	1,542.3	1,537.8	1,532.0	1,523.7	1,516.0	1,508.0	1,497.5	1,495.3	1,489.4	1,482.3
Machinery.............................	1,368.3	1,237.4	1,242.5	1,238.7	1,235.2	1,228.7	1,223.8	1,219.6	1,216.1	1,212.4	12.6.5	1,201.6	1,194.8	1,187.4	1,181.2
Computer and electronic products1...........................	1,748.8	1,521.3	1,537.5	1,527.4	1,517.3	1,503.5	1,492.9	1,483.9	1,477.0	1,462.2	1,448.5	1,438.2	1,432.1	1,423.6	1,413.0
Computer and peripheral equipment........................	286.2	249.8	253.3	250.2	248.2	243.9	243.3	242.0	241.8	241.0	234.4	230.9	229.8	230.5	226.7
Communications equipment..	233.9	190.9	194.1	190.8	189.0	187.1	186.0	185.5	182.0	180.1	177.6	177.8	176.5	175.5	174.4
Semiconductors and electronic components........	645.4	531.4	539.7	535.1	531.1	525.5	519.2	513.9	507.6	503.7	498.8	496.0	494.1	492.0	487.7
Electronic instruments...........	475.1	450.6	453.3	452.3	448.8	447.2	445.8	444.1	442.5	441.3	441.4	438.7	436.5	433.5	431.5
Electrical equipment and appliances...........................	556.9	498.9	501.7	499.6	500.4	494.9	492.0	489.1	486.8	485.2	482.4	479.8	477.5	474.8	469.3
Transportation equipment........	1,937.9	1,825.5	1,836.4	1,832.9	1,827.8	1,824.0	1,818.0	1,815.5	1,808.7	1,804.7	1,806.5	1,800.7	1,792.5	1,771.9	1,777.6
Furniture and related products...........................	642.4	604.6	609.1	609.4	609.0	604.3	599.8	596.9	594.2	589.1	587.0	582.9	582.0	576.4	576.4
Miscellaneous manufacturing	714.5	691.9	693.0	692.1	692.2	691.4	690.9	688.3	691.1	687.9	686.0	684.5	683.0	682.0	677.8
Nondurable goods...................	6,107	5,789	5,800	5,793	5,793	5,761	5,761	5,743	5,729	5,704	5,700	5,680	5,671	5,648	5,632
Production workers...............	4,514	4,249	4,254	4,253	4,254	4,223	4,223	4,211	4,201	4,178	4,172	4,161	4,133	4,112	4,098
Food manufacturing.................	1,551.2	1,525.1	1,523.7	1,523.8	1,520.3	1,514.5	1,518.0	1,520.0	1,520.0	1,518.5	1,517.1	1,514.7	1,513.3	1,512.3	1,512.4
Beverage and tobacco products...........................	209.0	205.4	207.4	206.8	206.0	205.0	205.3	203.1	200.2	200.2	199.0	198.2	196.1	194.6	195.4
Textile mills............................	332.9	293.2	294.1	293.0	294.2	291.3	289.6	287.5	286.8	284.9	285.2	283.7	281.6	277.8	272.7
Textile product mills.................	205.7	196.1	197.0	196.3	196.1	195.6	195.2	195.4	195.9	193.7	191.7	192.6	192.6	190.6	188.7
Apparel.................................	426.5	357.6	361.2	361.5	357.9	354.2	352.0	346.7	343.2	337.2	331.8	325.9	322.1	318.4	313.2
Leather and allied products.....	58.0	49.9	50.6	49.9	51.5	48.9	48.7	48.6	47.7	47.3	46.7	46.0	45.8	44.8	44.4
Paper and paper products.......	577.6	549.8	550.9	550.4	549.5	548.9	547.7	545.6	544.6	541.5	539.7	538.5	535.1	534.1	531.9
Printing and related support activities............................	768.4	709.9	713.1	710.5	709.4	704.2	702.4	701.3	697.5	689.8	694.5	694.6	696.4	694.8	695.3
Petroleum and coal products...	121.1	119.1	118.7	118.3	118.7	118.6	119.2	118.7	119.4	119.7	120.4	120.4	120.3	119.2	119.3
Chemicals.............................	959.0	929.5	930.1	929.2	928.4	926.7	930.5	925.1	924.7	925.8	926.0	924.2	922.5	921.7	920.6
Plastics and rubber products..	897	854	853	854	861	853	852	851	850	845	848	847	845	839	838
RVICE-PROVIDING....................	107,952	107,757	107,744	107,744	107,616	107,697	107,792	107,973	108,000	107,875	108,068	108,044	107,925	107,943	107,888
RIVATE SERVICE-PROVIDING.........................	86,834	86,267	86,240	86,252	86,168	86,218	86,266	86,429	86,460	86,319	86,492	86,456	86,378	86,417	86,404
ade, transportation, and utilities............................	25,983	25,493	25,536	25,530	25,513	25,458	25,430	25,439	25,406	25,378	25,376	25,346	25,338	25,321	25,282
Wholesale trade......................	5,772.7	5,641.0	5,650.7	5,649.8	5,641.5	5,624.4	5,625.2	5,618.9	5,604.9	5,603.9	5,596.0	5,596.2	5,594.0	5,590.8	5,582.0
Durable goods.......................	3,130	3,007	3,013.6	3,011.6	3,006.1	2,991.1	2,995.7	2,990.8	2,984.3	2,978.7	2,967.9	2,967.0	2,961.2	2,957.7	2,952.2
Nondurable goods..............	2,031	2,015	2016.7	2018.2	2017.2	2015.7	2013.3	2010.1	2004.3	2009.6	2011.5	2010.7	2013.6	2013.3	2009.9
Electronic markets and agents and brokers............	611.1	618.8	620.4	620.0	618.2	617.6	616.2	618.0	616.3	615.6	616.6	618.5	619.2	619.8	619.9
Retail trade............................	15,236.6	15,047.2	15,069.0	15,065.0	15,061.9	15,033.3	15,016.0	15,025.2	15,014.0	15,005.6	15,009.2	14,987.3	14,994.7	14,999.6	14,979.0
Motor vehicles and parts dealers1.............................	1,854.6	1,879.2	1,881.4	1,883.3	1,884.2	1,883.2	1,882.6	1,886.8	1,883.8	1,878.9	1,876.8	1,874.9	1,875.5	1,875.4	1,879.2
Automobile dealers...............	1,225.1	1,250.4	1,251.7	1,251.1	1,252.4	1,252.4	1,253.0	1,254.9	1,255.0	1,249.6	1,245.5	1,242.1	1,241.5	1,242.0	1,244.3
Furniture and home furnishings stores.............	541.2	539.8	536.1	537.8	540.2	541.8	543.5	546.8	548.7	548.4	549.9	552.0	547.6	549.2	545.4
Electronics and appliance stores..............................	554.5	528.8	526.7	527.6	527.0	525.0	524.6	526.4	529.3	529.8	531.6	526.9	524.8	525.2	523.8

See notes at end of table.

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

[In thousands]

Industry	Annual average		2002								2003				
	2001	2002	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Building material and garden supply stores.........................	1,151.8	1,179.1	1,181.3	1,182.6	1,186.9	1,185.2	1,182.2	1,184.2	1,184.2	1,183.9	1,190.6	1,183.6	1,181.8	1,189.0	1,188.5
Food and beverage stores.......	2,950.5	2,871.6	2,878.1	2,872.0	2,858.7	2,857.1	2,851.7	2,852.5	2,842.5	2,833.5	2,827.0	2,820.2	2,822.9	2,822.0	2,822.5
Health and personal care stores.................................	951.5	946.6	943.0	944.7	947.0	947.7	949.7	949.2	949.5	952.5	956.8	960.1	962.6	966.2	965.7
Gasoline stations..................	925.3	903.6	902.7	902.4	902.9	902.2	903.6	903.6	903.7	904.2	905.2	905.0	907.1	910.9	908.8
Clothing and clothing accessories stores	1,321.1	1,307.8	1,308.3	1,307.8	1,313.0	1,311.7	1,304.4	1,307.4	1,304.5	1,308.5	1,291.2	1,279.7	1,282.8	1,288.3	1,280.7
Sporting goods, hobby, book, and music stores........	679.2	660.1	667.9	668.4	665.6	662.7	657.8	655.3	650.1	637.8	653.5	652.6	650.8	646.3	645.2
General merchandise stores1.	2,842.2	2,820.7	2,834.6	2,827.5	2,828.3	2,809.0	2,809.2	2,809.1	2,817.5	2,827.6	2,834.2	2,838.8	2,846.4	2,835.8	2,833.1
Department stores..............	1,768.3	1,709.8	1,714.2	1,706.8	1,705.7	1,695.0	1,694.5	1,696.6	1,712.0	1,727.5	1,720.9	1,718.6	1,710.6	1,695.5	1,690.3
Miscellaneous store retailers...	993.3	962.5	960.6	963.7	962.1	961.0	960.8	960.8	957.2	954.6	952.4	949.1	949.8	948.6	944.1
Nonstore retailers..................	473.5	447.3	448.3	447.2	446.0	446.7	445.9	443.1	443.0	445.9	440.0	444.4	442.6	442.7	442.0
Transportation and warehousing.................	4,372.0	4,205.3	4,215.2	4,214.4	4,209.0	4,200.4	4,188.4	4,194.6	4,188.9	4,170.7	4,174.6	4,166.7	4,153.8	4,136.3	4,129.0
Air transportation.................	615.3	559.3	562.4	565.2	564.0	561.1	559.0	556.3	556.3	553.9	551.3	545.8	537.3	525.6	516.4
Rail transportation................	226.7	218.1	217.5	215.0	216.1	216.3	215.5	215.1	216.8	216.3	215.7	215.3	215.3	216.5	216.1
Water transportation.............	54.0	51.6	52.4	51.3	50.7	50.8	50.4	50.4	50.3	50.3	50.6	50.5	50.1	49.9	50.3
Truck transportation..............	1,386.8	1,339.1	1,342.7	1,339.9	1,334.5	1,332.9	1,330.4	1,336.2	1,333.2	1,331.9	1,327.6	1,324.3	1,328.1	1,324.4	1,324.4
Transit and ground passenger transportation..................	374.8	371.5	375.0	374.0	377.4	372.7	364.7	365.1	363.3	360.8	358.0	357.5	651.9	353.0	350.4
Pipeline transportation...........	45.4	41.5	41.9	41.5	41.1	40.7	40.5	40.4	40.2	40.2	40.0	39.8	40.2	40.3	40.3
Scenic and sightseeing transportation..................	29.1	25.9	25.8	26.2	26.7	26.9	26.7	26.2	25.7	25.6	24.0	25.6	27.1	28.5	29.1
Support activities for transportation..................	539.2	526.7	524.9	531.1	528.2	527.6	525.1	528.1	528.2	531.2	527.7	527.9	525.9	522.7	527.8
Couriers and messengers......	587.0	558.0	561.8	559.4	559.0	556.8	558.6	557.5	556.3	545.0	561.4	558.9	563.3	561.6	560.8
Warehousing and storage......	513.8	513.6	510.8	510.8	511.3	514.6	517.5	519.3	518.6	515.5	518.3	521.1	514.6	513.8	512.9
Utilities.............................	599.4	599.8	600.7	600.9	600.5	600.0	600.1	600.6	598.3	597.3	596.4	595.9	595.3	594.6	592.3
Information...........................	3629	3420	3434	3424	3410	3410	3383	3392	3382	3353	3328	3308	3305	3303	3294
Publishing industries, except Internet........................	1,020.7	964.4	968.4	967.3	967.6	966.9	965.1	964.7	962.6	962.2	954.0	955.3	953.5	950.8	947.2
Motion picture and sound recording industries.............	376.8	387.1	389.5	389.8	386.0	387.1	384.0	394.7	394.3	381.6	377.8	367.0	369.3	371.1	373.4
Broadcasting, except Internet..	344.6	333.8	334.3	335.0	333.2	332.0	330.5	330.3	331.0	332.1	327.2	325.0	325.7	325.0	324.4
Internet publishing and broadcasting......................	45.5	34.8	34.8	34.7	34.3	34.9	33.9	34.2	33.0	32.9	33.0	33.3	33.6	33.8	33.5
Telecommunications.............	1,302.1	1,200.9	1,211.5	1,203.2	1,195.4	1,188.8	1,180.2	1,177.7	1,174.9	1,162.5	1,158.7	1,151.4	1,146.9	1,145.0	1,138.1
ISPs, search portals, and data processing..................	493.6	447.4	448.4	446.9	445.2	444.5	443.1	444.0	439.1	435.8	430.3	429.5	430.4	431.3	434.4
Other information services......	46.1	46.6	46.8	46.8	47.8	47.2	46.3	46.5	46.9	45.8	46.5	46.3	46.0	46.0	45.5
Financial activities.............	7,807	7,843	7,825	7,830	7,830	7,830	7,851	7,872	7,880	7,889	7,902	7,916	7,930	7,956	7,971
Finance and insurance............	5773.1.	5,814.9	5,798.1	5,799.3	5,802.2	5,804.0	5,820.8	5,841.1	5,851.1	5,861.0	5,872.4	5,885.2	5,894.8	5,912.0	5,923.2
Monetary authorities— central bank....................	23.0	23.1	23.3	23.2	23.2	23.1	23.0	22.9	23.0	22.7	22.7	22.3	22.3	22.2	22.2
Credit intermediation and related activities1..............	2,597.7	2,682.3	2,663.8	2,667.9	2,677.5	2,682.3	2,696.5	2,714.0	2,722.8	2,729.1	2,734.9	2,741.9	2,752.3	2,765.8	2,781.8
Depository credit intermediation1................	1,701.2	1,738.2	1,735.0	1,735.3	1,737.7	1,739.6	1,741.4	1,745.6	1,748.3	1,751.3	1,755.1	1,751.1	1,762.3	1,764.4	1,767.9
Commercial banking.........	1,258.4	1,284.7	1,282.9	1,283.0	1,284.3	1,285.3	1,285.7	1,288.8	1,291.2	1,292.8	1,296.1	1,297.5	1,300.4	1,300.6	1,302.4
Securities, commodity contracts, investments.........	830.5	800.8	804.0	803.4	797.2	795.7	797.6	796.9	798.2	799.4	802.3	803.1	799.3	798.8	796.9
Insurance carriers and related activities.................	2,233.7	2,223.1	2,220.9	2,219.3	2,219.1	2,218.5	2,219.0	2,222.2	2,222.7	2,225.7	2,228.5	2,233.9	2,236.8	2,241.8	2,239.1
Funds trusts, and other financial vehicles...............	88.3	85.6	86.1	85.5	85.2	84.4	84.7	85.1	84.4	84.1	84.0	84.0	84.1	83.4	82.9
Real estate and rental and leasing......................	2,034.5	2,027.8	2,027.3	2,031.0	2,028.1	2,026.0	2,030.4	2,031.1	2,029.2	2,028.3	2,029.2	2,030.6	2,034.7	2,044.2	2,047.8
Real estate........................	1,339.5	1,347.7	1,343.7	1,345.0	1,342.2	1,342.3	1,350.7	1,354.4	1,357.3	1,355.7	1,353.8	1,356.9	1,359.9	1,366.4	1,367.3
Rental and leasing services	666.3	652.3	655.3	657.1	656.9	655.7	652.1	648.9	644.9	645.8	648.7	646.7	647.0	649.4	651.4
Lessors of nonfinancial intangible assets.................	28.7	27.8	28.3	28.9	29.0	28.0	27.6	27.8	27.0	26.8	26.7	27.0	27.8	28.4	29.1
Professional and business services.........................	16,476	16,010	16,035	16,026	15,973	16,008	16,008	16,036	16,014	15,972	16,015	16,043	15,980	15,989	16,002
Professional and technical services1........................	6,902.2	6,715.0	6,708.0	6,693.6	6,690.5	6,704.8	6,714.8	6,738.3	6,731.9	6,716.9	6,745.3	6,790.5	6,758.4	6,742.2	6,698.1
Legal services..................	1,091.3	1,111.8	1,109.9	1,108.3	1,107.8	1,111.0	1,116.2	1,121.7	1,120.6	1,120.2	1,119.8	1,124.1	1,125.7	1,127.5	1,125.6
Accounting and bookkeeping services.........................	872.2	867.1	875.3	868.9	867.3	873.1	876.4	882.7	884.3	872.6	910.6	941.2	913.5	899.3	866.0
Architectural and engineering services.........................	1,274.7	1,251.1	1,251.2	1,247.8	1,247.7	1,248.5	1,248.8	1,251.3	1,252.1	1,252.5	1,238.6	1,247.9	1,246.0	1,242.9	1,241.4

See notes at end of table.

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

[In thousands]

Industry	Annual average		2002								2003				
	2001	2002	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Computer systems design and related services..........	1,297.8	1,162.7	1,161.9	1,157.9	1,162.1	1,154.5	1,150.7	1,153.4	1,150.1	1,142.7	1,142.8	1,144.3	1,144.5	1,151.9	1,146.6
Management and technical consulting services	746.2	731.8	729.9	727.1	723.6	735.8	736.1	734.0	733.4	739.8	734.8	736.2	735.5	732.9	734.0
Management of companies and enterprises....................	1,779.0	1,711.0	1,710.3	1,712.5	1,707.3	1,704.6	1,706.0	1,703.9	1,699.0	1,694.2	1,696.8	1,697.1	1,697.9	1,697.0	1,696.0
Administrative and waste services....................	7,794.9	7,583.8	7,617.1	7,620.3	7,574.7	7,598.2	7,587.3	7,594.0	7,583.0	7,561.0	7,572.9	7,555.7	7,523.3	7,549.4	7,608.3
Administrative and support services1....................	7,477.6	7,266.8	7,300.8	7,303.5	7,257.4	7,281.6	7,273.6	7,279.2	7,271.1	7,244.9	7,255.5	7,239.9	7,207.8	7,230.5	7,288.6
Employment services1........	3,437.1	3,248.8	3,273.2	3,283.4	3,246.5	3,268.8	3,255.2	3,260.8	3,256.8	3,259.2	3,292.7	3,287.8	3,245.9	3,242.2	3,291.7
Temporary help services.....	2,337.7	2,185.7	2,214.4	222.3	2,172.8	2,219.1	2,202.1	2,192.6	2,174.4	2,159.4	2,170.2	2,151.6	2,135.9	2,131.2	2,177.6
Business support services..	779.7	757.0	759.1	747.3	747.8	743.0	742.8	749.1	755.8	757.0	746.1	743.8	746.5	748.1	747.9
Services to buildings and dwellings....................	1,606.2	1,597.3	1,596.3	1,600.8	1,604.3	1,604.6	1,611.0	1,606.7	1,601.0	1,591.7	1,585.8	1,580.4	1,576.4	1,587.4	1,596.3
Waste management and remediation services..........	317.3	316.9	316.3	316.8	317.3	316.6	313.7	314.8	311.9	316.1	317.4	315.8	315.5	318.9	319.7
Educational and health services.................	15,645	16,184	16,130	16,183	16,194	16,241	16,273	16,315	16,357	16,373	16,504	16,430	16,452	16,483	16,509
Educational services...............	2,510.6	2,650.6	2,641.4	2,659.5	2,662.5	2,665.5	2,671.3	2,681.3	2,690.3	2,695.1	2,700.0	2,707.4	2,711.5	2,708.8	2718.1
Health care and social assistance....................	13,134.0	13,533.2	13,488.6	13,523.4	13,531.9	13,575.4	13,601.4	13,633.3	13,666.5	13,677.5	13,704.5	13,722.6	13,740.5	13,774.2	13,791
Ambularory health care services1....................	4,461.5	4,633.4	4,612.2	4,621.7	4,624.9	4,649.4	4,675.0	4,692.0	4,708.5	4,712.5	4,718.5	4,727.6	4,739.1	4,753.7	4,764.8
Offices of physicians............	1,911.2	1,982.6	1,967.9	1,971.8	1,984.7	1,993.0	2,001.3	2,009.0	2,017.7	2,022.1	2,023.4	2,031.5	2,037.4	2,041.7	2,045.9
Outpatient care centers.........	399.7	409.7	409.1	407.7	409.3	409.5	411.1	412.2	412.3	412.2	412.0	411.8	412.1	412.8	413.1
Home health care services....	638.6	675.1	672.8	678.1	672.3	674.5	681.9	687.9	689.6	693.0	694.2	693.0	698.6	702.9	705.3
Hospitals....................	4,050.9	4,153.1	4,141.6	4,149.7	4,159.6	4,165.4	4,173.7	4,179.0	4,187.0	4,190.4	4,197.8	4,204.7	4,210.9	4,214.0	4,218.1
Nursing and residential care facilities1....................	2,675.8	2,743.2	2,737.0	2,739.3	2,740.8	2,746.1	2,751.7	2,757.1	2,763.4	2,766.1	2,770.1	2,770.8	2,776.4	2,784.4	2,787.9
Nursing care facilities...........	1,546.8	1,573.7	1,571.9	1,572.4	1,573.4	1,575.0	1,579.6	1,580.8	1,580.9	1,579.2	1,582.0	1,582.5	1,582.7	1,586.2	1,587.0
Social assistance1................	1,945.9	2,003.5	1,997.8	2,012.7	2,006.6	2,014.5	2,001.0	2,005.2	2,007.6	2,008.5	2,018.1	2,019.5	2,014.1	2,022.1	2,019.9
Child day care services........	714.6	734.2	730.3	743.2	769.3	740.8	727.5	726.2	725.9	725.2	727.1	729	724.5	724.9	724.9
Leisure and hospitality...........	12,036	11,969	11,922	11,904	11,918	11,940	11,975	12,032	12,069	12,019	12,132	12,084	12,050	12,043	12,026
Arts, entertainment, and recreation....................	1,824.4	1,778.0	1,758.3	1,749.9	1,741.4	1,751.2	1,772.9	1,790.1	1,806.2	1,817.8	1,835.6	1,809.5	1,781.8	1,764.8	1,759.2
Performing arts and spectator sports....................	382.3	357.9	351.9	342.1	330.7	342.9	353.6	360.9	369.1	367.2	358.7	358.4	359.0	356.7	348.8
Museums, historical sites, zoos, and parks....................	115.0	112.5	112.9	113.0	112.0	110.7	111.4	111.2	111.2	110.5	111.6	111.2	109.9	108.4	109.8
Amusements, gambling, and recreation....................	1,327.1	1,307.6	1,293.5	1,294.8	1,298.7	1,297.6	1,307.9	1,318.0	1,325.9	1,340.1	1,365.3	1,339.9	1,312.9	1,299.7	1,300.0
Accommodations and food services....................	10,211.3	10,191.2	10,164	10,154	10,176	10,189	10,202	10,242	10,263	10,201	10,296	10,275	10,268	10,279	10,267
Accommodations..................	1,852.2	1,779.4	1,773.9	1,767.4	1,759.1	1,762.4	1,778.2	1,789.1	1,802.3	1,805.2	1,812.0	1,801.7	1,788.4	1,769.0	1,763.6
Food services and drinking places....................	8,359.1	8,411.7	8,389.8	8,386.5	8,417.3	8,426.8	8,423.5	8,452.5	8,460.6	8,395.6	8,484.1	8,473.1	8,479.3	8,509.6	8,503.1
Other services....................	5,258	5,348	5,358	5,355	5,330	5,340	5,346	5,343	5,352	5,333	5,334	5,329	5,323	5,322	5,320
Repair and maintenance........	1,256.5	1,240.6	1,243.4	1,246.5	1,240.0	1,237.5	1,233.4	1,230.4	1,236.3	1,224.3	1,218.6	1,215.3	1,213.8	1,215.6	1,215.1
Personal and laundry services	1,255.0	1,246.7	1,252.4	1,251.1	1,247.0	1,247.5	1,240.0	1,237.5	1,236.2	1,232.7	1,235.0	1,234.8	1,229.5	1,227.0	1,226.3
Membership associations and organizations....................	2,746.4	2,860.7	2,862.2	2,857.6	2,843.3	2,854.8	2,871.9	2,875.3	2,879.7	2,878.2	2,879.4	2,879.0	2,880.0	2,879.1	2,878.7
Government...........................	21,118	21,489	21,504	21,492	21,448	21,479	21,526	21,544	21,540	21,556	21,576	21,588	21,547	21,526	21,484
Federal....................	2,764	2,767	2,780	2,779	2,761	2,765	2,774	2,781	2,782	2,778	2,786	2,791	2,789	2,769	2,761
Federal, except U.S. Postal Service	1,891.0	1,922.5	1,909.6	1,916.6	1,920.1	1,926.9	1,937.7	1,947.5	1,954.2	1,956.4	1,960.3	1,966.2	1,964.8	1,946.0	1,937.0
U.S. Postal Service	873.0	844.8	870.7	861.9	840.8	838.4	836.1	833.6	827.3	821.7	825.3	824.8	823.9	823.0	823.6
State....................	4,905	5,006	5,023	5,019	5,015	5,013	4,993	4,984	4,983	4,984	4,974	4,979	4,958	4,952	4,941
Education....................	2,112.9	2,218.8	2,231.0	2,234.3	2,236.4	2,232.5	2,212.5	2,203.0	2,203.0	2,202.5	2,196.8	2,205.1	2,188.7	2,156.5	2,180.8
Other State government..........	2,791.8	2,787.4	2,292.1	2,784.3	2,778.8	2,780.3	2,780.5	2,780.8	2,780.0	2,781.0	2,777.3	2,773.4	2,769.7	2,765.3	2,759.9
Local....................	13,449	13,716	13,701	13,694	13,672	13,701	13,759	13,779	13,775	13,794	13,816	13,818	13,800	13,805	13,782
Education....................	7,479.3	7,657.2	7,639.3	7,648.2	7,661.3	7,673.7	7,683.9	7,691.5	7,697.0	7,698.1	7,708.5	7,712.4	7,693.6	7,703.5	7,689.1
Other local government...........	5,970.0	6,058.5	6,061.7	6,046.2	6,011.0	6,027.3	6,075.1	6,087.7	6,077.9	6,095.8	6,107.6	6,105.7	6,106.5	6,101.1	6,092.6

1 Data include other industries, not shown separately.

NOTE: Data reflect the conversion to the 2002 version of the North American industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC-based data. 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		2002								2003				
	2001	2002	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
TOTAL PRIVATE.............................	34.0	33.9	33.9	34.0	33.8	33.9	33.9	33.8	33.8	33.8	33.8	33.7	33.8	33.7	33.7
GOODS-PRODUCING1........................	39.9	39.9	39.9	40.1	39.8	39.9	40.0	39.7	39.7	39.8	40.0	39.6	39.9	39.5	39.7
Natural resources and mining............	44.6	43.2	43.2	43.4	43.0	43.3	43.0	43.0	42.3	43.0	43.1	43.3	44.2	43.4	43.8
Construction.....................................	38.7	38.4	38.2	38.5	38.2	38.5	38.7	38.2	38.0	38.2	38.9	37.6	38.7	37.9	38.5
Manufacturing...................................	40.3	40.5	40.6	40.7	40.4	40.5	40.5	40.3	40.4	40.5	40.4	40.4	40.4	40.1	40.2
Overtime hours............................	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.3	4.3	4.4	4.3	4.1	4.0	4.0
Durable goods..................................	40.6	40.8	40.8	41.0	40.6	40.7	40.8	40.6	40.6	40.9	40.8	40.7	40.6	40.3	40.6
Overtime hours............................	3.9	4.2	4.2	4.2	4.2	4.2	4.2	4.3	4.3	4.3	4.4	4.3	4.1	4.0	4.1
Wood products.............................	40.2	39.9	39.9	40.0	39.8	39.8	39.9	39.9	39.8	39.9	40.0	39.9	40.1	40.0	39.9
Nonmetallic mineral products..............	41.6	42.0	42.0	42.6	42.1	42.1	42.0	41.9	41.6	41.9	42.1	42.0	42.6	42.0	42.4
Primary metals.............................	42.4	42.4	42.6	42.8	42.2	42.3	42.1	42.4	42.2	42.6	42.4	42.5	42.6	42.2	42.3
Fabricated metal products..................	40.6	40.6	40.7	40.8	40.7	40.7	40.7	40.6	40.4	40.5	40.6	40.5	40.5	40.3	40.7
Machinery...................................	40.9	40.5	40.6	40.7	40.5	40.6	40.5	40.5	40.6	40.5	40.5	40.9	40.5	40.6	40.7
Computer and electronic products.....	39.8	39.7	39.7	40.0	39.3	39.6	40.3	39.3	40.2	40.5	39.9	39.8	40.3	40.1	40.6
Electrical equipment and appliances..	39.8	40.1	40.2	40.6	40.0	40.2	40.0	39.9	40.2	40.6	40.3	40.8	40.6	40.0	40.4
Transportation equipment..................	41.9	42.5	42.7	42.7	42.0	42.4	42.6	42.4	42.2	42.4	42.5	42.2	41.4	41.2	41.2
Furniture and related products...........	38.3	39.2	39.3	39.1	39.3	38.8	38.8	38.7	38.7	39.9	38.8	38.6	38.2	37.9	38.3
Miscellaneous manufacturing..............	38.8	38.6	38.6	39.3	38.5	38.4	38.5	38.8	38.6	38.8	38.9	38.6	38.3	38.0	38.1
Nondurable goods..............................	39.1	40.1	4.3	4.3	4.2	4.3	4.1	4.1	4.2	4.4	4.3	4.3	4.2	4.1	3.9
Overtime hours............................	4.1	4.2	4.3	4.3	4.2	4.3	4.3	4.1	4.2	4.4	4.3	4.3	4.2	4.1	4.0
Food manufacturing........................	39.6	39.6	39.7	39.8	39.6	39.6	39.4	39.4	39.5	39.4	39.1	39.1	39.6	39.4	39.4
Beverage and tobacco products.........	40.9	39.4	39.0	39.5	39.7	39.4	37.9	39.4	39.0	38.5	39.3	39.3	39.4	39.6	39.0
Textile mills.................................	40.0	40.7	41.1	40.9	40.8	40.5	40.2	40.0	40.1	40.4	39.2	40.0	39.5	39.1	38.5
Apparel.......................................	36.0	36.7	36.9	37.1	37.2	36.9	36.9	35.8	36.5	36.3	36.2	36.0	35.9	35.6	35.4
Leather and allied products................	36.4	37.5	'37.1	37.2	37.2	37.9	37.9	38.5	38.9	39.0	39.3	39.4	39.7	39.3	39.1
Paper and paper products...............	42.1	41.9	42.2	42.0	41.8	41.9	41.8	41.5	41.5	41.8	41.6	41.8	41.8	41.6	41.4
Printing and related support activities....................................	38.7	38.4	38.5	38.6	38.2	38.5	38.4	38.5	38.4	38.5	38.5	38.3	38.5	38.0	37.9
Petroleum and coal products............	43.8	43.0	42.7	43.1	42.7	42.7	42.9	43.5	43.6	44.0	43.9	45.1	45.8	44.3	44.2
Chemicals....................................	41.9	42.3	42.2	42.4	42.2	42.5	42.5	42.5	42.6	42.3	42.3	42.8	42.7	42.4	41.9
Plastics and ruber products..............	40.0	40.6	40.8	40.9	40.6	40.7	40.4	40.5	40.3	40.3	40.2	40.3	40.2	40.0	40.3
PRIVATE SERVICE-PROVIDING2.............................	32.5	32.5	32.5	32.5	32.4	32.5	32.6	32.5	32.5	32.5	32.4	32.4	32.5	32.4	32.4
Trade, transportation, and utilities......................................	33.5	33.6	33.7	33.7	33.5	33.5	33.7	33.6	33.6	33.5	33.5	33.6	33.6	33.6	33.7
Wholesale trade............................	38.4	38.0	38.0	38.2	37.9	38.0	38.0	37.8	37.9	37 .8	37.6	37.7	37.8	37.8	37.8
Retail trade..................................	30.7	30.9	31.0	31.0	30.9	30.8	30.9	30.9	30.8	30.8	30.8	30.7	30.9	30.8	30.8
Transportation and warehousing.........	36.7	36.8	36.8	36.8	36.6	36.6	37.1	36.9	37.0	37.0	36.9	36.7	36.8	36.5	36.5
Utilities.......................................	41.4	40.9	41.1	41.0	40.8	40.9	41.0	41.0	41.1	41.2	41.2	41.2	41.4	41.0	40.9
Information....................................	36.9	36.5	36.7	36.8	36.4	36.4	36.3	36.5	36.6	36.4	35.9	36.2	36.3	36.2	36.4
Financial activities..........................	35.8	35.6	35.6	35.6	35.5	35.6	35.6	35.5	35.6	35.7	35.6	35.6	35.6	35.5	35.6
Professional and business services....................................	34.2	34.2	34.2	34.2	34.0	34.2	34.4	34.2	34.2	34.2	34.3	34.3	34.2	34.0	34.1
Education and health services............	32.3	32.4	32.4	32.5	32.4	32.6	32.5	32.5	32.5	32.4	32.5	32.5	32.5	32.5	32.5
Leisure and hospitality......................	25.8	25.8	25.7	25.7	25.6	25.7	25.9	25.9	25.9	25.8	25.8	25.6	25.7	25.6	25.6
Other services................................	32.3	32.0	32.0	32.1	32.0	32.0	32.1	32.0	32.0	31.9	31.8	31.9	31.9	31.8	31.8

[1] Data relate to production workers in natural resources and mining and manufacturing and to construction workers in construction.

[2] Data relate to nonsupervisory workers.

NOTE: Data reflect the conversion to the 2002 version of the North American Industry Classification System (NAICS), replacing the Standard industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC-based data. See "Notes on the data" for a description of the most recent benchmark revision.

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

Industry	Annual average		2002								2003				
	2001	2002	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
TOTAL PRIVATE															
Current dollars..........................	$14.53	$14.95	$14.86	$14.93	$14.97	$15.02	$15.05	$15.10	$15.14	$15.20	$15.22	$15.29	$15.29	$15.30	$15.35
Constant (1982) dollars..............	8.11	8.24	8.21	8.23	8.23	8.42	8.42	8.26	8.27	8.30	8.28	8.26	8.22	8.27	8.31
GOODS-PRODUCING1............................	15.78	16.33	16.25	16.29	16.31	16.38	16.44	16.48	16.52	16.60	16.63	16.65	16.68	16.71	16.76
Natural resources and mining............	17.00	17.22	17.17	17.17	17.16	17.27	17.29	17.21	17.48	17.37	17.45	17.45	17.54	17.67	17.55
Construction...	18.00	18.51	18.42	18.45	18.55	18.57	18.65	18.66	18.69	18.81	18.77	18.84	18.83	18.90	18.95
Manufacturing......................................	14.76	15.29	15.23	15.27	15.27	15.34	15.38	15.45	15.48	15.55	15.59	15.63	15.64	15.63	15.68
Excluding overtime.........................	14.06	14.54	14.48	14.52	14.52	14.58	14.62	14.68	14.70	14.77	14.78	14.84	14.88	14.89	14.92
Durable goods..............................	15.38	16.01	15.96	15.99	15.97	16.08	16.12	16.19	16.25	16.28	16.33	16.35	16.34	16.33	16.37
Nondurable goods..........................	13.75	14.15	14.09	14.13	14.17	14.19	14.22	14.29	14.29	14.41	14.44	14.50	14.55	14.56	14.61
PRIVATE SERVICE-															
PROVIDING2....................................	14.16	14.56	14.47	14.54	14.59	14.63	14.67	14.72	14.76	14.81	14.82	14.92	14.91	14.91	14.97
Trade,transportation, and															
utilities......................................	13.70	14.02	13.96	14.01	14.01	14.06	14.10	14.13	14.17	14.19	14.21	14.29	14.26	14.24	14.31
Wholesale trade................................	16.77	16.97	16.94	16.94	16.95	17.02	17.05	17.09	17.14	17.13	17.16	17.25	17.22	17.25	17.29
Retail trade...	11.29	11.67	11.61	11.66	11.67	11.71	11.75	11.77	11.79	11.83	11.85	11.88	11.85	11.83	11.89
Transportation and warehousing.......	15.33	15.77	15.69	15.76	15.78	15.80	15.83	15.92	16.02	16.02	16.05	16.22	16.22	16.18	16.25
Utilities...	23.58	23.94	23.85	23.99	23.95	24.08	24.09	23.96	24.02	24.09	24.05	24.19	24.36	24.33	24.48
Information....................................	19.80	20.23	20.11	20.32	20.20	20.13	20.43	20.49	20.55	20.74	20.70	20.79	20.90	20.97	21.09
Financial activities..........................	15.59	16.17	15.99	16.10	16.21	16.34	16.40	16.51	16.51	16.56	16.69	16.77	16.78	16.93	17.02
Professional and business															
services....................................	16.33	16.81	16.67	16.78	16.88	16.86	16.89	16.99	17.04	17.09	17.02	17.17	17.20	17.23	17.24
Education and health															
services....................................	14.64	15.22	15.09	15.15	15.23	15.33	15.36	15.42	15.45	15.52	15.57	15.61	15.63	15.57	15.64
Leisure and hospitality......................	8.35	8.57	8.54	8.56	8.59	8.60	9.61	8.62	8.66	8.73	8.71	8.77	8.72	8.71	8.73
Other services..................................	13.27	13.72	13.62	13.69	13.75	13.80	13.81	13.86	13.89	13.94	13.98	14.03	14.02	13.98	13.97

[1] Data relate to production workers in natural resources and mining and manufacturing and to construction workers in construction.

[2] Data relate to nonsupervisory workers.

NOTE: Data reflect the conversion to the 2002 version of the North American industry Classification System (NAICS), replacing the Standard Industrial Classification (SIC) system. NAICS-based data by industry are not comparable with SIC-based data.

See "Notes on the data" for a description of the most recent benchmark revision. Dash indicates data not available.

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

Industry	Annual average		2002								2003				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
TOTAL PRIVATE......................	$14.53	$14.95	$14.83	$14.88	$14.86	$14.92	$15.11	$15.12	$15.16	$15.26	$15.27	$15.35	$15.34	$15.31	$15.30
Seasonally adjusted...................	–	–	14.86	14.93	14.97	15.02	15.05	15.10	15.14	15.20	15.22	15.29	15.29	15.30	15.35
GOODS-PRODUCING1...........................	15.78	16.33	16.20	16.27	16.37	16.42	16.53	16.55	16.55	16.66	16.56	16.54	16.59	16.66	16.71
Natural resources and mining	17.00	17.22	17.13	17.10	17.18	17.18	17.32	17.25	17.45	17.40	17.49	17.43	17.58	17.76	17.53
Construction.....................	18.00	18.51	18.31	18.38	18.60	18.64	18.79	18.79	18.70	18.90	18.68	18.69	18.73	18.83	18.85
Manufacturing................................	14.76	15.29	15.20	15.24	15.23	15.30	15.41	15.45	15.51	15.65	15.61	15.62	15.62	15.63	15.64
Durable goods............................	15.38	16.01	15.92	15.97	15.88	16.04	16.16	16.20	16.29	16.39	16.34	16.34	16.33	16.30	16.34
Wood products	12.49	12.33	12.27	12.33	12.44	12.42	12.42	12.37	12.43	12.49	12.52	12.51	12.51	12.48	12.56
Nonmetallic mineral products	14.86	15.39	15.37	15.47	15.53	15.44	15.54	15.59	15.46	15.55	15.62	15.48	15.52	15.69	15.72
Primary metals	17.06	17.68	17.55	17.62	17.83	17.69	17.84	17.93	17.99	18.09	18.05	17.96	17.86	18.03	17.97
Fabricated metal products	14.19	14.68	14.61	14.65	14.70	14.70	14.79	14.78	14.85	14.97	14.95	14.92	14.97	14.94	14.93
Machinery	15.49	15.93	15.86	15.91	15.89	15.92	16.05	15.97	16.06	16.20	16.11	16.16	16.19	16.20	16.24
Computer and electronic products ...	15.42	16.19	16.16	16.24	16.32	16.31	16.34	16.24	16.26	16.41	16.32	16.55	16.55	16.59	16.58
Electrical equipment and appliances ...	13.78	13.97	13.89	13.90	13.94	13.96	14.04	14.02	14.03	14.16	14.08	14.18	14.25	14.25	14.25
Transportation equipment	19.48	20.64	20.41	20.48	20.04	20.61	20.83	21.13	21.41	21.42	21.22	21.16	21.07	20.94	21.08
Furniture and related products	12.14	12.62	12.49	12.59	12.67	12.75	12.77	12.74	12.79	12.93	12.93	12.91	12.93	12.89	12.88
Miscellaneous manufacturing	12.46	12.91	12.82	12.87	12.99	12.99	13.05	13.01	13.06	13.08	13.12	13.14	13.22	13.20	13.19
Nondurable goods.........................	13.75	14.15	14.05	14.09	14.23	14.15	14.25	14.27	14.31	14.48	14.47	14.49	14.53	14.57	14.55
Food manufacturing	12.18	12.54	12.46	12.53	12.67	12.58	12.61	12.66	12.61	12.81	12.70	12.66	12.70	12.72	12.71
Beverages and tobacco products	17.67	17.68	17.81	17.74	17.71	17.40	17.61	17.62	17.60	18.04	17.68	17.53	17.69	17.70	17.94
Textile mills	11.40	11.73	11.72	11.72	11.82	11.80	11.76	11.70	11.71	11.83	11.99	11.92	11.92	11.95	11.96
Textile product mills	10.60	10.96	10.99	10.90	11.08	11.09	11.11	11.02	11.07	11.20	11.12	11.11	10.98	11.14	11.10
Apparel	8.82	9.10	9.07	9.05	9.14	9.13	9.16	9.15	9.19	9.30	9.30	9.33	9.45	9.47	9.48
Leather and allied products	10.69	11.01	10.97	10.91	11.11	11.00	10.87	11.01	11.23	11.51	11.53	11.62	11.62	11.76	11.69
Paper and paper products	16.38	16.89	16.85	16.89	17.13	16.92	17.09	17.09	17.09	17.26	17.21	17.22	17.22	17.38	17.39
Printing and related support activities	14.48	14.93	14.78	14.78	14.85	15.01	15.15	15.15	15.19	15.35	15.28	15.32	15.33	15.35	15.26
Petroleum and coal products	22.90	23.06	22.48	22.78	22.88	22.97	23.33	23.46	23.35	23.65	23.58	24.29	24.17	23.92	23.39
Chemicals	17.57	17.97	17.73	17.90	18.02	17.94	18.11	18.00	18.29	18.34	18.28	18.29	18.33	18.35	18.41
Plastics and rubber products	13.21	13.55	13.45	13.43	13.59	13.52	13.62	13.66	13.70	13.81	13.91	13.95	14.00	14.07	14.08
PRIVATE SERVICE-PROVIDING2	14.16	14.56	14.44	14.49	14.44	14.49	14.71	14.72	14.77	14.88	14.92	15.04	15.00	14.94	14.92
Trade, transportation and utilities..	13.70	14.02	13.96	13.99	13.92	13.98	14.17	14.13	14.12	14.12	14.24	14.36	14.34	14.31	14.28
Wholesale trade	16.77	16.97	16.90	16.93	16.89	16.94	17.12	17.05	17.14	17.22	17.18	17.32	17.29	17.26	17.23
Retail trade	11.29	11.67	11.62	11.65	11.60	11.64	11.81	11.78	11.73	11.76	11.88	11.92	11.90	11.90	11.88
Transportation and warehousing	15.33	15.77	15.66	15.74	15.75	15.79	15.86	15.94	16.03	16.04	16.02	16.26	16.23	16.21	16.19
Utilities	23.58	23.94	23.88	23.93	23.78	23.84	24.28	23.93	24.12	24.26	24.02	24.16	24.41	24.47	24.55
	19.80	20.23	20.02	20.22	20.00	20.00	20.56	20.59	20.67	20.90	20.79	20.88	20.88	20.98	21.02
Financial activities........................	15.59	16.17	15.98	16.10	16.07	16.25	16.47	16.48	16.49	16.64	16.70	16.95	16.89	16.93	16.96
Professional and business services...	16.33	16.81	16.59	16.82	16.77	16.68	16.91	16.89	17.01	17.28	17.14	17.40	17.36	17.21	17.19
Education and health services...	14.64	15.22	15.02	15.12	15.23	15.31	15.39	15.42	15.42	15.46	15.55	15.61	15.61	15.56	15.59
Leisure and hospitality	8.35	8.57	8.54	8.51	8.49	8.52	8.62	8.65	8.69	8.81	8.74	8.80	8.73	8.69	8.71
Other services...................................	13.27	13.72	13.66	13.70	13.68	13.74	13.84	13.86	13.88	14.01	14.00	14.02	14.02	13.99	13.99

[1] Data relate to production workers in natural resources and mining and manufacturing and to construction workers in construction.

[2] Data relate to nonsupervisory workers.

NOTE: Data reflect the conversion to the 2002 version of the North American Industry

NAICS-based data by industy are not comparable with SIC-based data. See "Notes on the data" for a description of the most recent benchmark revision. Classification System (NAICS), replacing the Standard Industrial Classifica-tion (SIC) system.

Dash indicates data not available.

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

Industry	Annual average		2002								2003				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
TOTAL PRIVATE															
Current dollars....................	493.20	506.22	501.25	511.87	503.75	510.26	516.76	511.06	510.89	520.37	510.01	517.30	518.49.	511.35	514.08
Seasonally adjusted..........	–	–	503.75	507.62	505.99	509.18	510.20	510.38	511.73	513.76	514.44	515.27	516.80	515.61	517.30
GOODS-PRODUCING1...............	630.04	651.60	646.38	657.31	649.89	660.08	667.81	662.00	657.04	668.07	654.12	645.06	658.62	654.74	665.06
Natural resources															
and mining.............................	757.92	743.11	738.30	752.40	738.74	750.77	753.42	748.65	732.90	748.20	743.33	747.75	777.00	765.46	771.32
Construction.............................	695.89	711.61	703.10	718.66	723.54	723.55	738.45	727.17	706.86	710.64	707.97	678.45	715.49	708.01	731.38
Manufacturing.......................	595.19	618.87	615.60	623.32	607.68	621.18	628.73	625.73	629.71	644.78	625.96	626.36	629.49	623.64	628.73
Durable goods......................	624.54	652.83	651.13	659.56	635.20	652.83	664.18	659.34	664.63	681.82	661.77	660.14	663.00	655.26	663.40
Wood products	481.36	491.98	494.48	500.60	493.87	499.28	504.25	497.27	490.99	499.60	490.78	490.39	497.90	497.95	504.91
Nonmetallic mineral products....	618.79	646.74	648.61	669.85	660.03	657.74	666.67	659.46	643.14	645.33	640.42	634.68	651.84	655.84	672.82
Primary metals.......................	723.95	749.08	745.88	757.66	745.29	746.52	758.20	758.44	762.78	783.30	765.32	759.71	760.84	760.87	760.13
Fabricated metal products.......	576.60	596.44	593.17	600.65	590.94	598.29	604.91	601.55	604.40	619.76	605.48	601.28	604.79	599.09	607.65
Machinery............................	632.77	645.81	645.50	649.13	635.60	644.76	650.03	645.19	653.64	670.68	650.84	657.71	658.93	654.48	662.59
Computer and electronic															
products..............................	613.07	642.86	635.09	651.22	631.58	642.61	661.77	639.86	660.16	681.02	647.90	657.04	668.62	660.28	669.83
Electrical equipment and applia															
appliances.........................	548.00	560.09	555.60	565.73	549.24	557.00	561.80	562.20	571.02	591.89	564.61	575.71	577.13	570.00	574.28
Transportation equipment........	817.08	877.84	877.63	886.78	813.62	875.93	895.69	898.03	901.36	921.06	895.48	886.60	874.41	864.82	872.71
Furniture and related															
products.............................	464.57	494.14	488.36	493.53	496.66	498.53	499.31	491.76	494.97	522.37	493.93	494.45	493.93	488.53	490.73
Miscellaneous															
manufacturing......................	483.44	499.09	496.13	505.79	493.62	498.82	503.73	506.09	506.73	515.35	505.12	504.58	508.97	500.28	502.54
Nondurable goods..................	548.41	567.11	562.00	569.24	566.35	570.25	575.70	572.23	576.69	586.44	571.57	572.36	579.75	575.52	574.73
Food manufacturing..................	481.67	496.78	490.92	497.44	500.47	503.20	506.92	505.13	505.66	513.68	491.49	487.41	496.57	493.54	496.96
Beverage and tobacco															
products.............................	721.68	697.09	701.71	716.70	711.94	690.78	679.75	695.99	689.92	699.95	675.38	669.65	686.37	695.61	703.25
Textile mills.........................	456.64	476.70	484.04	482.86	473.98	480.26	476.28	466.83	469.57	480.30	467.61	472.03	473.22	472.03	461.66
Textile product mills...............	408.56	429.49	433.01	438.18	431.01	435.84	431.07	426.47	426.20	449.12	431.46	429.96	431.51	431.12	427.35
Apparel.................................	317.15	333.77	335.59	340.28	339.09	338.72	338.00	327.57	337.27	338.52	332.01	333.08	340.20	336.19	336.54
Leather and allied products......	388.83	413.05	406.99	410.22	404.40	412.50	413.06	426.09	440.22	451.19	447.36	456.67	463.64	468.05	455.91
Paper and paper products.......	690.06	707.36	706.02	709.38	712.61	707.26	724.62	712.65	716.07	735.28	714.22	711.19	716.35	717.79	714.73
Printing and related															
support activities..................	560.89	573.42	564.60	566.07	562.82	580.89	590.85	586.31	587.85	597.12	580.64	582.16	591.74	580.23	573.78
Petroleum and coal															
products..............................	1,003.34	992.05	953.15	988.65	990.70	971.63	1,014.86	1,022.86	1,025.07	1,040.60	1,039.88	1,095.48	1,109.40	1,052.48	1,008.11
Chemicals...............................	735.54	759.57	748.21	762.54	756.84	760.66	773.30	765.00	784.64	786.79	769.59	780.98	780.86	776.21	769.54
Plastics and rubber															
products..............................	528.69	549.57	548.76	553.32	543.60	548.91	554.33	554.60	552.11	566.21	556.40	558.00	561.40	561.39	568.83
PRIVATE SERVICE-															
PROVIDING2..................	460.32	473.10	467.86	478.17	470.74	475.27	482.49	476.93	478.55	488.06	477.44	488.80	487.50	481.07	481.92
Trade transportation															
and utilities............................	459.53	471.09	470.45	479.86	473.28	475.32	481.78	473.36	470.20	478.67	467.07	476.75	478.96	475.09	478.95
Wholesale trade.........................	643.45	643.99	640.51	653.50	640.13	645.41	657.41	642.79	649.61	657.80	639.10	654.70	655.29	647.25	651.29
Retail trade............................	346.16	360.53	360.22	368.14	367.72	365.50	368.47	361.65	357.77	366.91	356.40	362.37	364.14	362.95	365.90
Transportation and															
warehousing..........................	562.70	580.68	576.29	588.68	578.03	582.65	591.58	586.59	593.11	603.10	581.53	593.49	595.64	586.80	590.94
Utilities.................................	977.18	978.44	981.47	983.52	970.22	975.06	1,005.19	985.92	996.16	997.09	987.22	992.98	1,003.25	1,005.72	1,001.64
Information.............................	731.11	739.41	726.73	748.14	728.00	730.00	754.55	753.59	758.59	769.12	742.20	760.03	757.94	753.18	758.82
Financial activities..................	558.02	575.43	564.09	584.43	568.88	576.88	596.21	581.74	585.40	604.03	587.84	611.90	608.04	595.94	598.69
Professional and															
business services..................	557.84	574.59	565.72	585.34	570.18	573.79	585.09	577.64	580.04	596.16	579.33	598.56	597.18	585.14	584.46
Educational and															
health services......................	473.39	493.02	485.90	494.42	493.45	499.11	503.25	499.61	502.45	506.93	507.33	508.89	509.21	502.59	503.56
Leisure and hospitality.............	215.19	221.15	218.62	224.66	224.99	226.63	224.12	222.31	221.60	227.30	217.63	224.40	224.36	219.86	222.11
Other services........................	428.64	439.65	435.75	442.51	439.13	442.43	445.65	443.52	442.77	449.72	442.40	445.84	447.24	442.08	443.48

[1] Data relate to production workers in natural resouces and mining and manufacturing and construction workers in construction.

[2] Data relate to nonsupervisory workers.

NOTE: Data reflect the conversion to the 2002 version of the North American Industry Classi- fication System (NAICS), replacing the Standard Industrial Classifification System (SIC) system. NAICS-based data by industry are not comparable with SIC-based data. See "Notes on the data" for a description of the most recent benchmark revision.

Dash indicates data not available.

17. Diffusion indexes of employment change, seasonally adjusted

[In percent]

Timespan and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov	Dec.
	Private nonfarm payrolls, 278 industries											
Over 1-month span:												
1999	56.3	64.7	56.7	65.8	64.2	61.9	63.3	59.9	57.6	64.4	69.1	64.4
2000	65.5	60.3	65.5	58.8	47.7	61.7	65.5	52.9	52.3	54.1	57.7	53.2
2001	52.3	49.6	48.6	36.5	41.4	38.1	35.6	38.5	39.0	35.6	37.8	36.0
2002	40.5	37.0	37.6	41.0	41.7	43.7	39.0	41.7	43.3	43.9	42.4	37.2
2003	44.2	36.7	44.1	46.9	43.0	–	–	–	–	–	–	–
Over 3-month span:												
1999	61.5	64.9	61.0	65.8	66.4	69.1	66.9	64.4	62.2	62.9	66.7	69.6
2000	70.1	66.0	68.3	68.3	58.5	56.3	58.1	62.2	55.9	53.1	54.0	58.3
2001	54.9	50.7	50.5	43.5	37.2	36.0	36.2	35.8	34.5	32.2	31.7	30.9
2002	34.4	38.3	36.5	35.4	36.7	38.8	39.7	41.4	38.1	39.0	37.8	34.9
2003	36.0	35.6	36.0	41.2	44.1	–	–	–	–	–	–	–
Over 6-month span:												
1999	66.9	64.9	63.7	64.0	65.6	65.8	66.7	66.2	69.4	68.7	66.4	66.5
2000	67.6	68.7	71.4	71.9	68.5	66.2	67.3	60.4	58.3	55.0	61.0	55.2
2001	53.2	51.4	50.7	47.1	42.8	38.8	37.6	34.5	31.1	32.9	31.3	31.7
2002	30.6	29.9	31.1	31.3	33.3	35.8	36.9	37.4	37.8	39.9	38.3	35.8
2003	37.4	36.5	35.1	34.7	38.3	–	–	–	–	–	–	–
Over 12-month span:												
1999	70.5	68.7	68.2	68.0	68.3	68.3	68.0	68.0	67.8	69.1	68.3	69.1
2000	70.9	69.2	73.2	71.0	69.8	71.0	70.0	70.3	70.3	65.6	63.8	62.1
2001	59.5	59.5	53.4	49.3	48.6	45.0	43.3	43.9	39.9	37.8	37.1	34.9
2002	33.6	31.7	30.2	30.2	30.4	30.6	30.8	31.8	31.5	30.0	33.5	33.3
2003	33.8	33.3	34.5	35.4	36.5	–	–	–	–	–	–	–
	Manufacturing payrolls, 84 industries											
Over 1-month span:												
1999	42.3	38.7	33.3	39.3	52.4	34.5	50.0	40.5	41.7	50.6	56.0	51.8
2000	50.6	53.6	54.8	42.9	39.9	53.6	62.5	28.6	24.4	35.1	41.1	38.7
2001	24.4	22.0	24.4	14.3	14.3	19.6	14.3	13.7	17.9	16.7	16.7	9.5
2002	19.0	22.6	20.8	33.9	30.4	32.1	34.5	25.0	31.0	19.6	21.4	25.0
2003	36.3	19.0	27.4	20.2	29.8	–	–	–	–	–	–	–
Over 3-month span:												
1999	33.9	40.5	37.5	35.7	41.7	43.5	42.3	38.1	41.1	44.6	49.4	56.5
2000	54.2	54.8	58.3	51.8	41.7	41.1	54.8	48.2	29.2	25.6	25.0	42.3
2001	34.5	24.4	17.9	14.3	11.9	14.3	10.7	7.7	8.3	9.5	8.9	8.3
2002	11.9	11.9	16.7	20.2	21.4	20.2	28.6	25.6	25.6	17.9	14.9	10.7
2003	14.9	15.5	19.6	16.7	19.0	–	–	–	–	–	–	–
Over 6-month span:												
1999	37.5	32.7	30.4	33.3	36.9	38.1	38.1	34.5	40.5	46.4	41.1	48.2
2000	47.0	51.2	56.5	57.1	49.4	47.6	56.0	44.0	36.9	35.1	34.5	31.0
2001	23.8	24.4	20.8	17.9	14.9	11.9	13.7	9.5	8.3	6.5	6.5	6.0
2002	7.7	8.9	7.7	8.9	12.5	16.7	19.6	19.6	23.8	17.9	16.7	13.7
2003	13.7	14.3	12.5	11.9	12.5	–	–	–	–	–	–	–
Over 12-month span:												
1999	35.7	32.1	29.8	32.1	32.7	32.1	34.5	32.1	33.3	39.3	41.1	42.9
2000	41.7	39.3	47.0	50.0	46.4	52.4	51.8	49.4	46.4	40.5	35.1	33.3
2001	29.8	32.1	20.8	19.0	13.1	12.5	10.7	11.9	11.9	10.1	8.3	6.0
2002	7.1	6.0	6.0	7.1	7.7	5.4	6.0	8.9	7.7	9.5	13.1	13.1
2003	13.7	15.5	16.7	13.1	16.1	–	–	–	–	–	–	–

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 inceasing and decreasing employment.

See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

Dash indicates data not available.

18. Establishment size and employment covered under UI, private ownership, by Supersector, first quarter 2001

Industry, establishments, and employment	Total	Size of establishments								
		Fewer than 5 workers[1]	5 to 9 workers	10 to 19 workers	20 to 49 workers	50 to 99 workers	100 to 249 workers	250 to 499 workers	500 to 999 workers	1,000 or more workers
Total all industries[2]										
Establishments, first quarter	7,665,968	4,526,062	1,304,741	858,606	598,438	208,084	121,189	31,149	11,678	6,021
Employment, March	108,932,804	6,886,752	8,633,337	11,588,220	18,104,061	14,323,060	18,158,276	10,611,556	7,917,065	12,710,477
Natural resources and mining										
Establishments, first quarter	127,969	74,644	23,304	15,169	9,501	2,935	1,700	499	167	50
Employment, March	1,566,104	110,942	154,199	203,845	285,486	200,360	254,358	172,011	109,973	74,930
Construction										
Establishments, first quarter	765,649	494,254	127,017	75,983	47,230	13,591	6,040	1,176	293	65
Employment, March	6,481,334	714,992	832,978	1,020,982	1,410,131	925,178	890,282	390,630	197,146	99,015
Manufacturing										
Establishments, first quarter	398,837	148,682	67,510	60,267	58,942	28,633	22,490	7,636	3,198	1,479
Employment, March	16,806,452	255,376	453,750	830,685	1,836,858	2,009,224	3,456,620	2,622,512	2,166,352	3,175,075
Trade, transportation, and utilities										
Establishments, first quarter	1,840,104	969,760	376,578	244,890	153,450	53,110	32,898	6,970	1,813	635
Employment, March	25,518,430	1,629,626	2,507,906	3,278,074	4,630,611	3,670,363	4,888,033	2,343,794	1,191,894	1,378,129
Information										
Establishments, first quarter	150,855	84,672	20,636	17,119	14,772	6,698	4,475	1,476	674	333
Employment, March	3,692,948	113,812	137,426	234,492	457,236	465,567	685,746	507,063	462,533	629,073
Financial activities										
Establishments, first quarter	716,808	458,390	128,266	71,615	37,529	11,731	6,084	1,808	897	488
Employment, March	7,623,126	750,421	843,311	952,198	1,121,825	801,994	917,250	621,240	609,199	1,005,688
Professional and business services										
Establishments, first quarter	1,238,267	825,617	173,773	107,694	73,807	29,139	19,405	5,654	2,177	1,001
Employment, March	16,441,289	1,170,098	1,140,772	1,451,932	2,245,729	2,022,745	2,951,873	1,933,668	1,480,878	2,043,594
Education and health services										
Establishments, first quarter	679,762	321,428	155,333	96,121	61,097	22,789	15,989	3,721	1,690	1,594
Employment, March	14,712,829	603,470	1,027,913	1,291,605	1,836,799	1,589,809	2,383,443	1,274,120	1,178,727	3,526,943
Leisure and hospitality										
Establishments, first quarter	627,875	249,542	104,548	110,374	117,264	33,939	9,463	1,725	667	353
Employment, March	11,590,048	390,258	705,222	1,542,760	3,560,715	2,263,935	1,344,217	586,269	453,703	742,969
Other services										
Establishments, first quarter	954,627	750,261	115,619	55,756	24,254	5,498	2,630	484	102	23
Employment, March	4,187,740	977,871	752,689	734,980	703,687	372,499	384,044	160,249	66,660	35,061

[1] Includes establishments that reported no workers in March 2001.

[2] Includes data for unclassified establishments, not shown separately.

NOTE: Detail may not add to totals due to rounding. Data reflect the movement of Indian Tribal Council establishments from private industry to the public sector. See Notes on Current Labor Statistics.

19. Annual data: establishments, employment, and wages covered under UI and UCFE by ownership

Year	Average establishments	Average annual employment	Total annual wages (in thousands)	Average annual wages per employee	Average weekly wage
	Total covered (UI and UCFE)				
1992	6,532,608	107,413,728	$2,781,676,477	$25,897	$498
1993	6,679,934	109,422,571	2,884,472,282	26,361	507
1994	6,826,677	112,611,287	3,033,676,678	26,939	518
1995	7,040,677	115,487,841	3,215,921,236	27,846	536
1996	7,189,168	117,963,132	3,414,514,808	28,946	557
1997	7,369,473	121,044,432	3,674,031,718	30,353	584
1998	7,634,018	124,183,549	3,967,072,423	31,945	614
1999	7,820,860	127,042,282	4,235,579,204	33,340	641
2000	7,879,116	129,877,063	4,587,708,584	35,323	679
2001	7,984,529	129,635,800	4,695,225,123	36,219	697
	UI covered				
1992	6,485,473	104,288,324	$2,672,081,827	$25,622	$493
1993	6,632,221	106,351,431	2,771,023,411	26,055	501
1994	6,778,300	109,588,189	2,918,684,128	26,633	512
1995	6,990,594	112,539,795	3,102,353,355	27,567	530
1996	7,137,644	115,081,246	3,298,045,286	28,658	551
1997	7,317,363	118,233,942	3,553,933,885	30,058	578
1998	7,586,767	121,400,660	3,845,494,089	31,676	609
1999	7,771,198	124,255,714	4,112,169,533	33,094	636
2000	7,828,861	127,005,574	4,454,966,824	35,077	675
2001	7,933,536	126,883,182	4,560,511,280	35,943	691
	Private industry covered				
1992	6,308,719	89,349,803	$2,282,598,431	$25,547	$491
1993	6,454,381	91,202,971	2,365,301,493	25,934	499
1994	6,596,158	94,146,344	2,494,458,555	26,496	510
1995	6,803,454	96,894,844	2,658,927,216	27,441	528
1996	6,946,858	99,268,446	2,837,334,217	28,582	550
1997	7,121,182	102,175,161	3,071,807,287	30,064	578
1998	7,381,518	105,082,368	3,337,621,699	31,762	611
1999	7,560,567	107,619,457	3,577,738,557	33,244	639
2000	7,622,274	110,015,333	3,887,626,769	35,337	680
2001	7,724,965	109,304,802	3,952,152,155	36,157	695
	State government covered				
1992	58,801	4,044,914	$112,405,340	$27,789	$534
1993	59,185	4,088,075	117,095,062	28,643	551
1994	60,686	4,162,944	122,879,977	29,518	568
1995	60,763	4,201,836	128,143,491	30,497	586
1996	62,146	4,191,726	131,605,800	31,397	604
1997	65,352	4,214,451	137,057,432	32,521	625
1998	67,347	4,240,779	142,512,445	33,605	646
1999	70,538	4,296,673	149,011,194	34,681	667
2000	65,096	4,370,160	158,618,365	36,296	698
2001	64,583	4,452,237	168,358,331	37,814	727
	Local government covered				
1992	117,923	10,892,697	$277,045,557	$25,434	$489
1993	118,626	11,059,500	288,594,697	26,095	502
1994	121,425	11,278,080	301,315,857	26,717	514
1995	126,342	11,442,238	315,252,346	27,552	530
1996	128,640	11,621,074	329,105,269	28,320	545
1997	130,829	11,844,330	345,069,166	29,134	560
1998	137,902	12,077,513	365,359,945	30,251	582
1999	140,093	12,339,584	385,419,781	31,234	601
2000	141,491	12,620,081	408,721,690	32,387	623
2001	143,989	13,126,143	440,000,795	33,521	645
	Federal Government covered (UCFE)				
1992	47,136	3,125,404	$109,594,650	$35,066	$674
1993	47,714	3,071,140	113,448,871	36,940	710
1994	48,377	3,023,098	114,992,550	38,038	731
1995	50,083	2,948,046	113,567,881	38,523	741
1996	51,524	2,881,887	116,469,523	40,414	777
1997	52,110	2,810,489	120,097,833	42,732	822
1998	47,252	2,782,888	121,578,334	43,688	840
1999	49,661	2,786,567	123,409,672	44,287	852
2000	50,256	2,871,489	132,741,760	46,228	889
2001	50,993	2,752,619	134,713,843	48,940	941

NOTE: Detail may not add to totals due to rounding. Data reflect the movement of Indian Tribal Council establishments from private industry to the public sector. See Notes on Current Labor Statistics.

20. Annual data: establishments, employment, and wages covered under UI and UCFE, by State

State	Average establishments		Average annual employment		Total annual wages (in thousands)		Average weekly wage	
	2001	2000-2001 change	2001	2000-2001 change	2001	2000-2001 change	2001	2000-2001 change
Total United States	7,984,529	154,540	129,635,800	-185,779	$4,695,225,123	$109,884,920	$697	$18
Alabama	112,356	30	1,854,462	-23,500	55,822,097	1,284,088	579	21
Alaska	19,287	467	283,033	7,479	10,237,292	553,237	696	20
Arizona	118,706	3,546	2,243,652	22,942	74,963,072	2,546,248	643	16
Arkansas	72,814	587	1,127,151	-3,731	30,725,592	963,862	524	18
California	1,065,699	74,645	14,981,757	138,284	619,146,651	7,497,476	795	3
Colorado	153,824	5,347	2,201,379	14,728	83,547,602	2,274,669	730	15
Connecticut	108,201	414	1,665,607	-9,121	78,272,099	2,095,243	904	29
Delaware	25,253	505	406,736	482	15,629,636	787,067	739	36
District of Columbia	28,414	9	635,749	-1,535	35,543,559	1,790,086	1,075	56
Florida	454,077	9,367	7,153,589	92,606	225,713,701	9,933,356	607	19
Georgia	230,232	5,219	3,871,763	-10,941	136,039,438	3,195,926	676	18
Hawaii	35,439	1,412	557,146	3,961	17,412,210	469,266	601	12
Idaho	46,480	1,084	571,314	8,137	15,864,510	263,832	534	1
Illinois	319,588	-2,723	5,886,248	-54,259	230,054,835	4,050,811	752	20
Indiana	151,376	-1,328	2,871,236	-63,392	91,246,189	183,520	611	14
Iowa	91,006	-5,825	1,429,543	-13,432	41,223,534	919,492	555	18
Kansas	80,521	52	1,319,667	5,984	39,792,114	1,221,387	580	15
Kentucky	108,025	302	1,736,575	-26,160	52,133,417	1,367,028	577	23
Louisiana	115,807	-2,386	1,869,966	827	54,473,146	2,345,871	560	24
Maine	46,206	1,344	593,166	2,472	17,092,043	750,886	554	22
Maryland	147,158	622	2,421,899	16,392	92,644,873	5,096,016	736	36
Massachusetts	191,824	6,848	3,276,224	21,104	147,348,234	3,574,494	865	16
Michigan	259,556	5,809	4,476,659	-107,880	167,385,129	-2,295,158	719	7
Minnesota	156,031	487	2,609,669	1,325	95,479,188	3,107,396	704	23
Mississippi	63,207	-748	1,111,255	-25,520	28,806,869	151,385	499	14
Missouri	163,121	138	2,652,876	-23,960	86,009,694	2,000,438	623	19
Montana	40,477	2,136	383,905	4,862	9,672,371	472,112	485	18
Nebraska	52,653	836	883,920	1,516	25,083,293	646,745	546	13
Nevada	49,635	1,770	1,043,748	25,919	34,569,506	1,717,063	637	16
New Hampshire	46,070	171	610,192	3,685	21,650,267	582,754	682	14
New Jersey	256,536	-13,793	3,876,194	-1,221	171,793,642	2,443,618	852	12
New Mexico	48,439	522	729,422	12,293	20,935,825	1,216,191	552	23
New York	538,898	9,822	8,423,312	-47,446	393,598,666	9,383,346	899	27
North Carolina	224,426	2,208	3,805,498	-57,272	121,866,007	1,858,872	616	19
North Dakota	23,326	38	311,632	2,412	8,011,085	378,510	494	19
Ohio	285,567	4,705	5,434,769	-77,865	180,885,154	1,681,299	640	15
Oklahoma	90,603	1,574	1,463,622	11,771	41,004,250	1,821,743	539	20
Oregon	111,073	2,150	1,596,753	-11,175	53,018,365	317,098	639	9
Pennsylvania	331,405	16,187	5,552,366	-5,535	194,211,696	5,158,632	673	19
Rhode Island	33,636	311	468,952	1,351	15,758,369	507,610	646	19
South Carolina	114,979	5,613	1,786,899	-33,210	52,275,679	986,967	563	21
South Dakota	27,365	221	364,715	598	9,337,014	306,302	492	15
Tennessee	125,165	140	2,625,746	-41,005	82,762,402	1,275,641	606	18
Texas	494,088	4,509	9,350,770	62,437	337,047,962	12,484,223	693	21
Utah	68,607	2,470	1,050,674	6,551	31,600,715	1,082,204	578	16
Vermont	24,156	287	298,020	1,558	9,011,468	439,492	581	25
Virginia	195,639	3,048	3,436,172	8,411	126,222,350	5,662,779	706	30
Washington	221,450	1,775	2,689,507	-14,921	100,746,663	413,740	720	7
West Virginia	46,620	-186	685,754	-845	19,187,832	726,836	538	21
Wisconsin	148,227	2,374	2,717,660	-18,388	85,713,725	1,733,629	607	17
Wyoming	21,288	429	237,278	6,446	6,654,092	459,596	539	23
Puerto Rico	51,733	-633	1,007,919	-18,234	19,884,381	578,173	379	17
Virgin Islands	3,236	-17	44,330	1,981	1,294,885	120,936	562	29

NOTE: Detail may not add to totals due to rounding.

21. Annual data: Employment and average annual pay for all workers covered under UI and UCFE in the 249 largest U.S. counties

County[1]	Employment			Average annual pay	
	2001	Percent change, 2000-2001[2]	Ranked by percent change, 2000-2001[3]	2001	Percent change, 2000-2001[2]
United States[4]	129,635,800	-.1	–	36,219	2.5
Jefferson, AL	380,680	-1.0	197	35,453	4.2
Madison, AL	156,169	1.3	54	37,089	3.5
Mobile, AL	167,000	-1.5	212	29,502	3.1
Montgomery, AL	129,878	-.9	192	29,979	3.8
Anchorage, AK	133,842	3.1	16	37,998	3.7
Maricopa, AZ	1,561,773	1.2	61	35,689	1.6
Pima, AZ	326,917	-.6	170	30,690	5.1
Pulaski, AR	240,754	-.7	175	32,261	4.7
Alameda, CA	697,181	-.1	135	46,489	3.1
Contra Costa, CA	337,444	.7	80	44,744	5.7
Fresno, CA	322,084	-.1	136	27,878	6.5
Kern, CA	242,232	1.5	49	30,106	5.3
Los Angeles, CA	4,103,370	.6	87	40,891	3.1
Marin, CA	111,939	1.3	55	43,547	2.2
Monterey, CA	166,186	.8	75	31,735	5.9
Orange, CA	1,411,944	1.6	46	40,252	2.6
Placer, CA	116,185	6.1	1	34,773	4.1
Riverside, CA	491,535	4.2	8	29,971	2.8
Sacramento, CA	588,426	3.0	18	39,173	3.8
San Bernardino, CA	545,113	2.8	21	30,995	3.6
San Diego, CA	1,218,982	2.0	37	38,418	2.3
San Francisco, CA	586,085	-3.3	246	61,068	6.1
San Joaquin, CA	204,504	1.9	39	30,818	5.3
San Mateo, CA	369,868	.1	120	62,288	-7.2
Santa Barbara, CA	177,234	.8	76	33,626	3.2
Santa Clara, CA	1,002,637	-2.3	233	65,931	-13.5
Santa Cruz, CA	102,669	.9	64	35,022	-2.2
Solano, CA	121,402	3.0	19	33,496	5.7
Sonoma, CA	194,922	2.1	32	36,145	1.1
Stanislaus, CA	164,473	2.2	30	29,591	4.9
Tulare, CA	132,878	.0	130	24,732	4.2
Ventura, CA	293,208	1.5	50	37,783	1.9
Adams, CO	146,043	.6	88	34,753	4.0
Arapahoe, CO	285,963	-.2	144	44,999	-2.7
Boulder, CO	184,755	3.2	13	44,310	-2.8
Denver, CO	461,996	-.6	171	46,134	4.0
El Paso, CO	240,100	.9	65	34,391	4.1
Jefferson, CO	210,375	.1	121	37,819	4.5
Larimer, CO	121,880	2.3	29	33,248	2.6
Fairfield, CT	421,211	-1.0	198	63,163	3.3
Hartford, CT	497,280	-.5	163	45,050	3.2
New Haven, CT	363,265	-1.1	201	39,483	2.9
New London, CT	124,684	1.6	47	38,505	4.8
New Castle, DE	282,318	.2	112	42,849	5.8
Washington, DC	635,734	-.2	145	55,909	5.6
Alachua, FL	119,148	.7	81	26,917	2.9
Brevard, FL	184,725	1.7	43	32,798	2.2
Broward, FL	663,954	2.1	33	33,966	2.2
Collier, FL	110,230	5.9	2	30,839	2.9
Duval, FL	436,663	1.8	41	33,721	2.9
Escambia, FL	121,285	.8	77	28,610	7.1
Hillsborough, FL	595,768	1.8	42	32,874	3.7
Lee, FL	171,902	4.5	5	29,432	4.6
Leon, FL	142,981	.9	66	30,287	3.5
Manatee, FL	118,788	5.2	4	26,629	4.4
Miami-Dade, FL	993,834	1.6	48	34,524	3.6
Orange, FL	602,668	.2	113	32,218	3.5
Palm Beach, FL	499,688	3.9	9	35,957	2.1
Pinellas, FL	448,788	3.3	12	31,742	1.5
Polk, FL	184,471	.1	122	28,890	3.6
Sarasota, FL	147,206	4.5	6	29,030	1.9
Seminole, FL	145,147	2.2	31	31,951	3.6
Volusia, FL	142,478	-.2	146	26,064	3.9
Chatham, GA	122,608	-.2	147	30,549	3.0
Clayton, GA	114,982	-.3	151	38,301	4.2
Cobb, GA	301,520	-.1	137	40,174	3.6
Dekalb, GA	305,903	-.7	176	39,648	2.7
Fulton, GA	754,870	.1	123	47,761	1.5
Gwinnett, GA	289,538	2.9	20	39,405	.9
Richmond, GA	104,694	-.9	193	29,431	2.9

See footnotes at end of table.

21. Continued—Annual data: Employment and average annual pay for all workers covered under UI and UCFE in the 249 largest U.S. counties

County[1]	Employment			Average annual pay	
	2001	Percent change, 2000-2001[2]	Ranked by percent change, 2000-2001[3]	2001	Percent change, 2000-2001[2]
Honolulu, HI	409,669	.4	99	32,531	2.1
Ada, ID	182,309	2.7	23	33,081	-4.0
Cook, IL	2,630,768	-1.5	213	44,108	2.8
Du Page, IL	580,938	-.2	148	43,470	2.1
Kane, IL	194,374	-.1	138	33,362	3.7
Lake, IL	316,150	-.3	152	43,970	3.2
Peoria, IL	102,764	-1.8	223	33,288	6.1
Sangamon, IL	145,195	.2	114	36,259	4.3
Will, IL	145,570	.1	124	34,280	6.1
Winnebago, IL	139,815	-2.9	241	31,951	1.4
Allen, IN	183,329	-2.3	234	32,830	1.7
Elkhart, IN	113,524	-6.8	249	30,797	1.5
Lake, IN	194,624	-1.9	226	32,017	1.4
Marion, IN	591,406	-1.3	210	37,885	3.8
St. Joseph, IN	124,967	-3.1	244	30,769	3.7
Vanderburgh, IN	109,418	.1	125	30,494	3.1
Linn, IA	119,914	-1.7	219	34,649	1.6
Polk, IA	263,469	-.2	149	34,944	3.8
Johnson, KS	292,984	2.4	27	37,204	-.1
Sedgwick, KS	249,863	.1	126	33,937	3.8
Shawnee, KS	100,462	.3	105	30,513	3.9
Fayette, KY	167,714	-2.4	237	32,237	5.0
Jefferson, KY	431,347	-1.7	220	34,688	4.1
Caddo, LA	120,877	1.3	56	29,354	2.0
East Baton Rouge, LA	243,392	-1.1	202	30,397	3.9
Jefferson, LA	213,911	-.4	160	29,326	4.6
Lafayette, LA	119,294	4.5	7	32,364	8.2
Orleans, LA	263,427	.1	127	32,880	3.7
Cumberland, ME	168,147	1.3	57	32,327	5.1
Anne Arundel, MD	200,174	2.8	22	37,190	4.9
Baltimore, MD	360,128	.2	115	36,240	6.2
Howard, MD	132,935	1.3	58	40,191	6.1
Montgomery, MD	449,881	.9	67	45,893	5.0
Prince Georges, MD	304,022	.5	94	38,986	5.2
Baltimore City, MD	381,155	.4	100	40,508	5.0
Bristol, MA	218,818	-1.1	203	32,012	4.1
Essex, MA	306,111	.2	116	39,242	.5
Hampden, MA	204,824	.9	68	33,357	3.6
Middlesex, MA	850,295	1.4	52	51,734	.0
Norfolk, MA	327,067	.7	82	44,173	2.2
Plymouth, MA	166,471	.8	78	34,929	3.4
Suffolk, MA	602,983	.1	128	58,906	4.0
Worcester, MA	321,044	.3	106	37,299	-.9
Genesee, MI	160,442	-3.0	242	35,995	-.9
Ingham, MI	174,290	-.3	153	35,753	2.3
Kalamazoo, MI	116,728	-1.7	221	33,908	3.8
Kent, MI	339,510	-1.8	224	34,570	1.7
Macomb, MI	326,600	-3.2	245	40,481	-1.0
Oakland, MI	755,451	-1.4	211	45,038	1.2
Ottawa, MI	115,880	-2.5	239	32,246	.9
Washtenaw, MI	195,562	.2	117	40,249	.2
Wayne, MI	848,463	-2.4	238	42,968	1.2
Anoka, MN	109,521	-.3	154	34,585	1.9
Dakota, MN	155,662	1.3	59	35,683	3.8
Hennepin, MN	863,674	-.8	186	45,495	3.8
Ramsey, MN	333,380	.0	131	40,400	3.4
Hinds, MS	134,285	-.9	194	31,138	1.8
Greene, MO	140,739	-.9	195	28,065	4.1
Jackson, MO	384,942	-2.3	235	37,405	3.7
St. Louis, MO	641,151	-.8	187	38,929	2.1
St. Louis City, MO	245,192	-2.2	231	40,834	5.8
Douglas, NE	325,629	-.7	177	32,866	1.6
Lancaster, NE	148,200	.9	69	29,352	2.9
Clark, NV	720,184	3.2	14	32,648	1.6
Washoe, NV	193,571	2.4	28	34,231	4.5
Hillsborough, NH	192,712	.0	132	39,320	.3
Rockingham, NH	130,917	.7	83	36,642	2.3
Atlantic, NJ	141,240	.9	70	32,555	4.8
Bergen, NJ	453,626	1.5	51	46,828	1.1
Burlington, NJ	187,398	3.6	11	38,776	3.1

See footnotes at end of table.

21. Continued—Annual data: Employment and average annual pay for all workers covered under UI and UCFE in the 249 largest U.S. counties

County[1]	Employment			Average annual pay	
	2001	Percent change, 2000-2001[2]	Ranked by percent change, 2000-2001[3]	2001	Percent change, 2000-2001[2]
Honolulu, HI	409,669	.4	99	32,531	2.1
Ada, ID	182,309	2.7	23	33,081	-4.0
Cook, IL	2,630,768	-1.5	213	44,108	2.8
Du Page, IL	580,938	-.2	148	43,470	2.1
Kane, IL	194,374	-.1	138	33,362	3.7
Lake, IL	316,150	-.3	152	43,970	3.2
Peoria, IL	102,764	-1.8	223	33,288	6.1
Sangamon, IL	145,195	.2	114	36,259	4.3
Will, IL	145,570	.1	124	34,280	6.1
Winnebago, IL	139,815	-2.9	241	31,951	1.4
Allen, IN	183,329	-2.3	234	32,830	1.7
Elkhart, IN	113,524	-6.8	249	30,797	1.5
Lake, IN	194,624	-1.9	226	32,017	1.4
Marion, IN	591,406	-1.3	210	37,885	3.8
St. Joseph, IN	124,967	-3.1	244	30,769	3.7
Vanderburgh, IN	109,418	.1	125	30,494	3.1
Linn, IA	119,914	-1.7	219	34,649	1.6
Polk, IA	263,469	-.2	149	34,944	3.8
Johnson, KS	292,984	2.4	27	37,204	-.1
Sedgwick, KS	249,863	.1	126	33,937	3.8
Shawnee, KS	100,462	.3	105	30,513	3.9
Fayette, KY	167,714	-2.4	237	32,237	5.0
Jefferson, KY	431,347	-1.7	220	34,688	4.1
Caddo, LA	120,877	1.3	56	29,354	2.0
East Baton Rouge, LA	243,392	-1.1	202	30,397	3.9
Jefferson, LA	213,911	-.4	160	29,326	4.6
Lafayette, LA	119,294	4.5	7	32,364	8.2
Orleans, LA	263,427	.1	127	32,880	3.7
Cumberland, ME	168,147	1.3	57	32,327	5.1
Anne Arundel, MD	200,174	2.8	22	37,190	4.9
Baltimore, MD	360,128	.2	115	36,240	6.2
Howard, MD	132,935	1.3	58	40,191	6.1
Montgomery, MD	449,881	.9	67	45,893	5.0
Prince Georges, MD	304,022	.5	94	38,986	5.2
Baltimore City, MD	381,155	.4	100	40,508	5.0
Bristol, MA	218,818	-1.1	203	32,012	4.1
Essex, MA	306,111	.2	116	39,242	.5
Hampden, MA	204,824	.9	68	33,357	3.6
Middlesex, MA	850,295	1.4	52	51,734	.0
Norfolk, MA	327,067	.7	82	44,173	2.2
Plymouth, MA	166,471	.8	78	34,929	3.4
Suffolk, MA	602,983	.1	128	58,906	4.0
Worcester, MA	321,044	.3	106	37,299	-.9
Genesee, MI	160,442	-3.0	242	35,995	-.9
Ingham, MI	174,290	-.3	153	35,753	2.3
Kalamazoo, MI	116,728	-1.7	221	33,908	3.8
Kent, MI	339,510	-1.8	224	34,570	1.7
Macomb, MI	326,600	-3.2	245	40,481	-1.0
Oakland, MI	755,451	-1.4	211	45,038	1.2
Ottawa, MI	115,880	-2.5	239	32,246	.9
Washtenaw, MI	195,562	.2	117	40,249	.2
Wayne, MI	848,463	-2.4	238	42,968	1.2
Anoka, MN	109,521	-.3	154	34,585	1.9
Dakota, MN	155,662	1.3	59	35,683	3.8
Hennepin, MN	863,674	-.8	186	45,495	3.8
Ramsey, MN	333,380	.0	131	40,400	3.4
Hinds, MS	134,285	-.9	194	31,138	1.8
Greene, MO	140,739	-.9	195	28,065	4.1
Jackson, MO	384,942	-2.3	235	37,405	3.7
St. Louis, MO	641,151	-.8	187	38,929	2.1
St. Louis City, MO	245,192	-2.2	231	40,834	5.8
Douglas, NE	325,629	-.7	177	32,866	1.6
Lancaster, NE	148,200	.9	69	29,352	2.9
Clark, NV	720,184	3.2	14	32,648	1.6
Washoe, NV	193,571	2.4	28	34,231	4.5
Hillsborough, NH	192,712	.0	132	39,320	.3
Rockingham, NH	130,917	.7	83	36,642	2.3
Atlantic, NJ	141,240	.9	70	32,555	4.8
Bergen, NJ	453,626	1.5	51	46,828	1.1
Burlington, NJ	187,398	3.6	11	38,776	3.1

See footnotes at end of table.

21. Continued—Annual data: Employment and average annual pay for all workers covered under UI and UCFE in the 249 largest U.S. counties

County[1]	Employment			Average annual pay	
	2001	Percent change, 2000-2001[2]	Ranked by percent change, 2000-2001[3]	2001	Percent change, 2000-2001[2]
Camden, NJ	199,869	.5	95	36,530	4.0
Essex, NJ	361,569	-.5	164	46,526	4.2
Hudson, NJ	237,253	.0	133	47,638	.4
Mercer, NJ	215,524	2.6	25	46,831	4.9
Middlesex, NJ	399,332	1.3	60	47,726	2.7
Monmouth, NJ	240,757	3.2	15	40,399	1.8
Morris, NJ	277,653	.4	101	53,829	-11.0
Ocean, NJ	133,657	3.7	10	31,034	1.9
Passaic, NJ	175,108	-1.1	204	39,192	3.8
Somerset, NJ	176,713	1.7	44	55,769	1.8
Union, NJ	236,609	-.1	139	46,204	2.0
Bernalillo, NM	309,166	.7	84	31,663	4.9
Albany, NY	229,957	-.5	165	37,848	5.7
Bronx, NY	214,227	.4	102	34,248	4.3
Dutchess, NY	112,912	2.5	26	38,748	7.4
Erie, NY	454,839	-1.1	205	32,103	1.9
Kings, NY	439,343	-.1	140	31,952	3.9
Monroe, NY	393,783	-.7	178	36,597	3.3
Nassau, NY	593,368	-.8	188	40,599	1.4
New York, NY	2,342,338	-1.5	214	74,883	3.2
Oneida, NY	108,686	-1.8	225	28,381	4.0
Onondaga, NY	249,754	-1.1	206	33,469	3.0
Orange, NY	120,903	.7	85	30,218	2.9
Queens, NY	478,661	-.7	179	36,963	5.7
Rockland, NY	107,348	.4	103	38,720	3.9
Suffolk, NY	581,938	.1	129	38,706	2.2
Westchester, NY	404,974	-.4	161	48,716	3.5
Buncombe, NC	105,378	-.3	155	28,701	3.8
Cumberland, NC	106,381	-2.8	240	26,981	3.3
Durham, NC	169,609	.3	107	48,076	-2.6
Forsyth, NC	180,155	-.7	180	34,693	2.0
Guilford, NC	274,077	-2.0	229	33,217	3.1
Mecklenburg, NC	514,036	.3	108	41,775	3.1
Wake, NC	385,777	.9	71	36,996	4.6
Butler, OH	126,863	-.5	166	32,325	2.6
Cuyahoga, OH	796,353	-1.6	217	37,533	2.8
Franklin, OH	702,628	.2	118	36,090	3.2
Hamilton, OH	559,852	-1.1	207	38,339	2.0
Lorain, OH	103,115	-3.5	247	32,194	.6
Lucas, OH	234,678	-1.7	222	33,088	2.6
Mahoning, OH	108,769	-3.7	248	26,860	3.5
Montgomery, OH	298,982	-1.5	215	34,783	.7
Stark, OH	173,888	-1.6	218	29,197	2.4
Summit, OH	261,098	-2.1	230	33,416	2.1
Oklahoma, OK	415,507	.4	104	30,161	3.2
Tulsa, OK	342,502	.6	89	32,771	5.2
Clackamas, OR	133,997	-.2	150	33,699	3.7
Lane, OR	137,574	-1.9	227	28,983	4.0
Marion, OR	126,999	-.6	172	28,785	2.4
Multnomah, OR	444,393	-1.1	208	37,668	2.4
Washington, OR	228,453	1.4	53	42,222	-5.0
Allegheny, PA	711,532	.3	109	38,086	3.7
Berks, PA	165,263	-.7	181	32,807	2.5
Bucks, PA	246,491	.6	90	35,239	3.5
Chester, PA	217,148	.6	91	44,216	1.0
Cumberland, PA	122,649	-.6	173	33,996	3.6
Dauphin, PA	173,292	.3	110	34,855	3.5
Delaware, PA	214,106	1.0	63	38,494	4.5
Erie, PA	128,893	-2.3	236	29,293	3.3
Lancaster, PA	218,415	-.3	156	31,493	2.2
Lehigh, PA	172,860	.2	119	35,564	.8
Luzerne, PA	141,944	-.8	189	28,924	3.8
Montgomery, PA	485,822	.5	96	44,366	1.3
Philadelphia, PA	658,827	-.7	182	40,813	2.8
Westmoreland, PA	134,128	-.4	162	28,827	3.0
York, PA	165,879	-1.0	199	31,936	3.3
Providence, RI	288,650	-.7	183	34,566	3.5
Charleston, SC	180,711	-1.0	200	29,013	4.8
Greenville, SC	226,362	-3.0	243	32,622	4.3
Richland, SC	205,841	-.5	167	30,591	3.3

See footnotes at end of table.

21. Continued—Annual data: Employment and average annual pay for all workers covered under UI and UCFE in the 249 largest U.S. counties

County[1]	Employment			Average annual pay	
	2001	Percent change, 2000-2001[2]	Ranked by percent change, 2000-2001[3]	2001	Percent change, 2000-2001[2]
Spartanburg, SC	117,262	-2.2	232	31,856	4.1
Minnehaha, SD	106,717	1.1	62	29,205	3.5
Davidson, TN	434,006	-.1	141	35,509	1.9
Hamilton, TN	187,724	-.3	157	31,240	2.2
Knox, TN	203,470	.6	92	30,765	2.2
Shelby, TN	496,647	-.5	168	35,791	4.2
Bexar, TX	655,195	.9	72	31,032	3.7
Cameron, TX	111,374	2.1	34	22,142	2.7
Collin, TX	181,007	5.7	3	41,338	2.0
Dallas, TX	1,550,835	-.6	174	44,909	1.2
Denton, TX	122,552	.9	73	30,788	5.1
El Paso, TX	248,407	-1.2	209	25,847	3.1
Harris, TX	1,864,100	1.7	45	43,751	4.5
Hidalgo, TX	168,610	3.1	17	22,313	2.8
Jefferson, TX	118,764	-1.9	228	32,570	4.1
Lubbock, TX	118,042	2.1	35	26,577	1.1
Nueces, TX	143,470	.7	86	29,406	4.3
Tarrant, TX	709,162	.5	97	37,287	5.2
Travis, TX	534,861	-.7	184	41,698	.9
Salt Lake, UT	530,497	-.1	142	33,210	3.2
Utah, UT	143,423	.5	98	28,266	1.3
Arlington, VA	159,170	.3	111	55,390	4.8
Chesterfield, VA	107,721	-.1	143	32,957	3.4
Fairfax, VA	542,984	2.7	24	52,641	2.1
Henrico, VA	169,827	2.0	38	37,869	4.8
Norfolk, VA	146,414	.8	79	33,504	4.1
Richmond, VA	164,906	-.7	185	40,173	4.0
Virginia Beach, VA	166,007	.9	74	26,750	5.3
Clark, WA	114,716	2.1	36	33,125	3.0
King, WA	1,146,191	-.9	196	47,186	-.6
Pierce, WA	238,600	-1.5	216	31,261	4.7
Snohomish, WA	209,657	-.3	158	36,388	3.6
Spokane, WA	190,057	.0	134	29,310	-1.5
Kanawha, WV	111,552	-.8	190	31,601	4.8
Brown, WI	141,950	-.3	159	32,631	3.5
Dane, WI	279,208	1.9	40	34,097	3.9
Milwaukee, WI	522,022	-.8	191	35,736	2.9
Waukesha, WI	224,721	.6	93	37,092	3.7
San Juan, PR	324,791	-.5	169	22,179	4.1

[1] Includes areas not officially designated as counties.   See Notes on Current Labor Statistics.

[2] Percent changes were computed from annual employment and pay data adjusted for noneconomic county reclassifications.   See Notes on Current Labor Statistics.

[3] Rankings for percent change in employment are based on the 249 counties that are comparable over the year.

[4] Totals for the United States do not include data for Puerto Rico.

Note: Data pertain to workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs. The 248 U.S. counties comprise 66.2 percent of the total covered workers in the United States.

22. Annual data: Employment status of the population

[Numbers in thousands]

Employment status	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Civilian noninstitutional population	194,838	196,814	198,584	200,591	203,133	205,220	207,753	212,577	215,092	217,570
Civilian labor force	129,200	131,056	132,304	133,943	136,297	137,673	139,368	142,583	143,734	144,863
Labor force participation rate	66.3	66.6	66.6	66.8	67.1	67.1	67.1	67.1	66.8	66.6
Employed	120,259	123,060	124,900	126,708	129,558	131,463	133,488	136,891	136,933	136,485
Employment-population ratio	61.7	62.5	62.9	63.2	63.8	64.1	64.3	64.4	63.7	62.7
Unemployed	8,940	7,996	7,404	7,236	6,739	6,210	5,880	5,692	6,801	8,378
Unemployment rate	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8
Not in the labor force	65,638	65,758	66,280	66,647	66,836	67,547	68,385	69,994	71,359	72,707

23. Annual data: Employment levels by industry

[In thousands]

Industry	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total employment..................................	110,713	114,163	117,191	119,608	122,690	125,865	128,916	131,720	131,922	130,793
Private sector...................................	91,872	95,036	97,885	100,189	103,133	106,042	108,709	111,018	110,989	109,531
Goods-producing...........................	23,352	23,908	24,265	24,493	24,962	25,414	25,507	25,669	24,944	23,836
Mining..............................	610	601	581	580	596	590	539	543	565	557
Construction.......................	4,668	4,986	5,160	5,418	5,691	6,020	6,415	6,653	6,685	6,555
Manufacturing..................................	18,075	18,321	18,524	18,495	18,675	18,805	18,552	18,473	17,695	16,725
Service-producing...........................	87,361	90,256	92,925	95,115	97,727	100,451	103,409	106,051	106,978	106,957
Transportation and public utilities........	5,811	5,984	6,132	6,253	6,408	6,611	6,834	7,031	7,065	6,773
Wholesale trade............................	5,981	6,162	6,378	6,482	6,648	6,800	6,911	6,947	6,776	6,671
Retail trade...............................	19,773	20,507	21,187	21,597	21,966	22,295	22,848	23,337	23,522	23,306
Finance, insurance, and real estate....	6,757	6,896	6,806	6,911	7,109	7,389	7,555	7,578	7,712	7,761
Services....................................	30,197	31,579	33,117	34,454	36,040	37,533	39,055	40,457	40,970	41,184
Government...................................	18,841	19,128	19,305	19,419	19,557	19,823	20,206	20,702	20,933	21,262
Federal..	2,915	2,870	2,822	2,757	2,699	2,686	2,669	2,777	2,616	2,619
State..	4,488	4,576	4,635	4,606	4,582	4,612	4,709	4,786	4,885	4,947
Local..	11,438	11,682	11,849	12,056	12,276	12,525	12,829	13,139	13,432	13,695

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

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

Industry	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Private sector:										
Average weekly hours............................	34.5	34.7	34.5	34.4	34.6	34.6	34.5	34.5	34.2	34.1
Average hourly earnings (in dollars)...............	10.83	11.12	11.43	11.82	12.28	12.78	13.24	13.76	14.32	14.77
Average weekly earnings (in dollars)..................	373.64	385.86	394.34	406.61	424.89	442.19	456.78	474.72	489.74	503.66
Mining:										
Average weekly hours.............................	44.3	44.8	44.7	45.3	45.4	43.9	43.2	43.1	43.5	42.9
Average hourly earnings (in dollars)...............	14.60	14.88	15.30	15.62	16.15	16.91	17.05	17.22	17.56	17.76
Average weekly earnings (in dollars)..................	646.78	666.62	683.91	707.59	733.21	742.35	736.56	742.18	763.86	761.90
Construction:										
Average weekly hours.............................	38.5	38.9	38.9	39.0	39.0	38.9	39.1	39.3	39.3	38.8
Average hourly earnings (in dollars)...............	14.38	14.73	15.09	15.47	16.04	16.61	17.19	17.88	18.34	18.87
Average weekly earnings (in dollars)..................	553.63	573.00	587.00	603.33	625.56	646.13	672.13	702.68	720.76	732.16
Manufacturing:										
Average weekly hours.............................	41.4	42.0	41.6	41.6	42.0	41.7	41.7	41.6	40.7	40.9
Average hourly earnings (in dollars)...............	11.74	12.07	12.37	12.77	13.17	13.49	13.90	14.37	14.83	15.30
Average weekly earnings (in dollars)..................	486.04	506.94	514.59	531.23	553.14	562.53	579.63	597.79	603.58	625.77
Transportation and public utilities:										
Average weekly hours.............................	39.3	39.7	39.4	39.6	39.7	39.5	38.7	38.4	38.2	38.3
Average hourly earnings (in dollars)...............	13.55	13.78	14.13	14.45	14.92	15.31	15.69	16.21	16.79	17.29
Average weekly earnings (in dollars)..................	532.52	547.07	556.72	572.22	592.32	604.75	607.20	622.46	641.38	662.21
Wholesale trade:										
Average weekly hours.............................	38.2	38.4	38.3	38.3	38.4	38.3	38.3	38.5	38.2	38.4
Average hourly earnings (in dollars)...............	11.74	12.06	12.43	12.87	13.45	14.07	14.59	15.22	15.86	16.21
Average weekly earnings (in dollars)..................	448.47	463.10	476.07	492.92	516.48	538.88	558.80	585.97	605.85	622.46
Retail trade:										
Average weekly hours.............................	28.8	28.9	28.8	28.8	28.9	29.0	29.0	28.9	28.9	29.0
Average hourly earnings (in dollars)...............	7.29	7.49	7.69	7.99	8.33	8.74	9.09	9.46	9.77	10.04
Average weekly earnings (in dollars)..................	209.95	216.46	221.47	230.11	240.74	253.46	263.61	273.39	282.82	291.16
Finance, insurance, and real estate:										
Average weekly hours.............................	35.8	35.8	35.9	35.9	36.1	36.4	36.2	36.4	36.1	36.1
Average hourly earnings (in dollars)...............	11.35	11.83	12.32	12.80	13.34	14.07	14.62	15.14	15.80	16.35
Average weekly earnings (in dollars)..................	406.33	423.51	442.29	459.52	481.57	512.15	529.24	551.10	570.38	590.24
Services:										
Average weekly hours.............................	32.5	32.5	32.4	32.4	32.6	32.6	32.6	32.7	32.7	32.6
Average hourly earnings (in dollars)...............	10.78	11.04	11.39	11.79	12.28	12.84	13.37	13.93	14.67	15.24
Average weekly earnings (in dollars)..................	350.35	358.80	369.04	382.00	400.33	418.58	435.86	455.51	479.71	496.82

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

[June 1989 = 100]

Series	2001				2002				2003	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2003	
Civilian workers[2]	152.5	153.8	155.6	156.8	158.4	159.9	161.3	162.2	164.5	1.4	3.9
Workers, by occupational group:											
White-collar workers......	154.4	156.0	157.7	158.9	160.5	162.1	163.5	164.3	166.7	1.5	3.9
Professional specialty and technical...	153.2	154.3	156.7	157.5	158.5	159.3	161.4	162.4	164.1	1.0	3.5
Executive, adminitrative, and managerial...	156.6	158.6	159.6	161.2	163.7	165.6	166.3	166.7	171.1	2.6	4.5
Administrative support, including clerical...	155.3	156.8	158.8	160.0	162.0	163.3	164.9	166.1	168.3	1.3	3.9
Blue-collar workers...	148.2	149.3	151.1	152.0	153.7	155.1	156.4	157.5	159.8	1.5	4.0
Service occupations...	152.0	153.3	155.0	156.9	158.4	159.4	161.3	162.2	164.1	1.2	3.6
Workers, by industry division:											
Goods-producing...	150.7	152.2	153.2	154.4	156.3	157.7	158.7	169.2	163.1	1.8	4.4
Manufacturing...	151.3	152.6	153.3	154.6	156.6	158.1	159.1	160.5	164.0	2.2	4.7
Service-producing...	153.0	154.4	156.4	157.6	159.1	160.7	162.2	162.8	165.0	1.4	3.7
Services...	154.3	155.4	158.1	159.0	160.2	161.1	163.2	163.9	165.3	.9	3.2
Health services...	152.5	154.6	156.7	158.3	160.5	161.8	163.1	164.5	166.4	1.2	3.7
Hospitals...	153.2	155.6	158.2	160.0	162.3	163.8	165.7	167.6	169.9	1.4	4.7
Educational services...	151.7	152.2	156.1	156.6	157.1	157.4	161.6	162.8	163.6	.5	4.1
Public administration[3]...	150.6	151.9	153.8	155.2	156.5	157.5	160.2	161.7	163.4	1.1	4.4
Nonmanufacturing...	152.6	154.0	156.0	157.2	158.7	160.2	161.7	162.4	164.5	1.3	3.7
Private industry workers...	153.0	154.5	155.9	157.2	158.9	160.7	161.6	162.3	165.0	1.7	3.8
Excluding sales occupations...	153.0	154.4	156.0	157.2	159.0	160.5	161.6	162.4	165.1	1.7	3.8
Workers, by occupational group:											
White-collar workers...	155.7	157.4	158.7	160.1	161.9	163.8	164.6	165.2	168.1	1.8	3.8
Excluding sales occupations...	156.5	158.1	159.6	160.9	162.8	164.3	165.3	165.9	169.1	1.9	3.9
Professional specialty and technical occupations...	156.3	157.5	159.2	160.3	161.5	162.5	163.6	164.4	166.5	1.3	3.1
Executive, adminitrative, and managerial occupations...	157.3	159.4	160.2	161.8	164.4	166.6	167.0	167.2	172.1	2.9	4.7
Sales occupations...	152.3	154.5	155.0	156.7	157.7	161.6	161.6	161.9	163.5	1.0	3.7
Administrative support occupations, including clerical...	156.1	157.7	159.5	160.8	162.8	164.2	165.6	166.7	169.0	1.4	3.8
Blue-collar workers...	148.2	149.3	151.0	151.9	153.6	155.1	156.3	157.3	159.7	1.5	4.0
Precision production, craft, and repair occupations...	148.7	149.7	151.8	152.5	153.7	155.7	156.9	157.8	160.0	1.4	4.1
Machine operators, assemblers, and inspectors...	148.3	149.1	150.4	151.5	153.6	154.7	155.4	156.7	159.9	2.0	4.1
Transportation and material moving occupations...	142.6	143.9	145.6	146.3	148.7	149.6	151.0	151.8	153.2	.9	3.0
Handlers, equipment cleaners, helpers, and laborers...	152.2	153.4	154.9	156.5	158.7	159.9	161.4	162.9	164.9	1.2	3.9
Service occupations...	150.0	151.3	152.6	154.8	156.4	157.4	159.0	159.8	161.7	1.2	3.4
Production and nonsupervisory occupations[4]...	151.4	152.7	154.3	155.5	157.1	158.7	159.7	160.5	162.6	1.3	3.5
Workers, by industry division:											
Goods-producing...	150.7	152.1	153.1	154.4	156.2	157.6	158.6	160.1	163.0	1.8	4.4
Excluding sales occupations...	150.1	151.5	152.5	153.7	155.5	156.9	157.9	159.2	162.4	2.0	4.4
White-collar occupations...	154.5	156.5	156.8	158.1	160.1	161.9	162.9	164.3	167.8	2.1	4.8
Excluding sales occupations...	153.0	155.0	155.3	156.5	158.4	160.2	161.1	162.3	166.3	2.5	5.0
Blue-collar occupations...	148.2	149.3	150.8	151.9	153.6	154.8	155.9	157.3	159.9	1.7	4.1
Construction...	148.2	150.3	151.7	153.0	154.1	155.2	156.3	157.9	159.1	.8	3.2
Manufacturing...	151.3	152.6	153.3	154.6	156.6	158.1	159.1	160.5	164.0	2.2	4.7
White-collar occupations...	154.2	156.0	156.0	156.9	159.1	161.1	162.2	163.3	167.1	2.3	5.0
Excluding sales occupations...	152.2	154.0	153.8	154.7	156.7	158.6	159.6	160.7	165.1	2.7	5.4
Blue-collar occupations...	149.1	150.0	151.3	152.7	154.6	155.8	156.7	158.3	161.6	2.1	4.5
Durables...	151.8	153.1	154.0	155.3	156.9	158.3	158.9	160.6	164.4	2.4	4.8
Nondurables...	150.4	151.6	152.0	153.2	156.0	157.5	159.2	160.3	163.1	1.7	4.6
Service-producing...	153.8	155.3	156.9	158.2	159.9	161.8	162.7	163.1	165.6	1.5	3.6
Excluding sales occupations...	154.6	156.0	157.8	159.0	160.9	162.4	163.5	164.0	166.6	1.6	3.5
White-collar occupations...	155.8	157.4	159.0	160.3	162.1	164.0	164.7	165.1	167.9	1.7	3.6
Excluding sales occupations...	157.5	159.1	160.9	162.2	164.1	165.6	166.5	167.0	169.9	1.7	3.5
Blue-collar occupations...	147.7	148.7	150.9	151.4	153.2	155.2	156.6	156.9	158.7	1.1	3.6
Service occupations...	149.6	150.8	152.2	154.2	155.9	157.0	158.5	159.3	161.1	1.1	3.3
Transportation and public utilities...	150.5	152.4	153.5	155.5	157.3	158.9	160.8	161.7	163.2	.9	3.8
Transportation...	145.4	146.9	148.2	151.1	152.5	153.9	155.4	156.1	157.8	1.1	3.5
Public utilities...	157.3	159.8	160.7	161.5	163.9	165.5	168.2	169.2	170.5	.8	4.0
Communications...	158.3	161.1	162.8	163.4	166.0	166.1	169.0	170.1	171.3	.7	3.2
Electric, gas, and sanitary services...	156.0	158.1	158.1	159.1	161.3	164.8	167.2	168.1	169.5	.8	5.1
Wholesale and retail trade...	151.0	152.6	153.7	155.5	156.5	159.5	159.6	159.7	161.3	1.0	3.1
Excluding sales occupations...	152.6	153.9	155.4	157.1	157.5	160.0	160.3	160.4	161.8	.9	2.7
Wholesale trade...	155.1	157.8	158.6	159.5	161.9	166.3	165.9	166.7	169.5	1.7	4.7
Excluding sales occupations...	156.9	158.5	160.0	160.6	162.3	164.4	166.1	167.2	168.4	.7	3.8
Retail trade...	148.7	149.7	150.9	153.2	153.5	155.6	156.0	155.8	156.6	.5	2.0
General merchandise stores...	147.3	149.4	149.7	150.9	152.4	154.2	156.1	155.1	156.4	.8	2.6
Food stores...	146.1	148.2	149.7	151.7	152.9	154.5	156.3	156.3	157.5	.8	3.0

See footnotes at end of table.

25. Continued—Employment Cost Index, compensation,[1] by occupation and industry group

[June 1989 = 100]

Series	2001				2002				2002	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2003	
Finance, insurance, and real estate.............................	157.9	159.5	160.9	161.3	165.2	167.3	168.0	168.5	176.7	4.9	7.0
Excluding sales occupations..................................	161.2	163.1	164.7	165.0	169.8	171.3	172.1	173.1	182.0	5.1	7.2
Banking, savings and loan, and other credit agencies.	170.8	172.7	175.4	174.5	182.1	184.2	184.6	185.3	204.3	10.3	12.2
Insurance..	157.6	159.3	159.9	161.3	164.0	166.1	167.1	167.9	172.1	2.5	4.9
Services...	156.5	157.8	160.0	161.0	162.6	163.7	164.9	165.4	167.1	1.0	2.8
Business services...	160.5	163.0	165.2	166.2	166.3	166.6	167.2	167.5	168.5	.6	1.3
Health services...	152.7	154.7	156.8	158.4	160.6	162.0	163.2	164.4	166.5	1.3	3.7
Hospitals..	153.5	155.9	158.4	160.3	162.8	164.5	166.2	168.1	170.8	1.6	4.9
Educational services...	162.3	162.6	166.4	167.6	168.5	169.0	173.5	175.2	176.3	.6	4.6
Colleges and universities..................................	162.2	162.6	166.2	167.5	168.1	168.4	172.0	173.7	174.5	.5	3.8
Nonmanufacturing..	153.1	154.7	156.3	157.6	159.3	161.1	162.0	162.5	164.9	1.5	3.5
White-collar workers...	155.8	157.5	159.0	160.5	162.2	164.1	164.8	165.3	168.0	1.6	3.6
Excluding sales occupations..............................	157.5	159.1	160.9	162.3	164.2	165.7	166.6	167.1	170.0	1.7	3.5
Blue-collar occupations...	146.9	148.1	150.2	150.6	152.2	154.0	155.4	155.9	157.5	1.0	3.5
Service occupations...	149.5	150.7	152.1	154.1	155.9	156.9	158.4	159.2	161.1	1.2	3.3
State and local government workers...............................	150.3	151.2	154.3	155.2	156.1	156.7	160.1	161.5	162.6	.7	4.2
Workers, by occupational group:											
White-collar workers...	149.5	150.4	153.7	154.4	155.2	155.7	159.3	160.7	161.7	.6	4.2
Professional specialty and technical.........................	148.4	149.2	152.8	153.2	153.6	154.1	158.1	159.4	160.2	.5	4.3
Executive, administrative, and managerial.................	152.4	153.7	156.4	157.6	159.5	159.6	162.3	163.8	165.3	.9	3.6
Administrative support, including clerical....................	150.7	151.6	154.2	155.6	156.9	158.0	161.0	162.4	163.8	.9	4.4
Blue-collar workers..	148.6	149.0	151.5	153.2	154.0	154.7	158.4	159.8	161.3	.9	4.7
Workers, by industry division:											
Services...	149.9	150.6	154.4	154.9	155.5	155.9	159.7	160.9	161.8	.6	4.1
Services excluding schools[5]...................................	150.1	151.4	154.5	156.1	157.9	158.7	161.0	162.8	164.0	.7	3.9
Health services...	152.1	154.4	157.1	158.5	160.4	161.4	163.5	165.5	166.4	.5	3.7
Hospitals..	152.2	154.7	157.4	159.1	160.7	161.8	164.1	166.2	167.0	.5	3.9
Educational services...	149.6	150.1	154.1	154.5	154.8	155.1	159.2	160.3	161.1	.5	4.1
Schools...	149.9	150.5	154.4	154.8	155.1	155.4	159.6	160.7	161.4	.4	4.1
Elementary and secondary...............................	148.5	149.0	152.8	153.1	153.4	153.6	157.7	158.8	159.4	.4	3.9
Colleges and universities.................................	153.7	154.3	153.8	159.6	160.0	160.4	164.7	165.8	167.0	.7	4.4
Public administration[3]...	150.6	151.9	151.9	155.2	156.5	157.9	160.2	161.7	163.4	1.1	4.4

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

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

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

[4] 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.

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

[June 1989 = 100]

Series	2001				2002				2003	Percent change	
										3 months ended	12 months ended
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	Mar. 2003	
Civilian workers[1]..	149.5	150.8	152.3	153.4	154.8	156.1	157.2	157.8	159.3	1.0	2.9
Workers, by occupational group:											
White-collar workers..........................	151.7	153.1	154.5	155.6	157.0	158.4	159.6	160.1	161.9	1.1	3.1
Professional specialty and technical...............................	151.1	152.-	154.2	155.1	155.6	156.2	158.0	158.6	159.3	.4	2.4
Executive, adminitrative, and managerial......................	154.0	155.8	156.7	158.1	160.7	162.6	163.5	163.8	167.9	2.5	4.5
Administrative support, including clerical......................	151.6	152,7	154.6	155.7	157.3	158.4	159.6	160.6	161.8	.7	2.9
Blue-collar workers...........................	144.7	146.0	147.6	148.5	149.7	151.0	151.9	152.6	153.8	.8	2.7
Service occupations..........................	148.6	149.7	151.2	153.0	154.2	155.1	'56.2	156.9	158.0	.7	2.5
Workers, by industry division:											
Goods-producing.............................	147.0	147,6	149.5	150.5	151.8	153.1	153.9	155.1	156.3	.8	3.0
Manufacturing...........................	148.5	150.0	150.7	151.7	153.1	154.5	155.4	156.5	158.0	1.0	3.2
Service-producing...........................	150.5	151.7	153.4	154.5	155.9	157.2	156.4	158.8	160.5	1.1	3.0
Services...............................	152.6	153.6	156.2	157.1	158.1	158.8	160.7	161.1	161.9	.5	2.4
Health services....................	149.8	151.8	153.7	155.5	157.3	158.5	159.6	160.9	162.0	.7	3.0
Hospitals........................	148.8	151.2	15.5	155.5	157.2	158.6	160.3	162.2	163.5	.8	4.0
Educational services...............	150.5	151.0	154.6	155.1	155.3	155.6	159.3	160.1	160.4	.2	3.3
Public administration[2]......................	147.6	148.7	150.3	151.6	152.5	153.4	154.8	155.8	157.2	.9	3.1
Nonmanufacturing..........................	149.7	149.7	152.6	153.8	155.0	156.4	157.5	158.0	159.6	1.0	3.0
Private industry workers......................	149.4	150.9	152.1	153.3	154.7	156.3	157.0	157.5	159.3	1.1	3.0
Excluding sales occupations.....................	149.5	150.8	152.2	153.3	154.9	156.1	157.0	157.9	159.4	1.2	2.9
Workers, by occupational group:											
White-collar workers..........................	152.3	153.8	154.8	156.1	157.7	159.4	160.0	160.4	162.6	1.4	3.1
Excluding sales occupations..................	153.0	154.4	155.7	156.9	158.6	160.0	169.8	160.8	163.6	1.4	3.2
Professional specialty and technical occupations..........	152.1	153.2	154.8	155.9	156.7	157.4	158.2	158.5	159.5	.6	1.8
Executive, adminitrative, and managerial occupations..	154.7	156.5	157.2	158.6	161.3	163.6	164.3	164.5	169.1	2.8	4.8
Sales occupations..........................	149.2	151.5	151.2	152.6	153.6	157.0	156.9	156.8	158.1	.8	2.9
Administrative support occupations, including clerical...	152.3	153.6	155.3	156.5	158.2	159.2	160.3	161.3	162.6	.8	2.8
Blue-collar workers...........................	144.6	145.9	147.5	148.3	149.6	150.9	151.7	152.4	153.6	.8	2.7
Precision production, craft, and repair occupations........	144.6	145.7	147.7	148,4	149.2	151.0	151.8	152.3	153.4	.7	2.8
Machine operators, assemblers, and inspectors............	145.6	146.9	148.1	149.0	150.5	151.6	152.0	153.2	154.7	1.0	2.8
Transportation and material moving occupations...........	139.5	140.7	142.1	142.8	144.8	145.2	146.3	146.9	147.8	.6	2.1
Handlers, equipment cleaners, helpers, and laborers....	148.0	149.8	151.0	152.4	154.2	155.1	156.0	157.2	158.4	.8	2.7
Service occupations..............................	146.4	147.5	148.7	150.6	152.0	152.8	153.9	154.4	155.5	.6	2.3
Production and nonsupervisory occupations[3]..................	147.7	149.0	150.3	151.5	152.7	154.0	154.7	155.2	156.4	.8	2.4
Workers, by industry division:											
Goods-producing..............................	147.0	148.6	149.5	150.5	151.7	153.1	153.9	155.0	156.3	.8	3.0
Excluding sales occupations....................	146.3	147.8	148.7	149.7	150.9	152.2	153.0	154.0	155.4	.9	3.0
White-collar occupations....................	150.5	152.3	152.6	153.6	155.0	156.6	157.9	158.6	160.0	.9	3.2
Excluding sales occupations................	148.9	150.5	150.8	151.7	152.9	154.5	155.4	156.3	158.0	1.1	3.3
Blue-collar occupations....................	144.7	146.1	147.4	148.4	149.6	150.7	151.5	152.6	153.8	.8	2.8
Construction................................	142.1	143.9	145.1	146.3	147.0	148.2	149.0	150.2	150.6	.3	2.4
Manufacturing................................	148.5	150.0	150.7	151.7	153.1	154.4	155.4	156.5	158.0	1.0	3.2
White-collar occupations.................	151.1	152.7	152.8	153.3	154.9	156.6	157.7	158.6	160.1	.9	3.4
Excluding sales occupations.............	149.9	150.5	150.5	151.0	152.3	153.9	155.0	155.9	157.7	1.2	3.5
Blue-collar occupations..................	146.4	147.8	149.1	150.3	151.7	152.8	153.5	154.7	156.3	1.0	3.0
Durables.................................	149.0	150.5	151.5	151.7	153.0	155.3	156.0	157.3	158.8	1.0	3.2
Nondurables..............................	147.5	149.0	149.3	153.9	151.9	153.1	154.4	155.2	156.6	.9	3.1
Service-producing.............................	150.5	151.9	153.2	151.9	156.1	157.7	158.4	158.6	160.6	1.3	2.9
Excluding sales occupations.................	151.3	152.6	154.2	156.1	157.2	158.5	159.3	159.6	161.7	1.3	2.9
White-collar occupations..................	152.5	154.0	155.2	157.2	158.2	159.9	160.5	160.7	163.0	1.4	3.0
Excluding sales occupations..............	154.3	155.6	157.2	158.2	160.4	161.6	162.5	162.8	165.3	1.5	3.1
Blue-collar occupations..................	144.3	145.3	147.5	148.1	149.4	151.1	151.8	152.0	153.2	.8	2.5
Service occupations.......................	146.1	147.2	148.4	149.4	151.6	152.4	153.5	154.1	155.1	.6	2.3
Transportation and public utilities.............................	143.7	145.7	146.7	149.2	150.5	152.1	153.4	154.1	154.8	.5	2.9
Transportation..........................	139.8	141.6	142.6	145.7	147.4	148.6	149.6	150.1	150.5	.3	2.1
Public utilities..........................	148.7	151.0	152.0	153.6	154.3	156.4	158.2	159.3	160.4	.7	4.0
Communications....................	149.2	151.8	153.3	155.2	155.3	157.1	159.6	160.7	161.9	.7	4.2
Electric, gas, and sanitary services.........................	148.1	149.9	150.4	151.7	153.0	155.5	156.5	157.4	158.6	.8	3.7
Wholesale and retail trade.................	148.4	150.1	150.6	152.1	153.0	155.7	155.5	155.5	156.7	.8	2.4
Excluding sales occupations............	150.7	151.9	153.1	–							
Wholesale trade.......................	151.6	154.5	154.1	154.8	157.2	161.3	160.4	161.0	163.4	1.5	3.9
Excluding sales occupations............	154.9	156.5	157.4	157.9	159.4	161.2	162.6	163.7	163.9	.1	2.8
Retail trade...........................	146.9	147.8	148.8	150.7	150.9	152.7	152.9	152.7	153.1	.3	1.5
General merchandise stores...............	143.8	145.5	145.7	146.5	147.9	148.9	150.1	149.2	149.8	.4	1.3
Food stores........................	143.3	144.5	145.7	146.7	148.0	148.9	150.1	150.3	151.0	.5	2.0

See footnotes at end of table.

26. Continued—Employment Cost Index, wages and salaries, by occupation and industry group

[June 1989 = 100]

Series	2001				2002				2003	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended Mar. 2003	12 months ended Mar. 2003
Finance, insurance, and real estate..............................	153.9	154.6	155.8	156.0	160.3	162.0	162.4	162.6	171.1	5.2	6.7
Excluding sales occupations.................................	156.6	157.6	159.1	159.1	164.5	165.7	166.1	167.3	176.7	5.6	7.4
Banking, savings and loan, and other credit agencies.	169.4	170.8	173.2	171.7	181.2	182.8	182.7	183.9	206.4	12.2	13.9
Insurance...	152.4	153.3	153.6	155.0	157.1	158.6	159.6	159.1	161.6	1.6	2.9
Services..	153.8	155.0	157.1	158.2	159.5	160.3	161.5	161.7	162.8	.7	2.1
Business services..	158.2	160.8	162.8	163.7	164.0	164.0	164.6	164.8	165.6	.5	1.0
Health services...	149.8	151.8	153.6	155.4	157.3	158.4	159.9	160.7	161.9	.7	2.9
Hospitals..	148.5	151.0	153.3	155.4	157.1	158.6	160.2	162.1	163.6	.9	4.1
Educational services...	155.4	156.1	159.6	160.5	161.2	161.2	165.2	166.5	167.1	.4	3.7
Colleges and universities.....................................	154.1	155.0	158.4	159.6	159.9	159.9	163.1	164.3	164.4	.1	2.8
Nonmanufacturing...	149.5	150.9	152.2	153.5	155.0	156.5	157.2	157.5	159.4	1.2	2.8
White-collar workers...	152.3	153.8	155.0	156.4	158.0	159.6	160.2	160.5	162.8	1.4	3.0
Excluding sales occupations.................................	153.9	155.3	156.9	158.3	160.1	161.3	162.1	162.5	164.9	1.5	3.0
Blue-collar occupations..	142.8	143.9	145.8	146.4	147.5	149.0	149.8	150.2	151.1	.6	2.4
Service occupations...	146.0	147.1	148.2	150.1	151.4	152.3	153.4	154.0	155.0	.6	2.4
State and local government workers................................	150.2	151.2	154.3	155.2	156.1	156.7	160.1	161.5	162.6	.4	3.1
Workers, by occupational group:											
White-collar workers...	149.0	149.8	152.7	153.3	153.9	154.4	157.4	158.4	158.9	.3	3.2
Professional specialty and technical......................	149.1	149.8	153.0	153.4	153.6	154.1	157.5	158.4	158.8	.3	3.4
Executive, administrative, and managerial..................	150.1	151.5	153.9	155.1	156.6	156.8	159.0	160.1	160.9	.5	2.7
Administrative support, including clerical..................	147.0	147.6	149.8	150.9	151.9	152.8	155.1	156.0	156.9	.6	3.3
Blue-collar workers..	146.0	146.5	149.1	150.8	151.6	152.1	154.5	155.1	156.2	.7	3.0
Workers, by industry division:											
Services..	149.5	150.2	153.7	154.2	154.6	155.0	158.4	159.2	159.5	.2	3.2
Services excluding schools[4].............................	149.1	150.7	153.2	154.9	156.7	157.3	159.1	160.3	161.4	.7	3.0
Health services..	149.9	151.9	154.2	155.8	157.8	158.6	160.5	162.2	162.9	.4	3.2
Hospitals..	149.5	151.8	154.2	155.7	157.7	158.8	160.6	162.5	163.1	.4	3.4
Educational services...	149.5	150.0	153.6	154.0	154.2	154.5	158.1	158.9	159.1	.1	3.2
Schools..	149.7	150.2	153.8	154.1	154.3	154.6	158.3	159.0	159.2	.1	3.2
Elementary and secondary....................................	149.0	149.5	152.8	153.1	153.4	153.6	157.4	158.1	158.2	.1	3.1
Colleges and universities.....................................	151.4	151.8	156.5	156.7	156.8	157.3	160.7	161.6	162.1	.3	3.4
Public administration[2]...	147.6	148.7	150.3	151.6	152.5	153.4	154.8	155.8	157.2	.9	3.1

[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.

27. Employment Cost Index, benefits, private industry workers by occupation and industry group

[June 1989 = 100]

Series	2001				2002				2003	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended Mar. 2003	12 months ended Mar. 2003
Private industry workers..	161.5	163.2	165.2	166.7	169.3	171.6	173.1	174.6	179.6	2.9	6.1
Workers, by occupational group:											
White-collar workers...	165.2	167.4	169.5	171.2	173.5	176.1	177.2	178.5	183.6	2.9	5.8
Blue-collar workers..	155.7	156.7	158.3	159.2	162.2	164.0	166.2	167.8	172.7	2.9	6.5
Workers, by industry division:											
Goods-producing..	158.5	159.6	160.8	162.6	165.8	167.4	168.8	171.0	178.0	4.1	7.4
Service-producing..	162.6	164.6	167.1	168.4	170.7	173.3	174.9	175.9	179.9	2.3	5.4
Manufacturing...	157.1	157.9	158.5	160.4	163.7	165.5	166.8	168.9	176.9	4.7	8.1
Nonmanufacturing..	162.9	164.9	167.4	168.6	171.1	173.5	175.2	176.3	180.3	2.3	5.4

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

[June 1989 = 100]

Series	2001				2002				2003	Percent change	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	3 months ended	12 months ended
										Mar. 2003	
COMPENSATION											
Workers, by bargaining status[1]											
Union...............................	147.9	149.5	151.0	153.1	154.8	156.3	158.1	159.5	162.1	1.6	4.7
Goods-producing.................	147.9	149.3	150.6	151.6	153.4	154.7	156.2	157.8	161.4	2.3	5.2
Service-producing................	147.6	149.5	151.2	154.2	156.0	157.6	159.9	161.1	162.6	.9	4.2
Manufacturing...................	147.9	148.8	149.9	151.4	153.4	154.6	155.9	157.9	162.3	2.8	5.8
Nonmanufacturing..............	147.3	149.4	151.1	153.5	155.0	156.6	158.8	159.9	161.4	.9	4.1
Nonunion...........................	153.8	155.3	156.7	157.8	159.6	161.4	162.5	162.8	165.4	1.6	3.6
Goods-producing.................	151.6	153.1	154.0	155.3	157.2	158.6	159.5	160.8	163.6	1.7	4.1
Service-producing................	154.4	155.9	157.5	158.6	160.3	162.2	162.9	163.3	165.9	1.6	3.5
Manufacturing...................	152.4	153.7	154.4	155.5	157.6	159.1	160.1	161.3	164.5	2.0	4.4
Nonmanufacturing..............	153.9	155.4	157.0	158.2	159.9	161.7	162.4	162.9	165.4	1.5	3.4
Workers, by region[1]											
Northeast...........................	151.6	153.7	155.2	156.3	158.3	159.9	160.5	161.3	163.8	1.5	3.5
South................................	151.1	152.3	153.5	154.6	156.2	157.6	158.9	159.0	160.6	1.0	2.8
Midwest (formerly North Central).....	154.8	156.0	157.4	158.6	161.1	162.2	163.5	164.6	169.0	2.7	4.9
West.................................	154.3	156.0	157.6	159.4	160.4	162.9	163.8	165.0	167.3	1.4	4.3
Workers, by area size[1]											
Metropolitan areas..............	153.1	154.6	156.0	157.4	159.1	160.9	161.8	162.5	165.2	1.7	3.8
Other areas.......................	152.1	153.7	154.8	155.6	157.5	158.5	160.0	169.8	163.5	1.7	3.8
WAGES AND SALARIES											
Workers, by bargaining status[1]											
Union...............................	142.1	143.7	145.1	147.4	148.4	149.8	151.3	152.5	153.3	.5	3.3
Goods-producing.................	142.4	144.2	145.3	146.3	147.2	158.6	150.0	151.2	152.4	.8	3.5
Service-producing................	142.2	143.7	145.4	148.9	150.0	151.4	152.9	154.1	154.6	.3	3.1
Manufacturing...................	143.9	145.5	146.7	148.0	149.0	150.2	151.6	153.1	154.6	1.0	3.8
Nonmanufacturing..............	141.1	142.7	144.3	147.1	148.1	149.6	151.1	152.1	152.5	.3	3.0
Nonunion...........................	150.8	152.2	153.4	154.4	155.9	157.5	158.1	158.5	160.4	1.2	2.9
Goods-producing.................	148.8	150.3	151.1	152.1	153.5	154.8	155.5	156.6	157.8	.8	2.8
Service-producing................	151.4	152.7	154.1	155.1	156.7	158.3	158.9	159.0	161.2	1.4	2.9
Manufacturing...................	150.1	151.6	152.2	153.1	154.7	156.1	156.8	157.8	159.3	1.0	3.0
Nonmanufacturing..............	150.7	152.0	153.3	154.4	155.9	157.5	158.1	158.3	160.4	1.3	2.9
Workers, by region[1]											
Northeast...........................	147.3	149.2	150.6	151.7	153.5	154.9	155.1	155.7	157.3	1.0	2.5
South................................	148.3	149.3	150.2	151.2	152.5	153.6	154.7	154.6	155.3	.5	1.8
Midwest (formerly North Central).....	150.9	152.3	153.6	154.7	157.1	158.5	159.2	160.2	164.1	2.4	4.5
West.................................	151.3	152.9	154.3	156.0	156.4	158.7	159.3	160.1	161.3	.7	3.1
Workers, by area size[1]											2.9
Metropolitan areas..............	149.8	151.2	152.4	153.7	155.1	156.7	157.4	157.9	159.6	1.1	3.4
Other areas.......................	147.4	148.8	149.7	150.5	151.7	152.6	153.8	154.8	156.8	1.3	2.9

[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.

29. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, medium and large private establishments, selected years, 1980–97

Item	1980	1982	1984	1986	1988	1989	1991	1993	1995	1997
Scope of survey (in 000's)...............................	21,352	21,043	21,013	21,303	31,059	32,428	31,163	28,728	33,374	38,409
Number of employees (in 000's):										
With medical care..	20,711	20,412	20,383	20,238	27,953	29,834	25,865	23,519	25,546	29,340
With life insurance.......................................	20,498	20,201	20,172	20,451	28,574	30,482	29,293	26,175	29,078	33,495
With defined benefit plan...............................	17,936	17,676	17,231	16,190	19,567	20,430	18,386	16,015	17,417	19,202
Time-off plans										
Participants with:										
Paid lunch time...	10	9	9	10	11	10	8	9	–	–
Average minutes per day.............................	–	25	26	27	29	26	30	29	–	–
Paid rest time...	75	76	73	72	72	71	67	68	–	–
Average minutes per day.............................	–	25	26	26	26	26	28	26	–	–
Paid funeral leave.......................................	–	–	–	88	85	84	80	83	80	81
Average days per occurrence........................	–	–	–	3.2	3.2	3.3	3.3	3.0	3.3	3.7
Paid holidays...	99	99	99	99	96	97	92	91	89	89
Average days per year................................	10.1	10.0	9.8	10.0	9.4	9.2	10.2	9.4	9.1	9.3
Paid personal leave.....................................	20	24	23	25	24	22	21	21	22	20
Average days per year................................	–	3.8	3.6	3.7	3.3	3.1	3.3	3.1	3.3	3.5
Paid vacations...	100	99	99	100	98	97	96	97	96	95
Paid sick leave [1].......................................	62	67	67	70	69	68	67	65	58	56
Unpaid maternity leave.................................	–	–	–	–	33	37	37	60	–	–
Unpaid paternity leave.................................	–	–	–	–	16	18	26	53	–	–
Unpaid family leave.....................................	–	–	–	–	–	–	–	–	84	93
Insurance plans										
Participants in medical care plans....................	97	97	97	95	90	92	83	82	77	76
Percent of participants with coverage for:										
Home health care..	–	–	46	66	76	75	81	86	78	85
Extended care facilities................................	58	62	62	70	79	80	80	82	73	78
Physical exam..	–	–	8	18	28	28	30	42	56	63
Percent of participants with employee										
contribution required for:										
Self coverage..	26	27	36	43	44	47	51	61	67	69
Average monthly contribution.........................	–	–	$11.93	$12.80	$19.29	$25.31	$26.60	$31.55	$33.92	$39.14
Family coverage...	46	51	58	63	64	66	69	76	78	80
Average monthly contribution.........................	–	–	$35.93	$41.40	$60.07	$72.10	$96.97	$107.42	$118.33	$130.07
Participants in life insurance plans...................	96	96	96	96	92	94	94	91	87	87
Percent of participants with:										
Accidental death and dismemberment										
insurance..	69	72	74	72	78	71	71	76	77	74
Survivor income benefits..............................	–	–	–	10	8	7	6	5	7	6
Retiree protection available..........................	–	64	64	59	49	42	44	41	37	33
Participants in long-term disability										
insurance plans.......................................	40	43	47	48	42	45	40	41	42	43
Participants in sickness and accident										
insurance plans.......................................	54	51	51	49	46	43	45	44	–	–
Participants in short-term disability plans [1]........	–	–	–	–	–	–	–	–	53	55
Retirement plans										
Participants in defined benefit pension plans.........	84	84	82	76	63	63	59	56	52	50
Percent of participants with:										
Normal retirement prior to age 65....................	55	58	63	64	59	62	55	52	52	52
Early retirement available.............................	98	97	97	98	98	97	98	95	96	95
Ad hoc pension increase in last 5 years............	–	–	47	35	26	22	7	6	4	10
Terminal earnings formula.............................	53	52	54	57	55	64	56	61	58	56
Benefit coordinated with Social Security............	45	45	56	62	62	63	54	48	51	49
Participants in defined contribution plans.............	–	–	–	60	45	48	48	49	55	57
Participants in plans with tax-deferred savings										
arrangements..	–	–	–	33	36	41	44	43	54	55
Other benefits										
Employees eligible for:										
Flexible benefits plans.................................	–	–	–	2	5	9	10	12	12	13
Reimbursement accounts [2]...........................	–	–	–	5	12	23	36	52	38	32
Premium conversion plans.............................	–	–	–	–	–	–	–	–	5	7

[1] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1995 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-terms disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave. Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability bene-fits at less than full pay.

[2] Prior to 1995, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

30. Percent of full-time employees participating in employer-provided benefit plans, and in selected features within plans, small private establishments and State and local governments, 1987, 1990, 1992, 1994, and 1996

Item	Small private establishments				State and local governments			
	1990	1992	1994	1996	1987	1990	1992	1994
Scope of survey (in 000's).........................	32,466	34,360	35,910	39,816	10,321	12,972	12,466	12,907
Number of employees (in 000's):								
With medical care..............................	22,402	24,396	23,536	25,599	9,599	12,064	11,219	11,192
With life insurance............................	20,778	21,990	21,955	24,635	8,773	11,415	11,095	11,194
With defined benefit plan....................	6,493	7,559	5,480	5,883	9,599	11,675	10,845	11,708
Time-off plans								
Participants with:								
Paid lunch time..................................	8	9	–	–	17	11	10	–
Average minutes per day.....................	37	37	–	–	34	36	34	–
Paid rest time....................................	48	49	–	–	58	56	53	–
Average minutes per day.....................	27	26	–	–	29	29	29	–
Paid funeral leave..............................	47	50	50	51	56	63	65	62
Average days per occurrence.................	2.9	3.0	3.1	3.0	3.7	3.7	3.7	3.7
Paid holidays....................................	84	82	82	80	81	74	75	73
Average days per year[1]......................	9.5	9.2	7.5	7.6	10.9	13.6	14.2	11.5
Paid personal leave............................	11	12	13	14	38	39	38	38
Average days per year........................	2.8	2.6	2.6	3.0	2.7	2.9	2.9	3.0
Paid vacations..................................	88	88	88	86	72	67	67	66
Paid sick leave [2]..............................	47	53	50	50	97	95	95	94
Unpaid leave....................................	17	18	–	–	57	51	59	–
Unpaid paternity leave.........................	8	7	–	–	30	33	44	–
Unpaid family leave.............................	–	–	47	48	–	–	–	93
Insurance plans								
Participants in medical care plans............	69	71	66	64	93	93	90	87
Percent of participants with coverage for:								
Home health care...............................	79	80	–	–	76	82	87	84
Extended care facilities.......................	83	84	–	–	78	79	84	81
Physical exam..................................	26	28	–	–	36	36	47	55
Percent of participants with employee contribution required for:								
Self coverage...................................	42	47	52	52	35	38	43	47
Average monthly contribution.................	$25.13	$36.51	$40.97	$42.63	$15.74	$25.53	$28.97	$30.20
Family coverage................................	67	73	76	75	71	65	72	71
Average monthly contribution.................	$109.34	$150.54	$159.63	$181.53	$71.89	$117.59	$139.23	$149.70
Participants in life insurance plans..........	64	64	61	62	85	88	89	87
Percent of participants with:								
Accidental death and dismemberment insurance..........	78	76	79	77	67	67	74	64
Survivor income benefits......................	1	1	2	1	1	1	1	2
Retiree protection available...................	19	25	20	13	55	45	46	46
Participants in long-term disability insurance plans..........	19	23	20	22	31	27	28	30
Participants in sickness and accident insurance plans..........	6	26	26	–	14	21	22	21
Participants in short-term disability plans [2].........	–	–	–	29	–	–	–	–
Retirement plans								
Participants in defined benefit pension plans...........	20	22	15	15	93	90	87	91
Percent of participants with:								
Normal retirement prior to age 65............	54	50	–	47	92	89	92	92
Early retirement available.....................	95	95	–	92	90	88	89	87
Ad hoc pension increase in last 5 years............	7	4	–	–	33	16	10	13
Terminal earnings formula....................	58	54	–	53	100	100	100	99
Benefit coordinated with Social Security.....	49	46	–	44	18	8	10	49
Participants in defined contribution plans....	31	33	34	38	9	9	9	9
Participants in plans with tax-deferred savings arrangements....................	17	24	23	28	28	45	45	24
Other benefits								
Employees eligible for:								
Flexible benefits plans.........................	1	2	3	4	5	5	5	5
Reimbursement accounts [3]...................	8	14	19	12	5	31	50	64
Premium conversion plans	–			7				

[1] Methods used to calculate the average number of paid holidays were revised in 1994 to count partial days more precisely. Average holidays for 1994 are not comparable with those reported in 1990 and 1992.

[2] The definitions for paid sick leave and short-term disability (previously sickness and accident insurance) were changed for the 1996 survey. Paid sick leave now includes only plans that specify either a maximum number of days per year or unlimited days. Short-term disability now includes all insured, self-insured, and State-mandated plans available on a per-disability basis, as well as the unfunded per-disability plans previously reported as sick leave.

Sickness and accident insurance, reported in years prior to this survey, included only insured, self-insured, and State-mandated plans providing per-disability benefits at less than full pay.

[3] Prior to 1996, reimbursement accounts included premium conversion plans, which specifically allow medical plan participants to pay required plan premiums with pretax dollars. Also, reimbursement accounts that were part of flexible benefit plans were tabulated separately.

NOTE: Dash indicates data not available.

31. Work stoppages involving 1,000 workers or more

Measure	Annual totals		2002								2003[P]				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Number of stoppages:															
Beginning in period.............................	29	19	3	1	3	1	3	1	2	1	1	0	2	1	1
In effect during period.........................	30	20	5	3	4	3	3	3	2	1	2	0	2	1	1
Workers involved:															
Beginning in period (in thousands).....	99	46	5.1	1.5	6.7	3.5	13.7	1.2	4.3	1.4	17.5	.0	4.0	4.0	4.0
In effect during period (in thousands).	102	47	9.2	5.3	8.2	6.2	13.7	13.5	4.3	1.4	18.8	.0	4.0	4.0	4.0
Days idle:															
Number (in thousands)......................	1,151	6,596	138.2	36.0	54.0	50.6	40.3	133.4	23.9	28.6	48.8	0.0	18.5	40.0	40.0
Percent of estimated working time[1]....	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	(²)	.00	.00	.00

[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' measures of strike idleness," *Monthly Labor Review*, October 1968, pp. 54—56.

[2] Less than 0.005.

[P] = preliminary.

32. 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		2002								2003				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS															
All items.................................	177.1	179.9	179.8	179.9	180.1	180.7	181.0	181.0	181.3	180.9	181.7	183.1	184.2	183.8	183.5
All items (1967 = 100)................	530.4	538.8	538.5	538.9	539.5	541.2	542.1	543.2	543.1	541.9	544.2	548.5	551.8	550.5	549.7
Food and beverages.....................	173.6	176.8	176.4	176.4	176.6	176.6	176.9	177.1	177.4	177.8	178.1	178.9	179.2	179.0	179.4
Food....................................	173.1	176.2	175.8	175.8	176.0	176.0	176.4	176.5	176.8	177.3	177.5	178.3	178.6	178.4	178.8
Food at home.........................	173.4	175.6	175.5	175.0	175.2	174.9	175.2	175.1	175.5	176.1	176.7	177.6	177.7	177.3	177.8
Cereals and bakery products.........	193.8	198.0	198.2	198.7	198.7	198.6	198.4	198.9	198.3	197.3	199.8	201.8	202.1	201.9	203.0
Meats, poultry, fish, and eggs......	161.3	162.1	162.4	161.9	162.3	162.2	161.8	161.3	162.1	162.4	161.6	164.7	164.8	165.2	164.7
Dairy and related products[1]........	167.1	168.1	169.0	168.0	167.6	167.2	166.3	166.5	167.1	167.3	166.4	167.2	167.1	165.8	165.4
Fruits and vegetables...............	212.2	220.9	221.0	217.4	217.4	217.0	218.4	217.4	219.8	224.9	227.1	223.3	223.6	221.3	226.2
Nonalcoholic beverages and beverage materials.............................	139.2	139.2	138.0	137.5	138.3	137.6	140.2	140.5	139.1	139.8	140.6	140.8	140.3	140.5	140.3
Other foods at home.................	159.6	160.8	160.0	160.8	161.0	160.6	160.8	160.9	161.1	161.1	161.8	162.2	162.6	162.1	162.1
Sugar and sweets..................	155.7	159.0	157.9	158.0	160.2	159.9	159.6	159.9	158.5	159.1	169.7	161.8	162.5	161.4	162.3
Fats and oils......................	155.7	155.4	155.9	154.6	154.9	154.1	154.1	155.9	153.4	152.8	155.8	158.7	157.5	156.1	157.6
Other foods.......................	176.0	177.1	176.1	177.4	177.3	176.9	177.0	177.0	178.3	178.2	178.2	177.9	178.6	178.5	177.8
Other miscellaneous foods[1,2].....	108.9	109.2	108.9	109.0	110.1	109.3	109.7	109.8	110.3	110.2	109.7	110.5	110.1	110.4	110.1
Food away from home[1]...............	173.9	178.3	177.6	178.2	1787.5	178.8	179.2	179.6	179.8	180.1	179.9	180.7	181.0	181.1	181.5
Other food away from home[1,2].....	113.4	117.7	117.1	117.6	117.7	118.1	118.8	119.1	119.7	119.8	119.9	120.2	120.4	120.4	120.5
Alcoholic beverages....................	179.3	183.6	183.3	183.5	183.8	184.2	183.9	184.7	185.1	184.9	185.8	185.9	186.6	186.4	186.7
Housing.................................	176.4	180.3	179.7	180.7	181.2	209.6	181.5	181.4	181.2	181.1	182.3	183.2	184.3	184.1	184.5
Shelter...............................	200.6	208.1	207.5	208.1	208.8	200.2	209.2	201.3	209.6	209.5	210.9	211.6	212.1	212.1	212.8
Rent of primary residence..........	192.1	199.7	198.8	199.3	199.8	200.2	200.7	201.3	202.0	202.5	203.3	203.7	204.1	204.5	204.9
Lodging away from home.............	118.6	118.3	120.1	120.9	121.7	123.6	117.6	117.0	113.2	109.2	114.3	117.6	119.7	118.7	121.4
Owners' equivalent rent of primary residence[3].....	206.3	214.7	213.7	214.3	214.9	215.4	216.2	216.8	217.3	217.9	218.5	218.7	218.9	218.9	219.1
Tenants' and household insurance[1,2]...	106.2	108.7	107.6	107.8	108.6	109.6	110.0	110.0	111.4	112.3	113.9	114.1	114.0	114.2	114.3
Fuels and utilities.................	150.2	143.6	141.5	146.2	146.8	146.8	147.2	144.4	143.6	144.2	146.1	148.3	154.5	153.1	153.7
Fuels.............................	135.4	127.2	125.1	130.3	130.8	130.7	131.0	127.9	127.0	127.5	129.5	131.9	138.5	136.8	137.5
Fuel oil and other fuels..........	129.3	115.5	114.4	112.7	111.6	112.1	115.2	119.3	121.8	125.6	136.6	156.3	169.0	147.9	137.0
Gas (piped) and electricity.......	142.4	134.4	132.1	138.0	138.6	138.5	138.7	134.9	133.7	134.1	135.6	136.9	143.5	143.0	144.5
Household furnishings and operations...	129.1	128.3	128.9	128.7	128.6	128.1	128.1	128.0	127.8	127.0	127.4	127.7	127.1	127.2	126.3
Apparel.................................	127.3	124.0	127.1	122.7	118.7	120.5	124.6	126.8	125.5	121.5	118.1	120.6	123.6	123.9	122.5
Men's and boys' apparel...............	125.7	121.7	124.3	120.8	118.4	118.3	120.1	122.8	123.2	119.3	116.1	117.3	121.0	120.8	119.5
Women's and girls' apparel............	119.3	115.8	229.4	113.7	107.6	111.0	118.0	120.5	118.0	113.1	107.6	112.4	117.2	117.8	115.5
Infants' and toddlers' apparel[1]......	129.2	126.4	127.4	124.9	122.9	124.3	126.2	127.7	127.5	125.3	121.1	122.3	124.1	123.4	123.6
Footwear..............................	123.0	121.4	124.5	121.2	118.5	119.7	121.6	123.0	122.7	120.7	119.7	119.8	119.8	119.9	119.7
Transportation..........................	154.3	152.9	153.8	153.4	153.7	153.9	154.0	154.9	155.2	154.2	155.5	158.9	161.0	159.3	157.2
Private transportation.................	150.0	148.8	149.5	149.1	149.5	149.7	150.0	151.1	151.5	150.4	151.8	155.3	157.3	155.5	153.1
New and used motor vehicles[2]........	101.3	99.2	99.1	98.8	98.8	98.7	98.7	98.9	98.8	98.7	98.2	98.0	98.0	97.8	97.4
New vehicles........................	142.1	140.0	139.8	139.2	138.7	138.1	138.7	139.5	140.4	140.6	139.7	139.2	139.3	138.7	138.1
Used cars and trucks[1].............	158.7	152.0	151.8	152.2	152.7	153.4	152.2	150.7	148.8	148.5	148.3	148.4	148.5	148.4	147.9
Motor fuel...........................	124.7	116.6	121.4	120.1	120.8	121.5	121.7	124.5	124.4	119.7	126.3	140.4	148.1	140.6	131.3
Gasoline (all types)..............	124.0	116.0	120.8	119.5	120.3	120.9	121.1	123.9	123.8	119.1	125.7	139.7	147.4	139.9	130.6
Motor vehicle parts and equipment....	104.8	106.9	106.8	106.7	107.4	107.7	107.4	106.9	107.2	107.0	107.8	108.2	107.9	107.7	107.8
Motor vehicle maintenance and repair...	183.5	190.2	189.9	190.0	189.8	191.0	191.4	191.8	192.8	193.3	193.7	194.5	194.3	194.6	194.9
Public transportation..................	210.6	207.4	211.3	211.3	209.7	209.4	206.5	203.4	202.3	203.0	202.2	203.6	206.1	207.2	211.6
Medical care............................	272.8	285.6	284.1	284.7	286.6	287.3	287.7	289.2	290.5	291.3	292.6	293.7	294.2	294.6	295.5
Medical care commodities...............	247.6	256.4	255.4	256.4	257.5	257.7	257.9	258.3	259.1	259.5	260.3	260.4	261.4	261.6	261.8
Medical care services..................	278.8	292.9	291.2	291.7	293.8	294.7	295.2	297.1	298.5	299.4	300.8	302.3	302.6	303.1	304.2
Professional services................	246.5	253.9	252.9	253.2	255.0	254.9	254.8	256.0	256.5	257.0	257.8	258.8	259.1	259.8	261.1
Hospital and related services........	338.3	367.8	364.5	365.3	367.6	371.3	373.3	376.7	380.7	382.4	385.7	388.2	388.7	388.7	388.9
Recreation[2]...........................	104.9	1-6.2	106.4	106.2	106.2	106.3	106.2	106.4	106.4	106.5	106.9	107.2	107.4	107.4	107.6
Video and audio[1,2]..................	101.5	102.6	103.1	103.0	102.6	102.4	102.3	102.6	103.0	103.2	103.4	103.8	103.7	103.8	103.8
Education and communication[2].........	105.2	107.9	106.6	106.9	107.6	108.9	109.5	109.4	109.3	109.2	109.7	109.7	109.4	109.0	108.6
Education[2]..........................	118.5	126.0	123.5	124.3	124.8	127.1	129.6	129.9	130.0	130.0	130.6	131.0	131.1	131.2	131.4
Educational books and supplies.......	295.9	317.6	315.6	317.4	318.3	319.6	323.2	323.2	324.0	323.3	329.5	332.8	333.2	332.3	332.5
Tuition, other school fees, and child care...	341.1	362.1	354.6	356.8	358.3	365.6	372.8	373.8	374.1	374.0	375.5	376.3	376.5	377.1	377.7
Communication[1,2]....................	93.3	92.3	91.9	91.8	92.6	93.2	92.5	92.2	91.8	91.8	92.0	91.9	91.3	90.5	89.8
Information and information processing[1,2]...	92.3	90.8	90.7	90.6	90.8	91.5	90.7	90.4	90.0	90.0	90.3	90.1	89.5	88.6	87.9
Telephone services[1,2].............	99.3	99.7	99.3	99.2	99.5	100.6	100.1	99.9	99.8	99.9	100.4	100.5	99.7	98.7	98.1
Information and information processing other than telephone services[1,4]...	21.3	18.3	18.5	18.4	18.4	18.3	17.8	17.7	17.3	17.2	17.1	16.9	16.8	16.7	16.4
Personal computers and peripheral equipment[1,2]...	29.5	22.2	23.0	22.6	22.3	22.0	21.1	20.7	20.0	19.7	19.5	19.1	19.0	18.7	18.0
Other goods and services...............	282.6	293.2	291.5	294.4	294.4	295.9	297.0	295.4	295.6	295.8	296.5	297.5	297.3	298.1	298.1
Tobacco and smoking products.........	425.2	461.5	449.0	467.4	467.2	478.2	485.8	470.6	470.4	472.5	472.4	472.7	467.2	467.9	465.6
Personal care[1]......................	170.5	174.7	174.7	174.9	175.0	174.9	174.9	175.3	175.5	175.4	175.9	176.7	177.2	177.7	177.9
Personal care products[1]...........	155.1	154.7	154.8	155.4	154.6	154.3	154.4	154.6	154.2	153.4	153.0	153.3	153.3	154.1	153.6
Personal care services[1]...........	184.3	188.4	188.3	188.3	188.7	189.1	189.2	189.3	189.9	189.9	190.6	190.9	191.7	192.5	193.0

See footnotes at end of table.

[1982–84 = 100, unless otherwise indicated]

Series	Annual average		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	2003				
	2001	2002									Jan.	Feb.	Mar.	Apr.	May
Miscellaneous personal services.................	263.1	274.4	274.2	274.6	275.1	275.4	275.2	276.0	276.6	276.9	278.1	280.4	281.4	282.0	282.7
Commodity and service group:															
Commodities.........................	150.7	149.7	150.5	149.8	149.3	149.6	150.2	150.7	150.6	149.7	150.0	152.0	153.1	152.2	150.9
Food and beverages.....................	173.6	176.8	176.4	176.4	176.6	176.6	176.9	177.1	177.4	177.8	178.1	178.9	179.2	179.0	179.0
Commodities less food and beverages...........	137.2	134.2	135.4	134.4	133.6	134.0	134.8	135.5	135.2	133.6	133.9	136.4	138.0	136.7	134.6
Nondurables less food and beverages...........	147.1	145.1	147.4	145.7	144.4	145.4	147.2	148.4	148.0	145.2	146.1	151.2	154.5	152.3	148.9
Apparel...........................	127.3	124.0	127.1	122.7	118.7	120.5	124.6	126.8	125.5	121.5	118.1	120.6	123.6	123.9	122.5
Nondurables less food, beverages, and apparel...................	163.4	162.2	164.1	164.0	164.3	164.8	165.2	166.0	166.0	163.9	167.4	174.1	177.8	173.9	169.2
Durables...........................	124.6	121.4	121.7	121.3	121.1	120.7	120.6	120.6	120.5	120.2	119.9	119.7	119.5	119.2	118.5
Services..............................	203.4	209.8	208.8	209.8	210.7	211.5	211.5	211.7	211.8	211.9	213.1	214.0	215.1	215.1	215.9
Rent of shelter[3].....................	208.9	216.7	216.1	216.8	217.4	218.3	217.9	218.4	218.2	218.1	219.5	220.3	220.9	220.8	221.5
Transporatation services.................	201.9	209.1	208.9	209.0	209.6	210.1	210.1	210.9	212.0	212.0	212.3	213.4	214.2	215.3	216.3
Other services.....................	238.0	246.4	244.5	245.1	246.4	248.2	249.1	249.7	249.9	250.2	251.4	252.4	252.6	252.5	252.8
Special indexes:															
All items less food.................	177.8	180.5	180.4	180.6	180.8	181.5	181.8	182.2	182.1	181.6	182.4	183.9	185.2	184.7	184.3
All items less shelter.................	169.7	170.8	170.9	170.9	170.9	171.3	171,9	172.2	172.3	171.7	172.3	174.0	175.3	174.7	174.1
All items less medical care...............	171.9	174.3	174.2	174.4	174.5	175.0	175.3	175.6	175.6	175.1	175.9	177.3	178.4	178.0	177.7
Commodities less food...............	138.9	136.0	137.3	136.3	135.5	135.9	136.7	137.3	137.0	135.6	135.8	138.3	139.8	138.5	136.5
Nondurables less food...............	149.1	147.4	149.5	148.0	146.7	147.7	149.3	150.6	150.2	147.6	148.4	153.3	156.5	154.3	151.1
Nondurables less food and apparel...........	164.1	163.3	165.0	164.9	165.2	165.8	166.1	166.9	166.9	165.0	168.2	174.4	177.7	174.2	169.9
Nondurables.........................	160.6	161.1	162.1	161.2	160.6	161.2	162.2	163.0	162.9	161.6	162.2	165.3	167.2	165.9	164.3
Services less rent of shelter[3]...................	212.3	217.5	216.0	217.5	218.6	219.5	220.0	219.9	220.2	220.5	221.6	222.8	224.4	224.6	225.5
Services less medical care services...........	196.6	202.5	201.6	202.6	203.2	204.2	204.1	204.2	204.3	204.3	205.5	206.4	207.4	207.5	208.2
Energy...............................	129.3	121.7	122.9	124.9	125.5	125.8	126.1	125.8	125.3	123.3	127.5	135.4	142.6	138.1	134.0
All items less energy.................	183.5	187.7	187.4	187.3	187.5	188.1	188.4	188.8	188.9	188.6	189.0	189.7	190.2	190.2	190.3
All items less food and energy...........	186.1	190.5	190.2	190.1	190.3	191.0	191.3	191.8	191.8	191.4	191.8	192.5	193.0	193.1	193.2
Commodities less food and energy...........	145.3	143.7	144.4	143.4	142.5	142.8	143.6	143.9	143.6	142.5	141.7	142.1	142.6	142.5	141.7
Energy commodities.....................	125.2	117.1	121.6	120.3	120.9	121.5	122.0	124.8	124.9	120.7	127.5	142.1	150.1	141.7	132.3
Services less energy.....................	209.6	217.5	216.6	217.2	218.0	219.0	218.9	219.5	219.8	219.8	221.0	221.9	222.4	222.5	223.1
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS															
All items...............................	173.5	175.9	175.8	175.9	176.0	176.6	177.0	177.3	177.4	177.0	177.7	179.2	180.3	179.8	179.4
All items (1967 = 100).................	516.8	523.9	523.6	524.0	524.5	526.0	527.3	528.2	528.4	527.2	529.2	533.7	537.1	535.5	534.3
Food and beverages.....................	173.0	176.1	175.7	175.7	176.0	175.9	176.2	176.3	176.6	177.1	177.4	178.3	178.5	178.3	178.7
Food...............................	172.5	176.5	175.1	175.2	175.4	175.3	175.7	175.7	176.0	176.5	176.8	177.7	177.9	177.7	178.1
Food at home.....................	172.4	175.1	174.4	174.1	174.3	174.0	174.3	174.2	174.5	175.1	175.7	176.7	176.8	176.4	176.8
Cereals and bakery products...............	193.6	197.1	198.2	198.6	198.7	198.5	198.4	198.9	198.2	197.1	199.9	201.9	202.1	201.8	202.9
Meats, poultry, fish, and eggs...........	161.2	162.0	162.1	161.8	162.2	162.0	161.5	161.2	162.1	162.3	161.5	164.5	164.8	165.2	164.6
Dairy and related products[1]...............	167.1	167.2	168.7	167.8	167.4	167.0	166.1	166.4	166.9	167.2	166.3	167.1	166.7	165.6	165.1
Fruits and vegetables.................	210.8	222.9	219.1	216.4	216.4	216.2	217.5	216.2	218.0	222.9	225.7	221.8	222.2	220.0	224.3
Nonalcoholic beverages and beverage materials...............	138.4	138.6	137.3	136.9	137.6	136.9	139.6	139.9	138.6	139.1	139.9	140.1	139.5	139.6	139.7
Other foods at home.................	159.1	160.4	159.7	160.4	160.5	160.1	160.3	160.3	160.7	160.6	161.3	161.9	162.1	161.7	161.7
Sugar and sweets.....................	155.6	158.8	157.6	158.8	159.9	159.6	159.5	159.5	158.2	158.9	160.4	161.3	162.1	160.9	162.1
Fats and oils.....................	155.4	155.3	155.7	154.3	154.7	154.0	155.2	155.8	153.4	152.9	155.7	158.7	157.7	156.2	157.6
Other foods.....................	176.3	177.6	176.7	177.9	177.6	177.3	177.2	177.2	178.8	178.5	178.5	178.5	178.9	179.0	187.1
Other miscellaneous foods[1,2]...........	109.1	109.7	109.5	109.6	110.8	109.9	110.1	110.1	111.0	110.7	110.1	110.9	110.5	110.9	110.5
Food away from home[1].................	173.8	178.2	177.5	178.0	178.4	178.7	179.0	179.4	179.7	180.0	179.8	180.5	181.0	181.0	181.4
Other food away from home[1,2]...........	113.6	118.1	117.7	118.1	118.2	118.9	119.3	119.6	120.0	120.1	120.2	120.4	120.7	120.8	120.8
Alcoholic beverages.....................	178.8	183.3	183.1	183.2	183.6	183.8	183.4	184.3	184.6	184.7	185.5	185.7	186.8	186.6	186.8
Housing...............................	172.1	175.7	175.1	176.1	176.5	176.9	177.0	176.9	176.9	176.9	177.9	178.7	179.9	179.7	180.0
Shelter...............................	194.5	201.9	201.2	20.7	202.3	202.9	203.0	203.5	203.7	203.9	204.9	205.5	205.9	205.9	206.4
Rent of primary residence.................	191.5	199.0	98.1	198.7	199.2	199.6	200.0	200.6	201.3	201.9	202.6	203.0	203.4	203.7	204.1
Lodging away from home[2]...............	118.4	118.4	120.7	120.4	121.3	122.9	117.7	117.7	114.0	109.6	114.3	118.0	120.4	119.0	122.2
Owners' equivalent rent of primary residence[3]	187.6	195.1	194.2	194.7	195.2	195.7	196.4	196.9	197.4	198.0	198.5	198.6	198.8	198.8	199.0
Tenants' and household insurance[1,2].........	106.4	108.7	107.6	107.9	108.7	109.7	110.1	110.1	111.2	112.3	113.7	113.9	113.8	114.0	114.0
Fuels and utilities.....................	149.5	142.9	140.7	145.6	146.1	146.2	146.5	143.6	143.0	143.5	145.3	147.4	153.6	152.4	153.0
Fuels...............................	134.2	126.1	123.9	129.1	129.6	129.6	129.9	126.7	126.0	126.4	128.3	130.5	137.0	135.7	136.3
Fuel oil and other fuels...............	129.2	115.0	114.0	112.2	110.9	111.3	114.5	118.6	121.0	125.0	135.8	155.7	167.9	146.9	136.1
Gas (piped) and electricity...............	141.5	133.4	131.0	136.9	137.5	137.4	137.6	133.8	132.9	133.2	134.7	136.0	142.6	142.3	143.5
Household furnishings and operations...........	125.8	124.4	125.0	124.8	124.7	124.2	123.9	123.9	123.7	123.0	123.2	123.5	122.8	122.8	122.0
Apparel...............................	126.1	123.1	126.2	122.0	118.0	119.6	123.5	125.5	124.6	120.9	117.3	119.4	122.5	122.8	121.5
Men's and boys' apparel.................	125.8	121.7	124.6	121.1	118.6	118.2	119.8	122.3	122.7	118.8	115.7	116.8	120.6	120.4	119.1
Women's and girls' apparel...............	117.3	114.6	118.2	112.7	106.5	109.6	116.8	119.3	117.2	112.3	106.7	111.0	116.4	116.4	114.2
Infants' and toddlers' apparel[1]...........	130.9	128.6	129.9	127.5	125.3	126.8	128.4	129.5	129.7	127.2	122.4	123.6	125.8	125.5	125.7
Footwear.............................	123.1	121.2	124.4	121.0	118.2	119.6	121.4	122.3	122.5	120.8	119.5	119.3	119.8	119.8	119.9
Transportation.........................	153.6	151.8	151.8	152.7	152.4	152.7	153.0	153.1	154.0	154.2	153.0	154.6	158.2	160.3	158.5	156.2
Private transportation.................	150.8	149.0	149.8	149.5	149.9	150.2	150.4	151.4	151.6	150.4	152.0	155.7	157.8	155.9	153.3
New and used motor vehicles[2].................	101.9	99.4	99.3	99.1	99.1	99.1	99.0	99.0	98.7	98.5	98.2	97.9	98.0	97.7	96.9

See footnotes at end of table.

32.   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		2002							2003				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
New vehicles	143.2	141.1	140.9	140.3	139.8	139.1	139.8	140.7	141.5	141.7	140.9	140.3	140.4	139.7	139.1
Used cars and trucks[1]	159.8	152.8	152.7	153.0	153.6	154.2	153.1	151.5	149.7	149.3	149.2	149.2	149.2	149.2	148.7
Motor fuel	124.9	117.0	121.8	120.4	121.2	121.8	122.1	124.9	124.8	120.0	126.7	140.9	148.5	140.8	131.5
Gasoline (all types)	124.2	116.4	121.2	119.9	120.6	121.3	121.6	124.4	124.3	119.4	126.1	140.3	147.8	140.2	130.9
Motor vehicle parts and equipment	104.0	106.1	106.0	105.9	106.7	107.0	106.7	106.2	106.5	106.3	107.1	107.5	107.2	107.1	107.2
Motor vehicle maintenance and repair	185.1	191.7	191.4	191.5	191.4	192.5	192.9	193.3	194.3	195.0	195.4	196.2	196.0	196.3	196.5
Public transportation	204.9	202.6	206.3	205.9	204.7	204.5	201.9	199.2	198.5	199.2	198.1	199.8	202.0	203.0	208.5
Medical care	271.8	284.6	282.9	283.6	285.5	286.3	286.7	288.3	289.6	290.6	291.8	293.0	293.5	293.7	294.6
Medical care commodities	242.7	251.1	250.3	251.3	252.3	252.3	252.5	252.8	253.5	254.0	254.8	255.1	256.1	256.2	256.4
Medical care services	278.5	292.5	290.6	291.3	293.5	294.5	294.9	296.9	298.4	299.5	300.9	302.3	302.7	303.0	304.1
Professional services	248.7	256.0	255.3	255.3	257.2	256.9	256.8	258.2	258.7	259.2	260.0	261.0	261.3	261.9	263.3
Hospital and related services	333.8	363.2	359.4	360.6	363.2	367.1	368.9	372.6	376.7	379.1	382.2	384.8	385.3	384.9	385.0
Recreation[2]	103.6	104.6	104.9	104.6	104.6	104.7	104.4	194.6	104.5	104.7	105.1	105.4	105.4	105.4	105.5
Video and audio[1,2]	100.9	102.0	102.3	102.2	101.8	101.6	101.4	101.8	102.2	102.4	102.7	103.0	102.9	103.0	103.0
Education and communication[2]	105.3	107.6	106.5	106.7	107.4	108.6	109.1	109.0	108.8	108.8	109.2	109.2	108.9	108.4	108.0
Education[2]	118.7	125.9	123.5	124.4	124.8	126.9	129.3	129.6	129.7	129.7	130.3	130.7	130.8	130.9	131.1
Educational books and supplies	299.9	318.5	316.3	318.2	319.1	320.4	323.9	324.2	325.0	324.5	330.6	333.6	333.9	333.4	333.6
Tuition, other school fees, and child care	334.7	354.8	347.7	350.3	351.4	357.7	364.9	365.7	366.0	366.0	367.2	368.0	368.2	368.8	369.3
Communication[1,2]	94.5	93.7	93.3	93.1	93.9	94.6	93.9	93.6	93.3	93.2	93.5	93.4	92.8	92.0	91.3
Information and information processing[1,2]	93.8	92.7	92.5	92.4	92.7	93.4	92.4	92.4	92.0	93.0	92.3	92.2	91.6	90.7	90.0
Telephone services[1,2]	99.4	99.9	99.4	99.3	99.7	100.8	100.3	100.2	100.1	100.1	100.7	100.7	99.9	98.9	98.3
Information and information processing other than telephone services[1,4]	22.1	19.0	19.2	19.1	19.1	18.9	18.5	18.3	17.9	17.8	17.7	17.5	17.4	17.4	17.0
Personal computers and peripheral equipment[1,2]	29.1	21.8	22.7	22.3	22.1	21.7	20.8	20.4	19.7	19.3	19.1	18.6	18.6	18.5	17.8
Other goods and services	289.5	302.0	299.1	303.5	303.5	306.0	307.8	304.9	305.0	305.1	305.6	306.4	305.6	306.4	306.0
Tobacco and smoking products	426.1	463.2	450.1	468.7	468.8	480.7	488.4	473.1	472.8	474.3	474.3	474.8	469.1	469.8	464.8
Personal care[1]	170.3	174.1	174.0	174.4	174.4	174.3	174.4	174.8	174.9	174.7	175.2	175.7	176.1	176.7	176.9
Personal care products[1]	155.7	155.5	155.4	156.2	155.3	155.1	155.2	155.5	155.0	154.2	154.8	154.0	153.8	154.6	154.2
Personal care services[1]	184.9	189.1	189.1	189.0	189.4	189.8	190.0	190.1	190.6	190.7	189.1	191.6	192.4	193.2	193.6
Miscellaneous personal services	262.8	274.0	273.6	274.1	274.7	275.2	274.9	275.9	276.6	276.7	277.9	279.9	281.1	281.6	282.4
Commodity and service group:															
Commodities	151.4	150.4	151.2	150.5	150.1	150.4	151.0	151.4	151.3	150.3	150.7	152.8	154.0	153.0	151.6
Food and beverages	173.0	176.1	175.7	175.7	275.7	175.9	176.2	176.3	176.6	177.1	177.4	178.3	178.5	178.3	178.7
Commodities less food and beverages	138.7	135.5	136.8	135.9	135.2	135.6	136.4	136.9	136.5	135.0	135.5	138.0	139.6	138..2	136.0
Nondurables less food and beverages	149.0	147.0	149.3	147.8	146.5	147.7	149.4	159.6	150.2	147.3	148.3	153.8	157.3	154.8	151.1
Apparel	126.1	123.1	126.2	122.0	118.0	119.6	123.5	125.5	124.6	120.9	117.3	119.4	122.5	122.8	121.5
Nondurables less food, beverages, and apparel	166.3	165.3	167.2	167.3	167.6	168.5	169.1	169.7	169.6	167.2	171.0	178.7	182.6	178.3	173.0
Durables	125.3	121.8	122.0	121.6	121.5	121.3	121.1	121.0	120.6	120.4	120.1	119.9	119.8	119.4	118.8
Services	199.6	205.9	204.8	205.8	206.6	207.3	207.6	207.8	208.1	208.3	209.4	210.2	211.2	211.3	212.0
Rent of shelter[3]	187.3	194.5	193.9	194.3	194.8	195.5	195.5	196.1	196.2	196.3	197.3	197.9	198.3	198.3	198.8
Transporatation services	199.1	207.7	207.1	207.3	208.0	208.6	208.8	210.0	211.4	211.7	212.2	213.2	213.9	215.0	216.1
Other services	233.7	241.6	239.7	240.4	241.6	243.4	244.1	244.6	244.8	245.1	246.2	247.1	247.0	246.8	246.8
Special indexes:															
All items less food	173.6	175.8	175.8	175.9	176.1	176.7	177.1	177.5	177.5	177.0	177.7	179.3	180.6	180.0	179.5
All items less shelter	167.6	168.3	168.4	168.4	168.4	168.9	169.5	169.7	169.7	169.1	169.7	171.5	172.9	172.2	171.4
All items less medical care	169.1	171.1	171.0	171.2	171.3	171.8	172.2	172.5	172.5	172.1	172.7	174.2	175.4	174.8	174.4
Commodities less food	140.2	137.3	138.5	137.6	136.9	137.4	138.1	138.6	138.3	136.8	137.1	139.7	141.4	140.0	137.9
Nondurables less food	150.8	149.2	151.4	150.0	148.7	149.8	151.5	152.6	152.3	149.6	150.5	155.8	159.2	156.8	153.2
Nondurables less food and apparel	166.7	166.1	167.9	168.0	168.3	169.2	169.6	179.3	170.2	168.0	171.6	178.7	182.3	178.4	173.5
Nondurables	161.4	161.4	162.9	162.2	161.6	162.2	163.2	163.9	163.9	162.6	163.2	166.5	168.5	167.1	165.3
Services less rent of shelter[3]	188.5	193.1	181.6	193.2	194.1	194.9	195.3	195.2	195.6	195.9	196.9	197.9	199.5	199.7	200.4
Services less medical care services	193.1	198.9	197.9	198.9	199.6	200.4	200.6	200.7	200.9	201.1	202.1	202.9	204.0	204.0	204.7
Energy	128.7	120.9	122.2	124.1	124.7	125.0	125.3	125.2	124.8	122.6	126.9	135.1	142.2	137.7	133.2
All items less energy	179.8	183.6	183.3	183.2	183.3	183.8	184.3	184.7	184.8	184.6	184.8	185.5	185.9	185.8	185.9
All items less food and energy	181.7	185.6	185.4	185.3	185.4	186.0	186.5	186.9	187.0	186.7	186.9	187.5	188.0	188.0	188.0
Commodities less food and energy	146.1	144.4	145.0	144.2	143.2	143.7	144.4	144.5	144.1	143.1	142.2	142.6	143.1	143.0	142.2
Energy commodities	125.3	17.3	121.9	120.5	121.2	121.8	122.2	125.1	125.2	120.7	127.6	142.1	150.0	141.7	132.3
Services less energy	206.0	213.9	213.0	213.3	214.3	215.1	215.4	216.1	216.5	216.7	217.7	218.5	218.8	219.0	219.6

[1] Not seasonally adjusted.

[2] Indexes on a December 1997 = 100 base.

[3] Indexes on a December 1982 = 100 base.

[4] Indexes on a December 1988 = 100 base.

Dash indicates data not available.

NOTE: Index applied to a month as a whole, not to any specific date.

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

[1982–84 = 100, unless otherwise indicated]

	Pricing sched-ule[1]	All Urban Consumers						Urban Wage Earners					
		2002	2003					2002	2003				
		Dec.	Jan.	Feb.	Mar.	Apr.	May	Dec.	Jan.	Feb.	Mar.	Apr.	May
U.S. city average.................................	M	180.9	181.7	183.1	184.2	183.8	183.5	177.0	177.7	179.2	180.3	179.8	179.4
Region and area size[2]													
Northeast urban......................	M	189.6	190.5	191.7	193.0	192.6	192.7	186.6	187.2	188.6	189.8	189.4	189.2
Size A—More than 1,500,000....................	M	191.4	192.2	193.5	194.6	194.4	194.6	187.1	187.7	189.1	190.0	189.8	189.8
Size B/C—50,000 to 1,500,000[3].............	M	112.6	113.1	113.8	115.0	114.4	114.2	112.7	113.2	114.0	115.2	114.5	114.2
Midwest urban[4]....................	M	175.5	176.2	177.8	178.6	177.8	177.7	171.0	171.8	173.3	174.1	173.1	172.9
Size A—More than 1,500,000....................	M	177.8	178.2	180.0	180.7	179.7	179.7	172.4	172.9	174.6	175.4	174.3	174.2
Size B/C—50,000 to 1,500,000[3].............	M	111.4	112.0	112.8	113.6	113.2	113.0	111.0	111.7	112.5	113.1	112.6	112.4
Size D—Nonmetropolitan (less than 50,000)................	M	169.5	170.7	172.5	173.0	171.7	171.7	167.2	168.4	170.1	170.6	169.3	169.3
South urban......................	M	174.6	175.1	176.4	177.5	177.4	176.8	172.0	172.5	173.9	175.0	174.7	174.0
Size A—More than 1,500,000....................	M	175.9	176.7	178.3	179.1	178.9	178.6	173.1	174.0	175.7	176.5	176.3	175.7
Size B/C—50,000 to 1,500,000[3].............	M	111.6	111.7	112.5	113.3	113.3	112.8	110.8	110.9	111.7	112.5	112.3	111.8
Size D—Nonmetropolitan (less than 50,000)................	M	172.3	173.2	174.8	175.4	175.5	174.7	172.6	173.2	174.8	175.7	175.4	174.6
West urban......................	M	185.5	186.6	188.1	189.3	188.8	188.5	180.8	181.5	183.2	184.7	184.2	183.8
Size A—More than 1,500,000....................	M	188.0	189.2	190.9	192.1	191.7	191.2	181.6	182.5	184.4	185.9	185.4	185.0
Size B/C—50,000 to 1,500,000[3].............	M	113.1	113.8	114.5	115.4	114.9	114.7	112.9	113.2	114.0	115.1	114.7	114.4
Size classes:													
A[5].......................	M	165.4	166.1	167.5	168.4	168.0	167.9	163.7	164.3	165.8	166.8	166.3	166.1
B/C[3].......................	M	111.9	112.3	113.1	114.0	113.7	113.4	111.4	111.8	112.6	113.5	113.1	112.7
D.......................	M	173.8	174.6	176.0	176.9	176.3	176.1	172.5	173.2	174.7	175.6	174.9	174.5
Selected local areas[6]													
Chicago–Gary–Kenosha, IL–IN–WI..........	M	182.4	182.7	184.1	184.8	183.4	183.4	176.0	176.4	178.1	179.0	177.4	177.3
Los Angeles–Riverside–Orange County, CA........	M	183.7	185.2	186.5	188.2	187.6	186.4	176.7	177.8	179.6	181.6	180.9	179.9
New York, NY–Northern NJ–Long Island, NY–NJ–CT–PA..	M	193.1	194.7	196.2	197.1	196.7	196.8	188.7	189.7	191.3	192.1	191.8	191.7
Boston–Brockton–Nashua, MA–NH–ME–CT..........	1	–	199.8	–	202.8	–	202.3	–	199.3	–	202.3	–	201.8
Cleveland–Akron, OH.............	1	–	173.5	–	175.4	–	175.1	–	165.3	–	167.1	–	166.3
Dallas–Ft Worth, TX.............	1	–	174.0	–	176.8	–	176.9	–	173.3	–	176.5	–	176.4
Washington–Baltimore, DC–MD–VA–WV[7]........	1	–	114.6	–	115.9	–	115.7	–	114.1	–	115.5	–	115.1
Atlanta, GA.............	2	177.3	–	180.7	–	182.1	–	174.6	–	178.1	–	179.2	–
Detroit–Ann Arbor–Flint, MI.............	2	179.7	–	182.4	–	182.2	–	174.4	–	176.8	–	176.4	–
Houston–Galveston–Brazoria, TX.............	2	159.8	–	164	–	162.5	–	158.0	–	161.7	–	160.9	–
Miami–Ft. Lauderdale, FL.............	2	177.9	–	180.3	–	180.6	–	175.3	–	178	–	178.4	–
Philadelphia–Wilmington–Atlantic City, PA–NJ–DE–MD.....	2	185.3	–	186.6	–	187.2	–	184.9	–	185.9	–	186.3	–
San Francisco–Oakland–San Jose, CA...........	2	193.2	–	197.7	–	197.3	–	189.6	–	193.7	–	193.6	–
Seattle–Tacoma–Bremerton, WA...........	2	190.0	–	191.3	–	192.3	–	184.6	–	186.2	–	187	–

[1] 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.

[2] Regions defined as the four Census regions.

[3] Indexes on a December 1996 = 100 base.

[4] The "North Central" region has been renamed the "Midwest" region by the Census Bureau. It is composed of the same geographic entities.

[5] Indexes on a December 1986 = 100 base.

[6] In addition, the following metropolitan areas are published semiannually and appear in tables 34 and 39 of the January and July issues of the *CPI Detailed Report*: Anchorage, AK; Cincinnatti, OH–KY–IN; Kansas City, MO–KS; Milwaukee–Racine, WI; Minneapolis–St. Paul, MN–WI; Pittsburgh, PA; Port-land–Salem, OR–WA; St Louis, MO–IL; San Diego, CA; Tampa–St. Petersburg–Clearwater, FL.

[7] Indexes on a November 1996 = 100 base.

NOTE: Local area CPI indexes are byproducts of the national CPI program. Each local index has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error. As a result, local area indexes show greater volatility than the national index, although their long-term trends are similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in their escalator clauses. Index applies to a month as a whole, not to any specific date.

Dash indicates data not available.

34. Annual data: Consumer Price Index, U.S. city average, all items and major groups

[1982–84 = 100]

Series	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Consumer Price Index for All Urban Consumers:										
All items:										
Index	144.5	148.2	152.4	156.9	160.5	163.0	166.6	172.2	177.1	179.9
Percent change	3.0	2.6	2.8	3.0	2.3	1.6	2.2	3.4	2.8	1.6
Food and beverages:										
Index	141.6	144.9	148.9	153.7	157.7	161.1	164.6	168.4	173.6	176.8
Percent change	2.1	2.3	2.8	3.2	2.6	2.2	2.2	2.3	3.1	1.8
Housing:										
Index	141.2	144.8	148.5	152.8	156.8	160.4	163.9	169.6	176.4	180.3
Percent change	2.7	2.5	2.6	2.9	2.6	2.3	2.2	3.5	4.0	2.2
Apparel:										
Index	133.7	133.4	132.0	131.7	132.9	133.0	131.3	129.6	127.3	124.0
Percent change	1.4	–.2	–1.0	–.2	.9	.1	–1.3	–1.3	–1.8	–2.6
Transportation:										
Index	130.4	134.3	139.1	143.0	144.3	141.6	144.4	153.3	154.3	152.9
Percent change	3.1	3.0	3.6	2.8	0.9	–1.9	2.0	6.2	0.7	–.9
Medical care:										
Index	201.4	211.0	220.5	228.2	234.6	242.1	250.6	260.8	272.8	285.6
Percent change	5.9	4.8	4.5	3.5	2.8	3.2	3.5	4.1	4.6	4.7
Other goods and services:										
Index	192.9	198.5	206.9	215.4	224.8	237.7	258.3	271.1	282.6	293.2
Percent change	5.2	2.9	4.2	4.1	4.4	5.7	8.7	5.0	4.2	3.8
Consumer Price Index for Urban Wage Earners and Clerical Workers:										
All items:										
Index	142.1	145.6	149.8	154.1	157.6	159.7	163.2	168.9	173.5	175.9
Percent change	2.8	2.5	2.9	2.9	2.3	1.3	2.2	3.5	2.7	1.4

35. Producer Price Indexes, by stage of processing

[1982 = 100]

Grouping	Annual average		2002								2003				
	2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.p	Apr.p	Mayp
Finished goods...........................	140.7	138.8	138.6	139.0	138.8	138.8	139.1	140.7	139.7	139.0	140.8	142.3	144.5	142.1	142.1
Finished consumer goods......................	141.5	139.4	139.1	139.6	139.6	139.6	140.0	141.6	140.4	139.6	141.9	144.0	146.7	143.7	143.6
Finished consumer foods......................	141.3	140.0	140.1	139.4	139.8	139.3	138.7	139.2	139.2	139.5	142.0	142.3	142.6	143.9	144.5
Finshed consumer goods excluding foods.............................	141.4	138.8	138.6	139.3	139.1	139.3	140.2	142.2	140.5	139.3	141.6	144.4	147.9	143.3	142.9
Nondurable goods less food.............	142.8	139.8	139.5	140.6	141.0	141.5	142.8	143.8	142.0	140.6	143.8	147.9	152.5	146.4	146.1
Durable goods...........................	133.9	133.0	133.0	132.8	131.5	131.0	131.1	134.8	133.6	132.8	133.2	133.1	134.5	132.8	132.6
Capital equipment...........................	139.7	139.1	139.1	139.0	138.4	138.2	138.3	139.9	139.5	139.1	139.3	139.2	140.1	139.4	139.4
Intermediate materials, supplies, and components...................	128.7	127.8	127.1	127.7	128.1	128.4	129.3	129.7	129.7	129.4	131.2	133.5	136.2	133.2	132.5
Materials and components for manufacturing..........................	127.4	126.1	125.5	125.9	126.3	126.5	126.9	127.4	127.6	127.2	127.9	129.5	129.9	129.5	129.2
Materials for food manufacturing.............	124.3	123.2	121.2	122.1	122.7	123.1	123.9	124.3	125.0	126.9	128.9	129.6	128.9	129.7	130.8
Materials for nondurable manufacturing...	131.8	129.2	128.1	128.8	129.7	130.3	131.5	132.9	132.8	131.4	133.4	138.1	139.2	137.9	136.6
Materials for durable manufacturing.........	125.2	124.7	124.1	124.7	125.3	125.3	125.9	125.9	126.3	126.2	126.1	126.8	127.0	127.0	126.9
Components for manufacturing................	126.3	126.1	126.2	126.1	126.0	125.9	125.9	125.8	126.0	125.9	125.8	125.8	126.1	126.0	126.1
Materials and components for construction.............................	150.6	151.3	151.4	151.5	151.7	152.1	152.1	151.7	151.2	151.1	151.4	152.1	152.2	152.8	153.0
Processed fuels and lubricants...................	104.5	96.3	94.8	96.4	97.3	97.6	100.6	101.6	101.2	100.9	106.9	113.6	125.4	110.9	108.1
Containers..	153.1	152.1	151.0	151.3	151.4	151.5	152.5	153.3	153.4	153.2	153.4	153.7	154.1	154.0	154.2
Supplies..	138.6	138.9	138.4	138.7	139.1	139.3	139.6	139.5	139.6	139.6	140.1	140.7	141.2	141.4	141.5
Crude materials for further processing.......................................	121.3	108.1	109.9	105.7	106.8	108.7	110.9	112.6	116.1	118.1	127.3	134.0	152.7	127.8	130.9
Foodstuffs and feedstuffs.....................	106.2	99.5	98.2	96.8	98.0	99.7	100.7	99.9	99.4	100.5	105.6	106.3	105.2	106.1	110.7
Crude nonfood materials.............................	127.3	111.4	115.6	109.2	110.2	112.1	115.4	119.0	125.3	128.2	140.4	151.7	185.7	140.8	142.7
Special groupings:															
Finished goods, excluding foods................	140.4	138.3	138.2	138.6	138.3	138.4	139.0	140.8	139.6	138.7	140.3	142.1	144.7	141.4	141.2
Finished energy goods.............................	96.8	88.8	88.4	89.8	90.5	91.3	93.0	94.5	91.3	90.7	95.3	101.7	107.5	99.6	98.9
Finished goods less energy........................	147.5	147.3	147.1	147.3	146.7	146.5	146.4	147.9	147.6	147.0	147.9	147.9	148.9	148.2	148.4
Finished consumer goods less energy........	150.8	150.8	150.5	150.7	150.3	150.0	149.9	151.3	151.0	150.2	151.5	151.6	152.7	152.0	152.3
Finished goods less food and energy............	150.0	150.2	150.2	150.2	149.5	149.3	149.5	151.3	150.9	149.9	150.3	150.2	151.5	150.1	150.1
Finished consumer goods less food and energy.................................	156.9	157.6	157.7	157.8	157.1	156.8	157.1	159.1	158.6	157.2	157.7	157.6	159.2	157.3	157.3
Consumer nondurable goods less food and energy.................................	175.1	177.5	177.6	178.0	177.9	177.9	178.3	178.5	178.9	176.7	177.4	177.3	179.2	177.0	177.3
Intermediate materials less foods and feeds.................................	130.5	128.5	127.9	128.4	128.8	129.0	130.0	130.4	130.3	130.0	131.7	134.2	137.1	133.9	133.1
Intermediate foods and feeds.....................	115.9	115.5	112.9	114.2	115.8	116.8	118.0	117.4	117.5	118.8	120.4	121.2	121.0	121.2	122.7
Intermediate energy goods......................	104.1	95.9	94.6	96.2	96.7	97.0	100.4	101.6	101.0	100.0	105.8	113.2	124.8	110.3	107.1
Intermediate goods less energy.................	135.1	134.5	134.0	134.4	134.8	135.0	135.3	135.4	135.5	135.5	136.1	137.1	137.4	137.4	137.4
Intermediate materials less foods and energy.................................	136.4	135.8	135.4	135.7	136.0	136.2	136.5	136.6	136.7	136.6	137.1	138.1	138.5	138.5	138.4
Crude energy materials.............................	122.8	102.0	108.3	97.8	98.1	101.2	105.9	111.3	120.0	124.0	140.1	153.9	202.0	139.1	142.6
Crude materials less energy.......................	112.2	108.7	107.5	107.4	108.9	110.0	110.6	109.9	109.8	110.5	115.1	116.9	116.1	116.4	119.2
Crude nonfood materials less energy.........	130.6	135.7	134.9	138.6	141.0	140.3	140.0	139.3	139.8	139.9	143.0	148.3	148.3	146.7	144.8

36. Producer Price Indexes for the net output of major industry groups

[December 1984 = 100, unless otherwise indicated]

SIC	Industry	Annual average		2002								2003				
		2001	2002	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.ᵖ	Apr.ᵖ	Mayᵖ
–	Total mining industries................	114.3	96.6	100.3	93.5	93.5	95.9	100.1	104.5	110.5	113.8	126.2	137.4	170.8	123.9	127.3
10	Metal mining...........................	70.8	93.6	73.9	76.9	74.7	73.2	73.6	72.8	74.2	74.5	78.0.	78.5	77.3	75.2	74.7
12	Coal mining (12/85 = 100)...............	91.3	93.9	94.4	93.7	93.9	93.4	92.8	93.4	93.6	93.1	93.2	93.4	94.0	94.8	93.8
13	Oil and gas extraction (12/85 = 100)............	127.5	107.0	112.7	101.7	102.0	106.0	112.8	119.5	128.8	133.9	152.5	170.2	222.6	149.0	154.7
14	Mining and quarrying of nonmetallic minerals, except fuels................	141.0	143.5	143.6	143.7	143.7	143.5	143.5	143.7	143.8	144.2	144.9	145.4	146.3	146.2	146.4
–	Total manufacturing industries................	134.6	133.7	133.5	133.6	133.6	133.7	135.0	135.6	134.6	134.0	135.7	137.6	138.9	136.4	135.8
20	Food and kindred products................	132.8	132.0	130.9	131.3	131.5	131.3	136.1	131.6	131.6	132.6	133.9	134.5	134.7	135.0	135.7
21	Tobacco manufactures................	386.1	401.9	408.0	408.2	408.6	408.5	408.5	408.6	409.2	380.3	379.7	379.8	409.6	375.8	376.4
22	Textile mill products................	116.9	115.8	115.5	115.8	115.7	115.5	115.6	115.6	115.8	116.1	115.3	115.2	114.8	115.1	114.8
23	Apparel and other finished products made from fabrics and similar materials......	125.8	125.1	125.1	125.2	125.3	125.3	125.1	125.1	125.1	124.8	124.7	124.7	125.5	125.1	124.8
24	Lumber and wood products, except furniture................	156.2	155.3	156.0	155.3	155.5	155.9	155.3	154.6	154.1	154.2	154.4	155.7	155.3	156.1	156.5
25	Furniture and fixtures................	145.1	146.3	145.9	146.1	146.6	146.6	147.0	147.2	147.0	146.8	147.0	147.1	147.3	147.3	147.5
26	Paper and allied products................	146.2	143.7	142.5	142.8	142.9	143.5	144.1	144.6	145.1	144.9	144.8	144.9	143.9	144.4	145.2
27	Printing, publishing, and allied industries........	188.7	193.0	192.6	192.9	193.1	193.2	193.4	193.6	194.0	194.1	196.4	196.7	196.5	196.9	197.3
28	Chemicals and allied products................	158.4	157.3	156.3	157.0	158.5	158.6	158.7	159.5	159.7	159.3	160.9	162.3	163.7	167.0	165.5
29	Petroleum refining and related products.........	105.3	98.8	99.7	98.9	101.1	103.2	109.6	117.5	106.7	102.4	116.5	138.0	146.0	118.7	110.9
30	Rubber and miscellaneous plastics products..	125.9	125.5	125.3	125.8	125.5	125.9	126.3	126.3	125.8	125.8	126.3	127.2	128.3	129.3	129.4
31	Leather and leather products................	141.3	141.1	140.6	140.9	141.4	142.0	141.9	141.8	142.1	142.5	142.4	142.4	143.1	143.1	142.8
32	Stone, clay, glass, and concrete products......	136.0	137.1	137.1	137.2	137.0	137.4	137.6	137.4	137.3	137.3	137.6	137.8	137.6	138.1	138.1
33	Primary metal industries................	116.1	116.2	115.4	116.3	116.9	117.1	117.9	118.0	118.3	118.1	117.9	118.0	117.8	117.8	118.0
34	Fabricated metal products, except machinery and transportation equipment................	131.0	131.7	131.4	131.6	131.9	132.0	132.1	132.1	132.0	132.2	132.4	132.5	132.7	132.6	132.7
35	Machinery, except electrical................	118.0	117.2	117.6	117.4	117.2	116.8	116.8	116.8	116.6	116.5	116.5	116.2	116.2	116.3	116.2
36	Electrical and electronic machinery, equipment, and supplies................	107.0	105.7	105.9	105.8	105.5	105.5	105.4	105.1	105.0	104.3	104.2	103.8	104.1	104.3	103.6
37	Transportation................	137.9	137.3	137.1	137.0	135.5	135.0	135.1	139.4	138.3	137.6	138.1	138.3	139.8	137.8	137.5
38	Measuring and controlling instruments; photographic, medical, and optical goods; watches and clocks................	127.3	128.5	128.2	128.3	128.3	128.4	128.7	128.8	128.8	128.8	129.4	129.8	129.9	130.0	129..9
39	Miscellaneous manufacturing industries industries (12/85 = 100)................	132.4	133.3	133.1	133.3	133.4	133.4	133.5	133.6	133.5	133.8	133.7	134.0	134.0	134.0	133.9
	Service industries:															
42	Motor freight transportation and warehousing (06/93 = 100)................	123.1	124.5	124.1	124.3	124.3	125.0	125.1	125.5	125.9	125.9	126.5	126.8	127.3	127.4	127.3
43	U.S. Postal Service (06/89 = 100)................	143.4	150.2	145.4	145.4	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0
44	Water transportation (12/92 = 100)................	129.8	134.6	131.7	134.0	135.4	135.3	139.0	141.0	141.3	142.2	142.9	140.7	140.9	140.1	147.9
45	Transportation by air (12/92 = 100)................	157.2	157.8	156.2	156.8	157.9	158.0	158.6	160.1	159.4	159.8	161.4	160.2	160.3	161.0	161.4
46	Pipelines, except natural gas (12/92 = 100).....	110.3	111.9	111.5	111.5	112.3	112.5	112.5	112.7	112.3	111.8	110.6	110.6	111.2	111.6	111.8

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

[1982 = 100]

Index	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Finished goods										
Total.........	124.7	125.5	127.9	131.3	131.8	130.7	133.0	138.0	140.7	138.8
Foods.........	125.7	126.8	129.0	133.6	134.5	134.3	135.1	137.2	141.3	140.0
Energy.........	78.0	77.0	78.1	83.2	83.4	75.1	78.8	94.1	96.8	88.8
Other.........	135.8	137.1	140.0	142.0	142.4	143.7	146.1	148.0	150.0	150.2
Intermediate materials, supplies, and components										
Total.........	116.2	118.5	124.9	125.7	125.6	123.0	123.2	129.2	129.7	127.8
Foods.........	115.6	118.5	119.5	125.3	123.2	123.2	120.8	119.2	124.3	123.3
Energy.........	84.6	83.0	84.1	89.8	89.0	80.8	84.3	101.7	104.1	95.9
Other.........	123.8	127.1	135.2	134.0	134.2	133.5	133.1	136.6	136.4	135.8
Crude materials for further processing										
Total.........	102.4	101.8	102.7	113.8	111.1	96.8	98.2	120.6	121.3	108.1
Foods.........	108.4	106.5	105.8	121.5	112.2	103.9	98.7	100.2	106.2	99.5
Energy.........	76.7	72.1	69.4	85.0	87.3	68.6	78.5	122.1	122.8	101.8
Other.........	94.1	97.0	105.8	105.7	103.5	84.5	91.1	118.0	101.8	100.8

38. U.S. export price indexes by Standard International Trade Classification

[2000 = 100]

SITC Rev. 3	Industry	2002								2003				
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
0	**Food and live animals**.........	99.7	99.8	101.1	103.4	107.7	106.4	106.7	105.8	105.6	106.1	105.9	105.5	108.0
01	Meat and meat preparations.........	91.6	90.0	87.8	88.7	89.8	89.1	87.8	90.3	90.4	95.4	96.4	97.9	101.5
04	Cereals and cereal preparations.........	103.8	106.5	112.7	119.9	133.4	130.5	131.7	126.3	123.0	123.2	122.2	120.1	124.3
05	Vegetables, fruit, and nuts, prepared fresh or dry.........	103.8	99.0	98.0	98.2	98.9	97.8	98.9	98.3	100.6	97.4	95.1	96.0	96.9
2	**Crude materials, inedible, except fuels**.........	90.9	95.3	99.8	97.9	97.3	96.8	98.3	98.5	99.8	101.0	102.3	103.9	104.7
22	Oilseeds and oleaginous fruits.........	95.1	102.9	117.0	113.5	114.1	107.2	116.9	116.2	119.4	116.6	116.6	118.9	127.4
24	Cork and wood.........	87.4	87.1	88.1	88.8	90.0	90.7	90.7	90.3	90.9	91.1	91.2	91.0	91.0
25	Pulp and waste paper.........	81.0	89.3	96.5	89.6	86.5	88.5	87.8	85.2	82.6	86.4	89.3	90.7	90.2
26	Textile fibers and their waste.........	84.9	88.6	94.6	93.1	94.2	94.2	96.4	98.3	100.2	101.6	105.0	106.0	104.2
28	Metalliferous ores and metal scrap.........	98.9	99.8	99.6	97.9	93.9	94.1	91.8	96.3	99.6	104.6	105.8	107.8	105.4
3	**Mineral fuels, lubricants, and related products**.........	95.4	93.9	97.1	97.3	102.8	109.3	104.5	99.5	112.0	123.8	130.1	107.4	102.1
32	Coal, coke, and briquettes.........	111.4	110.9	114.3	114.3	114.0	114.0	114.0	113.7	113.7	113.7	113.9	111.8	112.2
33	Petroleum, petroleum products, and related materials....	90.2	87.9	91.6	92.0	98.0	105.8	99.6	92.2	108.1	122.9	130.2	102.8	96.4
5	**Chemicals and related products, n.e.s.**.........	95.1	95.4	96.1	96.4	96.8	97.1	96.8	96.6	97.9	99.2	100.6	101.8	101.6
54	Medicinal and pharmaceutical products.........	100.2	100.4	100.8	101.3	101.3	101.3	101.2	101.2	102.1	104.1	104.1	103.9	103.9
55	Essential oils; polishing and cleaning preparations.........	97.1	97.3	97.1	97.5	97.4	97.3	97.2	97.3	95.4	96.0	96.2	95.3	95.3
57	Plastics in primary forms	92.2	92.5	93.1	93.1	92.9	97.3	93.5	92.9	95.1	97.1	99.5	103.7	100.6
58	Plastics in nonprimary forms.........	95.6	96.0	96.4	96.5	96.9	97.6	97.7	95.9	97.1	97.5	97.2	98.4	98.5
59	Chemical materials and products, n.e.s.	97.4	97.5	97.3	98.2	98.3	98.6	98.5	98.8	100.6	100.6	100.7	101.5	101.0
6	**Manufactured goods classified chiefly by materials**.........	97.4	98.0	98.7	99.0	99.1	99.1	99.0	99.0	99.0	99.4	99.4	99.5	99.4
62	Rubber manufactures, n.e.s.	101.5	102.7	103.8	105.1	205.9	105.7	105.4	105.6	107.1	108.8	108.4	108.6	108.5
64	Paper, paperboard, and articles of paper, pulp, and paperboard.........	93.1	94.8	95.7	96.2	96.3	96.8	96.6	96.8	97.3	97.2	96.7	96.9	97.2
66	Nonmetallic mineral manufactures, n.e.s.	102.0	102.2	102.2	102.2	102.2	101.4	101.3	101.3	100.5	100.4	100.2	100.3	100.3
68	Nonferrous metals.........	86.5	85.3	85.2	84.9	84.4	83.4	83.2	83.5	82.2	83.3	84.3	82.0	79.4
7	**Machinery and transport equipment**.........	99.3	98.9	98.7	98.8	98.7	98.7	98.7	98.5	98.6	98.6	98.5	98.6	98.6
71	Power generating machinery and equipment.........	104.6	104.5	104.5	104.6	104.6	104.7	105.2	105.1	106.5	106.8	106.9	107.2	107.2
72	Machinery specialized for particular industries.........	102.0	101.8	102.1	102.0	101.8	101.8	101.7	101.7	102.2	102.2	102.2	102.5	102.5
74	General industrial machines and parts, n.e.s., and machine parts.........	102.3	102.3	102.1	102.3	102.3	102.2	102.3	101.6	102.0	102.3	102.1	102.3	102.2
75	Computer equipment and office machines.........	91.7	90.4	90.4	90.3	89.3	89.1	88.6	88.6	88.8	89.1	88.6	88.7	88.9
76	Telecommunications and sound recording and reproducing apparatus and equipment.........	97.8	97.7	96.2	96.3	96.4	96.3	96.3	96.2	95.4	95.4	95.0	94.2	94.0
77	Electrical machinery and equipment.........	94.6	93.9	93.3	93.5	93.6	93.3	93.4	92.9	92.3	92.1	92.2	92.3	92.2
78	Road vehicles.........	100.4	100.3	100.4	100.6	100.6	100.9	100.9	101.0	101.2	101.1	100.9	101.1	101.0
87	**Professional, scientific, and controlling instruments and apparatus**.........	101.3	101.3	101.4	101.5	101.4	101.6	101.5	101.7	101.9	101.9	101.5	101.6	101.9

39. U.S. import price indexes by Standard International Trade Classification

[2000 = 100]

Rev. 3	Industry	2002								2003				
		May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
0	Food and live animals..	96.4	94.5	96.3	96.6	98.8	97.6	97.6	98.8	100.4	100.0	101.2	101.5	99.7
01	Meat and meat preparations............................	105.4	104.0	105.9	105.4	103.4	102.0	101.2	106.8	101.7	107.4	108.5	108.7	111.2
03	Fish and crustaceans, mollusks, and other aquatic invertebrates...............................	80.0	79.8	81.9	83.0	84.9	81.4	82.0	82.5	81.1	82.0	81.4	84.2	83.3
05	Vegetables, fruit, and nuts, prepared fresh or dry..........	108.1	102.2	105.0	105.0	106.7	107.5	106.2	105.6	111.5	104.7	110.7	108.4	103.7
07	Coffee, tea, cocoa, spices, and manufactures thereof......................................	83.8	84.6	84.2	84,5	93.5	94.3	98.6	99.9	104.0	106.7	100.2	100.5	99.0
1	Beverages and tobacco.......................................	102.7	103.0	102.7	102.5	102.6	102.4	102.5	102.7	103.0	103.3	104.0	104.5	104.6
11	Beverages...	102.4	102.8	102.4	102.2	102.2	102.1	102.2	102.4	102.3	102.7	103.0	103.6	103.8
2	Crude materials, inedible, except fuels...................	97.0	96.4	96.8	96.8	96.4	95.7	94.9	94.5	95.2	97.4	98.5	98.4	99.2
24	Cork and wood..	105.2	103.1	103.4	101.8	98.3	96.3	96.0	94.0	94.7	96.8	95.0	93.4	94.0
25	Pulp and waste paper...................................	74.7	77.1	80.2	82.3	82.3	82.3	80.5	78.9	77.9	80.3	86.5	92.6	96.5
28	Metalliferous ores and metal scrap.....................	95.6	95.9	96.4	95.2	93.3	93.8	93.9	94.7	95.5	99.1	99.9	99.5	99.3
29	Crude animal and vegetable materials, n.e.s.	103.8	92.8	91.0	97.5	104.0	101.6	99.9	101.4	103.6	102.3	102.6	102.3	103.5
3	Mineral fuels, lubricants, and related products............	89.0	86.0	66.1	91.1	96.3	97.0	90.4	94.9	109.6	121.2	126.0	101.7	95.7
33	Petroleum, petroleum products, and related materials....	89.1	85.9	88.9	92.9	97.8	97.7	89.8	94.2	108.1	119.8	118.1	98.7	92.2
34	Gas, natural and manufactured.........................	84.3	83.6	77.7	72.7	81.1	87.3	92.1	97.0	117.8	129.3	185.9	120.5	119.0
5	Chemicals and related products, n.e.s.	97.5	97.0	98.6	98.9	98.7	98.3	98.0	98.2	99.1	99.8	101.1	100.4	99.1
52	Inorganic chemicals.....................................	98.5	98.6	100.0	100.2	100.1	101.5	102.5	102.5	104.2	106.5	110.8	107.5	105.8
53	Dying, tanning, and coloring materials..................	95.6	96.2	96.4	96.8	96.6	95.8	95.9	96.7	96.5	97.5	97.6	97.8	98.0
54	Medicinal and pharmaceutical products.................	96.7	98.0	98.7	100.0	99.6	99.5	99.3	99.2	101.8	101.5	101.3	101.5	101.2
55	Essential oils; polishing and cleaning preparations........	99.1	99.9	100.4	101.2	98.4	98.4	98.8	99.2	97.2	97.9	98.4	99.2	99.2
57	Plastics in primary forms................................	91.1	91.8	96.6	96,4	97.9	96.4	96.0	94.8	97.3	97.9	99.3	99.5	101.7
58	Plastics in nonprimary forms............................	101.8	100.3	99.6	99.5	99.5	99.4	99.5	99.6	100.2	100.1	100.4	100.6	100.8
59	Chemical materials and products, n.e.s.	94.3	93.6	93.5	93.5	92.4	91.0	90.8	91.6	92.1	93.1	97.6	96.7	93.2
6	Manufactured goods classified chiefly by materials.....	92.3	92.8	93.0	93.1	93.5	93.5	93.6	93.7	93.2	94.2	94.1	94.1	93.7
62	Rubber manufactures, n.e.s.	98.1	98.2	98.2	98.2	99.3	99.3	99.4	99.3	99.1	99.0	99.2	99.1	99.1
64	Paper, paperboard, and articles of paper, pulp, and paperboard..	91.9	91.7	91.7	92.7	93.7	93.3	93.3	93.0	92.6	92.6	93.0	93.7	93.4
66	Nonmetallic mineral manufactures, n.e.s.	97.0	97.0	97.2	97.5	97.5	97.6	97.6	97.7	97.6	97.7	97.6	97.5	97.4
68	Nonferrous metals.......................................	79.7	79.7	79.2	77.7	76.4	76.0	76.6	77.3	76.1	79.2	80.0	78.5	75.9
69	Manufactures of metals, n.e.s.	98.3	98.3	98.3	98.6	98.6	98.5	98.3	98.3	97.5	98.0	97.9	97.5	97.5
7	Machinery and transport equipment.......................	97.0	97.1	96.9	96.9	96.7	96.4	96.2	96.1	96.0	95.9	95.8	95.8	95.6
72	Machinery specialized for particular industries...............	98.8	99.0	98.7	99.2	98.3	98.5	98.7	99.2	99.4	100.3	100.7	100.6	100.7
74	General industrial machines and parts, n.e.s., and machine parts....................................	97.4	97.8	98.1	98.4	98.4	98.5	98.6	98.6	98.6	99.4	99.8	100.0	100.1
75	Computer equipment and office machines...................	88.0	87.8	87.2	86.9	86.4	84.9	84.6	84.2	83.9	83.3	82.7	82.8	81.8
76	Telecommunications and sound recording and reproducing apparatus and equipment..................	94.5	94.4	94.0	93.1	92.8	92.3	91.1	92.0	91.7	90.4	90.0	89.5	89.4
77	Electrical machinery and equipment.......................	97.1	97.1	96.6	96.7	96.5	96.0	95.9	95.6	95.4	95.7	95.3	95.5	95.0
78	Road vehicles..	100.0	100.2	100.3	100.3	100.3	100.8	100.5	100.5	100.4	100.6	100.6	100.6	100.7
85	Footwear...	99.1	99.2	99.3	99.5	99.4	99.4	99.4	99.6	99.5	99.6	99.8	99.6	99.7
88	Photographic apparatus, equipment, and supplies, and optical goods, n.e.s.	97.4	97.8	98.4	98.8	98.4	98.5	98.3	98.5	98.8	99.2	99.4	99.5	99.3

40. U.S. export price indexes by end-use category

[2000 = 100]

Category	2002								2003				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
ALL COMMODITIES.........................	98.0	98.0	98.3	98.5	98.8	98.7	98.8	98.6	98.9	99.5	99.7	99.6	99.7
Foods, feeds, and beverages...............	100.4	101.5	104.0	106.1	109.8	107.6	109.6	108.7	108.7	108.3	108.2	108.5	111.9
Agricultural foods, feeds, and beverages...............	100.9	101.7	104.5	106.7	110.7	108.2	110.4	109.5	109.4	108.8	108.1	108.6	112.1
Nonagricultural (fish, beverages) food products.....	96.1	100.7	100.0	100.7	101.3	102.1	102.0	102.3	102.8	104.6	110.0	108.1	110.4
Industrial supplies and materials.....................	93.8	94.6	95.6	95.5	95.9	96.4	96.1	96.0	97.3	99.2	100.6	100.1	99.4
Agricultural industrial supplies and materials..........	93.0	95.8	97.9	97.7	98.4	98.4	100.1	101.9	103.3	103.8	104.8	104.9	103.8
Fuels and lubricants......................	87.9	86.7	88.3	88.0	92.9	94.0	91.6	91.3	96.2	103.8	108.0	96.3	92.4
Nonagricultural supplies and materials, excluding fuel and building materials...............	94.8	95.7	96.7	96.5	96.4	96.8	96.5	96.4	97.3	98.8	99.9	100.7	1,002.0
Selected building materials........................	94.1	94.2	95.0	95.4	96.2	96.6	96.6	96.2	96.1	96.5	96.4	96.6	96.5
Capital goods...	99.2	98.7	98.5	98.5	98.4	98.3	98.3	98.1	98.2	98.4	98.3	98.3	98.3
Electric and electrical generating equipment..........	101.8	102.0	101.8	102.0	102.0	102.1	102.0	101.9	101.9	101.5	101.6	101.5	101.7
Nonelectrical machinery.........................	97.3	96.5	96.2	96.2	96.0	95.8	95.7	95.4	95.4	95.7	95.6	95.6	95.5
Automotive vehicles, parts, and engines.................	100.9	100.9	100.9	101.1	101.1	101.4	101.4	101.3	101.5	101.6	101.5	101.6	101.5
Consumer goods, excluding automotive...............	99.0	99.1	99.1	99.3	99.3	99.4	99.3	99.3	99.1	99.4	99.4	99.3	99.4
Nondurables, manufactured.........................	98.3	98.5	98.5	98.7	98.7	98.8	98.6	98.7	98.2	98.9	98.7	98.5	98.5
Durables, manufactured...........................	99.2	99.4	99.5	99.7	99.6	99.6	99.7	99.6	99.5	99.6	99.7	99.8	99.9
Agricultural commodities............................	99.5	100.7	103.4	105.2	108.6	106.6	108.7	108.2	108.3	107.9	107.5	107.9	110.7
Nonagricultural commodities........................	97.8	97.8	97.9	97.9	98.0	98.1	98.0	97.8	98.2	98.7	99.1	99.0	98.8

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

[2000 = 100]

Category	2002								2003				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
ALL COMMODITIES.........................	94.4	94.1	94.5	94.8	95.5	95.5	94.6	95.2	96.9	98.5	99.1	96.0	95.2
Foods, feeds, and beverages...............	97.2	96.2	96.9	96.9	99.7	100.0	99.9	100.2	101.3	101.2	102.6	102.5	101.4
Agricultural foods, feeds, and beverages...............	102.7	101.3	102.4	102.0	105.4	106.1	105.8	106.0	107.9	107.8	109.6	108.8	107.6
Nonagricultural (fish, beverages) food products.....	85.2	85.1	85.0	86.0	87.3	86.6	87.1	87.5	86.8	97.4	86.9	88.5	88.4
Industrial supplies and materials.....................	90.8	89.8	91.3	92.6	95.2	95.4	92.3	94.6	101.3	107.4	109.7	97.6	95.2
Fuels and lubricants......................	88.5	85.8	88.1	90.7	96.2	96.7	89.8	94.7	109.1	120.9	125.2	99.4	94.6
Petroleum and petroleum products.....................	88.4	85.3	88.5	91.8	97.1	97.0	89.0	94.0	107.7	119.9	118.6	96.4	91.2
Paper and paper base stocks.....................	86.7	87.1	88.0	89.3	90.5	90.1	89.7	89.1	88.6	89.2	91.0	93.5	94.5
Materials associated with nondurable supplies and materials.....................	97.4	97.1	98.1	99.1	99.4	99.7	99.7	100.1	101.5	102.4	104.2	103.6	103.1
Selected building materials.....................	99.6	99.1	99.9	99.2	97.6	96.9	96.4	95.0	95.6	96.9	96.3	95.4	96.2
Unfinished metals associated with durable goods...	86.6	88.5	89.4	88.6	89.7	89.9	90.5	91.5	90.5	93.3	92.8	91.7	89.9
Nonmetals associated with durable goods.............	96.8	96.7	97.1	97.0	96.9	96.9	96.9	97.1	96.9	97.4	97.9	97.1	97.3
Capital goods...	95.1	95.1	94.8	94.9	94.7	94.0	94.0	93.9	93.9	93.8	93.7	93.8	93.4
Electric and electrical generating equipment..........	95.0	95.1	95.3	95.9	95.7	95.2	94.8	94.9	95.3	95.5	95.5	95.6	95.8
Nonelectrical machinery.........................	94.4	94.4	93.8	93.9	93.7	92.9	92.9	92.8	92.7	92.6	92.5	92.5	92.0
Automotive vehicles, parts, and engines.................	99.9	100.1	100.2	100.2	100.3	100.7	100.4	100.5	100.3	100.5	100.5	100.5	100.6
Consumer goods, excluding automotive...............	98.2	98.1	98.2	98.2	98.1	98.1	97.9	98.0	98.0	97.9	97.9	97.9	97.9
Nondurables, manufactured.........................	99.1	99.1	99.3	99.6	99.5	99.5	99.3	99.7	99.7	99.7	99.7	99.9	99.8
Durables, manufactured...........................	97.2	97.2	97.3	97.0	96.8	96.8	96.7	96.5	96.4	96.4	96.2	96.1	96.1
Nonmanufactured consumer goods.................	97.6	95.6	95.3	95.6	95.4	95.4	95.2	95.4	95.5	95.5	95.7	95.6	95.6

42. U.S. international price Indexes for selected categories of services

[2000 = 100]

Category	2001				2002				2003
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.
Air freight (inbound)...	97.9	95.1	94.9	95.2	93.9	98.3	100.3	105.8	108.9
Air freight (outbound)..	100.1	98.0	97.6	97.9	95.9	98.4	97.3	95.4	97.2
Air passenger fares (U.S. carriers)........................	101.9	106.4	107.6	103.5	103.3	110.7	114.3	107.9	112.0
Air passenger fares (foreign carriers).....................	100.7	103.8	110.2	100.8	99.4	110.9	118.5	107.2	111.7
Ocean liner freight (inbound)................................	102.8	100.8	98.1	93.6	91.7	90.3	93.5	93.3	95.5

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

[1992 = 100]

Item	2000				2001				2002				2003
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I
Business													
Output per hour of all persons..	115.3	117.2	117.3	117.9	117.5	117.4	117.9	120.1	122.5	123.1	124.8	124.9	125.7
Compensation per hour...	131.4	132.4	135.0	136.3	137.3	137.5	137.8	138.3	139.3	140.8	142.7	142.8	144.2
Real compensation per hour................................	110.5	110.5	111.7	111.9	111.8	111.0	111.1	111.6	112.0	112.3	113.2	112.7	112.7
Unit labor costs..	114.0	113.0	115.1	115.6	116.9	117.1	116.8	115.1	113.7	114.4	113.4	114.3	114.7
Unit nonlabor payments..	110.7	114.1	111.2	112.0	112.3	113.6	115.5	117.2	119.9	119.3	121.4	120.9	121.6
Implicit price deflator..	112.8	113.4	113.7	114.3	115.2	115.8	116.4	115.9	116.0	116.2	116.3	116.8	117.3
Nonfarm business													
Output per hour of all persons..	114.7	116.4	116.6	117.1	116.7	116.6	117.2	119.3	121.8	122.3	123.9	124.2	124.8
Compensation per hour...	130.8	131.5	134.3	135.3	136.3	136.3	136.7	137.2	138.1	139.5	140.1	141.5	142.7
Real compensation per hour................................	110.0	109.8	111.1	111.2	110.9	110.1	110.2	110.7	111.1	111.3	111.2	111.7	111.6
Unit labor costs..	114.0	113.0	115.2	115.6	116.8	116.9	116.6	115.0	113.4	114.1	113.1	113.9	114.4
Unit nonlabor payments..	112.3	115.6	112.8	113.4	113.8	115.3	117.2	119.2	121.7	121.7	123.5	123.1	123.6
Implicit price deflator..	113.4	113.9	114.3	114.8	115.7	116.3	116.8	116.5	116.4	116.8	116.9	117.3	117.7
Nonfinancial corporations													
Output per hour of all employees...............................	117.8	118.3	119.5	119.5	118.8	119.4	120.4	123.5	124.9	126.7	127.7	129.3	130.2
Compensation per hour...	126.9	127.8	130.4	131.7	131.3	131.9	132.7	133.6	134.7	136.2	137.2	138.8	140.4
Real compensation per hour................................	106.7	106.6	107.9	108.2	106.9	106.5	107.0	107.8	108.4	108.6	108.8	109.6	109.8
Total unit costs..	106.9	107.5	108.6	109.8	110.8	111.3	111.7	109.8	109.5	109.4	109.6	109.3	109.6
Unit labor costs..	107.8	108.0	109.1	110.2	110.6	110.4	110.3	108.2	107.9	107.5	107.4	107.4	107.8
Unit nonlabor costs..	104.5	106.3	107.1	108.9	111.6	113.5	115.5	114.1	114.0	114.5	115.4	114.7	114.3
Unit profits..	119.5	118.8	109.5	98.6	93.1	95.4	97.9	107.6	107.6	107.8	104.6	109.7	110.3
Unit nonlabor payments..	108.4	109.5	107.7	106.3	106.9	108.9	111.0	112.4	112.4	112.8	112.6	113.4	113.3
Implicit price deflator..	108.0	108.5	108.6	108.9	109.3	109.9	110.5	109.6	109.4	109.3	109.1	109.4	109.6
Manufacturing													
Output per hour of all persons..	133.6	134.9	135.4	135.9	135.4	135.4	136.4	137.6	140.1	141.5	143.4	143.3	143.9
Compensation per hour...	131.4	129.3	132.2	131.5	132.0	133.0	133.3	134.3	135.6	137.2	137.7	139.5	141.1
Real compensation per hour................................	110.5	107.9	109.4	108.0	107.4	107.4	107.5	108.3	109.1	109.4	109.2	110.1	110.3
Unit labor costs..	98.4	95.9	97.7	96.7	97.5	98.2	97.8	97.6	96.8	96.9	96.0	97.4	98.0

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

[1996 = 100, unless otherwise indicated]

Item	1960	1970	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Private business													
Productivity:													
Output per hour of all persons..................................	45.6	63.0	75.8	90.2	91.3	94.8	95.4	96.6	97.3	100.0	102.0	104.8	104.8
Output per unit of capital services.........................	110.4	111.1	101.5	99.3	96.1	97.7	98.5	100.3	99.7	100.0	100.5	100.1	100.1
Multifactor productivity..	65.2	80.0	88.3	95.3	94.4	96.6	97.1	98.1	98.4	100.0	101.1	102.6	102.6
Output..	27.5	42.0	59.4	83.6	82.6	85.7	88.5	92.8	95.8	100.0	105.2	110.6	110.6
Inputs:													
Labor input..	54.0	61.0	71.9	89.4	88.3	89.3	91.8	95.6	98.0	100.0	103.7	106.4	106.4
Capital services...	24.9	37.8	58.6	84.2	86.0	87.7	89.8	92.6	96.0	100.0	104.7	110.4	110.4
Combined units of labor and capital input.................	42.3	52.4	67.3	87.7	87.5	88.8	91.1	94.6	97.3	100.0	104.0	107.7	107.7
Capital per hour of all persons...................................	41.3	56.7	74.7	90.8	95.0	97.0	96.8	96.3	97.6	100.0	101.5	104.7	104.7
Private nonfarm business													
Productivity:													
Output per hour of all persons..................................	48.7	64.9	77.3	90.3	91.4	94.8	95.3	96.5	97.5	100.0	101.7	104.5	104.5
Output per unit of capital services.........................	120.1	118.3	105.7	100.0	96.6	97.9	98.8	100.3	99.9	100.0	100.2	99.8	99.8
Multifactor productivity..	69.1	82.6	90.5	95.6	94.7	96.6	97.1	98.1	98.6	100.0	100.9	102.4	102.4
Output..	27.2	41.9	59.6	83.5	82.5	85.5	88.4	92.6	95.8	100.0	105.1	110.6	110.6
Inputs:													
Labor input..	50.1	59.3	70.7	89.2	88.0	89.0	91.8	95.4	97.8	100.0	103.8	106.6	106.6
Capital services...	22.6	35.5	56.4	83.5	85.4	87.3	89.5	92.3	95.9	100.0	104.9	110.8	110.8
Combined units of labor and capital input.................	39.3	50.7	65.9	87.3	87.1	88.4	91.0	94.4	97.2	100.0	104.2	108.0	108.0
Capital per hour of all persons...................................	40.5	54.8	73.1	90.3	94.7	96.8	96.5	96.3	97.6	100.0	101.5	104.7	104.7
Manufacturing (1992 = 100)													
Productivity:													
Output per hour of all persons..................................	41.8	54.2	70.1	92.8	95.0	100.0	101.9	105.0	109.0	112.8	117.1	124.3	124.3
Output per unit of capital services.........................	124.3	116.5	100.9	101.6	97.5	100.0	101.1	104.0	105.0	104.5	105.6	106.5	106.5
Multifactor productivity..	72.7	84.4	86.6	99.3	98.3	100.0	100.4	102.6	105.0	106.1	109.8	113.2	113.2
Output..	38.5	56.5	75.3	97.3	95.4	100.0	103.3	108.7	113.4	116.9	123.5	130.7	130.7
Inputs:													
Hours of all persons...	92.0	104.2	107.5	104.8	100.4	100.0	101.4	103.6	104.0	103.7	105.5	105.2	105.2
Capital services...	30.9	48.5	74.7	95.8	97.9	100.0	102.2	104.5	108.0	111.9	116.9	122.8	122.8
Energy..	51.3	85.4	92.5	99.9	100.1	100.0	103.7	107.3	109.5	107.0	103.9	109.2	109.2
Nonenergy materials...	38.2	44.8	75.0	92.5	93.6	100.0	105.7	111.3	112.8	120.4	120.4	127.2	127.2
Purchased business services....................................	28.2	48.8	73.7	92.5	92.1	100.0	103.0	105.1	110.0	108.9	114.2	116.8	116.8
Combined units of all factor inputs...........................	52.9	67.0	87.0	98.0	97.0	100.0	102.9	106.0	107.9	110.2	112.5	115.5	115.5

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

[1992 = 100]

Item	1960	1970	1980	1990	1994	1995	1996	1997	1998	1999	2000	2001	2002
Business													
Output per hour of all persons......................................	48.8	67.0	80.4	95.2	101.9	102.6	105.4	107.8	110.6	113.5	116.9	118.2	123.8
Compensation per hour..	13.7	23.5	54.2	90.7	104.5	106.7	110.1	113.5	119.7	125.2	133.8	137.7	141.8
Real compensation per hour..................................	59.8	78.6	89.2	96.3	99.9	99.6	100.1	101.0	105.0	107.6	111.2	111.4	112.3
Unit labor costs..	28.0	35.1	67.4	95.3	102.6	104.1	104.5	105.3	108.2	110.3	114.4	116.5	113.9
Unit nonlabor payments...	25.2	31.6	61.5	93.9	106.4	109.4	113.3	117.1	114.5	113.9	112.0	114.7	120.4
Implicit price deflator...	27.0	33.9	65.2	94.8	104.0	106.0	107.7	109.7	110.6	111.8	113.5	115.8	116.3
Nonfarm business													
Output per hour of all persons......................................	51.9	68.9	82.0	95.3	101.8	102.8	105.4	107.5	110.3	112.9	116.2	117.5	123.1
Compensation per hour..	14.3	23.7	54.6	90.5	104.3	106.6	109.8	113.1	119.1	124.3	133.0	136.6	139.8
Real compensation per hour..................................	62.6	79.2	89.8	96.2	99.7	99.4	99.8	100.6	104.5	106.8	110.6	110.5	111.3
Unit labor costs..	27.5	34.4	66.5	95.0	102.5	103.7	104.2	105.2	108.0	110.1	114.4	116.3	113.6
Unit nonlabor payments...	24.6	31.3	60.5	93.6	106.9	110.4	113.5	118.0	115.7	115.5	113.5	116.4	122.5
Implicit price deflator...	26.5	33.3	64.3	94.5	104.1	106.1	107.6	109.8	110.8	112.1	114.1	116.3	116.9
Nonfinancial corporations													
Output per hour of all employees.....................................	55.4	70.4	81.1	95.4	103.1	104.2	107.5	108.4	111.7	114.7	118.8	120.5	127.1
Compensation per hour..	15.6	25.3	56.4	90.8	104.2	106.2	109.0	110.3	116.0	121.1	129.2	132.4	136.7
Real compensation per hour..................................	68.1	84.4	92.9	96.5	99.6	99.0	99.0	98.1	101.7	104.1	107.4	107.0	108.8
Total unit costs...	26.8	34.8	68.4	95.9	101.1	102.0	101.2	101.5	103.3	105.1	108.2	110.9	109.5
Unit labor costs..	28.1	35.9	69.6	95.2	101.0	101.9	101.4	101.8	103.8	105.6	108.8	109.9	107.5
Unit nonlabor costs..	23.3	31.9	65.1	98.0	101.3	102.2	100.6	100.9	102.2	103.5	106.7	113.7	114.6
Unit profits...	50.2	44.4	68.8	94.3	131.7	139.0	152.2	156.9	141.7	131.7	111.6	98.5	107.4
Unit nonlabor payments...	30.2	35.1	66.0	97.1	109.0	111.6	113.8	115.2	112.3	110.7	108.0	109.8	112.8
Implicit price deflator...	28.8	35.6	68.4	95.8	103.7	105.1	105.5	106.2	106.6	107.3	108.5	109.8	109.3
Manufacturing													
Output per hour of all persons......................................	41.8	54.2	70.1	92.9	105.0	109.0	112.8	117.6	123.3	129.7	134.9	136.0	142.1
Compensation per hour..	14.9	23.7	55.6	90.8	105.6	107.9	109.4	111.5	117.4	122.1	131.1	133.1	137.5
Real compensation per hour..................................	65.0	79.2	91.4	96.4	101.0	100.6	99.4	99.1	103.0	104.9	109.0	107.7	109.4
Unit labor costs..	35.6	43.8	79.3	97.8	100.7	99.0	96.9	94.8	95.2	94.1	97.2	97.9	96.8
Unit nonlabor payments...	26.8	29.3	80.2	99.8	102.8	106.9	109.9	110.0	103.7	104.9	107.0	–	–
Implicit price deflator...	30.2	35.0	79.9	99.0	102.0	103.9	104.8	104.1	100.4	100.7	103.2	–	–

Dash indicates data not available.

46. Annual indexes of output per hour for selected 3-digit SIC industries

[1987=100]

Industry	SIC	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Mining												
Copper ores...............................	102	102.7	100.5	115.2	118.1	126.0	117.2	116.5	118.9	118.3	110.0	122.6
Gold and silver ores.....................	104	122.3	127.4	141.6	159.8	160.8	144.2	138.3	158.5	187.6	197.5	239.9
Bituminous coal and lignite mining........	122	118.7	122.4	133.0	141.2	148.1	155.9	168.0	176.6	188.0	194.9	207.0
Crude petroleum and natural gas...........	131	97.0	97.9	102.1	105.9	112.4	119.4	123.9	125.2	127.5	134.5	142.5
Crushed and broken stone.................	142	102.2	99.8	105.0	103.6	108.7	105.4	107.2	112.6	110.2	105.0	101.9
Manufacturing												
Meat products...........................	201	97.1	99.6	104.6	104.3	101.2	102.3	97.4	102.5	102.3	101.8	102.9
Dairy products..........................	202	107.3	108.3	111.4	109.6	111.8	116.4	116.0	119.3	119.3	112.7	113.5
Preserved fruits and vegetables.........	203	95.6	99.2	100.5	106.8	107.6	109.1	109.2	110.7	117.8	120.4	123.5
Grain mill products.....................	204	105.4	104.9	107.8	109.2	108.4	115.4	108.0	118.2	126.2	129.3	127.5
Bakery products.........................	205	92.7	90.6	93.8	94.4	96.4	97.3	95.6	99.1	100.9	106.4	107.6
Sugar and confectionery products........	206	103.2	102.0	99.8	104.5	106.2	108.3	113.7	116.7	123.0	127.0	130.5
Fats and oils...........................	207	118.1	120.1	114.1	112.6	111.8	120.3	110.1	120.2	137.3	154.4	151.4
Beverages...............................	208	117.0	120.0	127.1	126.4	130.1	133.5	135.0	135.5	136.4	129.7	128.6
Miscellaneous food and kindred products..	209	99.2	101.7	101.5	105.2	100.9	102.9	109.1	104.0	112.4	113.9	116.3
Cigarettes..............................	211	113.2	107.6	111.6	106.5	126.6	142.9	147.2	147.2	152.2	137.7	139.1
Broadwoven fabric mills, cotton.........	221	103.1	111.2	110.3	117.8	122.1	134.0	137.3	131.2	136.2	139.3	140.2
Broadwoven fabric mills, manmade........	222	111.3	116.2	126.2	131.7	142.5	145.3	147.6	162.2	168.6	175.3	167.4
Narrow fabric mills.....................	224	96.5	99.6	112.9	111.4	120.1	118.9	126.3	110.8	117.7	124.9	117.1
Knitting mills..........................	225	107.5	114.0	119.3	127.9	134.1	138.3	150.3	138.0	135.9	146.6	155.6
Textile finishing, except wool.........	226	83.4	79.9	78.6	79.3	81.2	78.5	79.2	94.3	93.7	94.4	97.2
Carpets and rugs........................	227	93.2	89.2	96.1	97.1	93.3	95.8	100.2	100.3	102.3	96.0	103.0
Yarn and thread mills...................	228	110.2	111.4	119.6	126.6	130.7	137.4	147.4	150.4	153.0	157.6	155.4
Miscellaneous textile goods.............	229	109.2	104.6	106.5	110.4	118.5	123.7	123.1	118.7	120.1	128.0	134.4
Men's and boys' furnishings.............	232	102.1	108.4	109.1	108.4	111.7	123.4	134.7	162.1	174.8	190.9	200.3
Women's and misses' outerwear..........	233	104.1	104.3	109.4	121.8	127.4	135.5	141.6	149.9	151.9	173.9	189.9
Women's and children's undergarments....	234	102.1	113.7	117.4	124.5	138.0	161.3	174.5	208.9	216.4	294.7	352.3
Hats, caps, and millinery..............	235	89.2	91.1	93.6	87.2	77.7	84.3	82.2	87.1	98.7	99.3	106.1
Miscellaneous apparel and accessories...	238	90.6	91.8	91.3	94.0	105.5	116.8	120.1	101.5	108.0	105.8	111.3
Miscellaneous fabricated textile products	239	99.9	100.7	107.5	108.5	107.8	109.2	105.6	119.2	117.3	128.8	132.5
Sawmills and planing mills..............	242	99.8	102.6	108.1	101.9	103.3	110.2	115.6	116.9	118.7	125.4	124.4
Millwork, plywood, and structural members....	243	98.0	98.0	99.9	97.0	94.5	92.7	92.4	89.1	91.3	89.2	91.4
Wood containers.........................	244	111.2	113.1	109.4	100.1	100.9	106.1	106.7	106.2	106.5	103.9	104.6
Wood buildings and mobile homes........	245	103.1	103.0	103.1	103.8	98.3	97.0	96.7	100.3	99.2	100.3	94.6
Miscellaneous wood products.............	249	107.7	110.5	114.2	115.3	111.8	115.4	114.4	123.4	131.2	140.7	146.5
Household furniture.....................	251	104.5	107.1	110.5	110.6	112.5	116.9	121.6	121.3	125.7	128.9	128.4
Office furniture........................	252	95.0	94.1	102.5	103.2	100.5	101.1	106.4	118.3	113.1	108.9	111.2
Public building and related furniture...	253	119.8	120.2	140.6	161.0	157.4	173.3	181.5	214.9	207.6	222.4	202.0
Partitions and fixtures.................	254	95.6	93.0	102.7	107.4	98.9	101.2	97.5	121.1	125.6	125.9	131.9
Miscellaneous furniture and fixtures....	259	103.5	102.1	99.5	103.6	104.7	110.0	113.2	110.7	121.9	119.1	110.5
Pulp mills..............................	261	116.7	128.3	137.3	122.5	128.9	131.9	132.6	82.3	86.6	84.8	78.8
Paper mills.............................	262	102.3	99.2	103.3	102.4	110.2	118.6	111.6	112.0	114.8	126.2	133.5
Paperboard mills........................	263	100.6	101.4	104.4	108.4	114.9	119.5	118.0	126.7	127.8	134.9	135.3
Paperboard containers and boxes.........	265	101.3	103.4	105.2	107.9	108.4	105.1	106.3	109.7	113.5	111.9	112.9
Miscellaneous converted paper products...	267	101.4	105.3	105.5	107.9	110.6	113.3	113.6	119.5	123.0	126.0	128.3
Newspapers..............................	271	90.6	85.8	81.5	79.4	79.9	79.0	77.4	79.0	83.6	86.0	88.3
Periodicals.............................	272	93.9	89.5	92.9	89.5	81.9	87.8	89.1	100.1	112.2	111.2	109.9
Books...................................	273	96.6	100.8	97.7	103.5	103.0	101.6	99.3	102.6	100.9	106.1	106.1
Miscellaneous publishing................	274	92.2	95.9	105.8	104.5	97.5	94.8	93.6	114.5	119.4	127.2	127.8
Commercial printing.....................	275	102.5	102.0	108.0	106.9	106.5	107.2	108.3	108.8	109.9	115.0	118.7
Manifold business forms.................	276	93.0	89.1	94.5	91.1	82.0	76.9	75.2	77.9	76.7	70.6	69.4
Greeting cards..........................	277	100.6	92.7	96.7	91.4	89.0	92.5	90.8	92.2	104.1	109.3	105.1
Blankbooks and bookbinding..............	278	99.4	96.1	103.6	98.7	105.4	108.7	114.5	114.2	116.5	123.8	126.2
Printing trade services................	279	99.3	100.6	112.0	115.3	111.0	116.7	126.2	123.3	126.7	121.5	119.6
Industrial inorganic chemicals.........	281	106.8	109.7	109.7	105.6	102.3	109.3	110.1	116.8	145.8	148.5	141.3
Plastics materials and synthetics......	282	100.9	100.0	107.5	112.0	125.3	128.3	125.3	135.4	142.2	148.6	151.0
Drugs...................................	283	103.8	104.5	99.5	99.7	104.6	108.7	112.5	112.4	104.3	105.6	106.2
Soaps, cleaners, and toilet goods......	284	103.8	105.3	104.4	108.7	111.2	118.6	120.9	126.4	122.7	114.8	124.8
Paints and allied products.............	285	106.3	104.3	102.9	108.8	116.7	118.0	125.6	126.4	126.8	122.7	124.6
Industrial organic chemicals...........	286	101.4	95.8	94.6	92.2	99.9	98.6	99.0	111.3	105.7	120.6	127.8
Agricultural chemicals.................	287	104.7	99.5	99.5	103.8	105.0	108.5	110.0	119.8	118.0	104.6	112.0

See footnotes at end of table.

46. Continued - Annual indexes of output per hour for selected 3-digit SIC industries

[1987=100]

Industry	SIC	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Miscellaneous chemical products.........................	289	97.3	96.1	101.8	107.1	105.7	107.8	110.1	120.3	120.8	123.3	125.6
Petroleum refining................................	291	109.2	106.6	111.3	120.1	123.8	132.3	142.0	149.2	155.8	170.2	180.2
Asphalt paving and roofing materials.............	295	98.0	94.1	100.4	108.0	104.9	111.2	113.1	123.1	124.7	123.4	126.1
Miscellaneous petroleum and coal products.........	299	94.8	90.6	101.5	104.2	96.3	87.4	87.1	96.5	98.5	86.5	82.9
Tires and inner tubes................................	301	103.0	102.4	107.8	116.5	124.1	131.1	138.8	149.1	144.1	142.1	145.9
Hose and belting and gaskets and packing.........	305	96.1	92.4	97.8	99.7	102.7	104.6	107.4	113.5	112.7	110.6	115.4
Fabricated rubber products, n.e.c.................	306	109.0	109.9	115.2	123.1	119.1	121.5	121.0	125.3	132.3	136.9	144.7
Miscellaneous plastics products, n.e.c............	308	105.7	108.3	114.4	116.7	120.8	121.0	124.7	129.9	133.8	140.9	145.4
Footwear, except rubber............................	314	101.1	94.4	104.2	105.2	113.0	117.1	126.1	121.4	110.9	132.6	146.2
Flat glass...	321	84.5	83.6	92.7	97.7	97.6	99.6	101.5	107.6	114.0	129.4	140.4
Glass and glassware, pressed or blown.............	322	104.8	102.3	108.9	108.7	112.9	115.7	121.4	128.3	135.2	139.3	135.8
Products of purchased glass........................	323	92.6	97.7	101.5	106.2	105.9	106.1	122.0	125.1	122.0	130.2	137.2
Cement, hydraulic....................................	324	112.4	108.3	115.1	119.9	125.6	124.3	128.7	133.1	134.1	138.6	136.9
Structural clay products............................	325	109.6	109.8	111.4	106.8	114.0	112.6	119.6	111.9	114.8	123.5	124.8
Pottery and related products........................	326	98.7	95.9	99.5	100.3	108.5	109.4	119.4	124.2	127.4	122.0	121.2
Concrete, gypsum, and plaster products.............	327	102.3	101.2	102.5	104.6	101.5	104.5	107.3	107.6	112.8	111.1	105.1
Miscellaneous nonmetallic mineral products........	329	95.4	94.0	104.3	104.5	106.3	107.8	110.4	114.7	114.9	113.3	116.1
Blast furnace and basic steel products..............	331	109.7	107.8	117.0	133.6	142.4	142.6	147.5	155.0	151.0	155.6	160.1
Iron and steel foundries.............................	332	106.1	104.5	107.2	112.1	113.0	112.7	116.2	120.8	121.1	128.9	132.1
Primary nonferrous metals............................	333	102.3	110.7	101.9	107.9	105.3	111.0	110.8	112.0	118.9	117.7	111.9
Nonferrous rolling and drawing.......................	335	92.7	91.0	96.0	98.3	101.2	99.2	104.0	111.3	115.7	121.4	118.0
Nonferrous foundries (castings)......................	336	104.0	103.6	103.6	108.5	112.1	117.8	122.3	127.0	131.5	129.8	129.7
Miscellaneous primary metal products................	339	113.7	109.1	114.5	111.3	134.5	152.2	149.6	136.2	140.0	149.0	154.3
Metal cans and shipping containers..................	341	117.6	122.9	127.8	132.3	140.9	144.2	155.2	160.3	163.8	157.9	159.5
Cutlery, handtools, and hardware.....................	342	97.3	96.8	100.1	104.0	109.2	111.3	118.2	114.6	115.7	121.9	125.4
Plumbing and heating, except electric...............	343	102.6	102.0	98.4	102.0	109.1	109.2	118.6	127.3	130.5	125.7	132.2
Fabricated structural metal products................	344	98.8	100.0	103.9	104.8	107.7	105.8	106.5	111.9	112.7	112.8	112.8
Metal forgings and stampings........................	346	95.6	92.9	103.7	108.7	108.5	109.3	113.6	120.2	125.9	128.3	129.8
Metal services, n.e.c.................................	347	104.7	99.4	111.6	120.6	123.0	127.7	128.4	124.4	127.3	126.1	135.7
Ordnance and accessories, n.e.c.....................	348	82.1	81.5	88.6	84.6	83.6	87.6	87.5	93.7	96.6	91.0	92.8
Miscellaneous fabricated metal products............	349	97.5	97.4	101.1	102.0	103.2	106.6	108.3	107.7	111.6	109.3	109.2
Engines and turbines.................................	351	106.5	105.8	103.3	109.2	122.3	122.7	136.6	136.9	146.1	151.5	164.5
Farm and garden machinery...........................	352	116.5	112.9	113.9	118.6	125.0	134.7	137.2	141.2	148.5	128.6	139.6
Construction and related machinery..................	353	107.0	99.1	102.0	108.2	117.7	122.1	123.3	132.5	137.6	133.6	139.8
Metalworking machinery..............................	354	101.1	96.4	104.3	107.4	109.9	114.8	114.9	119.2	119.8	123.0	129.8
Special industry machinery..........................	355	107.5	108.3	106.0	113.6	121.2	132.3	134.0	131.7	124.5	138.6	172.2
General industrial machinery........................	356	101.5	101.6	101.6	104.8	106.7	109.0	109.3	110.0	111.2	113.1	118.7
Computer and office equipment.......................	357	138.1	149.6	195.7	258.6	328.6	469.4	681.3	960.2	1356.6	1862.5	2172.0
Refrigeration and service machinery.................	358	103.6	100.7	104.9	108.6	110.7	112.7	114.7	115.0	121.4	124.0	122.3
Industrial machinery, n.e.c..........................	359	107.3	109.0	117.0	118.5	127.4	138.8	141.4	129.3	127.5	135.8	141.8
Electric distribution equipment......................	361	106.3	106.5	119.6	122.2	131.8	143.0	143.9	142.8	147.5	148.9	155.4
Electrical industrial apparatus.......................	362	107.7	107.1	117.1	132.9	134.9	150.8	154.3	164.2	162.3	158.3	157.0
Household appliances................................	363	105.8	106.5	115.0	123.4	131.4	127.3	127.4	142.9	150.2	149.5	162.4
Electric lighting and wiring equipment................	364	99.9	97.5	105.7	107.8	113.4	113.7	116.9	121.8	129.2	132.4	134.8
Communications equipment...........................	366	123.8	129.1	154.9	163.1	186.4	200.7	229.5	275.4	284.5	371.9	448.8
Electronic components and accessories..............	367	133.4	154.7	189.3	217.9	274.0	401.5	515.0	613.4	768.6	1062.6	1440.1
Miscellaneous electrical equipment & supplies...	369	90.6	98.6	101.3	108.2	110.5	114.1	123.1	128.3	135.3	147.2	156.0
Motor vehicles and equipment........................	371	102.4	96.6	104.2	106.2	108.8	106.7	107.2	116.3	125.2	136.7	127.1
Aircraft and parts....................................	372	98.9	108.2	112.3	115.2	109.5	107.8	113.1	114.7	140.1	138.1	132.2
Ship and boat building and repairing.................	373	103.7	96.3	102.7	105.9	103.8	98.1	99.3	105.5	102.5	113.1	121.6
Railroad equipment..................................	374	141.1	146.9	147.9	151.0	152.5	150.0	148.3	184.2	189.1	212.8	218.4
Motorcycles, bicycles, and parts.....................	375	93.8	99.8	108.4	130.9	125.1	120.3	125.5	120.4	127.7	122.4	119.4
Guided missiles, space vehicles, parts...............	376	116.5	110.5	110.5	119.4	114.9	116.9	125.1	133.6	138.9	156.1	113.3
Search and navigation equipment....................	381	112.7	118.9	122.1	129.1	132.1	149.5	142.2	149.5	149.1	149.6	163.7
Measuring and controlling devices...................	382	106.4	113.1	119.9	124.0	133.8	146.4	150.5	142.4	143.5	152.4	158.5
Medical instruments and supplies....................	384	116.9	118.7	123.5	127.3	126.7	131.5	139.8	147.4	158.6	160.4	167.0
Ophthalmic goods....................................	385	121.2	125.1	144.5	157.8	160.6	167.2	188.2	196.3	199.0	235.2	250.2
Photographic equipment & supplies..................	386	107.8	110.2	116.4	126.9	132.7	129.5	128.7	121.5	128.0	160.6	169.4
Jewelry, silverware, and plated ware.................	391	99.3	95.8	96.7	96.7	99.5	100.2	102.6	114.2	113.1	134.3	144.9
Musical instruments.................................	393	97.1	96.9	96.0	95.6	88.7	86.9	78.8	82.9	81.4	97.1	105.3

See footnotes at end of table.

46. Continued - Annual indexes of output per hour for selected 3-digit SIC industries

[1987=100]

Industry	SIC	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Toys and sporting goods..............................	394	108.1	109.7	104.9	114.2	109.7	113.6	119.9	125.7	131.6	126.6	140.4
Pens, pencils, office, and art supplies................	395	118.2	116.8	111.3	111.6	129.9	135.2	144.1	127.5	132.5	123.4	124.9
Costume jewelry and notions............................	396	105.3	106.7	110.8	115.8	129.0	143.7	142.2	118.0	131.2	130.8	145.3
Miscellaneous manufactures............................	399	106.5	109.2	109.5	107.7	106.1	108.1	112.8	109.4	108.5	114.9	115.9
Transportation												
Railroad transportation..............................	4011	118.5	127.8	139.6	145.4	150.3	156.2	167.0	169.8	173.3	182.5	195.8
Trucking, except local [1]................................	4213	111.1	116.9	123.4	126.6	129.5	125.4	130.9	132.4	129.9	131.6	131.2
United states postal service [2]........................	431	104.0	103.7	104.5	107.1	106.6	106.5	104.7	108.3	109.8	110.9	113.6
Air transportation............................	4512,13,22(pts.)	92.9	92.5	96.9	100.2	105.7	108.6	111.1	111.6	108.4	109.1	110.7
Utilities												
Telephone communications............................	481	113.3	119.8	127.7	135.5	142.2	148.1	159.5	160.9	170.1	186.3	201.3
Radio and television broadcasting....................	483	104.9	106.1	108.3	106.7	110.1	109.6	105.8	101.7	104.5	108.4	109.9
Cable and other pay TV services......................	484	92.6	87.6	88.5	85.3	83.4	84.5	81.9	84.7	86.1	85.0	87.6
Electric utilities.....................................	491,3(pts.)	110.1	113.4	115.2	24.1	50.5	80.8	116.8	150.0	159.6	162.0	169.6
Gas utilities..	492,3(pts.)	105.8	109.6	111.1	121.8	125.6	137.1	145.9	158.6	144.4	147.2	160.6
Trade												
Lumber and other building materials dealers........	521	104.3	102.3	106.4	111.4	118.9	117.8	121.6	121.8	134.2	143.0	144.2
Paint, glass, and wallpaper stores.....................	523	106.8	100.4	107.6	114.2	127.8	130.9	133.5	134.8	163.5	165.1	170.1
Hardware stores..	525	115.3	108.7	115.2	113.9	121.2	115.6	119.5	119.0	137.9	147.6	145.7
Retail nurseries, lawn and garden supply stores....	526	84.7	89.3	101.2	107.1	117.0	117.4	136.4	127.5	133.7	150.4	154.5
Department stores......................................	531	96.8	102.0	105.4	110.4	113.5	116.1	123.8	129.1	135.8	146.0	160.4
Variety stores..	533	154.6	159.0	173.9	191.9	197.9	212.4	240.4	260.1	271.2	315.0	330.9
Miscellaneous general merchandise stores..........	539	118.6	124.8	140.4	164.3	164.8	167.4	167.7	170.4	185.9	199.6	224.3
Grocery stores...	541	96.6	96.3	96.5	96.0	95.4	93.9	92.1	91.7	92.2	95.3	96.1
Meat and fish (seafood) markets.......................	542	98.9	90.8	99.2	97.7	95.7	94.4	86.4	90.8	95.7	97.4	110.0
Retail bakeries...	546	91.2	96.7	96.5	86.5	85.3	83.0	75.9	67.6	68.1	83.1	88.4
New and used car dealers.............................	551	106.7	104.9	107.4	108.6	109.7	108.1	109.1	108.8	108.7	111.6	112.5
Auto and home supply stores.........................	553	103.7	100.2	101.6	100.8	105.3	109.1	108.2	108.1	113.1	115.5	119.3
Gasoline service stations.............................	554	103.0	104.8	110.2	115.9	121.1	127.2	126.1	126.1	133.9	141.7	139.0
Men's and boy's wear stores..........................	561	115.6	121.9	122.3	119.5	121.7	121.4	129.8	136.3	145.2	154.5	165.0
Women's clothing stores...............................	562	106.6	111.2	123.6	130.0	130.4	139.9	154.2	157.3	176.0	190.2	205.7
Family clothing stores.................................	565	107.8	111.5	118.6	121.5	127.7	141.8	146.9	150.2	153.1	155.9	160.4
Shoe stores..	566	107.9	107.8	115.5	117.3	130.7	139.2	151.9	148.4	145.0	152.9	160.2
Furniture and homefurnishings stores................	571	104.6	105.4	113.9	113.3	114.7	117.4	123.6	124.2	127.3	134.5	141.1
Household appliance stores...........................	572	104.6	107.2	116.1	118.7	122.4	139.6	142.2	155.2	184.2	186.4	209.3
Radio, television, computer, and music stores......	573	120.8	129.3	139.3	153.8	178.2	198.1	206.6	216.8	258.3	309.1	359.4
Eating and drinking places............................	581	104.5	103.8	103.4	103.8	102.1	102.0	100.6	101.6	102.0	104.0	107.3
Drug and proprietary stores...........................	591	106.3	108.0	107.6	109.6	109.9	111.1	113.9	119.8	125.7	129.8	136.9
Liquor stores...	592	105.9	106.9	109.6	101.8	100.1	104.7	113.8	109.9	116.5	114.5	127.7
Used merchandise stores..............................	593	103.0	102.3	115.7	116.7	119.5	120.6	132.6	140.3	163.6	183.2	216.7
Miscellaneous shopping goods stores................	594	107.4	109.3	107.9	111.7	117.3	123.2	125.3	129.4	138.7	143.7	150.6
Nonstore retailers.....................................	596	111.1	112.5	126.5	132.2	149.0	152.5	173.5	186.8	208.3	220.6	263.2
Fuel dealers...	598	84.6	85.3	84.3	91.9	99.0	111.4	112.5	109.1	105.8	115.2	117.3
Retail stores, n.e.c.....................................	599	114.5	104.0	112.5	118.1	125.8	127.0	140.2	147.8	157.4	162.5	168.1
Finance and services												
Commercial banks......................................	602	107.7	110.1	111.0	118.5	121.7	126.4	129.7	133.0	132.6	135.9	143.2
Hotels and motels......................................	701	96.2	99.3	108.0	106.5	109.9	110.5	110.0	108.2	108.2	109.9	114.1
Laundry, cleaning, and garment services.............	721	102.3	99.9	99.3	99.9	105.0	106.6	109.8	109.0	116.0	120.8	123.6
Photographic studios, portrait.........................	722	98.2	92.1	95.8	101.8	108.3	116.2	110.7	114.1	121.6	107.7	112.0
Beauty shops...	723	97.5	95.8	100.9	97.0	101.1	104.8	107.6	108.5	110.5	113.4	114.5
Barber shops...	724	100.7	94.9	113.2	121.9	118.8	115.7	128.8	150.4	157.4	132.8	129.9
Funeral services and crematories.....................	726	91.2	89.9	103.8	98.7	104.3	100.2	97.6	101.9	104.2	100.2	93.9
Automotive repair shops...............................	753	107.9	100.1	105.1	105.7	114.3	121.6	116.1	117.2	124.9	126.4	128.5
Motion picture theaters................................	783	118.1	118.2	114.8	113.8	110.4	105.0	104.1	103.4	106.1	108.7	112.3

[1] Refers to output per employee.
[2] Refers to output per full-time equivalent employee year on fiscal basis.

n.e.c. = not elsewhere classified

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

Country	Annual average		2001				2002			
	2001	2002	I	II	III	IV	I	II	III	IV
United States........	4.7	5.8	4.2	4.4	4.8	5.6	5.6	5.9	5.8	5.9
Canada.................	6.4	7.0	6.2	6.3	6.5	6.8	7.1	6.9	7.0	6.9
Australia.............	6.7	6.3	6.5	6.8	6.8	6.8	6.6	6.3	6.2	6.1
Japan[1].................	5.1	5.4	4.8	4.9	5.2	5.5	5.3	5.4	5.5	5.5
France[1]................	8.5	8.8	8.5	8.4	8.5	8.6	8.7	8.7	8.9	8.9
Germany[1].............	8.0	8.4	7.9	8.0	8.0	8.1	8.2	8.4	8.5	8.6
Italy[2].....................	9.6	9.1	10.0	9.7	9.5	9.4	9.2	9.1	9.1	9.0
Sweden[1]..............	5.0	5.2	5.1	5.0	5.0	5.1	5.0	5.0	5.2	5.4
United Kingdom[1]..	5.1	5.2	5.1	5.0	5.1	5.2	5.1	5.2	5.3	5.1

[1] Preliminary for 2002 for Japan, France, Germany, Sweden, and the United Kingdom.

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

NOTE: Quarterly figures for France and Germany 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. For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries, 1959-2002* (Bureau of Labor Statistics, Apr. 14, 2003), on the Internet at

http://www.bls.gov/fls/home.htm

Monthly and quarterly unemployment rates, updated monthly, are also on this site.

48. Annual data: Employment status of the working-age population, approximating U.S. concepts, 10 countries

[Numbers in thousands]

Employment status and country	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Civilian labor force											
United States	128,105	129,200	131,056	132,304	133,943	136,297	137,673	139,368	142,583	143,734	144,863
Canada	14,177	14,308	14,400	14,517	14,669	14,958	15,237	15,536	15,789	16,027	16,475
Australia	8,557	8,613	8,771	8,995	9,115	9,204	9,339	9,466	9,678	9,817	9,964
Japan	65,040	65,470	65,780	65,990	66,450	67,200	67,240	67,090	66,990	66,870	66,240
France	24,440	24,480	24,670	24,750	25,000	25,130	25,440	25,800	26,050	26,340	–
Germany	39,010	39,100	39,070	38,980	39,140	39,420	39,750	39,800	39,750	39,780	–
Italy	22,910	22,570	22,450	22,460	22,570	22,680	22,960	23,130	23,340	23,540	23,750
Netherlands	6,920	7,020	7,150	7,200	7,390	7,530	7,610	7,830	8,130	8,290	–
Sweden	4,520	4,443	4,418	4,460	4,459	4,418	4,402	4,430	4,489	4,530	4,542
United Kingdom	28,410	28,050	27,990	28,040	28,140	28,270	28,380	28,610	28,780	28,870	–
Participation rate[1]											
United States	66.4	66.3	66.6	66.6	66.8	67.1	67.1	67.1	67.1	66.8	66.9
Canada	65.9	65.5	65.2	64.9	64.7	65.0	65.4	65.8	65.9	66.0	66.8
Australia	63.9	63.5	63.9	64.6	64.6	64.3	64.3	64.2	64.7	64.7	64.7
Japan	63.4	63.3	63.1	62.9	63.0	63.2	62.8	62.4	62.0	61.6	60.8
France	55.6	55.4	55.5	55.4	55.6	55.5	55.9	56.3	56.5	56.8	–
Germany	58.2	57.7	57.4	57.1	57.1	57.3	57.7	57.6	57.4	57	–
Italy	47.5	47.9	47.3	47.1	47.1	47.2	47.6	47.8	48.1	48.3	48.6
Netherlands	57.5	58.0	58.6	58.7	60.0	60.8	61.0	62.4	64.4	65.4	–
Sweden	65.7	64.5	63.7	64.1	64.0	63.3	62.8	62.8	63.8	63.7	63.6
United Kingdom	63.1	62.5	62.3	62.3	62.3	62.4	62.5	62.7	62.8	62.7	–
Employed											
United States	118,492	120,259	123,060	124,900	126,708	129,558	131,463	133,488	136,891	136,933	136,485
Canada	12,672	12,770	13,027	13,271	13,380	13,705	14,068	14,456	14,827	14,997	15,325
Australia	7,660	7,699	7,942	8,256	8,364	8,444	8,618	8,808	9,068	9,157	9,334
Japan	63,620	63,810	63,860	63,890	64,200	64,900	64,450	63,920	63,790	63,470	62,650
France	22,000	21,710	21,750	21,950	22,040	22,170	22,580	23,070	23,670	24,100	–
Germany	36,390	35,990	35,760	35,780	35,640	35,510	36,060	36,360	36,540	36,590	–
Italy	21,230	20,270	19,940	19,820	19,920	19,990	20,210	20,460	20,840	21,270	21,580
Netherlands	6,550	6,570	6,660	6,730	6,950	7,160	7,310	7,580	7,900	8,090	–
Sweden	4,265	4,028	3,992	4,056	4,019	3,973	4,034	4,117	4,229	4,303	4,308
United Kingdom	25,530	25,120	25,320	25,600	25,850	26,290	26,600	26,890	27,200	27,400	–
Employment-population ratio[2]											
United States	61.5	61.7	62.5	62.9	63.2	63.8	64.1	64.3	64.4	63.7	62.7
Canada	58.9	58.5	59.0	59.4	59.1	59.7	60.4	61.3	62.1	61.9	62.4
Australia	57.2	56.8	57.8	59.2	59.3	59.0	59.3	59.8	60.6	60.4	60.6
Japan	62.0	61.7	61.3	60.9	60.9	61.0	60.2	59.4	59.0	58.4	57.5
France	50.1	49.1	49.0	49.1	49.0	49.0	49.6	50.4	51.4	51.9	–
Germany	54.2	53.2	52.6	52.4	52.0	51.6	52.3	52.6	52.7	52.6	–
Italy	44.0	43.0	42.0	41.5	41.6	41.6	41.9	42.3	42.9	43.6	44.1
Netherlands	54.5	54.2	54.6	54.9	56.4	57.8	58.6	60.4	62.6	63.9	–
Sweden	62.0	58.5	57.6	58.3	57.7	56.9	57.6	58.4	60.1	60.5	60.3
United Kingdom	56.7	56.0	56.4	56.9	57.3	58.1	58.6	59.0	59.4	59.5	–
Unemployed											
United States	9,613	8,940	7,996	7,404	7,236	6,739	6,210	5,880	5,692	6,801	8,378
Canada	1,505	1,539	1,373	1,246	1,289	1,252	1,169	1,080	962	1,031	1,150
Australia	897	914	829	739	751	760	721	658	611	661	629
Japan	1,420	1,660	1,920	2,100	2,250	2,300	2,790	3,170	3,200	3,400	3,590
France	2,430	2,770	2,920	2,800	2,970	2,960	2,870	2,730	2,380	2,240	–
Germany	2,620	3,110	3,320	3,200	3,510	3,910	3,690	3,440	3,210	3,190	–
Italy	1,680	2,300	2,510	2,640	2,650	2,690	2,750	2,670	2,500	2,270	2,160
Netherlands	370	440	490	480	440	370	300	250	220	200	–
Sweden	255	415	426	404	440	445	368	313	260	227	234
United Kingdom	2,880	2,930	2,670	2,440	2,290	1,980	1,780	1,720	1,580	1,470	–
Unemployment rate											
United States	7.5	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8
Canada	10.6	10.8	9.5	8.6	8.8	8.4	7.7	7.0	6.1	6.4	7.0
Australia	10.5	10.6	9.4	8.2	8.2	8.3	7.7	7.0	6.3	6.7	6.3
Japan	2.2	2.5	2.9	3.2	3.4	3.4	4.1	4.7	4.8	5.1	5.4
France	9.9	11.3	11.8	11.3	11.9	11.8	11.3	10.6	9.1	8.5	8.8
Germany	6.7	8.0	8.5	8.2	9.0	9.9	9.3	8.6	8.1	8.0	8.4
Italy	7.3	10.2	11.2	11.8	11.7	11.9	12.0	11.5	10.7	9.6	9.1
Netherlands	5.3	6.3	6.9	6.7	6.0	4.9	3.9	3.2	2.7	2.4	–
Sweden	5.6	9.3	9.6	9.1	9.9	10.1	8.4	7.1	5.8	5.0	5.2
United Kingdom	10.1	10.4	9.5	8.7	8.1	7.0	6.3	6.0	5.5	5.1	5.2

[1] Labor force as a percent of the working-age population.

[2] Employment as a percent of the working-age population.

NOTE: See notes on the data for information on breaks in series.

For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics , Ten Countries*, 1959–2001 (Bureau of Labor Statistics, Apr. 14, 2003), on the Internet at **http://www.bls.gov/fls/home.htm**

Dash indicates data are not available.

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

[1992 = 100]

Item and country	1960	1970	1980	1990	1991	1993	1994	1995	1996	1997	1998	1999	2000	2001
Output per hour														
United States................	–	–	70.5	96.9	97.9	102.1	107.3	113.8	117.0	121.3	126.5	135.3	142.9	145.6
Canada........................	37.8	54.9	72.9	93.4	95.3	105.8	110.8	112.4	109.7	113.5	113.1	116.0	118.4	116.1
Japan..........................	13.8	37.5	63.2	94.4	99.0	101.7	103.3	111.0	116.1	121.0	121.2	126.9	134.1	128.1
Belgium.......................	18.0	32.9	65.4	96.8	99.1	102.5	108.4	113.2	117.0	127.0	129.2	129.5	133.4	134.1
Denmark......................	29.9	52.7	90.4	99.1	99.4	100.8	–	–	–	–	–	–	–	–
France........................	22.0	43.1	66.8	93.8	97.0	100.6	108.2	113.9	114.6	121.9	127.7	132.7	142.5	146.3
Germany......................	29.2	52.0	77.2	99.0	98.3	101.8	109.5	112.2	113.9	119.4	120.3	120.4	127.9	128.2
Italy...........................	23.6	44.3	74.2	95.8	95.9	101.4	104.9	108.0	108.1	109.9	110.0	109.9	113.0	115.0
Netherlands..................	18.5	37.9	68.8	98.5	99.6	101.6	113.2	118.2	120.2	122.3	125.0	128.5	133.8	–
Norway........................	37.4	58.8	77.5	97.6	98.2	99.6	99.6	100.7	102.5	102.0	99.9	103.6	104.5	105.3
Sweden.......................	27.3	52.2	73.1	94.6	95.5	107.3	119.4	121.9	124.5	132.3	139.5	149.7	158.0	160.4
United Kingdom.............	30.0	43.2	54.3	89.2	93.8	103.9	107.1	104.9	103.8	105.2	107.0	111.6	118.0	119.8
Output														
United States................	–	–	75.8	101.6	98.3	103.5	111.1	118.4	121.3	127.9	133.1	141.2	147.0	141.3
Canada........................	33.4	58.9	83.6	106.0	99.0	105.9	114.1	119.6	119.6	127.7	132.8	141.0	148.8	143.9
Japan..........................	10.7	39.2	60.4	97.1	102.0	96.3	94.9	98.9	103.0	106.5	100.2	101.9	107.6	99.1
Belgium.......................	30.7	57.6	78.2	101.0	100.7	97.0	101.4	104.2	106.6	113.8	116.4	118.0	122.2	121.7
Denmark......................	40.8	68.0	91.4	102.8	101.5	95.6	105.6	111.6	106.7	115.2	115.7	115.1	122.9	126.7
France........................	31.0	64.1	88.7	99.1	99.8	95.7	100.3	104.9	104.6	109.7	115.0	118.7	124.1	126.3
Germany......................	41.5	70.9	85.3	99.1	102.3	92.4	95.1	95.2	92.5	95.7	97.2	95.8	101.7	101.8
Italy...........................	23.0	48.1	84.4	99.4	99.3	96.5	102.4	107.2	105.4	108.8	110.7	110.5	113.9	114.6
Netherlands..................	31.5	59.1	76.8	99.9	100.4	98.4	104.6	108.1	108.7	111.5	114.8	118.1	123.7	–
Norway........................	57.4	90.6	104.4	100.9	99.0	101.7	104.6	107.3	110.3	114.2	113.7	113.6	110.2	108.9
Sweden.......................	45.9	80.7	90.7	110.1	104.1	101.9	117.1	128.4	131.1	138.0	147.6	157.8	168.7	167.4
United Kingdom.............	67.3	90.2	87.2	105.4	100.0	101.4	106.1	107.8	108.5	109.9	110.8	111.1	113.3	110.7
Total hours														
United States................	92.1	104.4	107.5	104.8	100.4	101.4	103.6	104.0	103.6	105.4	105.2	104.4	102.8	97.1
Canada........................	88.3	107.1	114.6	113.5	103.9	100.1	103.0	106.4	109.0	112.4	117.5	121.5	125.6	123.9
Japan..........................	77.8	104.4	95.6	102.9	103.1	94.7	91.9	89.1	88.7	88.0	82.7	80.3	80.2	77.4
Belgium.......................	170.7	174.7	119.7	104.3	101.5	94.7	93.6	92.0	91.1	89.6	90.1	91.1	91.7	90.7
Denmark......................	136.5	129.0	101.1	103.7	102.1	94.8	–	–	–	–	–	–	–	–
France........................	140.8	148.5	132.9	105.6	102.9	95.1	92.7	92.1	91.3	90.0	90.0	89.4	87.1	86.3
Germany......................	142.3	136.3	110.5	100.1	104.1	90.8	86.8	84.9	81.2	80.1	80.7	79.6	79.5	78.8
Italy...........................	97.6	108.5	113.8	103.7	103.6	95.2	97.6	99.3	97.5	99.0	100.6	100.5	100.7	99.7
Netherlands..................	170.5	156.1	111.7	101.4	100.9	96.8	92.4	91.5	90.4	91.1	91.8	92.0	92.5	–
Norway........................	153.6	153.9	134.7	103.4	100.8	102.1	105.0	106.6	107.6	112.0	113.7	109.6	105.4	103.4
Sweden.......................	168.3	154.7	124.0	116.4	109.0	94.9	98.1	105.3	105.3	104.3	105.8	105.4	106.8	104.3
United Kingdom.............	224.6	208.8	160.5	118.1	106.6	97.6	99.1	102.7	104.5	104.5	103.6	99.6	96.0	92.4
Compensation per hour														
United States................	14.9	23.7	55.6	90.8	95.6	102.7	105.6	107.9	109.4	111.5	117.4	122.1	131.1	133.1
Canada........................	10.0	17.1	47.6	88.3	95.0	102.0	103.7	106.0	107.0	109.3	110.5	112.3	113.9	117.8
Japan..........................	4.3	16.4	58.5	90.5	96.4	102.8	104.9	108.3	109.2	112.9	115.8	115.2	114.5	115.0
Belgium.......................	5.4	13.7	52.5	90.1	97.3	104.8	106.1	109.2	110.9	114.9	116.6	118.3	121.1	125.9
Denmark......................	4.6	13.3	49.6	92.7	95.9	104.6	–	–	–	–	–	–	–	–
France........................	4.3	10.4	40.9	90.9	96.4	102.6	106.0	110.0	112.1	112.0	112.6	116.3	120.8	126.6
Germany......................	8.1	20.7	53.6	89.4	91.5	106.4	111.7	117.5	122.3	124.7	126.5	129.3	133.5	137.7
Italy...........................	1.8	5.3	30.4	87.6	94.2	105.7	106.8	111.3	119.0	123.0	122.2	124.6	127.8	132.6
Netherlands..................	6.4	20.2	64.4	90.9	95.3	103.8	108.2	110.7	113.0	115.8	120.6	124.0	131.0	–
Norway........................	4.7	11.8	39.0	92.3	97.5	101.5	104.4	109.2	113.6	118.7	125.7	133.0	140.0	147.6
Sweden.......................	4.1	10.7	37.3	87.8	95.5	97.4	100.0	106.5	114.4	119.4	124.4	129.3	131.8	137.2
United Kingdom.............	3.0	6.1	32.1	82.9	93.8	104.6	106.7	107.9	109.5	113.9	120.5	129.6	135.2	140.4
Unit labor costs: National currency basis														
United States................	–	–	78.8	93.7	97.6	100.6	98.5	94.8	93.5	91.9	92.8	90.2	91.7	91.4
Canada........................	26.4	31.1	65.2	94.6	99.6	96.4	93.6	94.3	97.5	96.2	97.7	96.8	96.1	101.5
Japan..........................	31.3	43.8	92.5	95.9	97.4	101.1	101.5	97.6	94.0	93.3	95.5	90.8	85.4	89.8
Belgium.......................	30.1	41.7	80.3	93.0	98.1	102.3	97.9	96.4	94.7	90.5	90.2	91.4	90.8	93.9
Denmark......................	15.4	25.2	54.9	93.5	96.5	103.7	96.2	96.4	103.7	99.7	102.9	105.4	101.8	101.7
France........................	19.4	24.0	61.3	96.9	99.3	101.9	97.9	96.6	97.8	91.9	88.2	87.7	84.8	86.5
Germany......................	27.8	39.8	69.4	90.3	93.1	104.5	102.0	104.7	107.4	104.4	105.2	107.4	104.4	106.6
Italy...........................	7.5	11.9	41.0	91.5	98.2	104.3	101.9	103.0	110.0	111.9	111.1	113.4	113.1	115.4
Netherlands..................	34.6	53.3	93.7	92.3	95.6	102.1	95.6	93.7	94.0	94.7	96.5	96.6	97.9	–
Norway........................	12.7	20.1	50.3	94.6	99.2	101.9	104.8	108.4	110.8	116.4	125.7	128.4	134.0	140.1
Sweden.......................	15.0	20.6	51.0	92.9	100.0	90.8	83.8	87.4	91.9	90.2	89.2	86.3	83.4	85.5
United Kingdom.............	9.8	14.1	59.0	92.9	100.1	100.8	99.7	102.9	105.5	108.2	112.7	116.2	114.5	117.2
Unit labor costs: U.S. dollar basis														
United States................	–	–	78.8	93.7	97.6	100.6	98.5	94.8	93.5	91.9	92.8	90.2	91.7	91.4
Canada........................	32.9	36.0	67.4	98.0	105.1	90.3	82.8	83.0	86.4	84.0	79.6	78.8	78.2	79.2
Japan..........................	11.0	15.5	51.8	83.8	91.7	115.4	125.9	131.7	109.6	97.7	92.4	101.2	100.4	93.6
Belgium.......................	19.4	27.0	88.3	89.5	92.3	95.1	94.2	105.2	98.4	81.2	79.9	77.6	66.8	67.0
Denmark......................	13.4	20.2	58.8	91.2	91.0	96.5	91.4	104.0	108.0	91.0	92.7	91.0	75.9	73.7
France........................	21.0	23.0	76.8	94.1	93.1	95.2	93.4	103.5	101.2	83.3	79.1	75.4	63.2	62.5
Germany......................	10.4	17.1	59.6	87.3	87.5	98.7	98.2	114.2	111.5	94.0	93.3	91.4	76.9	76.2
Italy...........................	15.0	23.3	59.0	94.1	97.5	81.6	77.9	77.9	87.9	80.9	78.8	76.9	66.4	65.7
Netherlands..................	16.1	25.9	82.9	89.1	89.9	96.6	92.4	102.7	98.1	85.3	85.5	82.1	72.1	–
Norway........................	11.1	17.5	63.3	94.0	95.0	89.2	92.3	106.4	106.6	102.1	103.5	102.2	94.5	96.8
Sweden.......................	16.9	23.1	70.2	91.3	96.3	67.8	63.2	71.3	79.8	68.8	65.3	60.8	53.0	48.2
United Kingdom.............	15.6	19.1	77.7	93.9	100.1	85.6	86.4	91.9	93.2	100.4	105.7	106.4	98.3	95.5

NOTE: Data for Germany for years before 1991 are for the former West Germany. Data for 1991 onward are for unified Germany. Dash indicates data not available.

50. Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 full-time workers[3]											
	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]	1999[4]	2000[4]
PRIVATE SECTOR[5]												
Total cases	8.6	8.8	8.4	8.9	8.5	8.4	8.1	7.4	7.1	6.7	6.3	6.1
Lost workday cases.........................	4.0	4.1	3.9	3.9	3.8	3.8	3.6	3.4	3.3	3.1	3.0	3.0
Lost workdays............................	78.7	84.0	86.5	93.8	—	—	—	—	—	—	—	—
Agriculture, forestry, and fishing[5]												
Total cases	10.9	11.6	10.8	11.6	11.2	10.0	9.7	8.7	8.4	7.9	7.3	7.1
Lost workday cases.........................	5.7	5.9	5.4	5.4	5.0	4.7	4.3	3.9	4.1	3.9	3.4	3.6
Lost workdays............................	100.9	112.2	108.3	126.9	—	—	—	—	—	—	—	—
Mining												
Total cases	8.5	8.3	7.4	7.3	6.8	6.3	6.2	5.4	5.9	4.9	4.4	4.7
Lost workday cases.........................	4.8	5.0	4.5	4.1	3.9	3.9	3.9	3.2	3.7	2.9	2.7	3.0
Lost workdays............................	137.2	119.5	129.6	204.7	—	—	—	—	—	—	—	—
Construction												
Total cases	14.3	14.2	13.0	13.1	12.2	11.8	10.6	9.9	9.5	8.8	8.6	8.3
Lost workday cases.........................	6.8	6.7	6.1	5.8	5.5	5.5	4.9	4.5	4.4	4.0	4.2	4.1
Lost workdays............................	143.3	147.9	148.1	161.9	—	—	—	—	—	—	—	—
General building contractors:												
Total cases	13.9	13.4	12.0	12.2	11.5	10.9	9.8	9.0	8.5	8.4	8.0	7.8
Lost workday cases.........................	6.5	6.4	5.5	5.4	5.1	5.1	4.4	4.0	3.7	3.9	3.7	3.9
Lost workdays............................	137.3	137.6	132.0	142.7	—	—	—	—	—	—	—	—
Heavy construction, except building:												
Total cases	13.8	13.8	12.8	12.1	11.1	10.2	9.9	9.0	8.7	8.2	7.8	7.6
Lost workday cases.........................	6.5	6.3	6.0	5.4	5.1	5.0	4.8	4.3	4.3	4.1	3.8	3.7
Lost workdays............................	147.1	144.6	160.1	165.8	—	—	—	—	—	—	—	—
Special trades contractors:												
Total cases	14.6	14.7	13.5	13.8	12.8	12.5	11.1	10.4	10.0	9.1	8.9	8.6
Lost workday cases.........................	6.9	6.9	6.3	6.1	5.8	5.8	5.0	4.8	4.7	4.1	4.4	4.3
Lost workdays............................	144.9	153.1	151.3	168.3	—	—	—	—	—	—	—	—
Manufacturing												
Total cases	13.1	13.2	12.7	12.5	12.1	12.2	11.6	10.6	10.3	9.7	9.2	9.0
Lost workday cases.........................	5.8	5.8	5.6	5.4	5.3	5.5	5.3	4.9	4.8	4.7	4.6	4.5
Lost workdays............................	113.0	120.7	121.5	124.6	—	—	—	—	—	—	—	—
Durable goods:												
Total cases	14.1	14.2	13.6	13.4	13.1	13.5	12.8	11.6	11.3	10.7	10.1	—
Lost workday cases.........................	6.0	6.0	5.7	5.5	5.4	5.7	5.6	5.1	5.1	5.0	4.8	—
Lost workdays............................	116.5	123.3	122.9	126.7	—	—	—	—	—	—	—	—
Lumber and wood products:												
Total cases	18.4	18.1	16.8	16.3	15.9	15.7	14.9	14.2	13.5	13.2	13.0	12.1
Lost workday cases.........................	9.4	8.8	8.3	7.6	7.6	7.7	7.0	6.8	6.5	6.8	6.7	6.1
Lost workdays............................	177.5	172.5	172.0	165.8	—	—	—	—	—	—	—	—
Furniture and fixtures:												
Total cases	16.1	16.9	15.9	14.8	14.6	15.0	13.9	12.2	12.0	11.4	11.5	11.2
Lost workday cases.........................	7.2	7.8	7.2	6.6	6.5	7.0	6.4	5.4	5.8	5.7	5.9	5.9
Lost workdays............................	—	—	—	128.4	—	—	—	—	—	—	—	—
Stone, clay, and glass products:												
Total cases	15.5	15.4	14.8	13.6	13.8	13.2	12.3	12.4	11.8	11.8	10.7	10.4
Lost workday cases.........................	7.4	7.3	6.8	6.1	6.3	6.5	5.7	6.0	5.7	6.0	5.4	5.5
Lost workdays............................	149.8	160.5	156.0	152.2	—	—	—	—	—	—	—	—
Primary metal industries:												
Total cases	18.7	19.0	17.7	17.5	17.0	16.8	16.5	15.0	15.0	14.0	12.9	12.6
Lost workday cases.........................	8.1	8.1	7.4	7.1	7.3	7.2	7.2	6.8	7.2	7.0	6.3	6.3
Lost workdays............................	168.3	180.2	169.1	175.5	—	—	—	—	—	—	—	—
Fabricated metal products:												
Total cases	18.5	18.7	17.4	16.8	16.2	16.4	15.8	14.4	14.2	13.9	12.6	11.9
Lost workday cases.........................	7.9	7.9	7.1	6.6	6.7	6.7	6.9	6.2	6.4	6.5	6.0	5.5
Lost workdays............................	147.6	155.7	146.6	144.0	—	—	—	—	—	—	—	—
Industrial machinery and equipment:												
Total cases	12.1	12.0	11.2	11.1	11.1	11.6	11.2	9.9	10.0	9.5	8.5	8.2
Lost workday cases.........................	4.8	4.7	4.4	4.2	4.2	4.4	4.4	4.0	4.1	4.0	3.7	3.6
Lost workdays............................	86.8	88.9	86.6	87.7	—	—	—	—	—	—	—	—
Electronic and other electrical equipment:												
Total cases	9.1	9.1	8.6	8.4	8.3	8.3	7.6	6.8	6.6	5.9	5.7	5.7
Lost workday cases.........................	3.9	3.8	3.7	3.6	3.5	3.6	3.3	3.1	3.1	2.8	2.8	2.9
Lost workdays............................	77.5	79.4	83.0	81.2	—	—	—	—	—	—	—	—
Transportation equipment:												
Total cases	17.7	17.8	18.3	18.7	18.5	19.6	18.6	16.3	15.4	14.6	13.7	13.7
Lost workday cases.........................	6.8	6.9	7.0	7.1	7.1	7.8	7.9	7.0	6.6	6.6	6.4	6.3
Lost workdays............................	138.6	153.7	166.1	186.6	—	—	—	—	—	—	—	—
Instruments and related products:												
Total cases	5.6	5.9	6.0	5.9	5.6	5.9	5.3	5.1	4.8	4.0	4.0	4.5
Lost workday cases.........................	2.5	2.7	2.7	2.7	2.5	2.7	2.4	2.3	2.3	1.9	1.8	2.2
Lost workdays............................	55.4	57.8	64.4	65.3	—	—	—	—	—	—	—	—
Miscellaneous manufacturing industries:												
Total cases	11.1	11.3	11.3	10.7	10.0	9.9	9.1	9.5	8.9	8.1	8.4	7.2
Lost workday cases.........................	5.1	5.1	5.1	5.0	4.6	4.5	4.3	4.4	4.2	3.9	4.0	3.6
Lost workdays............................	97.6	113.1	104.0	108.2	—	—	—	—	—	—	—	—

See footnotes at end of table.

50. Continued—Occupational injury and illness rates by industry,[1] United States

Industry and type of case[2]	Incidence rates per 100 workers[3]											
	1989[1]	1990	1991	1992	1993[4]	1994[4]	1995[4]	1996[4]	1997[4]	1998[4]	1999[4]	2000[4]
Nondurable goods:												
Total cases	11.6	11.7	11.5	11.3	10.7	10.5	9.9	9.2	8.8	8.2	7.8	–
Lost workday cases	5.5	5.6	5.5	5.3	5.0	5.1	4.9	4.6	4.4	4.3	4.2	–
Lost workdays	107.8	116.9	119.7	121.8	–	–	–	–	–	–	–	–
Food and kindred products:												
Total cases	18.5	20.0	19.5	18.8	17.6	17.1	16.3	15.0	14.5	13.6	12.7	12.4
Lost workday cases	9.3	9.9	9.9	9.5	8.9	9.2	8.7	8.0	8.0	7.5	7.3	7.3
Lost workdays	174.7	202.6	207.2	211.9	–	–	–	–	–	–	–	–
Tobacco products:												
Total cases	8.7	7.7	6.4	6.0	5.8	5.3	5.6	6.7	5.9	6.4	5.5	6.2
Lost workday cases	3.4	3.2	2.8	2.4	2.3	2.4	2.6	2.8	2.7	3.4	2.2	3.1
Lost workdays	64.2	62.3	52.0	42.9	–	–	–	–	–	–	–	–
Textile mill products:												
Total cases	10.3	9.6	10.1	9.9	9.7	8.7	8.2	7.8	6.7	7.4	6.4	6.0
Lost workday cases	4.2	4.0	4.4	4.2	4.1	4.0	4.1	3.6	3.1	3.4	3.2	3.2
Lost workdays	81.4	85.1	88.3	87.1	–	–	–	–	–	–	–	–
Apparel and other textile products:												
Total cases	8.6	8.8	9.2	9.5	9.0	8.9	8.2	7.4	7.0	6.2	5.8	6.1
Lost workday cases	3.8	3.9	4.2	4.0	3.8	3.9	3.6	3.3	3.1	2.6	2.8	3.0
Lost workdays	80.5	92.1	99.9	104.6	–	–	–	–	–	–	–	–
Paper and allied products:												
Total cases	12.7	12.1	11.2	11.0	9.9	9.6	8.5	7.9	7.3	7.1	7.0	6.5
Lost workday cases	5.8	5.5	5.0	5.0	4.6	4.5	4.2	3.8	3.7	3.7	3.7	3.4
Lost workdays	132.9	124.8	122.7	125.9	–	–	–	–	–	–	–	–
Printing and publishing:												
Total cases	6.9	6.9	6.7	7.3	6.9	6.7	6.4	6.0	5.7	5.4	5.0	5.1
Lost workday cases	3.3	3.3	3.2	3.2	3.1	3.0	3.0	2.8	2.7	2.8	2.6	2.6
Lost workdays	63.8	69.8	74.5	74.8	–	–	–	–	–	–	–	–
Chemicals and allied products:												
Total cases	7.0	6.5	6.4	6.0	5.9	5.7	5.5	4.8	4.8	4.2	4.4	4.2
Lost workday cases	3.2	3.1	3.1	2.8	2.7	2.8	2.7	2.4	2.3	2.1	2.3	2.2
Lost workdays	63.4	61.6	62.4	64.2	–	–	–	–	–	–	–	–
Petroleum and coal products:												
Total cases	6.6	6.6	6.2	5.9	5.2	4.7	4.8	4.6	4.3	3.9	4.1	3.7
Lost workday cases	3.3	3.1	2.9	2.8	2.5	2.3	2.4	2.5	2.2	1.8	1.8	1.9
Lost workdays	68.1	77.3	68.2	71.2	–	–	–	–	–	–	–	–
Rubber and miscellaneous plastics products:												
Total cases	16.2	16.2	15.1	14.5	13.9	14.0	12.9	12.3	11.9	11.2	10.1	10.7
Lost workday cases	8.0	7.8	7.2	6.8	6.5	6.7	6.5	6.3	5.8	5.8	5.5	5.8
Lost workdays	147.2	151.3	150.9	153.3	–	–	–	–	–	–	–	–
Leather and leather products:												
Total cases	13.6	12.1	12.5	12.1	12.1	12.0	11.4	10.7	10.6	9.8	10.3	9.0
Lost workday cases	6.5	5.9	5.9	5.4	5.5	5.3	4.8	4.5	4.3	4.5	5.0	4.3
Lost workdays	130.4	152.3	140.8	128.5	–	–	–	–	–	–	–	–
Transportation and public utilities												
Total cases	9.2	9.6	9.3	9.1	9.5	9.3	9.1	8.7	8.2	7.3	7.3	–
Lost workday cases	5.3	5.5	5.4	5.1	5.4	5.5	5.2	5.1	4.8	4.3	4.4	4.3
Lost workdays	121.5	134.1	140.0	144.0	–	–	–	–	–	–	–	–
Wholesale and retail trade												
Total cases	8.0	7.9	7.6	8.4	8.1	7.9	7.5	6.8	6.7	6.5	6.1	–
Lost workday cases	3.6	3.5	3.4	3.5	3.4	3.4	3.2	2.9	3.0	2.8	2.7	–
Lost workdays	63.5	65.6	72.0	80.1	–	–	–	–	–	–	–	–
Wholesale trade:												
Total cases	7.7	7.4	7.2	7.6	7.8	7.7	7.5	6.6	6.5	6.5	6.3	5.8
Lost workday cases	4.0	3.7	3.7	3.6	3.7	3.8	3.6	3.4	3.2	3.3	3.3	–
Lost workdays	71.9	71.5	79.2	82.4	–	–	–	–	–	–	–	–
Retail trade:												
Total cases	8.1	8.1	7.7	8.7	8.2	7.9	7.5	6.9	6.8	6.5	6.1	–
Lost workday cases	3.4	3.4	3.3	3.4	3.3	3.3	3.0	2.8	2.9	2.7	2.5	–
Lost workdays	60.0	63.2	69.1	79.2	–	–	–	–	–	–	–	–
Finance, insurance, and real estate												
Total cases	2.0	2.4	2.4	2.9	2.9	2.7	2.6	2.4	2.2	.7	1.8	1.9
Lost workday cases	.9	1.1	1.1	1.2	1.2	1.1	1.0	.9	.9	.5	.8	.8
Lost workdays	17.6	27.3	24.1	32.9	–	–	–	–	–	–	–	–
Services												
Total cases	5.5	6.0	6.2	7.1	6.7	6.5	6.4	6.0	5.6	5.2	4.9	4.9
Lost workday cases	2.7	2.8	2.8	3.0	2.8	2.8	2.8	2.6	2.5	2.4	2.2	2.2
Lost workdays	51.2	56.4	60.0	68.6	–	–	–	–	–	–	–	–

[1] Data for 1989 and subsequent years are based on the *Standard Industrial Class-ification 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; and
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.

Dash indicates data not available.

51. Fatal occupational injuries by event or exposure, 1996-2001

Event or exposure[1]	Fatalities			
	1996-2000	2000[2]	2001[3]	
	Average	Number	Number	Percent
Total..	6,094	5,920	5,900	100
Transportation incidents..	2,608	2,573	2,517	43
Highway incident..	1,408	1,365	1,404	24
Collision between vehicles, mobile equipment........................	685	696	723	12
Moving in same direction...........................	117	136	142	2
Moving in opposite directions, oncoming............................	247	243	256	4
Moving in intersection..............................	151	154	137	2
Vehicle struck stationary object or equipment.......................	289	279	295	5
Noncollision incident................................	372	356	339	6
Jackknifed or overturned—no collision............................	298	304	273	5
Nonhighway (farm, industrial premises) incident..............	378	399	324	5
Overturned..	212	213	157	3
Aircraft..	263	280	247	4
Worker struck by a vehicle..................................	376	370	383	6
Water vehicle incident.......................................	105	84	90	2
Railway..	71	71	62	1
Assaults and violent acts....................................	1,015	930	902	15
Homicides..	766	677	639	11
Shooting...	617	533	505	9
Stabbing...	68	66	58	1
Other, including bombing.............................	80	78	76	1
Self-inflicted injuries..	216	221	228	4
Contact with objects and equipment..........................	1,005	1,006	962	16
Struck by object..	567	571	553	9
Struck by falling object................................	364	357	343	6
Struck by flying object................................	57	61	60	1
Caught in or compressed by equipment or objects..................	293	294	266	5
Caught in running equipment or machinery..........................	157	157	144	2
Caught in or crushed in collapsing materials................	128	123	122	2
Falls..	714	734	808	14
Fall to lower level...	636	659	698	12
Fall from ladder...................................	106	110	122	2
Fall from roof......................................	153	150	159	3
Fall from scaffold, staging...........................	90	85	91	2
Fall on same level..	55	56	84	1
Exposure to harmful substances or environments................	535	481	499	8
Contact with electric current.............................	290	256	285	5
Contact with overhead power lines.............................	132	128	124	2
Contact with temperature extremes........................	40	29	35	1
Exposure to caustic, noxious, or allergenic substances...............	112	100	96	2
Inhalation of substances..............................	57	48	49	1
Oxygen deficiency......................................	92	94	83	1
Drowning, submersion...............................	73	75	59	1
Fires and explosions	196	177	188	3
Other events or exposures[4].................................	20	19	24	–

[1] Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

[2] The BLS news release issued Aug. 14, 2001, reported a total of 5,915 fatal work injuries for calendar year 2000. Since then, an additional five job-related fatalities were identified, bringing the total job-related fatality count for 2000 to 5,920.

[3] Total excludes 2,886 work-related fatalities resulting from events of September 11.

[4] Includes the category "Bodily reaction and exertion."

NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding. Dash indicates less than 0.5 percent.

Where are you publishing your research?

The *Monthly Labor Review* welcomes articles on the labor force, labor-management relations, business conditions, industry productivity, compensation, occupational safety and health, demographic trends and other economic developments. Papers should be factual, and analytical, not polemical in tone. Potential articles, as well as comments on material published in the *Review*, should be submitted to:

Editor-in-Chief
Monthly Labor Review
Bureau of Labor Statistics
Washington, DC 20212

Telephone: (202) 691-5900
E-mail: mlr@bls.gov

Need more research, facts, and analysis?
Subscribe to *Monthly Labor Review* today!

Obtaining information from the Bureau of Labor Statistics

Office or Topic	Internet address	E-mail
Bureau of Labor Statistics Information services	http://www.bls.gov http://www.bls.gov/opub/	blsdata_staff@bls.gov
Employment and unemployment 　Employment, hours, and earnings: 　　National 　　State and local 　Labor force statistics: 　　National 　　Local 　UI-covered employment, wages 　Occupational employment 　Mass layoffs 　Longitudinal data	 http://www.bls.gov/ces/ http://www.bls.gov/sae/ http://www.bls.gov/cps/ http://www.bls.gov/lau/ http://www.bls.gov/cew/ http://www.bls.gov/oes/ http://www.bls.gov/lau/ http://www.bls.gov/nls/	 cesinfo@bls.gov data_sa@bls.gov cpsinfo@bls.gov lausinfo@bls.gov cewinfo@bls.gov oesinfo@bls.gov mlsinfo@bls.gov nls_info@bls.gov
Prices and living conditions 　Consumer price indexes 　Producer price indexes) 　Import and export price indexes 　Consumer expenditures	 http://www.bls.gov/cpi/ http://www.bls.gov/ppi/ http://www.bls.gov/mxp/ http://www.bls.gov/cex/	 cpi_info@bls.gov ppi-info@bls.gov mxpinfo@bls.gov cexinfo@bls.gov
Compensation and working conditions 　National Compensation Survey: 　　Employee benefits 　　Employment cost trends 　　Occupational compensation 　Occupational illnesses, injuries 　Fatal occupational injuries 　Collective bargaining	 http://www.bls.gov/ncs/ http://www.bls.gov/ebs/ http://www.bls.gov/ect/ http://www.bls.gov/ncs/ http://www.bls.gov/iif/ http://stats.bls.gov/iif/ http://www.bls.gov/cba/	 ocltinfo@bls.gov ocltinfo@bls.gov ocltinfo@bls.gov ocltinfo@bls.gov oshstaff@bls.gov cfoistaff@bls.gov cbainfo@bls.gov
Productivity 　Labor 　Industry 　Multifactor	 http://www.bls.gov/lpc/ http://www.bls.gov/lpc/ http://www.bls.gov/mfp/	 dprweb@bls.gov dipsweb@bls.gov dprweb@bls.gov
Projections 　Employment 　Occupation	 http://www.bls.gov/emp/ http://www.bls.gov/oco/	 oohinfo@bls.gov oohinfo@bls.gov
International	http://www.bls.gov/fls/	flshelp@bls.gov
Regional centers 　Atlanta 　Boston 　Chicago 　Dallas 　Kansas City 　New York 　Philadelphia 　San Francisco	 http://www.bls.gov/ro4/ http://www.bls.gov/ro1/ http://www.bls.gov/ro5/ http://www.bls.gov/ro6/ http://www.bls.gov/ro7/ http://www.bls.gov/ro2/ http://www.bls.gov/ro3/ http://www.bls.gov/ro9/	 BLSinfoAtlanta@bls.gov BLSinfoBoston@bls.gov BLSinfoChicago@bls.gov BLSinfoDallas@bls.gov BLSinfoKansasCity@bls.gov BLSinfoNY@bls.gov BLSinfoPhiladelphia@bls.gov BLSinfoSF@bls.gov
Other Federal statistical agencies	http://www.fedstats.gov/	

Schedule of release dates for BLS statistical series

Series	Release date	Period covered	Release date	Period covered	Release date	Period covered	MLR table number
Employment situation	July 3	June	August 1	July	September 5	August	1; 4–24
U.S. Import and Export Price Indexes	July 10	June	August 13	July	September 11	August	38–42
Producer Price Indexes	July 11	June	August 14	July	September 12	August	2; 35–37
Consumer Price indexes	July 16	June	August 15	July	September 16	August	2; 32–34
Real earnings	July 16	June	August 15	July	September 16	August	14–16, 24
Employment Cost Indexes	July 31	2nd quarter					1–3; 25–28
Productivity and costs			August 7	2nd quarter	September 4	2nd quarter	2; 43–46