

### *Occupational safety and health*

# Occupational safety and health statistics: new data for a new century

*Changes in classification systems covering industries, occupations, race/ethnicity, and geographic areas, along with changes to definitions and emerging medical conditions, result in new data on occupational safety and health*

William J. Wiatrowski

**A**t the beginning of the 21st century, there are new ways of categorizing populations—a new industry classification structure, a new occupation classification structure, new race and ethnicity categories, and new definitions of geographic areas. The Bureau of Labor Statistics is adopting these new and revised classification systems throughout its programs, including the occupational safety and health statistics program. Data on occupational injuries, illnesses, and fatalities for 2003 and beyond are based on these new systems. In addition, changes to definitions used by employers to record injuries and illnesses, and the identification of new or emerging injuries and illnesses, result in occupational safety and health data that are different from the past. These new data help to illuminate the safety and health picture of special populations, many of which are described more precisely under the new classification systems.

If one were trying to understand a workplace injury in 1905, he or she might learn the following:

- Worker was employed on a farm
- Worker's occupation was "agricultural pursuits"
- Worker was classified in the 1900 Census into one of three race categories: black, white, mulatto
- Worker's job was located in Concord, New Hampshire, which is in Merrimack County

William J. Wiatrowski is an economist in the Office of Safety, Health, and Working Conditions, Bureau of Labor Statistics.  
E-mail: Wiatrowski.William@bls.gov

Moving ahead 100 years, the workplace injury in 2005 might have the following characteristics:

- Worker is employed in the Web search portal industry
- Worker's occupation is a database administrator
- Worker is identified as being of multiple races
- Worker's job is located in Concord, New Hampshire, in the Boston-Worcester-Manchester Combined Metropolitan Area

Over 100 years, both industries and occupations have changed, and the new classifications allow more specificity. Race and ethnicity may not have changed, but the descriptions used for categorization are different and provide more detail.

This issue of the *Monthly Labor Review* discusses occupational safety and health issues among special populations— younger workers, older workers, female workers, farming workers, Asian workers, and Hispanic workers. Some articles are based on papers presented at the Maine Occupational Research Agenda symposium on occupational safety and health issues among special populations. The symposium was held in May 2005.

Similarly, geographic areas have not changed, but the location of the U.S. population has shifted, and metropolitan areas have expanded. This analysis explores the changes that have taken place in each of these classification systems, and identifies how the new systems are used to describe occupational safety and health data.

Data on occupational safety and health come from several sources within BLS. Work-related nonfatal injuries and illnesses are obtained from the BLS annual Survey of Occupational Injuries and Illnesses, which provides summary data on the number and rate of injury and illness by detailed industry. For those injuries and illnesses that require the employee to be away from work for at least 1 day, the survey also provides information on worker demographics and the circumstances surrounding the incident. A complete census of workplace fatalities is available from the BLS Census of Fatal Occupational Injuries, which uses multiple source documents to amass a comprehensive database of fatal injuries, including demographics of the decedent, employer classifications, and information about the incident that led to the fatality. Finally, BLS has conducted special studies on occupational safety and health issues, including respirator use and practices and an upcoming study of employer workplace violence policies.<sup>1</sup>

## Industry classifications

The Standard Industrial Classification (SIC) system was introduced in 1939 in an effort to create a single system for identifying and classifying economic activity. The basis for classification was type of economic activity—that is, what work is performed at the establishment. While the SIC was updated periodically to keep up with the changing U.S. economy—the last time in 1987—there were growing concerns that the concepts and structure of the system were becoming outdated. The passage of the North American Free Trade Agreement in 1993, and the subsequent need for consistent classification across the United States, Canada, and Mexico, led to the development of a completely new system—the North American Industry Classification System (NAICS).<sup>2</sup>

NAICS was introduced in 1997 and has since been revised in 2002. The basis for classification is production processes. This change in the basic concept of the classification system led to the reclassification of many business establishments. For example, under SIC, the headquarters, plant, and warehouse of an automobile manufacturer might all be classified under motor vehicle manufacturing, depending upon their location and the availability of separate data for each activity. Under NAICS, each is classified by the separate activity they perform (in this case, management, manufacturing, and warehousing).

NAICS recognizes the development of many new industries spurred by the growth of technology. Under the SIC system, *computer programming, data processing, and other computer related services* (such as Internet service providers or Web search portals) was classified under Business Services, along with advertising, office cleaning, and guard services. Under the NAICS system, the major category for computer systems development-related activities is *computer systems design and related services*, which is classified under Professional, scientific, and technical services. There is also a separate category for *Internet service providers, web search portals, and data processing services*. It is classified under the Information sector, along with publishing, motion pictures, and broadcasting. The services provided by the industries in the Information sector include processing data and transforming information into commodities that are produced and distributed.

An example of the new NAICS data in the BLS occupational safety and health statistics program is the number and rate of total recordable injuries and illnesses, which are available by detailed industry. Among the published statistics is a list of those individual industries with at least 100,000 injury and illness cases in the year. The switch from SIC to NAICS resulted in a number of changes to the list. For example, eating and drinking places were frequently near the top of the list of industries with high numbers of injuries and illnesses under SIC; in 2002, such establishments were second (with 252,000 cases) behind hospitals (321,000 cases). Under NAICS, eating and drinking places are divided into several different industries, including full-service restaurants, limited-service eating places, and cafeterias. Because of this change, none of the individual restaurant classifications is among the 10 industries with the highest number of injuries and illnesses in 2003—although both full-service restaurants (119,000 cases) and limited-service eating places (112,000 cases) had more than 100,000 cases and combined would again be near the top of the list. (Hospitals head the list under NAICS as well, with 273,000 cases in 2003.) Table 1 provides data on the NAICS industries with the highest number of injuries and illnesses.

## Occupation classifications

Unlike industry classifications, there was not one single occupational classification system that was used for all statistical reporting in the past. A variety of systems have been used since the early 1900s, most notably for capturing decennial Census data. (Some rudimentary occupational classification systems existed in the late 19th century. See exhibit 1 for an example from Massachusetts.) The first version of the Standard Occupational Classification (SOC) system was introduced in 1977. Occupations were classified by industry, similarity of work, and skill.

**Table 1. Number of cases and incidence rate of nonfatal occupational injuries and illnesses for industries with 100,000 or more cases, private industry, 2003**

Industry	Total cases (in thousands)	Incidence rate
Hospitals .....	292.7	8.7
Nursing and residential care facilities .....	221.5	10.1
Transportation equipment manufacturing .....	162.1	9.3
General merchandise stores .....	150.6	7.2
Administrative and support services .....	137.3	3.7
Food manufacturing .....	129.1	8.6
Grocery stores .....	126.3	7.2
Fabricated metal product manufacturing .....	123.5	8.5
Ambulatory health care services .....	122.4	3.3
Merchant wholesalers, durable goods .....	121.7	4.3
Full-service restaurants .....	119.3	4.5
Building equipment contractors .....	118.3	7.1
Limited-service eating places .....	112.5	4.9
Merchant wholesalers, nondurable goods .....	108.9	5.7

NOTE: The incidence rate represents the number of injuries and/or illnesses per 100 full-time workers, based on a full-time work schedule of 40 hours per week, 50 weeks per year.

**Exhibit 1. Occupational categories from Massachusetts death certificates, 1875**

- Cultivators of the earth
- Active mechanics abroad
- Active mechanics in shops
- Inactive mechanics in shops
- Laborers – no special trades
- Factors laboring abroad
- Employed on the ocean
- Merchants, financiers, agents, etc.
- Professional men
- Females

The Federal Government undertook a major revision to the SOC in the 1990s. More importantly, the revised SOC was designated the only occupational classification system to be used for future Government statistics. Thus, all programs are moving toward this new system.<sup>3</sup> In the case of BLS occupational safety and health statistics data, occupations in the past were classified by the census occupational classification system. In some cases, specific occupations classified in the old and new systems are similar, while in other cases, more detail is provided under the new system. The SOC classifies occupations based on similarity of tasks at similar levels of work.

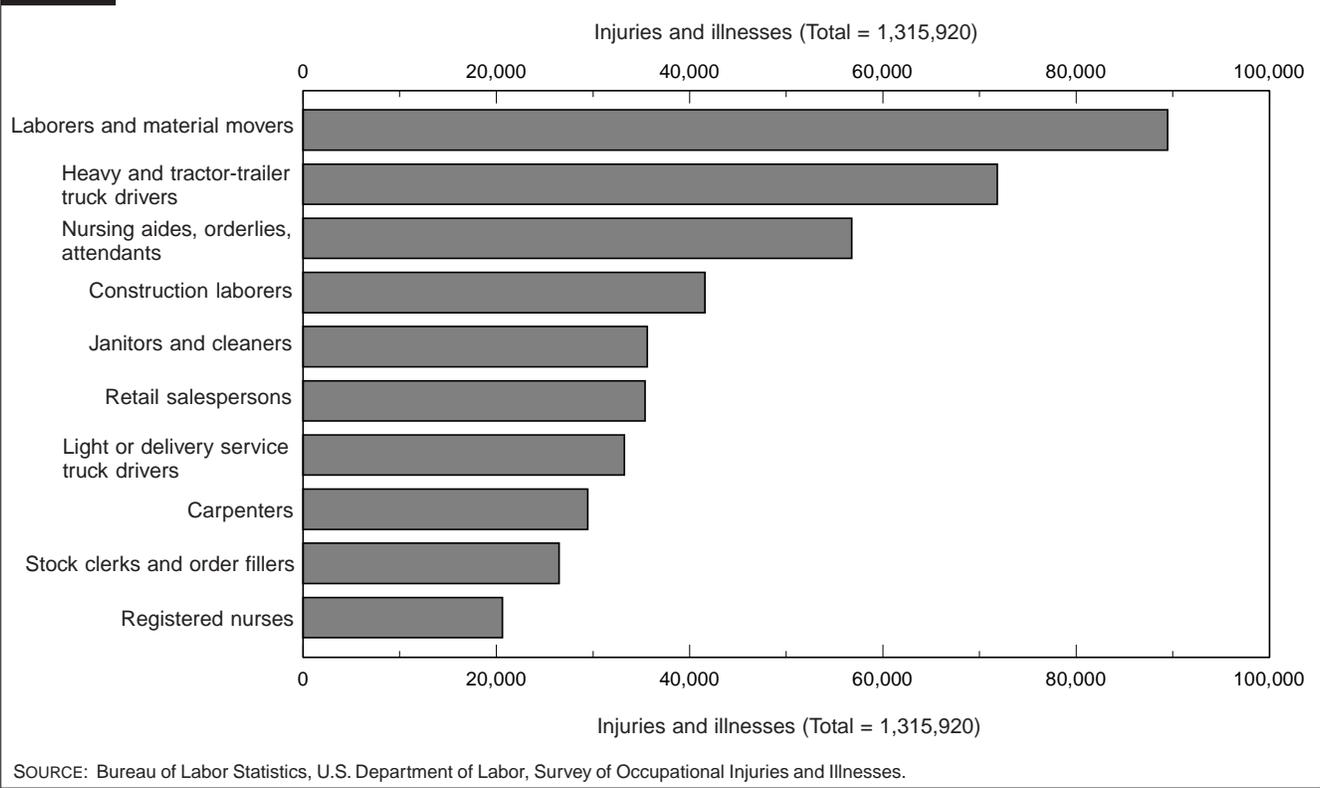
Certain health occupations provide an example of the changes introduced with the SOC. Under the census occupational classification system, health technologists and technicians were subdivided into a small number of specialties—lab techs, dental hygienists, medical records techs, radiology techs, and licensed practical nurses. These subcategories have been greatly expanded under the SOC. In addition to those listed above, newly-identified occupations include cardiovascular tech, diagnostic tech, nuclear medicine tech, sonographers, emergency tech, dietetic tech, psychiatric tech, respiratory tech, and surgical tech.

In the BLS Survey of Occupational Injuries and Illnesses, the new occupational classification system led to a change in the occupations published. For injuries and illnesses that involve days away from work, among the statistics published are the occupations with the greatest number of injuries and illnesses. For many years, the occupation that led the list was truck drivers, which included a wide variety of jobs covering local and long-distance driving. Under the SOC, the former truck-driver category is subdivided into three specific occupations: heavy and tractor-trailer truck driver, light or delivery service truck driver, and driver/sales worker. Because of this change, data for 2003 now show that heavy and tractor-trailer truck drivers have the largest share of total truck-driver injuries and illnesses. Further, none of these truck-driver categories leads the list of occupations with the most injuries and illnesses involving days away from work; that list is now led by laborers and material movers, which include a variety of nonconstruction jobs such as machine feeders, hand packers, and cleaners of vehicles. But while truck drivers no longer lead the list, the total of the three new truck-driver categories would in fact continue to lead the list. (See chart 1.)

**Race and ethnicity classifications**

The history of race and ethnicity classification in the United States reflects the Nation’s long struggle with issues of race, immigration, and related items. Race categories are generally revised in anticipation of each decennial census. The following is an example of some of the classifications used for the census and all Government statistics throughout the Nation’s history:

**Chart 1. Occupations with the most injuries and illnesses with days away from work, 2003**



- 1790 – Free whites; slaves
- 1820 – Free whites (except Indians not taxed); foreigners not naturalized; free colored persons; slaves
- 1850 – White; black; mulatto
- 1880 – White, black; mulatto; quadroon; octoroon
- 1950 – White; negro; American Indian; Hawaiian; Aleut; Eskimo
- 1970 – White; Asian Indian; Black or Negro
- 2000 – American Indian or Alaskan Native, Asian, Black or African American, Native Hawaiian or other Pacific Islander, White

In contrast to the substantial changes from 1790 to the mid-20th century, the changes that took place in 2000 were limited. The most important change was the ability to select more than one race category, and thus be designated as multiracial.<sup>4</sup>

Beginning in the 1960s, the Nation’s population classifications were expanded to include Spanish/Hispanic origin separately from race. Individuals could be identified as any race and, separately, could be identified as of Spanish/Hispanic origin. This led to a number of alternative means of tabulating race and Hispanic origin. Directives issued prior to the 2000 Census were designed to encourage the collection and tabulation of data that describe the intersection of data on

race and Hispanic origin. These directives result in such categories as “white, non-Hispanic,” “white, Hispanic,” “black, non-Hispanic,” and “black, Hispanic,” along with other combinations. Alternatively, Spanish/Hispanic origin can be collected and tabulated as a separate race category.

Race and Hispanic origin data are collected and tabulated both in the Survey of Occupational Injuries and Illnesses and the Census of Fatal Occupational Injuries. For injuries and illnesses involving days away from work, employers select one or more of the following categories to identify the worker:

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic or Latino
- Native Hawaiian or Other Pacific Islander
- White

Because the injury and illness data are designed to mirror OSHA’s recordkeeping forms, forms that do not include race or ethnicity questions, answering these data is optional for the Survey of Occupational Injuries and Illnesses. Due to that fact, approximately 30 percent of data are unavailable. The opportunity to select more than one response allows for the tabulation of a multirace category.

In the fatality census, data are captured separately for race and Hispanic origin. In the case of race, the available choices are each of the individual race categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White) or a separate choice of “multiple races.” Hispanic origin is captured as a separate data element.

There has been a particular interest in workplace safety and health statistics regarding Hispanic workers, as that population has grown rapidly in recent years and many Hispanic workers are in fairly dangerous jobs. Chart 2 shows the number of fatalities among Hispanics in recent years, and indicates that the majority of the deaths have occurred among foreign-born Hispanics.

### Geographic area

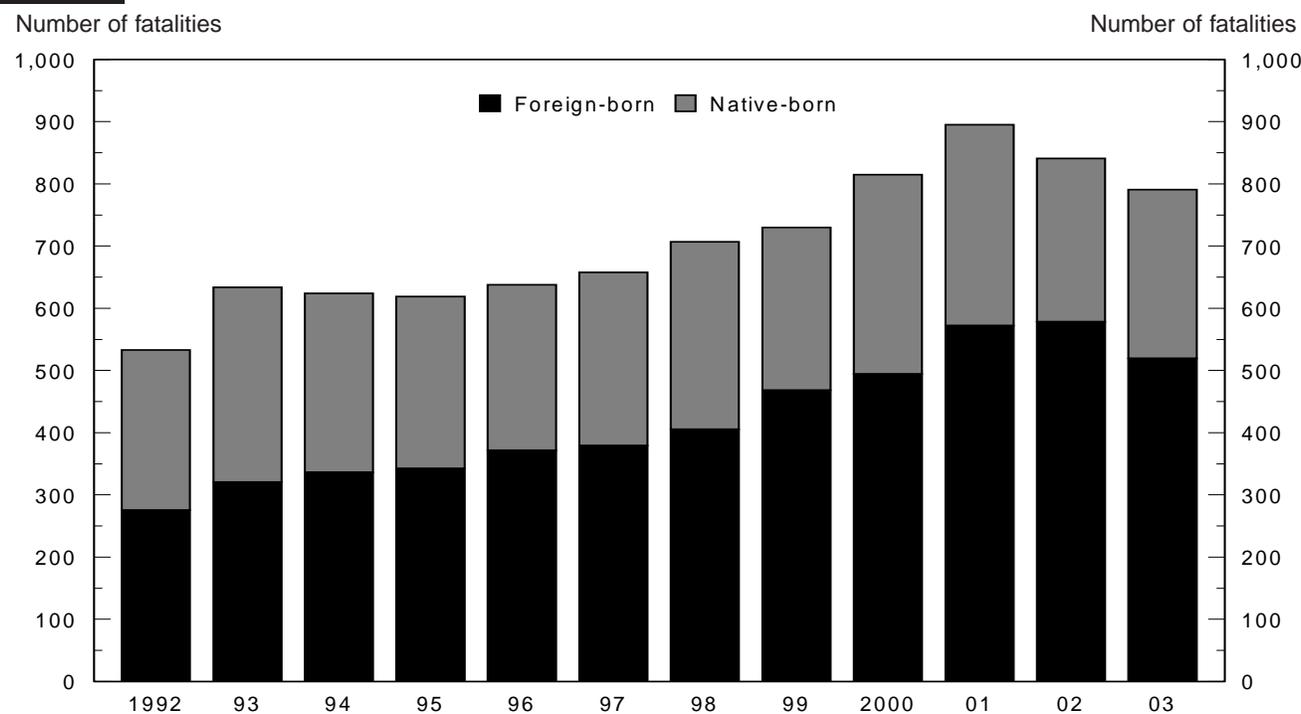
The U.S. system of States, counties, cities, and towns has been around since the Nation began; counties are more important in some parts of the country, while cities and towns have more prominence in most of New England. Metropolitan areas were first designated in the late 1940s, for use with the 1950 census. Metropolitan areas, at least when the designations first began, generally took into account central cities and the sur-

rounding area. Metropolitan area definitions are now redesignated every 10 years, using data gathered in each decennial census. The most recent designations were developed based on the 2000 census.<sup>5</sup>

Concord, New Hampshire, provides an example of changes that have occurred in the designation of metropolitan areas. Concord is the county seat of Merrimack County and the capital of New Hampshire. When the first metropolitan areas were defined, Concord was not part of any metropolitan area, and it stayed that way throughout the 20th century. Following the 2000 Census, Concord, together with all of Merrimack County, was designated the Concord micropolitan statistical area; micropolitan area is a new term representing smaller urban areas (population of 10,000 to 50,000) and their surrounding suburban areas. In addition, Concord is now part of the Boston-Worcester-Manchester-MA-NH Combined Statistical Area. Combined areas are defined as adjacent metropolitan and micropolitan areas that have employment interchange that meet certain criteria.

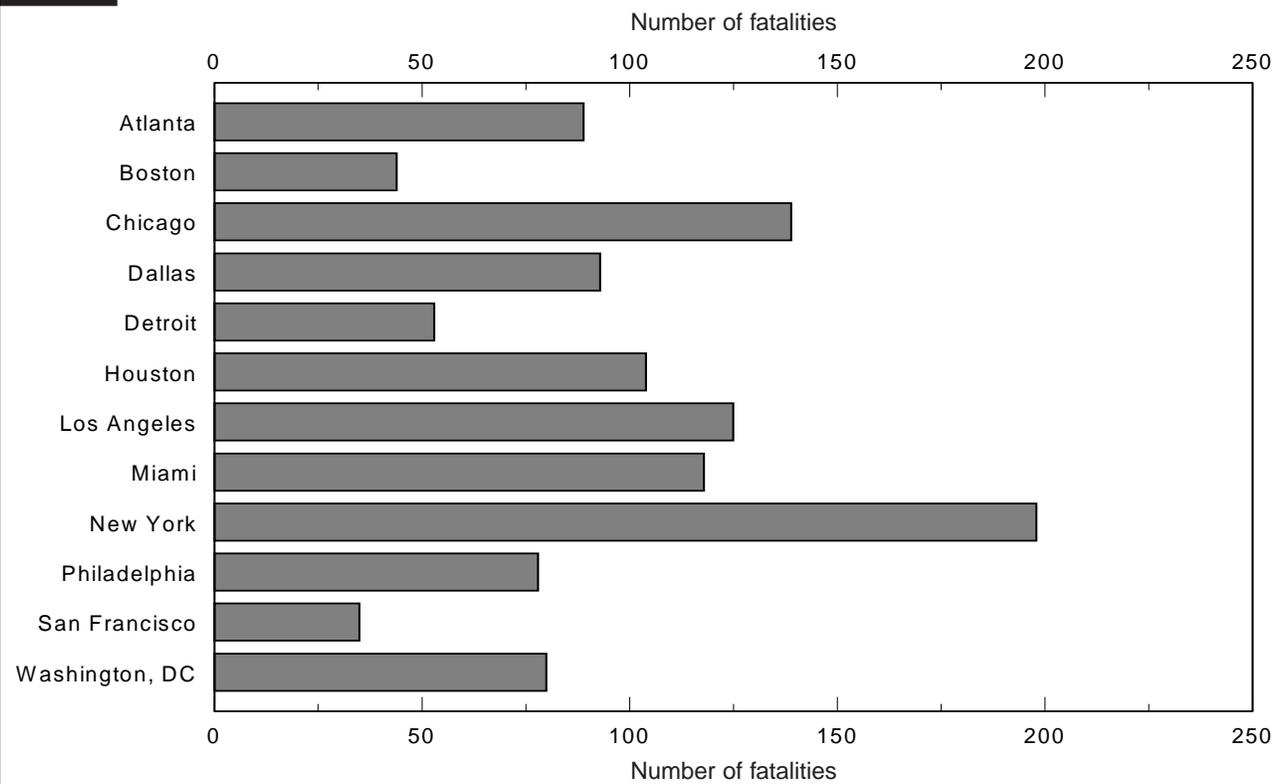
BLS tabulates workplace fatalities by metropolitan area. For example, in 2003 there were 198 fatalities in the New York metropolitan area, 139 in Chicago, 125 in Los Angeles, and 44 in Boston.<sup>6</sup> (See charts 3 and 4.)

**Chart 2. Number of fatal work injuries involving Hispanic or Latino workers, 1992–2003**

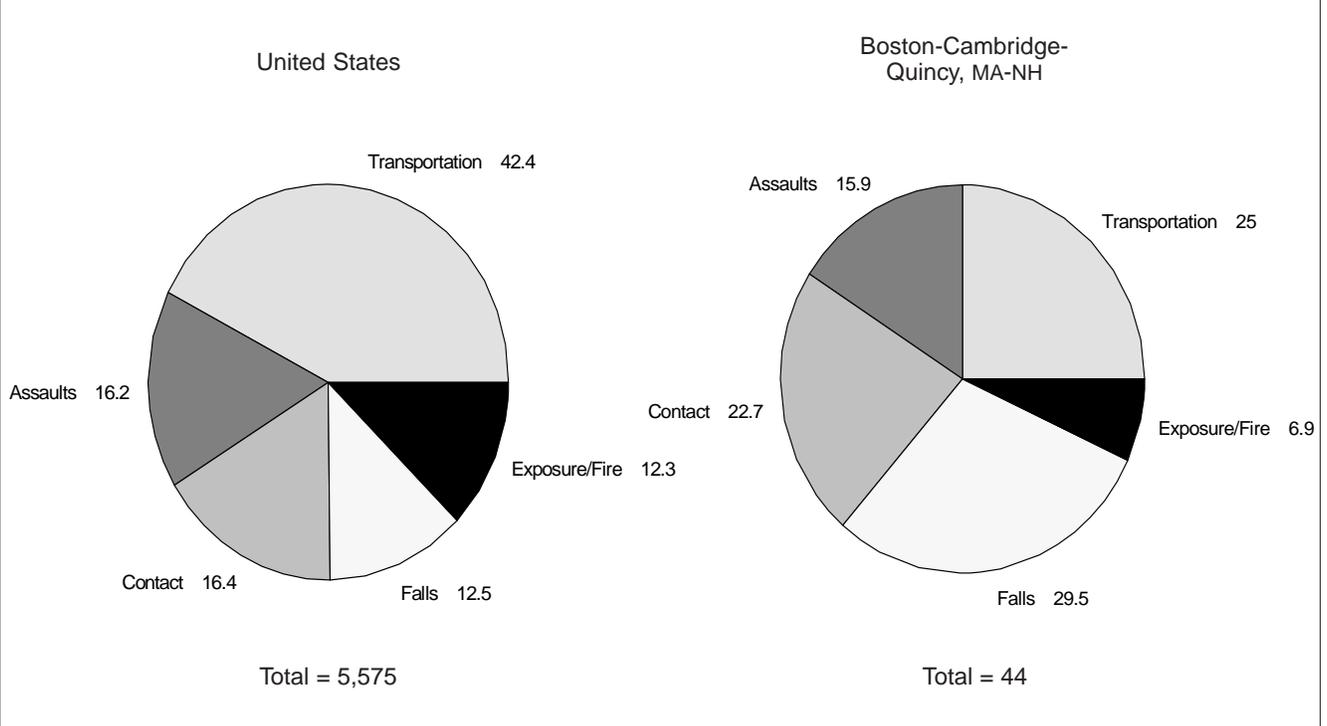


NOTE: Data from 2001 exclude fatalities resulting from September 11 terrorist attacks.  
 SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2003.

**Chart 3. Fatal occupational injuries by metropolitan area, 2003**



**Chart 4. Fatal occupational injuries by fatal event, United States and Boston metropolitan area, 2003, in percent**



## Other changes

Changes in the definitions of injury and illness cases that were implemented by the Occupational Safety and Health Administration (OSHA) in 2002 resulted in changes to the BLS occupational injury and illness statistics.<sup>7</sup> For example, the old definition considered application of a butterfly bandage to be medical treatment and a recordable case; the new definition considers such treatment to be first aid and not recordable. Using these new definitions, BLS reported 4.4 million nonfatal injuries and illnesses in private industry workplaces in 2003, resulting in a rate of 5.0 cases per 100 equivalent full-time workers.<sup>8</sup> While these data follow the trend of declining cases and rates seen throughout the past decade, they are not comparable with data from prior years because of the change in definition.<sup>9</sup>

The 2002 recordkeeping rule included many changes. For example, under the old rule, recurrences of injuries or illnesses after a 30-day period were to be recorded as separate cases. Under the new rule, there is no longer a specified time frame. Employers may consider recurrences that are not brought on by a new event or exposure in the workplace to be the same case. In another example, under the old rules needle sticks were recorded only if they resulted in medical treatment; now, needle sticks are recorded if there is poten-

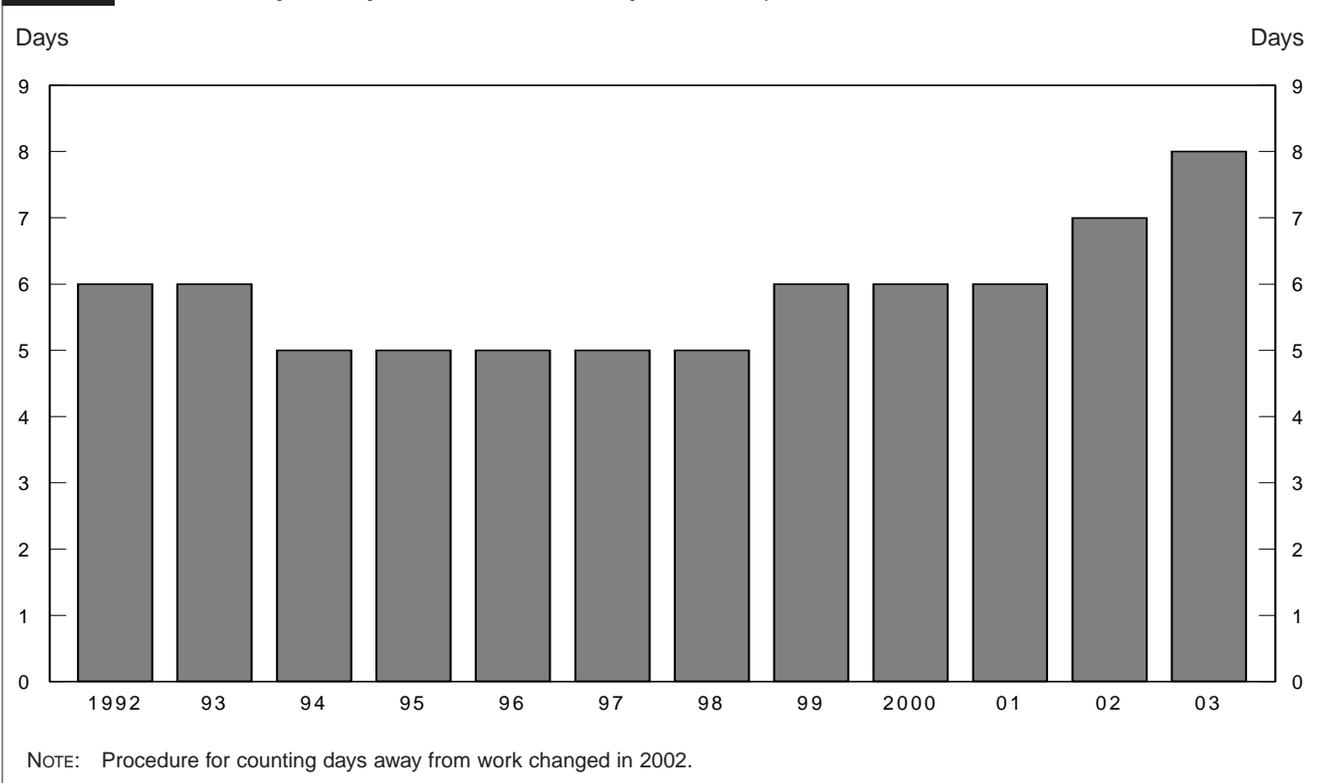
tial contamination with another person's blood, regardless of treatment. Finally, the count of days away from work has changed from work days to calendar days. This could have the effect of increasing the reported days away from work, especially among workers in part-time occupations. Chart 5 shows trends before and after the change in recordkeeping rules.

## Emerging injuries and illnesses

There has been growing interest in some injuries and illnesses in recent years. For example, exposure to HIV/AIDS is a concern that did not exist a few decades ago. There is much interest in musculoskeletal disorders, as workers use different equipment and different motion. A subset of this area is the current interest in sprained thumbs, often the result of overuse of personal digital devices. Finally, the rash of attention paid to finger amputations recently has led to many inquiries about such incidents. BLS occupational injury, illness, and fatality data are available to shed light on all of these issues.

Beyond the annual tabulations on injuries, illnesses, and fatalities, the BLS occupational safety and health statistics program has been involved in special studies of safety and health topics. These studies are designed to derive a greater amount

**Chart 5. Median days away from work for occupational injuries and illnesses, 1992–2003**



of detail about a specific topic. For example, a survey on respirator usage was conducted in 2001. The survey found that 4.5 percent of all private industry establishments required respirator use. In the mining industry, 11.7 percent of establishments required respirator use, as did 12.8 percent of manufacturing establishments.<sup>10</sup> The survey also provided details on the training that employees receive in proper use of respirators, as well as information on different types of respirators.

In 2005–06, the BLS occupational safety and health statistics program will conduct another special survey, this one on employer practices to prevent workplace violence. Informa-

tion to be gathered includes protections that are in place and training provided to employees. Data will be available by NAICS industry classifications.

The occupational safety and health statistics program in the first decade of the 21st century is vastly different from its predecessors in past years. Industries and occupations have evolved; race and geography classifications have become more detailed and more precise; and new definitions and new medical conditions have entered the OSHA lexicon. BLS data on the occupational safety and health of workers has expanded to reflect this new environment. □

## Notes

---

<sup>1</sup> More information on the BLS Occupational Safety and Health Statistics program is available on the Internet at [www.bls.gov/iif](http://www.bls.gov/iif).

<sup>2</sup> More information on the North American Industry Classification System is available on the Internet at <http://www.bls.gov/bls/naics.htm>.

<sup>3</sup> More information on the Standard Occupational Classification system is available on the Internet at <http://www.bls.gov/soc/home.htm>.

<sup>4</sup> For a detailed account of the changes in race and ethnicity categories in the U.S. statistical system, see *Report on the American Workforce 2001* (U.S. Department of Labor, 2001), on the Internet at <http://www.bls.gov/opub/rtaw/rtawhome.htm>.

<sup>5</sup> More information on metropolitan area definitions is available on the Internet at <http://www.census.gov/population/www/estimates/metrodef.html>.

<sup>6</sup> Data are for the metropolitan area, which includes the central city and surrounding locations.

<sup>7</sup> A comparison of recordkeeping rules before and after the 2002 change is available on the Internet at [www.osha.gov/recordkeeping/RKside-by-side.html](http://www.osha.gov/recordkeeping/RKside-by-side.html).

<sup>8</sup> *Workplace Injuries and Illnesses in 2002* (U.S. Department of Labor news release 03-913, Dec. 18, 2003). Injury and illness rates represent the number of injuries and illnesses per 100 full-time workers and are calculated by multiplying the number of injuries and illnesses by the total hours worked by all employees during the calendar year. This result is then divided by 200,000 (100 workers times 40 hours per week times 50 weeks per year) to determine the rate per 100 equivalent full-time workers.

<sup>9</sup> BLS cautioned readers of the differences in the data from prior years and discouraged year-to-year comparisons. Because employers were following the new rules when recording cases throughout 2002, there was no way that two sets of data (under both the old and new rules) could be collected for comparison purposes. For a discussion of the effect of the recordkeeping change on BLS occupational injury and illness data, see William J. Wiatrowski, "OSHA: New Recordkeeping Requirements," *Monthly Labor Review*, December 2004, pp. 10–24.

<sup>10</sup> Data from the BLS survey of respirator usage are available on the Internet at <http://www.bls.gov/iif/oshwc/osh/os/osnr0014.txt>.

### Occupational safety and health

# Occupational injuries among young workers

*Despite regulations, young workers are exposed to some of the same hazards as older workers, resulting in injuries and deaths; transportation incidents cause the most fatal occupational injuries*

Janice Windau  
and  
Samuel Meyer

**Y**oung workers face considerable occupational risks. Fatality counts dropped for many age groups between the two 5-year periods in 1993–2002, but increased 34 percent for workers aged 14 and 15 years. Fatalities for young workers aged 14 to 17 increased in the construction, services, and government industries and decreased in retail trade. Child labor laws are designed to protect young workers from participating in dangerous jobs, but some hazardous occupations (work on a family farm, for example) are outside the scope of such laws.

This article updates a previous study of injuries and fatalities among young workers covering the 1992–97 period.<sup>1</sup> That study concluded that young workers are exposed to some of the same hazards as older workers, despite regulations.<sup>2</sup> This study compares fatalities among young workers during two time periods: 1993–97 and 1998–2002.<sup>3</sup> The study also compares data for nonfatal injuries and illnesses among young workers with data for all workers. A snapshot of youth employment in recent years is discussed, and fatality data totals for 2003 and 2004 are presented.

### About the data

Young workers are defined here as workers 17 years old and younger. Data from the Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injuries (CFOI) were used for the fatality comparisons. These data cover workers of all ages and all types of employment, including pub-

lic sector, self-employment, and unpaid work for a family farm or business. Data from the BLS Survey of Occupational Injuries and Illnesses (SOII) were used to look at nonfatal incidents among young workers in private wage and salary jobs. Employment data are from the Current Population Survey (CPS), a joint endeavor between the Census Bureau and BLS, and the BLS National Longitudinal Survey of Youth (NLSY).

Fatality rates were calculated using the CPS hours-at-work data for years 1994 through 2004. The CPS produces data for individuals aged 15 years and older. Therefore, rates were calculated for youths 15 to 17 years old and represent the number of fatal injuries per 100,000 full-time equivalent workers.

### Youth employment

Studies have shown that children work extensively in their teen years and even earlier. Using data from the National Longitudinal Survey of Youth 1997 (NLSY97), the BLS *Report on the Youth Labor Force* reported that half of those interviewed responded that they had engaged in some sort of paid work activity at age 12—mostly involving either babysitting or yard work.<sup>4</sup>

The proportion of children with paid jobs increases with age. By ages 14 and 15, the percentage of those working at some type of job increased to 57 and 64 percent, respectively. The study also reported that the type of work performed also changes as one grows older. Whereas only 24 percent held an “employee-

Janice Windau is an epidemiologist, and Samuel Meyer an economist, in the Office of Safety, Health, and Working Conditions, Bureau of Labor Statistics.  
E-mail: Windau.Janice@bls.gov  
Meyer.Samuel@bls.gov

type” job (that is, they had an ongoing relationship with a particular employer) when aged 14, this percentage rises to 38 percent for 15-year-olds. Employee-type work among 14- and 15-year-olds included work in eating and drinking places, entertainment and recreation services, construction, grocery stores, newspaper publishing and printing, landscape and horticultural services, agricultural production, elementary and secondary schools, building services, automotive repair, and private households. As with 12-year-olds, freelance work among 14- and 15-year-olds included babysitting and yard work.<sup>5</sup>

Another study compared work activities of high schoolers in employee-type or wage and salary jobs during the school year.<sup>6</sup> Slightly less than one-fourth (23 percent) of freshmen (typically, 14-year-olds) worked at some point during the school year. This percentage rises with each successive grade. By senior year (typically, youths aged 17), the proportion of those working in employee-type jobs during the school year rises to three of four. Not surprisingly, older youths also tend to work longer hours. Only 24 percent of freshmen working during the school year worked more than 20 hours a week, while 56 percent of employed seniors averaged more than 20 hours.

The number of teen workers aged 16-17 years has been declining. The annual average employment for 16- and 17-year-olds for 2004 was 2.2 million, down from 2.8 million in 2000, although there has been an increase in the number of self-employed workers among this age group. Hours at work for 16- and 17-year-olds have also declined, from a weekly average of 19.7 in 2000 to 18.0 in 2004.<sup>7</sup>

### Laws restricting child labor

The Federal law regulating child labor, the Fair Labor Standards Act (FLSA) of 1938, is intended to protect youths from working in hazardous conditions and to ensure work does not interfere with a youth’s education.<sup>8</sup> These regulations limit the extent and type of work youths under 18 years old can perform. Regulations differ by age, with fewer restrictions for those aged 16 and 17 in nonagricultural work. Regulations set limits on the hours that those younger than age 16 may work on school days and nonschool days, both during the school year and when school is dismissed for vacation.

Persons younger than age 18 also are restricted from working in certain hazardous occupations or performing hazardous tasks. These restrictions are embodied in the Hazardous Occupations Orders and regulate work in mining, logging and sawmilling; certain manufacturing work; roofing, excavation, and demolition; driving; and use of certain types of powered equipment.<sup>9</sup>

Workers younger than 16 are limited to performing certain duties in retail, food service, and gasoline service establishments. Nonagricultural workers younger than age 14 are limited to the following work, which are exempt from Federal youth employment provisions:

- working for parents in occupations other than manufacturing and mining and occupations deemed hazardous;
- working as actors or performers in movies, theatrical, radio, or television productions;
- delivering newspapers to consumers;
- working at home making wreaths composed of certain materials; and
- working on a casual basis using family lawnmower to cut neighbors’ grass, babysitting, or performing minor chores around private homes.

There also are exemptions for youths working in certain apprenticeship and vocational education programs.

Rules differ between agricultural and nonagricultural employment, with regulations being less restrictive in agricultural work than in other industries. Youths in agriculture may perform tasks deemed hazardous at a younger age; may perform any activity if working on a farm owned or operated by their parents; and may work during school hours at age 16 or if employed on the parents’ farm. In addition, there are no restrictions on the number of hours 14- and 15-year-olds can work in nonhazardous jobs outside of school hours.

Minors younger than age 16 working on farms other than those owned or operated by their parents are restricted from operating tractors having over 20 power-take-off horsepower; riding as a passenger or outside helper on a tractor; driving a motor vehicle while transporting passengers; operating and assisting in operating certain other powered equipment; working near animals with newborns; working from ladders or scaffolds more than 20 feet high; working in certain potentially oxygen-deficient environments such as silos; and handling certain hazardous substances.

In addition to Federal laws, each State has its own child labor laws, which may be more or less restrictive than provisions of the Federal regulations. If both the State and Federal laws apply to the same situation, the more stringent standard must be obeyed. A State’s standard may also apply if the business or farm does not meet coverage requirements of the Fair Labor Standards Act. To be covered by FLSA, the business must have annual gross volume of sales of \$500,000 or the worker in question must have duties involving interstate commerce including shipping, receiving, or recording transactions

for goods for interstate commerce. Some States extend coverage to all businesses regardless of revenues, and some State laws cover newspaper carriers and child actors, who are exempt under the FLSA.<sup>10</sup> A few States, Maine and Massachusetts for example, prohibit all workplace driving by workers younger than age 18, and some States, such as Florida and Oregon, restrict them from operating certain farm machinery. In contrast, several States either exempt agricultural employment entirely or do not identify it as a covered employment, and some States have exemptions related to working with a specific crop.

Many States also require work permits or proof of age. These are typically issued by either the State Labor Department, a local social service agency, or a local school district. Some States require a physician to sign the work permit.<sup>11</sup>

Several other State and Federal laws apply to youth employment, even if not specifically designed to protect young workers. Federal and State occupational safety and health laws apply to workers of all ages, although some activities are exempt. The Occupational Safety and Health Administration (OSHA) covers safety and health issues among the working population. Coverage is generally limited to private-sector wage and salary workers, Federal Government workers, and some State and local government employees. Workers on farms with fewer than 11 employees are excluded from OSHA coverage, as are the self-employed in unincorporated businesses and workers in the family business. State motor vehicle laws restrict driving to certain ages, and many States have adopted graduated licensing programs, which also restrict the number and ages of passengers allowed in vehicles operated by young drivers.

In addition to regulations, many other initiatives have been implemented to stem the occurrence of youths' injuries and illnesses at work. The Department of Labor initiative *YouthRules!*, launched in May 2002, was created with a goal to generate child labor law awareness in the public eye. Information is tailored to various user groups; separate sections are available for teens, parents, employers, and educators.<sup>12</sup>

Several private-sector organizations have programs targeted at diminishing hazards to young workers in agriculture. For example, the 4-H Federal Extension Service Training Program, which is referenced in the Child Labor Requirements in Agricultural Occupations (Bulletin 102), provides certification in tractor and farm machine operation for 14- and 15-year-olds. Another example is the North American Guidelines for Children's Agricultural Tasks, developed by the National Children's Center for Rural Agricultural Health, designed to assist parents in assigning farm tasks that are appropriate for their child's developmental level and skill. Recommendations cover tasks, such as animal care, haying operations, and tractor use.

## Occupational fatalities to youths

Counts of fatal work injuries among workers 17 years of age and younger were fairly steady between 1992 and 2000—averaging 68 per year. (See chart 1.) Fatality counts began to fall in 2001, then fell again in 2002, so that the 2002 count was 44 percent below that recorded for 2000—the year with the highest total since the BLS fatality census started collecting data in 1992. The fatality total for youths increased again in 2003, mainly due to a rise in fatalities among workers younger than 16, and then declined again so that the 2004 count of 37 was the low for the series. Fatality counts for all workers combined fell during the late 1990s and early 2000s, but the decline was not as dramatic. These counts fell 17 percent, from the high of 6,632 in 1994 to the series low of 5,534 in 2002.

Fatality rates for U. S. workers aged 15 and older while at work trended down during the last 10 years by an annual average decline of 3 percent.<sup>13</sup> However, for workers aged 15 to 17, the annual average decline was slightly less than 1 percent. (See chart 2.) Fatality rates for ages 15 and older declined 15 percent from 1994 to 1998. However, the fatality rate for youth jumped back up in 1999, to 3.8 injuries per 100,000 full-time equivalent (FTE) workers—the highest ever recorded by the census. By the year 2002, the youth fatality rate dropped to 2.3 injuries per 100,000 FTE workers, a decline of almost 40 percent. In the most current data, youths aged 15 to 17 years recorded a fatality rate of 2.7 injuries per 100,000 FTE workers in 2004.

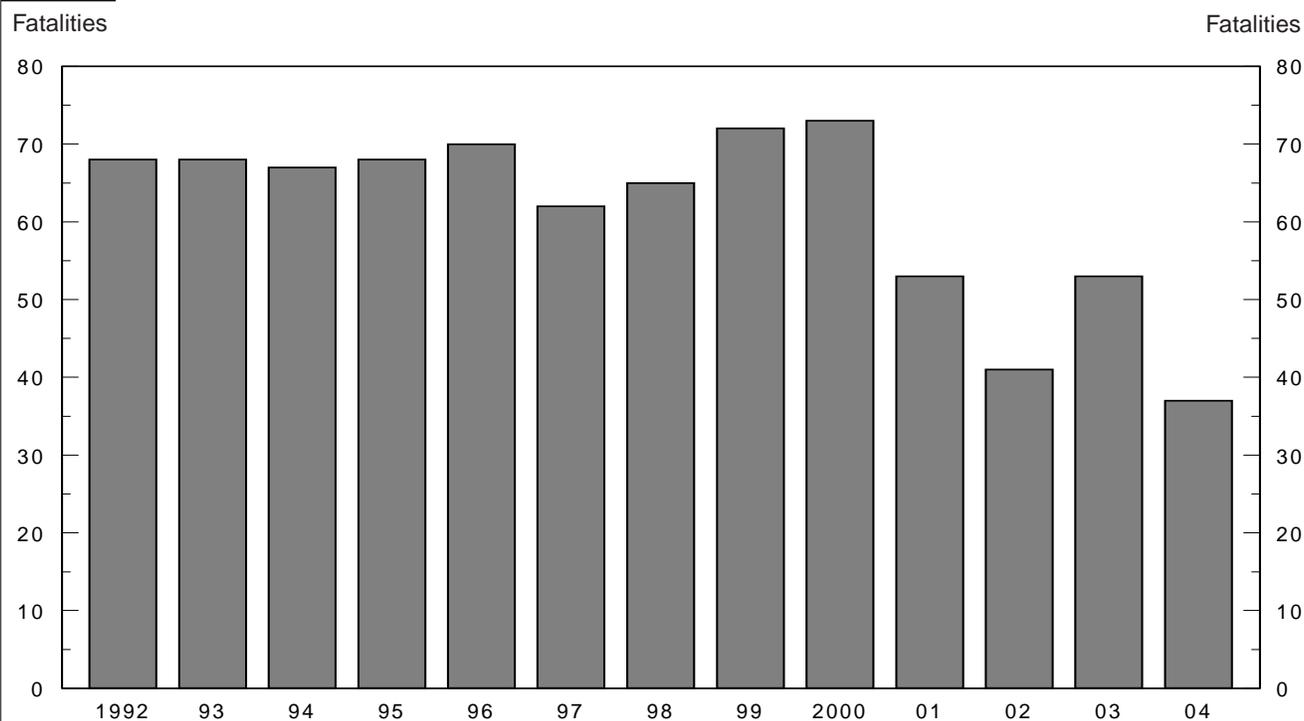
Workers aged 15 years had a fatality rate of 4.7 fatalities per 100,000 workers during the 1994–2004 period, while workers aged 16 to 17 had a rate of 3.0 fatal injuries per 100,000 workers. Additionally, workers aged 15 experienced a 9-percent average annual increase in fatality rate, while those aged 16 and 17 experienced slightly more than a 1-percent average annual decline. In fact, most age groups experienced a decline of between 1 and 5 percent in the 11-year period.

A different view of fatal work injury rates emerges when age categories are grouped by 5-year periods (1994–98 and 1999–2003). (See table 1.) While overall worker fatality rates declined by 14 percent between the two time periods, rates for 15- to 17-year-olds declined by a mere 6 percent. As a result, fatality rates for workers 15 to 17 years old approached those for young adult workers aged 18 to 34 during 1999–2003.

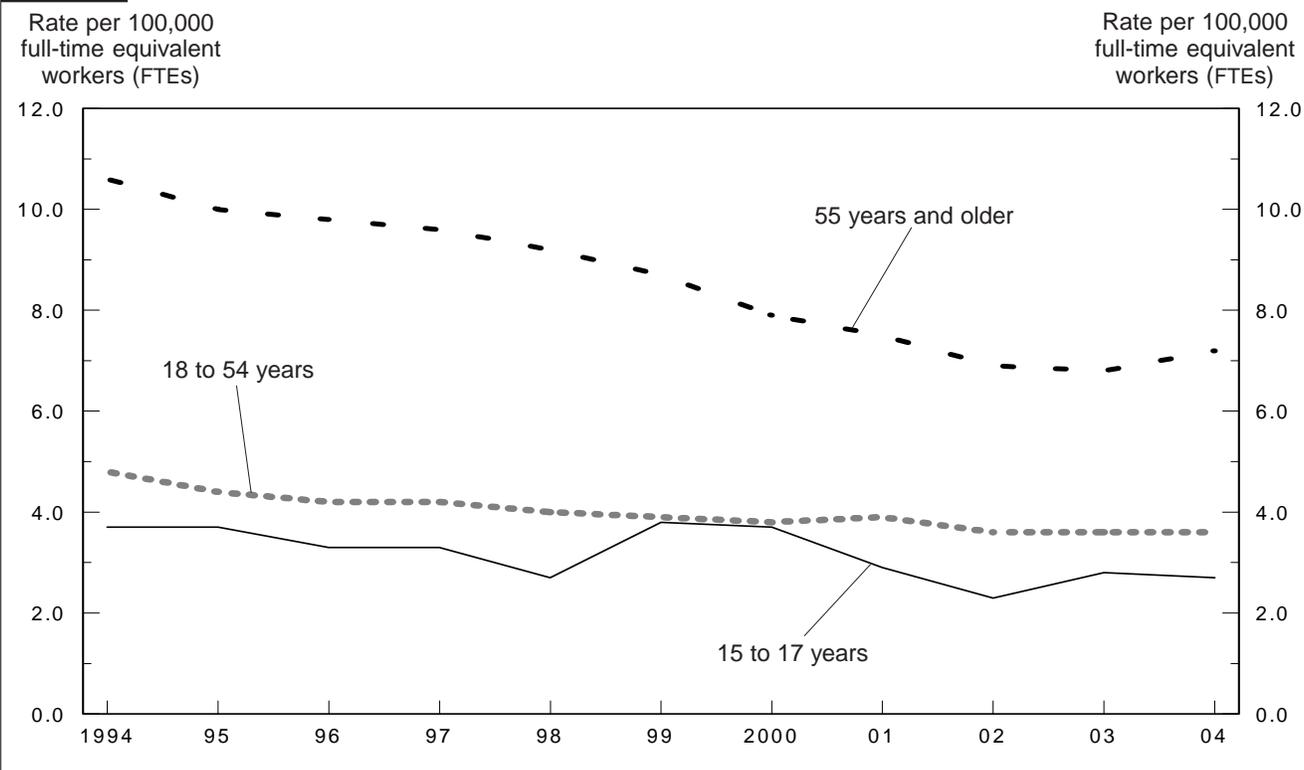
## Fatalities by event and activity

Transportation incidents accounted for more than half of the 304 fatalities among young workers during the 1998–2002 period. (See table 2.) Fatalities from transportation-related

**Chart 1. Fatal work injuries to youths 17 and younger, by year, 1992–2004**



**Chart 2. Fatal work injury rates by year, U.S. workers 15 and older, 1994–2004**



**Table 1. Fatal occupational injury rates of civilian workers by age group, 5-year periods from 1994–2003**

Age group	1994–2003	1994–98	1999–2003
All ages, 15 and older .....	4.6	4.9	4.2
15 to 17 years .....	3.2	3.3	3.1
18 to 19 years .....	3.7	4.0	3.4
20 to 24 years .....	3.7	3.9	3.5
25 to 34 years .....	3.8	4.1	3.4
35 to 44 years .....	4.1	4.3	3.8
45 to 54 years .....	4.5	4.9	4.1
55 to 64 years .....	6.4	7.5	5.5
65 years and older .....	18.2	20.1	16.7

**Table 2. Fatal occupational injuries of U.S. workers aged 17 years and younger, by selected events, 5-year periods, 1993–97 and 1998–2002**

Event	1993–97	1998–2002
Total .....	335	304
Transportation incidents .....	138	157
Highway .....	63	67
Collision between vehicles, mobile equipment .....	21	22
Noncollision .....	31	37
Jack-knifed or overturned .....	24	27
Nonhighway .....	35	54
Fall from moving vehicle, mobile equipment .....	4	5
Fall from and struck by vehicle, mobile equipment .....	10	17
Overturned .....	20	23
Worker struck by vehicle, mobile equipment .....	21	27
Water vehicle .....	8	6
Railway .....	8	—
Assaults and violent acts .....	66	44
Homicides .....	57	32
Suicide, self-inflicted injury .....	—	6
Assaults by animals .....	7	6
Contact with objects and equipment .....	68	50
Struck by object .....	30	16
Caught in or compressed by equipment or objects .....	20	22
Caught in running equipment or machinery .....	14	15
Caught in or crushed in collapsing materials .....	15	12
Excavation or trenching cave-in .....	4	5
Caught in or crushed in collapsing materials n.e.c. ....	9	6
Falls .....	21	25
Fall from roof .....	9	9
Fall from scaffold, staging .....	—	4
Exposure to harmful substances or environments .....	34	24
Contact with electric current .....	17	15
Exposure to caustic, noxious, or allergenic substances .....	7	—
Drowning, submersion .....	7	5
Fires and explosions .....	7	3

NOTE: Dashes indicate no data or data that do not meet publication criteria. Totals may include subcategories not shown separately. n.e.c = not elsewhere classified.

incidents rose by 14 percent from the previous 5-year period. The increase in these fatalities resulted from increases in vehicle-related incidents occurring on highways and in off-roadway areas (such as on farms and industrial premises) and from workers struck by vehicles.

Assaults and violent acts comprised 14 percent of the total in the 1998–2002 period. Fatalities among young workers resulting from homicides decreased considerably from the previous 5-year period. The count for 1998–2002 represented a 44-percent drop from the homicide total for 1993–97, mirroring the declining national trend in workplace homicides. The fatality total resulting from contacts with objects and equipment also decreased during the two periods, primarily due to a drop in fatal injuries from young workers being struck by objects.

Fatal falls increased slightly over the previous period, resulting from an increase in falls from scaffolds. On the contrary, there was almost a 30-percent drop in young worker fatalities from exposures to harmful substances and environments—mostly resulting from a decrease in fatalities from inhaling harmful substances and from being in oxygen-deficient environments. Young worker fatalities from fires and explosions also declined between the two periods.

Table 3 presents fatal injuries to young workers by age and work activity at the time of the event. The youngest decedents, those younger than 14, were fatally injured in incidents that almost entirely involved vehicles or farm machinery. About one-fourth of these workers were fatally injured while operating farm vehicles and machinery. More diverse work activities were associated with older youths fatally injured at work. Twelve percent of workers aged 16 to 17 years incurred a fatal injury while driving an automobile or truck, and an additional 12 percent were fatally injured while tending a retail establishment, mostly due to homicides.

The work activities reported between 1993 and 1997 generally mirrored those reported between 1998 and 2002 with nearly all activities resulting in fewer fatal injuries. Fatal injuries to young workers while tending and caring for animals decreased by 64 percent from the 1993–97 period to the 1998–2002 period, and a 62-percent decline was reported for fatal injuries to youths tending retail establishments. Also, a 39-percent decline was reported for youths driving automobiles, and a 26-percent decline was reported for youths operating farm vehicles and machinery.

Alternatively, fatal injuries associated with some activities were reported to increase in the 1998 through 2002 period. More than twice as many youths were fatally injured while installing building materials in this 5-year period, compared with the previous 5 years. Most of these fatalities occurred on construction sites. Additionally, youth riding on

**Table 3. Fatal occupational injuries for U.S. workers aged 17 and younger by work activity, 1993–2002**

Work activity	Younger than 18 years	Younger than 14 years	14 to 15 years	16 to 17 years
Total count, all activities .....	639	121	131	387
Percent, all activities .....	100	100	100	100
Operating farm vehicle or machinery .....	12	25	18	6
Tending retail establishment .....	9	2	5	12
Driving automobile or truck .....	9	6	—	12
Physical activity (includes walking, sitting, running, and climbing ladders or stairs) .....	6	5	3	8
Riding in automobile or truck .....	7	7	7	7
Riding on farm vehicle .....	4	16	4	—
Cleaning or washing .....	4	—	6	4
Installing .....	3	—	—	4
Animal care tending .....	2	6	—	2
Walking in or near roadway .....	2	—	4	2
Loading or unloading (packing, unpacking) materials .....	2	—	—	2
Driving bicycles or motorcycles .....	1	—	2	—
Riding on a boat .....	1	—	2	1

NOTE: Dashes indicate no data or data that do not meet publication criteria. Totals may include subcategories not shown separately.

farm vehicles as a passenger or outside helper incurred 17 percent more fatal injuries in the latter period, most resulting from workers falling from and being struck by the very same farm vehicles. Riding on other types of vehicles and walking in or near roadways also resulted in increases in young worker deaths between the two periods.

### Fatal injuries by industry

Agriculture, forestry, and fishing accounted for two-fifths of the fatal injuries among young workers in the 1998–2002 period, followed by construction and retail trade. (See table 4.)

*Agriculture, forestry, and fishing.* Agriculture, forestry, and fishing is one of the most hazardous industries and consistently ranks among the top two industries with the highest overall fatality rates. The industry is a major contributor of fatalities to young workers and accounted for 41 percent of the fatal work injuries to youth during the 1998–2002 period. States with the highest counts of young worker fatalities in this industry were Ohio, California, New York, Wisconsin, Illinois, and Montana. Comparing fatalities in the 5-year periods, 1993–97 and 1998–2002, Ohio and California reported large increases whereas Kansas, Minnesota, and Pennsylvania had large decreases.

About half of the fatal injuries to youths in agriculture, forestry, and fishing occurred to those working in crop production, and about one-fourth occurred in livestock production, half of which were dairy farms. Youths working in landscaping and commercial fishing each incurred about 6 percent of the fatalities among youths in the industry division.

Almost 60 percent of the fatalities in the industry occurred to youths who worked on the family farm; family farmworkers accounted for almost one-fourth of the total among all youths killed at work during 1998–2002.

Almost two-thirds of the young-worker fatalities in agriculture, forestry, and fishing occurred to workers under age 16. The number of fatalities in this age group declined from 87 to 79 over the two periods.

About two-thirds of the young-worker fatalities in agriculture, forestry, and fishing resulted from various types of transportation incidents. While overall fatalities in the industry declined by 7 percent over the period, compared with the 1993–97 period, fatalities resulting from transportation incidents rose by 17 percent. The increase was seen in incidents on both public roadways and farmland. Most of the increase can be attributed to riding as a passenger in a truck and, to a lesser extent, riding on a tractor. Tractors were involved in nearly one-fourth of youth fatalities between 1993 and 2002, although fatalities occurring while operating or using machinery declined by half from the former 5-year period to the latter. By contrast, young worker fatalities involving all-terrain vehicles and horse-drawn vehicles each increased by a large percentage between the two periods.

Various types of incidents involving contacts with objects, equipment, and animals decreased between the two periods, particularly being struck by objects and being caught in running equipment or machinery. Fatalities related to animal assaults also declined. To the contrary, electrocutions doubled between the two periods, and accounted for 5 percent of the fatalities among young farmworkers during the 1998–2002 period.

Some of the agriculture-related fatalities presented appear to have resulted from work activities deemed to be hazardous

**Table 4. Fatal occupational injuries of U.S. workers aged 17 years and younger by selected industries, 1993–97 and 1998–2002 periods**

Industry	1993–97	1998–2002
Total .....	335	304
Private sector .....	325	287
Agriculture, forestry, and fishing .....	134	125
Agriculture production—crops .....	69	65
Agriculture production—livestock .....	41	30
Dairy farms .....	21	14
Agricultural services .....	16	12
Landscape and horticultural services .....	9	8
Fishing, hunting, and trapping .....	4	7
Construction .....	48	54
General building contractors .....	6	8
Heavy construction, except building ..	12	12
Special trade contractors .....	30	34
Roofing, siding, and sheet metal work .....	7	8
Manufacturing .....	17	19
Transportation and public utilities .....	9	5
Wholesale trade .....	12	—
Retail trade .....	72	40
Food stores .....	15	8
Eating and drinking places .....	35	19
Miscellaneous retail .....	12	6
Services .....	25	38
Business services .....	—	10
Amusement and recreation services ..	4	10
Government .....	10	17

NOTE: Dashes indicate no data or data that do not meet publication criteria. Totals may include subcategories not shown separately.

and, therefore, prohibited by the Hazardous Occupations Orders for agriculture. For example, workers under age 16 are restricted from operating many types of farm machinery unless doing so for a family farm or after completing a bona fide training program. Yet, one-fifth of fatalities to young agricultural wage earners occurred among youths operating machinery. Another fifth were incurred while riding on farm vehicles, another regulated activity.

*Construction.* The construction industry reports more job-related fatalities each year than any other industry and typically has fatality rates three times the all-industry average. This industry accounted for 18 percent of the fatalities among young workers in the 1998–2002 period, slightly less than its 22-percent share of fatal injuries among all workers. The number of fatalities to youths in construction rose 12 percent from the previous 5-year period. Of the 54 youths fatally injured while working in construction in the 1998–2002 period, 42 were wage and salary workers, 7 worked in the family business, and 5 were self-employed. Texas and Arizona had the highest totals, with six and four fatalities to young workers in the construction industry, respectively.

Although youths younger than age 16 are only allowed to perform office or sales tasks away from the actual construc-

tion site while working in the industry, they made up 10 of the 54 fatally injured youths in construction—a 67-percent increase over the 1993–97 period. Hispanics and Latinos accounted for 35 percent of the fatally injured youths in construction—another marked rise over the period.

Falls and transportation incidents together accounted for almost two-thirds of the fatalities among young construction workers in the 1998–2002 period—about the same proportion as for construction workers of all ages. Although youths younger than 18 are generally prohibited from working in roofing operations, about half of the falls were a result of installing or repairing roofs.<sup>14</sup> Nine of the young workers in construction were driving some type of vehicle at the time of the injury. About half of these youths were 16 at the time, despite the fact that driving by young workers is restricted to 17-year-olds. In addition, four of the fatalities resulted from excavations or trenching cave-ins, although performing excavation work is prohibited for workers under age 18.<sup>15</sup>

*Retail trade.* Retail trade accounted for 40 (13 percent) of the young workers' deaths in 1998–2002. Ninety percent of the young retail trade workers killed in the 1998–2002 period worked for wages and salary; only 10 percent worked in the family business. Male workers comprised 80 percent of the young worker fatalities, and most of the young workers were 16 or 17 years old.

The number of fatalities to young retail trade workers in the 1998–2002 period declined 44 percent from the previous 5-year period. A 51-percent decrease in workplace homicides accounted for much of the decline, but fatalities from other types of events fell as well. Still, homicides comprised about half the young workers' fatalities in these industries. The decline was noticeable throughout the various retail trade industries.

Transportation-related incidents comprised about a third of the total, and in about half of these incidents the young decedent was driving the vehicle. Eating and drinking places, which are noted for employing large numbers of youths younger than age 18, accounted for half the fatalities of youths in retail trade. Young worker fatalities in these establishments fell by 46 percent between the two periods, primarily as a result of the drop in workplace homicides.

*Services.* Service industries also accounted for 13 percent of the fatalities occurring among young workers during the 1998–2002 period. Their fatalities in these industries were 52 percent higher than the 1993–97 period. Texas (six fatalities) and Pennsylvania (five) had the highest totals. Young women and workers under age 16 accounted for a higher proportion of the fatally injured young workers in services than in most of the other industries. Female workers accounted for 26 percent of

the fatally injured youths in services, and workers younger than 16 accounted for 37 percent of the total.

Most of the youths (89 percent) were wage and salary workers. Business services (including building maintenance) and amusement and recreation services together accounted for more than half the fatalities among young-workers in services during the period. In both business services and amusement and recreation, fatalities among young workers more than doubled between the two study periods. Transportation incidents, assaults and violent acts, contact with objects and equipment, and falls also increased. In more than half of the transportation-related incidents that occurred during the 1998–2002 period, the deceased was operating the vehicle, many of which were golf carts or other off-road vehicles.

*Manufacturing.* The manufacturing industry accounted for 19 fatalities among young workers in the 1998–2002 period—a little more than 6 percent of the total. These fatalities occurred in lumber and wood products (which includes logging and sawmills); stone, clay, glass, and concrete products; and printing and publishing. The five fatalities in printing and publishing were carriers delivering newspapers—about the same number as in the previous period. Four of the five fatalities were passengers in vehicles that were involved in traffic incidents. The six fatalities in lumber and wood products represented a slight increase over the 1993–97 period, and the four fatalities in stone, clay, glass and concrete products was an increase over the previous period when there were no fatalities in this industry.

*Transportation and public utilities.* The five fatalities recorded in transportation and public utilities industries during the 1998–2002 period represented a 44-percent drop from that reported in 1993–97. Four of the fatalities occurred in trucking and warehousing, and four of the decedents were either self-employed or working in the family business.

*Wholesale trade.* There was a dramatic drop in fatalities among youths working in wholesale trade during the 1998–2002 period. The 12 fatalities in the 1993–97 period were primarily workers in wholesale motor vehicle parts and supplies and farm product raw materials.

*Government.* There was a 70-percent increase in the number of fatalities to youths working for government agencies between the two periods—mostly resulting from a single multifatality incident. Over the entire 1993–2002 period, two-thirds of the young-worker fatalities in government resulted

from transportation-related incidents. Many of the decedents were volunteers or trainees in firefighting, the military, or social services.

## Demographic characteristics

Fatal work injuries to youths dropped by 9 percent between the two periods. Most of the decline was in fatalities of young wage and salary workers. However, fatalities to youths who were self-employed or working in freelance jobs rose slightly during the period. Generally, these workers are not covered by child labor laws. The number of fatalities to workers in family businesses remained about the same over the two periods.

Male workers accounted for 89 percent of the fatally injured youths in the 1998–2002 period—about the same percentage as for fatalities to workers of all ages. Fatalities to young male and female workers both declined over the two periods. Fatalities to female workers fell 30 percent, and fatalities to young male workers declined 6 percent. Similar to worker fatalities of all ages, fatalities to young female workers resulted mainly from transportation-related incidents and from homicides, whereas fatalities to young male workers resulted from more diverse types of events. Still, half of the fatalities among young male workers occurred in vehicle-related incidents. Other major contributors to fatalities among young males were various contacts with objects and equipment (such as being struck by objects and being caught in running equipment or collapsing materials), homicides, falls, and electrocutions.

Non-Hispanic whites made up 69 percent of the fatalities among young workers during the 1998–2002 period. Their fatalities dropped by about 20 percent from the 1993–97 period. By contrast, work fatalities among Hispanic youths, which rose from 37 to 66, nearly doubled as a share of fatal work injuries to youths. The increase was most pronounced in agriculture, forestry, and fishing where the count more than tripled—from 6 in the 1993–97 period to 21 in the 1998–2002 period. Transportation-related incidents and falls accounted for the increase. Fatalities among young black workers remained the same (17 fatalities) during the two periods and accounted for 6 percent of the total for the 1998–2002 period. The number of work-related fatalities to young Asian, Native Hawaiian, or Pacific Islanders dropped dramatically from 13 to 4 between the two periods.

Overall, workers younger than 16 accounted for more than two-fifths of the fatalities among young workers in the 1998–2002 period. Moreover, the drop in young-worker fatalities was not evenly distributed throughout the individual age groups. Fatal injuries among workers aged 14 and 15 rose by one-third between the two periods. The tabulation below

shows fatal occupational injury totals of the 1993–1997 and 1998–2002 periods, by age:

Age	1993–97	1998–2002
Total .....	335	304
13 and under .....	72	49
14–15 .....	56	75
16–17 .....	207	180

*Aged 13 and younger.* In the 1998–2002 period, 78 percent of the fatalities among workers aged 13 and younger occurred in family businesses or farms, and 86 percent occurred in the agriculture, forestry, and fishing industries. Deaths among workers aged 13 and younger in this industry declined by about one-fourth from the previous 5-year period. The decrease was notable in both crop production and in dairy farms.

The decline in the number of fatalities in this age group spanned various other industries as well. (See table 5.) The nine deaths among these young workers in the manufacturing and retail industries that occurred between 1993 and 1997 were primarily to newspaper carriers.<sup>16</sup> Deaths among these workers declined substantially in the 1998–2002 period.

Transportation incidents accounted for almost three-fourths of the fatal events among workers 13 and younger during the 1998–2002 period. (See table 5.) Although the total number of fatalities resulting from transportation incidents remained the same as in the previous 5-year period, fatalities caused by falling from and subsequently being struck by a vehicle or mobile equipment more than doubled from the 1993–97 period to the 1998–2002 period. They accounted for about one-fourth of the fatalities among this age group. These cases typically involved a fall from a tractor or other farm machinery and subsequently being struck or run over by the vehicle or attached equipment. Several workers were riding in the back of the truck, farm wagon, or tractor as an outside helper at the time of the incident—an activity prohibited for some workers.

By contrast, there was marked improvement in the number of workers 13 and younger who were fatally injured from various contacts with objects and equipment. From 1993 through 1997, deaths among young farmworkers resulting from being caught in running equipment typically occurred because of clothing caught in an auger or other farm equipment. Deaths attributed to being caught in collapsing materials during that period predominantly resulted from grain engulfments. Few such incidents were recorded in the latter 5-year period among this age group.

*Aged 14 and 15.* Unlike the other age groups, worker deaths among 14- and 15-year-olds rose substantially between the two time periods. This rise affected most of the

**Table 5. Fatal occupational injuries for U.S. workers aged 13 and younger by selected industries and events, 1993–97 and 1998–2002 periods**

Category	1993–97	1998–2002
<b>Industry</b>		
Total .....	72	49
Agriculture, forestry, and fishing .....	57	42
Agriculture production—crops .....	36	26
Agriculture production—livestock .....	19	9
Dairy farms .....	10	—
Construction .....	3	—
Manufacturing .....	3	—
Retail trade .....	6	—
Services .....	3	—
<b>Event</b>		
Total .....	72	49
Transportation incidents .....	36	36
Highway .....	12	9
Jack-knifed or overturned .....	7	7
Nonhighway .....	15	22
Fall from and struck by vehicle .....	6	13
Overturned .....	5	4
Worker struck by vehicle .....	7	4
Assaults and violent acts .....	9	6
Homicides .....	4	3
Animal assaults .....	5	3
Contact with objects and equipment .....	19	4
Struck by object .....	5	—
Caught in running equipment .....	5	—
Caught in or crushed in collapsing materials .....	7	—
Fires and explosions .....	3	—

NOTE: Dashes indicate no data or data that do not meet publication criteria. Totals may include subcategories not shown separately.

demographic groups among 14- and 15-year-old workers—different types of employment groups (wage and salary workers, workers in the family business or farm, and the self-employed); both male and female workers; and the various race/ethnic groups. Florida, Montana, Pennsylvania, and Wisconsin each had increases of three or more fatalities between the two time periods.

The increase in fatalities was also evident among most of the major industry groups employing 14- and 15-year-olds. (See table 6.) Fatality totals among 14- and 15-year-old workers doubled in the construction, manufacturing, and service industries. The 14- and 15-year-olds killed in construction during the 1998–2002 period were performing construction-related jobs at the time, although regulations limit these workers to performing office and sales work even when employed by businesses run by their parents. Fatalities that occurred in services primarily resulted from transportation-related incidents, and to a lesser extent, homicides. Fatalities among 14- and 15-year-old workers also rose substantially in agriculture, forestry, and fishing. Fatalities in this industry accounted for almost half the fatalities among workers in this age group during the 1998–2002 period.

**Table 6. Fatal occupational injuries for U.S. workers aged 14 and 15 by selected industries and events, 1993–97 and 1998–2002 periods**

Category	1993–97	1998–2002
<b>Industry</b>		
Total, all industries .....	56	75
Private industry .....	53	70
Agriculture, forestry, and fishing .....	30	37
Construction .....	3	8
Manufacturing .....	3	6
Retail trade .....	9	5
Services .....	5	13
Government .....	3	5
<b>Event</b>		
Total .....	56	75
Transportation incidents .....	23	36
Highway .....	7	12
Jack-knifed or overturned .....	4	4
Nonhighway .....	10	14
Overturned .....	9	9
Worker struck by vehicle .....	—	8
Assaults and violent acts .....	10	10
Homicides .....	9	7
Contact with objects and equipment .....	12	19
Struck by object .....	3	7
Caught in running equipment .....	5	5
Caught in or crushed in collapsing materials .....	—	5
Falls .....	—	5
Falls from roof .....	—	4
Exposure to harmful substances or environments .....	10	5
Contact with electric current .....	6	4

NOTE: Dashes indicate no data or data that do not meet publication criteria. Totals may include subcategories not shown separately.

The rise in fatalities among this age group was also spread throughout the various event categories: transportation incidents (highway incidents, nonhighway incidents, and workers struck by vehicles); contacts with objects and equipment (struck by objects and caught in collapsing materials); and falls (falls from roofs). (See table 6.) The number of fatal assaults and violent acts stayed the same, and the number of fatalities from exposures to harmful substances and environments dropped.

Many of the 14- and 15-year-olds had been operating powered vehicles either on or off the roadway prior to the incident. Fifteen workers had been operating tractors or other mobile equipment, and four were driving off-road vehicles. Others were operating other types of powered equipment. Most of the decedents were working for the family farm and, thus, were exempt from Federal child-labor regulations, although the fatalities may have been covered under State child-labor regulations or motor vehicle laws.

*Aged 16 and 17.* Fatal injuries to 16- and 17-year-old workers declined by 13 percent over the two periods.

While fatalities among wage and salary workers decreased by 21 percent, fatal injuries doubled among self-employed 16- and 17-year-olds and rose by more than one-third among those working for the family business or farm.

As in the other age groups, fatalities among 16- and 17-year-old Hispanic workers rose between the two periods, accounting for 28 percent of this age group who were fatally injured at work during the 1998–2002 period.

Agriculture, forestry and fishing and construction together accounted for half of the fatal injuries among 16- and 17-year-old workers in the 1998–2002 period. (See table 7.) Fatality counts for these two industries and manufacturing remained about the same for 16- and 17-year-old workers between the two periods. Worker fatalities among this age group declined in the transportation and public utilities, wholesale trade, and retail trade industries, but increased in services and public-sector industries.

Most of the decline in fatalities among this age group was accounted for by homicides and events involving workers being struck by objects, such as falling trees and machinery parts. (See table 7.) By contrast, fatal injuries from several other types of events rose between the two periods. Event categories that experienced increases in fatalities among this age group included vehicle overturns—both on and off public roadways; falls from moving vehicles and equipment; being caught in running equipment; falls from scaffolds; and self-inflicted injuries. Both driving a vehicle and riding as a passenger or outside helper on a vehicle resulted in an increase of fatalities among this age group. Of those driving or operating powered vehicles or mobile equipment, 17 were aged 16 years and 29 were aged 17 years at the time of the fatality.

### Nonfatal injuries in 2003

The nonfatal injury and illness data from the BLS Survey of Occupational Injuries and Illnesses (SOII) cover private wage and salary workers and exclude workers on small farms (fewer than 11 employees), self-employed individuals, and family workers. Demographic data, including age of the injured worker, and data for characteristics about the incident are available for injuries and illnesses involving one or more days away from work. As did the Census of Fatal Occupational Injuries (CFOI) data, industry data for the 2003 SOII used the 2002 NAICS (North American Industry Classification System) and are, therefore, not comparable to earlier years.<sup>17</sup>

About 9,000 workers younger than age 18 incurred injuries and illnesses in 2003 that resulted in days away from work (lost workdays). Sprains and strains accounted for almost one-third of these injuries and illnesses—a smaller

**Table 7. Fatal occupational injuries for U.S. workers aged 16 and 17 by selected industries and event, 1993–97 and 1998–2002 periods**

Category	1993–97	1998–2002
<b>Industry</b>		
Total, all industries .....	207	180
Private industry .....	200	169
Agriculture, forestry, and fishing .....	47	46
Agriculture production—crops .....	19	19
Agriculture production—livestock .....	10	9
Agricultural services .....	13	12
Fishing .....	3	4
Construction .....	42	44
General building contractors .....	4	8
Heavy construction, except building .....	10	10
Special trade contractors .....	28	26
Manufacturing .....	11	11
Lumber and wood products .....	4	4
Transportation and public utilities .....	9	5
Trucking and warehousing .....	6	4
Wholesale trade .....	10	—
Retail trade .....	57	34
Food stores .....	9	8
Eating and drinking places .....	33	15
Services .....	17	24
Business services .....	—	5
Automotive repair, services, and parking .....	3	3
Amusement and recreation services .....	3	9
Government .....	7	11
<b>Event</b>		
Total .....	207	180
Transportation incidents .....	79	85
Highway .....	44	46
Collision between vehicles .....	19	18
Jack-knifed or overturned .....	13	16
Nonhighway .....	10	18
Fall from moving vehicle .....	—	3
Overturned .....	6	10
Worker struck by vehicle .....	14	15
Assaults and violent acts .....	47	28
Homicides .....	44	22
Contact with objects and equipment .....	37	27
Struck by object .....	22	8
Caught in running equipment .....	4	9
Caught in or crushed in collapsing materials .....	6	7
Excavation or trenching cave-in .....	4	5
Falls .....	18	18
Falls from roofs .....	9	5
Falls from scaffolds .....	—	3
Exposure to harmful substances or environments .....	22	18
Contact with electric current .....	11	10
Drowning, submersion .....	5	5
Fires and explosions .....	4	3

NOTE: Dashes indicate no data or data that do not meet publication criteria. Totals may include subcategories not shown separately.

proportion than for all workers. Heat burns and cuts and lacerations each accounted for about one-seventh of the total, notably higher than for all workers, as shown in the following tabulation:

Nature of injury or illness	Percent of cases to workers 17 and under	Percent of cases to all workers
Total .....	100	100
Sprains and strains .....	32	43
Heat burns .....	15	1
Cuts, lacerations .....	14	7
Bruises, contusions .....	9	9
Fractures .....	8	7
Other .....	22	32

Among the major body parts affected by these injuries, the back incurred 17 percent of the injuries among young workers, fingers incurred 13 percent, and legs and multiple body parts were reported in 10 percent of the cases. Multiple upper extremities, such as hand and finger or hand and arm, were affected in 9 percent of the injuries to young workers.

Falls on the same level accounted for the greatest number of cases with days away from work among young workers in 2003—about 18 percent of the total. (See table 8.) Overexertion and contact with temperature extremes each accounted for about 15 percent of the cases among workers younger than 18. The overexertion injuries primarily resulted from lifting various objects, and almost all of the contacts with temperature extremes resulted from contact with hot objects or substances. Being struck by objects brought about another 14 percent of the cases—about half of which were swinging or slipping objects, such as knives or other sharp objects and swinging doors. Being struck by falling or flying objects comprised almost 5 percent of the cases. About 8 percent of the injuries were brought about by bodily reactions, such as when one is reaching or bending or attempting to break a fall.

Among industries, accommodation and food services accounted for 40 percent of the 9,010 injuries and illnesses with days away from work among young workers in private wage and salary jobs during 2003. (See table 8.) Most of these injuries occurred in the food service and drinking places industry. Retail trade was another big contributor of nonfatal injuries to young workers in 2003, accounting for one-fourth of the total—with food and beverage stores accounting for about half of the total within retail trade. Construction, health care and social assistance, and transportation and warehousing each accounted for 5 percent to 6 percent of the total.

### Data summary

BLS data suggest noteworthy fatality risk among younger workers, particularly those in the earlier teen years. While fatalities among many age groups dropped between the two 5-year periods (1993–97 and 1998–2002), fatalities among 14- and 15-year-olds rose by 34 percent. As a result, rates for young

**Table 8. Nonfatal injuries and illnesses with days away from work for U.S. workers aged 17 and younger, by selected events and industries, private sector, 2003**

Category	Number of cases to workers 17 and younger	Percent of cases to workers 17 and younger	Percent of cases to all workers
<b>Event</b>			
Total .....	9,010	100	100
Contact with objects and equipment .....	2,650	29	26
Struck against object .....	550	6	7
Struck by object .....	1,220	14	13
Caught in or compressed by equipment or objects .....	750	8	4
Rubbed or abraded by friction or pressure .....	60	1	1
Falls .....	2,210	25	20
Falls to lower level .....	530	6	6
Falls on same level .....	1,600	18	13
Bodily reaction and exertion .....	2,210	25	42
Bodily reaction .....	760	8	11
Overexertion .....	1,340	15	26
Repetitive motion .....	70	1	4
Exposure to harmful substances or environments .....	1,640	18	4
Contact with temperature extremes .....	1,360	15	2
Exposure to caustic, noxious, or allergenic substances .....	270	3	2
Transportation incidents .....	120	1	4
Worker struck by vehicle .....	100	1	1
Assaults and violent acts .....	150	2	2
Assaults and violent acts by person .....	120	1	1
Animal assaults .....	40	—	—
<b>Industry (NAICS)</b>			
Total .....	9,010	100	100
Construction .....	500	6	12
Manufacturing .....	290	3	17
Retail trade .....	2,270	25	14
Food and beverage stores .....	1,110	12	3
General merchandise stores .....	550	6	3
Gasoline stations .....	160	2	1
Motor vehicle and parts dealers .....	150	2	2
Transportation and warehousing .....	440	5	10
Health care and social assistance .....	550	6	14
Arts, entertainment, and recreation .....	380	4	1
Accommodation and food services .....	3,560	40	7
Accommodation .....	180	2	2
Food services and drinking places .....	3,380	38	5
Professional and business services .....	240	3	8

NOTE: Counts for cases of occupational injuries and illnesses involving days away from work are rounded to the closest ten. Dashes indicate the figure is less than 0.5 percent. NAICS is the North American Industry Classification System. Totals may include subcategories not shown separately.

workers approached those for workers aged 18 to 34 during the 1999–2003 period.

Fatalities among young workers increased in construction, services, and government between the 5-year periods. Young worker deaths from vehicles overturning, workers falling and being struck by vehicles, and workers on foot being struck by vehicles increased between the two periods. Deaths from homicides, being struck by objects, and exposures to harmful substances and environments went down.

Decreases in fatal workplace injuries were recorded in retail trade industries, including fewer homicides in food stores and eating and drinking places. Most of the decreases were recorded for workers aged 16 to 17 years. Wholesale trade establishments also recorded fewer fatalities to workers less than 18 years of age.

While many of the fatalities in the study appear to have resulted from activities prohibited by child labor laws, others, such as those occurring to family farm workers, fell outside the scope of current child labor regulations. Nevertheless, fatalities among young workers have decreased in the last few years, averaging 46 per year between 2001 and 2004—a marked improvement over the average of 68 in the 1990s. Similarly, fatality rates for workers aged 15 to 17 have improved—ranging from 2.3 to 2.9 fatalities per 100,000 full-time equivalent (FTE) workers between 2001 and 2004.

Among young private-sector wage and salary workers in nonagricultural industries, nonfatal injuries with days away from work occurred primarily in food-service industries and retail trade. These nonfatal injuries also occurred while employed by construction, transportation and warehousing, and health care and social assistance establishments. □

## Notes

<sup>1</sup> See Janice Windau, Eric Sygnatur, and Guy Toscano, "Profile of work injuries incurred by young workers," *Monthly Labor Review*, June 1999, pp. 3–10.

<sup>2</sup> *Ibid.*

<sup>3</sup> Although fatality data for 2003 and 2004 were available at the time the article was prepared, those data were compiled using a different industrial classification system from the data for previous years. Industries in the 2003–04 data were classified according to the 2002 North American Industry Classification System (NAICS), while those in the 1992–2002 data are based on the 1987 Standard Industrial Classification (SIC) system. The classification schemes are not comparable. Data presented in this article exclude the fatalities related to the events of September 11th, 2001.

<sup>4</sup> See Chapter 3, "A detailed look at employment of youths aged 12 to 15," in the *Report on the Youth Labor Force*, Bureau of Labor Statistics, 2000.

<sup>5</sup> The NLSY97 defines employee-type work as work in which the youth has an ongoing relationship with a particular employer, making it nearly equivalent to wage and salary work. Freelance-type work is defined as work that involves doing one or a few tasks without a specific "boss." For more information, see the definitions section in the January 31, 2003, NLSY97 news release on the Internet at <http://www.bls.gov/nls/nlsy97r4.pdf>.

<sup>6</sup> See "Work activity of high school students: data from the National Longitudinal Survey of Youth 1997," released by BLS on April 27, 2005, on the Internet at [bls.gov/news.release/pdf/nlsyth.pdf](http://www.bls.gov/news.release/pdf/nlsyth.pdf).

<sup>7</sup> Employment and hours-at-work data are Current Population Survey annual average data for 2000 and 2004. Annual average employment data by age and class of worker are published for the previous year in the January issue of *Employment and Earnings*, table 15. The hours-at-work data are unpublished.

<sup>8</sup> See "Child Labor Requirements for Nonagricultural Occupations Under the Fair Labor Standards Act (Child Labor Bulletin 101)" and "Child Labor Requirements in Agricultural Operations Under the Fair Labor Standards Act (Child Labor Bulletin 102)."

<sup>9</sup> Rules concerning the operation of compacting equipment, on-the-job driving, cooking, and work performed on roofs were recently updated and are available on the Internet at <http://www.dol.gov/opa/media/press/esa/ESA20042526.htm>. Some of these changes were recommended in the "National Institute for Occupational Safety and Health (NIOSH) Recommendations to the U.S. Department of Labor for Changes to Hazardous Orders," May 3, 2002. Other NIOSH recommendations in the document included removing some of the exemptions for apprentices and student learners; requiring tractors to be equipped with rollover protection structures (ROPS) and requiring seatbelt use; prohibiting all work in silos and grain bins; adding some of the agricultural Hazardous Orders to those for nonagricultural occupations; and adding commercial fishing, railroad and water transportation, all construction occupations, and all work at heights to the Hazardous Orders.

<sup>10</sup> Tables summarizing various State child labor laws are available on the Internet at <http://www.youthrules.dol.gov/resources.htm>.

<sup>11</sup> Recent research looking at the effectiveness of work permits was done in Los Angeles, California. High school students were asked a series of questions about their jobs and knowledge of child labor laws. The study found that students without work permits were more likely to perform hazardous tasks than those with permits. The results were published in an article titled "Role of work permits in teen workers' experiences," in the June 2002 issue of *American Journal of Industrial Medicine*.

Another article, "Protecting the Health and Safety of Working Teenagers" by Harriet Rubenstein, et al in *American Family Physician*, August 1999, provides physicians with suggestions for opening a dialogue with the teenager about the type of work and hours involved in the job to more effectively prevent youths from performing hazardous tasks.

<sup>12</sup> See the *Youth Rules!* Web site on the Internet at <http://www.youthrules.dol.gov/>.

<sup>13</sup> Fatality rates were calculated for civilian workers of all ages 15 and older for this article. These rates were calculated using hours worked from the Current Population Survey (CPS) converted to full-time equivalent workers using a 2,000-hour work year. Thus the rate of fatalities per 100,000 full-time equivalent workers = (fatalities/hours) x 200,000,000. Rates in table 1 are presented for different 5-year periods (1994–98 and 1999–2003) than fatality counts presented elsewhere in the article. The CPS introduced a major redesign of the survey beginning in 1994; data for previous years are, therefore, not strictly comparable. The fatality rate calculation used here differs from that used to create rates used in CFOI's production releases. Those rates are calculated based on annual average employment data from the CPS. Some rates published by CFOI include data for the military. The CPS employment data for civilian workers are then supplemented with employment data for the resident military provided by the Department of Defense.

<sup>14</sup> The rule concerning youths working in roofing operations has been recently expanded to prohibit youths from performing other work on or about roofs, such as installing or repairing satellite dishes or air conditioning equipment on roofs. Exemptions to the rule apply to youths in certain apprenticeship and training programs. For more information, see the DOL new youth employment rules issued on December 16, 2004, on the Internet at [http://www.dol.gov/esa/regs/compliance/whd/CL\\_Roofing.pdf](http://www.dol.gov/esa/regs/compliance/whd/CL_Roofing.pdf).

<sup>15</sup> Although CFOI collected data does not provide enough information to definitely determine if a fatality was covered under the Federal child labor laws, a study that covered teenage fatalities occurring between 1984 and 1998 concluded that approximately one-half of the construction fatalities studied were in violation of existing child labor regulations. See Anthony Suruda et al, "Fatal Injuries to Teenage Construction Workers in the US," *American Journal of Industrial Medicine*, Vol. 44, 2003, pp. 510–14.

<sup>16</sup> Newspaper carriers are classified in either the printing and publishing industry in manufacturing or in direct selling establishments in the retail trade industry.

<sup>17</sup> Another break in series occurred between 2001 and 2002 with the new OSHA recordkeeping requirements. Prior to 2002, occupational injury and illness totals for cases with days away from work had been declining for young workers under age 18. They rose from 7,920 in 2002 to 9,010 in 2003.

### Occupational safety and health

# Injuries, illnesses, and fatalities among older workers

*Americans are living longer than ever before and many are staying in the workforce past age 55; although older workers experience similar events leading to injury, they sustain more severe injuries than their younger counterparts and require more days away from work to recover*

Elizabeth Rogers  
and  
William J. Wiatrowski

Older workers face many of the same workplace hazards as do other workers; the most prevalent events leading to job-related injuries or fatalities are falls, assaults, harmful exposures, or transportation incidents. But in many cases, the nature of the injury suffered by an older worker is more severe than that suffered by younger workers. Older workers who suffer a workplace injury may experience longer recovery periods than their younger counterparts. And older workers die from workplace injuries at a higher rate than do younger workers. This analysis focuses on occupational injuries, illnesses, and fatalities among older workers, and identifies differences in the severity of the events as a result of age.

Americans are living longer than ever before, and increasing numbers of older Americans are working. These facts have led to expanded interest in the activities of older Americans, and their work life. Americans born at the beginning of the 21st century can expect to live an average of 77 years, an increase of 9 years, compared with persons born a half century ago. Those aged 65 in 2000 can expect to live 18 years. Considering age 65 to be a typical retirement age, individuals can expect to live nearly 2 additional decades. Both the need to feel productive and the need for income may lead these older Americans to work during what are typically considered retirement years.<sup>1</sup>

Further, the cohort of older Americans is getting larger. There are currently 35 million Americans aged 65 and older, and another 28 million age 55–64. The baby-boom generation, those born in the years following World War II, are currently in their early 40s to late 50s. Over the next 20 years, the percent of Americans aged 65 and older will grow from the current 12 percent of the population to 21 percent. Clearly there is much interest in this group.

Sixty percent of those aged 55–64 are in the labor force; 14 percent of those aged 65 and older are in the labor force. For many years, starting in the 1960s, these percentages have declined, the result perhaps of available retirement income benefits from a variety of sources. But that trend has turned around in recent years, and the percent of older Americans in the labor force has been increasing. This may be due to changes in the Social Security retirement age, which requires individuals to work longer to receive full benefits. Another possible reason for an increase in older workers in the labor force is the need for increased income to pay medical and other expenses. Older Americans work in a variety of industries, but have large concentrations in education, health services, and wholesale and retail trade.

But the need to work does not come without potential hazards. This article explores recent data on workplace injuries, illnesses, and fatalities

Elizabeth Rogers  
and  
William J. Wiatrowski  
are economists in the  
Office of  
Compensation  
and Working  
Conditions,  
Bureau of Labor  
Statistics.  
E-mail:  
Rogers.Elizabeth@bls.gov  
and  
Wiatrowski.William@  
bls.gov.

among older workers. Data from the Bureau of Labor Statistics Survey of Occupational Injuries and Illnesses and Census of Fatal Occupational Injuries provide a wide range of information about the events that led to an injury, illness, or fatality, the demographics of the workers involved, and the types of occupations and industries where these incidents occur.<sup>2</sup>

The Survey of Occupational Injuries and Illnesses provides the number of workplace injuries and illnesses and the rate of such incidents, based on full-time equivalent workers. Data are available for most private industry workers. For those cases that involve days away from work, which are generally considered the most serious cases, the survey also provides detailed demographic data on the worker involved and detailed characteristics of the case, such as the event that precipitated the incident and the part of body affected.

The Census of Fatal Occupational Injuries provides counts of the number of workplace fatalities and the rate of such incidents per worker. Data include private industry, governments, the residential military, and the self-employed. For each fatality, data are available on the event, the demographics of the decedent, and his or her industry and occupation.

## Workplace injuries and illnesses

In 2003, 1.57 million of the most serious occupational injury and illness cases—those requiring days away from work beyond the day of incident—involved workers 55 years of age and older. These workers accounted for about 12 percent of injury and illness cases requiring days away from work, slightly less than their 13-percent share of total hours worked. Though older workers suffered injury and illness cases at a rate proportionately lower than their percentage of hours worked, the injuries they sustained were generally more severe than those sustained by younger workers. (See table 1.)

**Table 1.** Percent distribution of hours worked and days away from work cases by age group, 2003

Age group	Percentage of hours worked	Percentage of cases involving days away from work
Total 16 years and older ..	100.0	100.0
16–19 years .....	3.2	3.3
20–24 years .....	10.3	11.1
25–34 years .....	24.3	24.2
35–44 years .....	26.6	27.5
45–54 years .....	22.6	21.9
55–64 years .....	10.7	10.2
65 years and older.....	2.3	1.9
55 years and older.....	13.0	12.1

Older workers required more days away from work to recover from a workplace injury or illness than did their younger counterparts. The median of days away from work for all workers was 8 days; for those aged 55–64, it was 12 days, and for those aged 65 and older, it was 18 days. (See chart 1.) Older workers have more disabling conditions like fractures and multiple injuries than do younger workers. And similar events lead to more severe injuries in older workers than in others.

An example of the severity of injuries and illnesses sustained by older workers can be seen by looking at the nature of the injury or illness sustained. Nature is defined as the principal physical characteristics of the injury or illness, such as a cut, a bruise, or a sprain. Chart 2 shows the percent distribution of days-away-from-work injuries and illnesses by the nature of injury for different age categories. Although sprains, strains, and tears are the largest single category at all ages, there is a noticeable tradeoff between that category and fractures as age increases. For older workers, the percentage suffering a sprain, strain, or tear declines as the percentage suffering a fracture increases.

## Fatalities

Of the 5,575 workplace fatalities in 2003, 523—just under 10 percent—were among workers aged 65 and older. But the fatality rate for older workers (11.3 fatalities for 100,000 workers) was nearly 3 times that of younger workers. The most prevalent fatal events among workers aged 65 and older were transportation incidents and falls. (See charts 3 and 4.)

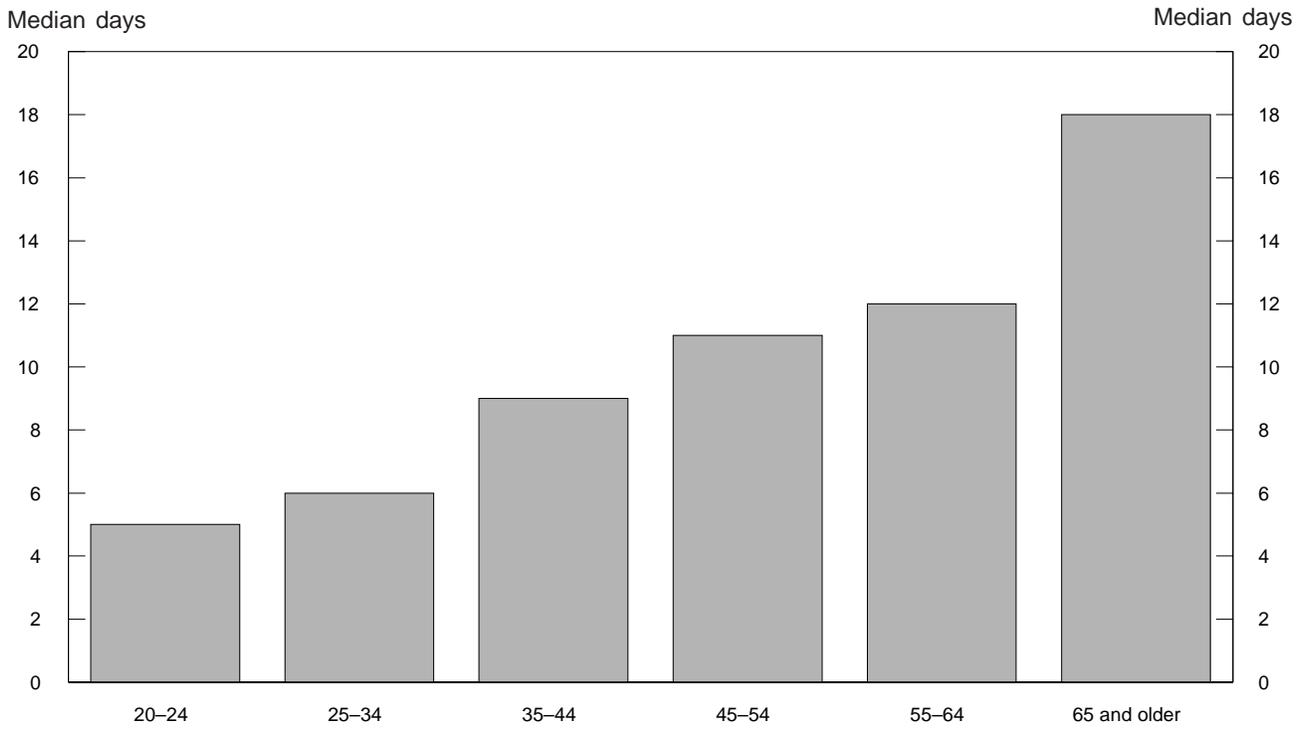
The available data on workplace injuries, illnesses, and fatalities allow for case studies of a number of variables, including specific industries, occupations, and events. The remainder of this article explores two examples of such case studies, looking at older truckdrivers and falls among older workers.

## Case studies

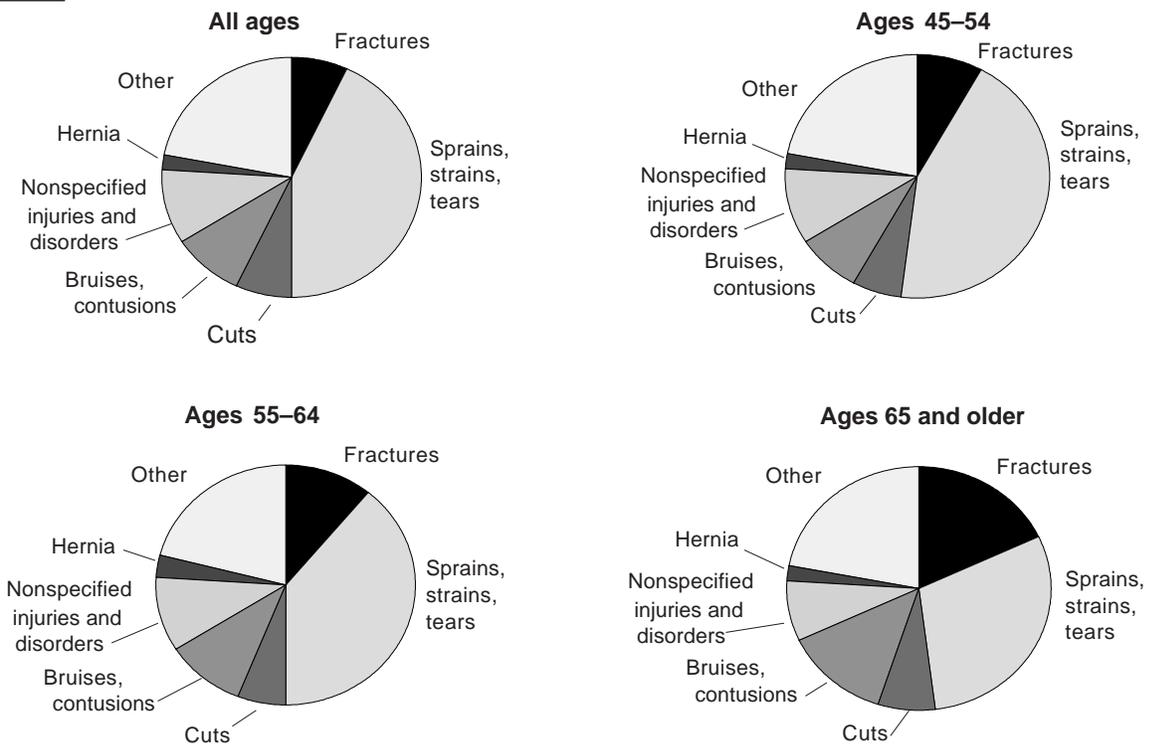
*Truckdrivers.* Truckdrivers have consistently been one of the occupations with the greatest number of injury and illness cases involving days away from work. Beginning in 2003, the truckdriver occupation was divided into three categories—heavy and tractor-trailer truckdriver, light or delivery service truckdriver, and driver-sales worker. This division helped to identify heavy and tractor-trailer truck drivers as the most dangerous of the truckdriver occupations, with more than 70,000 days-away-from-work cases in 2003. And within this dangerous occupation, clear differences in the injuries and illnesses are evident among older drivers.

Heavy and tractor-trailer truckdrivers aged 65 and older experience twice the percentage of fractures as do such drivers

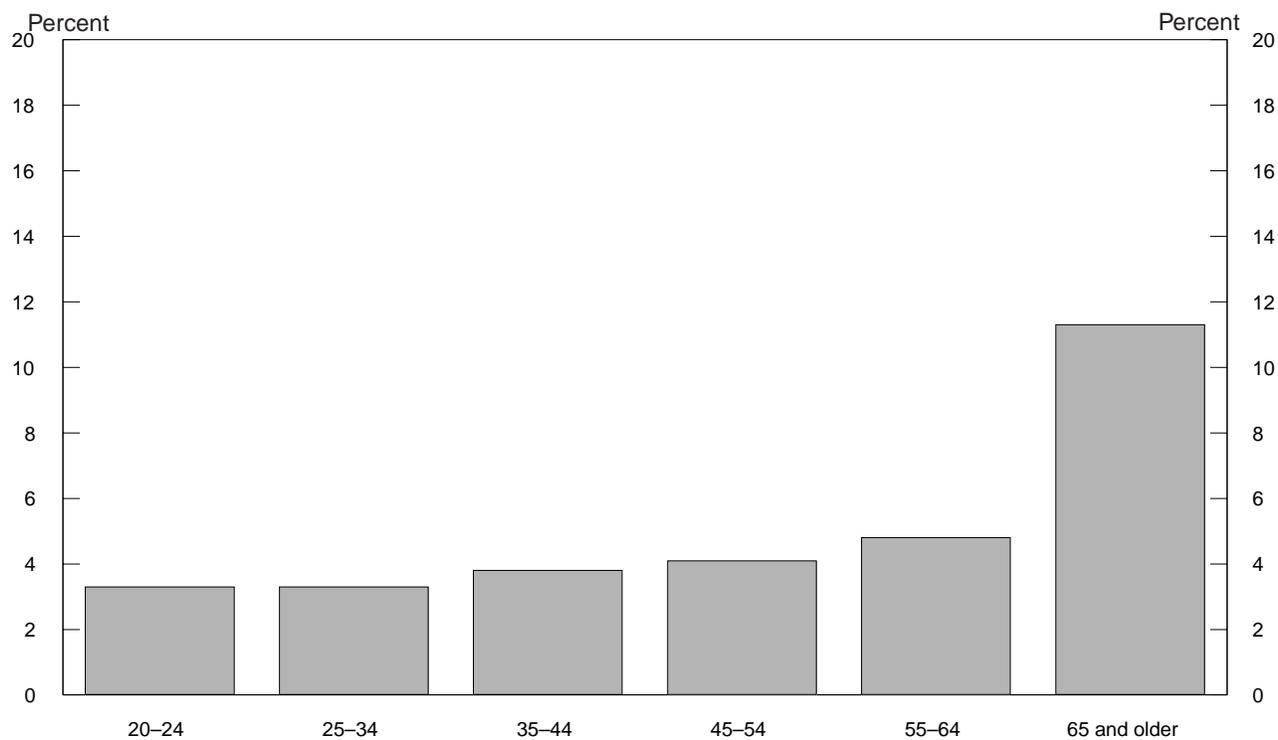
**Chart 1. Median days away from work for nonfatal injuries and illnesses, by age, 2003**



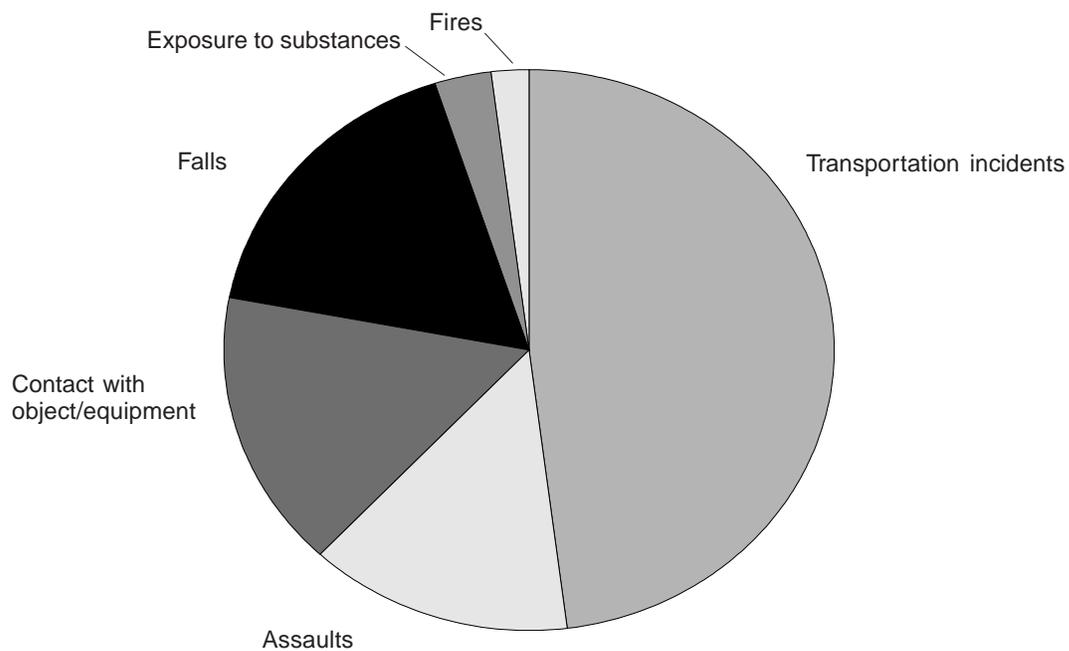
**Chart 2. Nature of injury by age, 2003**



**Chart 3. Fatality rate by age, 2003**



**Chart 4. Fatal events among workers ages 65 and older, 2003**



of all ages. Twenty percent of older truckdriver injuries result in fractures, compared with 9.3 percent for all truckdrivers. (See table 2.) Fatalities among all truckdrivers are typically highway incidents, such as a collision between two vehicles. For truckdrivers aged 65 and older, the most prevalent highway incident was a vehicle striking a stationary object or equipment on the side of the road. Such incidents were less prevalent among younger truckdrivers.

*Falls on the same level.* Falls on the same level occur when the motion producing the contact was generated by gravity following the employee’s loss of equilibrium (the person was unable to maintain an upright position) and the point of contact was at the same level or above the surface supporting the person at the inception of the fall. This case study indicates how such an event, which might not be considered particularly serious, can have more severe effects on older workers than on younger workers.

Sprains, strains, and tears are the most prevalent injury resulting from a fall on the same level for all workers, and for those aged 45–54 and 55–65. However, for those aged 65 and older, the most prevalent injury resulting from a fall on the same level is a fracture. Fully one-third of falls on the same level among workers in this age group led to a fracture.

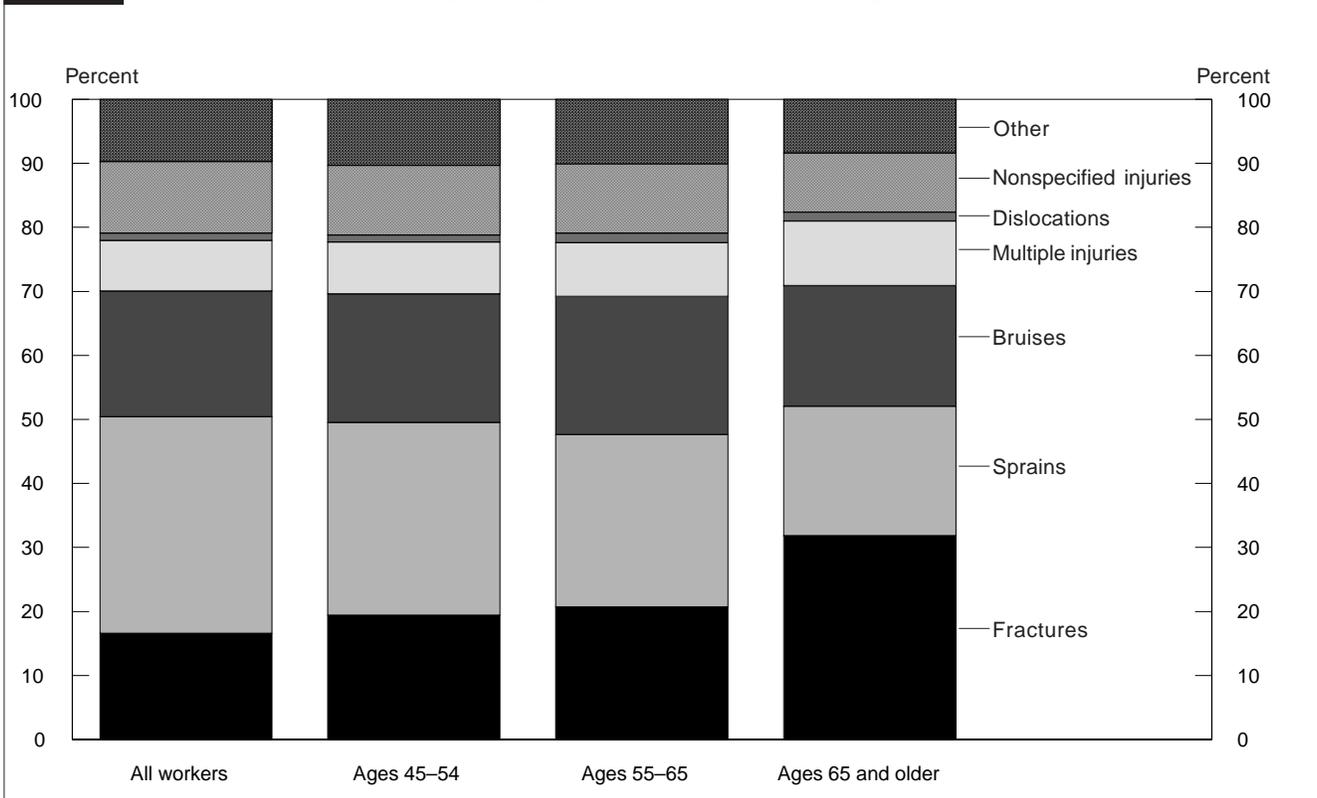
**Table 2. Percent distribution of days away from work cases by nature of injury and age, heavy and tractor-trailer truckdrivers, 2003**

Injury	All ages	45–54	55–64	65 and older
Sprains, strains, and tears .....	48.7	46.7	52.9	37.7
Fractures .....	9.3	12.7	11.3	19.9
Bruises, contusions .....	8.4	8.0	10.9	16.4
Nonspecified injuries .....	11.2	12.3	9.9	8.9
Other .....	22.4	20.3	15	17.1

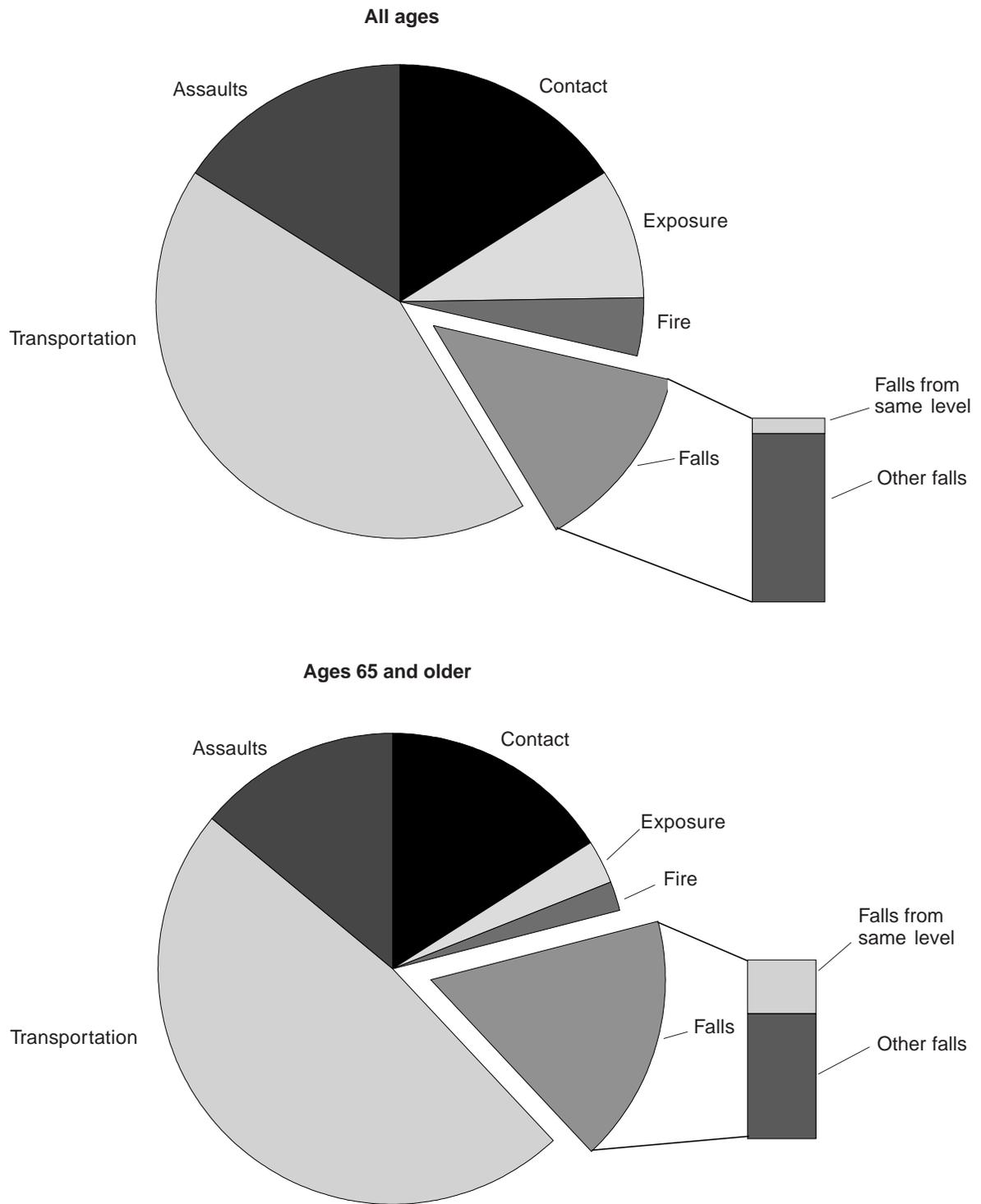
Consequently, the percentage of such falls that resulted in a sprain, strain, or tear declined with age. (See chart 5.)

Among all workers, the occupations with the greatest number of falls on the same level were heavy and tractor-trailer truckdrivers, laborers and freight movers, and nursing aides, orderlies, and attendants. For workers aged 65 and older, the occupations with the greatest number of falls on the same level were retail salespersons, heavy and tractor-trailer truckdrivers, and laborers and freight movers. The addition of retail salespersons at the top of the list suggests that falls are much more prominent among all occupations at this age level, and that the job does not have to be one that is traditionally

**Chart 5. Percent distribution of days away from work cases involving falls on the same level**



**Chart 6. Fatal events by age, 2003**



considered high risk or dangerous to lead to a fall among an older worker.

Twelve percent of all occupational fatalities were the result of falls, with only about 10 percent of those falls being falls on the same level. Such events do not often lead to a fatality, except among older workers. For those aged 65 and older, 17 percent of fatalities were the result of falls, and 30 percent of those were falls on the same level. (See chart 6, page 29.) Workers who died from fatal falls on the same level often injured their head or injured multiple body parts. The physical condition resulting from a fall on the same level was often multiple intracranial injuries and injuries to external organs. For cases in which the injury affected the limbs or trunk, workers may have had complications following medical treatment that ultimately led to their death.

THESE CASE STUDIES are intended to provide an overview of how BLS occupational injury, illness, and fatality data can be

used to construct an overview of the safety and health issues related to a particular population. Data are available to produce cross-tabulations by a variety of data elements, including industry, occupation, and characteristics related to the incident. Data on occupational injuries, illnesses, and fatalities include similar variables and coding structures which can be used together to construct a continuum of severity for many case studies. □

## Notes

---

<sup>1</sup> Data from several Federal statistical agencies on population, life expectancy, and work status of older Americans are compiled by the Federal Interagency Forum on Aging-Related Statistics in a chartbook titled *Older Americans 2004: Key Indicators of Well Being*. The chartbook is available on the Internet at [www.agingstats.gov/chartbook2004/default.htm](http://www.agingstats.gov/chartbook2004/default.htm).

<sup>2</sup> For more information on the BLS occupational safety and health statistics program, go online to [www.bls.gov/iif](http://www.bls.gov/iif).

### Occupational safety and health

# Occupational injuries, illnesses, and fatalities among women

*Women experienced fewer fatal and nonfatal injuries and illnesses than men during the 1992–2003 period; homicide was the leading source of fatal injuries for women, and musculoskeletal disorders were the primary source of nonfatal injuries and illnesses*

Anne B. Hoskins

Occupational fatalities and nonfatal injuries and illnesses are not shared between the sexes equally. Women had a lower share of injuries and illnesses than what their share of hours worked suggests. Although women represented almost half of the workforce in 2003, they experienced 8 percent of occupational fatalities and 35 percent of nonfatal injuries and illnesses. The qualitative aspects of workplace fatalities and nonfatal injuries and illnesses differed between the sexes as well. The source and nature of their work-related deaths are categorically different. This divergence between the sexes is explained partially by differences in employment by both occupation and industry.<sup>1</sup> Men and women have different kinds of jobs, and that translates into differences in how and why they are hurt or become sick at work.

## Fatal injuries

There were 5,575 fatal occupational injuries in 2003; 446 of which were incurred by women. (See table 1.) Given that women accounted for 47 percent of employed workers,<sup>2</sup> the female share of deaths was quite low. Women were much less likely to die on the job than men (0.7 deaths per 100,000 workers for women, compared with 6.9 deaths for every 100,000 workers for men). For women, the fatality rate has been low relative to men for the past 10 years. During the 1992–2003 period, the portion of workplace fatalities that were incurred by women varied between 7 percent in 1992 and 9 percent in 1995. As the total number of workplace fatalities has fallen

over the past decade, those incurred by women have declined at a similar pace.

During the 1990s, highway incidents and homicides accounted for the majority of fatal injuries to female workers. Although the number of female murder victims declined during this period, most of the fatal occupational injuries incurred by women in 2003 were still due to highway incidents or homicides. (See chart 1, page 33.) In fact, these two events alone accounted for almost 60 percent of the fatalities sustained by women for that year.

*Highway vehicle accidents.* Highway vehicle accidents, which accounted for 31 percent of the occupational fatalities sustained by women in 2003, surpassed homicides as the most prevalent event leading to a fatality. (See chart 2, page 33.) There has been a gradual increase in the proportion of female work-related deaths resulting from highway accidents over the past few years. From 1992 to 1996, highway accidents accounted for 26 percent of all female occupational fatalities, compared with an average of 32 percent from 1997 to 2001. Although the overall number of female victims of fatal occupational injuries declined in the decade prior to 2003, the number of injuries resulting from highway accidents over the same period was effectively the same. Excluding the series low (111 in 1992) and series high (171 in 1997), the number of fatal occupational injuries resulting from highway incidents incurred by females ranged from 130 to 149 during the study period.

Anne B. Hoskins is an economist in the Office of Compensation and Working Conditions, Bureau of Labor Statistics. E-mail: Hoskins.Anne@bls.gov.

**Table 1. Occupational fatalities of men and women, 1992–2003**

Year	Fatalities		
	Total	Men	Women
1992 .....	6,217	5,774	443
1993 .....	6,331	5,842	489
1994 .....	6,632	6,104	528
1995 .....	6,275	5,736	539
1996 .....	6,202	5,688	514
1997 .....	6,238	5,761	477
1998 .....	6,055	5,569	486
1999 .....	6,054	5,612	442
2000 .....	5,920	5,471	449
2001 .....	5,915	5,442	473
2002 .....	5,534	5,092	442
2003 .....	5,575	5,129	446

*Homicides.* Closely following highway accidents as the next most prevalent event leading to deadly injury was homicide, which accounted for 27 percent of the fatal occupational injuries sustained by women in 2003. In contrast, homicides represented less than one-tenth of fatalities to male workers. During 2003, there were 632 work-related murders. Women accounted for 119 of the victims. At roughly 19 percent, the female share was proportionally higher for work-related homicides than it was for fatalities in general. Although homicides accounted for more than a fourth of the fatal injuries sustained by women on the job, many more men were victims of homicide.

The majority of homicides for both sexes were shootings. Some 61 percent of female homicide victims and 81 percent of male homicide victims were killed with guns. Given that the vast majority of male victims were killed with guns, women accounted for proportionally more of the homicides for which the source was something other than a gun. For instance, half of the homicides from stabbings were incurred by women. Additionally, the 29 female stabbing victims represent almost 7 percent of the total number of female workplace fatalities.

Female work-related homicides differed from those incurred by men not only in the manner that the act was carried out, but also by the identity of the perpetrator. For one, female murder victims were much more likely to have been killed by a family member than were male victims. From 1997 to 2003, homicides carried out by a relative accounted for 10 percent of female cases and less than 1 percent of male cases. In contrast, male workers were the vast majority (85 percent) of victims killed during robberies. More than 40 percent of male homicide cases identified a robber as the perpetrator, versus 30 percent of female cases. For the instances in which the killer was either a current or former coworker, the victim was generally male. Just 18 of the 80 murder-victim cases in which a coworker was identified as the perpetrator were women. Despite the larger number of male fatalities, about the same proportion of homicides for each sex were committed by a coworker.

Generally, the number of homicides to female workers fell steadily during the last 12 years. (See table 2.) Excluding the 70 fatalities sustained by female workers in the 1995 Oklahoma City bombing, an annual mean of 174 women were murdered at the workplace between 1992 and 1998. This average decreased to 129 for the years 1999 to 2003.

As is true for all workers, the proportion of workplace fatalities to women that were a result of homicide also fell during the 1992 to 2003 period. In 1992, more than 40 percent of the women who died on the job were murder victims. In 2003, this proportion was considerably lower at just under 27 percent and, with the exception of 1995, the years in between exhibited a considerable downward trend in violence resulting in the death of female workers.

*Falls.* Of the 696 fatal occupational injuries resulting from falls in 2003, just 38 were sustained by women. This represents fewer than 6 percent of these workplace deaths, translating into a female share that is even smaller for falls than it is for occupational fatalities in general.

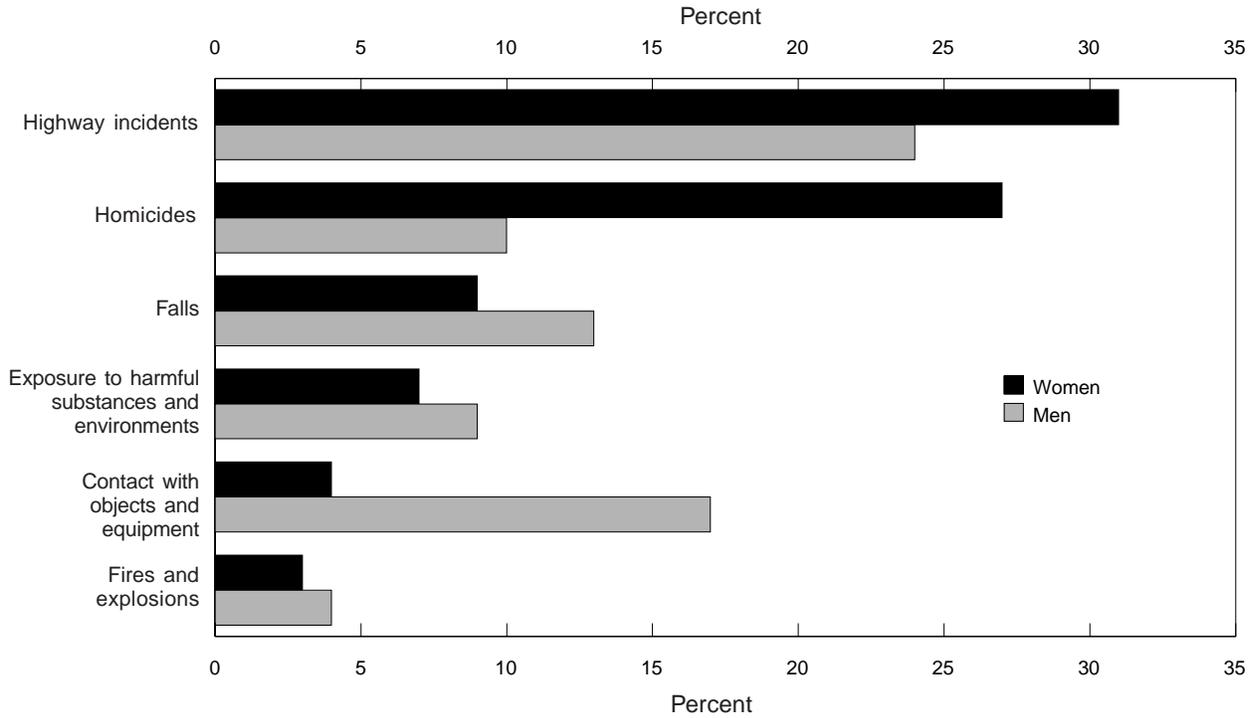
Women accounted for such a small portion of fatal occupational injuries due to falls largely because they were not employed in occupations where the bulk of the incidents took place. In 2003, the majority of workplace fatalities from falls occurred in the goods-producing sector and mostly in the construction industry. (See table 3, page 34.) Virtually all construction jobs are held by men—female employment in 2003 was less than 10 percent—especially those exposing workers to potentially dangerous situations. Of the fatalities that occurred in the service-providing sector for both sexes, the highest number of cases took place in landscaping services, which is also comprised of mainly male workers.

**Table 2. Occupational fatalities resulting from homicides, 1992–2003**

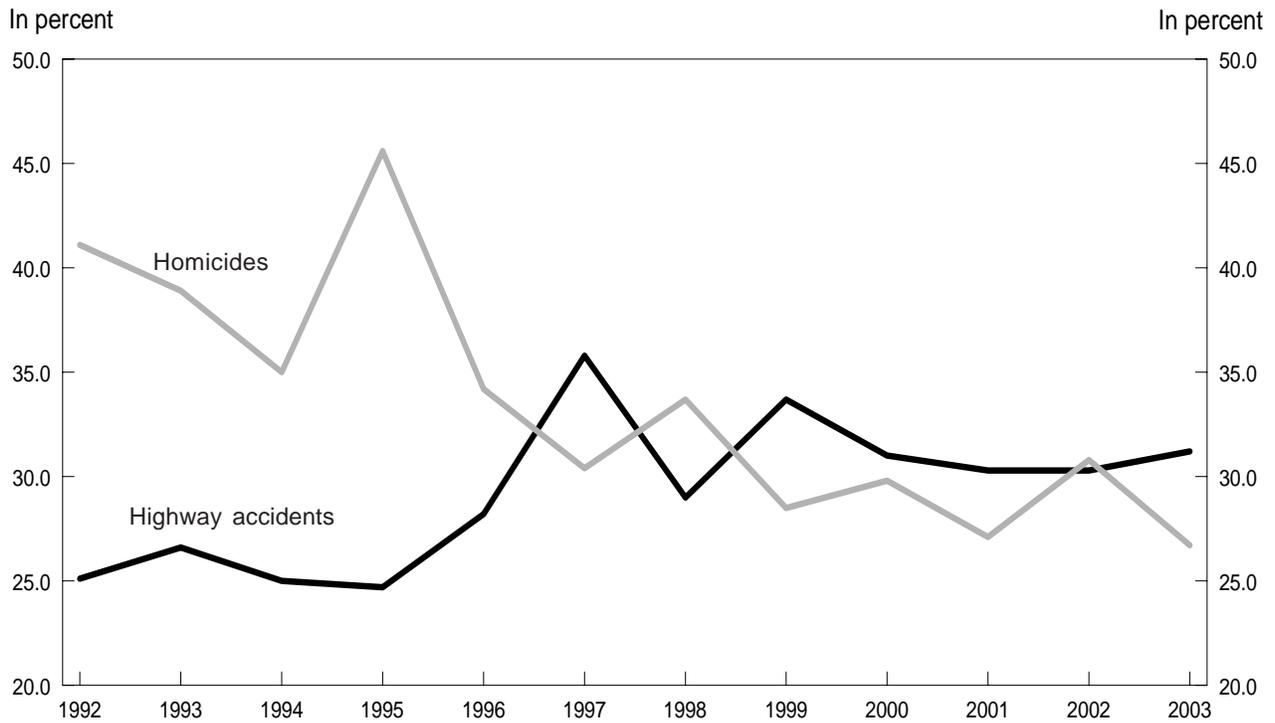
Year	All victims	Female victims
1992 .....	1,044	182
1993 .....	1,074	190
1994 .....	1,080	185
1995 .....	1,036	246
1996 .....	927	176
1997 .....	860	145
1998 .....	714	164
1999 .....	651	126
2000 .....	677	134
2001 .....	643	128
2002 .....	609	136
2003 .....	632	119

<sup>1</sup>This number includes fatalities sustained by female workers in the Oklahoma City bombing. Excluding those fatalities, there were 176 female homicide victims in 1995.

**Chart 1. Fatal work injury incidents varied between men and women, 2003**



**Chart 2. Female homicides and highway accidents as percents of total occupational fatalities, 1992–2003**



As opposed to the fatal falls sustained by men, hardly any of those incurred by women took place in the goods-producing sector. There were only five such instances in 2003 and none of them was construction related. For the most part, deadly falls sustained by women were distributed throughout the major service-producing industries. Health care-related services were the exception. Health services—including hospitals, nursing and personal care facilities, and home health care services—had slightly higher numbers of fall-related deaths relative to other private industries between the years 1999 to 2002. Additionally, in 2003, the health care and social assistance sector, which consists of hospitals, ambulatory health care services, and nursing and residential care facilities, reported the highest number of fall-related deaths to female workers.

Although fatal falls involving females have been few relative to men, there was an increase both in number and proportion in the years leading up to 2003. From 1994 to 1998, fewer than 6 percent of female fatalities resulted from falls. The average number of female occupational fatalities for those years was 28. From 1999 to 2003, the average annual percentage of female fatalities from falls was more than 8 percent, an average of 37 fall-related fatalities each year.

The growing proportion of fatalities resulting from falls was not unique to women. Men have experienced a rise over the past 10 years as well. From 1994 to 1998, 11 percent of male fatalities were due to falls, compared with 13 percent from 1999 to 2003. For both men and women, the increase in the percentage of occupational fatalities resulting from falls has been a result of two combining factors: a gradual decline in the number of fatalities overall and a slight rise in the number of fatalities due to falls.

### Nonfatal injuries

Although the gender gap is not as wide for nonfatal occupational injuries and illnesses with days away from work<sup>3</sup> as it is for fatalities, the female share is still low. In 2003, there were 459,090 female cases of work-related injuries and illnesses requiring at least one day away from work. This figure was slightly more than half as many as there were for men. Representing 35 percent of nonfatal cases, women were hurt or became ill less than their male counterparts.

The disparity between men and women in the number of nonfatal occupational injuries and illnesses has been an ongoing trend throughout the past decade. Since 1992, women have experienced only about half of the injuries and illnesses sustained by men. The gender difference persists, but the gap has narrowed in the past few years. Overall, the number of nonfatal injuries and illnesses has fallen substantially. Given that the number of nonfatal injuries and illnesses for women has fallen at a slower rate than it has for men, the female share has shown a slight increase. (See chart 3, page 36.)

*Occupation.* Much of why women experienced fewer nonfatal occupational injuries and illnesses over the 1992–2003 period can be explained by the kinds of jobs that women have. Generally, women do not work in professions that consistently have high numbers of injuries and illnesses. For instance, the occupational groups with the highest number of injuries and illnesses for 2003 were transportation and material movers; production workers; construction and extraction workers; and installation, maintenance and repair workers. Taken as a whole, the male-to-female employment ratio for these occupations was at least 5 to 1. (See table 4.) Here, men accounted for 86 percent of injuries and illnesses. In the case of construction and extraction occupations alone, where there were 35 male employees for every 1 female employee, 98 percent of injuries and illnesses were sustained by men.

Even though women suffer fewer workplace injuries and illnesses than men overall, there are specific occupations, such as nursing aides,<sup>4</sup> in which women account for a greater share. In fact, women sustained 62 percent of the nonfatal injuries and illnesses in service occupations for 2003. They also represented 57 percent of the people employed in these positions. Service occupations account for a large share of female work-related injuries and illnesses. Almost 40 percent of the injuries and illnesses sustained by women occurred in service occupations, yet only 20 percent of employed women held these jobs.

*Industry.* In goods-producing industries, women accounted for 15 percent of nonfatal injuries and illnesses for 2003, compared with 44 percent of the nonfatal injuries and illnesses in the service-providing industries. Given that more women were employed in the service-providing industries than men, they logically accounted for more of these injuries and illnesses. In fact, 87 percent of female occupational injuries and illnesses occurred in this area. Within these industries, cases in which the injured or ill worker was a woman were further

**Table 3. Occupational fatalities resulting from falls by industry, 2003**

Industry	Number of fatalities
Total .....	696
Private industry .....	662
Goods producing .....	446
Natural resources and mining .....	44
Construction .....	364
Manufacturing .....	38
Service providing .....	216
Trade, transportation, and utilities ...	65
Information .....	7
Financial activities .....	14
Professional and business services ..	69
Education and health services .....	19
Leisure and hospitality .....	24
Other services .....	17
Government .....	34

**Table 4. Employment and injuries and illnesses for the occupational groups reporting the most injuries and illnesses, 2003**

Occupation	Employed persons (In thousands)			Injuries and illnesses		
	Total	Men	Women	Total	Men	Women
Total .....	137,736	73,332	64,404	1,315,920	851,790	459,090
Transportation and material moving .....	8,320	7,049	1,270	259,920	222,130	35,220
Production .....	9,700	6,696	3,004	188,330	136,580	51,660
Construction and extraction .....	8,114	7,891	223	151,130	148,020	2,380
Installation, maintenance, and repair .....	5,041	4,830	211	109,780	104,940	4,210

concentrated, with 69 percent occurring in either trade, transportation, and utilities, or education and health services.

*Circumstances of female injuries.* In 2003, the leading sources of workplace injuries in women, with 36 percent of cases, were musculoskeletal disorders.<sup>5</sup> Musculoskeletal disorders are injuries or disorders of the muscles, nerves, tendons, joints, cartilage, or spinal discs. They are related to events such as bodily reaction, overexertion, and repetitive motion and do not include injuries caused by slips, trips, falls, motor vehicle accidents, or similar accidents.

*Event or exposure.* Almost half of the injuries and illnesses to female workers resulted from bodily reaction or exertion in 2003, compared with 40 percent for men. Some examples of these types of events are scanning groceries, overexertion from lifting, and typing. Many repetitive motion or overexertion injuries are classified as musculoskeletal disorders.

Falls, another major cause of injury in the workplace, represented one-fourth of the injuries and illnesses sustained by women in 2003. For this incidence, women were more on par with men and accounted for about 43 percent of all cases resulting from falls. Female injuries resulting from falls were proportional to the female presence in the workforce. The likelihood that a workplace injury to a man resulted from a fall is just slightly greater than it is for a woman.

The most noticeable difference between women and men when it comes to falls is that, although the number of falls on the same level for the two sexes was about the same, they accounted for a far greater share of these injuries to women. Falls to the same level were about 82 percent of all female injuries resulting from falls, whereas they were only a little more than half of male injuries and illnesses of this type.

Assaults and violent acts by another person represented 2 percent of female injuries and illnesses. Despite this small percentage, women accounted for roughly 61 percent of victims, and were more likely to be assaulted by another person while on the job than were men. The gender gap for these incidents does not seem to be narrowing. Since 1992,

women have consistently suffered the majority of these injuries. (See chart 4.) Although workplace assaults and violent acts on women declined between 2002 and 2003, there had been an increasing number of these incidents in the years prior and only a slight downward trend had occurred in the past 10 years.

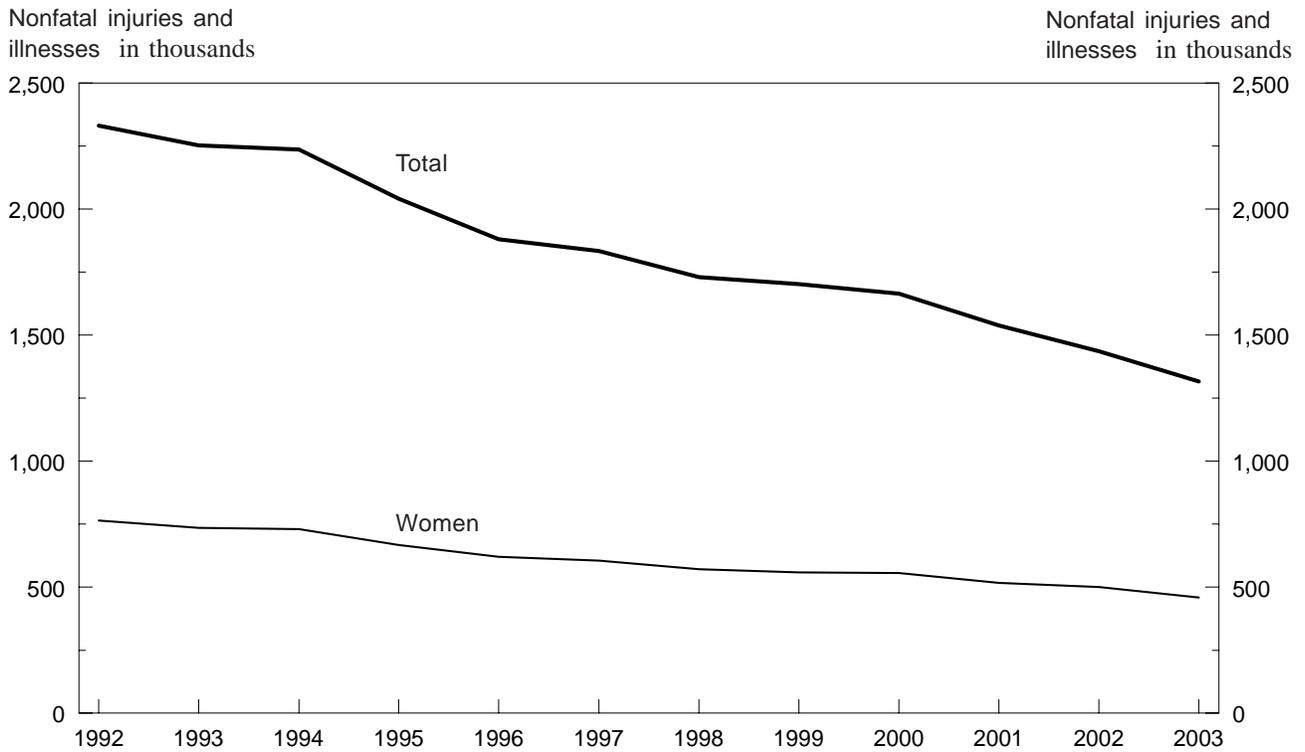
*Nature.* The most common type of injury for both sexes was sprains, strains, and tears, which accounted for 41 percent of male and 45 percent of female work-related injuries. The disparity between men and women here was negligible. Sprains, strains, and tears has remained within the interval of 42 percent to 44 percent of nonfatal injuries and illnesses for all workers since 1992, even while the overall number of nonfatal injuries and illnesses has dropped. Sprains, strains, and tears were 76 percent of all musculoskeletal disorders in 2003.

Some work-related injuries have been more commonly found in women. For example, women represented 68 percent of the carpal tunnel syndrome cases in 2003. For every year since 1992, women have accounted for at least two-thirds of all reported carpal tunnel syndrome cases. Even though the total number of these cases declined over the past decade, the proportion of cases that involve women has remained constant.

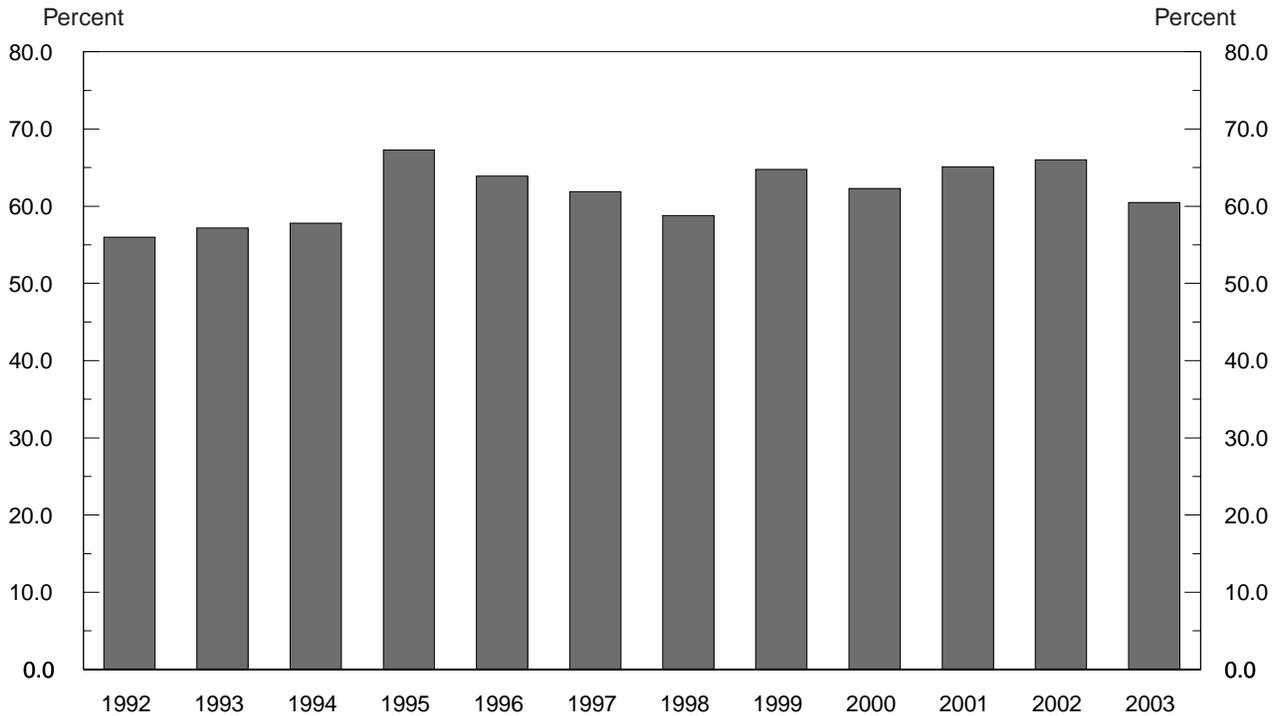
Tendonitis is another work-related injury found more often in women than in men. Women experienced 55 percent of the tendonitis cases in 2003 and maintained majority representation throughout the past decade. On a national scale, the number of reported cases of tendonitis is small. In 2003, there were 4,260 female cases; down from 15,130 in 1993. This difference reflects a more than 70-percent decrease. Moreover, the number of tendonitis cases for all workers has fallen almost as much: from 25,026 in 1993 to 7,730 in 2003. In all, there has been a large decrease in the number of work-related tendonitis cases reported over the past 10 years.

Like tendonitis, the number of reported anxiety, stress, and neurotic disorders is small. There were 3,820 cases in 2003, 64 percent of which involved women. For the past 10 years, women have accounted for more than half of all anxiety, stress, and neurotic disorders. However, in 2003, there was a 35-percent drop

**Chart 3. Nonfatal occupational injuries and illnesses, requiring days away from work, 1992–2003**



**Chart 4. Female percentage of all nonfatal assaults and violent acts by person, 1992–2003**



in the number of female cases from the previous year. This ended a 2-year increase in these types of disorders for women.

WOMEN HAVE EXPERIENCED far fewer occupational injuries and illnesses than their hours worked would suggest. Even more disparate in relation to employment hours was the female share of occupational fatalities. Female injuries, illnesses, and fatalities

are not only disproportionately low; they also differ from male cases qualitatively. In general, women have suffered from work-related injuries, illnesses, and fatalities unique to them. Many reasons for the differences between male and female occupational injuries, illnesses, and fatalities are hard to measure. However, much of this disparity can be explained by employment patterns within occupations and industries. □

## Notes

---

ACKNOWLEDGMENT: The author would like to thank Katharine Newman and Stephen Pegula, both of BLS, for their assistance in preparation of this article.

<sup>1</sup> For an examination of women in the workplace, see *Women in the Labor Force: A Databook*, on the Internet at [www.bls.gov/cps/wlf-databook2005.htm](http://www.bls.gov/cps/wlf-databook2005.htm) (visited Oct. 4, 2005).

<sup>2</sup> Bureau of Labor Statistics, *Current Population Survey*. See table 9, on the Internet at [www.bls.gov/cps/home.htm#annual](http://www.bls.gov/cps/home.htm#annual) (visited Oct. 4, 2005).

<sup>3</sup> BLS uses days away from work as a proxy to measure the severity of the injury or illness. These cases require at least 1 day of recovery away from the worksite. Case characteristics, such as sex, are collected for injuries and illnesses with days away from work to provide demographic information.

<sup>4</sup> Women sustained 91 percent of the injuries and illnesses found in nursing aides, orderlies, and attendants in 2003.

<sup>5</sup> Includes cases in which the nature of injury is: sprains, strains, tears; back pain, hurt back; soreness, pain, hurt, except back; carpal tunnel syndrome; hernia; or musculoskeletal system and connective tissue diseases and disorders and when the event or exposure leading to the injury or illness is: bodily reaction/bending, climbing, crawling, reaching, twisting; overexertion; or repetition. Cases of Raynaud's phenomenon, tarsal tunnel syndrome, and herniated spinal discs are not included. Although these cases may be considered musculoskeletal disorders, the survey classifies these cases in categories that also include cases that are not musculoskeletal disorders.

More information on musculoskeletal disorders and their prevention, are available on the Internet at [www.osha.gov/SLTC/ergonomics/index.html](http://www.osha.gov/SLTC/ergonomics/index.html) (visited Oct. 6, 2005).

### *Occupational safety and health*

# Fatal occupational injuries to older workers in farming, 1995-2002

*Agricultural workers aged 55 years and older are at a higher risk of fatal occupational injury than their younger counterparts; leading causes of fatalities are transportation incidents, contact with objects or equipment, and assaults, including assaults by animals*

Samuel Meyer

Agriculture is known to be a dangerous industry in which to work.<sup>1</sup> In fact, in the late 1980s, the National Coalition for Agricultural Safety and Health stated, “America’s most productive work force is being systematically liquidated by an epidemic of occupational disease and traumatic death and injury in the face of diminishing local and Federal resources.”<sup>2</sup>

Researchers have found agricultural workers aged 55 years and older to be one of the working populations with the largest risk of fatal injury.<sup>3</sup> In 1994, Scott Richardson and Andrew Schulman concluded that the high overall rate of fatal injuries among older workers appeared to be related to their distribution among certain high-risk occupations and industries, primarily agriculture related.<sup>4</sup> In a 2004 publication, the National Institute for Occupational Safety and Health noted that the fatality rate for agricultural workers 55 years and older differed considerably from the overall rate for private-sector workers in that age group.<sup>5</sup>

The most significant types of injuries to workers over the age of 55 in farming occupations involve machinery and livestock.<sup>6</sup> Farm tractors were previously identified as the most noteworthy source of fatal injury to workers in that age group.<sup>7</sup> Of serious consequence is the fact that two-thirds of all tractors in use are not equipped to protect the operator from rollover injury.<sup>8</sup> A previous study found that more than 40 percent of fatal injuries involving animals involved workers 55 years and older; the study went on to say that the majority of cattle-related deaths were incurred by workers aged 65 years and older.<sup>9</sup>

Other sources of injury involve weather, falls, grain bins and silos, chemicals and toxic gases, and manure pits and wells.<sup>10</sup>

According to data from the Current Population Survey (CPS), 30 percent of workers employed in farming occupations, as delineated shortly, were at least 55 years old. However, more than half of fatal injuries to workers in farming occupations occurred to those 55 years and older. The number of older farm operators has declined, yet older workers represent an increasing percentage of all farm operators. Coupled with a decrease in the exit rate of agriculture workers, this increasing percentage of older workers indicates that the “graying” of the farm sector is continuing.<sup>11</sup>

This article investigates fatal injuries from 1995 through 2002 to workers aged 55 years and older associated with the production of agricultural goods on farms. Farming occupations include four occupations selected from the 1990 Bureau of Census designations, in combination. Census of Fatal Occupational Injury (CFOI) data are examined over the study period in order to elucidate (1) the risk associated with farming, (2) the States reporting the most risk, and (3) the hazards most frequently contributing to fatal injuries. Measures adopted to aid the analysis include fatality rates, relative risks, mortality ratios, employment ratios, and mortality-to-employment ratios. Fatality rates are used to provide a sense of the risk of fatal injury by indicating the number of fatal injuries occurring among a specified number of individuals employed. Relative risk compares the fatality rate for a partic-

Samuel Meyer is an economist in the Office of Compensation and Working Conditions, Bureau of Labor Statistics.  
E-mail: Meyer.Samuel@bls.gov

ular group with those of other groups, using the overall rate as a base. Mortality ratios are calculated to indicate each State's fatal injuries to older farming workers in relation to each State's total fatal injuries. Employment ratios indicate the significance of farm employment in each State's economy and are used to index a State's farming employment by its total employment. Finally, mortality-to-employment ratios standardize mortality by employment, accounting for States with more individuals employed in farming. (See the technical appendix at the end of this article.)

## Results

As indicated in the following tabulation, farming workers of all ages incurred an annual average of nearly 550 fatal injuries between 1995 and 2002:

Year	All workers	Workers in farming occupations, all ages	Workers in farming occupations, 55 years and older
Total, 1995–2002 .....	48,193	4,374	2,228
1995 .....	6,275	578	302
1996 .....	6,202	557	301
1997 .....	6,238	581	297
1998 .....	6,055	600	292
1999 .....	6,054	564	280
2000 .....	5,920	476	250
2001 .....	5,915	499	254
2002 .....	5,534	519	252
Mean, 1995–2002 .....	6,024	547	279

A total of 476 fatal injuries was reported in 2000, down 16 percent from 564 fatalities the year before. However, in 2001 and 2002, CBOI recorded a cumulative 9-percent increase in fatal injuries to farming workers. Older farming workers averaged almost 280 fatal injuries per year, with a general downward trend, over the 1995–2002 period. The year 2000 recorded the lowest number of fatal injuries of any year in CBOI's history, 476, of which 250 were to older farming workers, an 11-percent drop from the previous year's figure. The years 2001 and 2002 recorded only slightly more fatal injuries, 254 and 252, respectively. CBOI has reported a decline of 11 percent in fatal injuries to older farming workers during the 11-year period from 1992 to 2002. Older farming workers also experienced less pronounced fluctuations in fatal injuries over time than did farming workers of all ages.

Almost two-thirds of those aged 55 and older and reported to have died in a fatal injury while working were classified as farmers—that is, those who typically own and operate a farm. Farmworkers, typically hired hands, accounted for nearly 1 in 5 of these fatal work injuries. Supervisors and managers, most

frequently employees hired from the outside to supervise workers and manage the establishment, had fewer fatalities from workplace injuries—14 percent of the 2,228 total.

The annual average rate of fatal injuries for all workers in the United States from 1995 to 2002 was calculated to be 4.5 per 100,000 employed.<sup>12</sup> A comparison of the rate for workers 55 years and older in the agriculture industry with workers in the same age group in other major industries reveals that the rate was the highest in agriculture: 44.6 fatalities per 100,000 employed. Selecting for occupations more likely to be involved in agriculture production indicated that workers aged 55 years and older in farming occupations recorded the highest fatal work injury rate of any age group from 1995 to 2002: 47.9 fatal injuries per 100,000 employed.

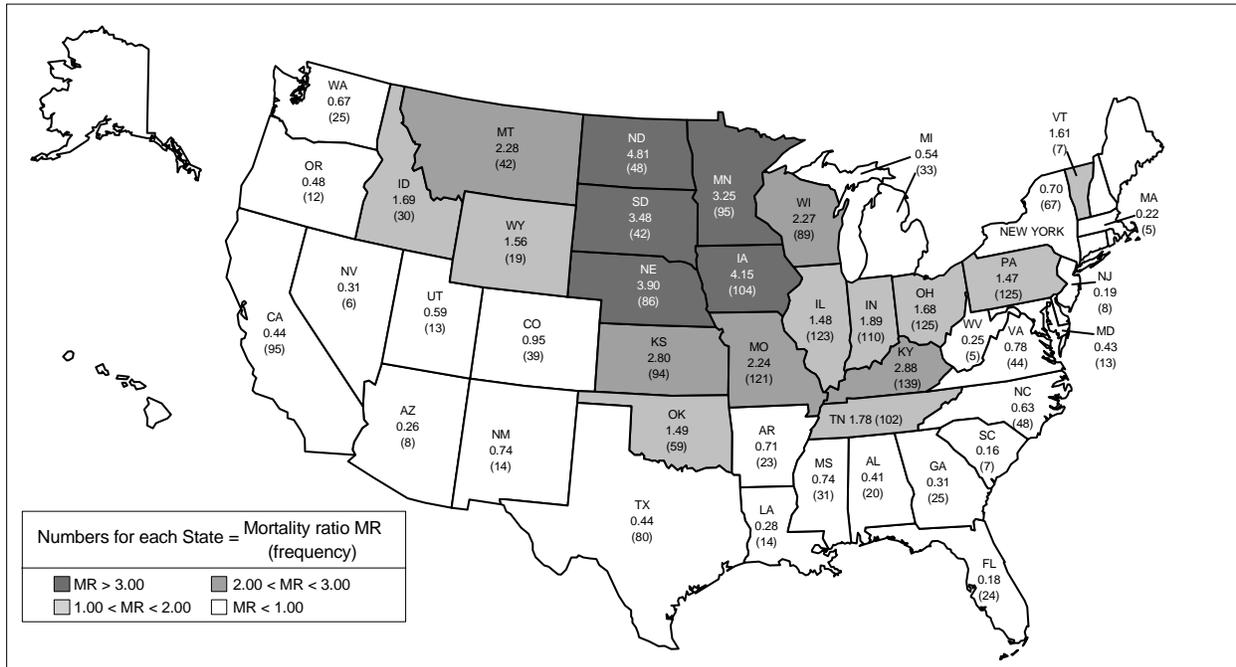
In addition to having the highest fatality rate, older workers represented the majority of fatal injuries in farming occupations from 1995 to 2002. The following tabulation depicts the employment, frequency of fatal injuries, fatality rate, and relative risk of four categories of worker:

Category	Cumulative employment, 1995–2002	Frequency of fatalities	Fatality rate	Relative risk
Total .....	1,062,734,000	48,193	4.53	1.00
Workers 55 years and older, all occupations ....	136,379,000	10,757	7.89	1.74
Workers of all ages, farming occupations .....	15,646,000	4,374	27.16	5.99
Workers 55 years and older, farming occupations ....	4,651,000	2,228	47.90	10.56

A worker aged 55 or older in a farming occupation was more than 10 times as likely to be fatally injured than the total population of workers. The risk of fatal injury decreases as the worker is excluded from either farming occupations or workers aged 55 years and older. Considered independently, the risk of a fatality to a worker in a farming occupation is greater than the overall risk to a worker aged 55 years or older by a factor of more than 3. In accordance with Richardson and Schulman's conclusion, these data indicate that the greatest risk to workers aged 55 years and older in farming occupations may be due to the types of exposure experienced in farming work and not to those workers' ages.

Chart 1 graphically depicts fatal injuries to older farming workers in selected States. Colors are assigned on the basis of the mortality ratios reported and vary from light to dark as ratios increase. Although a countrywide phenomenon, fatalities to workers aged 55 years and older in farming occupations tended to occur more often in Midwestern and Great Plains states. The five States of Kentucky, Ohio, Penn-

**Chart 1. Mortality ratios and frequencies of fatal occupational injuries to workers aged 55 years and older in farming occupations, by State of incident, 1995–2002**



NOTE: Frequencies were not reported for selected States because they did not meet BLS publication criteria.

sylvania, Illinois, and Kansas reported a combined total of more than 28 percent of the 2,228 fatal injuries incurred from 1995 to 2002. Other States with significant numbers of fatal injuries to older workers in farming occupations were California, New York, and Texas.

Mortality ratios depicted in chart 1 provide an additional indication of selected States' fatal workplace experience in proportion to each State's overall experience. While States in the Midwest reported high frequencies of fatal injuries to workers aged 55 years and older in farming occupations, States in the Great Plains region reported disproportionately more fatal injuries to workers in this age group.

For example, Ohio reported 125 fatal occupational injuries, representing about 6 percent of fatal injuries to the older farming workers. However, Ohio recorded 1,614 total fatal injuries, only about 3 percent of total injuries in the United States. Thus, the ratio of Ohio's proportion of fatal workplace injuries among older workers in farming occupations to the State's proportion of all fatal workplace injuries is 1.7. By contrast, Iowa reported 104 fatal injuries to older workers in farming occupations in the years 1995 through 2002, about 5 percent of the U.S. total of 2,228. Over the same period, Iowa reported a total of 542 fatal occupational injuries, slightly more than 1 percent of the U.S. total. On the basis of these

proportions, the mortality ratio for Iowa farming workers aged 55 years and older is calculated to be approximately 4.2, indicating that the proportion of fatal workplace injuries to workers aged 55 years and older in farming occupations is 4 times Iowa's total proportion.

The greater disproportions in the Great Plains States may be largely a reflection of more people at risk of fatal injury in farming occupations. Table 1 sheds some light on this issue. The next-to-last column gives the ratio of a State's proportion of U.S. farm employment to its proportion of U.S. nonfarm employment. The last column standardizes a State's mortality ratio on the basis of its employment ratio.

From the table, although Ohio recorded a high number of fatal injuries, its mortality ratio was calculated to be low relative to those of some other States. However, when farming employment is taken into account, Ohio is seen to have a mortality ratio to employment ratio (or, simply, mortality-to-employment ratio) of 2.2, one of the highest. By contrast, Iowa's mortality ratio (4.2) divided by its employment ratio (3.0) yields a relatively low mortality-to-employment ratio (1.4). In this case, Iowa's high mortality ratio is tempered by its high proportion of farming.

Once farming fatalities are standardized by employment, calculations reveal a high risk of fatal injury for States from

**Table 1.** Frequencies, mortality ratios, employment ratios, and mortality-to-employment ratios, selected States, 1995–2002

State	Frequency, 55 and older, farming	Mortality ratio			Employment ratio	Mortality-to-employment ratio
		All farmers	Older workers	Older farmers		
Total .....	2,228	...	...	...	...	...
Pennsylvania .....	125	1.3	1.1	1.5	0.6	2.5
Illinois .....	123	1.2	1.1	1.5	.6	2.4
Ohio .....	125	1.5	1.2	1.7	.8	2.2
New York .....	67	.7	.9	.7	.3	2.2
Minnesota .....	95	2.9	1.3	3.2	1.7	2.0
Indiana .....	110	1.5	1.2	1.9	1.1	1.8
Wisconsin .....	89	2.4	1.3	2.3	1.5	1.5
Nevada .....	6	.4	.9	.3	.2	1.5
Maryland .....	13	.5	.9	.4	.3	1.5
Iowa .....	104	3.6	1.5	4.2	2.9	1.4
Massachusetts .....	5	.2	1.0	.2	.2	1.4
Vermont .....	7	1.5	1.0	1.6	1.2	1.3
Missouri .....	121	1.7	1.2	2.2	1.8	1.3
Nebraska .....	86	3.4	1.5	3.9	3.1	1.3
Tennessee .....	102	1.3	1.1	1.8	1.4	1.3
Kansas .....	94	2.2	1.4	2.8	2.5	1.1
North Dakota .....	48	4.8	1.7	4.8	4.5	1.1
Virginia .....	44	.8	.9	.8	.7	1.1
Colorado .....	39	1.0	1.0	1.0	.9	1.0
Kentucky .....	139	2.3	1.3	2.9	2.8	1.0

<sup>1</sup> Selected States are those which had a mortality-to-employment ratio of at least 1.0, based on mortality ratios for farming workers aged 55 years and older.

the Middle Atlantic, Midwest, Northeast, and Great Plains divisions. Some States with high mortality ratios, such as Minnesota, Wisconsin, and North Dakota, also show mortality-to-employment ratios greater than 1.0, indicating that fatal injuries were incurred disproportionately on the basis of total fatal workplace injuries and farming employment.

Although Texas and California reported a combined total of 175 fatal injuries to older farming workers, each of those States was calculated to have a mortality ratio under 0.5 and thus was not listed in table 1. The relatively low mortality ratio may be due to a number of reasons, including larger numbers of total fatalities annually, younger migrant farmworker populations, and agricultural production making up smaller proportions of each State's gross State product, resulting in a smaller proportion of employed individuals at risk of this type of fatal injury.

Table 1 also provides a clue to each State's experience by separating out farming from age. In most of the States listed, greater disproportions of fatal injuries were attributed to farming-related risks rather than age-related risks. In the majority of States, older farming workers were disproportionately fatally injured than were workers of all ages in farming occupations, indicating that a mixture of risks associated with farming and age contributed to high mortality ratios for older farming workers.

*Industry.* The three major agriculture industries in which workers in farming occupations toiled from 1995 to 2002 were crop production, livestock production, and agricultural services.

Within the crop production industries, establishments reporting the most fatal injuries included general farms with a significant amount of sales coming from the production of crops (984 fatalities), cash grain farms such as wheat and corn farms (101 fatalities), and field crop farms such as cotton and tobacco farms (126 fatalities). Establishments involved in livestock production accounted for 581 fatalities to workers aged 55 years and older in farming occupations. Farmers in this industry incurred nearly 350 fatalities, many of which occurred on beef cattle farms. Agricultural service establishments, such as labor contractors, accounted for a relatively small amount of fatal injuries to workers aged 55 years and older in farming occupations. Farmworkers represented a majority of these fatalities.

Across all occupations, fatally injured workers were more evenly distributed among establishment sizes. Older workers were represented 11 percent more than workers under 55 years in establishments with 10 or fewer employees. For farming occupations, unquestionably the majority of fatally injured workers were employed by establishments with 10 or fewer employees (68 percent).

*Occupation.* As seen in chart 2, the occupation of fatally injured workers varied by age. Deaths to workers meeting the definition of “farmer” were distributed more among older workers, including some over 90 years of age. Farm managers fatally injured during the time of this analysis also were of older ages. Supervisors of farmworkers recorded a distribution of injuries similar to that of most supervisors in the U.S. economy, with the majority being between 55 and 65 years of age. In contrast, fatally injured farmworkers tended to be younger, with the highest incidence among those between the ages 15 and 19 years.

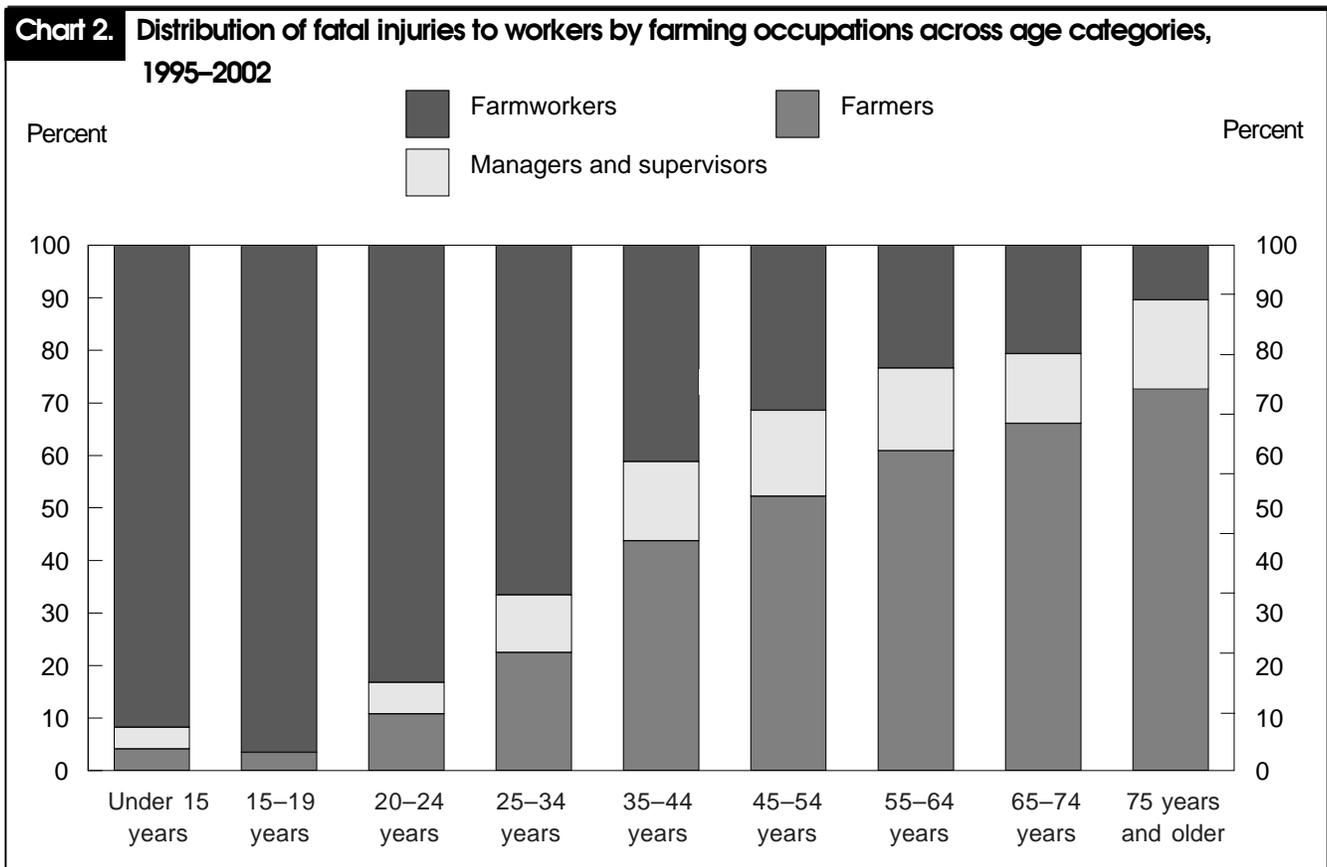
Occupations with the most fatal injuries varied by race and ethnicity. Fatally injured farmers and managers were nearly all self-employed non-Hispanic white males. Most fatalities occurred in Ohio, Pennsylvania, Missouri, and Iowa. More than 65 percent were working in crop production industries. Around 40 percent occurred while the worker was driving or operating a farm vehicle. About 30 percent of fatal injuries to non-Hispanic white farmers involved overturns. Although most incidents occurred on farms, 13 percent of decedents were off farm property at the time of their injury.

Hispanics or Latinos made up 19 percent of fatal injuries to farmworkers (78 fatalities) and 28 percent of fatal injuries to

supervisors (9 fatalities). Thirty-seven percent of fatalities to Hispanic farmworkers took place in California. A large majority of these decedents were between 55 and 65 years of age. Many fatalities to Hispanic farmworkers were due to transportation incidents (17 percent drivers and 17 percent passengers). One-fourth of fatal injuries to Hispanic farmworkers were incurred on streets and highways.

Six percent of farmworkers were non-Hispanic blacks. Many of these workers incurred their fatal injuries in transportation incidents or by being struck by falling objects on the farm. One-third of these fatalities to non-Hispanic black farmworkers occurred away from farm locations, a quarter on streets or highways.

Table 2 displays fatality data by occupation according to the event or exposure resulting in fatal injury. The table reveals that fatal occupational injuries to farmers were classified as transportation incidents, primarily nonhighway overturns. Tractors were directly involved in almost 50 percent of the 1,472 fatalities to workers in this occupation. Managers incurred a disproportionate number of drownings over the years 1995–2002. Most of the fatalities incurred by supervisors occurred while they were driving or otherwise operating trucks or farm machinery. Overturns resulted in 417 fatalities to farmworkers. However,



**Table 2. Fatal occupational injuries incurred by workers aged 55 and older in U.S. farming occupations, by event or exposure, 1995–2002**

Event or exposure	Farming occupations	Farmers	Managers	Supervisors	Farmworkers
Number .....	2,228	1,472	307	32	417
Percent distribution .....	100	100	100	100	100
Transportation .....	54	54	56	41	53
Highway .....	10	9	11	19	12
Collision between vehicles or mobile equipment .....	5	4	7	—	10
Nonhighway .....	38	40	39	16	31
Noncollision .....	35	37	38	—	28
Fell from and struck by vehicle or mobile equipment ....	8	7	9	—	10
Overturned .....	24	26	24	—	14
Assaults and violent acts .....	7	7	7	—	10
Assaults by animals .....	5	5	4	—	7
Contact with objects and equipment .....	27	28	25	31	21
Struck by object .....	15	16	15	22	12
Falls .....	6	6	5	—	9
Exposure to harmful substances or environments .....	4	3	3	—	5

NOTE: Dash indicates no data or data that did not meet publication criteria.

injuries to farmworkers—especially injuries not associated with driving or operating a vehicle—were more evenly distributed across event types, relative to the other occupations. For example, farmworkers suffered a greater proportion of injuries due to animal assaults.

*Demographics.* Fatally injured workers in farming occupations registered a median age of 55 years, well over the total population median of 42 years. More than 96 percent of fatally injured workers aged 55 years and older in farming occupations were men. Most of the men fatally injured were non-Hispanic white workers, although Hispanic workers represented 13 percent of the total.

In chart 3, the percent distribution of fatal injuries by employment status for workers in farming occupations is presented for the two age groups consisting of those under 55 years and those 55 years and older. Most older workers were self-employed. The majority of decedents in family businesses were younger than 55 years, but a few were in the older grouping. Of the 2,228 older workers in farming occupations who died from an occupational injury between 1995 and 2002, only 330 were wage or salary workers—half the percentage of those of all ages working for a wage or salary.

More than 85 percent of non-Hispanic white workers in farming occupations were self-employed, while almost 65 percent of non-Hispanic black decedents and nearly 79 percent of Hispanic or Latino decedents worked for compensation. About 65 percent of non-Hispanic white workers and 62 percent of non-Hispanic black workers were 65 years or older, while 66 percent of Hispanic workers were younger than 65.

*Event or exposure.* Table 3 gives details about the types of incidents reported in fatal injuries involving workers in

farming occupations. The table also provides median age figures to accentuate the age differences among categories.

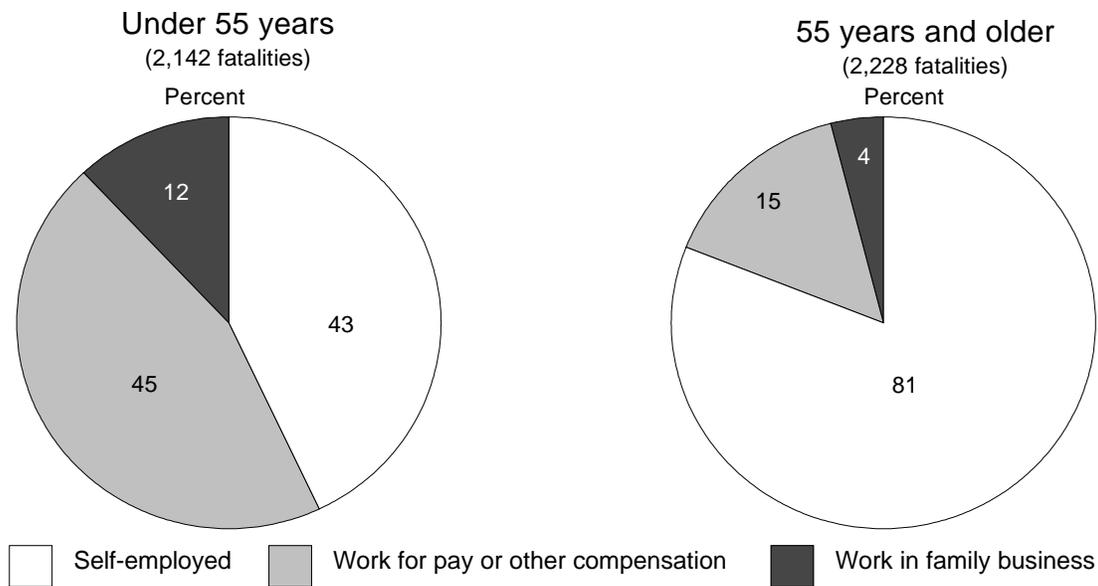
Of the 4,374 fatalities occurring between 1995 and 2002 to workers in farming occupations, the median age for those workers dying in transportation incidents was 57 years. Transportation incidents are separated into two primary categories: highway and nonhighway. Sixty percent of highway incidents involved workers under the age of 55. While this is a large percentage, highway decedents working in farming occupations had a median age of 48, still older than the median for the total labor force.

In contrast, the median age of farming workers killed in nonhighway transportation incidents was 60 years. The greatest number of nonhighway incidents involved overturns (848 fatal injuries), a large majority of which killed those aged 55 years and older. While tractor overturns that kill older farming workers have decreased by nearly 25 percent since 1992, fatal injuries due to overturns continue to fluctuate from year to year and contribute approximately one-fourth of fatal injuries to older farming workers.

Of the total 164 assaults and violent acts occurring to workers aged 55 and older in farming occupations, approximately 7 in 10 were direct assaults from animals. Thirty-five suicides were recorded among this population, which numbered less than half as many as farming workers under the age of 55.

*Worker activity.* CFOI classifies hundreds of activities workers may be performing during the time of a fatal injury. In contrast to the event or exposure, which identifies the manner in which the injury was experienced, worker activity identifies what the individual was doing immediately prior to the event. For older

**Chart 3. Percent distribution of fatal injuries to workers in farming occupations, by employment status according to age group, 1995–2002**



workers in farming occupations, precipitating activities tended to be vehicle operation (1,196 fatalities), tool and machinery use (283 fatalities), and animal care (133 fatalities).

Nearly 44 percent of all injuries that resulted in the death of an older farming worker took place while the worker was operating farm vehicles or machinery (974 fatal injuries). More than half of these injuries were due to overturns. Approximately 14 percent of fatalities involving the operation of farm vehicles occurred when a farming worker fell from a vehicle and then was struck by his or her own vehicle. Workers in farming occupations were operating tractors in an overwhelming majority of the 974 fatal injuries, but other machinery involved in fatalities included mowing machinery attached to tractors, balers, or combines. Other sources causing harm to farming workers while they were operating farm vehicles or machinery included trees, other tractors, ditches, bales, and water. While 11 percent of these events took place on a street or highway, more than 85 percent occurred on a farm, mostly in fields. The majority of workers affected were involved primarily in the production of crops (524), although fatalities also took the lives of dairy workers and those involved in livestock production.

While boarding or alighting a farm vehicle, 42 farming workers aged 55 years and older were fatally injured, mostly due to their vehicles rolling while not in normal operation. Thirty-

four farming workers aged 55 years and older died while riding on farm vehicles, most of which were tractors.

A number of workers in farming occupations died while tending to animals. A large majority of these workers were assaulted by the animals. In 59 percent of the incidents, cattle were the source of injury. Fifty-six incidents involved injuries to the trunk, 37 injuries to the head. Farming workers died while riding a horse in 26 cases. A few of these riders were assaulted by the horse they were riding.

Many workers in farming occupations died while in the act of repairing equipment or performing maintenance measures. One hundred eleven decedents were fatally injured while repairing equipment. Decedents were struck by rolling objects in 32 cases, 10 of which occurred during attempts to jump-start vehicles. A large number of incidents involved tractors, many resulting in internal injuries of the trunk or intracranial injuries. Another 27 farming workers were fatally injured while stopping to resolve a jam-up of equipment or machinery; many of these individuals were subsequently caught in or crushed by collapsing materials.

*Location of injury.* The location most frequently reported as the place of fatal injury to farming workers was the farm. Approximately 35 percent occurred on farmland under cultivation or in fields or meadows. Two-thirds of fatal injuries

**Table 3. Fatal injuries to workers in farming occupations, by age, selected events or exposures, 1995–2002**

Event or exposure	Fatalities	Total, under 55 years	Total, 55 years and older	Median age
Total .....	4,374	2,142	2,228	55
Transportation incidents .....	2,201	998	1,202	57
Highway .....	554	332	222	48
Collision between vehicles, mobile equipment .....	285	163	122	48
Moving in opposite directions, oncoming .....	64	42	22	42
Moving in intersection .....	85	45	40	51
Noncollision .....	227	143	84	47
Jackknifed or overturned .....	183	114	69	47
Nonhighway (farm, industrial premises) .....	1,362	524	838	60
Noncollision .....	1,266	490	776	60
Fell from and struck by vehicle, mobile equipment .....	302	124	178	59
Overturned .....	848	322	526	60
Worker struck by vehicle, mobile equipment .....	224	102	121	59
In parking lot or nonroad area .....	185	81	104	60
Assaults and violent acts .....	381	214	164	51
Homicides .....	78	59	16	39
Shooting .....	65	50	12	38
Suicide, self-inflicted injury .....	113	78	35	47
Assaults by animals .....	190	77	113	62
Contact with objects and equipment .....	1,122	531	591	56
Struck by object .....	546	202	344	61
Falling object .....	278	122	156	57
Rolling, sliding objects on floor or ground level .....	175	37	138	67
Caught in or compressed by equipment or objects .....	437	249	188	50
Caught in running equipment or machinery .....	267	171	96	46
Compressed or pinched by rolling, sliding, or shifting objects .....	68	28	40	61
Caught in or crushed in collapsing materials .....	130	75	55	52
Falls .....	240	102	138	57
Fall to lower level .....	205	87	118	57
Exposure to harmful substances or environments .....	339	260	79	40
Contact with electric current .....	157	139	18	34
Oxygen deficiency .....	73	47	26	44
Drowning, submersion .....	61	44	17	41
Fires and explosions .....	85	33	52	59

NOTE: Numbers may not add to totals due to records with no ages reported.

occurring in fields were transportation incidents, primarily tractor overturns and falls from tractors. Others working in fields were caught in running agricultural machinery, collided with trees while driving tractors, were struck by rolling tractors while boarding or repairing them, were burned in an unintended or out-of-control fire, or were assaulted by cattle.

Fatal injuries also occurred in farm buildings. Most such injuries were the result of falls to lower levels and being struck by falling objects. Slightly more of the fatalities in farm buildings occurred to farming workers engaged in the production of crops as opposed to the raising of livestock. A few fatalities occurred in silos, most of the incidents due to collapsing food products. Still fewer fatalities took place around water; most of these incidents involved tractor overturns that resulted in death by drowning.

About 11 percent of all fatal injuries to workers aged 55 years and older in farming occupations transpired on road-

ways. Ninety-six times farming workers were killed while driving tractors on roadways; eighty times they were killed while driving trucks. In 76 incidents, farming workers collided with another's truck. The majority of fatalities taking place on roadways occurred to workers engaged in crop production.

CFOI DATA FROM 1995 TO 2002 SHOW THAT WORKERS aged 55 years and older in farming occupations were at high risk of fatal injury. Even though fatal injuries to older farming workers have trended downward over time, the fatality rate of these workers is still higher than those of most others. Workers aged 55 years and older represent nearly a third of those employed in farming occupations and more than half of the fatalities in these occupations. The fatality rate for workers aged 55 years and older in farming occupations was about 48 fatalities per 100,000 employed, 10 times the rate for all workers.

Many fatalities occurring to the older population in farming occupations took place among establishments producing mixed goods, primarily crops. More than 200 farming workers were repairing and maintaining machinery when they were fatally injured. In addition, animals fatally assaulted 113 workers in farming occupations. While Midwestern States had a large number of fatal injuries to farming workers aged 55 years and older, Great Plains states had significantly disproportionate numbers of fatal injuries to older farming workers. Accounting for employment, farming workers in Pennsylvania, Illinois, Ohio, and New York were at great risk.

Like data from other studies, the national data confirm sig-

nificant numbers of tractor overturns among farming workers aged 55 years and older. Even though retrofitting tractors with rollover protective structures (ROPS) may reduce fatalities up to 99 percent of the time, significant numbers of tractors still overturn. While some older models may not yet have such a structure engineered to fit, other barriers inhibit the effective use of ROPS. Meaningful future research would likely include looking at ways to overcome the “hassle factor”—farmers’ perceived annoyance at the money and time required to be spent purchasing and using ROPS mechanisms. Useful research in this area would likely further encourage the declining trend in overturns.<sup>13</sup> □

## Notes

ACKNOWLEDGMENTS: The author thanks Jessica Sincavage, Mark Zak, Janice Windau, Scott Richardson, Katharine Newman, William Wiatrowski, and Jordan Pfuntner for their input, and Stephen Pegula for his input and data review in the preparation of this article.

<sup>1</sup> John Myers, David Hard, Karl Snyder, Virgil Casini, Rosemary Cianfrocco, Judy Fields, and Linda Morton, “Risks of Fatal Injuries to Farm Workers 55 Years of Age and Older,” *American Journal of Industrial Medicine Supplement*, October 1999, pp. 29–30; Stephen A. McCurdy and Daniel J. Carroll, “Agricultural Injury,” *American Journal of Industrial Medicine*, October 2000, pp. 463–80.

<sup>2</sup> Kelly J. Donham, Burton C. Kross, James A. Merchant, and David S. Pratt, *Agriculture at Risk: A Report to the Nation*, summary report of the Agricultural, Occupational and Environmental Health: Policy Strategies for the Future conference, Des Moines, IA, September 1988, and Iowa City, IA, September 1998; on the Internet at <http://www.public-health.uiowa.edu/agatrisk/>.

<sup>3</sup> McCurdy and Carroll, “Agricultural Injury”; see also Suzanne M. Kisner and Stephanie G. Pratt, “Occupational Fatalities among Older Workers in the United States: 1980–1991,” *Journal of Occupational and Environmental Medicine*, August 1997, pp. 715–21.

<sup>4</sup> Scott Richardson and Andrew Schulman, “Texas Study Finds Older Workers at Relatively High Risk of Fatal Occupational Injury,” *Compensation and Working Conditions*, April 1994, pp. 1–8.

<sup>5</sup> *Worker Health Chartbook, 2004* (National Institute for Occu-

pational Safety and Health, September 2004).

<sup>6</sup> McCurdy and Carroll, “Agricultural Injury.”

<sup>7</sup> Myers and Hard, “Risks of Fatal Injuries.”

<sup>8</sup> Great Plains Center for Agricultural Health, *TRAC-SAFE: A Community-based Program for Reducing Injuries and Deaths Due to Tractor Overturns*; on the Internet at <http://www.public-health.uiowa.edu/gpcah/tracsaf.htm>.

<sup>9</sup> Ricky Lee Langley and James Lee Hunter, “Occupational fatalities due to animal-related events,” *Wilderness and Environmental Medicine*, vol. 12, no. 3, 2001, pp. 168–74.

<sup>10</sup> Occupational Safety and Health Administration, *OSHA Fact Sheet: Farm Safety*; on the Internet at [http://www.osha.gov/OshDoc/data\\_General\\_Facts/FarmFactS2.pdf](http://www.osha.gov/OshDoc/data_General_Facts/FarmFactS2.pdf).

<sup>11</sup> Fred Gale, “The Graying Farm Sector: Legacy of Off-Farm Migration,” *Rural America*, fall 2002, pp. 28–31.

<sup>12</sup> Every year, CROI publishes fatality rates based on preliminary fatality counts. The 4.5 fatal injuries per 100,000 employed is taken as an average of published rates for the years 1995–2002.

<sup>13</sup> E. M. Hallman recently published results of a study looking into just this issue. (See his article “ROPS Retrofitting: Measuring Effectiveness of Incentives and Uncovering Inherent Barriers to Success,” *Journal of Agricultural Safety and Health*, February 2005, pp. 75–84.)

## APPENDIX: Census of Fatal Occupational Injuries

Since its inception in 1992, the BLS Census of Fatal Occupational Injuries (CFOI) has cross-referenced numerous source documents each year, including death certificates and media accounts, to ascertain demographic and other characteristics of workplace fatalities. Data are classified by more than 30 elements, including status of employment, sex, age, and race or ethnic origin. Furthermore, CFOI classifies cases according to the Occupational Injury and Illness Classification System by nature of injury, part of body injured, source of injury, and event or exposure. Other data elements include the location and the activity the worker was engaged in at the time of the injury. Between 1995 and 2002, CFOI classified data according to the 1990 Bureau of Census (BOC) occupations and the 1987 Standard Industrial Classification (SIC) manual.

Beginning with 2003 data, CFOI has adopted the North American Industry Classification System (NAICS) of 2002 and the Standard Occupational Classification (SOC) system of 2000. The result of these changes is a break in series for both industry and occupation. When classified by industry or occupation, data previous to 2003 are not comparable to 2003 data. Therefore, data for 2003–04, the most recently available data, have been excluded from this study.

There are 19 specific occupations, as defined by the BOC, within the broad category of farming, forestry, and fishing occupations.<sup>1</sup> Twelve of these refer to agriculture-related occupations. However, several of the 12 designate work unrelated to agriculture production on farms. Only 4 are consistent with this type of farming: farmers, except horticulture; managers, farms, except horticulture; supervisors, farmworkers; and farmworkers. CFOI identified 4,374 fatal injuries under these occupation categories, of which 2,228 were incurred by those 55 years or older at the time of the injury.

A number of terms are used in this appendix to refer to the special population consisting of workers in the four agricultural farm-related occupations under the category of farming, forestry, and fishing. The four selected occupations in combination will be referred to as farming occupations and, occasionally, as farming or farming workers. Unless otherwise specified, *farmers* will refer to the category of farmers, except horticulture, which is BOC code 473. *Managers* will refer to BOC code 475: managers, farms, except horticulture. *Supervisors* will refer to BOC code 477, supervisors, farmworkers. *Farmworkers* will refer to the farmworkers category (BOC code 479). *Agriculture* will refer to the agriculture industry, which includes, but is not limited to, the farming occupations listed. The term *older* will refer to any population consisting of workers aged 55 or more years.

Five statistics were calculated that require some explanation. Fatality rates, as calculated here, describe the number of fatal injuries in a particular group per 100,000 employed in that group. The fatality rate is calculated as

$$\left(\frac{FI}{E}\right) \times 100,000,$$

where FI is the number of fatal injuries and E is (full- and part-time) employment. For example, over the 1995–2002 period, 2,228 fatal injuries were identified among workers in farming occupations, and an estimated 4,651,000 were (cumulatively) employed in those same occupations. These numbers yield a fatality rate of 47.9 fatal

injuries per 100,000 employed. The number of employed workers used to calculate the rates, except for the military, are annual averages of employed civilians 16 years and older. A resident military figure, obtained from the Department of Defense, was added to the cps employment total. Because the Bureau of Labor Statistics publishes employment estimates from the cps that are limited to workers at least 16 years old, all rates exclude fatalities to workers under that age.<sup>2</sup>

Relative risks provide a look at the relationship between a selected group in comparison to other groups. The rate for the total population serves as the base. Thus, relative risks are denoted by  $Rate_N/Rate_T$ , where  $Rate_N$  is the fatal work injury rate for a selected worker group and  $Rate_T$  is the fatal work injury rate for the total population. For example, suppose the selected worker group is workers aged 55 years or older in farming occupations, whose fatal work injury rate was  $Rate_N = 47.9$ . Then the relative risk for this population, based on the total working population's fatality rate ( $Rate_T = 4.5$ ), was 10.6, meaning that the selected worker group had a risk of fatal injury 10.6 times that of the total working population.

Mortality ratios represent the ratio of the number of fatalities in one category, as a percentage of that category's aggregate, to the total fatalities in all categories, as a percentage of the total aggregate. The number 1.00 indicates a proportional distribution of fatalities. The mortality ratio can thus be represented mathematically as  $P_{GROUP}/P_{ALL}$ , where  $P_{GROUP}$  is the number of fatal work injuries to the worker group in the State in question, divided by the number of fatalities to that group in the Nation. For example, Ohio reported 125 fatal injuries to workers aged 55 years and older in farming occupations, representing 5.61 percent of the 2,228 fatal injuries to workers nationwide. Ohio also reported 1,614 fatalities to workers of all ages in all occupations, representing 3.35 percent of the 48,193 U.S. total. The percentage of fatalities to older workers in farming occupations, divided by the proportion of fatalities to all worker groups, yields a ratio of 1.68, indicating that fatalities for older Ohio workers in farming occupations were disproportionately higher than were fatalities among all Ohio workers.

Employment ratios were calculated to determine the significance of farm employment in each State's economy. Employment ratios are interpreted as the ratio of a State's proportion of U.S. farm employment to that State's proportion of total employment. This relationship can be expressed as  $(F_{STATE}/F_{US})/(T_{STATE}/T_{US})$ , where  $F_{STATE}$  is the employment estimate of farm operators and laborers in the State in question,  $F_{US}$  is the employment estimate of farm operators and laborers in the United States,  $T_{STATE}$  is the estimate of the total employed in the State in question, and  $T_{US}$  is the estimate of the total employed in the United States. For example, in its 2002 Census of Agriculture, the National Agricultural Statistics Service estimated that 6,151,642 farm operators and laborers worked in the United States in 2002, of which 3.1 percent was estimated for Ohio (188,624/6,151,642). The cps estimated total nonfarm employment to be 130,341,000 in the Nation in 2002, and the BLS Local Area Unemployment Statistics (LAUS) program estimated 5,445,000 employed in Ohio (4.2 percent). The final calculation yields a farm-to-nonfarm employment ratio of 0.73 (3.1/4.2).

Finally, an attempt to standardize mortality ratios was made by using the preceding employment ratios. The standardized mortality ratio is simply the mortality ratio  $M_{STATE}$  for a State, divided by that State's employment ratio  $E_{STATE}$  or  $M_{STATE}/E_{STATE}$ . Thus, a mortality

ratio of 1.68 and an employment ratio of 0.76 yield a mortality-to-employment ratio of 2.2 (1.68/0.76). Due to data limitations, this standardization could not be performed for the group aged 55 years

and older. Therefore, employment ratios for each group include individuals of any age, restricting the significance of the calculation of the mortality-to-employment ratio.<sup>3</sup>

## Notes to the appendix

<sup>1</sup> The following BOC occupation categories were defined for the 1990 census:

Code	Title
473-499	Farming, forestry, and fishing occupations
473-476	Farm operators and managers
473	Farmers, except horticultural
474	Horticultural specialty farmers
475	Managers, farms, except horticultural
476	Managers, horticultural specialty farms
477-489	Other agricultural and related occupations
477-484	Farm occupations, except managerial
477	Supervisors, farmworkers
479	Farmworkers
483	Marine life cultivation workers
484	Nursery workers
485-489	Related agricultural occupations
485	Supervisors, related agricultural occupations
486	Groundskeepers and gardeners, except farm
487	Animal caretakers, except farm
488	Graders and sorters, agricultural products
489	Inspectors, agricultural products
494-496	Forestry and logging occupations

494	Supervisors, forestry and logging workers
495	Forestry workers, except logging
496	Timber cutting and logging occupations
497-499	Fishers, hunters, and trappers
497	Captains and other officers, fishing vessels
498	Fishers, including vessel captains and officers
499	Hunters and trappers

<sup>2</sup> For more information on the calculation of fatality rates and the choice of denominator, see John W. Ruser, "Denominator Choice in the Calculation of Workplace Fatality Rates," *American Journal of Industrial Medicine*, February 1998, pp. 151-56.

<sup>3</sup> Ideally, data on work hours for individuals 55 years and older would be obtained for each State in order to determine the risk of fatal injury to farming workers. Then employment data for individuals 55 years and older would be obtained for each State's totals and farming figures. Unfortunately, these data were not available at the time this article was written. However, the mortality-to-employment ratio is still valuable in standardizing each State's fatal workplace injuries to older farming workers by each State's farming employment. While standardization does not produce an exact match, mortality ratios for all ages of farming workers yielded approximately the same results.

### Occupational safety and health

# Fatal occupational injuries among Asian workers

*During the 5-year period between 1999 and 2003, 775 people of Asian descent suffered a fatal work injury; this is equal to 3 percent of all fatal work injuries during this period; more than half of the fatalities resulted from an assault or violent act*

Jessica R.  
Sincavage

According to Census 2000, Asian-Americans accounted for 3.6 percent of the U.S. population; this percentage is likely to rise as more Asians continue to immigrate. In 2000, 76 percent of the foreign-born Asian population had immigrated to the United States in the past two decades.<sup>1</sup> Part of this increase was because of the growth of the foreign-born Asian population from 1990 to 2000. In 2000, 43 percent of the foreign-born Asian population had just immigrated into the United States within the past 10 years.

As the Asian-American population continues to grow, so does the need to understand the distinct societal and economic issues this group faces, especially in the workplace. Worker safety is one area that can be studied. Understanding the dangers that threaten their safety in the workplace and how the Asian labor force experience differs from other workers is an important beginning.

This article examines trends in fatal work injuries to Asian workers. Data are from the Bureau of Labor Statistics Census of Fatal Occupational Injuries (CFOI) and the Current Population Survey (CPS). CPS employment data for Asians as a distinct group is only available since 2000; data for prior years reflect Asians and Pacific Islanders together. The President's Office of Management and Budget defines "Asian" as "A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine

Islands, Thailand, and Vietnam."<sup>2</sup>

The Census of Fatal Occupational Injuries recorded 775 fatal work injuries to Asian workers over the 1999–2003 period.<sup>3</sup> These fatal work injuries represent 3 percent of the total fatal workplace injuries occurring over those 5 years. (See table 1.)

### How data were collected

*Census of Fatal Occupational Injuries.* The Bureau of Labor Statistics conducts the CFOI program, which collects detailed information on all work-related fatal injuries in the United States. It includes private wage and salary workers, public sector employees—civilian and resident military—and self-employed workers. To ensure a complete count and to collect the required data for each case, the CFOI uses a multiple source document collection system. To document work-relatedness, each fatality is normally verified using at least two source documents, such as death certificates, medical examiner or coroner reports, news media accounts, Occupational Safety and Health Administration (OSHA) reports, or other sources. Historically, each fatality has averaged nearly four source documents. CFOI collects more than 30 data elements on each case, including the work status of the decedent (wage or salary worker or self-employed), gender, age, race or ethnic origin, occupation, and industry. Other data elements include the event or exposure that led to the injury, the

Jessica R.  
Sincavage is an economist in the Division of Foreign Labor Statistics, Office of Productivity and Technology, Bureau of Labor Statistics.  
E-mail: sincavage.jessica@bls.gov

**Table 1. Fatal occupational injuries to civilian workers by race and ethnic origin, 1999–2003**

Origin	Total
Fatalities (number) .....	28,571
Race or ethnic origin (percent): <sup>1</sup>	
White .....	71.5
Hispanic or Latino .....	14.1
Black or African American .....	9.6
Asian .....	2.7
American Indian or Alaskan Native .....	.7
Native Hawaiian or Pacific Islander .....	.2
Other races or not reported .....	1.1

<sup>1</sup> Persons identified as Hispanic may be of any race. The individual race categories shown exclude data for Hispanics.

NOTE: Totals exclude fatalities resulting from the September 11, 2001 terrorist attacks. Percentages may not add to totals because of rounding.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

source of the injury, and the activity and location of the worker at the time of the incident.

For this article, Asian workers do not include Asian workers of Hispanic origin.<sup>4</sup> Data from Census 2000 show that approximately 1.0 percent of the Asian population in the United States is of Hispanic origin.<sup>5</sup> Fatalities to foreign-born workers include all fatal occupational injuries recorded by CFOI for which the element “foreign birth place” was positively coded by the entry of the name of the country of birth into the field. In order to make it possible to compare CFOI data with employment data, fatal work injuries to the resident military have been excluded from this article.

*Current Population Survey.* All fatality rates are expressed as the number of fatalities per 100,000 employed persons.<sup>6</sup> Because the fatality census does not collect employment data, fatality rates were calculated using estimates of employed civilian workers (aged 16 and older) from the Current Population Survey annual foreign-born supplement.<sup>7</sup> There are some limitations to the calculated fatality rates: 1) the rates are based on employment regardless of hours worked; 2) the CPS classifies occupation based on the primary job worked, which may not be the job the decedent was performing when fatally injured; and 3) because the CPS is a survey rather than a census, data from the CPS are subject to sampling error.

The CPS is a monthly random sample of 60,000 households that represents the entire noninstitutionalized civilian population of the United States. In response to the increased demand for statistical information about the foreign born, questions on nativity, citizenship, year of entry into the United States, and the parental nativity of respondents were added

to the CPS beginning in January 1994.<sup>8</sup>

However, not until January 2003 did the CPS begin identifying Asians as a separate race category. The response category of Asian and Pacific Islanders was split into two categories: a) Asian and b) Native Hawaiian or Other Pacific Islanders. CPS data for the years 2000–02 have been revised to reflect this change and are directly comparable with data from 2003 and forward.

In addition, the CPS uses the Census Bureau definition of “foreign-born” and “native-born,” which has a slightly different meaning than the definition employed by the CFOI. The Census Bureau defines foreign-born persons as those who were not U.S. citizens at birth, and native-born persons as those who were U.S. citizens at time of birth. The Census-defined native-born population includes persons who were born in 1 of the 50 States or in the District of Columbia, persons born in 1 of the U.S. island territories, and persons born abroad to a U.S. citizen. According to the Census in 2000, 0.7 percent of the U.S. population can be classified in the latter category of the native-born population, and as such, there might be slight inconsistencies in the nativity classification assigned to a fatally-injured worker by the CFOI and by the CPS.<sup>9</sup> Some error may be introduced in the calculation of fatality rates because of this difference.

*Standard Industrial Classification system.* The 1987 Standard Industrial Classification (SIC) system was the basis for industry classification for the CPS and the CFOI during the 1999–2002 period. Occupations were classified according to the Bureau of the Census’ 1990 Occupational Classifica-

**Table 2. Fatal occupational injuries of foreign-born civilian workers, 1997–2003**

Origin	Fatalities
All workers (number) .....	4,426
Asian workers <sup>1</sup>	
Number .....	640
Percent .....	100.0
Country of origin (percent): .....	
India .....	21.6
Korea .....	18.1
Vietnam .....	13.6
China .....	10.3
Philippines .....	10.3
Pakistan .....	6.6
Japan .....	4.1
All others .....	15.4

<sup>1</sup> Individual race category shown excludes data for Hispanics.

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks. Percentages may not add to totals due to rounding.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

tion system. Beginning with the 2003 reference year, the CPS and the CFOI began using the 2002 North American Industry Classification System (NAICS) to define industry and the Standard Occupational Classification (SOC) system to define occupation. Because of the substantial differences between the current and previous systems, the industry and occupation data in 2003 constitute a break in series, and users are advised against making comparisons between the 2003 industry and occupation categories and the results for previous years. As a result, the industry and occupation analysis in this article focuses primarily on the years 1999–2002.

All injury characteristics (type of event, source of injury, and worker activity and location) were classified using the 1992 Occupational Injury and Illness Classification structure developed by BLS.<sup>10</sup>

### Nativity and demographics

The CFOI can identify fatal work injuries suffered by foreign-born Asian workers and fatal work injuries suffered by native-born Asian workers. In 2000, foreign-born Asian workers accounted for 86 percent of all workplace fatalities incurred by Asians. From 2001 to 2003, this percentage remained close to that number, fluctuating between 83 percent and 87 percent. Over the 2000–03 period, foreign-born Asians accounted for 77 percent of Asian employment while

accounting for 85 percent of the fatal work injuries.

Over the entire 5-year study period, 22 percent of all foreign-born Asians fatally injured in the workplace were born in India. (See table 2, page 50.) Another 18 percent were born in Korea. Asian workers born in Vietnam, China, and the Philippines accounted for more than a third of the fatalities to foreign-born Asians during this period. Of all the foreign-born workers fatally injured from 1999 to 2003, Asian workers accounted for 14 percent.

During the study period, the highest number of fatal injuries to Asian workers (172) was recorded in 2001. (See table 3.) The number had risen slightly each year since 1999 when Asians were first identified as a separate race category in CFOI.<sup>11</sup>

Of the 775 Asian workers who were fatally injured on the job from 1999 to 2003, 12 percent were women. This percentage is significantly greater than the 8 percent of worker fatalities occurring to non-Asian women during these years.

In terms of age, almost three-fourths of the fatal injuries from 1999 to 2003 involved workers between the ages of 25 and 54. Another 18 percent were incurred by older Asian workers, aged 55 and older. Employment data from 2000 to 2003 show that older Asian workers accounted for only 11 percent of employment during this period, suggesting that they are more likely to be fatally injured on the job than Asian workers aged 54 years and younger. This is similar to the experience of non-Asian older workers.

**Table 3. Fatal occupational injuries to civilian workers by selected characteristics, 1999–2003**

Characteristic	Total	1999	2000	2001	2002	2003
Total, all workers .....	28,571	5,973	5,833	5,804	5,448	5,513
Asian <sup>1</sup> .....	775	164	169	172	126	144
Nativity:						
Native born .....	135	44	24	28	16	23
Foreign born .....	640	120	145	144	110	121
Gender:						
Men .....	685	147	153	151	113	121
Women .....	90	17	16	21	13	23
Age:						
Under 16 years .....	—	—	—	—	—	—
16 to 24 years .....	66	15	15	15	5	16
25 to 34 years .....	158	30	33	33	30	32
35 to 44 years .....	197	43	48	41	31	34
45 to 54 years .....	215	49	41	50	31	44
55 to 64 years .....	109	24	26	26	22	11
65 years and older .....	28	3	6	6	7	6
Employee status:						
Wage and salary workers <sup>2</sup> .....	534	126	108	113	91	96
Self-employed <sup>3</sup> .....	241	38	61	59	35	48

<sup>1</sup> Individual race category shown excludes data for Hispanics.

<sup>2</sup> May include volunteers.

<sup>3</sup> Includes paid and unpaid family workers, and may include owners of incorporated businesses, or members of partnerships.

NOTE: Totals for 2001 exclude fatalities resulting from the September 11

terrorist attacks. Dashes indicate no data reported or data that do not meet publication criteria.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

Younger workers, younger than 24 years, accounted for the remaining 9 percent of Asian fatal injuries from 1999 to 2003. Younger non-Asian workers accounted for 10 percent of the fatal injuries to non-Asian workers over this same period.

Fatalities to the self employed accounted for almost one-third of all Asian worker fatalities. This is notably different than the proportions for non-Asian workers, where one in five fatal injuries was incurred by the self employed. This difference is not explained by employment. In 2003, 7.1 percent of Asian workers and 7.6 percent of non-Asian workers were self employed. This article does not examine differences in the occupations of the self employed that may, at least in part, explain this difference.

### Event or exposure causing fatalities

For Asian workers, the leading type of fatal event in the workplace, accounting for more than half of all fatal work injuries from 1999 to 2003, was an assault or violent act.<sup>12</sup> (See table 4.)

The fatal work injuries suffered by Asians were atypical when compared with the rest of the population. Only 15 percent of the fatal work injuries to non-Asian workers were the result of an assault or violent act. The most common event causing a fatal workplace injury among non-Asian workers was a transportation event. Transportation incidents accounted for only 24 percent of Asian workplace fatal injuries during the 1999–2003 period, compared with 43 percent of all fatal workplace injuries to non-Asian workers.

**Table 4. Fatal occupational injuries to civilian workers by event or exposure, 1999–2003**

Event or exposure	Asian	Non-Asian
Total fatalities (number) .....	775	27,796
All events and exposures (percent) <sup>1</sup> .....	100.0	100.0
Transportation incidents .....	23.9	43.1
Assaults and violent acts .....	52.1	14.5
Homicides .....	46.1	10.2
Contact with objects and equipment .....	7.2	16.9
Falls .....	9.4	12.9
Exposure to harmful substances or environments .....	5.3	8.9
Fires and explosions .....	1.8	3.3
Other events or exposures <sup>2</sup> .....	.3	.3

<sup>1</sup> Based on the 1992 BLS Occupational Injury and Illness Classification Manual.  
<sup>2</sup> Includes the category "Bodily reaction and exertion."  
 NOTE: Totals exclude fatalities resulting from the September 11, 2001 terrorist attacks. Percentages may not add to totals because of rounding.  
 SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

**Table 5. Workplace homicide rate, 2000–03**  
 [Rate per 100,000 civilian workers]

Origin	All workers	Wage and salary <sup>1</sup>	Self employed <sup>2</sup>
Total .....	0.47	0.36	1.75
Asian <sup>3</sup> .....	1.18	.62	8.83
Native born .....	.49	.25	5.07
Foreign born .....	1.38	.73	9.61
Non-Asian .....	.43	.37	1.45
Native born .....	.37	.32	.99
Foreign born .....	.94	.63	5.37

<sup>1</sup> Data may include volunteers.  
<sup>2</sup> Includes paid and unpaid family workers, and may include owners of incorporated businesses, or members of partnerships.  
<sup>3</sup> Individual race category shown excludes data for Hispanics.  
 NOTE: The rate represents the number of homicides per 100,000 employed civilian workers and was calculated as follows: (N/W) x 100,000, where N = the number of homicides, and W = the number of employed workers based on the foreign-born supplement to the Current Population Survey (CPS). Homicides to workers under the age of 16 years were not included in the rate calculations to maintain consistency with CPS employment figures. Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks.  
 SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

*Homicides.* Even though Asian workers were the victims in only 3 percent of the total workplace fatalities from 1999 to 2003, they incurred 11 percent of the workplace homicides during this period. Of all the Asian worker fatalities during this period, 46 percent were homicides. Shootings accounted for 80 percent of workplace homicides involving Asians, stabbings accounted for 10 percent, and hittings, kickings, or beatings accounted for 7 percent.

The victims in these cases, generally, were not known to be acquainted with their assailant. In 61 percent of the homicides to Asian workers, a robber was the assailant. The corresponding figure for non-Asian workers was 37 percent.<sup>13</sup> Asian workers were much less likely than non-Asian workers to be killed in the workplace by a work associate or relative. These cases accounted for approximately 12 percent of Asian workplace homicide cases from 1999 to 2003, while accounting for 21 percent of non-Asian homicide cases during the same period.<sup>14</sup>

Homicide rates can be used to compare the risk of homicide faced by different worker groups. The homicide rate for a worker group is equal to the number of homicides recorded for a worker group divided by the employment level for that group. If all workers are disaggregated into Asians and non-Asians, self-employed and wage and salary workers, and native-born and foreign-born workers, homicide rates can be calculated to show that certain worker groups were much more likely to be the victim of a homicide in the workplace.

From 2000 to 2003, the homicide rate for all worker groups was 0.47 homicides per 100,000 workers. (See table 5.) Self-

employed Asian workers experienced a homicide rate more than 18 times that rate, 8.83 homicides per 100,000 workers. When this group is disaggregated into native-born and foreign-born self-employed Asian workers, it is evident that although both worker groups experienced high homicide rates over this period, foreign-born self-employed Asian workers were at a greater risk of being the victim in a workplace homicide. Foreign-born self-employed Asian workers experienced a homicide rate of 9.61 homicides per 100,000 workers, while their native-born counterparts had a homicide rate of 5.07 homicides per 100,000 workers.

A similar disparity in risk of workplace homicide is seen when looking at the homicide rates for native-born and foreign-born self-employed non-Asian workers, who experienced homicide rates of 0.99 homicides per 100,000 workers and 5.37 homicides per 100,000 workers, respectively. Less variation is seen among all worker groups when homicide rates are compared for wage and salary workers.

*Other risks.* Although homicide rates can be helpful in illustrating the potential dangers a worker faces while on the job, not all workplace fatalities are the result of a homicide. Workplace fatality rates are one way to quantify the overall risk of a worker group of incurring a fatal injury in the workplace. A related statistic, relative risk, is also useful for gauging the risk of fatal work injury a particular group faces.

The relative risk for a group of workers is calculated as the fatality rate for that group divided by the fatality rate for all workers.<sup>15</sup> Relative risk measures how much the work-

place fatality rate of a specific worker group differs from the workplace fatality rate of all workers.

While Asian workers experienced a homicide rate that was much higher than non-Asian workers from 2000 to 2003, Asian workers overall had less risk of incurring a fatal injury than non-Asian workers during that same period. (See table 6.) Asian workers experienced a relative risk of 0.63 while non-Asian workers' relative risk was 1.02. In terms of employee status, self-employed Asians had a slightly higher fatality rate than self-employed non-Asians. For wage and salary workers, however, it is reversed; non-Asians working for a wage or salary were more than twice as likely to be fatally injured than Asians working for a wage or salary.

Disaggregating the self employed by separating foreign-born workers from native-born workers provides more insight into the relative risk faced by these workers and shows that whether Asian workers were foreign born or native born influenced their risk of fatal injury. The worker group that recorded the highest fatality rate from 2000 to 2003 was the group comprised of foreign-born self-employed Asians; they experienced a relative risk of 3.31. From 2000 to 2003, native-born self-employed Asian workers experienced the lowest fatality rate of the self-employed worker groups examined here, but still experienced a relatively high risk of a fatal work injury, 1.94.

## Geography and industry

During the study period, 55 percent of the fatal injuries to

**Table 6. Rate of fatal occupational injuries and relative risk, by selected characteristics, 2000–03**

Origin	All workers		Wage and salary workers <sup>1</sup>		Self-employed workers <sup>2</sup>	
	Fatality rate (per 100,000 workers) <sup>3</sup>	Relative risk <sup>4</sup>	Fatality rate (per 100,000 workers) <sup>3</sup>	Relative risk <sup>4</sup>	Fatality rate (per 100,000 workers) <sup>3</sup>	Relative risk <sup>4</sup>
Total .....	4.11	1.00	3.68	0.89	11.24	2.74
Asian <sup>5</sup> .....	2.57	.63	1.85	.45	12.66	3.08
Native born .....	1.65	.40	1.31	.32	7.97	1.94
Foreign born .....	2.85	.69	2.01	.49	13.62	3.31
Non-Asian .....	4.18	1.02	3.76	.92	11.19	2.72
Native born .....	4.03	.98	3.48	.85	10.71	2.61
Foreign born .....	5.38	1.31	4.86	1.18	12.75	3.10

<sup>1</sup> May include volunteers.

<sup>2</sup> Includes paid and unpaid family workers, and may include owners of incorporated businesses, or members of partnerships.

<sup>3</sup> The rate represents the number of fatal occupational injuries per 100,000 employed civilian workers and was calculated as follows:  $(N/W) \times 100,000$ , where  $N$  = number of fatal work injuries, and  $W$  = the number of employed workers based on the foreign-born supplement to the Current Population Survey (CPS). Fatalities to workers under the age of 16 years were not included in the rate calculations to maintain consistency with CPS employment figures.

<sup>4</sup> The relative risk is calculated by dividing the fatality rate for a particular

group by the fatality rate for all workers. Workers with a relative risk more than one are at a greater risk of suffering a fatal work injury than the average civilian worker, and workers with a relative risk below one are at a lesser risk of suffering a fatal work injury than the average civilian worker.

<sup>5</sup> The individual race category shown here excludes data for Hispanics.

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

Asian workers occurred in just four States: California (194 fatalities), Texas (102 fatalities), New York (71 fatalities, with 62 occurring in New York City), and Hawaii (56 fatalities). These States accounted for just 21 percent of workplace fatalities incurred by non-Asian workers. In 1997, the Census Bureau issued a special report entitled *Asian- and Pacific Islander-Owned Businesses: 1997*.<sup>16</sup> The report states that in 1997, there were approximately 913,000 Asian- and Pacific Islander-owned small businesses in the United States employing more than 2.2 million people. Sixty percent of these small businesses were located in the four States mentioned above.

Workers in certain industries may be exposed to more dangerous working conditions or may be less protected from violent crime. Looking at the industries that contribute to the fatal work injuries of Asian workers and non-Asian workers, it is obvious that not all industries contribute equally to the overall number of fatal work injuries to these populations of workers. (See table 7.)

Asians were much less likely than non-Asians to be injured while working in agriculture, forestry, and fishing; construction; manufacturing; mining; and government. Asian workers were more than four times more likely to be fatally injured in retail trade and slightly more likely to be injured in services. In fact, Asian decedents in these two industries ac-

count for 52 percent of all Asians who died at work. The comparable figure for non-Asians is 21 percent.

The grocery store industry, a subindustry of retail trade, accounted for 16 percent of the fatal workplace injuries to Asians from 1999 to 2002.<sup>17</sup> Although Asian workers incurred only 3 percent of the total fatal injuries during this 4-year period, 23 percent of the fatal workplace injuries in this industry were incurred by Asian workers.

While the large proportion of Asian worker fatalities in retail trade and services may be because of their employment patterns, it is impossible to calculate rates for Asian workers at this time because of the lack of employment data and changes to the industry and occupational classification systems. However, in 2003, the Asian fatality rate under the new industry classification system, NAICS, was 7.6 fatalities per 100,000 workers in retail trade, while the fatality rate of non-Asian workers in this industry was 1.8 fatalities per 100,000 workers. In terms of the overall fatality rate for Asians, the increased risk in retail trade is likely offset by their disproportionately low employment in the relatively high-risk construction industry. In 2003, 1.6 percent of Asian workers were employed in construction, compared with 6.2 percent of non-Asian workers.

Nativity also affects the fatalities to Asian workers by industry. From 1999 to 2002 more than four out five fatal injuries among Asian workers were to foreign-born Asian workers. (See table 8.) When compared with all industries, a greater proportion of workers fatally injured in retail trade; finance, insurance, and real estate; construction; and services were foreign born.

In the retail trade industry from 1999 to 2002, a disproportionately high percentage of the fatalities were to foreign-born workers. An almost equal percentage of these fatalities were to self-employed workers and wage and salary earners. Of the fatalities to foreign-born workers in this industry from 1999 to 2002, regardless of employee status, 85 percent were homicides. More victimization of foreign-born Asian workers occurred in the retail trade than in any other industry over this 4-year period: 68 percent of all homicides to foreign-born Asian workers were in retail trade.<sup>18</sup>

## Areas for further research

From 1999 to 2003, almost half of all Asian workers fatally injured in the workplace were the victim of a homicide, and Asian workers were more likely than non-Asian workers to be the victim of a workplace homicide. Asian workers who were foreign born or self employed were at a greater risk of suffering a fatal injury, especially a homicide, than Asian workers who were native born or working for a wage or salary. Asian workers who worked in the retail trade were also at a greater risk than non-Asian workers of suffering a fatal

**Table 7. Percent distribution of fatal occupational injuries to civilian workers, by industry, 1999–2002**

Industry	Asians <sup>1</sup>	Non-Asians
All industries <sup>2</sup> .....	100.0	100.0
Private industry .....	95.7	91.4
Agriculture, forestry, and fishing .....	5.9	13.5
Mining .....	.5	2.5
Construction .....	7.6	20.7
Manufacturing .....	7.0	11.2
Transportation and public utilities .....	15.4	16.5
Wholesale trade .....	4.8	3.8
Retail trade .....	35.7	8.5
Finance, insurance, and real estate .....	2.2	1.5
Services .....	16.5	12.7
Government <sup>3</sup> .....	4.3	8.6
Federal .....	.8	1.1
State .....	1.0	1.9
Local .....	1.9	5.6

<sup>1</sup> Individual race category shown excludes data for Hispanics.

<sup>2</sup> Classified according to the *Standard Industrial Classification Manual, 1987*.

<sup>3</sup> Includes fatalities to workers employed by governmental organizations regardless of industry.

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks. Percentages may not add to totals because of rounding.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

**Table 8. Fatal occupational injuries to civilian Asian workers by industry, 1999–2002**

Industry	Number of fatalities	Percent distribution	
		Native born	Foreign born
All industries <sup>1</sup> .....	631	17.7	82.3
Private industry .....	604	17.2	82.8
Agriculture, forestry, and fishing .....	37	29.7	70.3
Mining .....	—	—	—
Construction .....	48	14.6	85.4
Manufacturing .....	44	25.0	75.0
Transportation and public utilities .....	97	17.5	82.5
Wholesale trade .....	30	43.3	56.7
Retail trade .....	225	11.1	88.9
Finance, insurance, and real estate .....	14	—	100.0
Services .....	104	16.3	83.7
Government <sup>2</sup> .....	27	29.6	70.4
Federal .....	5	—	—
State .....	6	—	—
Local .....	12	41.7	58.3

<sup>1</sup> Classified according to the *Standard Industrial Classification Manual, 1987*. Not all cases could be classified by industry sector but were identified as government or private industry.

<sup>2</sup> Includes fatalities to workers employed by governmental organizations regardless of industry.

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks. Percentages may not add to totals because of rounding. Individual race category shown excludes data for Hispanics.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State, New York City, District of Columbia, and Federal agencies, Census of Fatal Occupational Injuries.

workplace injury, and this industry recorded the highest number of fatal injuries to Asian workers from 1999 to 2002. Foreign-born workers in this industry were most frequently killed as the result of a homicide. Preliminary data for 2004 show an increase in the number of fatalities to Asian workers for the second year in a row.

Areas for further research on this topic include a more indepth analysis of the fatal workplace injuries to self-employed Asian workers and of fatalities by occupation and detailed industry. As more data become available in the coming years, analysis incorporating NAICS- and SOC-based employment data will provide more insight into the industries and occupations where Asian workers are at the greatest risk of a workplace fatal injury. Analysis can also be focused on the foreign-born Asian workers in particular, as this group continues to grow in size. Additionally, disaggregating the non-Asian workforce further would provide a more comprehensive comparison of Asian workers to different racial and ethnic worker groups. Another area for research would be an analysis of the fatal injuries occurring to female Asian workers. □

## Notes

ACKNOWLEDGMENTS: The author thanks Peggy Suarez, Stephen Pegula, Terence McMenamin, Katharine Newman, Samuel Meyer, and Scott Richardson, all BLS employees, for their assistance in the preparation of this article.

<sup>1</sup> See *We the People: Asians in the United States, Census 2000 Special Reports* (U.S. Census Bureau, 2000) on the Internet at <http://www.census.gov/prod/2004pubs/censr-17.pdf>.

<sup>2</sup> See [www.whitehouse.gov/omb/fedreg/1997standards.html](http://www.whitehouse.gov/omb/fedreg/1997standards.html) for more information.

<sup>3</sup> See <http://www.bls.gov/iif/oshcfoi1.htm> for more information.

<sup>4</sup> Hispanic Asian workers are those workers whose foreign birthplace is an Asian country, but whose ethnic origin is Hispanic.

<sup>5</sup> *We the People: Asians in the United States*, U.S. Census Bureau.

<sup>6</sup> The equation for calculating the fatality rate for a group is  $(n/w) \times 100,000$  where  $n$  is the number of fatal work injuries in that group and  $w$  is the number of workers employed in that group.

<sup>7</sup> See <http://www.bls.gov/cps> for more information.

<sup>8</sup> For the latest cps release on the employment of foreign-born workers, see <http://www.bls.gov/news.release/pdf/forbrn.pdf>.

<sup>9</sup> See <http://www.census.gov/population/socdemo/foreign/ppl-145/tab01-1.pdf> for more information.

<sup>10</sup> The source category “Robber” was introduced in 1997.

<sup>11</sup> Prior to 1999, Asians were included in a race category with Native Hawaiians and Pacific Islanders. See [www.whitehouse.gov/omb/fedreg/1997standards.html](http://www.whitehouse.gov/omb/fedreg/1997standards.html) for more information.

<sup>12</sup> The event category assaults and violent acts is comprised of homicides, self-inflicted injuries, and assaults by animals. See <http://www.bls.gov/iif/oshsec2.htm#aava> for more information.

<sup>13</sup> Data are from BLS perpetrator analysis that included a source or secondary source of robber as well as narrative analysis where a reasonable inference could be made.

<sup>14</sup> As with the robbery association above, in addition to narrative analysis, a coworker or former coworker was signified as the assailant when the source or secondary source in a homicide was coded as coworker, while a relative was signified as the assailant when the source or secondary source in a homicide was coded as relative using the 1992 Occupational Injury and Illness Classification structure developed by BLS.

<sup>15</sup> For instance, say the fatality rate for Group A is 6, and the fatality rate for Group B is 2. If the overall fatality rate is 3, the relative risk for Group A is  $6/3$  or 2. That is, members of Group A are twice as likely to incur a fatal work injury than workers in general. For Group B, the relative risk is  $(2/3)$  or 0.67. That is, members of Group B are  $2/3$  as likely to incur a fatal work injury than workers in general.

<sup>16</sup> See <http://www.census.gov/prod/2001pubs/cenbr01-7.pdf>.

<sup>17</sup> For more information on this industry, see [http://www.osha.gov/pls/imis/sic\\_manual.display?id=19&tab=description](http://www.osha.gov/pls/imis/sic_manual.display?id=19&tab=description).

<sup>18</sup> C.N. Le, a Ph.D. in Philosophy, a professor of Sociology and Asian American studies, and the voice behind the website Asian-Nation: The Landscape of Asian America, conducted research on the topic of Asian-owned small business, with a focus on businesses owned by foreign-born Asians. In his discussion, Le briefly touches upon the topic of issues facing small business owners and cites violence against owners of small retail establishments as a continuing source of hardship for Asian immigrant business-owners. See <http://www.asian-nation.org/small-business.shtml>.

### *Occupational safety and health*

# Work-related hospitalizations in Massachusetts: racial/ethnic differences

*Hospital discharge data are an important supplementary means of examining occupational health; researchers can use such data to assess disparities among racial and ethnic groups at the State level*

Phillip R. Hunt,  
Jong Uk Won,  
Allard Dembe,  
and  
Letitia Davis

Phillip R. Hunt is a senior epidemiologist in, and Letitia Davis is the director of, the Occupational Health Surveillance Program, Massachusetts Department of Public Health, Boston, MA; Jong Uk Won is an assistant professor in the Department of Preventive Medicine, Yonsei University, Seoul, South Korea; and Allard Dembe is an associate professor and senior research scientist at the Center for Health Policy and Research, University of Massachusetts Medical School, Shrewsbury, MA. E-mail: [letitia.davis@state.ma.us](mailto:letitia.davis@state.ma.us)

In Massachusetts, as in the United States as a whole, the fatal occupational injury rate for Hispanic workers (3.3 per 100,000 workers per year) is higher than that for white workers (2.2 per 100,000 workers per year).<sup>1</sup> Although some information about the risk of nonfatal occupational injuries among racial and ethnic groups is available nationally,<sup>2</sup> data for Massachusetts are limited. The workers' compensation data set maintained by the Massachusetts Department of Industrial Accidents does not include information about workers' race and ethnicity. By contrast, race and ethnicity information is a data element in the Bureau of Labor Statistics (BLS) Survey of Occupational Injuries and Illnesses,<sup>3</sup> but it is only an optional feature there, and it is missing from more than 25 percent of the cases reported in the Massachusetts BLS survey.<sup>4</sup> This article reports on the use of statewide hospital discharge data to describe patterns of serious occupational injuries (that is, injuries requiring hospitalization) among racial and ethnic groups in Massachusetts.

## Methods

In Massachusetts, discharge records from all acute-care nongovernment hospitals<sup>5</sup> are collected quarterly by the Massachusetts Division of Health Care Finance and Policy, as mandated by regulation.<sup>6</sup> The records are then compiled into

the annual Hospital Discharge Data set. Each discharge record contains information about patient demographics, including age, gender, race/Hispanic ethnicity, and zip code of residence; administrative information, including hospital charges and expected source of payment; and clinical information, including primary and up to 14 supplementary diagnoses, length of stay, and procedures administered during the hospitalization. Race and Hispanic ethnicity in this data set are mutually exclusive categories: individuals are classified as white, black, Asian, American Indian, Hispanic, and other or unknown. Race/ethnicity information may be collected upon admission or through health-care provider notes in the medical record and may be based on either observation of the patient or the patient's self-report. Diagnoses are coded according to the *International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)*.<sup>7</sup> Acute poisonings are classified as injuries in this system.

For the study presented in this article, the Massachusetts Hospital Discharge Data for calendar years 1996–2000 were examined; hospital inpatient stay (also referred to as hospitalization) was the basic unit of analysis. Hospitalizations of out-of-State residents at Massachusetts hospitals were excluded. Hospitalizations with a primary ICD-9 diagnosis code between 800 and 999 were considered hospitalizations for injury. Because this data

set contained no specific coding for work-relatedness of health conditions for which patients were hospitalized, the designation of workers' compensation as primary expected payer was used as a probable indicator of hospitalizations for work-related injuries.<sup>8</sup> The nature of the patient's injury was classified according to the Barell Injury Diagnosis Matrix, which is based on the ICD-9-CM.<sup>9</sup>

Rates of hospitalization for work-related injuries overall and for specific work-related injuries were computed for Asians, blacks, Hispanics, and whites. Rates were calculated as the average annual number of hospitalizations for work-related injuries, divided by the average annual number of labor force participants in Massachusetts, for the 5-year study period. Data on the numbers of workers in the labor force and occupations by race/ethnicity were obtained from the Current Population Survey (CPS) for calendar years 1996 through 2000.<sup>10</sup> Because self-employed workers were not eligible for workers' compensation during the study period, the self-employed were excluded from the denominators in calculating rates. Rate ratios for each racial/ethnic group were computed, with whites as the referent. Differences between rates were examined with a two-sided z-test at the 0.05 level of significance. Ninety-five-percent confidence intervals for rate ratios (RR) were calculated as  $\exp((\ln(RR) \pm 1.96 \times \ln(SD)))$ . All statistical analyses were performed with SAS version 9.1.<sup>11</sup>

## Results

From 1996 through 2000, workers' compensation insurance was the expected payer for 7,875 hospitalizations for treatment of injuries in Massachusetts. These work-related hospitalizations accounted for 7.9 percent of all injury-related hospitalizations in Massachusetts among working-age adults (16–64 years of age) during that period. The mean length of a

hospital stay for a work-related injury was 4.3 days. The mean hospital charges per stay ranged from a high of \$43,176 for work-related burns to a low of \$5,149 for superficial injuries and contusions. The total dollar charges for all work-related injury hospitalizations in Massachusetts during those 5 years were \$123,185,709.

Of the 7,875 hospitalizations for work-related injuries, 83 percent (6,551) were classified by the nature of the injury. The remaining 17 percent were classified as "adverse effects not elsewhere classified" or as "complications of surgical and medical care, not elsewhere classified" (ICD-9 codes 995–999). Among hospitalizations for work-related injuries classified by nature of injury, fractures were the most common (50.3 percent), followed by sprains and strains (14.1 percent) and open wounds (7.8 percent). Nearly three-quarters of these injuries involved the patients' lower (38.9 percent) or upper (33.0 percent) extremities, 8.9 percent involved the torso, and 5.6 percent were traumatic brain injuries.

Race/ethnicity information was available for 94 percent of the patients hospitalized for work-related injuries. The distribution of hospitalizations by nature of injury differed considerably among racial/ethnic groups. (See table 1.) Hispanic patients were more likely than white patients to have been hospitalized for treatment of open wounds, burns, amputations, and crushing injuries. Asian patients experienced proportionately more burns and amputations than did whites. Black patients were more likely to have sprains and strains than were any other racial/ethnic group.

Table 2 presents the average annual rates of hospitalization for work-related injuries by race/ethnicity. The hospitalization rates for all work-related injuries combined varied considerably across racial/ethnic groups, with a twofold difference observed between Hispanics and Asians. The hospitalization rates for specific work-related injuries

**Table 1. Percent distribution of hospitalizations for work-related injuries and poisonings, by nature of injury and racial/ethnic group, Massachusetts, 1996–2000**

[In percent]					
Nature of injury <sup>1</sup>	Total	Asian	Black	Hispanic	White
N.....	6,551	106	308	396	5,271
Fractures .....	50.3	43.4	43.2	40.4	52.0
Sprains and strains .....	14.1	2.8	23.4	7.1	14.7
Open wounds .....	7.8	5.7	6.2	11.1	6.9
Internal organ .....	7.2	9.4	5.8	7.1	7.2
Burns .....	5.8	19.8	4.5	14.6	4.9
Amputations .....	3.7	6.6	6.2	8.3	3.1
Systemwide/late effects .....	3.0	3.8	2.3	2.5	3.1
Dislocation .....	2.2	4.7	2.3	2.0	2.2
Crushing .....	2.0	2.8	1.6	3.8	1.9
Superficial/contusions .....	1.5	.9	1.0	1.3	1.6
Nerves .....	1.0	.0	2.3	.5	1.0
Unspecified .....	.7	.0	1.0	.8	.7
Blood vessels .....	.6	.0	.3	.5	.6

<sup>1</sup> An additional 1,324 injury and poisoning cases had nature-of-injury codes of "certain adverse effects, not elsewhere classified" (ICD-9-CM code 995) or "complications of surgical and medical care, not elsewhere classified" (ICD-9-CM codes 996–999) and could not be classified into any of the categories listed in the table.

**Table 2.** Hospitalization rate for work-related injuries, by nature of injury and racial/ethnic group, Massachusetts, 1996–2000

Nature of injury	Asian	Black	Hispanic	White
All injuries .....	126.7	38.2	<sup>2</sup> 54.8	39.0
Fractures .....	<sup>1</sup> 11.6	<sup>1</sup> 16.5	<sup>2</sup> 22.1	20.3
Sprains and strains .....	1.8	<sup>2</sup> 8.9	3.9	5.7
Open wounds .....	11.5	2.4	<sup>2</sup> 6.1	2.7
Internal organs .....	2.5	2.2	3.9	2.8
Burns .....	<sup>2</sup> 5.3	1.7	<sup>2</sup> 8.0	1.9
Amputations .....	1.8	2.4	<sup>2</sup> 4.6	1.2
Systemwide/late effects .....	<sup>(3)</sup>	.9	1.4	1.2
Dislocations .....	1.3	.9	1.1	.9
Crushing .....	<sup>(3)</sup>	.6	2.0	.7
Superficial/contusions .....	<sup>(3)</sup>	<sup>(3)</sup>	.7	.6
Nerves .....	<sup>(3)</sup>	.9	<sup>(3)</sup>	.4
Unspecified .....	<sup>(3)</sup>	.4	<sup>(3)</sup>	.3
Blood vessels .....	<sup>(3)</sup>	<sup>(3)</sup>	.3	.2

<sup>1</sup> Injury rate is significantly less than rate for whites ( $p < 0.05$ ).

<sup>2</sup> Injury rate is significantly greater than rate for whites ( $p < 0.05$ ).

<sup>3</sup> Numerator for this stratum is less than 5.

NOTE: Hospitalization rate = (average annual number of work-related injuries ÷ average annual number participating in labor force) × 100,000.

varied even more across racial/ethnic groups. Hispanics showed significantly higher hospitalization rates than whites in four nature-of-injury categories, accounting for nearly 75 percent of all work-related injuries among Hispanics: burns (RR(95-percent confidence interval) = 4.2 (3.2, 5.6)),<sup>12</sup> amputations (RR = 3.8 (2.6, 5.5)), crushing injuries (RR = 2.9 (1.7, 4.9)), and open wounds (RR = 2.2 (1.6, 3.1)). Hispanics had a significantly lower rate of hospitalization than whites for work-related sprains and strains (RR = 0.7 (0.5, 0.98)). Asians had a significantly elevated hospitalization rate for work-related burns (RR = 2.8(1.8, 4.4)) and significantly decreased rates for fractures (RR = 0.6 (0.4, 0.8)) and for sprains and strains (RR = 0.1 (0.04, 0.4)), compared with whites. Black workers had significantly higher hospitalization rates than white workers for work-related amputations (RR = 1.9 (1.2, 3.1)) and for sprains and strains (RR = 1.6 (1.2, 2.0)) and a significantly lower risk of hospitalization for work-related fractures (RR = 0.81 (0.7, 0.97)).

CPS data were used to examine the occupational distribution of the Massachusetts workforce by race and ethnicity. The 10 most frequent occupations for each of the racial/ethnic groups considered in this article are listed in exhibit 1. Among the most common occupations shown for Asians, Blacks, and Hispanics were a number that exhibit a high likelihood of incurring the types of injuries that show elevated risks of hospitalizations for these worker populations in the Hospital Discharge Data. For example, the category of nursing aides, orderlies, and attendants, an occupation at high risk for sprain and strain injuries, was the most common occupation among blacks. High rates of hospitalization for work-related burns among both Asians and Hispanics were consistent with their relatively common employment as cooks compared with whites. The high rates

of work-related amputations observed among black and Hispanic patients was consistent with their relatively common employment as machine operators and laborers in Massachusetts.

## Discussion

This analysis of hospital discharge data from Massachusetts suggests that there is substantial variation in rates of serious work-related injuries among racial and ethnic groups and that Hispanic workers, in particular, are at high risk for work-related injuries resulting in hospitalization. Hispanics had significantly higher rates of hospitalization than did whites for all work-related injuries combined, as well as for a number of specific types of injury. Black workers had higher rates of hospitalization for work-related strains and sprains and amputations than did white workers. While Asians had lower rates of hospitalization than whites for work-related injuries overall, they had a significantly higher rate for work-related burns. The findings regarding hospitalization rates for a number of specific injuries were consistent with the employment patterns of racial and ethnic groups in Massachusetts in occupations at high risk for these types of injuries. Further research using additional data sources will be needed to assess the exact relationship between industry-specific risks and hospitalization rates.

In a variety of previous studies, Hispanic workers have been found to have higher rates of fatal occupational injuries than white workers.<sup>13</sup> The findings presented in this article suggest that Hispanic workers also are at higher risk for serious, nonfatal occupational injuries.<sup>14</sup> However, a recent analysis of National Health Information Survey data from 1997 to 1999 found lower rates of all work-related medically

treated injuries for Hispanics, black Non-Hispanics, and the “other” race/ethnicity category than for non-Hispanic whites.<sup>15</sup> These differences in the findings of the two studies may be attributable, at least in part, to the nature of the injuries considered. All medically treated injuries may be disproportionately undercounted in minority and immigrant populations, due to differences in access to care, differences in perceptions of health conditions, fear of discrimination, and concerns about one’s legal status that may inhibit reporting of work-related injuries.<sup>16</sup> These barriers to reporting may be less important in cases of work-related injuries serious enough to require hospitalization. Consequently, studies of hospitalization for work-related injuries may provide a more consistent and complete ascertainment of such injuries across the racial/ethnic groups. From an occupational health surveillance standpoint, hospitalizations for work-related injuries may offer a less biased picture of injury risk by race and ethnicity than is afforded by data on all medically treated injuries.

The increased risk of hospitalization for work-related injuries among minority populations likely reflects their disproportionate employment in high-risk industries and

occupations.<sup>17</sup> The results of the study presented herein show a correspondence between high rates for certain types of injuries and racial/ethnic group employment in high-risk occupations. However, these results are not fully consistent across the types of injuries and racial/ethnic groups. For example, working as a cook is the fourth most frequent occupation among Massachusetts blacks, yet blacks do not show an elevated rate of burns compared with whites, as do Asian and Hispanics. The association between elevated injury rates, on the one hand, and occupation and industry, on the other, would be better established with industry- and occupation-specific rates; however, information on the occupation and industry of employment of hospitalized patients is not currently available in the Massachusetts Hospital Discharge Data set. In a recent analysis of Massachusetts emergency department data, the name of the employer was found to be available in paper medical records for the great majority of work-related cases (89 percent)<sup>18</sup> and can be included in electronic data sets. This information is likely also readily available in the medical records of hospitalized patients and could be requested for focused studies of injury rates by industry.

**Exhibit 1. Ten most frequent occupations, by racial/ethnic group,<sup>1</sup> Massachusetts, 1996–2000**

White	Black	Asian	Hispanic
1 Managers and administrators, n.e.c.	Nursing aides, orderlies, and attendants	Computer systems analysts and scientists	Janitors and cleaners
2 Supervisors and proprietors, sales occupations	Janitors and cleaners	Cooks	Nursing aides, orderlies, and attendants
3 Secretaries	Cashiers	Cashiers	Cooks
4 Registered nurses	Cooks	Managers and administrators, n.e.c.	Miscellaneous machine operators, n.e.c.
5 Cashiers	Guards and police, except public service	Accountants and auditors	Maids and housemen
6 Computer systems analysts and scientists	Maids and housemen	Postsecondary teachers, subject not specified	Cashiers
7 Truckdrivers	Miscellaneous machine operators, n.e.c.	Waiters and waitresses	Miscellaneous food preparation occupations
8 Accountants and auditors	Laborers, except construction	Miscellaneous machine operators, n.e.c.	Assemblers
9 Janitors and cleaners	Registered nurses	Assemblers	Supervisors and proprietors, sales occupations
10 Nursing aides, orderlies, and attendants	Managers and administrators, n.e.c.	Electrical/electronic equipment assemblers	Hand packers and packagers

In the CPS, race and Hispanic ethnicity are not mutually exclusive groups.

SOURCE: Current Population Survey.

NOTE: n.e.c. = not elsewhere classified.

Employment patterns alone do not explain the high risk of serious traumatic injury faced by minority workers. One study found that Hispanic construction workers had high fatal occupational injury rates compared with white workers within the same construction occupations.<sup>19</sup> Another study found high occupational fatality rates among blacks after controlling for employment structure, suggesting that “within-job” factors such as race-based task assignments also may contribute to the disparity in risk.<sup>20</sup> In yet a third study, Hispanic workers and, to a lesser extent, black workers in the South had higher fatal injury rates than non-Hispanic workers in comparable occupations and industries.<sup>21</sup> Other possible explanations for the high rate of hospitalization for work-related injuries among Hispanics include language, literacy, and cultural barriers at work; a comparative lack of information about health and safety rights and resources; and limited job opportunities and concerns about their immigrant status that make minority and immigrant workers hesitant to exercise their rights. Also, employers may be less likely to provide training and protective equipment for temporary or undocumented workers.

One limitation in using the Hospital Discharge Data to study occupational injury is that there are no specific variables that directly indicate the work-relatedness of a patient’s injury. Thus, the work-relatedness of various conditions must be inferred indirectly from whether workers’ compensation insurance is the expected payer. Several studies have demonstrated that the designation of workers’ compensation payment on hospital records is a good indicator of the work-relatedness of an injury. In one study, the designation of workers’ compensation as expected payer was both a highly sensitive (84 percent) and a highly specific (98 percent) indicator of work-relatedness in an investigation of hospitalized occupational injuries.<sup>22</sup> A recent assessment of emergency department data in Massachusetts found nearly identical results.<sup>23</sup> Thus, reliance on payment by workers’ compensation likely yields a reasonable, but conservative, estimate of work-related hospitalizations.

Among self-employed workers, who make up about 10 percent of the Massachusetts workforce, most are not eligible for workers’ compensation insurance, so injuries to self-employed workers are unlikely to be detected by that indicator. There is also considerable evidence that many workers with traumatic injuries who are eligible for workers’ compensation do not apply for benefits.<sup>24</sup> Patients’ willingness to report their injuries as work related and to apply for workers’ compensation is affected by a wide range of social and economic factors, including the availability of other health insurance, the possibility of barriers to applying for compensation, fear of discrimination by current or future employers because of one’s workers’ compensation history, the person’s legal or illegal employment status and immi-

gration status, and the individual’s personal relationship with the employer. While some of these barriers may be less important in cases of work-related injuries severe enough to require hospitalization, the fear of discrimination, concerns about one’s legal status, and the unavailability of workers’ compensation insurance may be more prominent among the minority populations examined in this article. Many immigrants and minorities in low-paying jobs work for employers who might not carry workers’ compensation insurance or who might not want employees to submit claims. Payment for these hospitalizations might be shifted to the employees’ personal health insurance (if available and if such hospitalizations are covered) or to Medicaid, or the hospitalizations might be covered under the State’s free-care pool.<sup>25</sup>

In addition, a recent survey of more than 1,400 community health center patients in Massachusetts found that minorities and immigrant workers were less aware of their rights to workers’ compensation insurance than were white workers and native-born workers. Consequently, the minority and immigrant workers may file disproportionately fewer claims for benefits. Hispanic and Asian workers were the most likely to have never heard of workers’ compensation (49 percent and 48 percent, respectively), compared with black workers (36 percent) and white workers (21 percent).<sup>26</sup>

Another limitation of this analysis involves the difference in categorization of race/ethnicity in the data sources for the numerators and denominators used to calculate rates. As mentioned in the “Methods” section, race and Hispanic ethnicity are mutually exclusive in the Hospital Discharge Data. By contrast, in the CPS, race and Hispanic ethnicity are not mutually exclusive, and thus the racial/ethnic group denominators count some members of the labor force twice (for example, once as Hispanic and once as Black). This disparity could lead to underestimates of the rates of hospitalization for injury among racial/ethnic groups. However, there may be a countervailing undercount in the CPS: minority racial/ethnic groups may be disproportionately excluded from the survey due to language barriers, fewer telephones, or higher refusal rates than whites.

A number of reports have raised concerns about the validity of race and ethnicity information in health-care data.<sup>27</sup> A study of hospital data from the Department of Veterans Affairs found that agreement of administrative race/ethnicity data with self-identified race/ethnicity reports ranged from 75 percent to more than 90 percent, with agreement being higher for whites and blacks and lower for Hispanics and Asians, who were classified into an administrative “other” race/ethnicity category.<sup>28</sup> Similarly, a study in two community health clinics found agreement between administrative data and self-reports of 83 percent for blacks and 94 percent for Hispanics on responses to open-ended race/ethnicity ques-

tions and of 67 percent for blacks and 77 percent for Hispanics on forced-choice race/ethnicity questions.<sup>29</sup> The race and ethnicity information in the Massachusetts Hospital Discharge Data, while notably complete, has not been independently validated. An evaluation of birth registration race/ethnicity information for newborns and mothers has shown good agreement between birth-certificate fetal-death data and the Massachusetts Hospital Discharge data set,<sup>30</sup> but the extent to which the agreement extends to hospitalizations for other conditions is not known. Also, the accuracy of reporting of this information may vary by hospital. Research that validates such information is needed. Ongoing efforts to standardize the collection of race and ethnicity data by medical registrars should improve the validity and reliability of these data in the future.<sup>31</sup>

The findings presented in this article underscore the importance of research and intervention to address the occupational health needs of minority and immigrant workers, as well as the importance of maintaining a special emphasis on these populations.<sup>32</sup> Hospital discharge data, which are available in most States, are an important supplementary means of examining occupational health and can be effective in assessing disparities in serious occupational injuries among racial and ethnic groups at the State level. Although it remains to be validated, the race and ethnicity information in the Massachusetts Hospital Discharge data set is more complete than information from other sources on nonfatal work-related injuries. Further, hospital discharge data may be less subject to some of the barriers that limit the capture of information on work-related injuries in other data sets. □

## Notes

<sup>1</sup> See *Fatal Occupational Injuries in Massachusetts, 1991–1999* (Massachusetts Department of Health, September 2002); Scott Richardson, John Ruser, and Peggy Suarez, “Hispanic Workers in the United States: An Analysis of Employment Distributions, Fatal Occupational Injury Data, and Non-fatal Occupational Injury and Illnesses,” in *Safety Is Seguridad* (Washington, DC, National Research Council of the National Academies, 2003); and Xiuwen Dong and James W. Platner, “Occupational Fatalities of Hispanic Construction Workers from 1992 to 2000,” *American Journal of Industrial Medicine*, January 2004, pp. 45–54.

<sup>2</sup> See Allard E. Dembe, Judith A. Savageau, Benjamin C. Amick, III, and Steven M. Banks, “Racial and Ethnic Variations in Office-Based Medical Care for Work-Related Injuries and Illnesses,” *Journal of the National Medical Association*, April 2005, pp. 498–507; Allard E. Dembe, “Access to Medical Care for Occupational Disorders: Difficulties and Disparities,” *Journal of Health and Social Policy*, December 2001, pp. 19–33; and Gordon S. Smith, Helen M. Wellman, Gary S. Sorock, Margaret Warner, Theodore K. Courtney, Glenn S. Pransky, and Lois A. Fingerhut, “Injuries at Work in the U.S. Adult Population: Contributions to the Total Injury Burden,” *American Journal of Public Health*, July 2005, pp. 1213–19.

<sup>3</sup> Richardson, Ruser, and Suarez, “Hispanic Workers in the United States.”

<sup>4</sup> Massachusetts Survey of Occupational Injuries and Illnesses, 1997–2003.

<sup>5</sup> The number of hospitals reporting varies over time due to mergers and reorganizations. During the period of the study, between 80 and 87 hospitals reported data.

<sup>6</sup> Code of Massachusetts Regulations, 114.1CMR 17.00, Requirement for the Submission of Hospital Case Mix and Charge Data.

<sup>7</sup> *International Classification of Diseases, Ninth Revision, Clinical Modifications (ICD-9-CM)* (Geneva, World Health Organization, 1979).

<sup>8</sup> Some hospitals reported no workers’ compensation cases for 1 or more calendar years during the study period. The annual admission reports from hospitals reporting no workers’ compensation cases for the year accounted for 3 percent of all admissions and 3.5 percent of admissions for injury for working-age adults (16 through 64 years) over the surveillance period.

<sup>9</sup> Vita Barell, Limor Aharonson-Daniel, Lois A. Fingerhut, Ellen J. Mackenzie, Arnona Ziv, Valentina Boyko, Avi Abargel, Malka Avitzour, and Rafael-Joseph Heruti, “An Introduction to the Barell Body Region by Nature of Injury Diagnosis Matrix,” *Injury Prevention*, June 2002, pp. 91–96.

<sup>10</sup> The CPS is a national monthly survey of approximately 60,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. This monthly survey of the population uses a sample of households that is designed to represent the civilian noninstitutional population of the United States.

<sup>11</sup> SAS Institute, Cary, NC.

<sup>12</sup> The ordered pair denotes the lower and upper 95-percent confidence limits of the relative risk.

<sup>13</sup> See, for example, Richardson, Ruser, and Suarez, “Hispanic Workers in the United States”; and Dong and Platner, “Occupational Fatalities of Hispanic Construction Workers.”

<sup>14</sup> See Richardson, Ruser, and Suarez, “Hispanic Workers in the United States”; Gary S. Sorock, Elaine Smith, and Nancy Hall, “Hospitalized Occupational Finger Amputations, New Jersey, 1985 and 1986,” *American Journal of Industrial Medicine*, March 1993, pp. 439–47; and Judith T. L. Anderson, Katherine L. Hunting, and Laura S. Welch, “Injury and Employment Patterns among Hispanic Construction Workers,” *Journal of Occupational and Environmental Medicine*, February 2000, pp. 176–86.

<sup>15</sup> Smith, Wellman, Sorock, Warner, Courtney, Pransky, and Fingerhut, “Injuries at Work in the U.S. Adult Population.”

<sup>16</sup> Lenore S. Azaroff, Charles Levenstein, and David H. Wegman, “Occupational Injury and Illness Surveillance: Conceptual Filters Explain Underreporting,” *American Journal of Public Health*, September 2002, pp. 1421–29.

<sup>17</sup> Richardson, Ruser, and Suarez, “Hispanic Workers in the United States.”

<sup>18</sup> Phillip R. Hunt, Holly Hackman, and Letitia Davis, “Availability of Information on Patient Employer and Work-relatedness and Accuracy of E-codes in Emergency Department Medical Records,” paper presented at the Council of State and Territorial Epidemiologists Annual Conference, Albuquerque, NM, June 2005.

<sup>19</sup> Dong and Platner, "Occupational Fatalities of Hispanic Construction Workers."

<sup>20</sup> Dana Loomis and David Richardson, "Race and the Risk of Fatal Injury at Work," *American Journal of Public Health*, January 1998, pp. 40–44.

<sup>21</sup> David B. Richardson, Dana Loomis, James Bena, and John Bailer, "Fatal Occupational Injury in Southern and Non-Southern States, by Race and Hispanic Ethnicity," *American Journal of Public Health*, October 2004, pp. 1756–61.

<sup>22</sup> Gary S. Sorock, Elaine Smith, and Nancy Hall, "An Evaluation of New Jersey's Hospital Discharge Database for Surveillance of Severe Occupational Injuries," *American Journal of Industrial Medicine*, March 1993, pp. 427–37.

<sup>23</sup> Hunt, Hackman, and Davis, "Availability of Information."

<sup>24</sup> Jeff Biddle, Karen Roberts, Kenneth D. Rosenman, and Edward M. Welch, "What Percentage of Workers with Work-related Illnesses Receive Workers' Compensation Benefits?" *Journal of Occupational and Environmental Medicine*, April 1998, pp. 325–31.

<sup>25</sup> Azaroff, Levenstein, and Wegman, "Occupational Injury and Illness Surveillance."

<sup>26</sup> Elise Pechter and Kerry Souza, "Occupational Health Surveillance of Low-income Minority and Immigrant Workers through Community Health Centers," paper presented at the Council of State and Territorial Epidemiologists Annual Conference, Albuquerque, NM, June 2005.

<sup>27</sup> See David R. Williams, "The Monitoring of Racial/Ethnic Status in the USA: Data Quality Issues," *Ethnicity and Health*, August 1999, pp. 121–37; Susan L. Arday, David R. Arday, Stephanie Monroe, and Jianyi Zhang, "HCFA's Racial and Ethnic Data: Current Accuracy and Recent Improvements," *Health Care Financing Review*, summer 2000, pp. 107–16; and Susan Moscou, Matthew R. Anderson, Judith B. Kaplan, and Lisa Valencia, "Validity of Racial/Ethnic Classifications in Medical Records Data: An Exploratory Study," *American Journal of Public Health*, July 2003, pp. 1084–86.

<sup>28</sup> Nancy R. Kressin, Bei-Hung Chang, Ann Hendricks, and Lewis E. Kazis, "Agreement between Administrative Data and Patients' Self-reports of Race/Ethnicity," *American Journal of Public Health*, October 2003, pp. 1734–39.

<sup>29</sup> Moscou, Anderson, Kaplan, and Valencia, "Validity of Racial/Ethnic Classifications."

<sup>30</sup> Personal communication, Bruce B. Cohen, Massachusetts Department of Public Health, June 2005.

<sup>31</sup> See Romana Hasnain-Wynia, Debra Pierce, and Mary A. Pittman, *Who, When and How: The Current State of Race, Ethnicity and Primary Language Data Collection in Hospitals* (New York, The Commonwealth Fund, May 2004); and Vali Firoozeh, *Patient Race and Ethnicity: Improving Hospital Data Collection and Reporting* (Princeton, NJ, New Jersey Hospital Association, Health Research and Education Trust of New Jersey, 2004); on the Internet at <http://www.njha.com>.

<sup>32</sup> National Institute for Occupational Safety and Health (NIOSH), *National Occupational Research Agenda* (Cincinnati, NIOSH, 1996).

*Occupational safety and health*

## Fatal work injuries among foreign-born Hispanic workers

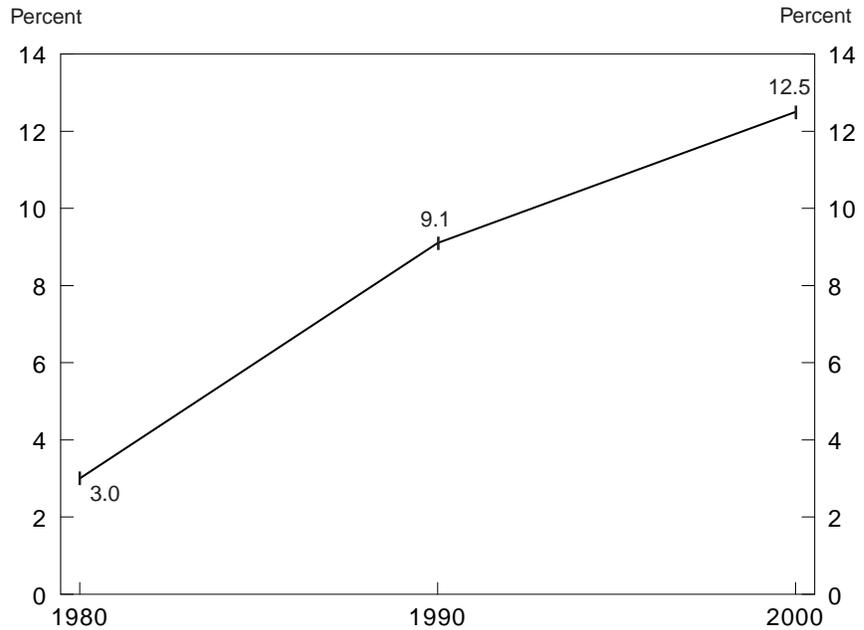
Scott Richardson

1. Hispanic population as a percentage of the U.S. population, 1980–2000
2. Hispanic employment by number (in thousands) and percent aged 16 and older, 2004
3. Fatal work injuries involving Hispanic workers, 1996–2004
4. Fatal work injuries involving foreign-born workers, 1996–2004
5. Fatal work injury rates for Hispanic workers, 2004
6. Percent of total fatal work injuries occurring to foreign-born workers by country of birth and primary fatal event, 1996–2004
7. Fatal work injuries involving Hispanic workers in private construction by nativity, 1993–2002
8. Percent of fatal work injuries involving Hispanics by State, 1992–2004

Scott Richardson is program manager of the Census of Fatal Occupational Injuries in the Office of Compensation and Working Conditions, Bureau of Labor Statistics. E-mail: Meyer.Samuel@bls.gov

- Immigration of Latin Americans to the United States has had a major impact on the makeup of the U.S. population over the past 25 years. Hispanics accounted for only 3 percent of the U.S. population in 1980. By 1990, that percentage had risen to 9.1 percent, and in 2000, Hispanics represented about 12.5 percent of the U.S. population, or about one in eight Americans.
- By 2050 or earlier, the Census Bureau projects that the Hispanic population will account for one out of every four Americans.

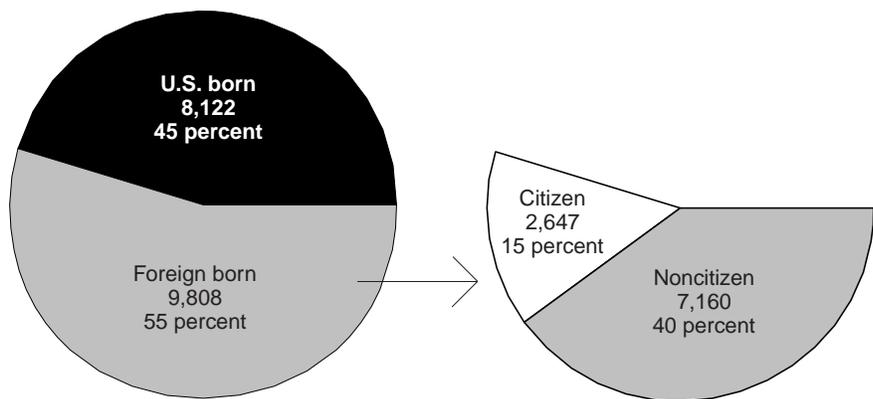
**1. Hispanic population as a percentage of the U.S. population, 1980–2000**



SOURCE: U.S. Census Bureau.

- There were 17.9 million Hispanics in the employed labor force in 2004. The majority of those workers (55 percent) were born in a country other than the United States, and about two in five employed Hispanics in the United States were not citizens of the United States in 2004.
- Also, Hispanic workers tend to be disproportionately represented in higher-risk, lower-wage jobs. Lower educational attainment, fewer job skills, and in some cases, lack of proficiency in the English language may contribute to this trend, especially among the foreign born. For example, according to the Census Bureau, only about 11 percent of Hispanics in the United States have a college degree, as compared with nearly 30 percent of non-Hispanic Whites.

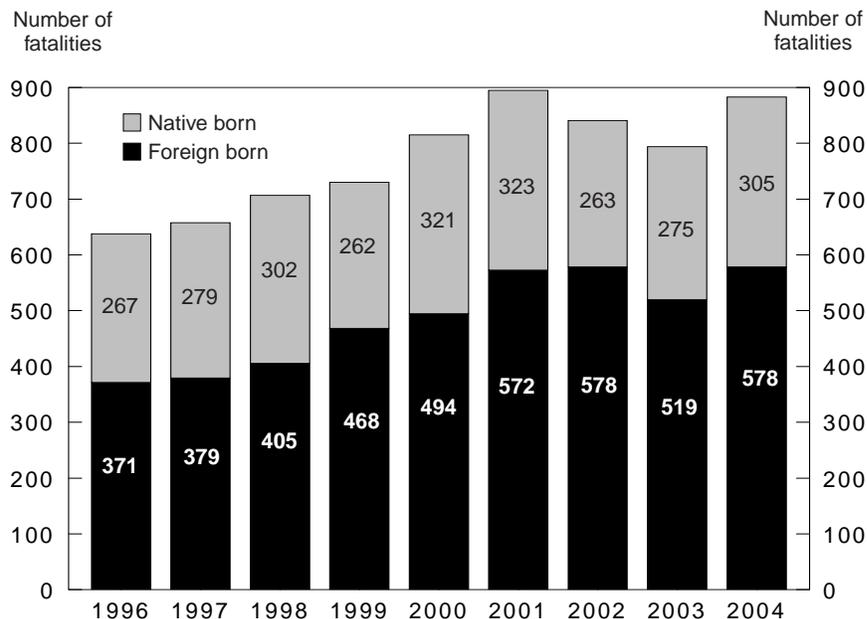
**2. Hispanic employment by number (in thousands) and percent aged 16 and older, 2004**



NOTE: Employment is civilian noninstitutional employment.  
SOURCE: BLS Current Population Survey.

- Disproportionate representation in higher-risk jobs has led to higher numbers and rates of fatal occupational injury among Hispanic workers.
- The number of fatal injuries to Hispanic workers rose from 533 in 1992, when the fatality census was first conducted, to a high of 895 in 2001. At a time when fatalities were declining for workers in general, both the number and rate of fatal injury to Hispanic workers were rising. While fatal injuries among Hispanic workers declined in 2002 and 2003, the number and rate were again higher in 2004.
- Nearly two-thirds of the fatalities among Hispanic workers from 1996 to 2004 involved foreign-born workers.

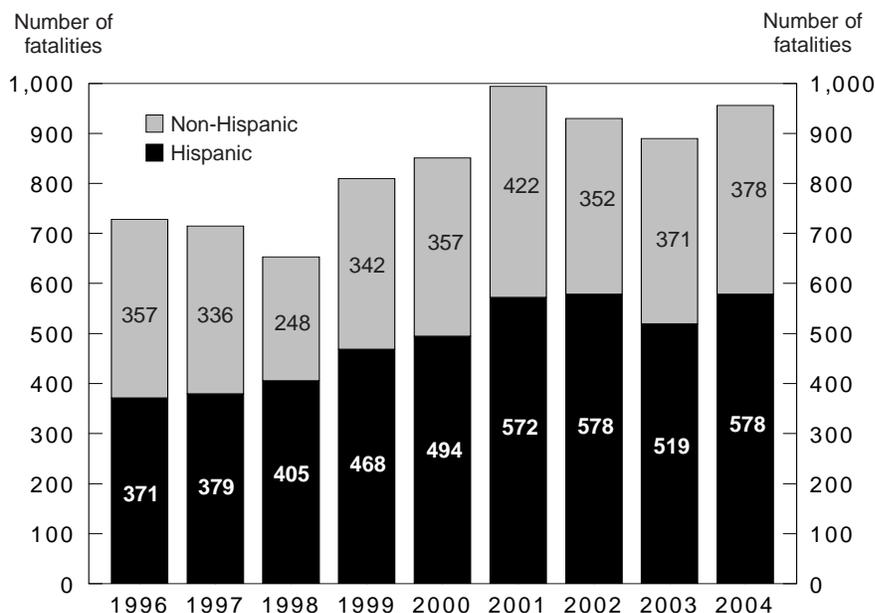
### 3. Fatal work injuries involving Hispanic workers, 1996–2004



NOTE: Data from 2001 exclude fatalities resulting from September 11 terrorist attacks.  
SOURCE: Census of Fatal Occupational Injuries.

- Fatalities among foreign-born workers overall have trended higher since 1996, especially among foreign-born Hispanics. While the number of fatal work injuries among foreign-born workers in 2004 was 31 percent higher than the number in 1996, the number among foreign-born Hispanic workers was 56 percent higher. Overall, 6 in 10 of the fatalities among foreign-born workers involved Hispanic workers, higher than their share of the employed foreign-born population (48 percent).

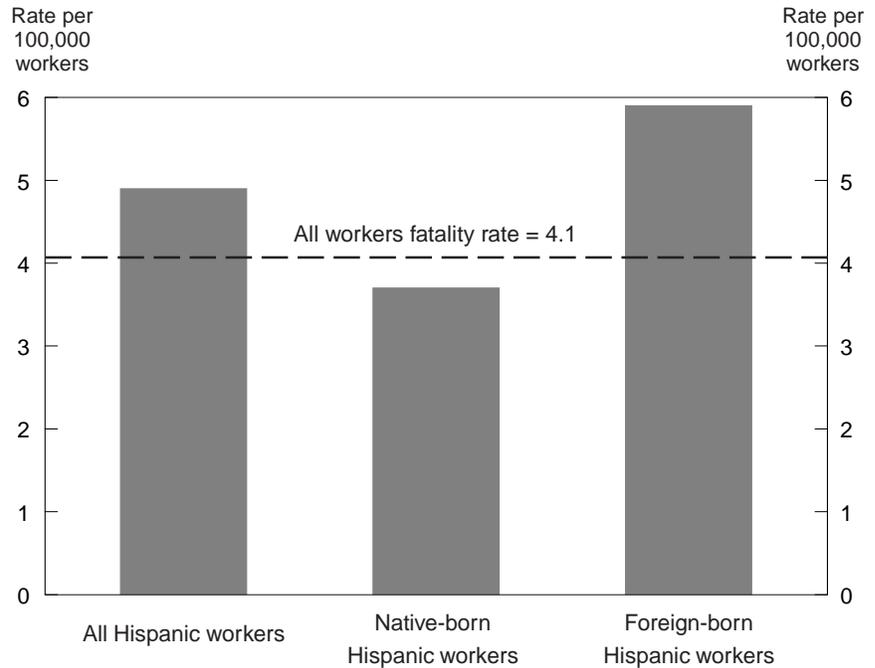
### 4. Fatal work injuries involving foreign-born workers, 1996–2004



NOTE: Data from 2001 exclude fatalities resulting from September 11 terrorist attacks.  
SOURCE: Census of Fatal Occupational Injuries.

- Rates of fatal injury are higher for Hispanic workers. The fatal work injury rate for all U. S. workers in 2004 was 4.1 fatalities per 100,000 workers, as compared with a rate of 4.9 fatalities for Hispanic workers. However, while the fatality rate for Hispanic workers was higher in 2004 than in 2003, the rate in 2004 was down from a series high of 6.0 fatalities per 100,000 workers recorded in 2001.
- The difference in rates between native-born and foreign-born Hispanic workers is instructive. Native-born Hispanic workers actually recorded a rate below that of the overall national rate, but the rate for foreign-born workers was 5.9 fatalities per 100,000 workers, or 44 percent higher than the national rate.

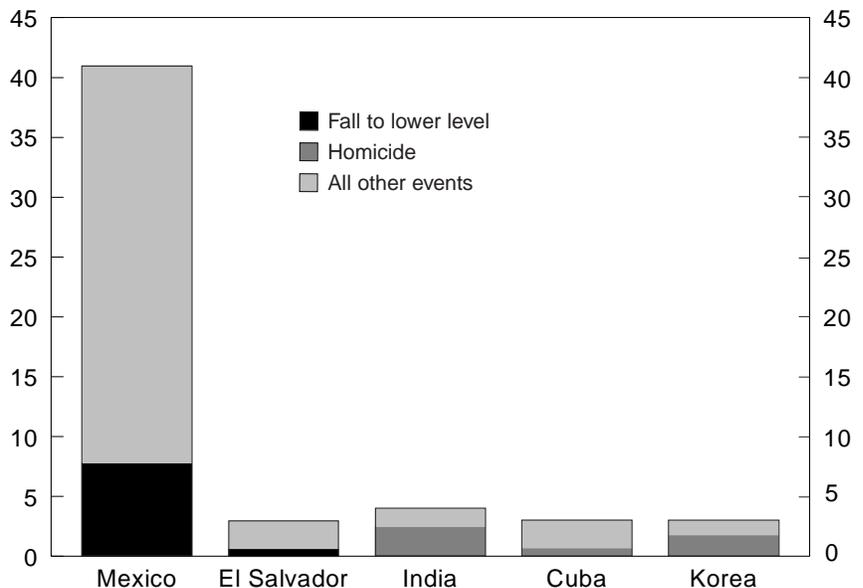
### 5. Fatal work injury rates for Hispanic workers, 2004



NOTE: Employees are civilian Hispanic workers.  
SOURCE: Census of Fatal Occupational Injuries.

- Fatalities to workers born in Mexico accounted for two out of every five fatally-injured, foreign-born workers (41 percent), by far the most of any single country. The primary fatal event for Mexican-born workers was “fall to lower level.”
- The birth country with the second highest number was India with 4 percent of the foreign-born fatality total, followed by Cuba, Korea, and El Salvador, each with 3 percent.
- While the primary fatal event for workers born in Mexico and El Salvador was falls to a lower level, the primary fatal event for foreign-born workers overall was workplace homicide.

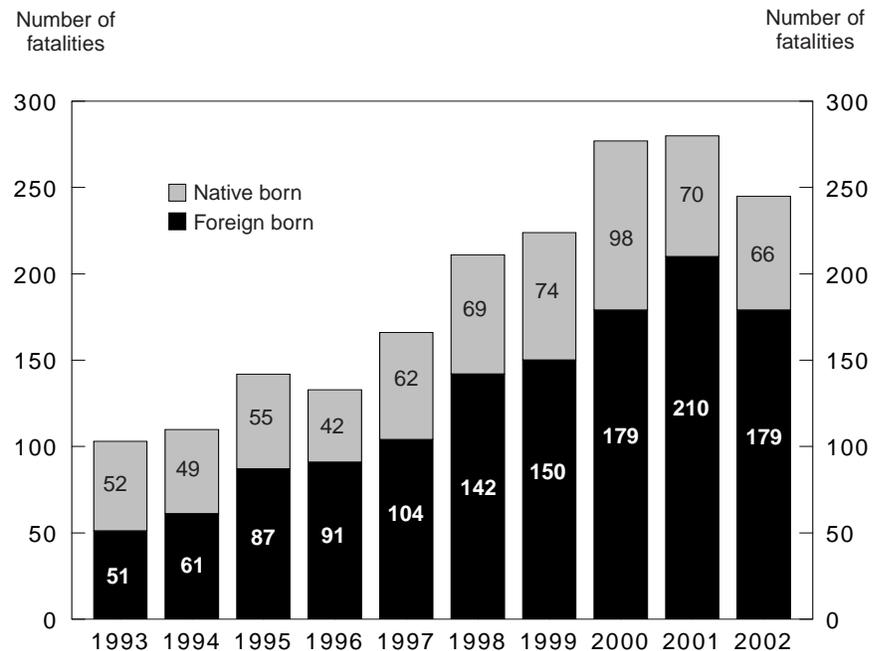
### 6. Percent of total fatal work injuries occurring to foreign-born workers by country of birth and primary fatal event, 1996–2004



NOTE: Data from 2001 exclude fatalities resulting from September 11 terrorist attacks.  
SOURCE: Census of Fatal Occupational Injuries.

- In 1992, when the fatality census was first conducted, fatally injured Hispanic workers accounted for about 1 in 10 private construction fatalities. In 2002, that fraction rose to about one in five. Overall, about a fourth of the fatal work injuries among Hispanic workers occurred in construction over this period.
- The number of fatal work injuries involving foreign-born Hispanic workers has risen substantially in construction and was about 3½ times higher in 2002 than it was in 1992.
- Note also that in 1993, foreign-born workers accounted for about half of the fatalities involving Hispanic construction workers. In 2002, foreign-born workers accounted for nearly three out of every four construction fatalities involving Hispanic workers.

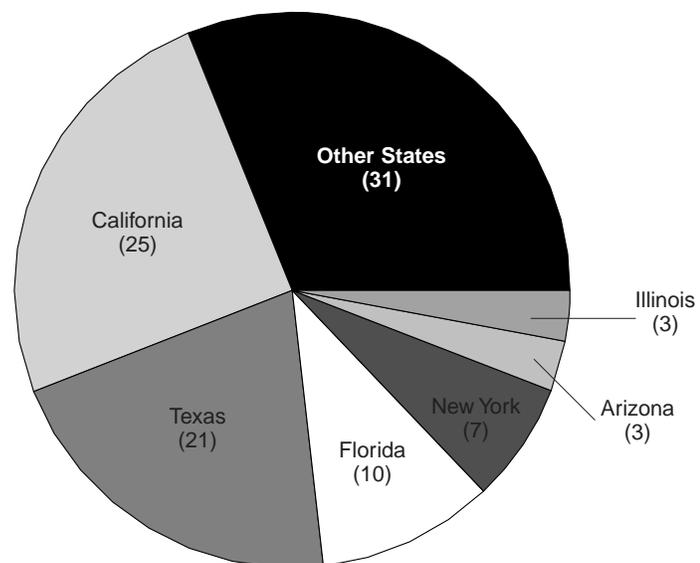
### 7. Fatal work injuries involving Hispanic workers in private construction by nativity, 1993–2002



NOTE: Data from 2001 exclude fatalities resulting from September 11 terrorist attacks.  
SOURCE: Census of Fatal Occupational Injuries.

- Most of the fatal work injuries involving Hispanic workers from 1992 to 2004 occurred in States traditionally associated with large Hispanic populations—California, Texas, Florida, and New York. However, Hispanic populations are growing in many States not traditionally known for large Hispanic populations. For example, the fastest growing Hispanic populations in the 1990s on a percentage basis were in North Carolina, Arkansas, Georgia, and Tennessee, according to the Census Bureau.
- It is important to note that the type of fatal and nonfatal injury events among Hispanic workers varies from State to State based on the types of industries in those States. Therefore, interventions will need to focus more at a local level to be successful.

### 8. Percent of fatal work injuries involving Hispanics by State, 1992–2004



NOTE: Data from 2001 exclude fatalities resulting from September 11 terrorist attacks.  
SOURCE: Census of Fatal Occupational Injuries.

## State labor productivity

Labor productivity, which measures output per unit of labor input, is one of the most closely watched economic data series. Increases in labor productivity generally lead to increases in wages and living standards, as well as to greater competitiveness in the international economy. At the national level, BLS publishes data on labor productivity (output per hour), but it has no comparable series at the State level.

In the June 2005 issue of *Economic Commentary* (Federal Reserve Bank of Cleveland), economists Paul Bauer and Yoonsoo Lee attempt to measure labor productivity growth (output per worker) in each of the 50 States and the District of Columbia for two periods: 1977–2000 and 2000–04. Focusing on the latter period, the authors look at how changes in output and employment affect labor productivity growth across States. Although collectively the States more than doubled their rate of productivity growth in the latter period (2.3 percent in 2000–04, compared with 1.1 percent in 1977–2000), Bauer and Lee find “wide variation” in the growth rates among the States, ranging from Alaska’s –4.5 percent to Delaware’s 8.6 percent. In addition, some States increased their productivity rates by combining large employment declines with relatively modest gains in output.

Bauer and Lee examine employment growth and output (gross State product or GSP) growth separately for each of the 50 States. They note that employment increased in only 15 States during the recent recovery period (2000–04), while average employment (all 50 States) actually *declined* by 0.2 percent. Over the same period, output increased by 2.3 percent, on average, with positive GSP growth occurring in all but three States. Bauer and Lee cite the example of Delaware, where productivity increased

as a result of strong GSP growth combined with employment losses. About a third of Delaware’s GSP is from finance and insurance, where deregulation has led to mergers and relocations that increase the State’s output without necessarily adding to its employment. In general, Bauer and Lee find a “negative correlation” between employment growth and labor productivity growth during the 2000–04 period. The authors acknowledge that losing jobs to increase productivity is a difficult process, but they suggest that the increased efficiency and competitiveness of the remaining workers and firms may pave the way for future growth in both employment and output.

It is important to note that Bauer and Lee’s labor productivity series for the States differ from the national series in two ways. First, because hours data are not available at the State level, the authors use State employment estimates to measure output per *worker* instead of output per *hour*. Second, the national estimates use gross domestic product (GDP) to measure output, but the comparable gross State product (GSP) data are available only through 2002. Thus, Bauer and Lee combine State personal income data with national GDP data to estimate GSPs for 2003 and 2004. They explain that although output per worker and output per hour series behave differently at times—especially during the turning points in the business cycle—they show similar results in the long run.

## Economic role of the city

The traditional view of the economic role of cities has emphasized the role of cities as transportation hubs and the ensuing effect of economies of agglomeration in production. As Gerald A. Carlino puts it in his recent article in the Federal Reserve Bank of Philadelphia’s *Business Review*,

“To minimize transportation costs, firms needed to be near these hubs, and workers needed to live close to their employers to maintain reasonable commuting distances. Thus, firms and households tended to be highly clustered in cities.”

While the presence of an industry in a particular city was often thus the result of accidents of natural resource availability or even simple circumstance, agglomeration economies of localization often made it efficient for other firms to locate in the same city. Such agglomeration effects could include concentrations of specialized labor that could be shared by all producers in an area. Carlino’s examples include lighting technicians and set designers in New York and Los Angeles, cities known for their concentrations of entertainment industry enterprises.

Another traditional agglomeration effect comes from the sheer size, or urbanization, of an area. For some specialized firms, only a very large city can provide them a large enough customer base. Here Carlino uses the example of professional sports as he cites data indicating that New York’s nearly 20 million in population supports nine teams while Jacksonville’s 1 million support only one.

Carlino’s main point, however, is that even with the advances in transportation and communication technology that have made location less important over more and more varied sectors of today’s production economy, there is still a place for cities as agglomerators of consumption. In this view, large cities attract large numbers of generally high-knowledge high-income people who wish to partake of the wider variety of better quality “luxury” services that a bigger city can offer: the aforementioned sports teams, gourmet dining, art, culture, and the general excitement of a major city. □

### U.S. labor exchange

*Labor Exchange Policy in the United States.* By David E. Balducchi, Randall W. Eberts, and Christopher J. O'Leary, eds. Kalamazoo, MI, W.E. Upjohn Institute for Employment Research, 2004, 295 pp., \$45/cloth; \$20/paperback.

*Labor Exchange Policy in the United States* pools the extensive knowledge of twelve experts to create the single most reliable source of current information about job matching and other aid provided by U.S. public labor exchanges. Much of the book's potency derives from six authors being U.S. Department of Labor analysts experienced in advising policymakers; and six coming from nonprofit institutions whose research has helped shape policy.

The greatest strength of the book is its discussion by eyewitnesses of the controversies over the following: (a) devolving the State-Federal Employment Service (ES) to local control, and (b) creating meaningful ES performance measures. The book also is notable for presenting important facts about: (c) the functions of public labor exchanges; (d) how those functions can serve the public interest; (e) the impact of those functions; (f) the rise of computer-related technologies in providing labor exchange services; (g) integrating employment and training services in One-Stop centers; and (h) how the ES in the United States compares to exchanges in other developed countries.

What the book does best is "describe the evolution ... [and] the effectiveness of labor exchange policy." The first-rate evidence and analysis will be of enormous value to experts advising policymakers and practitioners, and help shape research agendas for years to come. However, there may be too little guidance on how to organize the facts for policymakers and practitioners to draw *independent* inferences and to

focus on the key analytic questions that should shape policy.

Chapter 4 illustrates the difference between just presenting evidence and providing crucial insights needed to draw policy-relevant conclusions from the evidence. In that chapter, David Smole presents a lucid discussion of efforts to create ES performance measures. He ends with astute suggestions to guide future efforts. Furthermore, this chapter is especially useful for shaping policy because the author notes:

"Like the WIA performance measures, the labor exchange performance indicators merely capture the outcomes that occur following a job seeker's registration with the labor exchange. A registered job seeker may enter employment and remain employed as a direct result of using the labor exchange or despite it. Without applying techniques such as comparison group design ... the degree to which the public labor exchange improves the job-matching process remains uncertain."

In my view, these three sentences bind together fact and theory to make it crystal clear what policymakers and practitioners should be looking for when developing performance measures.

In contrast, the last sentence of chapter 4 implies that measures which fail to capture the added value of labor exchange services would be "a valuable tool for effective program ... management." How can that be? Here the author needs to clarify the not so subtle distinction between having no indicators and no goals, and having a system that identifies ways to serve workers and firms more effectively.

Short descriptions of the framework analysts use to address key issues would greatly complement outstanding discussions of relevant evidence throughout the book. For example, in

chapter 1, Randall Eberts and Harry Holzer excellently describe the mission and evolution of U.S. employment and training programs, as well as how public labor exchanges complement other job search methods. However, they don't make it clear that the issue of central importance is whether public labor exchanges provide cost-effective services that would not be available otherwise. Instead, they question the effectiveness of public labor exchanges based on inconclusive evidence, such as an increase in educational attainment reducing the need for the ES.

Alerting the reader to the core questions that determine program effectiveness is precisely the type of insight needed to help policymakers and practitioners make informed decisions. Development of such a framework also would help analysts recognize which questions have been adequately answered and where additional information is needed.

Christopher O'Leary is given the central task of examining formal evaluations of the value-added of ES job-referrals and monitoring claimant job search. He provides an outstanding discussion of the measurement issues, and clearly summarizes the most relevant literature in chapter 5. His conclusions emphasize that the ES in the United States serves more than 19 million customers, at a cost of about \$800 million, giving it the number 1 ranking in people served, but only the number 8 ranking in cost among Federal programs. He states that his review "suggests that many of the services of the ES are cost effective" but that many services have not been studied. He then describes topics that merit further study, such as the effectiveness of automated self-help and staff assistance.

O'Leary also raises a thought-provoking point by stating that: "Evaluation research over the past 20 years on ES activities has contributed greatly to the direction of public employment policy." An important example supporting this state-

ment is use of ES staff to screen claimants as part of Worker Profiling and Reemployment Services (WPRS)—an exceptionally productive program built on research funded by the Upjohn Institute and the U.S. Department of Labor. However, his statement brings to my mind the controversy over devolving the United States ES. Do the facts presented in this book contribute to resolving this critically important current question?

David Balducchi and Alison Pasternak provide a fascinating look at the history of the debate and the political factors that underlie the controversy in chapter 2. The concluding chapter describes the current debate. However, the pros and cons are presented in a *point-counterpoint* format, with little attempt to discern the accuracy or relevance of the statements.

I am sympathetic to analysts being reluctant to enter a politically charged debate *directly*. However, there is a big difference between taking sides and objectively defining the questions that should be addressed and citing relevant evidence. Thus, what could be a better test of the book's usefulness for shaping policy than its relevancy for resolving a life or death issue?

In my view, the research cited in the book helped shift the debate from "let's get rid of the ES" to "let's integrate the

ES with other One-Stop partners." It also helped encouraged One-Stops to adopt a work-first approach. However, readers might not see these connections because the book's information is not linked to the questions analysts would address in assessing the effect of giving ES funds to local workforce investment boards (LWIBs) instead of States. The best evidence, a study of what happened in the three States that have devolved control to LWIBs, was completed after this book was written. Nevertheless, we learn from the book that: (1) ES delivers valuable services to millions of jobseekers at low cost, and (2) ES budgets have declined by one-third, but those declines have been partially offset by improvements in technology. Factor 1 suggests that ES services are highly valuable. Factor 2 suggests that jobseekers who cannot be helped by self-help means alone often are unable to obtain needed staff assistance.

Importantly, One-Stops could provide staff assistance with Workforce Investment Act (WIA) funds, but we also learn that: (3) WIA performance standards only apply to intensive services, not to low-cost labor exchange services; (4) access to intensive services is restricted by One-Stops; and (5) WIA performance indicators cannot measure the value of alternative service allocations.

Factor 3 suggests that One-Stops have strong incentives to focus on intensive services. Factor 4 suggests that One-Stops carefully select who gets intensive services. Factor 5 suggests that there are no checks on shifting resources from core to intensive services, even if such shifts would reduce overall effectiveness. Together these factors suggest that there is a danger that, given the opportunity, LWIBs will divert much of the funds currently supporting universal access to job matching aid to helping intensive clients. Thus, the book contains highly relevant facts, but may not have organized them to make their meaning clear to policymakers wanting "to improve the reach and effectiveness of public labor exchange services."

In summary, I thoroughly enjoyed reading *Labor Exchange Policy in the United States* and believe that other analysts will be equally appreciative of the vast amount of information contained in this well-written book. However, the book would be even more valuable if it further connected relevant facts to conceptual frameworks that are meaningful for policymaking, and if it succinctly summarized what crucial facts are widely accepted, in dispute, and need to be developed.

—Louis Jacobson

CNA Corporation

**NOTE: Many of the statistics in the following pages were subsequently revised. These pages have not been updated to reflect the revisions.**

To obtain BLS data that reflect all revisions, see <http://www.bls.gov/data/home.htm>

For the latest set of "Current Labor Statistics," see <http://www.bls.gov/opub/mlr/curlabst.htm>

## Notes on labor statistics ..... 72

### Comparative indicators

1. Labor market indicators ..... 85
2. Annual and quarterly percent changes in compensation, prices, and productivity ..... 86
3. Alternative measures of wages and compensation changes ..... 86

### Labor force data

4. Employment status of the population, seasonally adjusted ..... 87
5. Selected employment indicators, seasonally adjusted ..... 88
6. Selected unemployment indicators, seasonally adjusted ..... 89
7. Duration of unemployment, seasonally adjusted ..... 89
8. Unemployed persons by reason for unemployment, seasonally adjusted ..... 90
9. Unemployment rates by sex and age, seasonally adjusted ..... 90
10. Unemployment rates by State, seasonally adjusted ..... 91
11. Employment of workers by State, seasonally adjusted ..... 91
12. Employment of workers by industry, seasonally adjusted ..... 92
13. Average weekly hours by industry, seasonally adjusted ..... 95
14. Average hourly earnings by industry, seasonally adjusted ..... 96
15. Average hourly earnings by industry ..... 97
16. Average weekly earnings by industry ..... 98
17. Diffusion indexes of employment change, seasonally adjusted ..... 99
18. Job openings levels and rates, by industry and regions, seasonally adjusted ..... 100
19. Hires levels and rates by industry and region, seasonally adjusted ..... 100
20. Separations levels and rates by industry and region, seasonally adjusted ..... 101
21. Quits levels and rates by industry and region, seasonally adjusted ..... 101
22. Quarterly Census of Employment and Wages, 10 largest counties ..... 102
23. Quarterly Census of Employment and Wages, by State.. 104
24. Annual data: Quarterly Census of Employment and Wages, by ownership ..... 105
25. Annual data: Quarterly Census of Employment and Wages, establishment size and employment, by supersector ... 106
26. Annual data: Quarterly Census of Employment and Wages, by metropolitan area ..... 107
27. Annual data: Employment status of the population ..... 112
28. Annual data: Employment levels by industry ..... 113
29. Annual data: Average hours and earnings level, by industry ..... 113

## Labor compensation and collective bargaining data

30. Employment Cost Index, compensation ..... 114
31. Employment Cost Index, wages and salaries ..... 116
32. Employment Cost Index, benefits, private industry ..... 118
33. Employment Cost Index, private nonfarm workers, by bargaining status, region, and area size ..... 119
34. Participants in benefit plans, medium and large firms ..... 120
35. Participants in benefits plans, small firms and government ..... 121
36. Work stoppages involving 1,000 workers or more ..... 122

## Price data

37. Consumer Price Index: U.S. city average, by expenditure category and commodity and service groups ..... 123
38. Consumer Price Index: U.S. city average and local data, all items ..... 126
39. Annual data: Consumer Price Index, all items and major groups ..... 127
40. Producer Price Indexes by stage of processing ..... 128
41. Producer Price Indexes for the net output of major industry groups ..... 129
42. Annual data: Producer Price Indexes by stage of processing ..... 120
43. U.S. export price indexes by Standard International Trade Classification ..... 131
44. U.S. import price indexes by Standard International Trade Classification ..... 132
45. U.S. export price indexes by end-use category ..... 133
46. U.S. import price indexes by end-use category ..... 133
47. U.S. international price indexes for selected categories of services ..... 133

## Productivity data

48. Indexes of productivity, hourly compensation, and unit costs, data seasonally adjusted ..... 134
49. Annual indexes of multifactor productivity ..... 135
50. Annual indexes of productivity, hourly compensation, unit costs, and prices ..... 136
51. Annual indexes of output per hour for select industries ..... 137

## International comparisons data

52. Unemployment rates in nine countries, seasonally adjusted ..... 140
53. Annual data: Employment status of the civilian working-age population, 10 countries ..... 141
54. Annual indexes of productivity and related measures, 15 economies ..... 142

## Injury and illness data

55. Annual data: Occupational injury and illness ..... 144
56. Fatal occupational injuries by event or exposure ..... 146

# 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, 17–21, 48, and 52. Seasonally adjusted labor force data in tables 1 and 4–9 were revised in the February 2005 issue of the *Review*. Seasonally adjusted establishment survey data shown in tables 1, 12–14, and 17 were revised in the March 2005 *Review*. A brief explanation of the seasonal adjustment methodology appears in “Notes on the data.”

Revisions in the productivity data in table 54 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 ( $\$3/150 \times 100 = \$2$ ). The \$2 (or any other resulting values) are described as “real,” “constant,” or “1982” dollars.

## Sources of information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. Definitions of each series and notes on the data are contained in later sections of these Notes describing each set of data. For detailed descriptions of each data series, see *BLS Handbook of Methods*, Bulletin 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:

[www.bls.gov/cps/](http://www.bls.gov/cps/)

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

[www.bls.gov/ces/](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:

[www.bls.gov/lpc/](http://www.bls.gov/lpc/)

For additional information on interna-

tional comparisons data, see *International Comparisons of Unemployment*, 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-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; 4–29)

### Household survey data

#### Description of the series

Employment data in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 60,000 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

#### Definitions

**Employed persons** include (1) all those who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

**Unemployed persons** are those who did

not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work because they were on layoff are also counted among the unemployed. **The unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population. Persons **not in the labor force** are those not classified as employed or unemployed. This group includes discouraged workers, defined as persons who want and are available for a job and who have looked for work sometime in the 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*. For a discussion of changes introduced in January 2003, see “Revisions to the Current Population Survey Effective in January 2003” in the February 2003 issue of *Employment and Earnings* (available on the BLS Web site at [www.bls.gov/cps/rvcps03.pdf](http://www.bls.gov/cps/rvcps03.pdf)).

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* (available on the BLS Web site at [www.bls.gov/cps/cpsrs.pdf](http://www.bls.gov/cps/cpsrs.pdf)) 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 2003 benchmark was introduced in February 2004 with the release of data for January 2004, published in the March 2004 is-

sue of the *Review*. With the release in June 2003, 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 included 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 were re-seasonally adjusted due to the NAICS conversion, which resulted in the revision of all CES time series.

Also in June 2003, the CES program introduced concurrent seasonal adjustment for the national establishment data. 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 new release of data. Concurrent seasonal adjustment incorporates all available data, including first preliminary estimates for the most current month, in the adjustment process. For additional information on all of the changes introduced in June 2003, see the June 2003 issue of *Employment and Earnings* and "Recent changes in the national Current Employment Statistics survey," *Monthly Labor Review*, June 2003, pp. 3–13.

Revisions in State data (table 11) occurred with the publication of January 2003 data. For information on the revisions for the State data, see the March and May 2003 issues of *Employment and Earnings*, and "Recent changes in the State and Metropolitan Area CES survey," *Monthly Labor Review*, June 2003, pp. 14–19.

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. 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).

## Quarterly Census of Employment and Wages

### 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 sub-

ject 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 Quarterly Census of Employment and Wages (QCEW) 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, the Quarterly Census of Employment and Wages 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 NAICS industries.

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 Worksites Report each quarter, in addition to their quarterly UI report. The Multiple Worksites 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 Worksites 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 wage** 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 wage** 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 program have switched to the 2002 version of the North American Industry Classification 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 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 Covered Employment and Wage (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.

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).

The Office of Management and Budget (OMB) defines metropolitan areas for use in Federal statistical activities and updates these definitions as needed. Data in this table use metropolitan area criteria established by OMB in definitions issued June 30, 1999 (OMB Bulletin No. 99-04). These definitions reflect information obtained from the 1990 Decennial Census and the 1998 U.S. Census Bureau population estimate. A complete list of metropolitan area definitions is available from the National Technical Information Service (NTIS), Document Sales, 5205 Port Royal Road, Springfield, Va. 22161, telephone 1-800-553-6847.

OMB defines metropolitan areas in terms of entire counties, except in the six New England States where they are defined in terms of cities and towns. New England data in this table, however, are based on a county concept defined by OMB as New England County Metropolitan Areas (NECMA) because county-level data are the most detailed available from the Quarterly Census of Employment and Wages. The NECMA is a county-based alternative to the city- and town-based metropolitan areas in New England. The NECMA for a Metropolitan Statistical Area (MSA) include: (1) the county containing the first-named city in that MSA title (this county may include the first-named cities of other MSA, and (2) each additional county having at least half its population in the MSA in which first-named cities are in the county identified in step 1. The NECMA is officially defined areas that are meant to be used by statistical programs that cannot use the regular metropolitan area definitions in New England.

FOR ADDITIONAL INFORMATION on the covered employment and wage data, contact the Division of Administrative Statistics and Labor Turnover at (202) 691-6567.

## Job Openings and Labor Turnover Survey

### Description of the series

Data for the **Job Openings and Labor Turnover Survey** (JOLTS) are collected and compiled from a sample of 16,000 business establishments. Each month, data are collected for total employment, job openings, hires, quits, layoffs and discharges, and other separations. The JOLTS program covers all private nonfarm establishments such as factories, offices, and stores, as well as Federal, State, and local government entities in the 50 States and the District of Columbia. The JOLTS sample design is a random sample drawn from a universe of more than eight million establishments compiled as part of the operations of the Quarterly Census of Employment and Wages, or QCEW, program. This program includes all employers subject to State unemployment insurance (UI) laws and Federal agencies subject to Unemployment Compensation for Federal Employees (UCFE).

The sampling frame is stratified by ownership, region, industry sector, and size class. Large firms fall into the sample with virtual certainty. JOLTS total employment estimates are controlled to the employment estimates of the Current Employment Statistics (CES) survey. A ratio of CES to JOLTS employment is used to adjust the levels for all other JOLTS data elements. Rates then are computed from the adjusted levels.

The monthly JOLTS data series begin with December 2000. Not seasonally adjusted data on job openings, hires, total separations, quits, layoffs and discharges, and other separations levels and rates are available for the total nonfarm sector, 16 private industry divisions and 2 government divisions based on the North American Industry Classification System (NAICS), and four geographic regions. Seasonally adjusted data on job openings, hires, total separations, and quits levels and rates are available for the total nonfarm sector, selected industry sectors, and four geographic regions.

### Definitions

Establishments submit **job openings** information for the last business day of the reference month. A job opening requires that (1) a specific position exists and there is work available for that position; and (2) work could start within 30 days regardless of whether a suitable candidate is found; and (3) the employer is actively recruiting from outside the establishment to fill the position. Included are full-time, part-time, permanent,

short-term, and seasonal openings. Active recruiting means that the establishment is taking steps to fill a position by advertising in newspapers or on the Internet, posting help-wanted signs, accepting applications, or using other similar methods.

Jobs to be filled only by internal transfers, promotions, demotions, or recall from layoffs are excluded. Also excluded are jobs with start dates more than 30 days in the future, jobs for which employees have been hired but have not yet reported for work, and jobs to be filled by employees of temporary help agencies, employee leasing companies, outside contractors, or consultants. The job openings rate is computed by dividing the number of job openings by the sum of employment and job openings, and multiplying that quotient by 100.

**Hires** are the total number of additions to the payroll occurring at any time during the reference month, including both new and rehired employees and full-time and part-time, permanent, short-term and seasonal employees, employees recalled to the location after a layoff lasting more than 7 days, on-call or intermittent employees who returned to work after having been formally separated, and transfers from other locations. The hires count does not include transfers or promotions within the reporting site, employees returning from strike, employees of temporary help agencies or employee leasing companies, outside contractors, or consultants. The hires rate is computed by dividing the number of hires by employment, and multiplying that quotient by 100.

**Separations** are the total number of terminations of employment occurring at any time during the reference month, and are reported by type of separation—quits, layoffs and discharges, and other separations. Quits are voluntary separations by employees (except for retirements, which are reported as other separations). Layoffs and discharges are involuntary separations initiated by the employer and include layoffs with no intent to rehire, formal layoffs lasting or expected to last more than 7 days, discharges resulting from mergers, downsizing, or closings, firings or other discharges for cause, terminations of permanent or short-term employees, and terminations of seasonal employees. Other separations include retirements, transfers to other locations, deaths, and separations due to disability. Separations do not include transfers within the same location or employees on strike.

The separations rate is computed by dividing the number of separations by employment, and multiplying that quotient by 100. The quits, layoffs and discharges, and other separations rates are computed similarly,

dividing the number by employment and multiplying by 100.

## Notes on the data

The JOLTS data series on job openings, hires, and separations are relatively new. The full sample is divided into panels, with one panel enrolled each month. A full complement of panels for the original data series based on the 1987 Standard Industrial Classification (SIC) system was not completely enrolled in the survey until January 2002. The supplemental panels of establishments needed to create NAICS estimates were not completely enrolled until May 2003. The data collected up until those points are from less than a full sample. Therefore, estimates from earlier months should be used with caution, as fewer sampled units were reporting data at that time.

In March 2002, BLS procedures for collecting hires and separations data were revised to address possible underreporting. As a result, JOLTS hires and separations estimates for months prior to March 2002 may not be comparable with estimates for March 2002 and later.

The Federal Government reorganization that involved transferring approximately 180,000 employees to the new Department of Homeland Security is not reflected in the JOLTS hires and separations estimates for the Federal Government. The Office of Personnel Management's record shows these transfers were completed in March 2003. The inclusion of transfers in the JOLTS definitions of hires and separations is intended to cover ongoing movements of workers between establishments. The Department of Homeland Security reorganization was a massive one-time event, and the inclusion of these inter-governmental transfers would distort the Federal Government time series.

Data users should note that seasonal adjustment of the JOLTS series is conducted with fewer data observations than is customary. The historical data, therefore, may be subject to larger than normal revisions. Because the seasonal patterns in economic data series typically emerge over time, the standard use of moving averages as seasonal filters to capture these effects requires longer series than are currently available. As a result, the stable seasonal filter option is used in the seasonal adjustment of the JOLTS data. When calculating seasonal factors, this filter takes an average for each calendar month after detrending the series. The stable seasonal filter assumes that the seasonal factors are fixed; a necessary assumption until sufficient data are avail-

able. When the stable seasonal filter is no longer needed, other program features also may be introduced, such as outlier adjustment and extended diagnostic testing. Additionally, it is expected that more series, such as layoffs and discharges and additional industries, may be seasonally adjusted when more data are available.

JOLTS hires and separations estimates cannot be used to exactly explain net changes in payroll employment. Some reasons why it is problematic to compare changes in payroll employment with JOLTS hires and separations, especially on a monthly basis, are: (1) the reference period for payroll employment is the pay period including the 12th of the month, while the reference period for hires and separations is the calendar month; and (2) payroll employment can vary from month to month simply because part-time and on-call workers may not always work during the pay period that includes the 12th of the month. Additionally, research has found that some reporters systematically underreport separations relative to hires due to a number of factors, including the nature of their payroll systems and practices. The shortfall appears to be about 2 percent or less over a 12-month period.

FOR ADDITIONAL INFORMATION on the Job Openings and Labor Turnover Survey, contact the Division of Administrative Statistics and Labor Turnover at (202) 961-5870.

## Compensation and Wage Data

(Tables 1–3; 30–36)

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

## Definitions

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

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

**Benefits** include the cost to employers for paid leave, supplemental pay (including nonproduction bonuses), insurance, retirement and savings plans, and legally required

benefits (such as Social Security, workers' compensation, and unemployment insurance).

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

## Notes on the data

The Employment Cost Index for changes in wages and salaries in the private nonfarm economy was published beginning in 1975. Changes in total compensation cost—wages and salaries and benefits combined—were published beginning in 1980. The series of changes in wages and salaries and for total compensation in the State and local government sector and in the civilian nonfarm economy (excluding Federal employees) were published beginning in 1981. Historical indexes (June 1981=100) are available on the Internet:

[www.bls.gov/ect/](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 34 for medium and large private establishments and in table 35 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 employ-

ees. 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:

[www.bls.gov/ebs/](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 36.

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:

[www.bls.gov/cba/](http://www.bls.gov/cba/)

## Price Data

(Tables 2; 37–47)

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—December 2003 = 100 for many Producer Price Indexes (unless otherwise noted), 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 non-institutional 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 be-

tween 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 38. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

## Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are measured for the CPI-U. A rental equivalence method replaced the asset-price approach to homeownership costs for that series. In January 1985, the same change was made in the CPI-W. The central purpose of the change was to separate shelter costs from the investment component of homeownership so that the index would reflect only the cost of shelter services provided by owner-occupied homes. An updated CPI-U and CPI-W were introduced with release of the January 1987 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 2002 North American Industry Classification System and product codes developed by the U.S. Census Bureau.

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 com-

pleted 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 International Trade 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; 48-51)

### Business and major sectors

#### Description of the series

The productivity measures relate real out-

put 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, non-profit 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 48–51 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 indexes measure the relationship between output and inputs for selected industries and industry groups, and thus reflect trends in industry efficiency over time. Industry measures include labor productivity, multifactor productivity, compensation, and unit labor costs.

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 is based on the hours of all workers or, in the case of some transportation industries, on the number of employees. For most industries, the series consists of the hours of all employees. For some trade and services industries, the series also includes the hours of partners, proprietors, and unpaid family workers.

**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 combined inputs consumed in pro-

ducing that output. **Combined inputs** include capital, labor, and intermediate purchases. The measure of **capital input** 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 Census Bureau, with additional data supplied by other government agencies, trade associations, and other sources.

FOR ADDITIONAL INFORMATION on this series, contact the Division of Industry Productivity Studies: (202) 691–5618, or visit the Website at: [www.bls.gov/lpc/home.htm](http://www.bls.gov/lpc/home.htm)

## International Comparisons

(Tables 52–54)

### Labor force and unemployment

#### Description of the series

Tables 52 and 53 present comparative measures of the labor force, employment, and unemployment approximating U.S. concepts for the United States, Canada, Australia, Japan, and six European countries. The labor force statistics published by other industrial countries are not, in most cases, comparable to U.S. concepts. Therefore, the Bureau adjusts the figures for selected countries, for all known major definitional differences, to the extent that data to prepare adjustments are available. 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 (available on the BLS Web site at: [www.bls.gov/opus/mlr/2000/06/art1full.pdf](http://www.bls.gov/opus/mlr/2000/06/art1full.pdf)).

#### 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 foreign country data are adjusted as closely as possible to U.S. concepts, with the exception of lower age limits and the treatment of layoffs. These adjustments include, but are not limited to: including older persons in the labor force by imposing no upper age limit, adding unemployed students to the unemployed, excluding the military and family workers working fewer than 15 hours from the employed, and excluding persons engaged in passive job search from the unemployed.

Data for the United States relate to the population 16 years of age and older. The U.S. concept of the working age population has no upper age limit. The adjusted to U.S. concepts statistics have been adapted, insofar as possible, to the age at which compulsory schooling ends in each country, and the Swedish statistics have been adjusted to include persons older than the Swedish upper age limit of 64 years. The adjusted statistics presented here relate to the population 16 years of age and older in France, Sweden, and the United Kingdom; 15 years of age and older in Australia, Japan, Germany, Italy, and the Netherlands. An exception to this rule is that the Canadian statistics are adjusted to cover the population 16 years of age and older, whereas the age at which compulsory schooling ends remains at 15 years. In the labor force participation rates and employment-population ratios, the denominator is the civilian noninstitutionalized working age population, except that the institutionalized working age population is included in Japan and Germany.

In the United States, the unemployed include persons who are not employed and who were actively seeking work during the reference period, as well as persons on layoff. Persons waiting to start a new job who were actively seeking work during the reference period are counted as unemployed under U.S. concepts; if they were not actively seeking work, they are not counted in the labor force. In some countries, persons on layoff are classified as employed due to their strong job attachment. No adjustment is made for the countries that classify those on layoff as employed. In the United States, as in Australia and Japan, passive job seekers are not in the labor force; job search must be active, such as placing or answering advertisements, contacting employers directly, or registering with an employment agency (simply reading ads is not enough to qualify as active search). Canada and the European countries classify

passive jobseekers as unemployed. An adjustment is made to exclude them in Canada, but not in the European countries where the phenomenon is less prevalent. Persons waiting to start a new job are counted among the unemployed for all other countries, whether or not they were actively seeking work.

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

There are breaks in series for the United States (1994, 1997, 1998, 1999, 2000, 2003), Australia (2001), and Germany (1999).

For the United States, beginning in 1994, data are not strictly comparable for prior years because of the introduction of a major redesign of the labor force survey questionnaire and collection methodology. The redesign effect has been estimated to increase the overall unemployment rate by 0.1 percentage point. Other breaks noted relate to changes in population controls that had virtually no effect on unemployment rates.

For a description of all the changes in the U.S. labor force survey over time and their impact, see Historical Comparability in the "Household Data" section of the BLS publication *Employment and Earnings* (available on the BLS Web site at [www.bls.gov/cps/eetech\\_methods.pdf](http://www.bls.gov/cps/eetech_methods.pdf)).

For Australia, the 2001 break reflects the introduction in April 2001 of a redesigned labor force survey that allowed for a closer application of International Labor Office guidelines for the definitions of labor force statistics. The Australian Bureau of Statistics revised their data so there is no break in the employment series. However, the reclassification of persons who had not actively looked for work because they were waiting to begin a new job from "not in the labor force" to "unemployed" could only be incorporated for April 2001 forward. This reclassification diverges from the U.S. definition where persons waiting to start a new job but not actively seeking work are not counted in the labor force. The impact of the reclassification was an increase in the unemployment rate by 0.1 percentage point in 2001.

For Germany, the 1999 break reflects the incorporation of an improved method of data calculation and a change in coverage to persons living in private households only.

For further qualifications and historical data, see *Comparative Civilian Labor Force Statistics, Ten Countries*, on the BLS Web site at [www.bls.gov/fls/flsforc.pdf](http://www.bls.gov/fls/flsforc.pdf)

FOR ADDITIONAL INFORMATION on this series, contact the Division of Foreign Labor Statistics: (202) 691-5654 or [flshelp@bls.gov](mailto:flshelp@bls.gov)

## Manufacturing productivity and labor costs

### Description of the series

Table 54 presents comparative indexes of manufacturing labor productivity (output per hour), output, total hours, compensation per hour, and unit labor costs for the United States, Australia, Canada, Japan, Korea, Taiwan, 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 economies.

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) with the exception of Belgium and Taiwan, where only employees (wage and salary earners) are counted.

### 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 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. data from 1998 forward are based on the 1997 North American Industry Classification System (NAICS). Output is in real value-added terms using a chain-type annual-weighted method for price deflation. (For more information on the U.S. measure, see "Improved Estimates of Gross Product by Industry for 1947–98," *Survey of Current Business*, June 2000, and "Improved Annual Industry Accounts for 1998–2003," *Survey of Current Business*, June 2004.) Most of the other economies now also use annual moving price weights, but earlier years were estimated using fixed price

weights, with the weights typically updated 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 48 and 50 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 economies. The measures are developed from statistics of manufacturing employment and average hours. The series used for Australia, Canada, Denmark, France (from 1970 forward), Norway, and Sweden are official series published with the national accounts. 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 United Kingdom from 1992, an official annual index of total manufacturing hours is used. 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.

**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 economy, except those for Belgium, which are developed by BLS using statistics on employment, average hours, and hourly compensation. For Australia, 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 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 include parts of

mining as well.

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.

Official published data for Australia are in fiscal years that begin on July 1. The Australian Bureau of Statistics has finished calendar-year data for recent years for output and hours. For earlier years and for compensation, data are BLS estimates using 2-year moving averages of fiscal year data.

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

---

## Occupational Injury and Illness Data

(Tables 55–56)

### 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 stratified 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 recog-

nized 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: [www.bls.gov/iif/](http://www.bls.gov/iif/)

## 1. Labor market indicators

Selected indicators	2003	2004	2003			2004				2005	
			II	III	IV	I	II	III	IV	I	II
<b>Employment data</b>											
Employment status of the civilian noninstitutional population (household survey): <sup>1</sup>											
Labor force participation rate.....	66.2	66.0	66.4	66.2	66.1	66.0	66.0	66.0	66.0	65.8	66.0
Employment-population ratio.....	62.3	62.3	62.3	62.1	62.2	62.2	62.3	62.4	62.4	62.3	62.7
Unemployment rate.....	6.0	5.5	6.1	6.1	5.9	5.6	5.6	5.5	5.4	5.3	5.1
Men.....	6.3	5.6	6.5	6.4	6.1	5.7	5.7	5.6	5.6	5.4	5.1
16 to 24 years.....	13.4	12.6	13.9	13.7	13.0	12.6	12.9	12.5	12.6	13.2	12.6
25 years and older.....	5.0	4.4	5.2	5.1	4.9	4.5	4.5	4.4	4.3	4.1	3.8
Women.....	5.7	5.4	5.7	5.8	5.6	5.6	5.4	5.3	5.2	5.1	5.1
16 to 24 years.....	11.4	11.0	11.8	11.5	10.9	11.1	10.9	10.9	10.9	10.4	10.5
25 years and older.....	4.6	4.4	4.6	4.7	4.6	4.5	4.4	4.3	4.2	4.1	4.2
Employment, nonfarm (payroll data), in thousands: <sup>1</sup>											
Total nonfarm.....	129,931	131,480	129,845	129,890	130,168	130,541	131,125	131,731	132,302	132,814	133,405
Total private.....	108,356	109,862	108,253	108,320	108,614	108,986	109,737	110,095	110,600	111,089	111,655
Goods-producing.....	21,817	21,884	21,828	21,700	21,684	21,725	21,868	21,932	22,000	22,054	22,134
Manufacturing.....	14,525	14,329	14,555	14,377	14,313	14,285	14,338	14,353	14,338	14,314	14,288
Service-providing.....	108,114	109,596	108,017	108,190	108,483	108,816	109,457	109,799	110,302	110,759	111,271
State and local government.....											
Average hours:											
Total private.....	33.7	33.7	33.6	33.6	33.7	33.8	33.7	33.7	33.7	33.7	33.7
Manufacturing.....	40.4	40.8	40.2	40.3	40.7	41.0	40.8	40.8	40.6	40.6	40.4
Overtime.....	4.2	4.6	4.0	4.1	4.4	4.5	4.5	4.6	4.5	4.5	4.4
<b>Employment Cost Index<sup>2</sup></b>											
Percent change in the ECI, compensation:											
All workers (excluding farm, household and Federal workers).....	3.8	3.7	.8	1.1	.5	1.4	.9	1.0	.5	1.1	.6
Private industry workers.....	4.0	3.8	.8	1.0	.4	1.5	.9	.8	.5	1.1	.7
Goods-producing <sup>3</sup> .....	4.0	4.7	.9	.7	.5	2.3	.9	.9	.6	1.5	.9
Service-providing <sup>3</sup> .....	4.0	3.3	.8	1.1	.5	1.1	1.0	.8	.3	1.0	.6
State and local government workers.....	3.3	3.5	.4	1.7	.5	.7	.4	1.7	.6	.9	.3
Workers by bargaining status (private industry):											
Union.....	4.6	5.6	1.2	1.0	.7	2.8	1.5	.8	.5	.7	.8
Nonunion.....	3.9	3.4	.8	1.0	.4	1.3	.8	.9	.4	1.3	.7

<sup>1</sup> Quarterly data seasonally adjusted.

<sup>2</sup> Annual changes are December-to-December changes. Quarterly changes are calculated using the last month of each quarter.

<sup>3</sup> Goods-producing industries include mining, construction, and manufacturing. Service-providing industries include all other private sector industries.

NOTE: Beginning in January 2003, household survey data reflect revised population controls. Nonfarm 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.

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

Selected measures	2003	2004	2003			2004				2005	
			II	III	IV	I	II	III	IV	I	II
<b>Compensation data<sup>1,2</sup></b>											
Employment Cost Index—compensation (wages, salaries, benefits):											
Civilian nonfarm.....	3.8	3.7	0.8	1.1	0.5	1.4	0.9	1.0	0.5	1.1	0.6
Private nonfarm.....	4.0	3.8	.8	1.0	.4	1.5	.9	.8	.5	1.1	.7
Employment Cost Index—wages and salaries:											
Civilian nonfarm.....	2.9	2.4	.6	.9	.3	.6	.6	.9	.3	.7	.5
Private nonfarm.....	3.0	2.4	.7	.8	.4	.7	.7	.9	.2	.7	.6
<b>Price data<sup>1</sup></b>											
Consumer Price Index (All Urban Consumers): All Items.....	2.3	3.3	-.3	-2	-2	1.2	1.2	.2	.2	1.0	.5
Producer Price Index:											
Finished goods.....	3.2	4.1	-.8	.3	.0	1.2	1.2	.0	1.1	2.0	.3
Finished consumer goods.....	4.2	4.6	1.8	.3	.0	1.5	1.4	-1.7	.9	-2.6	1.4
Capital equipment.....	.4	2.4	-.6	-.1	.0	.6	.5	.4	1.6	2.1	-2
Intermediate materials, supplies, and components.....	4.6	9.1	-2.1	-.1	.0	2.5	3.0	1.9	.9	3.5	.8
Crude materials.....	25.2	18.0	-10.6	3.4	14.4	6.0	7.6	-5.1	8.3	9.7	-2.5
<b>Productivity data<sup>3</sup></b>											
Output per hour of all persons:											
Business sector.....	3.9	3.4	7.6	8.4	.3	3.4	3.4	1.4	3.1	2.9	1.2
Nonfarm business sector.....	3.8	3.4	6.6	9.6	.8	2.1	4.5	1.3	2.5	3.2	2.2
Nonfinancial corporations <sup>4</sup> .....	4.1	3.9	7.3	7.3	2.4	.8	2.3	7.4	8.5	3.6	-

<sup>1</sup> 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.

<sup>2</sup> Excludes Federal and private household workers.

<sup>3</sup> 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.

<sup>4</sup> Output per hour of all employees.

**3. Alternative measures of wage and compensation changes**

Components	Quarterly change					Four quarters ending—				
	2004			2005		2004			2005	
	II	III	IV	I	II	II	III	IV	I	II
Average hourly compensation: <sup>1</sup>										
All persons, business sector.....	3.3	6.5	11.3	6.2	2.5	3.6	4.3	4.8	6.8	6.6
All persons, nonfarm business sector.....	3.7	6.1	10.2	6.9	3.5	3.7	4.0	5.8	6.7	6.7
Employment Cost Index—compensation:										
Civilian nonfarm <sup>2</sup> .....	.9	1.0	.5	1.1	.6	3.9	3.8	3.7	3.5	3.2
Private nonfarm.....	.9	.8	.5	1.1	.7	4.0	3.7	3.8	3.4	3.2
Union.....	1.5	.8	.5	.7	.8	6.0	5.8	5.6	3.6	2.9
Nonunion.....	.8	.9	.4	1.3	.7	3.5	3.4	3.4	3.4	3.2
State and local governments.....	.4	1.7	.6	.9	.3	3.4	3.4	3.5	3.6	3.6
Employment Cost Index—wages and salaries:										
Civilian nonfarm <sup>2</sup> .....	.6	.9	.3	.7	.5	2.5	2.4	2.4	2.4	2.4
Private nonfarm.....	.7	.9	.2	.7	.6	2.6	2.6	2.4	2.4	2.4
Union.....	1.0	.8	.4	.1	.8	2.9	3.0	2.8	2.3	2.1
Nonunion.....	.6	.8	.2	.8	.6	2.5	2.5	2.4	2.4	2.4
State and local governments.....	.2	1.0	.5	.6	.2	1.9	2.0	2.1	2.3	2.4

<sup>1</sup> Seasonally adjusted. "Quarterly average" is percent change from a quarter ago, at an annual rate.

<sup>2</sup> 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		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>TOTAL</b>															
Civilian noninstitutional population <sup>1</sup> .....	221,168	223,357	223,677	223,941	224,192	224,422	224,640	224,837	225,041	225,236	225,441	225,670	225,911	226,153	226,421
Civilian labor force.....	146,510	147,401	147,676	147,531	147,893	148,313	148,203	147,979	148,132	148,157	148,762	149,122	149,123	149,573	149,841
Participation rate.....	66.2	66.0	66.0	65.9	66.0	66.1	66.0	65.8	65.8	65.8	66.0	66.1	66.0	66.1	66.2
Employed.....	137,736	139,252	139,658	139,527	139,827	140,293	140,156	140,241	140,144	140,501	141,099	141,475	141,638	142,076	142,449
Employment-population ratio <sup>2</sup> .....	62.3	62.3	62.4	62.3	62.4	62.5	62.4	62.4	62.3	62.4	62.6	62.7	62.7	62.8	62.9
Unemployed.....	8,774	8,149	8,018	8,005	8,066	8,020	8,047	7,737	7,988	7,656	7,663	7,647	7,486	7,497	7,391
Unemployment rate.....	6.0	5.5	5.4	5.5	5.4	5.5	5.4	5.2	5.4	5.2	5.2	5.1	5.0	5.0	4.9
Not in the labor force.....	74,658	75,956	76,001	76,410	76,299	76,109	76,437	76,858	76,909	77,079	76,679	76,547	76,787	76,580	76,581
<b>Men, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup> .....	98,272	99,476	99,642	99,776	99,904	100,017	99,476	100,219	100,321	100,419	100,520	100,634	100,754	100,874	101,004
Civilian labor force.....	74,623	75,364	75,615	75,462	75,632	75,866	75,754	75,594	75,816	75,921	76,173	76,439	76,462	76,624	76,831
Participation rate.....	75.9	75.8	75.9	75.6	75.7	75.9	75.7	75.4	75.6	75.6	75.8	76.0	75.9	76.0	76.1
Employed.....	70,415	71,572	71,847	71,701	71,895	71,134	72,020	72,029	72,131	72,429	72,817	73,100	73,174	73,363	73,527
Employment-population ratio <sup>2</sup> .....	71.7	71.9	72.1	71.9	72.0	72.1	71.9	71.9	71.9	72.1	72.4	72.6	72.6	72.7	72.8
Unemployed.....	4,209	3,791	3,768	3,761	3,736	3,733	3,733	3,565	3,685	3,492	3,356	3,339	3,288	3,261	3,304
Unemployment rate.....	5.6	5.0	5.0	5.0	4.9	4.9	4.9	4.7	4.9	4.6	4.4	4.4	4.3	4.3	4.3
Not in the labor force.....	23,649	24,113	24,026	24,314	24,272	24,151	24,372	24,625	24,505	24,498	24,347	24,195	24,292	24,250	24,173
<b>Women, 20 years and over</b>															
Civilian noninstitutional population <sup>1</sup> .....	106,800	107,658	107,801	107,920	108,032	108,129	107,658	108,316	108,403	108,486	108,573	108,672	108,776	108,880	108,996
Civilian labor force.....	64,716	64,923	64,909	65,008	65,126	65,244	65,260	65,318	65,270	65,051	65,420	65,479	65,470	65,768	65,761
Participation rate.....	60.6	60.3	60.2	60.2	60.3	60.3	60.3	60.3	60.2	60.0	60.3	60.3	60.2	60.4	60.3
Employed.....	61,402	61,773	61,877	61,939	62,024	62,145	62,208	62,295	62,202	62,099	62,384	62,464	62,451	62,690	62,867
Employment-population ratio <sup>2</sup> .....	57.5	57.4	57.4	57.4	57.4	57.5	57.5	57.5	57.4	57.2	57.5	57.5	57.4	57.6	57.7
Unemployed.....	3,314	3,150	3,032	3,069	3,102	3,099	3,051	3,023	3,068	2,952	3,036	3,015	3,019	3,078	2,894
Unemployment rate.....	5.1	4.9	4.7	4.7	4.8	4.7	4.7	4.6	4.7	4.5	4.6	4.6	4.6	4.7	4.4
Not in the labor force.....	42,083	42,735	42,892	42,912	42,906	42,885	42,961	42,998	43,133	43,435	43,153	43,192	43,306	43,113	43,235
<b>Both sexes, 16 to 19 years</b>															
Civilian noninstitutional population <sup>1</sup> .....	16,096	16,222	16,234	16,246	16,257	16,293	16,222	16,302	16,317	16,332	16,347	16,364	16,381	16,399	16,421
Civilian labor force.....	7,170	7,114	7,152	7,062	7,165	7,202	7,189	7,066	7,046	7,185	7,168	7,204	7,192	7,182	7,249
Participation rate.....	44.5	43.9	44.1	43.5	43.9	44.2	44.1	43.3	43.2	44.0	43.9	44.0	43.9	43.8	44.1
Employed.....	5,919	5,907	5,934	5,887	5,908	6,014	5,927	5,917	5,811	5,973	5,897	5,911	6,013	6,024	6,055
Employment-population ratio <sup>2</sup> .....	36.8	36.4	36.6	36.2	36.3	36.9	36.4	36.3	35.6	36.6	36.1	36.1	36.7	36.7	36.9
Unemployed.....	1,251	1,208	1,217	1,175	1,227	1,188	1,262	1,150	1,235	1,212	1,271	1,293	1,178	1,158	1,193
Unemployment rate.....	17.5	17.0	17.0	16.6	17.2	16.5	17.6	16.3	17.5	16.9	17.7	17.9	16.4	16.1	16.5
Not in the labor force.....	8,926	9,108	9,082	9,184	9,122	9,074	9,104	9,235	9,271	9,147	9,179	9,160	9,190	9,217	9,172
<b>White<sup>3</sup></b>															
Civilian noninstitutional population <sup>1</sup> .....	181,292	182,643	182,846	183,022	183,188	183,340	183,483	183,640	183,767	183,888	184,015	184,167	184,328	184,490	184,669
Civilian labor force.....	120,546	121,686	121,278	120,995	121,273	121,606	121,509	121,553	121,621	121,484	121,961	122,177	121,985	122,383	122,668
Participation rate.....	66.5	66.3	66.3	66.1	66.2	66.3	66.2	66.2	66.2	66.1	66.3	66.3	66.2	66.3	66.4
Employed.....	114,235	115,239	115,526	115,318	115,618	115,966	115,910	116,158	116,022	116,135	116,574	116,791	116,778	117,149	117,471
Employment-population ratio <sup>2</sup> .....	63.0	63.1	63.2	63.0	63.1	63.3	63.2	63.3	63.1	63.2	63.4	63.4	63.4	63.5	63.6
Unemployed.....	6,311	5,847	5,752	5,677	5,655	5,640	5,600	5,395	5,598	5,349	5,387	5,386	5,206	5,234	5,197
Unemployment rate.....	5.2	4.8	4.7	4.7	4.7	4.6	4.6	4.4	4.6	4.4	4.4	4.4	4.3	4.3	4.2
Not in the labor force.....	60,746	61,558	61,568	62,027	61,915	61,735	61,973	62,088	62,146	62,403	62,054	61,989	62,343	62,107	62,001
<b>Black or African American<sup>3</sup></b>															
Civilian noninstitutional population <sup>1</sup> .....	25,686	26,065	26,120	26,163	26,204	26,239	26,273	26,306	26,342	26,377	26,413	26,450	26,448	26,526	26,572
Civilian labor force.....	16,526	16,638	16,721	16,711	16,820	16,728	16,713	16,721	16,708	16,741	16,940	17,050	17,147	17,190	17,154
Participation rate.....	64.3	63.8	64.0	63.9	62.4	63.8	63.6	63.6	63.4	63.5	64.1	64.5	64.7	64.8	64.6
Employed.....	14,739	14,909	14,972	14,981	15,012	14,913	14,907	14,946	14,890	15,025	15,184	15,229	15,378	15,561	15,499
Employment-population ratio <sup>2</sup> .....	57.4	57.2	57.3	57.3	57.3	56.8	56.7	56.8	56.5	57.0	57.5	58.0	58.1	58.7	58.3
Unemployed.....	1,787	1,729	1,749	1,730	1,808	1,814	1,806	1,775	1,818	1,716	1,756	1,721	1,769	1,628	1,655
Unemployment rate.....	10.8	10.4	10.5	10.4	10.7	10.8	10.8	10.6	10.9	10.3	10.4	10.1	10.3	9.5	9.6
Not in the labor force.....	9,161	9,428	9,399	9,452	9,384	9,512	9,559	9,585	9,634	9,636	9,473	9,400	9,341	9,336	9,417

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		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>Hispanic or Latino ethnicity</b>															
Civilian noninstitutional population <sup>1</sup> .....	27,551	28,109	28,243	28,338	28,431	28,520	28,608	28,642	28,729	28,815	28,902	28,989	29,079	29,168	29,264
Civilian labor force.....	18,813	19,272	19,463	19,444	19,524	19,552	19,544	19,379	19,458	19,541	19,665	19,761	19,777	19,794	19,914
Participation rate.....	68.3	68.6	68.9	68.6	68.7	68.6	68.3	67.7	67.7	67.8	68.0	68.2	68.0	67.9	68.0
Employed.....	17,372	17,930	18,128	18,079	18,213	18,238	18,252	18,198	18,211	18,425	18,412	18,578	18,623	18,698	18,761
Employment-population ratio <sup>2</sup> .....	63.1	63.8	64.2	63.8	64.1	63.9	63.8	63.5	63.4	63.9	63.7	64.1	64.0	64.1	64.1
Unemployed.....	1,441	1,342	1,335	1,366	1,311	1,313	1,292	1,181	1,248	1,117	1,252	1,183	1,154	1,096	1,153
Unemployment rate.....	7.7	7.0	6.9	7.0	6.7	6.7	6.6	6.1	6.4	5.7	6.4	6.0	5.8	5.5	5.8
Not in the labor force.....	8,738	8,837	8,780	8,894	8,907	8,968	9,064	9,263	9,270	9,273	9,237	9,228	9,302	9,374	9,350

<sup>1</sup> The population figures are not seasonally adjusted.

<sup>2</sup> Civilian employment as a percent of the civilian noninstitutional population.

<sup>3</sup> 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. Beginning in January 2003, data reflect revised population controls used in the household survey.

**5. Selected employment indicators, monthly data seasonally adjusted**

[In thousands]

Selected categories	Annual average		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>Characteristic</b>															
Employed, 16 years and older.....	137,736	139,252	139,658	139,527	139,827	140,293	140,156	140,241	140,144	140,501	141,099	141,475	141,638	142,076	142,449
Men.....	73,332	74,524	74,824	74,629	74,852	75,188	74,938	74,934	74,964	75,375	75,735	75,985	76,092	76,272	76,449
Women.....	64,404	64,728	64,834	64,898	64,975	65,104	65,218	65,307	65,180	65,127	65,364	65,490	65,545	65,804	66,000
Married men, spouse present.....	44,653	45,084	45,099	45,093	45,127	45,462	45,315	45,171	45,351	45,382	45,482	45,725	45,357	45,486	45,700
Married women, spouse present.....	34,695	34,600	34,494	34,704	34,808	34,961	34,878	34,739	34,601	34,307	34,539	34,747	34,622	34,965	34,997
<b>Persons at work part time<sup>1</sup></b>															
All industries:															
Part time for economic reasons.....	4,701	4,567	4,509	4,476	4,762	4,533	4,474	4,395	4,269	4,344	4,293	4,361	4,465	4,427	4,493
Slack work or business conditions.....	3,118	2,841	2,816	2,805	3,052	2,761	2,735	2,768	2,629	2,643	2,613	2,741	2,668	2,723	2,768
Could only find part-time work.....	1,279	1,409	1,403	1,312	1,385	1,420	1,440	1,329	1,296	1,419	1,363	1,346	1,420	1,368	1,426
Part time for noneconomic noneconomic reasons.....	19,014	19,380	19,657	19,410	19,704	19,499	19,502	19,089	19,555	19,458	19,584	19,435	19,021	19,528	19,156
Nonagricultural industries:															
Part time for economic reasons.....	4,596	4,469	4,408	4,400	4,656	4,404	4,382	4,303	4,153	4,268	4,186	4,280	4,386	4,369	4,457
Slack work or business conditions.....	3,052	2,773	2,722	2,750	2,971	2,685	2,682	2,702	2,572	2,592	2,540	2,705	2,616	2,673	2,747
Could only find part-time work.....	1,264	1,399	1,388	1,320	1,363	1,396	1,397	1,309	1,268	1,411	1,351	1,331	1,416	1,369	1,420
Part time for noneconomic reasons.....	18,658	19,026	19,204	19,061	19,288	19,141	19,176	18,765	19,254	19,182	19,226	19,160	18,633	19,084	19,141

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

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

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

[Unemployment rates]

Selected categories	Annual average		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>Characteristic</b>															
Total, 16 years and older.....	6.0	5.5	5.4	5.4	5.5	5.4	5.4	5.2	5.4	5.2	5.2	5.1	5.0	5.0	4.9
Both sexes, 16 to 19 years.....	17.5	17.0	17.0	16.6	17.2	16.5	17.6	16.3	17.5	16.9	17.7	17.9	16.4	16.1	16.5
Men, 20 years and older.....	5.6	5.0	5.0	5.0	4.9	4.9	4.9	4.7	4.9	4.6	4.4	4.4	4.3	4.3	4.3
Women, 20 years and older.....	5.1	4.9	4.7	4.7	4.8	4.7	4.7	4.6	4.7	4.5	4.6	4.6	4.6	4.7	4.4
White, total <sup>1</sup> .....	5.2	4.8	4.7	4.7	4.7	4.6	4.6	4.4	4.6	4.4	4.4	4.4	4.3	4.3	4.2
Both sexes, 16 to 19 years.....	15.2	15.0	15.4	14.7	15.1	14.4	15.7	14.0	15.5	14.5	15.3	15.4	14.2	13.6	13.8
Men, 16 to 19 years.....	17.1	16.3	15.8	15.9	17.4	15.5	17.9	16.3	18.1	17.7	17.8	17.8	16.0	15.6	15.4
Women, 16 to 19 years.....	13.3	13.6	15.0	13.5	12.6	13.2	13.4	11.8	12.9	11.0	12.8	13.0	12.3	11.6	12.3
Men, 20 years and older.....	5.0	4.4	4.4	4.3	4.2	4.2	4.2	4.0	4.1	4.0	3.8	3.8	3.6	3.7	3.7
Women, 20 years and older.....	4.4	4.2	4.0	4.0	4.0	4.1	3.9	3.9	3.9	3.8	4.0	3.9	3.9	3.9	3.8
Black or African American, total <sup>1</sup> .....	10.8	10.4	10.5	10.4	10.7	10.8	10.8	10.6	10.9	10.3	10.4	10.1	10.3	9.5	9.6
Both sexes, 16 to 19 years.....	33.0	31.7	29.4	28.6	34.7	32.7	30.8	30.2	31.5	32.6	35.5	35.8	32.4	33.1	35.8
Men, 16 to 19 years.....	36.0	35.6	34.9	35.9	37.1	38.1	37.7	30.0	34.1	35.8	37.8	36.3	37.6	39.8	39.8
Women, 16 to 19 years.....	30.3	28.2	24.2	21.1	32.4	27.0	24.0	30.5	28.6	29.2	32.8	35.3	26.9	27.4	32.0
Men, 20 years and older.....	10.3	9.9	10.4	10.2	10.2	10.5	10.7	10.4	10.9	9.2	9.3	9.2	9.6	8.4	8.6
Women, 20 years and older.....	9.2	8.9	8.7	8.9	8.9	9.0	9.1	8.9	9.1	8.9	8.8	8.4	8.8	8.2	8.2
Hispanic or Latino ethnicity.....	7.7	7.0	6.9	7.0	6.7	6.7	6.6	6.1	6.4	5.7	6.4	6.0	5.8	5.5	5.8
Married men, spouse present.....	3.8	3.1	3.1	3.0	3.0	3.1	3.1	3.1	3.0	3.0	2.7	2.7	2.6	2.6	2.9
Married women, spouse present.....	3.7	3.5	3.5	3.1	3.1	3.4	3.4	3.2	3.2	3.0	3.3	3.1	3.3	3.4	3.2
Full-time workers.....	6.1	5.6	5.5	5.5	5.4	5.4	5.4	5.2	5.4	5.1	5.1	5.0	4.9	4.9	4.9
Part-time workers.....	5.5	5.3	5.2	5.0	5.5	5.4	5.4	5.3	5.4	5.4	5.3	5.6	5.4	5.5	5.1
<b>Educational attainment<sup>2</sup></b>															
Less than a high school diploma.....	8.8	8.5	8.2	8.9	8.2	8.0	8.3	7.5	7.8	7.8	8.4	7.8	7.0	7.6	7.6
High school graduates, no college <sup>3</sup> .....	5.5	5.0	4.9	4.8	4.9	4.9	4.9	4.7	4.9	4.7	4.4	4.5	4.7	4.8	4.7
Some college or associate degree.....	4.8	4.2	4.1	4.0	4.2	4.3	4.3	4.1	4.2	4.0	3.9	3.9	3.9	3.7	3.6
Bachelor's degree and higher <sup>4</sup> .....	3.1	2.7	2.7	2.6	2.5	2.5	2.5	2.4	2.4	2.4	2.5	2.4	2.3	2.4	2.1

<sup>1</sup> 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.

<sup>2</sup> Data refer to persons 25 years and older.

<sup>3</sup> Includes high school diploma or equivalent.

<sup>4</sup> Includes persons with bachelor's, master's, professional, and doctoral degrees.

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

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

[Numbers in thousands]

Weeks of unemployment	Annual average		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Less than 5 weeks.....	2,785	2,696	2,605	2,796	2,753	2,611	2,865	2,599	2,755	2,531	2,666	2,699	2,666	2,571	2,542
5 to 14 weeks.....	2,612	2,382	2,521	2,251	2,290	2,361	2,264	2,343	2,317	2,319	2,268	2,262	2,342	2,430	2,272
15 weeks and over.....	3,378	3,072	2,924	2,971	3,032	3,012	2,961	2,824	2,888	2,817	2,698	2,667	2,350	2,437	2,686
15 to 26 weeks.....	1,442	1,293	1,243	1,227	1,261	1,294	1,325	1,201	1,255	1,165	1,093	1,133	1,041	1,047	1,243
27 weeks and over.....	1,936	1,779	1,681	1,744	1,771	1,718	1,636	1,623	1,633	1,652	1,615	1,534	1,310	1,389	1,444
Mean duration, in weeks.....	19.2	19.6	19.2	19.6	19.7	19.8	19.3	19.3	19.1	19.5	19.6	18.8	17.1	17.6	18.9
Median duration, in weeks.....	10.1	9.8	9.5	9.5	9.5	9.8	9.5	9.4	9.3	9.3	8.9	9.1	9.1	9.0	9.4

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

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

[Numbers in thousands]

Reason for unemployment	Annual average		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Job losers <sup>1</sup> .....	4,838	4,197	3,978	4,014	4,074	4,066	4,108	4,048	3,980	3,784	3,675	3,646	3,680	3,633	3,490
On temporary layoff.....	1,121	998	971	919	947	941	965	966	965	961	838	864	975	959	880
Not on temporary layoff.....	3,717	3,199	3,007	3,094	3,127	3,124	3,144	3,082	3,015	2,823	2,837	2,782	2,705	2,674	2,610
Job leavers.....	818	858	885	830	829	880	898	819	965	855	897	942	844	839	839
Reentrants.....	2,477	2,408	2,440	2,417	2,411	2,388	2,361	2,324	2,405	2,364	2,356	2,353	2,219	2,394	2,451
New entrants.....	641	686	699	697	747	723	709	624	745	711	747	728	661	628	632
<b>Percent of unemployed</b>															
Job losers <sup>1</sup> .....	55.1	51.5	49.7	50.4	50.5	5.1	50.9	51.8	49.2	49.1	47.9	47.5	49.7	48.6	47.1
On temporary layoff.....	12.8	12.2	12.1	11.6	11.8	11.7	11.9	12.4	11.9	12.5	10.9	11.3	13.2	12.8	11.9
Not on temporary layoff.....	42.4	39.3	37.6	38.9	38.8	38.8	38.9	39.4	37.2	36.6	37.0	36.3	36.5	35.7	35.2
Job leavers.....	9.3	10.5	11.1	10.4	10.3	10.9	11.1	10.5	11.9	11.1	11.7	12.3	11.4	11.0	11.3
Reentrants.....	28.2	29.5	30.5	30.4	29.9	29.6	29.2	29.7	29.7	30.6	30.7	30.7	30.0	32.0	33.1
New entrants.....	7.3	8.4	8.7	8.8	9.3	9.0	8.8	8.0	9.2	9.2	9.7	9.5	8.9	8.4	8.5
<b>Percent of civilian labor force</b>															
Job losers <sup>1</sup> .....	3.3	2.8	2.7	2.7	2.8	2.7	2.8	2.7	2.7	2.6	2.5	2.4	2.5	2.4	2.3
On temporary layoff.....	.6	.6	.6	.6	.6	.6	.6	.6	.7	.6	.6	.6	.6	.6	.6
Not on temporary layoff.....	1.7	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.6
Job leavers.....	.6	.6	.6	.6	.6	.6	.6	.6	.7	.6	.6	.6	.6	.6	.6
Reentrants.....	1.7	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.6
New entrants.....	.4	.5	.5	.5	.5	.5	.5	.4	.5	.5	.5	.5	.4	.4	.4

<sup>1</sup> Includes persons who completed temporary jobs.

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

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

[Civilian workers]

Sex and age	Annual average		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Total, 16 years and older.....	6.0	5.5	5.4	5.4	5.5	5.4	5.4	5.2	5.4	5.2	5.2	5.1	5.0	5.0	4.9
16 to 24 years.....	12.4	11.8	11.6	11.8	12.2	11.5	11.7	11.7	12.4	11.6	11.8	11.8	11.2	10.8	11.4
16 to 19 years.....	17.5	17.0	17.0	16.6	17.2	16.5	17.6	16.3	17.5	16.9	17.7	17.9	16.4	16.1	16.5
16 to 17 years.....	19.1	20.2	20.7	19.6	20.6	21.2	20.6	19.3	20.6	19.4	19.9	20.0	18.3	18.7	18.6
18 to 19 years.....	16.4	15.0	14.9	14.9	15.2	13.5	15.4	14.4	15.5	15.0	16.9	16.3	15.2	14.4	15.1
20 to 24 years.....	10.0	9.4	9.0	9.5	9.8	9.2	8.9	9.5	10.0	9.0	8.9	8.8	8.8	8.3	8.9
25 years and older.....	4.8	4.4	4.3	4.3	4.3	4.3	4.3	4.1	4.2	4.0	4.0	4.0	3.9	4.0	3.8
25 to 54 years.....	5.0	4.6	4.4	4.4	4.4	4.4	4.5	4.2	4.3	4.2	4.1	4.2	4.1	4.2	4.0
55 years and older.....	4.1	3.7	3.7	3.7	3.8	3.7	3.5	3.5	3.6	3.5	3.5	3.2	3.1	3.5	3.2
Men, 16 years and older.....	6.3	5.6	5.6	5.6	5.6	5.5	5.6	5.3	5.6	5.3	5.1	5.1	5.0	4.9	4.9
16 to 24 years.....	13.4	12.6	12.5	12.9	13.0	12.4	12.5	12.7	14.1	12.9	13.0	12.5	12.3	11.7	12.6
16 to 19 years.....	19.3	18.4	18.1	18.2	19.2	18.2	20.3	18.2	20.4	19.9	20.4	20.0	19.0	18.6	18.3
16 to 17 years.....	20.7	22.0	21.9	20.6	22.1	23.0	24.3	22.0	25.0	22.9	22.2	22.5	21.7	23.2	21.6
18 to 19 years.....	18.4	16.3	16.1	16.8	17.7	14.8	17.8	16.1	17.7	17.5	19.9	18.4	17.5	15.5	16.4
20 to 24 years.....	10.6	10.1	10.0	10.5	10.2	9.8	9.0	10.2	11.3	9.7	9.5	9.2	9.3	8.7	10.1
25 years and older.....	5.0	4.4	4.4	4.3	4.3	4.3	4.4	4.0	4.1	4.0	3.8	3.8	3.7	3.7	3.6
25 to 54 years.....	5.2	4.6	4.5	4.4	4.4	4.4	4.6	4.1	4.2	4.1	3.9	4.0	3.9	3.9	3.8
55 years and older.....	4.4	3.9	4.0	3.9	4.1	3.7	3.5	3.9	3.7	3.6	3.5	3.0	3.1	3.2	3.1
Women, 16 years and older.....	5.7	5.4	5.2	5.2	5.3	5.2	5.2	5.1	5.2	5.0	5.2	5.2	5.1	5.1	4.9
16 to 24 years.....	11.4	11.0	10.6	10.6	11.3	10.5	10.8	10.5	10.6	10.1	10.4	10.9	10.0	9.7	10.0
16 to 19 years.....	15.6	15.5	15.9	15.0	15.1	14.6	14.8	14.3	14.6	13.7	14.9	15.8	13.8	13.6	14.6
16 to 17 years.....	17.5	18.5	19.7	18.6	19.0	19.3	17.2	16.8	16.5	15.8	17.5	17.7	15.1	14.5	15.8
18 to 19 years.....	14.2	13.5	13.5	12.8	12.5	12.1	12.9	12.7	13.2	12.2	13.9	14.2	12.8	13.2	13.9
20 to 24 years.....	9.3	8.7	7.9	8.4	9.4	8.5	8.9	8.7	8.6	8.3	8.2	8.4	8.1	7.7	7.5
25 years and older.....	4.6	4.4	4.3	4.3	4.2	4.3	4.2	4.1	4.2	4.0	4.2	4.1	4.2	4.3	4.0
25 to 54 years.....	4.8	4.6	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.2	4.4	4.3	4.4	4.5	4.2
55 years and older <sup>1</sup> .....	3.7	3.6	3.9	3.5	3.3	3.6	3.2	3.3	3.5	3.2	3.2	3.2	3.3	4.1	3.8

<sup>1</sup> Data are not seasonally adjusted.

NOTE: Beginning in January 2003, data reflect revised population controls used in the household survey.

### 10. Unemployment rates by State, seasonally adjusted

State	July 2004	June 2005	July 2005 <sup>P</sup>	State	July 2004	June 2005	July 2005 <sup>P</sup>
Alabama.....	5.5	4.4	4.0	Missouri.....	5.9	5.4	5.6
Alaska.....	7.4	6.3	6.5	Montana.....	4.4	4.4	4.4
Arizona.....	5.0	4.4	4.9	Nebraska.....	3.7	3.8	4.0
Arkansas.....	5.7	4.8	4.9	Nevada.....	4.3	4.0	4.2
California.....	6.2	5.4	5.2	New Hampshire.....	3.8	3.5	3.6
Colorado.....	5.5	5.0	5.3	New Jersey.....	4.8	4.0	4.1
Connecticut.....	4.8	5.1	5.1	New Mexico.....	5.7	5.7	6.0
Delaware.....	4.1	4.1	4.1	New York.....	5.7	4.9	5.1
District of Columbia.....	8.3	7.5	6.7	North Carolina.....	5.4	5.3	5.7
Florida.....	4.7	4.0	3.9	North Dakota.....	3.4	3.4	3.5
Georgia.....	4.6	5.2	5.3	Ohio.....	6.2	6.2	5.7
Hawaii.....	3.1	2.7	2.7	Oklahoma.....	4.7	4.3	4.4
Idaho.....	4.7	3.9	4.2	Oregon.....	7.4	6.5	6.6
Illinois.....	6.2	6.0	6.0	Pennsylvania.....	5.5	5.0	5.1
Indiana.....	5.4	5.1	5.4	Rhode Island.....	5.1	4.8	5.1
Iowa.....	4.8	4.6	4.6	South Carolina.....	6.8	6.3	6.1
Kansas.....	5.4	5.2	5.3	South Dakota.....	3.5	3.8	3.9
Kentucky.....	5.3	5.7	5.9	Tennessee.....	5.3	6.0	5.5
Louisiana.....	5.7	5.4	5.6	Texas.....	6.1	5.1	5.0
Maine.....	4.5	4.7	4.9	Utah.....	5.3	4.6	4.7
Maryland.....	4.3	4.2	4.3	Vermont.....	3.5	3.4	3.6
Massachusetts.....	5.1	4.7	4.7	Virginia.....	3.7	3.7	3.5
Michigan.....	7.1	6.8	7.0	Washington.....	6.1	5.5	5.6
Minnesota.....	4.6	3.7	3.6	West Virginia.....	5.4	4.8	5.6
Mississippi.....	6.3	7.1	6.5	Wisconsin.....	4.9	4.6	4.7
				Wyoming.....	4.0	3.7	4.1

<sup>P</sup> = preliminary

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

State	July 2004	June 2005	July 2005 <sup>P</sup>	State	July 2004	June 2005	July 2005 <sup>P</sup>
Alabama.....	2,148,988	2,131,507	2,130,752	Missouri.....	3,037,079	3,017,322	3,026,722
Alaska.....	332,347	340,414	340,702	Montana.....	484,983	492,877	491,221
Arizona.....	2,778,941	2,821,889	2,828,243	Nebraska.....	986,898	981,972	984,507
Arkansas.....	1,307,631	1,343,529	1,353,934	Nevada.....	1,179,295	1,216,105	1,213,944
California.....	17,576,067	17,811,180	17,800,122	New Hampshire.....	723,650	733,710	734,809
Colorado.....	2,524,069	2,549,407	2,535,587	New Jersey.....	4,394,216	4,415,302	4,434,816
Connecticut.....	1,796,826	1,800,528	1,802,015	New Mexico.....	912,217	939,812	940,037
Delaware.....	423,056	431,530	433,679	New York.....	9,359,383	9,366,710	9,396,320
District of Columbia.....	295,379	298,441	299,394	North Carolina.....	4,260,691	4,308,482	4,341,962
Florida.....	8,410,812	8,643,791	8,677,586	North Dakota.....	354,395	354,175	355,065
Georgia.....	4,395,661	4,481,159	4,503,746	Ohio.....	5,888,667	5,898,782	5,881,275
Hawaii.....	615,203	630,284	634,236	Oklahoma.....	1,709,275	1,721,865	1,723,563
Idaho.....	703,382	734,574	734,574	Oregon.....	1,858,389	1,864,098	1,866,635
Illinois.....	6,400,280	6,442,871	6,430,754	Pennsylvania.....	6,281,062	6,286,681	6,312,900
Indiana.....	3,177,348	3,187,407	3,188,048	Rhode Island.....	563,867	569,017	570,780
Iowa.....	1,623,311	1,638,335	1,650,668	South Carolina.....	2,047,339	2,061,954	2,066,109
Kansas.....	1,464,414	1,463,104	1,468,721	South Dakota.....	428,178	429,072	430,471
Kentucky.....	1,975,261	1,989,121	1,995,952	Tennessee.....	2,903,344	2,878,388	2,871,138
Louisiana.....	2,057,893	2,113,445	2,102,095	Texas.....	11,039,811	11,165,666	11,187,944
Maine.....	699,124	706,974	710,415	Utah.....	1,204,873	1,236,299	1,240,095
Maryland.....	2,882,897	2,932,110	2,930,359	Vermont.....	353,414	351,937	352,200
Massachusetts.....	3,392,775	3,367,420	3,376,771	Virginia.....	3,821,006	3,911,184	3,918,136
Michigan.....	5,080,770	5,087,061	5,099,501	Washington.....	3,230,676	3,281,594	3,284,496
Minnesota.....	2,959,676	2,957,065	2,957,065	West Virginia.....	789,195	788,945	793,840
Mississippi.....	1,331,413	1,343,638	1,340,308	Wisconsin.....	3,071,371	3,038,202	3,031,377
				Wyoming.....	282,351	286,109	286,794

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

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

[In thousands]

Industry	Annual average		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Aug. <sup>P</sup>
<b>TOTAL NONFARM.....</b>	129,999	131,480	131,750	131,880	132,162	132,294	132,449	132,573	132,873	132,995	133,287	133,413	133,588	133,830	133,999
<b>TOTAL PRIVATE.....</b>	108,416	109,862	110,105	110,203	110,462	110,588	110,749	110,863	111,140	111,264	111,542	111,659	111,828	112,028	112,182
<b>GOODS-PRODUCING.....</b>	21,816	21,884	21,946	21,947	21,982	21,996	22,022	22,004	22,066	22,093	22,130	22,138	22,134	22,136	22,149
<b>Natural resources and mining.....</b>	572	591	595	597	595	599	602	607	602	619	623	624	628	629	631
Logging.....	69.4	67.8	67.5	68.0	67.0	66.9	67.9	68.0	67.3	68.7	65.2	64.9	64.8	65.2	64.9
Mining.....	502.7	523.2	527.8	528.5	527.7	532.5	534.4	538.7	545.0	549.8	558.0	559.5	563.1	563.7	566.2
Oil and gas extraction.....	120.2	123.1	123.8	124.0	123.6	124.4	124.1	123.4	122.5	124.0	124.3	125.2	125.4	126.5	127.4
Minina, except oil and gas <sup>1</sup> .....	202.7	207.1	209.1	208.5	208.4	210.7	211.3	212.9	215.5	215.7	218.5	219.4	221.2	220.1	219.8
Coal mining.....	70.0	71.7	73.1	72.9	72.7	73.7	73.9	75.4	76.1	76.1	76.9	76.6	77.2	77.7	77.1
Support activities for mining.....	179.8	193.1	194.9	196.0	195.7	197.4	199.0	202.4	207.0	210.1	215.2	214.9	216.5	217.1	219.0
<b>Construction.....</b>	6,735	6,964	6,985	6,998	7,043	7,060	7,086	7,090	7,133	7,159	7,207	7,213	7,230	7,237	7,262
Construction of buildings.....	1,575.8	1,632.2	1,636.3	1,647.8	1,663.0	1,668.3	1,678.9	1,682.4	1,689.2	1,692.5	1,693.4	1,693.9	1,696.2	1,699.4	1,703.3
Heavy and civil engineering.....	903.1	902.5	901.1	902.1	904.1	906.4	907.8	908.2	911.7	915.7	926.6	925.8	937.4	940.5	943.1
Speciality trade contractors.....	4,255.7	4,429.7	4,447.6	4,447.8	4,476.1	4,484.8	4,499.2	4,499.6	4,531.8	4,550.9	4,586.5	4,593.7	4,596.4	4,597.3	4,615.6
<b>Manufacturing.....</b>	14,510	14,329	14,366	14,352	14,344	14,337	14,334	14,307	14,321	14,315	14,300	14,301	14,276	14,270	14,256
Production workers.....	10,190	10,083	10,131	10,117	10,111	10,104	10,097	10,082	10,085	10,091	10,086	10,092	10,080	10,073	10,057
<b>Durable goods.....</b>	8,963	8,923	8,965	8,957	8,960	8,954	8,957	8,942	8,962	8,957	8,954	8,961	8,947	8,939	8,935
Production workers.....	6,152	6,137	6,180	6,172	6,172	6,166	6,170	6,166	6,178	6,182	6,188	6,198	6,197	6,190	6,189
Wood products.....	537.6	548.4	551.7	550.1	554.5	553.3	555.2	554.7	553.6	555.2	551.8	548.4	550.7	548.7	549.0
Nonmetallic mineral products.....	494.2	504.8	507.6	508.8	509.1	507.9	506.5	504.5	504.0	502.0	504.7	501.6	501.3	498.9	497.9
Primary metals.....	477.4	465.9	467.4	466.4	466.0	465.8	465.2	465.5	466.9	466.6	466.0	466.2	465.3	464.6	464.8
Fabricated metal products.....	1,506.8	1,470.3	1,506.8	1,508.5	1,511.5	1,510.9	1,512.8	1,514.3	1,514.1	1,517.3	1,517.5	1,520.7	1,521.0	1,522.9	1,523.4
Machinery.....	1,149.4	1,141.5	1,151.5	1,148.7	1,147.3	1,147.4	1,146.0	1,145.9	1,148.0	1,151.7	1,153.7	1,156.2	1,156.2	1,160.5	1,159.8
Computer and electronic products <sup>1</sup> .....	1,355.2	1,326.2	1,334.0	1,332.5	1,329.8	1,327.1	1,325.8	1,327.0	1,327.5	1,326.0	1,329.0	1,329.5	1,333.4	1,335.1	1,337.0
Computer and peripheral equipment.....	224.0	212.1	212.4	211.9	209.7	209.3	210.4	210.2	211.2	211.3	212.5	213.3	214.8	214.5	215.1
Communications equipment.....	154.9	150.5	151.6	151.0	150.7	152.7	153.7	155.1	154.5	153.7	153.9	154.2	154.3	154.3	153.9
Semiconductors and electronic components.....	461.1	452.8	457.4	457.0	454.9	451.9	448.0	447.4	447.1	446.7	446.7	446.5	447.3	448.0	449.1
Electronic instruments.....	429.7	431.8	434.2	434.6	437.0	435.6	435.7	436.4	436.4	436.2	437.5	437.2	439.2	440.8	442.2
Electrical equipment and appliances.....	459.6	446.8	447.7	447.0	445.1	447.4	445.8	445.1	445.3	444.5	442.8	443.6	440.1	439.7	438.6
Transportation equipment.....	1,774.1	1,763.5	1,769.5	1,768.5	1,771.0	1,767.2	1,771.9	1,760.1	1,781.8	1,776.7	1,775.7	1,779.5	1,764.3	1,750.5	1,747.6
Furniture and related products.....	572.9	572.7	573.3	572.1	571.3	572.2	571.7	570.3	567.5	565.9	562.8	561.8	561.0	560.8	561.5
Miscellaneous manufacturing.....	663.3	655.5	655.2	654.5	654.1	654.7	656.4	654.3	653.5	651.3	650.3	653.0	653.7	657.0	655.6
<b>Nondurable goods.....</b>	5,547	5,406	5,401	5,395	5,384	5,383	5,377	5,365	5,359	5,358	5,346	5,340	5,329	5,331	5,321
Production workers.....	4,038	3,945	3,951	3,945	3,939	3,938	3,927	3,916	3,907	3,909	3,898	3,894	3,883	3,883	3,868
Food manufacturing.....	1,517.5	1,497.4	1,497.0	1,494.3	1,493.5	1,493.6	1,498.8	1,494.3	1,493.2	1,495.2	1,489.6	1,490.7	1,488.4	1,489.8	1,487.0
Beverages and tobacco products.....	199.6	194.3	193.4	194.9	192.9	195.1	193.0	192.2	192.5	191.6	191.1	191.3	190.4	190.4	189.6
Textile mills.....	261.3	238.5	238.1	237.3	236.5	235.0	233.2	231.5	230.1	228.7	225.5	225.1	223.9	222.3	220.1
Textile product mills.....	179.3	177.7	177.6	177.8	178.1	178.4	178.0	178.1	177.9	177.9	177.7	178.4	176.9	177.4	176.8
Apparel.....	312.3	284.8	282.6	281.0	276.1	273.4	271.9	269.3	267.2	262.8	262.2	259.2	257.0	258.1	255.0
Leather and allied products.....	44.5	42.9	42.5	42.7	42.8	43.4	43.1	43.1	43.2	42.9	42.8	42.8	42.8	43.6	43.6
Paper and paper products.....	516.2	499.1	500.6	499.3	499.4	498.1	497.9	499.9	500.2	502.0	499.3	498.3	496.4	496.4	496.1
Printing and related support activities.....	680.5	665.0	663.9	661.6	661.0	661.3	660.8	659.6	659.2	658.8	658.7	656.5	655.6	653.3	651.9
Petroleum and coal products.....	114.3	112.8	113.2	113.2	113.3	113.6	113.8	114.5	115.1	115.0	116.4	117.1	116.9	116.9	117.1
Chemicals.....	906.1	887.0	885.8	885.5	884.5	882.4	880.5	877.1	876.4	877.5	878.4	877.8	878.4	879.4	880.1
Plastics and rubber products.....	815.4	806.6	806.6	807.1	806.3	808.6	806.2	804.9	804.1	805.8	804.3	803.0	802.3	803.5	803.2
<b>SERVICE-PROVIDING.....</b>	108,182	109,596	109,804	109,933	110,180	110,298	110,427	110,569	110,807	110,902	111,157	111,275	111,454	111,694	111,850
<b>PRIVATE SERVICE-PROVIDING.....</b>	86,599	87,978	88,159	88,256	88,480	88,592	88,727	88,859	89,074	89,171	89,412	89,521	89,694	89,892	90,033
<b>Trade, transportation, and utilities.....</b>	25,287	25,510	25,537	25,555	25,581	25,621	25,620	25,652	25,714	25,743	25,797	25,842	25,854	25,927	25,946
<b>Wholesale trade.....</b>	5,607.5	5,654.9	5,662.9	5,672.4	5,674.7	5,680.0	5,683.6	5,679.9	5,688.7	5,702.2	5,707.7	5,719.0	5,722.3	5,730.5	5,738.3
Durable goods.....	2,940.6	2,949.1	2,957.8	2,960.2	2,962.3	2,960.4	2,964.5	2,965.6	2,968.7	2,975.6	2,976.8	2,983.0	2,986.1	2,990.0	2,995.3
Nondurable goods.....	2,004.6	2,007.1	2,004.0	2,008.1	2,009.1	2,012.6	2,009.9	2,005.4	2,006.9	2,011.2	2,012.6	2,014.0	2,013.7	2,014.7	2,015.4
Electronic markets and agents and brokers.....	662.2	698.8	701.1	704.1	703.3	707.0	709.2	708.9	713.1	715.4	718.3	722.0	722.5	725.8	727.6
<b>Retail trade.....</b>	14,917.3	15,034.7	15,043.3	15,037.7	15,056.5	15,081.4	15,077.0	15,081.2	15,125.4	15,128.7	15,157.5	15,185.8	15,197.1	15,255.1	15,266.9
Motor vehicles and parts dealers <sup>1</sup> .....	1,882.9	1,901.2	1,899.8	1,898.4	1,896.4	1,901.2	1,905.9	1,907.4	1,911.2	1,912.6	1,914.2	1,917.3	1,916.4	1,925.0	1,926.9
Automobile dealers.....	1,254.4	1,254.2	1,251.2	1,247.3	1,245.0	1,247.6	1,249.1	1,247.9	1,248.8	1,250.2	1,252.2	1,254.7	1,252.6	1,257.3	1,255.7
Furniture and home furnishings stores.....	547.3	560.2	561.6	561.9	562.3	565.6	563.7	562.1	562.6	562.3	565.5	569.1	566.1	569.1	570.6
Electronics and appliance stores.....	512.2	514.4	512.0	513.6	520.2	520.3	516.5	516.1	515.1	518.4	518.4	521.9	524.5	527.2	528.3

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		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Aug. <sup>P</sup>
Building material and garden supply stores.....	1,185.0	1,226.0	1,228.1	1,232.5	1,236.3	1,240.4	1,243.5	1,248.0	1,264.8	1,263.7	1,264.5	1,267.6	1,272.8	1,280.5	1,278.8
Food and beverage stores.....	2,383.4	2,826.3	2,826.2	2,827.1	2,830.2	2,822.7	2,819.8	2,826.0	2,826.6	2,826.8	2,834.9	2,838.5	2,840.2	2,842.9	2,841.1
Health and personal care stores.....	938.1	941.7	941.0	942.1	941.6	944.5	946.6	944.8	949.7	949.2	955.0	958.0	956.7	956.6	959.5
Gasoline stations.....	882.0	877.1	876.5	878.0	877.0	873.7	871.3	872.9	874.6	874.5	875.0	876.6	874.0	879.1	879.9
Clothing and clothing accessories stores.....	1,304.5	1,361.8	1,374.4	1,371.9	1,376.0	1,377.9	1,381.3	1,375.5	1,380.5	1,384.0	1,387.0	1,394.5	1,406.1	1,426.9	1,429.2
Sporting goods, hobby, book, and music stores.....	646.5	639.2	639.0	638.7	638.0	639.0	635.8	637.7	636.2	638.3	638.0	637.2	636.3	635.7	633.4
General merchandise stores <sup>1</sup> .....	2,822.4	2,843.5	2,842.5	2,832.9	2,835.2	2,854.9	2,852.9	2,853.5	2,864.1	2,862.0	2,864.7	2,866.0	2,861.6	2,871.0	2,871.6
Department stores.....	1,620.6	1,612.5	1,611.4	1,603.3	1,604.2	1,619.1	1,619.3	1,619.1	1,625.7	1,624.2	1,625.3	1,629.5	1,628.7	1,638.5	1,637.2
Miscellaneous store retailers.....	930.7	918.6	918.9	917.0	920.5	917.4	918.2	918.7	919.9	919.4	921.6	921.1	924.0	921.9	926.9
Nonstore retailers.....	427.3	424.8	423.3	423.6	422.8	423.8	421.5	418.5	420.1	417.5	418.7	418.0	418.4	419.2	420.7
<b>Transportation and warehousing.....</b>	<b>4,185.4</b>	<b>4,250.0</b>	<b>4,260.4</b>	<b>4,274.1</b>	<b>4,279.6</b>	<b>4,289.6</b>	<b>4,288.0</b>	<b>4,316.0</b>	<b>4,324.1</b>	<b>4,336.6</b>	<b>4,355.8</b>	<b>4,361.4</b>	<b>4,359.9</b>	<b>4,366.1</b>	<b>4,364.8</b>
Air transportation.....	528.3	514.8	515.0	513.8	514.2	514.6	512.3	509.4	507.9	508.0	508.8	508.1	507.8	506.3	505.2
Rail transportation.....	217.7	224.1	224.6	225.5	225.4	224.6	224.0	224.4	223.9	223.7	223.7	224.3	223.9	223.8	223.1
Water transportation.....	54.5	57.2	56.7	57.2	57.7	57.8	58.6	59.8	60.0	61.6	61.3	61.5	62.2	62.2	62.8
Truck transportation.....	1,325.6	1,350.7	1,352.5	1,358.5	1,356.0	1,358.9	1,366.5	1,372.6	1,378.0	1,383.2	1,389.8	1,392.9	1,396.3	1,394.9	1,393.4
Transit and ground passenger transportation.....	382.2	385.5	386.2	388.3	389.3	389.4	391.0	391.7	391.0	388.7	393.3	389.8	381.9	390.7	388.4
Pipeline transportation.....	40.2	38.8	38.9	39.0	38.9	39.0	38.7	39.3	39.4	39.3	39.5	39.3	39.3	39.2	39.6
Scenic and sightseeing transportation.....	26.6	26.7	27.7	27.8	25.6	26.1	26.6	24.2	24.9	26.7	27.2	28.3	28.4	28.6	28.5
Support activities for transportation.....	520.3	535.6	536.9	537.7	539.9	544.6	547.0	549.3	551.5	553.4	554.2	557.2	554.5	554.8	552.9
Couriers and messengers.....	561.7	560.5	562.6	563.8	564.4	568.7	556.4	577.5	577.6	579.3	581.8	582.4	582.3	582.9	586.0
Warehousing and storage.....	528.3	556.0	559.3	562.5	568.2	565.9	566.9	567.8	569.9	572.7	576.2	577.6	583.3	582.7	584.9
<b>Utilities.....</b>	<b>577.0</b>	<b>570.2</b>	<b>570.1</b>	<b>571.1</b>	<b>570.3</b>	<b>570.2</b>	<b>571.3</b>	<b>574.7</b>	<b>576.0</b>	<b>575.2</b>	<b>575.6</b>	<b>575.4</b>	<b>575.1</b>	<b>575.1</b>	<b>576.3</b>
<b>Information.....</b>	<b>3,188</b>	<b>3,138</b>	<b>3,135</b>	<b>3,127</b>	<b>3,131</b>	<b>3,133</b>	<b>3,127</b>	<b>3,123</b>	<b>3,127</b>	<b>3,134</b>	<b>3,152</b>	<b>3,146</b>	<b>3,146</b>	<b>3,145</b>	<b>3,148</b>
Publishing industries, except Internet.....	924.8	909.8	909.3	909.2	908.1	908.9	905.7	905.0	905.6	906.8	905.7	905.7	907.0	909.6	908.1
Motion picture and sound recording industries.....	376.2	389.0	389.3	389.7	395.3	390.6	384.8	380.3	380.9	386.9	399.3	394.2	393.1	392.3	398.1
Broadcasting, except Internet.....	324.3	326.6	327.8	328.1	329.5	329.7	329.7	331.3	330.4	330.7	330.7	330.8	331.6	333.3	332.0
Internet publishing and broadcasting.....	29.2	31.3	31.7	32.0	33.0	33.6	34.0	34.8	34.6	35.0	35.3	35.2	35.6	35.0	35.5
Telecommunications.....	1,082.3	1,042.5	1,037.1	1,028.4	1,024.8	1,030.0	1,031.5	1,030.8	1,032.2	1,029.9	1,037.3	1,036.2	1,034.8	1,033.2	1,031.4
ISPs, search portals, and data processing.....	402.4	388.1	387.6	387.6	389.2	389.5	390.4	389.9	392.6	393.7	393.9	393.5	393.4	391.0	392.8
Other information services.....	48.7	50.9	51.7	51.5	50.9	50.7	50.7	51.0	50.9	50.7	50.1	50.2	50.6	50.9	50.4
<b>Financial activities.....</b>	<b>7,977</b>	<b>8,052</b>	<b>8,058</b>	<b>8,083</b>	<b>8,093</b>	<b>8,107</b>	<b>8,128</b>	<b>8,150</b>	<b>8,165</b>	<b>8,167</b>	<b>8,182</b>	<b>8,189</b>	<b>8,208</b>	<b>8,227</b>	<b>8,242</b>
Finance and insurance.....	5,922.6	5,965.6	5,970.2	5,982.1	5,994.1	6,001.3	6,014.5	6,030.9	6,037.6	6,039.8	6,048.0	6,052.9	6,062.5	6,071.9	6,082.6
Monetary authorities—central bank.....	22.6	21.6	21.6	21.5	21.3	20.9	20.6	20.5	20.4	20.4	20.3	20.4	20.4	20.4	20.6
Credit intermediation and related activities <sup>1</sup> .....	2,792.4	2,832.3	2,833.4	2,841.0	2,847.9	2,859.2	2,871.9	2,882.7	2,891.0	2,896.8	2,902.6	2,906.7	2,915.4	2,921.5	2,924.4
Depository credit intermediation <sup>1</sup> .....	1,748.5	1,761.2	1,763.0	1,765.1	1,768.1	1,773.3	1,778.8	1,785.6	1,790.3	1,794.0	1,795.9	1,797.8	1,802.1	1,803.9	1,807.4
Commercial banking.....	1,280.1	1,285.3	1,283.5	1,286.4	1,288.3	1,293.1	1,296.8	1,301.6	1,305.5	1,308.0	1,308.3	1,308.8	1,311.0	1,311.5	1,312.8
Securities, commodity contracts, investments.....	757.7	766.8	769.9	772.3	777.3	776.9	779.7	782.5	784.8	786.9	787.6	787.6	786.5	788.0	792.1
Insurance carriers and related activities.....	2,266.0	2,260.3	2,261.0	2,263.3	2,264.1	2,260.4	2,258.1	2,259.6	2,256.7	2,250.9	2,253.9	2,253.6	2,254.6	2,256.4	2,260.4
Funds, trusts, and other financial vehicles.....	83.9	84.7	84.3	84.0	83.5	83.9	84.2	85.6	84.7	84.8	83.6	84.6	85.6	85.6	85.1
Real estate and rental and leasing.....	2,053.9	2,086.2	2,088.2	2,101.3	2,099.2	2,105.5	2,113.6	2,119.0	2,127.2	2,126.8	2,134.3	2,136.4	2,145.0	2,154.8	2,159.7
Real estate.....	1,383.6	1,417.0	1,420.0	1,429.1	1,428.6	1,434.7	1,437.8	1,439.7	1,443.8	1,444.0	1,449.7	1,454.6	1,461.4	1,469.7	1,474.5
Rental and leasing services.....	643.1	643.9	643.3	647.6	646.3	646.0	650.9	654.1	658.3	657.8	659.0	655.8	658.1	659.4	659.2
Lessors of nonfinancial intangible assets.....	27.3	25.4	24.9	24.6	24.3	24.8	24.9	25.2	25.1	25.0	25.6	26.0	25.5	25.7	26.0
<b>Professional and business services.....</b>	<b>15,987</b>	<b>16,414</b>	<b>16,470</b>	<b>16,514</b>	<b>16,614</b>	<b>16,611</b>	<b>16,674</b>	<b>16,694</b>	<b>16,775</b>	<b>16,796</b>	<b>16,843</b>	<b>16,851</b>	<b>16,906</b>	<b>16,948</b>	<b>16,977</b>
Professional and technical services <sup>1</sup> .....	6,629.5	6,762.0	6,779.7	6,805.4	6,835.3	6,834.4	6,869.9	6,882.1	6,902.7	6,907.3	6,928.5	6,929.1	6,950.9	6,973.1	6,987.2
Legal services.....	1,142.1	1,161.8	1,163.6	1,166.8	1,167.4	1,163.1	1,164.4	1,160.8	1,161.2	1,161.5	1,161.8	1,163.3	1,163.0	1,164.8	1,165.4
Accounting and bookkeeping services.....	815.3	816.0	814.2	816.1	821.5	816.6	840.8	858.1	858.1	856.6	862.7	851.4	858.5	859.6	861.4
Architectural and engineering services.....	1,226.9	1,260.8	1,264.4	1,270.5	1,280.5	1,284.9	1,289.5	1,286.9	1,292.0	1,295.7	1,300.8	1,303.9	1,310.8	1,315.7	1,320.6

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		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Aug. <sup>P</sup>
Computer systems design and related services.....	1,116.6	1,147.4	1,155.0	1,161.1	1,167.3	1,174.1	1,174.3	1,171.8	1,174.2	1,175.5	1,178.5	1,178.2	1,182.4	1,184.8	1,187.4
Management and technical consulting services.....	744.9	779.0	786.9	787.9	790.5	787.8	789.9	789.3	793.7	795.5	798.8	801.9	806.3	811.9	815.0
Management of companies and enterprises.....	1,687.2	1,718.0	1,720.7	1,715.0	1,715.3	1,722.5	1,725.6	1,730.7	1,731.3	1,731.5	1,733.4	1,734.1	1,735.7	1,735.8	1,734.9
Administrative and waste services.....	7,669.8	7,934.0	7,969.7	7,993.2	8,063.1	8,054.3	8,078.0	8,081.6	8,140.9	8,156.7	8,181.1	8,187.9	8,219.5	8,254.1	8,275.7
Administrative and support services <sup>1</sup> .....	7,347.7	7,608.7	7,643.1	7,667.3	7,736.4	7,728.2	7,751.4	7,755.2	7,813.6	7,831.8	7,858.1	7,866.8	7,897.7	7,927.4	7,951.3
Employment services <sup>1</sup> .....	3,299.5	3,470.3	3,480.0	3,513.5	3,572.9	3,570.5	3,584.5	3,595.9	3,633.8	3,645.7	3,666.0	3,667.9	3,688.0	3,707.2	3,731.6
Temporary help services.....	2,224.2	2,393.2	2,411.8	2,438.7	2,486.5	2,484.7	2,479.4	2,479.1	2,508.0	2,506.1	2,520.7	2,517.7	2,529.6	2,548.8	2,567.1
Business support services.....	749.7	754.5	757.9	752.6	755.9	754.6	757.0	752.8	755.7	754.1	754.9	753.3	751.4	751.7	752.4
Services to buildings and dwellings.....	1,636.1	1,694.2	1,706.6	1,706.4	1,708.6	1,707.2	1,706.1	1,701.4	1,711.2	1,712.6	1,715.9	1,722.4	1,729.0	1,739.5	1,738.1
Waste management and remediation services.....	322.1	325.3	326.6	325.9	326.7	326.1	326.6	326.4	327.1	324.9	323.0	321.1	323.8	326.7	324.4
<b>Educational and health services.....</b>	<b>16,588</b>	<b>16,954</b>	<b>17,010</b>	<b>17,019</b>	<b>17,081</b>	<b>17,108</b>	<b>17,142</b>	<b>17,178</b>	<b>17,186</b>	<b>17,210</b>	<b>17,243</b>	<b>17,289</b>	<b>17,336</b>	<b>17,377</b>	<b>17,427</b>
Educational services.....	2,695.1	2,766.4	2,772.3	2,773.2	2,794.0	2,797.2	2,805.5	2,825.0	2,810.3	2,814.0	2,814.0	2,822.2	2,835.5	2,837.8	2,850.7
Health care and social assistance.....	13,892.6	14,187.3	14,237.8	14,246.1	14,287.2	14,310.7	14,336.1	14,353.2	14,375.4	14,396.0	14,429.1	14,467.2	14,500.5	14,539.5	14,576.4
Ambulatory health care services <sup>1</sup> .....	4,786.4	4,946.4	4,969.2	4,975.0	4,996.9	5,006.7	5,017.0	5,027.0	5,035.0	5,041.6	5,054.2	5,069.7	5,084.6	5,104.0	5,122.5
Offices of physicians.....	2,002.5	2,053.9	2,059.1	2,064.5	2,074.2	2,077.7	2,084.3	2,085.3	2,090.9	2,093.2	2,103.6	2,114.4	2,119.5	2,124.2	2,132.5
Outpatient care centers.....	426.8	446.2	449.7	448.7	449.5	449.8	450.3	451.5	451.1	452.6	453.6	455.3	456.7	461.2	462.7
Home health care services.....	732.6	773.2	778.0	779.5	782.7	789.2	790.7	796.6	796.8	798.8	797.9	798.8	804.1	807.3	810.2
Hospitals.....	4,244.6	4,293.6	4,305.0	4,306.0	4,311.2	4,319.7	4,323.5	4,329.6	4,337.8	4,344.6	4,354.2	4,362.6	4,374.5	4,384.2	4,393.2
Nursing and residential care facilities <sup>1</sup> .....	2,786.2	2,814.8	2,819.8	2,825.0	2,827.2	2,827.2	2,827.9	2,827.0	2,830.0	2,830.0	2,832.5	2,839.8	2,841.2	2,849.2	2,852.3
Nursing care facilities.....	1,579.8	1,575.3	1,576.7	1,576.6	1,576.8	1,576.4	1,574.5	1,571.5	1,571.6	1,572.3	1,571.4	1,572.7	1,573.2	1,575.9	1,577.0
Social assistance <sup>1</sup> .....	2,075.4	2,132.5	2,143.8	2,140.1	2,151.9	2,157.1	2,167.7	2,169.6	2,172.6	2,179.8	2,188.2	2,195.1	2,200.2	2,202.1	2,208.4
Child day care services.....	755.3	767.1	776.1	767.9	772.8	775.3	780.4	780.5	782.5	785.1	788.6	788.0	793.2	792.7	791.3
<b>Leisure and hospitality.....</b>	<b>12,173</b>	<b>12,479</b>	<b>12,508</b>	<b>12,522</b>	<b>12,546</b>	<b>12,571</b>	<b>12,589</b>	<b>12,611</b>	<b>12,650</b>	<b>12,662</b>	<b>12,723</b>	<b>12,736</b>	<b>12,765</b>	<b>12,801</b>	<b>12,838</b>
Arts, entertainment, and recreation.....	1,812.9	1,833.0	1,831.0	1,836.2	1,834.4	1,826.4	1,811.0	1,805.4	1,808.4	1,805.8	1,823.9	1,824.9	1,830.6	1,834.8	1,844.9
Performing arts and spectator sports.....	371.7	364.8	358.4	363.6	364.4	362.5	357.9	355.6	357.0	357.8	361.1	361.7	364.1	363.8	364.0
Museums, historical sites, zoos, and parks.....	114.7	117.1	118.8	118.3	118.2	116.9	114.8	114.5	113.6	115.8	116.8	117.3	117.5	117.6	117.6
Amusements, gambling, and recreation.....	1,326.5	1,351.1	1,353.8	1,354.3	1,351.8	1,347.0	1,338.3	1,335.3	1,337.8	1,332.2	1,346.0	1,345.9	1,349.0	1,353.4	1,363.3
Accommodations and food services.....	10,359.8	10,646.0	10,676.5	10,685.3	10,712.0	10,744.1	10,778.4	10,805.1	10,841.1	10,856.0	10,899.0	10,911.1	10,934.2	10,965.8	10,992.7
Accommodations.....	1,775.4	1,795.9	1,801.3	1,801.5	1,800.6	1,814.7	1,824.6	1,825.9	1,830.3	1,826.6	1,830.1	1,830.3	1,830.0	1,829.1	1,835.6
Food services and drinking places.....	8,584.4	8,850.1	8,875.2	8,883.8	8,911.4	8,929.4	8,953.8	8,979.2	9,010.8	9,029.4	9,068.9	9,080.8	9,104.2	9,136.7	9,157.1
<b>Other services.....</b>	<b>5,401</b>	<b>5,431</b>	<b>5,441</b>	<b>5,436</b>	<b>5,434</b>	<b>5,441</b>	<b>5,447</b>	<b>5,451</b>	<b>5,457</b>	<b>5,459</b>	<b>5,472</b>	<b>5,468</b>	<b>5,479</b>	<b>5,477</b>	<b>5,473</b>
Repair and maintenance.....	1,233.6	1,227.6	1,225.9	1,226.9	1,227.9	1,227.1	1,229.9	1,229.4	1,233.7	1,235.6	1,239.9	1,241.4	1,244.1	1,244.3	1,239.0
Personal and laundry services	1,263.5	1,274.1	1,276.9	1,271.5	1,267.8	1,271.6	1,276.8	1,280.4	1,280.5	1,282.2	1,286.9	1,284.4	1,283.2	1,280.1	1,281.1
Membership associations and organizations.....	2,903.6	2,929.1	2,937.9	2,937.9	2,938.1	2,942.3	2,940.6	2,941.4	2,942.9	2,940.8	2,945.6	2,942.4	2,951.7	2,952.2	2,952.8
<b>Government.....</b>	<b>21,583</b>	<b>21,618</b>	<b>21,645</b>	<b>21,677</b>	<b>21,700</b>	<b>21,706</b>	<b>21,700</b>	<b>21,710</b>	<b>21,733</b>	<b>21,731</b>	<b>21,745</b>	<b>21,754</b>	<b>21,760</b>	<b>21,817</b>	<b>21,843</b>
Federal.....	2,761	2,728	2,730	2,730	2,723	2,728	2,706	2,717	2,720	2,724	2,718	2,722	2,719	2,719	2,719
Federal, except U.S. Postal Service.....	1,952.4	1,943.4	1,945.5	1,946.8	1,940.1	1,946.4	1,939.5	1,937.2	1,939.8	1,943.2	1,937.1	1,940.8	1,937.6	1,937.5	1,937.3
U.S. Postal Service.....	808.6	784.1	784.3	783.4	782.5	781.4	766.4	780.2	780.1	780.8	780.7	781.2	781.2	781.1	781.2
State.....	5,002	4,985	4,987	5,000	5,007	5,015	5,020	5,025	5,027	5,024	5,026	5,023	5,026	5,034	5,036
Education.....	2,254.7	2,249.2	2,249.4	2,263.7	2,268.4	2,271.3	2,277.9	2,280.4	2,283.0	2,280.8	2,281.2	2,277.6	2,278.2	2,283.5	2,287.3
Other State government.....	2,747.6	2,736.2	2,737.8	2,736.4	2,738.2	2,743.4	2,741.9	2,744.4	2,744.4	2,743.2	2,745.1	2,745.5	2,747.6	2,750.9	2,749.1
Local.....	13,820	13,905	13,928	13,947	13,970	13,963	13,974	13,968	13,986	13,983	14,001	14,009	14,015	14,064	14,088
Education.....	7,709.4	7,762.5	7,785.7	7,793.2	7,810.8	7,806.3	7,810.8	7,808.8	7,820.7	7,813.5	7,823.9	7,823.5	7,830.3	7,873.9	7,892.8
Other local government.....	6,110.2	6,143.0	6,142.2	6,153.4	6,159.3	6,156.7	6,163.1	6,159.2	6,165.1	6,169.0	6,177.4	6,185.9	6,184.9	6,190.1	6,195.0

<sup>1</sup> Includes other industries not shown separately.

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

p = preliminary.

**13. Average weekly hours of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls, by industry, monthly data seasonally adjusted**

Industry	Annual average		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Aug. <sup>P</sup>
<b>TOTAL PRIVATE</b> .....	33.7	33.7	33.7	33.8	33.8	33.7	33.7	33.7	33.7	33.7	33.8	33.7	33.7	33.7	33.7
<b>GOODS-PRODUCING</b> .....	39.8	40.0	40.0	40.1	39.9	39.9	40.0	39.8	39.9	39.8	40.1	39.9	39.9	39.9	39.9
<b>Natural resources and mining</b> .....	43.6	44.5	44.4	44.5	44.8	45.0	45.4	45.5	45.1	45.3	45.7	45.8	45.6	45.9	46.1
<b>Construction</b> .....	38.4	38.3	38.1	38.1	38.2	38.3	38.4	37.6	38.2	38.3	39.0	38.5	38.5	38.2	38.3
<b>Manufacturing</b> .....	40.4	40.8	40.9	40.8	40.7	40.5	40.5	40.7	40.6	40.4	40.5	40.4	40.4	40.5	40.5
Overtime hours.....	4.2	4.6	4.6	4.6	4.5	4.5	4.5	4.5	4.6	4.5	4.4	4.4	4.4	4.5	4.5
Durable goods.....	40.8	41.3	41.3	41.2	41.2	40.9	41.1	41.1	41.0	40.8	40.9	40.8	40.9	41.0	41.1
Overtime hours.....	4.3	4.7	4.7	4.7	4.7	4.6	4.6	4.6	4.7	4.5	4.5	4.4	4.4	4.6	4.7
Wood products.....	40.4	40.6	40.8	40.4	40.3	40.0	40.3	40.6	39.9	39.5	39.5	39.6	39.5	39.6	39.3
Nonmetallic mineral products.....	42.2	42.3	42.3	42.4	42.4	42.1	42.3	41.9	42.1	41.7	41.9	41.8	41.7	41.6	41.6
Primary metals.....	42.3	43.1	43.2	43.1	43.0	42.9	42.8	43.1	43.0	42.9	42.6	42.5	42.7	43.0	43.2
Fabricated metal products.....	40.7	41.1	41.2	41.2	41.1	40.9	40.9	40.9	40.8	40.7	40.8	40.7	40.7	40.8	40.7
Machinery.....	40.8	41.9	42.1	42.3	42.2	42.0	42.0	42.0	42.0	42.0	42.0	41.9	41.9	42.1	42.0
Computer and electronic products.....	40.4	40.4	40.4	40.3	40.1	39.6	39.8	40.0	39.6	39.5	39.8	39.9	39.8	40.1	40.0
Electrical equipment and appliances..	40.6	40.7	40.9	40.6	40.6	40.1	40.0	40.1	40.0	40.0	40.1	40.2	40.2	40.9	40.6
Transportation equipment.....	41.9	42.5	42.5	42.4	42.3	42.2	42.4	42.4	42.4	42.0	42.1	41.8	42.2	42.3	43.0
Furniture and related products.....	38.9	39.5	39.3	39.3	39.2	39.2	39.5	39.5	39.4	39.4	39.2	39.1	39.3	39.2	39.2
Miscellaneous manufacturing.....	38.4	38.5	38.5	38.4	38.4	38.2	38.3	38.5	38.6	38.7	38.8	38.6	38.7	38.3	38.7
Nondurable goods.....	39.8	40.0	40.2	40.1	39.9	39.8	39.8	40.0	40.0	39.7	39.8	39.7	39.7	39.7	39.6
Overtime hours.....	4.1	4.4	4.5	4.4	4.3	4.3	4.3	4.4	4.5	4.4	4.3	4.3	4.3	4.3	4.3
Food manufacturing.....	39.3	39.3	39.3	39.3	39.0	39.1	38.8	39.0	39.3	38.8	39.0	38.9	38.8	38.9	38.8
Beverage and tobacco products.....	39.1	39.2	39.4	39.2	38.6	39.0	39.6	40.5	40.2	40.1	40.4	39.0	40.0	40.0	40.2
Textile mills.....	39.1	40.1	40.5	40.2	40.1	40.0	39.8	40.2	39.7	40.0	40.2	40.4	40.3	40.1	40.1
Textile product mills.....	39.6	38.9	38.8	39.1	39.1	39.1	39.0	39.5	39.5	39.4	38.8	38.7	38.1	38.3	39.0
Apparel.....	35.6	36.0	36.2	36.2	36.0	35.7	35.9	35.9	35.9	35.9	35.7	35.1	35.4	35.5	35.8
Leather and allied products.....	39.3	38.4	38.1	38.2	38.4	38.2	37.6	37.1	37.2	37.3	37.8	38.5	38.6	39.4	38.6
Paper and paper products.....	41.5	42.1	42.5	42.2	42.1	42.1	42.0	42.5	42.1	41.9	42.2	42.3	42.2	42.1	42.1
Printing and related support activities.....	38.2	38.4	38.5	38.3	38.3	38.3	38.5	38.6	38.5	38.3	38.3	38.4	38.2	38.3	38.2
Petroleum and coal products.....	44.5	44.9	45.9	46.0	45.0	45.5	44.6	44.5	44.7	45.1	46.0	45.6	45.6	45.3	45.3
Chemicals.....	42.4	42.8	42.9	42.8	42.7	42.4	42.6	42.8	42.3	42.2	42.4	42.3	42.1	41.9	41.6
Plastics and rubber products.....	40.4	40.4	40.5	40.3	40.1	39.4	39.8	40.0	40.1	39.8	39.7	39.6	39.6	39.5	39.7
<b>PRIVATE SERVICE-PROVIDING</b> .....	32.4	32.3	32.4	32.5	32.4	32.3	32.4	32.4	32.4	32.4	32.5	32.4	32.4	32.4	32.3
<b>Trade, transportation, and utilities</b> .....	33.6	33.5	33.5	33.6	33.6	33.5	33.6	33.6	33.6	33.5	33.5	33.4	33.3	33.3	33.3
Wholesale trade.....	37.9	37.8	37.7	37.8	37.7	37.7	37.6	37.7	37.8	37.7	37.7	37.6	37.6	37.6	37.5
Retail trade.....	30.9	30.7	30.7	30.8	30.8	30.6	30.8	30.7	30.8	30.7	30.7	30.6	30.5	30.4	30.4
Transportation and warehousing.....	36.8	37.2	37.2	37.5	37.5	37.4	37.5	37.3	37.2	37.3	37.1	37.0	37.1	37.0	
Utilities.....	41.1	40.9	40.9	41.4	40.8	40.4	40.7	41.0	40.5	40.3	41.1	40.9	41.2	41.1	41.0
<b>Information</b> .....	36.2	36.3	36.4	36.3	36.3	36.2	36.4	36.3	36.4	36.5	36.5	36.6	36.4	36.5	36.4
<b>Financial activities</b> .....	35.5	35.5	35.5	35.5	35.7	35.6	35.7	35.9	35.8	35.9	36.0	36.0	36.0	36.1	36.0
<b>Professional and business services</b> .....	34.1	34.2	34.3	34.7	34.3	34.2	34.2	34.1	34.0	34.0	34.2	34.1	34.1	34.2	34.1
<b>Education and health services</b> .....	32.3	32.4	32.5	32.5	32.5	32.4	32.5	32.6	32.6	32.6	32.6	32.6	32.6	32.7	32.6
<b>Leisure and hospitality</b> .....	25.6	25.7	25.6	25.6	25.7	25.6	25.7	25.6	25.7	25.7	25.8	25.8	25.8	25.8	25.7
<b>Other services</b> .....	31.4	31.0	31.0	31.0	30.9	30.9	30.8	30.9	30.9	30.9	31.1	30.9	31.0	31.0	31.0

<sup>1</sup> Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

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

p = preliminary.

**14. Average hourly earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls, by industry, monthly data seasonally adjusted**

Industry	Annual average		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Aug. <sup>P</sup>
<b>TOTAL PRIVATE</b>															
Current dollars.....	\$15.35	\$15.67	\$15.74	\$15.77	\$15.81	\$15.82	\$15.85	\$15.90	\$15.91	\$15.95	\$16.00	\$16.03	\$16.07	\$16.14	\$16.16
Constant (1982) dollars.....	8.27	8.23	8.25	8.25	8.22	8.21	8.23	8.24	8.22	8.19	8.16	8.19	8.21	8.20	8.16
<b>GOODS-PRODUCING.....</b>	16.80	17.19	17.24	17.30	17.32	17.33	17.36	17.35	17.43	17.45	17.51	17.54	17.58	17.62	17.65
<b>Natural resources and mining.....</b>	17.56	18.08	18.05	18.06	18.10	18.22	18.37	18.43	18.40	18.27	18.55	18.59	18.66	18.75	18.84
<b>Construction.....</b>	18.95	19.23	19.25	19.27	19.34	19.31	19.29	19.24	19.31	19.34	19.38	19.36	19.43	19.52	19.50
<b>Manufacturing.....</b>	15.74	16.14	16.22	16.29	16.27	16.29	16.34	16.37	16.42	16.43	16.47	16.53	16.55	16.57	16.62
Excluding overtime.....	14.96	15.29	15.36	15.42	15.42	15.43	15.48	15.51	15.54	15.56	15.62	15.68	15.70	15.70	15.75
Durable goods.....	16.45	16.82	16.90	16.98	16.97	16.99	17.06	17.10	17.18	17.17	17.23	17.28	17.32	17.36	17.41
Nondurable goods.....	14.63	15.05	15.14	15.18	15.15	15.16	15.16	15.18	15.19	15.23	15.23	15.31	15.29	15.28	15.31
<b>PRIVATE SERVICE-PROVIDING.....</b>	14.96	15.26	15.34	15.36	15.40	15.42	15.45	15.51	15.51	15.56	15.60	15.63	15.67	15.75	15.76
<b>Trade, transportation, and utilities.....</b>	14.34	14.59	14.65	14.66	14.69	14.70	14.72	14.82	14.79	14.83	14.88	14.91	14.91	15.03	15.01
Wholesale trade.....	17.36	17.66	17.69	17.73	17.78	17.80	17.87	17.91	17.95	17.97	18.05	18.04	18.11	18.24	18.23
Retail trade.....	11.90	12.08	12.13	12.16	12.16	12.20	12.21	12.32	12.29	12.31	12.35	12.38	12.35	12.45	12.42
Transportation and warehousing.....	16.25	16.53	16.65	16.53	16.61	16.54	16.54	16.58	16.52	16.62	16.62	16.67	16.69	16.79	16.82
Utilities.....	24.77	25.62	25.66	25.82	26.00	25.77	26.11	26.23	26.04	26.32	26.38	26.49	26.37	27.02	26.82
<b>Information.....</b>	21.01	21.42	21.52	21.62	21.59	21.58	21.70	21.80	21.67	21.79	21.98	21.97	22.08	22.16	22.18
<b>Financial activities.....</b>	17.14	17.53	17.57	17.64	17.71	17.65	17.71	17.71	17.74	17.78	17.85	17.82	17.90	18.00	17.97
<b>Professional and business services.....</b>	17.21	17.46	17.59	17.54	17.63	17.66	17.69	17.79	17.80	17.82	17.89	17.94	17.98	18.06	18.11
<b>Education and health services.....</b>	15.64	16.16	16.24	16.28	16.31	16.34	16.37	16.40	16.45	16.53	16.55	16.60	16.67	16.74	16.78
<b>Leisure and hospitality.....</b>	8.76	8.91	8.91	8.95	8.99	9.02	9.01	9.03	9.05	9.05	9.08	9.09	9.10	9.11	9.12
<b>Other services.....</b>	13.84	13.98	14.00	14.05	14.08	14.12	14.13	14.15	14.17	14.18	14.16	14.20	14.22	14.26	14.28

<sup>1</sup> Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in p = preliminary. service-providing industries.

15. Average hourly earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls, by industry

Industry	Annual average		2004						2005						
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>p</sup>	Aug. <sup>p</sup>
<b>TOTAL PRIVATE</b> .....	\$15.35	\$15.67	\$15.66	\$15.79	\$15.82	\$15.84	\$15.88	\$16.00	\$15.96	\$15.95	\$16.01	\$16.03	\$15.97	\$16.05	\$16.05
Seasonally adjusted.....	15.47	-	15.74	15.77	15.81	15.82	15.85	15.90	15.91	15.95	16.00	16.03	16.07	16.14	16.16
<b>GOODS-PRODUCING</b> .....	16.80	17.19	17.28	17.40	17.39	17.37	17.43	17.31	17.34	17.37	17.48	17.51	17.56	17.64	17.68
<b>Natural resources and mining</b> .....	17.56	18.08	17.95	17.97	18.07	18.21	18.46	18.53	18.45	18.36	18.67	18.58	18.59	18.72	18.75
<b>Construction</b> .....	18.95	19.23	19.33	19.42	19.47	19.35	19.31	19.12	19.20	19.25	19.35	19.30	19.37	19.56	19.59
<b>Manufacturing</b> .....	15.74	16.14	16.16	16.35	16.26	16.32	16.46	16.42	16.43	16.41	16.45	16.50	16.52	16.50	16.56
Durable goods.....	16.45	16.82	16.84	17.06	16.98	17.04	17.22	17.15	17.20	17.16	17.20	17.24	17.27	17.22	17.36
Wood products .....	12.71	13.03	13.02	13.14	13.03	13.13	13.17	13.13	13.04	13.11	13.13	13.20	13.06	13.18	13.07
Nonmetallic mineral products .....	15.76	16.25	16.28	16.51	16.38	16.45	16.36	16.27	16.20	16.28	16.68	16.58	16.78	16.91	16.85
Primary metals .....	18.13	18.57	18.57	18.89	18.73	18.66	18.75	18.84	18.78	18.76	18.80	18.82	18.76	18.95	18.91
Fabricated metal products .....	15.01	15.31	15.27	15.43	15.38	15.43	15.59	15.55	15.67	15.62	15.62	15.66	15.73	15.85	15.91
Machinery .....	16.30	16.68	16.72	16.85	16.84	16.85	16.99	17.03	17.02	17.02	16.98	16.91	17.03	17.10	16.94
Computer and electronic products .....	16.69	17.28	17.38	17.48	17.52	17.65	17.92	18.04	18.04	18.00	18.26	18.45	18.40	18.62	18.53
Electrical equipment and appliances .....	14.36	14.90	15.04	15.08	15.05	15.10	15.12	15.07	15.15	15.10	15.07	15.04	15.10	15.27	15.34
Transportation equipment .....	21.23	21.49	21.49	21.91	21.78	21.91	22.17	21.90	21.97	21.84	21.78	21.88	21.97	21.50	22.05
Furniture and related products .....	12.98	13.16	13.28	13.39	13.27	13.29	13.46	13.42	13.34	13.37	13.46	13.44	13.48	13.44	13.47
Miscellaneous manufacturing .....	13.30	13.85	13.88	13.97	13.92	13.96	14.05	14.07	14.04	14.05	14.02	14.06	14.03	14.25	14.19
Nondurable goods.....	14.63	15.05	15.08	15.23	15.11	15.16	15.21	15.24	15.17	15.19	15.22	15.28	15.27	15.35	15.25
Food manufacturing .....	12.80	12.98	13.00	13.09	12.94	12.99	13.03	13.07	13.07	13.02	12.98	13.04	13.04	13.04	12.97
Beverages and tobacco products .....	17.96	19.12	19.08	19.17	19.18	18.80	18.82	18.44	18.65	18.94	19.32	19.14	18.69	19.03	18.64
Textile mills .....	11.99	12.13	12.08	12.25	12.11	12.09	12.25	12.33	12.25	12.26	12.35	12.41	12.45	12.43	12.39
Textile product mills .....	11.23	11.39	11.43	11.49	11.42	11.44	11.43	11.31	11.48	11.56	11.70	11.54	11.65	11.80	11.75
Apparel .....	9.56	9.75	9.72	9.93	9.97	10.00	10.00	10.15	10.19	10.05	10.08	10.12	10.17	10.27	10.24
Leather and allied products .....	11.66	11.63	11.67	11.56	11.58	11.62	11.51	11.60	11.42	11.48	11.43	11.42	11.51	11.54	11.59
Paper and paper products .....	17.33	17.90	17.89	18.21	17.93	18.09	18.07	18.00	17.86	17.93	17.91	18.01	18.05	18.27	18.02
Printing and related support activities .....	15.37	15.72	15.88	15.96	15.95	15.93	15.80	15.77	15.79	15.70	15.62	15.57	15.66	15.78	15.81
Petroleum and coal products .....	23.63	24.38	24.05	24.44	24.33	24.71	24.48	24.75	24.74	24.78	24.06	24.56	24.47	24.56	24.28
Chemicals .....	18.50	19.16	19.24	19.44	19.42	19.44	19.59	19.52	19.32	19.47	19.61	19.71	19.60	19.71	19.75
Plastics and rubber products .....	14.18	14.58	14.66	14.75	14.55	14.58	14.76	14.81	14.65	14.70	14.75	14.88	14.87	14.94	14.89
<b>PRIVATE SERVICE- PROVIDING</b> .....	14.96	15.26	15.22	15.35	15.40	15.43	15.46	15.66	15.60	15.59	15.62	15.64	15.54	15.63	15.62
<b>Trade, transportation, and   utilities</b> .....	14.34	14.59	14.58	14.69	14.69	14.67	14.61	14.88	14.86	14.86	14.94	14.93	14.87	14.99	14.93
Wholesale trade .....	17.36	17.66	17.68	17.71	17.75	17.82	17.87	18.03	17.99	17.91	18.06	18.06	18.01	18.19	18.15
Retail trade .....	11.90	12.08	12.07	12.21	12.17	12.16	12.10	12.34	12.35	12.35	12.42	12.40	12.33	12.41	12.35
Transportation and warehousing .....	16.25	16.53	16.62	16.51	16.59	16.56	16.59	16.59	16.57	16.60	16.60	16.60	16.66	16.83	16.82
Utilities .....	24.77	25.62	25.36	25.89	26.02	26.01	26.00	26.14	25.98	26.34	26.52	26.54	26.24	26.87	26.56
Other .....	21.01	21.42	21.43	21.73	21.69	21.70	21.74	21.83	21.67	21.68	21.92	21.93	21.83	22.02	22.10
<b>Financial activities</b> .....	17.14	17.53	17.59	17.62	17.68	17.61	17.67	17.83	17.73	17.76	17.86	17.95	17.80	17.94	17.94
<b>Professional and business   services</b> .....	17.21	17.46	17.50	17.47	17.54	17.62	17.73	18.06	17.91	17.83	17.86	18.02	17.84	17.94	17.91
<b>Education and health   services</b> .....	15.64	16.16	16.20	16.30	16.30	16.33	16.44	16.47	16.46	16.51	16.53	16.55	16.59	16.78	16.76
<b>Leisure and hospitality</b> .....	8.76	8.91	8.81	8.94	9.02	9.06	9.11	9.11	9.09	9.07	9.07	9.08	9.02	8.99	9.02
<b>Other services</b> .....	13.84	13.98	13.93	14.06	14.06	14.12	14.17	14.23	14.23	14.18	14.19	14.25	14.15	14.15	14.19

<sup>1</sup> Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

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

p = preliminary.

**16. Average weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls, by industry**

Industry	2004							2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>p</sup>	Aug. <sup>p</sup>
<b>TOTAL PRIVATE</b> .....	\$517.30	\$528.56	\$535.57	\$530.54	\$534.72	\$532.22	\$536.74	\$537.60	\$534.66	\$534.33	\$537.94	\$543.42	\$539.79	\$542.49	\$545.70
Seasonally adjusted.....	-	-	530.44	533.03	534.38	533.13	534.15	535.83	536.17	537.52	540.80	540.21	541.56	543.92	544.59
<b>GOODS-PRODUCING</b> .....	669.13	688.03	696.38	690.78	697.34	694.80	702.43	683.75	683.20	689.59	697.45	702.15	705.91	700.31	712.50
<b>Natural resources and mining</b> .....	765.94	804.03	804.16	796.07	820.38	824.91	836.24	833.85	822.87	826.20	847.62	854.68	849.56	851.76	871.88
<b>Construction</b> .....	726.83	735.70	755.80	730.19	753.49	739.17	737.64	703.62	712.32	727.65	748.85	750.77	759.30	758.93	769.89
<b>Manufacturing</b> .....	635.99	658.53	660.94	663.81	661.78	665.86	678.15	666.65	663.77	662.96	662.94	666.60	669.06	658.35	672.34
Durable goods.....	671.21	694.16	695.49	697.75	699.58	702.05	718.07	703.15	703.48	701.84	700.04	705.12	708.07	693.97	713.50
Wood products.....	514.10	529.46	539.03	521.66	526.41	526.51	532.07	527.83	511.17	512.60	516.01	528.00	525.01	521.93	520.19
Nonmetallic mineral products.....	664.92	688.05	700.04	709.93	701.06	694.19	688.76	665.44	667.44	669.11	697.22	698.02	708.12	703.46	712.76
Primary metals.....	767.60	799.77	796.65	808.49	801.64	802.38	813.75	815.77	807.54	806.68	799.00	799.85	801.05	801.59	813.13
Fabricated metal products.....	610.37	628.80	627.60	628.00	633.66	634.17	648.54	637.55	637.77	634.17	634.17	638.93	640.21	638.76	647.54
Machinery.....	664.79	699.51	697.22	699.28	707.28	711.07	727.17	718.67	716.54	718.24	713.16	710.22	713.56	711.36	703.01
Computer and electronic products.....	674.72	698.28	700.41	700.95	704.30	706.00	723.97	716.19	712.58	711.00	719.44	734.31	728.64	739.21	743.05
Electrical equipment and appliances.....	583.23	606.64	613.63	603.20	614.04	613.06	616.90	605.81	601.46	602.49	599.79	601.60	605.51	613.85	624.34
Transportation equipment.....	889.48	912.97	909.03	926.79	923.47	926.79	962.18	926.37	933.73	921.65	914.76	918.96	931.53	870.75	945.95
Furniture and related products.....	505.30	519.78	529.87	519.53	516.20	523.63	546.48	528.75	522.93	526.78	526.29	520.13	532.46	525.50	533.41
Miscellaneous manufacturing.....	510.82	533.47	534.38	530.86	534.53	536.06	545.14	543.10	543.35	547.95	543.98	545.53	544.36	537.23	549.15
Nondurable goods.....	582.61	602.48	606.22	610.72	602.89	607.92	612.96	608.08	600.73	601.52	601.19	606.62	606.22	603.26	605.43
Food manufacturing.....	502.92	509.66	514.80	520.98	508.54	515.70	513.38	505.81	505.81	497.36	497.13	505.95	508.56	504.65	507.13
Beverages and tobacco products.....	702.45	750.51	761.29	762.97	734.59	731.32	737.74	735.76	738.54	757.60	792.12	750.29	755.08	761.20	758.65
Textile mills.....	469.33	486.69	489.24	488.78	481.98	483.60	491.23	498.13	485.10	494.08	495.24	502.61	501.74	488.50	496.84
Textile product mills.....	444.70	443.01	442.34	444.66	447.66	448.45	451.49	445.61	450.02	457.78	451.62	444.29	445.03	446.04	457.08
Apparel.....	340.12	351.28	352.84	352.52	357.92	360.00	364.00	361.34	363.78	363.81	361.87	355.21	359.00	358.42	368.64
Leather and allied products.....	457.83	446.73	441.13	430.03	445.83	445.05	437.38	429.20	425.97	431.65	436.63	439.67	446.59	443.14	446.22
Paper and paper products.....	719.73	753.89	756.75	772.10	756.65	768.83	775.20	768.60	744.76	745.89	750.43	760.02	763.52	763.69	755.04
Printing and related support activities.....	587.58	604.32	611.38	612.86	614.08	618.08	616.20	607.15	604.76	604.45	593.56	593.22	593.51	599.64	602.36
Petroleum and coal products.....	1,052.32	1,094.83	1,096.68	1,119.35	1,097.28	1,131.72	1,099.15	1,096.43	1,100.93	1,105.19	1,085.11	1,119.94	1,115.83	1,117.48	1,097.46
Chemicals.....	783.95	819.59	821.55	830.09	825.35	830.09	844.33	835.46	817.24	821.63	827.54	831.76	825.16	815.99	817.65
Plastics and rubber products.....	872.26	589.70	590.80	591.48	583.46	578.83	596.30	592.40	586.00	585.06	585.58	590.74	591.83	578.18	589.64
<b>PRIVATE SERVICE-PROVIDING</b> .....	483.89	493.67	499.22	495.81	498.96	496.85	500.90	507.38	502.32	500.44	504.53	509.86	503.50	509.54	509.21
<b>Trade, transportation, and utilities</b> .....	481.14	488.58	495.72	493.58	492.12	488.51	490.90	494.02	493.35	493.35	497.50	501.65	498.15	503.66	501.65
Wholesale trade.....	657.29	666.93	673.61	665.90	669.18	671.81	670.13	681.53	674.25	671.63	679.06	686.28	677.18	682.13	680.63
Retail trade.....	367.15	371.15	377.79	377.29	373.62	368.45	375.10	372.67	374.21	374.21	377.57	380.68	379.76	383.47	381.62
Transportation and warehousing.....	598.41	614.90	628.24	617.47	622.13	622.66	625.44	620.47	608.12	610.88	612.54	617.52	616.42	624.39	624.02
Utilities.....	1,017.27	1,048.82	1,032.15	1,074.44	1,066.82	1,061.21	1,053.00	1,066.51	1,052.19	1,056.23	1,087.32	1,088.14	1,083.71	1,104.36	1,086.30
<b>Information</b> .....	760.81	777.42	788.62	786.63	787.35	787.71	791.34	798.98	786.62	782.65	793.50	804.83	794.61	803.73	806.65
<b>Financial activities</b> .....	609.08	622.99	635.00	620.22	627.64	625.16	627.29	649.01	632.96	632.26	637.60	655.18	639.02	645.84	644.05
<b>Professional and business services</b> .....	587.02	596.96	607.25	593.98	599.87	602.60	604.59	614.04	607.15	604.44	609.03	621.69	610.13	613.55	614.31
<b>Education and health services</b> .....	505.69	523.83	531.36	528.12	528.12	529.09	534.30	541.86	534.95	534.92	535.57	541.19	539.18	548.71	548.05
<b>Leisure and hospitality</b> .....	224.30	228.63	234.35	226.18	230.91	229.22	231.39	230.48	231.80	230.38	231.29	236.08	235.42	238.24	238.13
<b>Other services</b> .....	434.41	433.04	436.01	433.05	434.45	434.90	436.44	439.71	438.28	435.33	438.47	441.75	438.65	440.07	442.73

<sup>1</sup> Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries.

NOTE: See "Notes on the data" for a description of the most recent benchmark revision. Dash indicates data not available. p = preliminary.

## 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:												
2001.....	49.5	47.7	48.6	32.7	42.4	40.8	36.7	39.0	37.6	33.6	36.9	37.1
2002.....	41.0	35.6	39.7	39.2	40.5	47.7	42.8	43.0	42.1	39.0	41.5	35.1
2003.....	44.4	38.7	35.3	41.4	39.4	39.9	42.1	39.4	50.4	48.9	50.0	50.5
2004.....	50.9	53.4	66.0	67.3	64.6	59.7	55.4	53.8	57.6	58.6	54.7	54.3
2005.....	54.1	61.2	53.1	61.7	57.4	54.7	61.5	57.2				
Over 3-month span:												
2001.....	53.2	49.8	49.8	42.3	38.1	34.2	37.8	37.6	34.7	35.4	30.8	32.0
2002.....	35.3	37.9	36.5	34.2	34.4	39.4	40.6	44.1	37.8	37.1	35.8	36.7
2003.....	38.3	35.4	33.3	33.5	36.5	41.7	37.8	37.4	43.2	46.4	48.6	50.2
2004.....	52.5	53.8	56.7	69.4	75.4	71.2	63.5	56.8	57.4	59.9	59.7	56.3
2005.....	58.5	60.3	63.7	62.4	59.4	64.2	61.3	62.8				
Over 6-month span:												
2001.....	53.1	50.9	52.0	45.5	43.0	39.7	38.5	33.6	33.5	34.2	33.6	30.9
2002.....	29.5	29.9	32.0	31.7	30.9	37.4	37.1	38.7	35.3	36.0	37.9	35.1
2003.....	32.7	32.2	31.3	31.3	33.1	37.6	33.6	32.2	40.3	43.7	46.4	49.3
2004.....	47.3	50.4	54.9	62.6	64.4	69.6	67.3	68.9	64.6	62.2	59.7	55.9
2005.....	60.3	62.8	63.7	62.2	62.6	63.1	64.0	64.7				
Over 12-month span:												
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	30.4	30.2	29.1	32.0	31.3	30.0	29.5	32.9	34.7
2003.....	34.5	31.5	32.9	33.5	34.2	35.1	32.7	33.1	37.1	36.7	37.2	39.2
2004.....	40.3	42.1	44.8	48.7	52.0	56.7	57.4	57.6	60.3	62.1	64.6	64.0
2005.....	61.2	64.7	64.2	65.8	63.8	60.4	62.8	65.3				
Manufacturing payrolls, 84 industries												
Over 1-month span:												
2001.....	22.0	17.3	22.0	17.9	16.1	22.6	13.1	15.5	18.5	17.3	14.9	11.9
2002.....	19.0	19.6	22.0	32.1	26.2	31.0	35.7	23.2	28.6	15.5	18.5	16.7
2003.....	35.1	19.0	19.0	11.9	19.6	20.8	22.6	24.4	32.7	35.1	39.9	42.9
2004.....	39.3	49.4	50.0	65.5	60.1	51.8	60.7	48.8	42.9	42.3	46.4	44.6
2005.....	42.3	44.6	41.1	47.6	44.0	33.9	52.4	45.8				
Over 3-month span:												
2001.....	32.7	20.8	16.7	14.3	14.3	11.9	11.9	9.5	7.7	12.5	11.3	9.5
2002.....	10.7	11.9	11.3	17.9	14.9	20.2	25.6	23.8	20.2	13.7	8.9	9.5
2003.....	16.1	14.3	12.5	8.9	10.7	10.7	14.3	15.5	18.5	27.4	31.5	35.1
2004.....	42.3	43.5	42.9	58.3	69.0	69.6	62.5	53.6	52.4	44.6	45.2	35.7
2005.....	45.2	42.9	52.4	46.4	41.7	38.7	42.3	43.5				
Over 6-month span:												
2001.....	22.6	24.4	21.4	19.6	14.3	11.9	13.1	11.3	10.7	7.1	7.7	5.4
2002.....	6.0	8.3	8.3	9.5	7.1	13.1	12.5	11.3	14.3	8.3	8.3	7.7
2003.....	12.5	10.1	7.1	8.3	11.3	10.7	4.8	10.1	13.1	16.7	19.6	26.8
2004.....	27.4	29.8	33.3	47.0	52.4	57.1	60.1	58.9	58.9	50.6	45.2	42.9
2005.....	43.5	44.0	42.3	39.3	38.7	36.9	36.9	38.1				
Over 12-month span:												
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	6.5	7.1	3.6	4.8	6.0	4.8	7.1	4.8	8.3
2003.....	10.7	6.0	6.5	6.0	8.3	7.1	7.1	8.3	10.7	10.7	9.5	10.7
2004.....	13.1	14.3	13.1	19.0	25.6	34.5	43.5	40.5	45.8	48.2	49.4	46.4
2005.....	45.2	45.8	47.6	44.6	42.3	39.3	39.3	33.3				

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

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

Data for the two most recent months are preliminary.

**18. Job openings levels and rates by industry and region, seasonally adjusted**

Industry and region	Levels <sup>1</sup> (in thousands)							Percent							
	2005							2005							
	Feb.	Mar.	Apr.	May	June	July	Aug. <sup>P</sup>	Feb.	Mar.	Apr.	May	June	July	Aug. <sup>P</sup>	
Total <sup>2</sup> .....	3,569	3,598	3,576	3,416	3,647	3,588	3,549	2.6	2.6	2.6	2.5	2.7	2.6	2.6	
<b>Industry</b>															
Total private <sup>2</sup> .....	3,160	3,212	3,178	3,050	3,239	3,204	3,173	2.8	2.8	2.8	2.7	2.8	2.8	2.8	
Construction.....	133	170	113	107	104	128	133	1.8	2.3	1.5	1.5	1.4	1.7	1.8	
Manufacturing.....	252	258	259	240	269	287	275	1.7	1.8	1.8	1.6	1.8	2.0	1.9	
Trade, transportation, and utilities.....	668	624	627	597	624	600	601	2.5	2.4	2.4	2.3	2.4	2.3	2.3	
Professional and business services.....	607	646	691	659	686	666	633	3.5	3.7	3.9	3.8	3.9	3.8	3.6	
Education and health services.....	602	616	608	611	609	607	622	3.4	3.5	3.4	3.4	3.4	3.4	3.5	
Leisure and hospitality.....	447	440	457	440	517	439	428	3.4	3.4	3.5	3.3	3.9	3.3	3.2	
Government.....	404	383	396	378	394	388	379	1.8	1.7	1.8	1.7	1.8	1.7	1.7	
<b>Region<sup>3</sup></b>															
Northeast.....	606	615	602	563	634	610	607	2.3	2.4	2.3	2.2	2.4	2.3	2.3	
South.....	1,399	1,447	1,414	1,303	1,333	1,343	1,366	2.9	3.0	2.9	2.7	2.7	2.7	2.8	
Midwest.....	745	737	742	786	781	764	720	2.3	2.3	2.3	2.4	2.4	2.4	2.2	
West.....	823	806	818	799	869	832	862	2.8	2.7	2.7	2.7	2.9	2.8	2.9	

<sup>1</sup> Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

<sup>2</sup> Includes natural resources and mining, information, financial activities, and other services, not shown separately.

<sup>3</sup> **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia,

West Virginia; **Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: The job openings level is the number of job openings on the last business day of the month; the job openings rate is the number of job openings on the last business day of the month as a percent of total employment plus job openings.

<sup>P</sup> = preliminary.

**19. Hires levels and rates by industry and region, seasonally adjusted**

Industry and region	Levels <sup>1</sup> (in thousands)							Percent							
	2005							2005							
	Feb.	Mar.	Apr.	May	June	July	Aug. <sup>P</sup>	Feb.	Mar.	Apr.	May	June	July	Aug. <sup>P</sup>	
Total <sup>2</sup> .....	4,760	4,841	4,538	4,740	4,694	4,649	4,654	3.6	3.6	3.4	3.6	3.5	3.5	3.5	
<b>Industry</b>															
Total private <sup>2</sup> .....	4,430	4,497	4,212	4,398	4,365	4,342	4,341	4.0	4.0	3.8	3.9	3.9	3.9	3.9	
Construction.....	430	414	412	420	393	381	427	6.0	5.8	5.7	5.8	5.4	5.3	5.9	
Manufacturing.....	336	334	319	342	347	345	350	2.3	2.3	2.2	2.4	2.4	2.4	2.5	
Trade, transportation, and utilities.....	1,055	1,047	1,042	1,030	1,045	990	1,046	4.1	4.1	4.0	4.0	4.0	3.8	4.0	
Professional and business services.....	853	895	792	887	835	832	783	5.1	5.3	4.7	5.3	4.9	4.9	4.6	
Education and health services.....	500	472	487	466	457	453	463	2.9	2.7	2.8	2.7	2.6	2.6	2.7	
Leisure and hospitality.....	771	798	742	750	877	834	798	6.1	6.3	5.8	5.9	6.9	6.5	6.2	
Government.....	329	336	329	339	337	330	332	1.5	1.5	1.5	1.6	1.6	1.5	1.5	
<b>Region<sup>3</sup></b>															
Northeast.....	820	856	825	764	794	772	779	3.2	3.4	3.3	3.0	3.1	3.0	3.1	
South.....	1,867	1,922	1,701	1,816	1,786	1,689	1,766	4.0	4.1	3.6	3.8	3.8	3.6	3.7	
Midwest.....	1,081	1,034	1,020	1,129	1,054	1,045	936	3.5	3.3	3.3	3.6	3.4	3.3	3.0	
West.....	1,069	1,036	1,037	1,048	1,070	1,081	1,158	3.7	3.6	3.6	3.6	3.7	3.7	3.9	

<sup>1</sup> Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

<sup>2</sup> Includes natural resources and mining, information, financial activities, and other services, not shown separately.

<sup>3</sup> **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia;

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: The hires level is the number of hires during the entire month; the hires rate is the number of hires during the entire month as a percent of total employment.

<sup>P</sup> = preliminary.

## 20. Total separations levels and rates by industry and region, seasonally adjusted

Industry and region	Levels <sup>1</sup> (in thousands)							Percent						
	2005							2005						
	Feb.	Mar.	Apr.	May	June	July	Aug. <sup>P</sup>	Feb.	Mar.	Apr.	May	June	July	Aug. <sup>P</sup>
Total <sup>2</sup> .....	4,295	4,502	4,562	4,504	4,477	4,270	4,457	3.2	3.4	3.4	3.4	3.4	3.2	3.3
<b>Industry</b>														
Total private <sup>2</sup> .....	4,035	4,237	4,306	4,256	4,223	4,007	4,202	3.6	3.8	3.9	3.8	3.8	3.6	3.7
Construction.....	3	303	421	408	380	370	436	5.7	4.2	5.8	5.6	5.3	5.1	6.0
Manufacturing.....	341	360	369	369	350	361	377	2.4	2.5	2.6	2.6	2.4	2.5	2.6
Trade, transportation, and utilities.....	940	980	1,018	989	980	948	1,048	3.7	3.8	3.9	3.8	3.8	3.7	4.0
Professional and business services.....	772	924	869	851	818	747	634	4.6	5.5	5.2	5.1	4.8	4.4	3.7
Education and health services.....	389	445	433	405	401	391	414	2.3	2.6	2.5	2.3	2.3	2.3	2.4
Leisure and hospitality.....	790	743	709	750	803	750	783	6.3	5.9	5.6	5.9	6.3	5.9	6.1
Government.....	260	267	256	254	254	257	263	1.2	1.2	1.2	1.2	1.2	1.2	1.2
<b>Region<sup>3</sup></b>														
Northeast.....	732	802	807	714	761	715	718	2.9	3.2	3.2	2.8	3.0	2.8	2.8
South.....	1,647	1,763	1,766	1,743	1,653	1,567	1,653	3.5	3.7	3.7	3.7	3.5	3.3	3.5
Midwest.....	937	1,051	982	976	946	1,011	1,018	3.0	3.4	3.1	3.1	3.0	3.2	3.2
West.....	961	926	1,006	1,034	1,062	1,001	1,086	3.3	3.2	3.4	3.5	3.6	3.4	3.7

<sup>1</sup> Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

<sup>2</sup> Includes natural resources and mining, information, financial activities, and other services, not shown separately.

<sup>3</sup> **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia;

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: The total separations level is the number of total separations during the entire month; the total separations rate is the number of total separations during the entire month as a percent of total employment. p = preliminary.

## 21. Quits levels and rates by industry and region, seasonally adjusted

Industry and region	Levels <sup>1</sup> (in thousands)							Percent						
	2005							2005						
	Feb.	Mar.	Apr.	May	June	July	Aug. <sup>P</sup>	Feb.	Mar.	Apr.	May	June	July	Aug. <sup>P</sup>
Total <sup>2</sup> .....	2,307	2,516	2,520	2,514	2,575	2,474	2,590	1.7	1.9	1.9	1.9	1.9	1.8	1.9
<b>Industry</b>														
Total private <sup>2</sup> .....	2,192	2,383	2,395	2,391	2,348	2,351	2,461	2.0	2.1	2.1	2.1	2.1	2.1	2.2
Construction.....	139	150	146	168	139	140	211	2.0	2.1	2.0	2.3	1.9	1.9	2.9
Manufacturing.....	181	186	178	183	190	189	191	1.3	1.3	1.2	1.3	1.3	1.3	1.3
Trade, transportation, and utilities.....	512	583	577	589	588	577	626	2.0	2.3	2.2	2.3	2.3	2.2	2.4
Professional and business services.....	410	424	417	420	386	353	350	2.4	2.5	2.5	2.5	2.3	2.1	2.1
Education and health services.....	259	280	277	249	256	271	271	1.5	1.6	1.6	1.4	1.5	1.6	1.6
Leisure and hospitality.....	474	458	506	488	510	525	519	3.8	3.6	4.0	3.8	4.0	4.1	4.0
Government.....	117	124	125	123	124	125	130	.5	.6	.6	.6	.6	.6	.6
<b>Region<sup>3</sup></b>														
Northeast.....	340	410	446	373	350	381	401	1.3	1.6	1.8	1.5	1.4	1.5	1.6
South.....	914	1,003	992	1,020	960	964	1,038	1.9	2.1	2.1	2.2	2.0	2.0	2.2
Midwest.....	509	561	540	554	542	548	547	1.6	1.8	1.7	1.8	1.7	1.7	1.7
West.....	550	562	573	562	653	577	597	1.9	1.9	2.0	1.9	2.2	2.0	2.0

<sup>1</sup> Detail will not necessarily add to totals because of the independent seasonal adjustment of the various series.

<sup>2</sup> Includes natural resources and mining, information, financial activities, and other services, not shown separately.

<sup>3</sup> **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia;

**Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: The quits level is the number of quits during the entire month; the quits rate is the number of quits during the entire month as a percent of total employment.

<sup>P</sup> = preliminary.

**22. Quarterly Census of Employment and Wages: 10 largest counties, fourth quarter 2003.**

County by NAICS supersector	Establishments, fourth quarter 2003 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		December 2003 (thousands)	Percent change, December 2002-03 <sup>2</sup>	Fourth quarter 2003	Percent change, fourth quarter 2002-03 <sup>2</sup>
United States <sup>3</sup>	8,314.1	129,341.5	0.0	\$767	3.6
Private industry	8,048.7	108,215.1	.0	769	3.9
Natural resources and mining	123.7	1,557.8	.1	703	4.9
Construction	804.9	6,689.5	1.2	837	2.3
Manufacturing	376.8	14,307.8	-4.2	943	6.7
Trade, transportation, and utilities	1,853.6	25,957.3	-3	665	3.4
Information	145.2	3,165.9	-4.0	1,139	3.9
Financial activities	767.0	7,874.7	1.2	1,138	5.9
Professional and business services	1,329.4	16,113.2	.6	945	3.8
Education and health services	732.2	15,974.0	2.1	731	3.8
Leisure and hospitality	669.9	12,042.8	1.7	335	3.4
Other services	1,080.6	4,274.1	-1	494	3.1
Government	265.3	21,126.3	-2	757	2.4
Los Angeles, CA	356.0	4,075.3	-5	903	4.2
Private industry	352.2	3,486.3	-2	898	4.2
Natural resources and mining	.6	11.0	.7	955	16.9
Construction	12.9	133.9	-1.1	883	1.7
Manufacturing	17.8	485.2	-7.1	900	6.5
Trade, transportation, and utilities	53.9	794.6	-1.2	735	2.7
Information	9.2	194.9	-2.0	1,627	5.2
Financial activities	23.0	237.9	.9	1,258	7.0
Professional and business services	40.1	575.0	1.6	1,043	3.7
Education and health services	26.6	456.5	1.9	820	3.9
Leisure and hospitality	25.6	375.9	5.6	766	6.5
Other services	142.1	220.7	3.5	422	5.0
Government	3.8	589.0	-2.3	930	3.3
Cook, IL	126.7	2,539.8	-1.2	922	3.0
Private industry	125.5	2,221.9	-9	929	3.2
Natural resources and mining	.1	1.3	-3.6	1,037	3.2
Construction	10.5	96.7	.0	1,169	-.8
Manufacturing	7.9	265.7	-5.1	975	6.3
Trade, transportation, and utilities	26.7	499.4	-8	753	.4
Information	2.5	66.1	-4.1	1,164	.1
Financial activities	13.8	219.4	-8	1,471	8.1
Professional and business services	26.1	405.5	-1.3	1,206	4.1
Education and health services	12.3	350.8	1.0	791	3.7
Leisure and hospitality	10.5	217.7	2.8	375	-.3
Other services	12.6	95.1	-2.0	655	3.0
Government	1.2	317.9	-3.1	871	.9
New York, NY	111.9	2,253.6	-1.0	1,480	7.2
Private industry	111.7	1,800.4	-6	1,623	8.1
Natural resources and mining	.0	.1	.0	1,197	-6.5
Construction	2.2	30.0	-4.5	1,567	3.4
Manufacturing	3.5	46.6	-4.9	1,290	6.4
Trade, transportation, and utilities	22.1	247.6	-1.2	1,164	5.5
Information	4.3	130.6	-5.1	1,751	7.9
Financial activities	16.7	352.0	-2.0	3,034	16.1
Professional and business services	22.6	439.7	.5	1,702	2.6
Education and health services	7.8	273.8	2.4	918	7.6
Leisure and hospitality	10.1	188.2	.4	787	6.1
Other services	16.0	82.9	-1.1	871	6.1
Government	.2	453.2	-2.2	912	.1
Harris, TX	89.4	1,841.5	-9	906	2.1
Private industry	89.0	1,595.2	-1.2	929	2.1
Natural resources and mining	1.2	62.5	8.7	2,185	-.9
Construction	6.3	135.5	-5.0	919	2.6
Manufacturing	4.7	164.0	-4.9	1,106	2.3
Trade, transportation, and utilities	21.1	403.2	-2.1	821	1.0
Information	1.4	33.8	-3.9	1,098	.4
Financial activities	9.7	113.1	1.7	1,181	4.9
Professional and business services	17.0	279.0	-1.7	1,073	3.2
Education and health services	8.8	188.3	1.5	812	1.8
Leisure and hospitality	6.5	155.2	.7	335	-.9
Other services	10.3	56.3	-3.1	539	.4
Government	.4	246.3	1.1	759	3.1
Maricopa, AZ	80.9	1,621.2	( <sup>4</sup> )	757	4.0
Private industry	80.5	1,401.8	2.2	755	3.9
Natural resources and mining	.5	9.8	-2.6	545	4.4
Construction	8.4	131.7	5.9	779	2.1
Manufacturing	3.3	128.0	-2.5	1,050	8.2
Trade, transportation, and utilities	18.6	336.4	1.5	712	3.2
Information	1.6	36.6	-4.1	872	.5
Financial activities	9.5	133.3	1.5	933	3.7
Professional and business services	18.1	261.5	4.2	776	3.5
Education and health services	7.6	160.5	5.6	842	5.0
Leisure and hospitality	5.6	155.8	.8	364	2.8
Other services	5.7	44.7	-2.6	500	2.2
Government	.5	219.4	1.6	766	3.7

See footnotes at end of table.

22. Continued Quarterly Census of Employment and Wages: 10 largest counties, fourth quarter 2003.

County by NAICS supersector	Establishments, fourth quarter 2003 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		December 2003 (thousands)	Percent change, December 2002-03 <sup>2</sup>	Fourth quarter 2003	Percent change, fourth quarter 2002-03 <sup>2</sup>
Dallas, TX .....	68.6	1,450.8	-1.4	\$952	4.3
Private industry .....	68.2	1,294.6	-1.4	970	4.8
Natural resources and mining .....	.5	6.8	-20.5	2,680	22.7
Construction .....	4.5	73.0	-2.2	909	5.5
Manufacturing .....	3.5	144.9	-3.1	1,075	6.8
Trade, transportation, and utilities .....	15.8	326.1	-3.3	898	5.2
Information .....	1.9	64.0	-5.1	1,272	8.7
Financial activities .....	8.6	140.0	1.2	1,215	2.9
Professional and business services .....	14.0	237.7	.0	1,152	4.2
Education and health services .....	6.3	131.4	2.4	887	2.7
Leisure and hospitality .....	5.2	127.5	.0	432	4.3
Other services .....	6.7	40.5	-3.4	587	2.8
Government .....	.4	156.2	-1.8	800	-1.1
Orange, CA .....	88.8	1,436.6	1.3	874	5.3
Private industry .....	87.4	1,305.5	2.1	875	5.2
Natural resources and mining .....	.3	6.1	8.3	579	.2
Construction .....	6.4	85.5	4.4	969	5.9
Manufacturing .....	6.1	179.9	-3.0	1,036	11.4
Trade, transportation, and utilities .....	17.3	278.8	.6	802	2.7
Information .....	1.5	33.8	-4.4	1,152	5.3
Financial activities .....	9.7	127.8	9.9	1,354	6.2
Professional and business services .....	17.4	261.0	1.0	942	2.8
Education and health services .....	9.1	126.6	6.1	849	3.7
Leisure and hospitality .....	6.6	159.9	2.5	358	3.8
Other services .....	12.9	46.0	6.3	518	3.0
Government .....	1.4	131.1	-5.7	859	6.0
San Diego, CA .....	85.3	1,278.2	1.3	815	2.6
Private industry .....	83.9	1,060.2	1.5	809	2.5
Natural resources and mining .....	.9	11.0	-5.4	491	1.0
Construction .....	6.4	81.1	4.7	869	.7
Manufacturing .....	3.6	105.4	-4.2	1,129	11.5
Trade, transportation, and utilities .....	14.2	220.4	2.2	655	.9
Information .....	1.4	36.7	-4.5	1,582	-2.0
Financial activities .....	8.8	81.6	4.8	1,058	.4
Professional and business services .....	14.9	208.1	1.5	989	2.8
Education and health services .....	7.6	122.6	1.6	778	5.7
Leisure and hospitality .....	6.5	141.5	3.5	346	2.4
Other services .....	19.5	51.6	1.8	449	2.7
Government .....	1.3	218.0	.1	843	2.9
King, WA .....	81.6	1,100.6	.2	935	.2
Private industry .....	81.0	945.5	.1	944	-.3
Natural resources and mining .....	.4	2.8	-11.3	1,109	.8
Construction .....	6.2	53.4	-.4	921	1.4
Manufacturing .....	2.7	101.9	-8.2	1,176	-2.1
Trade, transportation, and utilities .....	14.8	225.5	1.1	804	2.6
Information .....	1.5	69.2	.8	1,829	-15.7
Financial activities .....	6.1	77.5	2.4	1,114	3.5
Professional and business services .....	11.7	158.3	.7	1,160	8.4
Education and health services .....	5.9	108.3	1.5	746	4.8
Leisure and hospitality .....	5.4	100.5	2.9	390	3.7
Other services .....	26.4	48.1	1.2	463	.4
Government .....	.6	155.1	1.0	882	3.6
Miami-Dade, FL .....	80.2	980.8	-.5	765	3.5
Private industry .....	79.9	827.5	-.7	742	3.6
Natural resources and mining .....	.5	9.9	-1.8	421	4.0
Construction .....	4.9	40.7	.3	788	2.7
Manufacturing .....	2.8	49.4	-9.8	695	5.8
Trade, transportation, and utilities .....	23.2	247.2	-1.7	689	4.2
Information .....	1.7	28.5	-3.2	990	1.7
Financial activities .....	8.2	65.5	.7	1,062	-1.1
Professional and business services .....	15.9	132.0	-.2	948	5.2
Education and health services .....	7.8	123.4	1.4	748	2.3
Leisure and hospitality .....	5.3	92.8	2.1	432	9.9
Other services .....	7.5	34.5	-1.8	450	3.0
Government .....	.3	153.3	.5	886	2.8

<sup>1</sup> Average weekly wages were calculated using unrounded data.

Virgin Islands.

<sup>2</sup> Percent changes were computed from quarterly employment and pay data adjusted for noneconomic county reclassifications. See Notes on Current Labor Statistics.

<sup>4</sup> Data do not meet BLS or State agency disclosure standards.

<sup>3</sup> Totals for the United States do not include data for Puerto Rico or the

NOTE: Includes workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs. Data are preliminary.

**23. Quarterly Census of Employment and Wages: by State, fourth quarter 2003.**

State	Establishments, fourth quarter 2003 (thousands)	Employment		Average weekly wage <sup>1</sup>	
		December 2003 (thousands)	Percent change, December 2002-03	Fourth quarter 2003	Percent change, fourth quarter 2002-03
United States <sup>2</sup> .....	8,314.1	129,341.5	0.0	\$767	3.6
Alabama .....	111.8	1,838.1	-.1	657	4.0
Alaska .....	20.0	282.7	1.1	746	1.1
Arizona .....	126.9	2,352.1	2.2	710	3.8
Arkansas .....	75.2	1,133.6	.5	587	4.1
California .....	1,190.8	14,922.3	.0	869	3.8
Colorado .....	160.0	2,134.6	-1.1	784	2.0
Connecticut .....	109.1	1,648.9	-.7	992	3.8
Delaware .....	27.1	408.4	.5	825	5.0
District of Columbia .....	30.0	654.8	-.4	1,238	3.9
Florida .....	504.1	7,424.5	.8	685	3.8
Georgia .....	245.6	3,845.6	.2	734	2.8
Hawaii .....	37.4	583.0	1.3	678	3.7
Idaho .....	48.5	577.5	.6	579	1.8
Illinois .....	325.7	5,738.7	-1.2	827	3.2
Indiana .....	152.1	2,852.2	-.3	675	3.5
Iowa .....	90.6	1,418.5	.0	626	4.7
Kansas .....	82.2	1,298.3	-.9	631	2.8
Kentucky .....	105.7	1,740.6	.3	645	3.5
Louisiana .....	114.0	1,870.9	.5	628	2.4
Maine .....	47.4	595.8	.7	631	4.6
Maryland .....	150.4	2,466.4	.7	831	3.6
Massachusetts .....	206.6	3,154.6	-1.9	954	5.2
Michigan .....	251.3	4,365.8	-1.1	806	3.9
Minnesota .....	159.0	2,591.9	-.5	777	3.2
Mississippi .....	65.6	1,108.1	.4	559	3.7
Missouri .....	165.4	2,633.6	-.7	676	2.4
Montana .....	42.0	396.6	1.1	549	4.0
Nebraska .....	55.3	884.4	.6	613	3.2
Nevada .....	60.3	1,111.2	4.4	721	5.1
New Hampshire .....	47.0	614.9	.6	788	4.0
New Jersey .....	268.1	3,912.8	.1	945	3.4
New Mexico .....	50.4	757.1	1.4	612	4.1
New York .....	550.3	8,379.2	-.4	959	5.2
North Carolina .....	227.8	3,759.6	-.1	679	4.5
North Dakota .....	24.0	317.6	.9	563	4.3
Ohio .....	294.2	5,322.4	-.7	713	3.8
Oklahoma .....	91.6	1,423.4	-1.3	597	4.2
Oregon .....	118.8	1,579.8	.2	694	3.3
Pennsylvania .....	326.9	5,524.5	-.2	750	4.7
Rhode Island .....	34.7	480.5	1.2	738	5.1
South Carolina .....	108.4	1,781.0	.3	623	3.1
South Dakota .....	28.1	365.4	.3	559	4.1
Tennessee .....	128.4	2,648.0	.4	689	4.2
Texas .....	505.3	9,300.1	-.3	754	3.1
Utah .....	73.9	1,066.2	1.2	630	2.3
Vermont .....	24.1	300.7	.3	661	5.1
Virginia .....	202.6	3,477.5	1.2	786	5.2
Washington .....	222.7	2,654.7	1.0	759	1.3
West Virginia .....	47.2	685.2	.1	587	2.1
Wisconsin .....	157.6	2,715.4	.0	683	4.1
Wyoming .....	22.0	241.6	1.7	616	4.1
Puerto Rico .....	50.2	1,074.1	3.5	450	4.7
Virgin Islands .....	3.2	42.5	-.2	629	2.4

<sup>1</sup> Average weekly wages were calculated using unrounded data.

NOTE: Includes workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs. Data are preliminary.

<sup>2</sup> Totals for the United States do not include data for Puerto Rico or the Virgin Islands.

**24. Annual data: Quarterly Census of Employment and Wages, by ownership**

Year	Average establishments	Average annual employment	Total annual wages (in thousands)	Average annual wage per employee	Average weekly wage
<b>Total covered (UI and UCFE)</b>					
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
2002	8,101,872	128,233,919	4,714,374,741	36,764	707
<b>UI covered</b>					
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
2002	8,051,117	125,475,293	4,570,787,218	36,428	701
<b>Private industry covered</b>					
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
2002	7,839,903	107,577,281	3,930,767,025	36,539	703
<b>State government covered</b>					
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
2002	64,447	4,485,071	175,866,492	39,212	754
<b>Local government covered</b>					
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
2002	146,767	13,412,941	464,153,701	34,605	665
<b>Federal Government covered (UCFE)</b>					
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
2002	50,755	2,758,627	143,587,523	52,050	1,001

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.

**25. Annual data: Quarterly Census of Employment and Wages, establishment size and employment, private ownership, by supersector, first quarter 2003**

Industry, establishments, and employment	Total	Size of establishments								
		Fewer than 5 workers <sup>1</sup>	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
<b>Total all industries<sup>2</sup></b>										
Establishments, first quarter .....	7,933,974	4,768,812	1,331,834	872,241	597,662	203,030	115,598	28,856	10,454	5,487
Employment, March .....	105,583,548	7,095,128	8,810,097	11,763,253	18,025,655	13,970,194	17,299,058	9,864,934	7,090,739	11,664,490
<b>Natural resources and mining</b>										
Establishments, first quarter .....	124,527	72,088	23,248	14,773	9,226	2,893	1,593	501	161	44
Employment, March .....	1,526,176	110,155	153,629	198,895	275,811	198,122	241,559	171,063	108,563	68,379
<b>Construction</b>										
Establishments, first quarter .....	795,029	523,747	129,201	76,215	46,096	12,837	5,604	1,006	262	61
Employment, March .....	6,285,841	746,296	846,521	1,021,722	1,371,071	872,274	823,846	338,107	172,944	93,060
<b>Manufacturing</b>										
Establishments, first quarter .....	381,159	148,469	65,027	57,354	54,261	25,927	19,813	6,506	2,565	1,237
Employment, March .....	14,606,928	252,443	436,028	788,581	1,685,563	1,815,385	3,043,444	2,245,183	1,732,368	2,607,933
<b>Trade, transportation, and utilities</b>										
Establishments, first quarter .....	1,851,662	992,180	378,157	239,637	149,960	51,507	31,351	6,681	1,619	570
Employment, March .....	24,683,356	1,646,304	2,514,548	3,204,840	4,527,709	3,564,316	4,661,898	2,277,121	1,070,141	1,216,479
<b>Information</b>										
Establishments, first quarter .....	147,062	84,906	20,744	16,130	13,539	5,920	3,773	1,223	575	252
Employment, March .....	3,208,667	112,409	138,076	220,618	416,670	410,513	576,674	418,113	399,366	516,228
<b>Financial activities</b>										
Establishments, first quarter .....	753,064	480,485	135,759	76,733	39,003	11,743	6,195	1,794	883	469
Employment, March .....	7,753,717	788,607	892,451	1,017,662	1,162,498	801,140	934,618	620,183	601,549	935,009
<b>Professional and business services</b>										
Establishments, first quarter .....	1,307,697	887,875	180,458	111,532	73,599	28,471	17,856	5,153	1,919	834
Employment, March .....	15,648,435	1,230,208	1,184,745	1,501,470	2,232,506	1,969,466	2,707,203	1,762,251	1,307,870	1,752,716
<b>Education and health services</b>										
Establishments, first quarter .....	720,207	338,139	164,622	103,683	65,173	24,086	17,122	3,929	1,761	1,692
Employment, March .....	15,680,834	629,968	1,092,329	1,392,099	1,955,861	1,679,708	2,558,300	1,337,188	1,220,921	3,814,460
<b>Leisure and hospitality</b>										
Establishments, first quarter .....	657,359	260,149	110,499	118,140	122,168	34,166	9,718	1,609	599	311
Employment, March .....	11,731,379	411,192	744,144	1,653,470	3,683,448	2,285,550	1,372,780	545,304	404,831	630,660
<b>Other services</b>										
Establishments, first quarter .....	1,057,236	851,231	116,940	56,238	24,235	5,451	2,561	454	109	17
Employment, March .....	4,243,633	1,037,360	761,518	740,752	703,957	371,774	376,832	150,421	71,453	29,566

<sup>1</sup> Includes establishments that reported no workers in March 2003.

<sup>2</sup> Includes data for unclassified establishments, not shown separately.

NOTE: Details may not add to totals due to rounding. Data are only produced for first quarter. Data are preliminary.

**26. Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02**

Metropolitan area <sup>1</sup>	Average annual wage <sup>2</sup>		
	2001	2002	Percent change, 2001-02
Metropolitan areas <sup>3</sup> .....	\$37,908	\$38,423	1.4
Abilene, TX .....	25,141	25,517	1.5
Akron, OH .....	32,930	34,037	3.4
Albany, GA .....	28,877	29,913	3.6
Albany-Schenectady-Troy, NY .....	35,355	35,994	1.8
Albuquerque, NM .....	31,667	32,475	2.6
Alexandria, LA .....	26,296	27,300	3.8
Allentown-Bethlehem-Easton, PA .....	33,569	34,789	3.6
Altoona, PA .....	26,869	27,360	1.8
Amarillo, TX .....	27,422	28,274	3.1
Anchorage, AK .....	37,998	39,112	2.9
Ann Arbor, MI .....	37,582	39,220	4.4
Anniston, AL .....	26,486	27,547	4.0
Appleton-Oshkosh-Neenah, WI .....	32,652	33,020	1.1
Asheville, NC .....	28,511	28,771	.9
Athens, GA .....	28,966	29,942	3.4
Atlanta, GA .....	40,559	41,123	1.4
Atlantic-Cape May, NJ .....	31,268	32,201	3.0
Auburn-Opelika, AL .....	25,753	26,405	2.5
Augusta-Aiken, GA-SC .....	30,626	31,743	3.6
Austin-San Marcos, TX .....	40,831	39,540	-3.2
Bakersfield, CA .....	30,106	31,192	3.6
Baltimore, MD .....	37,495	38,718	3.3
Bangor, ME .....	27,850	28,446	2.1
Barnstable-Yarmouth, MA .....	31,025	32,028	3.2
Baton Rouge, LA .....	30,321	31,366	3.4
Beaumont-Port Arthur, TX .....	31,798	32,577	2.4
Bellingham, WA .....	27,724	28,284	2.0
Benton Harbor, MI .....	31,140	32,627	4.8
Bergen-Passaic, NJ .....	44,701	45,185	1.1
Billings, MT .....	27,889	28,553	2.4
Biloxi-Gulfport-Pascagoula, MS .....	28,351	28,515	.6
Binghamton, NY .....	31,187	31,832	2.1
Birmingham, AL .....	34,519	35,940	4.1
Bismarck, ND .....	27,116	27,993	3.2
Bloomington, IN .....	28,013	28,855	3.0
Bloomington-Normal, IL .....	35,111	36,133	2.9
Boise City, ID .....	31,624	31,955	1.0
Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH .....	45,766	45,685	-.2
Boulder-Longmont, CO .....	44,310	44,037	-.6
Brazoria, TX .....	35,655	36,253	1.7
Bremerton, WA .....	31,525	33,775	7.1
Brownsville-Harlingen-San Benito, TX .....	22,142	22,892	3.4
Bryan-College Station, TX .....	25,755	26,051	1.1
Buffalo-Niagara Falls, NY .....	32,054	32,777	2.3
Burlington, VT .....	34,363	35,169	2.3
Canton-Massillon, OH .....	29,020	29,689	2.3
Casper, WY .....	28,264	28,886	2.2
Cedar Rapids, IA .....	34,649	34,730	.2
Champaign-Urbana, IL .....	30,488	31,995	4.9
Charleston-North Charleston, SC .....	28,887	29,993	3.8
Charleston, WV .....	31,530	32,136	1.9
Charlotte-Gastonia-Rock Hill, NC-SC .....	37,267	38,413	3.1
Charlottesville, VA .....	32,427	33,328	2.8
Chattanooga, TN-GA .....	29,981	30,631	2.2
Cheyenne, WY .....	27,579	28,827	4.5
Chicago, IL .....	42,685	43,239	1.3
Chico-Paradise, CA .....	26,499	27,190	2.6
Cincinnati, OH-KY-IN .....	36,050	37,168	3.1
Clarksville-Hopkinsville, TN-KY .....	25,567	26,940	5.4
Cleveland-Lorain-Elyria, OH .....	35,514	36,102	1.7
Colorado Springs, CO .....	34,391	34,681	.8
Columbia, MO .....	28,490	29,135	2.3
Columbia, SC .....	29,904	30,721	2.7
Columbus, GA-AL .....	28,412	29,207	2.8
Columbus, OH .....	35,028	36,144	3.2
Corpus Christi, TX .....	29,361	30,168	2.7
Corvallis, OR .....	35,525	36,766	3.5
Cumberland, MD-WV .....	25,504	26,704	4.7
Dallas, TX .....	42,706	43,000	.7
Danville, VA .....	25,465	26,116	2.6

See footnotes at end of table.

**26. Continued Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02**

Metropolitan area <sup>1</sup>	Average annual wage <sup>2</sup>		
	2001	2002	Percent change, 2001-02
Davenport-Moline-Rock Island, IA-IL .....	\$31,275	\$32,118	2.7
Dayton-Springfield, OH .....	33,619	34,327	2.1
Daytona Beach, FL .....	25,953	26,898	3.6
Decatur, AL .....	30,891	30,370	-1.7
Decatur, IL .....	33,354	33,215	-.4
Denver, CO .....	42,351	42,133	-.5
Des Moines, IA .....	34,303	35,641	3.9
Detroit, MI .....	42,704	43,224	1.2
Dothan, AL .....	28,026	29,270	4.4
Dover, DE .....	27,754	29,818	7.4
Dubuque, IA .....	28,402	29,208	2.8
Duluth-Superior, MN-WI .....	29,415	30,581	4.0
Dutchess County, NY .....	38,748	38,221	-1.4
Eau Claire, WI .....	27,680	28,760	3.9
El Paso, TX .....	25,847	26,604	2.9
Elkhart-Goshen, IN .....	30,797	32,427	5.3
Elmira, NY .....	28,669	29,151	1.7
Enid, OK .....	24,836	25,507	2.7
Erie, PA .....	29,293	29,780	1.7
Eugene-Springfield, OR .....	28,983	29,427	1.5
Evansville-Henderson, IN-KY .....	31,042	31,977	3.0
Fargo-Moorhead, ND-MN .....	27,899	29,053	4.1
Fayetteville, NC .....	26,981	28,298	4.9
Fayetteville-Springdale-Rogers, AR .....	29,940	31,090	3.8
Flagstaff, AZ-UT .....	25,890	26,846	3.7
Flint, MI .....	35,995	36,507	1.4
Florence, AL .....	25,639	26,591	3.7
Florence, SC .....	28,800	29,563	2.6
Fort Collins-Loveland, CO .....	33,248	34,215	2.9
Fort Lauderdale, FL .....	33,966	34,475	1.5
Fort Myers-Cape Coral, FL .....	29,432	30,324	3.0
Fort Pierce-Port St. Lucie, FL .....	27,742	29,152	5.1
Fort Smith, AR-OK .....	26,755	27,075	1.2
Fort Walton Beach, FL .....	26,151	27,242	4.2
Fort Wayne, IN .....	31,400	32,053	2.1
Fort Worth-Arlington, TX .....	36,379	37,195	2.2
Fresno, CA .....	27,647	28,814	4.2
Gadsden, AL .....	25,760	26,214	1.8
Gainesville, FL .....	26,917	27,648	2.7
Galveston-Texas City, TX .....	31,067	31,920	2.7
Gary, IN .....	31,948	32,432	1.5
Glens Falls, NY .....	27,885	28,931	3.8
Goldensboro, NC .....	25,398	25,821	1.7
Grand Forks, ND-MN .....	24,959	25,710	3.0
Grand Junction, CO .....	27,426	28,331	3.3
Grand Rapids-Muskegon-Holland, MI .....	33,431	34,214	2.3
Great Falls, MT .....	24,211	25,035	3.4
Greeley, CO .....	30,066	31,104	3.5
Green Bay, WI .....	32,631	33,698	3.3
Greensboro--Winston-Salem--High Point, NC .....	31,730	32,369	2.0
Greenville, NC .....	28,289	29,055	2.7
Greenville-Spartanburg-Anderson, SC .....	30,940	31,726	2.5
Hagerstown, MD .....	29,020	30,034	3.5
Hamilton-Middletown, OH .....	32,325	32,985	2.0
Harrisburg-Lebanon-Carlisle, PA .....	33,408	34,497	3.3
Hartford, CT .....	43,880	44,387	1.2
Hattiesburg, MS .....	25,145	26,051	3.6
Hickory-Morganton-Lenoir, NC .....	27,305	27,996	2.5
Honolulu, HI .....	32,531	33,978	4.4
Houma, LA .....	30,343	30,758	1.4
Houston, TX .....	42,784	42,712	-.2
Huntington-Ashland, WV-KY-OH .....	27,478	28,321	3.1
Huntsville, AL .....	36,727	38,571	5.0
Indianapolis, IN .....	35,989	36,608	1.7
Iowa City, IA .....	31,663	32,567	2.9
Jackson, MI .....	32,454	33,251	2.5
Jackson, MS .....	29,813	30,537	2.4
Jackson, TN .....	29,414	30,443	3.5
Jacksonville, FL .....	32,367	33,722	4.2
Jacksonville, NC .....	21,395	22,269	4.1

See footnotes at end of table.

**26. Continued Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02**

Metropolitan area <sup>1</sup>	Average annual wage <sup>2</sup>		
	2001	2002	Percent change, 2001-02
Jamestown, NY .....	\$25,913	\$26,430	2.0
Janesville-Beloit, WI .....	31,482	32,837	4.3
Jersey City, NJ .....	47,638	49,562	4.0
Johnson City-Kingsport-Bristol, TN-VA .....	28,543	29,076	1.9
Johnstown, PA .....	25,569	26,161	2.3
Jonesboro, AR .....	25,337	26,165	3.3
Joplin, MO .....	26,011	26,594	2.2
Kalamazoo-Battle Creek, MI .....	32,905	34,237	4.0
Kankakee, IL .....	29,104	30,015	3.1
Kansas City, MO-KS .....	35,794	36,731	2.6
Kenosha, WI .....	31,562	32,473	2.9
Killeen-Temple, TX .....	26,193	27,299	4.2
Knoxville, TN .....	30,422	31,338	3.0
Kokomo, IN .....	39,599	40,778	3.0
La Crosse, WI-MN .....	27,774	28,719	3.4
Lafayette, LA .....	29,693	30,104	1.4
Lafayette, IN .....	31,484	31,700	.7
Lake Charles, LA .....	29,782	30,346	1.9
Lakeland-Winter Haven, FL .....	28,890	29,505	2.1
Lancaster, PA .....	31,493	32,197	2.2
Lansing-East Lansing, MI .....	34,724	35,785	3.1
Laredo, TX .....	24,128	24,739	2.5
Las Cruces, NM .....	24,310	25,256	3.9
Las Vegas, NV-AZ .....	32,239	33,280	3.2
Lawrence, KS .....	25,923	26,621	2.7
Lawton, OK .....	24,812	25,392	2.3
Lewiston-Auburn, ME .....	27,092	28,435	5.0
Lexington, KY .....	31,593	32,776	3.7
Lima, OH .....	29,644	30,379	2.5
Lincoln, NE .....	29,352	30,614	4.3
Little Rock-North Little Rock, AR .....	30,858	31,634	2.5
Longview-Marshall, TX .....	28,029	28,172	.5
Los Angeles-Long Beach, CA .....	40,891	41,709	2.0
Louisville, KY-IN .....	33,058	33,901	2.6
Lubbock, TX .....	26,577	27,625	3.9
Lynchburg, VA .....	28,859	29,444	2.0
Macon, GA .....	30,595	31,884	4.2
Madison, WI .....	34,097	35,410	3.9
Mansfield, OH .....	28,808	30,104	4.5
McAllen-Edinburg-Mission, TX .....	22,313	23,179	3.9
Medford-Ashland, OR .....	27,224	28,098	3.2
Melbourne-Titusville-Palm Bay, FL .....	32,798	33,913	3.4
Memphis, TN-AR-MS .....	34,603	35,922	3.8
Merced, CA .....	25,479	26,771	5.1
Miami, FL .....	34,524	35,694	3.4
Middlesex-Somerset-Hunterdon, NJ .....	49,950	50,457	1.0
Milwaukee-Waukesha, WI .....	35,617	36,523	2.5
Minneapolis-St. Paul, MN-WI .....	40,868	41,722	2.1
Missoula, MT .....	26,181	27,249	4.1
Mobile, AL .....	28,129	28,742	2.2
Modesto, CA .....	29,591	30,769	4.0
Monmouth-Ocean, NJ .....	37,056	37,710	1.8
Monroe, LA .....	26,578	27,614	3.9
Montgomery, AL .....	29,150	30,525	4.7
Muncie, IN .....	28,374	29,017	2.3
Myrtle Beach, SC .....	24,029	24,672	2.7
Naples, FL .....	30,839	31,507	2.2
Nashville, TN .....	33,989	35,036	3.1
Nassau-Suffolk, NY .....	39,662	40,396	1.9
New Haven-Bridgeport-Stamford-Waterbury-Danbury, CT .....	52,198	51,170	-2.0
New London-Norwich, CT .....	38,505	38,650	.4
New Orleans, LA .....	31,089	32,407	4.2
New York, NY .....	59,097	57,708	-2.4
Newark, NJ .....	47,715	48,781	2.2
Newburgh, NY-PA .....	29,827	30,920	3.7
Norfolk-Virginia Beach-Newport News, VA-NC .....	29,875	30,823	3.2
Oakland, CA .....	45,920	46,877	2.1
Ocala, FL .....	26,012	26,628	2.4
Odessa-Midland, TX .....	31,278	31,295	.1
Oklahoma City, OK .....	28,915	29,850	3.2

See footnotes at end of table.

**26. Continued Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02**

Metropolitan area <sup>1</sup>	Average annual wage <sup>2</sup>		
	2001	2002	Percent change, 2001-02
Olympia, WA .....	\$32,772	\$33,765	3.0
Omaha, NE-IA .....	31,856	33,107	3.9
Orange County, CA .....	40,252	41,219	2.4
Orlando, FL .....	31,276	32,461	3.8
Owensboro, KY .....	27,306	28,196	3.3
Panama City, FL .....	26,433	27,448	3.8
Parkersburg-Marietta, WV-OH .....	27,920	29,529	5.8
Pensacola, FL .....	28,059	28,189	.5
Peoria-Pekin, IL .....	33,293	34,261	2.9
Philadelphia, PA-NJ .....	40,231	41,121	2.2
Phoenix-Mesa, AZ .....	35,514	36,045	1.5
Pine Bluff, AR .....	27,561	28,698	4.1
Pittsburgh, PA .....	35,024	35,625	1.7
Pittsfield, MA .....	31,561	32,707	3.6
Pocatello, ID .....	24,621	25,219	2.4
Portland, ME .....	32,327	33,309	3.0
Portland-Vancouver, OR-WA .....	37,285	37,650	1.0
Providence-Warwick-Pawtucket, RI .....	33,403	34,610	3.6
Provo-Orem, UT .....	28,266	28,416	.5
Pueblo, CO .....	27,097	27,763	2.5
Punta Gorda, FL .....	25,404	26,119	2.8
Racine, WI .....	33,319	34,368	3.1
Raleigh-Durham-Chapel Hill, NC .....	38,691	39,056	.9
Rapid City, SD .....	25,508	26,434	3.6
Reading, PA .....	32,807	33,912	3.4
Redding, CA .....	28,129	28,961	3.0
Reno, NV .....	34,231	34,744	1.5
Richland-Kennewick-Pasco, WA .....	33,370	35,174	5.4
Richmond-Petersburg, VA .....	35,879	36,751	2.4
Riverside-San Bernardino, CA .....	30,510	31,591	3.5
Roanoke, VA .....	30,330	31,775	4.8
Rochester, MN .....	37,753	39,036	3.4
Rochester, NY .....	34,327	34,827	1.5
Rockford, IL .....	32,104	32,827	2.3
Rocky Mount, NC .....	28,770	28,893	.4
Sacramento, CA .....	38,016	39,354	3.5
Saginaw-Bay City-Midland, MI .....	35,429	35,444	.0
St. Cloud, MN .....	28,263	29,535	4.5
St. Joseph, MO .....	27,734	28,507	2.8
St. Louis, MO-IL .....	35,928	36,712	2.2
Salem, OR .....	28,336	29,210	3.1
Salinas, CA .....	31,735	32,463	2.3
Salt Lake City-Ogden, UT .....	31,965	32,600	2.0
San Angelo, TX .....	26,147	26,321	.7
San Antonio, TX .....	30,650	31,336	2.2
San Diego, CA .....	38,418	39,305	2.3
San Francisco, CA .....	59,654	56,602	-5.1
San Jose, CA .....	65,931	63,056	-4.4
San Luis Obispo-Atascadero-Paso Robles, CA .....	29,092	29,981	3.1
Santa Barbara-Santa Maria-Lompoc, CA .....	33,626	34,382	2.2
Santa Cruz-Watsonville, CA .....	35,022	35,721	2.0
Santa Fe, NM .....	30,671	32,269	5.2
Santa Rosa, CA .....	36,145	36,494	1.0
Sarasota-Bradenton, FL .....	27,958	28,950	3.5
Savannah, GA .....	30,176	30,796	2.1
Scranton-Wilkes-Barre-Hazleton, PA .....	28,642	29,336	2.4
Seattle-Bellevue-Everett, WA .....	45,299	46,093	1.8
Sharon, PA .....	26,707	27,872	4.4
Sheboygan, WI .....	30,840	32,148	4.2
Sherman-Denison, TX .....	30,397	30,085	-1.0
Shreveport-Bossier City, LA .....	27,856	28,769	3.3
Sioux City, IA-NE .....	26,755	27,543	2.9
Sioux Falls, SD .....	28,962	29,975	3.5
South Bend, IN .....	30,769	31,821	3.4
Spokane, WA .....	29,310	30,037	2.5
Springfield, IL .....	36,061	37,336	3.5
Springfield, MO .....	27,338	27,987	2.4
Springfield, MA .....	32,801	33,972	3.6
State College, PA .....	29,939	30,910	3.2
Steubenville-Weirton, OH-WV .....	28,483	29,129	2.3

See footnotes at end of table.

**26. Continued Annual data: Quarterly Census of Employment and Wages, by metropolitan area, 2001-02**

Metropolitan area <sup>1</sup>	Average annual wage <sup>2</sup>		
	2001	2002	Percent change, 2001-02
Stockton-Lodi, CA .....	\$30,818	\$31,958	3.7
Sumter, SC .....	24,450	24,982	2.2
Syracuse, NY .....	32,254	33,752	4.6
Tacoma, WA .....	31,261	32,507	4.0
Tallahassee, FL .....	29,708	30,895	4.0
Tampa-St. Petersburg-Clearwater, FL .....	31,678	32,458	2.5
Terre Haute, IN .....	27,334	28,415	4.0
Texarkana, TX-Texarkana, AR .....	26,492	27,717	4.6
Toledo, OH .....	32,299	33,513	3.8
Topeka, KS .....	30,513	31,707	3.9
Trenton, NJ .....	46,831	47,969	2.4
Tucson, AZ .....	30,690	31,673	3.2
Tulsa, OK .....	31,904	32,241	1.1
Tuscaloosa, AL .....	29,972	30,745	2.6
Tyler, TX .....	30,551	31,050	1.6
Utica-Rome, NY .....	27,777	28,500	2.6
Vallejo-Fairfield-Napa, CA .....	33,903	34,543	1.9
Ventura, CA .....	37,783	38,195	1.1
Victoria, TX .....	29,068	29,168	.3
Vineland-Millville-Bridgeton, NJ .....	32,571	33,625	3.2
Visalia-Tulare-Porterville, CA .....	24,732	25,650	3.7
Waco, TX .....	28,245	28,885	2.3
Washington, DC-MD-VA-WV .....	47,589	48,430	1.8
Waterloo-Cedar Falls, IA .....	29,119	29,916	2.7
Wausau, WI .....	29,402	30,292	3.0
West Palm Beach-Boca Raton, FL .....	35,957	36,550	1.6
Wheeling, WV-OH .....	26,282	26,693	1.6
Wichita, KS .....	32,983	33,429	1.4
Wichita Falls, TX .....	25,557	26,387	3.2
Williamsport, PA .....	27,801	27,988	.7
Wilmington-Newark, DE-MD .....	42,177	43,401	2.9
Wilmington, NC .....	29,287	29,157	-.4
Yakima, WA .....	24,204	24,934	3.0
Yolo, CA .....	35,352	35,591	.7
York, PA .....	31,936	32,609	2.1
Youngstown-Warren, OH .....	28,789	29,799	3.5
Yuba City, CA .....	27,781	28,967	4.3
Yuma, AZ .....	22,415	23,429	4.5
Aguadilla, PR .....	18,061	19,283	6.8
Arecibo, PR .....	16,600	18,063	8.8
Caguas, PR .....	18,655	19,706	5.6
Mayaguez, PR .....	17,101	17,500	2.3
Ponce, PR .....	17,397	18,187	4.5
San Juan-Bayamon, PR .....	20,948	21,930	4.7

<sup>1</sup> Includes data for Metropolitan Statistical Areas (MSA) and Primary Metropolitan Statistical Areas (PMSA) as defined by OMB Bulletin No. 99-04. In the New England areas, the New England County Metropolitan Area (NECMA) definitions were used.

<sup>2</sup> Each year's total is based on the MSA definition for the specific year. Annual changes include differences resulting from changes in MSA definitions.

<sup>3</sup> Totals do not include the six MSAs within Puerto Rico.

NOTE: Includes workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) programs.

**27. Annual data: Employment status of the population**

[Numbers in thousands]

Employment status	1994 <sup>1</sup>	1995	1996	1997 <sup>1</sup>	1998 <sup>1</sup>	1999 <sup>1</sup>	2000 <sup>1</sup>	2001	2002	2003	2004
Civilian noninstitutional population.....	196,814	198,584	200,591	203,133	205,220	207,753	212,577	215,092	217,570	221,168	223,357
Civilian labor force.....	131,056	132,304	133,943	136,297	137,673	139,368	142,583	143,734	144,863	146,510	147,401
Labor force participation rate.....	66.6	66.6	66.8	67.1	67.1	67.1	67.1	66.8	66.6	66.2	66.0
Employed.....	123,060	124,900	126,708	129,558	131,463	133,488	136,891	136,933	136,485	137,736	139,252
Employment-population ratio.....	62.5	62.9	63.2	63.8	64.1	64.3	64.4	63.7	62.7	62.3	62.3
Unemployed.....	7,996	7,404	7,236	6,739	6,210	5,880	5,692	6,801	8,378	8,774	8,149
Unemployment rate.....	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5
Not in the labor force.....	65,758	66,280	66,647	66,836	67,547	68,385	69,994	71,359	72,707	74,658	75,956

<sup>1</sup> Not strictly comparable with prior years.

**28. Annual data: Employment levels by industry**

[In thousands]

Industry	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total private employment.....	95,016	97,866	100,169	103,113	106,021	108,686	110,996	110,707	108,828	108,416	109,862
Total nonfarm employment.....	114,291	117,298	119,708	122,770	125,930	128,993	131,785	131,826	130,341	129,999	131,480
Goods-producing.....	22,774	23,156	23,410	23,886	24,354	24,465	24,649	23,873	22,557	21,816	21,884
Natural resources and mining.....	659	641	637	654	645	598	599	606	583	572	591
Construction.....	5,095	5,274	5,536	5,813	6,149	6,545	6,787	6,826	6,716	6,735	6,964
Manufacturing.....	17,021	17,241	17,237	17,419	17,560	17,322	17,263	16,441	15,259	14,510	14,329
Private service-providing.....	72,242	74,710	76,759	79,227	81,667	84,221	86,346	86,834	86,271	86,599	87,978
Trade, transportation, and utilities.....	23,128	23,834	24,239	24,700	25,186	25,771	26,225	25,983	25,497	25,287	25,510
Wholesale trade.....	5,247.3	5,433.1	5,522.0	5,663.9	5,795.2	5,892.5	5,933.2	5,772.7	5,652.3	5,607.5	5,654.9
Retail trade.....	13,490.8	13,896.7	14,142.5	14,388.9	14,609.3	14,970.1	15,279.8	15,238.6	15,025.1	14,917.3	15,034.7
Transportation and warehousing.....	3,701.0	3,837.8	3,935.3	4,026.5	4,168.0	4,300.3	4,410.3	4,372.0	4,223.6	4,185.4	4,250.0
Utilities.....	689.3	666.2	639.6	620.9	613.4	608.5	601.3	599.4	596.2	577.0	570.2
Information.....	2,738	2,843	2,940	3,084	3,218	3,419	3,631	3,629	3,395	3,188	3,138
Financial activities.....	6,867	6,827	6,969	7,178	7,462	7,648	7,687	7,807	7,847	7,977	8,052
Professional and business services.....	12,174	12,844	13,462	14,335	15,147	15,957	16,666	16,476	15,976	15,987	16,414
Education and health services.....	12,807	13,289	13,683	14,087	14,446	14,798	15,109	15,645	16,199	16,588	16,954
Leisure and hospitality.....	10,100	10,501	10,777	11,018	11,232	11,543	11,862	12,036	11,986	12,173	12,479
Other services.....	4,428	4,572	4,690	4,825	4,976	5,087	5,168	5,258	5,372	5,401	5,431
Government.....	19,275	19,432	19,539	19,664	19,909	20,307	20,790	21,118	21,513	21,583	21,618

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

Industry	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Private sector:</b>											
Average weekly hours.....	34.5	34.3	34.3	34.5	34.5	34.3	34.3	34.0	33.9	33.7	33.7
Average hourly earnings (in dollars).....	11.32	11.64	12.03	12.49	13.00	13.47	14.00	14.53	14.95	15.35	15.67
Average weekly earnings (in dollars).....	390.73	399.53	412.74	431.25	448.04	462.49	480.41	493.20	506.07	517.30	528.56
<b>Goods-producing:</b>											
Average weekly hours.....	41.1	40.8	40.8	41.1	40.8	40.8	40.7	39.9	39.9	39.8	40.0
Average hourly earnings (in dollars).....	12.63	12.96	13.38	13.82	14.23	14.71	15.27	15.78	16.33	16.80	17.19
Average weekly earnings (in dollars).....	519.58	528.62	546.48	568.43	580.99	599.99	621.86	630.04	651.61	669.13	688.03
<b>Natural resources and mining</b>											
Average weekly hours.....	45.3	45.3	46.0	46.2	44.9	44.2	44.4	44.6	43.2	43.6	44.5
Average hourly earnings (in dollars).....	14.41	14.78	15.10	15.57	16.20	16.33	16.55	17.00	17.19	17.56	18.08
Average weekly earnings (in dollars).....	653.14	670.32	695.07	720.11	727.28	721.74	734.92	757.92	741.97	765.94	804.03
<b>Construction:</b>											
Average weekly hours.....	38.8	38.8	38.9	38.9	38.8	39.0	39.2	38.7	38.4	38.4	38.3
Average hourly earnings (in dollars).....	14.38	14.73	15.11	15.67	16.23	16.80	17.48	18.00	18.52	18.95	19.23
Average weekly earnings (in dollars).....	558.53	571.57	588.48	609.48	629.75	655.11	685.78	695.89	711.82	726.83	735.70
<b>Manufacturing:</b>											
Average weekly hours.....	41.7	41.3	41.3	41.7	41.4	41.4	41.3	40.3	40.5	40.4	40.8
Average hourly earnings (in dollars).....	12.04	12.34	12.75	13.14	13.45	13.85	14.32	14.76	15.29	15.74	16.14
Average weekly earnings (in dollars).....	502.12	509.26	526.55	548.22	557.12	573.17	590.65	595.19	618.75	635.99	658.53
<b>Private service-providing:</b>											
Average weekly hours.....	32.7	32.6	32.6	32.8	32.8	32.7	32.7	32.5	32.5	32.4	32.3
Average hourly earnings (in dollars).....	10.87	11.19	11.57	12.05	12.59	13.07	13.60	14.16	14.56	14.96	15.26
Average weekly earnings (in dollars).....	354.97	364.14	376.72	394.77	412.78	427.30	445.00	460.32	472.88	483.89	493.67
<b>Trade, transportation, and utilities:</b>											
Average weekly hours.....	34.3	34.1	34.1	34.3	34.2	33.9	33.8	33.5	33.6	33.6	33.5
Average hourly earnings (in dollars).....	10.80	11.10	11.46	11.90	12.39	12.82	13.31	13.70	14.02	14.34	14.59
Average weekly earnings (in dollars).....	370.38	378.79	390.64	407.57	423.30	434.31	449.88	459.53	471.27	481.14	488.58
<b>Wholesale trade:</b>											
Average weekly hours.....	38.8	38.6	38.6	38.8	38.6	38.6	38.8	38.4	38.0	37.9	37.8
Average hourly earnings (in dollars).....	12.93	13.34	13.80	14.41	15.07	15.62	16.28	16.77	16.98	17.36	17.66
Average weekly earnings (in dollars).....	501.17	515.14	533.29	559.39	582.21	602.77	631.40	643.45	644.38	657.29	666.93
<b>Retail trade:</b>											
Average weekly hours.....	30.9	30.8	30.7	30.9	30.9	30.8	30.7	30.7	30.9	30.9	30.7
Average hourly earnings (in dollars).....	8.61	8.85	9.21	9.59	10.05	10.45	10.86	11.29	11.67	11.90	12.08
Average weekly earnings (in dollars).....	501.17	515.14	533.29	559.39	582.21	602.77	631.40	643.45	644.38	657.29	666.93
<b>Transportation and warehousing:</b>											
Average weekly hours.....	39.5	38.9	39.1	39.4	38.7	37.6	37.4	36.7	36.8	36.8	37.2
Average hourly earnings (in dollars).....	12.84	13.18	13.45	13.78	14.12	14.55	15.05	15.33	15.76	16.25	16.53
Average weekly earnings (in dollars).....	507.27	513.37	525.60	542.55	546.86	547.97	562.31	562.70	579.75	598.41	614.90
<b>Utilities:</b>											
Average weekly hours.....	42.3	42.3	42.0	42.0	42.0	42.0	42.0	41.4	40.9	41.1	40.9
Average hourly earnings (in dollars).....	18.66	19.19	19.78	20.59	21.48	22.03	22.75	23.58	23.96	24.77	25.62
Average weekly earnings (in dollars).....	789.98	811.52	830.74	865.26	902.94	924.59	955.66	977.18	979.09	1,017.27	1,048.82
<b>Information:</b>											
Average weekly hours.....	36.0	36.0	36.4	36.3	36.6	36.7	36.8	36.9	36.5	36.2	36.3
Average hourly earnings (in dollars).....	15.32	15.68	16.30	17.14	17.67	18.40	19.07	19.80	20.20	21.01	21.42
Average weekly earnings (in dollars).....	551.28	564.98	592.68	622.40	646.52	675.32	700.89	731.11	738.17	760.81	777.42
<b>Financial activities:</b>											
Average weekly hours.....	35.5	35.5	35.5	35.7	36.0	35.8	35.9	35.8	35.6	35.5	35.5
Average hourly earnings (in dollars).....	11.82	12.28	12.71	13.22	13.93	14.47	14.98	15.59	16.17	17.14	17.53
Average weekly earnings (in dollars).....	419.20	436.12	451.49	472.37	500.95	517.57	537.37	558.02	575.51	609.08	622.99
<b>Professional and business services:</b>											
Average weekly hours.....	34.1	34.0	34.1	34.3	34.3	34.4	34.5	34.2	34.2	34.1	34.2
Average hourly earnings (in dollars).....	12.15	12.53	13.00	13.57	14.27	14.85	15.52	16.33	16.81	17.21	17.46
Average weekly earnings (in dollars).....	414.16	426.44	442.81	465.51	490.00	510.99	535.07	557.84	574.66	587.02	596.96
<b>Education and health services:</b>											
Average weekly hours.....	32.0	32.0	31.9	32.2	32.2	32.1	32.2	32.3	32.4	32.3	32.4
Average hourly earnings (in dollars).....	11.50	11.80	12.17	12.56	13.00	13.44	13.95	14.64	15.21	15.64	16.16
Average weekly earnings (in dollars).....	368.14	377.73	388.27	404.65	418.82	431.35	449.29	473.39	492.74	505.69	523.83
<b>Leisure and hospitality:</b>											
Average weekly hours.....	26.0	25.9	25.9	26.0	26.2	26.1	26.1	25.8	25.8	25.6	25.7
Average hourly earnings (in dollars).....	6.46	6.62	6.82	7.13	7.48	7.76	8.11	8.35	8.58	8.76	8.91
Average weekly earnings (in dollars).....	168.00	171.43	176.48	185.81	195.82	202.87	211.79	215.19	221.26	224.30	228.63
<b>Other services:</b>											
Average weekly hours.....	32.7	32.6	32.5	32.7	32.6	32.5	32.5	32.3	32.0	31.4	31.0
Average hourly earnings (in dollars).....	10.18	10.51	10.85	11.29	11.79	12.26	12.73	13.27	13.72	13.84	13.98
Average weekly earnings (in dollars).....	332.44	342.36	352.62	368.63	384.25	398.77	413.41	428.64	439.76	434.41	433.04

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.

**30. Employment Cost Index, compensation,<sup>1</sup> by occupation and industry group**

[June 1989 = 100]

Series	2003			2004			2005			Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2005										
<b>Civilian workers<sup>2</sup></b> .....	165.8	167.6	168.4	170.7	172.2	173.9	174.7	176.6	177.7	0.6	3.2
Workers, by occupational group:											
White-collar workers.....	167.9	169.9	170.7	172.7	174.0	175.8	176.6	178.8	179.9	.6	3.4
Professional specialty and technical.....	165.0	167.0	168.0	170.2	171.2	173.6	174.7	176.8	177.6	.5	3.7
Executive, administrative, and managerial.....	172.0	174.0	174.9	175.8	177.1	178.2	179.4	182.0	183.1	.6	3.4
Administrative support, including clerical.....	170.0	171.7	172.5	175.3	177.2	178.7	180.0	182.0	183.3	.7	3.4
Blue-collar workers.....	161.4	162.9	163.7	166.9	168.8	170.1	170.9	172.4	173.8	.8	3.0
Service occupations.....	165.0	166.8	167.9	169.7	170.9	172.7	173.6	174.9	175.9	.6	2.9
Workers, by industry division:											
Goods-producing.....	164.6	165.8	166.8	170.4	171.9	173.4	174.4	177.0	178.5	.8	3.8
Manufacturing.....	165.4	166.5	167.1	171.7	173.2	174.9	175.4	178.2	179.6	.8	3.7
Service-producing.....	166.2	168.2	169.1	170.8	172.3	174.0	174.7	176.5	177.4	.5	3.0
Services.....	166.3	168.5	169.5	171.2	172.3	174.5	175.5	177.0	177.8	.5	3.2
Health services.....	167.6	169.3	170.7	173.0	174.4	176.7	177.7	179.9	181.1	.7	3.8
Hospitals.....	170.8	173.1	174.8	176.8	178.2	180.5	181.8	184.3	185.5	.7	4.1
Educational services.....	164.2	166.9	167.6	168.5	168.9	171.8	172.9	173.9	174.5	.3	3.3
Public administration <sup>3</sup> .....	164.3	167.3	168.1	170.1	171.4	174.1	175.4	177.6	178.3	.4	4.0
Nonmanufacturing.....	165.8	167.8	168.6	170.4	171.8	173.5	174.4	176.1	177.1	.6	3.1
<b>Private industry workers</b> .....	166.4	168.1	168.8	171.4	173.0	174.4	175.2	177.2	178.5	.7	3.2
Excluding sales occupations.....	166.6	168.1	169.0	171.6	173.2	174.6	175.6	177.7	178.9	.7	3.3
Workers, by occupational group:											
White-collar workers.....	169.4	171.2	172.0	174.2	175.7	177.3	178.1	180.4	181.6	.7	3.4
Excluding sales occupations.....	170.4	172.1	173.0	175.3	176.7	178.3	179.5	182.0	183.2	.7	3.7
Professional specialty and technical occupations.....	167.7	169.4	170.5	173.4	174.7	176.8	178.1	180.8	181.6	.4	3.9
Executive, administrative, and managerial occupations.....	173.1	175.0	175.9	176.8	178.1	179.2	180.2	183.0	184.2	.7	3.4
Sales occupations.....	165.1	167.2	167.1	169.2	171.2	173.1	174.1	173.1	174.4	.8	1.9
Administrative support occupations, including clerical.....	170.9	172.3	173.2	176.1	178.1	179.4	180.7	182.8	184.3	.8	3.5
Blue-collar workers.....	161.4	162.8	163.6	166.9	168.8	170.1	170.8	172.3	173.7	.8	2.9
Precision production, craft, and repair occupations.....	162.0	163.1	164.2	167.1	169.1	170.2	171.2	173.1	174.9	1.0	3.4
Machine operators, assemblers, and inspectors.....	161.1	162.6	163.2	168.7	170.5	172.2	172.5	173.3	173.8	.3	1.9
Transportation and material moving occupations.....	155.1	156.7	156.9	158.5	160.6	161.8	162.3	163.7	165.7	1.2	3.2
Handlers, equipment cleaners, helpers, and laborers.....	166.8	168.6	169.5	171.7	173.2	174.3	175.3	176.9	177.9	.6	2.7
Service occupations.....	162.6	163.8	164.3	166.9	168.2	168.9	169.7	170.9	171.9	.6	2.2
Production and nonsupervisory occupations <sup>4</sup> .....	164.1	165.7	166.6	169.3	171.0	172.4	173.0	174.6	175.8	.7	2.8
Workers, by industry division:											
Goods-producing.....	164.5	165.7	166.5	170.3	171.8	173.3	174.3	176.9	178.5	.9	3.9
Excluding sales occupations.....	163.8	165.0	165.9	169.8	171.2	172.5	173.7	176.3	177.9	.9	3.9
White-collar occupations.....	169.2	170.1	170.5	173.5	174.7	176.4	177.8	182.2	184.2	1.1	5.4
Excluding sales occupations.....	167.5	168.5	169.2	172.2	173.3	174.5	176.4	180.9	183.0	1.2	5.6
Blue-collar occupations.....	161.5	162.9	163.9	168.1	169.8	171.3	172.0	173.4	174.7	.7	2.9
Construction.....	161.1	162.3	163.3	164.6	165.9	167.0	167.3	169.1	171.0	1.1	3.1
Manufacturing.....	165.4	166.5	167.1	171.7	173.2	174.9	175.4	178.2	179.6	.8	3.7
White-collar occupations.....	168.7	169.5	169.6	173.2	174.6	176.4	176.7	181.4	183.4	1.1	5.0
Excluding sales occupations.....	166.4	167.4	167.8	171.3	172.6	174.1	174.7	179.4	181.5	1.2	5.2
Blue-collar occupations.....	162.8	164.1	165.1	170.4	172.0	173.7	174.3	175.8	176.7	.5	2.7
Durables.....	165.5	166.6	167.3	172.4	174.0	175.8	176.3	179.5	181.2	.9	4.1
Nondurables.....	164.9	166.0	166.6	170.4	171.7	173.1	173.6	175.8	176.8	.6	3.0
Service-producing.....	167.0	168.8	169.7	171.6	173.3	174.7	175.3	177.1	178.1	.6	2.8
Excluding sales occupations.....	168.0	169.7	170.6	172.5	174.2	175.6	176.5	178.4	179.4	.6	3.0
White-collar occupations.....	169.2	171.2	172.0	174.1	175.7	177.3	177.8	179.7	180.7	.6	2.8
Excluding sales occupations.....	171.3	173.1	174.2	176.2	177.8	179.4	180.4	182.4	183.2	.4	3.0
Blue-collar occupations.....	160.8	162.2	162.6	164.1	166.4	167.4	168.1	169.9	171.5	.9	3.1
Service occupations.....	162.0	163.2	164.3	166.1	167.4	168.1	168.9	170.1	171.1	.6	2.2
Transportation and public utilities.....	165.4	166.5	167.0	169.8	172.5	173.6	173.5	174.5	175.8	.7	1.9
Transportation.....	158.9	159.4	159.6	162.0	164.7	166.2	166.2	165.5	166.1	.4	.9
Public utilities.....	174.2	176.4	177.0	180.4	183.1	183.6	183.4	186.9	189.2	1.2	3.3
Communications.....	175.5	178.4	179.0	182.2	183.6	183.6	183.5	186.0	188.4	1.3	2.6
Electric, gas, and sanitary services.....	172.6	173.8	174.6	178.2	182.4	183.3	183.3	188.0	190.2	1.2	4.3
Wholesale and retail trade.....	162.5	164.3	165.0	166.3	168.1	169.1	169.1	170.9	171.7	.5	2.1
Excluding sales occupations.....	162.7	165.0	165.9	167.4	168.6	169.6	170.4	172.3	173.1	.5	2.7
Wholesale trade.....	171.3	172.0	172.0	173.8	175.9	177.8	176.6	179.1	179.3	.1	1.9
Excluding sales occupations.....	169.9	171.2	171.3	173.7	174.0	175.3	176.3	179.2	179.5	.2	3.2
Retail trade.....	157.4	159.9	161.0	162.1	163.7	164.2	164.7	166.2	167.3	.7	2.2
General merchandise stores.....	159.2	161.2	165.6	165.8	166.2	168.8	169.5	172.3	172.1	-.1	3.5
Food stores.....	158.6	159.3	160.3	162.1	163.5	163.5	164.0	165.0	165.9	.5	1.5

See footnotes at end of table.

### 30. Continued—Employment Cost Index, compensation,<sup>1</sup> by occupation and industry group

[June 1989 = 100]

Series	2003			2004			2005		Percent change		
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2005										
Finance, insurance, and real estate.....	178.3	180.2	180.9	182.5	183.6	184.8	186.0	188.9	190.9	1.1	4.0
Excluding sales occupations.....	184.0	1,853.0	186.1	186.6	188.7	190.9	191.2	194.3	196.1	.9	3.9
Banking, savings and loan, and other credit agencies..	206.3	207.6	209.0	207.2	208.9	210.5	212.3	213.7	217.3	1.7	4.0
Insurance.....	173.9	175.1	176.2	177.8	180.5	182.1	183.6	186.3	188.8	1.3	4.6
Services.....	168.4	170.4	171.4	173.5	175.1	176.9	177.9	179.7	180.6	.5	3.1
Business services.....	169.2	171.9	172.6	174.8	176.9	178.5	179.1	180.1	181.0	.5	2.3
Health services.....	167.9	169.4	170.8	173.3	174.8	177.0	178.0	180.3	181.5	.7	3.8
Hospitals.....	171.9	173.9	175.9	178.1	179.7	181.8	183.2	185.8	187.3	.8	4.2
Educational services.....	177.1	180.2	181.3	183.1	184.2	187.0	188.5	190.0	190.9	.5	3.6
Colleges and universities.....	175.4	178.4	179.4	181.2	182.5	185.2	186.2	187.6	188.6	.5	3.3
Nonmanufacturing.....	166.4	168.1	169.0	170.9	172.5	173.9	174.7	176.5	177.6	.6	3.0
White-collar workers.....	169.3	171.2	172.1	174.1	175.7	177.2	178.0	180.0	181.0	.6	3.0
Excluding sales occupations.....	171.4	173.2	174.2	176.2	177.7	179.3	180.6	182.7	183.6	.5	3.3
Blue-collar occupations.....	159.7	161.1	161.7	163.4	165.5	166.4	167.3	168.8	170.6	1.1	3.1
Service occupations.....	162.0	163.2	162.4	166.0	167.3	168.0	168.9	170.1	171.0	.5	2.2
<b>State and local government workers.....</b>	<b>163.2</b>	<b>165.9</b>	<b>166.8</b>	<b>168.0</b>	<b>168.7</b>	<b>171.5</b>	<b>172.6</b>	<b>174.1</b>	<b>174.7</b>	<b>.3</b>	<b>3.6</b>
Workers, by occupational group:											
White-collar workers.....	162.2	164.9	165.7	166.8	167.5	170.0	171.2	172.6	173.1	.3	3.3
Professional specialty and technical.....	160.8	163.4	164.1	165.1	165.6	168.4	169.4	170.4	171.1	.4	3.3
Executive, administrative, and managerial.....	165.7	168.0	169.1	170.1	171.0	172.1	174.3	176.7	176.5	-.1	3.2
Administrative support, including clerical.....	164.4	167.9	168.5	170.4	171.8	174.3	175.5	177.2	177.7	.3	3.4
Blue-collar workers.....	161.7	163.6	165.2	166.7	167.5	169.9	171.0	172.6	173.8	.7	3.8
Workers, by industry division:											
Services.....	162.3	164.9	165.7	166.5	166.8	169.7	170.8	171.8	172.4	.3	3.4
Services excluding schools <sup>5</sup> .....	164.2	166.8	168.2	169.4	170.1	173.0	173.8	175.6	176.4	.5	3.7
Health services.....	166.7	169.5	171.0	172.2	172.9	175.7	176.8	178.9	179.6	.4	3.9
Hospitals.....	167.3	170.3	171.4	172.4	173.2	176.3	177.4	179.1	179.8	.4	3.8
Educational services.....	161.7	164.3	165.0	165.7	165.9	168.8	169.9	170.9	171.4	.3	3.3
Schools.....	162.0	164.7	165.3	166.0	166.3	169.2	170.3	171.2	171.7	.3	3.2
Elementary and secondary.....	160.0	163.0	163.7	164.4	164.6	168.0	169.2	169.8	170.3	.3	3.5
Colleges and universities.....	167.5	169.2	170.0	170.7	171.0	172.4	173.2	175.1	175.6	.3	2.7
Public administration <sup>3</sup> .....	164.3	167.3	168.1	170.1	171.4	174.1	175.4	177.6	178.3	.4	4.0

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

<sup>2</sup> Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

<sup>3</sup> Consists of legislative, judicial, administrative, and regulatory activities.

<sup>4</sup> This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

<sup>5</sup> Includes, for example, library, social, and health services.

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

[June 1989 = 100]

Series	2003			2004			2005			Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2005										
<b>Civilian workers<sup>1</sup></b> .....	160.3	161.8	162.3	163.3	164.3	165.7	166.2	167.3	168.2	0.5	2.4
Workers, by occupational group:											
White-collar workers.....	162.9	164.5	165.1	166.1	167.1	168.7	169.1	170.3	171.1	.5	2.4
Professional specialty and technical.....	160.1	161.8	162.5	163.8	164.4	166.5	167.0	168.1	168.7	.4	2.6
Executive, administrative, and managerial.....	169.0	170.5	171.2	171.4	172.4	173.4	174.4	175.9	176.9	.6	2.6
Administrative support, including clerical.....	163.1	164.3	164.9	166.3	167.5	168.8	169.7	170.9	172.0	.6	2.7
Blue-collar workers.....	154.8	155.8	156.3	157.3	158.4	159.7	160.0	161.0	162.2	.7	2.4
Service occupations.....	158.7	159.8	160.6	161.2	161.9	162.8	163.6	164.4	165.3	.5	2.1
Workers, by industry division:											
Goods-producing.....	157.5	158.3	160.6	159.9	161.0	162.3	162.4	163.8	164.9	.8	2.4
Manufacturing.....	159.0	159.7	160.1	161.3	162.4	163.8	164.0	165.3	166.4	.7	2.5
Service-producing.....	161.4	163.0	163.6	164.6	165.5	167.0	167.5	168.6	169.5	.5	2.4
Services.....	162.8	164.7	165.4	166.5	167.4	167.3	170.1	171.2	171.9	.4	2.7
Health services.....	163.2	164.7	165.9	167.7	168.6	170.8	171.7	173.2	174.3	.6	3.4
Hospitals.....	164.4	166.3	167.7	169.0	169.9	171.8	173.2	174.7	175.7	.6	3.4
Educational services.....	160.7	162.7	163.2	163.6	163.8	166.0	166.8	167.5	167.9	.2	2.5
Public administration <sup>2</sup> .....	158.0	159.4	160.0	161.1	161.4	162.6	163.5	165.0	165.6	.4	2.6
Nonmanufacturing.....	160.5	162.1	162.7	163.7	164.6	166.0	166.5	167.6	168.5	.5	2.4
<b>Private industry workers</b> .....	160.4	161.7	162.3	163.4	164.5	165.9	166.2	167.4	168.4	.6	2.4
Excluding sales occupations.....	160.5	161.7	162.4	163.5	164.5	165.8	166.5	167.6	168.7	.7	2.6
Workers, by occupational group:											
White-collar workers.....	163.8	165.3	165.9	167.1	168.2	169.7	170.0	171.3	172.3	.6	2.4
Excluding sales occupations.....	164.8	166.2	167.0	168.1	169.2	170.6	171.4	172.7	173.7	.6	2.7
Professional specialty and technical occupations.....	160.5	162.1	163.0	164.7	165.5	167.6	168.0	169.4	170.0	.4	2.7
Executive, administrative, and managerial occupations.....	170.3	171.8	172.5	172.7	173.9	174.9	175.7	177.2	178.4	.7	2.6
Sales occupations.....	159.3	161.6	161.1	162.6	163.9	165.9	164.0	164.9	166.0	.7	1.3
Administrative support occupations, including clerical.....	164.0	165.1	165.7	167.2	168.6	169.7	170.8	172.0	173.3	.8	2.8
Blue-collar workers.....	154.6	155.6	156.1	157.2	158.3	159.5	159.9	160.8	162.1	.8	2.4
Precision production, craft, and repair occupations.....	154.7	155.5	156.2	157.1	158.3	159.3	159.7	160.4	162.0	1.0	2.3
Machine operators, assemblers, and inspectors.....	155.3	156.8	156.9	158.6	159.8	161.6	161.6	162.6	163.7	.7	2.4
Transportation and material moving occupations.....	149.0	149.8	149.8	150.4	151.8	152.9	153.3	154.4	156.0	1.0	2.8
Handlers, equipment cleaners, helpers, and laborers.....	159.0	159.9	160.6	161.8	162.7	163.6	164.5	165.6	165.9	.2	2.0
Service occupations.....	156.1	157.1	157.8	158.4	159.3	159.8	160.6	161.4	162.3	.6	1.9
Production and nonsupervisory occupations <sup>3</sup> .....	157.4	158.8	159.4	160.7	161.7	163.1	163.4	164.5	165.5	.6	2.4
Workers, by industry division:											
Goods-producing.....	157.4	158.3	158.7	159.9	160.9	162.3	162.4	163.6	164.8	.7	2.4
Excluding sales occupations.....	156.5	157.4	158.0	159.2	160.2	161.2	161.6	162.8	164.0	.7	2.4
White-collar occupations.....	161.4	161.9	162.1	163.2	164.5	166.0	165.9	167.3	168.5	.7	2.4
Excluding sales occupations.....	159.2	159.9	160.4	161.5	162.7	163.6	164.1	165.3	166.7	.8	2.5
Blue-collar occupations.....	154.8	155.9	156.4	157.7	158.6	159.8	160.1	161.2	162.4	.7	2.4
Construction.....	152.4	153.6	154.0	155.1	155.9	157.1	157.0	157.7	159.2	1.0	2.1
Manufacturing.....	159.0	159.7	160.1	161.3	162.4	163.8	164.0	165.3	166.4	.7	2.5
White-collar occupations.....	161.6	162.0	162.1	163.3	164.7	166.1	166.1	167.6	168.7	.7	2.4
Excluding sales occupations.....	158.9	159.5	160.0	161.2	162.5	163.5	163.9	165.1	166.5	.8	2.5
Blue-collar occupations.....	156.9	157.9	158.5	159.8	160.6	162.1	162.4	163.6	164.7	.7	2.6
Durable goods.....	159.7	160.6	160.9	161.9	162.9	164.5	164.7	165.9	167.1	.7	2.6
Nondurable goods.....	157.8	158.3	158.7	160.4	161.6	162.8	162.9	164.5	165.3	.5	2.3
Service-producing.....	161.7	163.3	163.9	165.0	166.1	167.5	167.9	169.0	170.0	.6	2.3
Excluding sales occupations.....	162.8	164.2	165.0	166.0	167.1	168.5	169.3	170.4	171.4	.6	2.6
White-collar occupations.....	164.1	166.0	166.6	167.8	168.9	170.4	170.8	172.1	173.0	.5	2.4
Excluding sales occupations.....	166.5	168.2	169.0	170.2	171.2	172.8	173.6	175.0	175.9	.5	2.7
Blue-collar occupations.....	154.3	155.1	155.4	156.2	157.8	158.9	159.4	160.1	161.5	.9	2.3
Service occupations.....	155.6	156.6	157.4	158.0	158.8	159.4	160.2	160.9	161.8	.6	1.9
Transportation and public utilities.....	155.6	156.0	156.5	157.6	159.1	160.4	160.5	159.8	161.1	.8	1.3
Transportation.....	150.6	150.4	150.8	151.7	153.4	155.0	155.1	153.4	154.6	.8	.8
Public utilities.....	162.1	163.4	164.1	165.3	166.4	167.5	167.5	168.2	169.9	1.0	2.1
Communications.....	163.4	165.4	165.9	167.0	167.5	168.8	168.3	168.4	170.3	1.1	1.7
Electric, gas, and sanitary services.....	160.4	161.0	161.8	163.3	165.1	165.9	166.6	167.9	169.2	.8	2.5
Wholesale and retail trade.....	157.5	159.2	159.5	160.3	161.6	162.5	162.1	163.4	164.1	.4	1.5
Wholesale trade.....	164.7	164.8	165.3	166.2	167.8	169.7	167.5	169.5	169.4	-.1	1.0
Excluding sales occupations.....	165.2	165.7	166.3	167.8	167.6	168.6	168.9	171.5	171.5	.0	2.3
Retail trade.....	153.8	156.3	156.5	157.3	158.4	158.7	159.3	160.3	161.4	.7	1.9
General merchandise stores.....	152.0	153.1	153.6	154.1	154.9	157.5	158.1	159.3	159.0	-.2	2.6
Food stores.....	151.6	152.2	152.8	153.8	154.3	154.5	155.0	155.8	156.7	.6	1.6

See footnotes at end of table.

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

[June 1989 = 100]

Series	2003			2004				2005		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2005	
Finance, insurance, and real estate.....	172.4	174.1	174.5	175.2	175.3	176.5	177.7	179.2	181.2	1.1	3.4
Excluding sales occupations.....	178.5	179.2	210.2	179.2	180.5	181.8	182.9	184.6	186.5	1.0	3.3
Banking, savings and loan, and other credit agencies.....	208.7	209.1	164.5	206.7	207.6	209.5	211.3	210.7	215.4	2.2	3.8
Insurance.....	163.0	163.9	164.5	165.1	167.2	168.9	170.4	171.7	173.7	1.2	3.9
Services.....	164.0	165.9	166.7	168.1	169.3	171.1	172.0	173.4	174.2	.5	2.9
Business services.....	166.4	169.1	169.8	171.0	172.7	174.3	175.0	175.5	176.5	.6	2.2
Health services.....	163.2	164.6	135.8	167.8	168.8	170.9	171.9	173.4	174.6	.7	3.4
Hospitals.....	164.6	166.5	167.9	169.4	170.5	172.4	173.8	175.4	176.7	.7	3.6
Educational services.....	167.5	170.3	171.0	171.9	172.6	175.5	176.8	177.9	178.6	.4	3.5
Colleges and universities.....	165.1	167.6	168.4	169.5	170.0	172.9	173.6	174.6	175.5	.5	3.2
Nonmanufacturing.....	160.5	162.1	162.6	163.7	164.8	166.2	166.6	167.7	168.7	.6	2.4
White-collar workers.....	163.9	165.7	166.3	167.5	168.6	170.1	170.5	171.7	172.7	.6	2.4
Excluding sales occupations.....	166.1	167.7	168.5	169.7	170.7	172.3	173.1	174.4	175.4	.6	2.8
Blue-collar occupations.....	152.4	153.4	153.8	154.7	156.1	157.1	157.5	158.2	159.7	.9	2.3
Service occupations.....	155.5	156.5	157.3	157.9	158.7	159.2	160.1	160.8	161.7	.6	1.9
<b>State and local government workers.....</b>	<b>163.2</b>	<b>165.9</b>	<b>166.8</b>	<b>168.0</b>	<b>168.7</b>	<b>171.5</b>	<b>172.6</b>	<b>174.1</b>	<b>174.7</b>	<b>.2</b>	<b>2.4</b>
Workers, by occupational group:											
White-collar workers.....	159.2	161.0	161.5	162.1	162.4	164.1	164.9	165.9	166.2	.2	2.3
Professional specialty and technical.....	159.1	161.0	161.4	162.1	162.3	164.4	165.0	165.7	166.2	.3	2.4
Executive, administrative, and managerial.....	161.0	162.5	163.3	163.5	163.8	164.3	166.1	168.2	168.0	-.1	2.6
Administrative support, including clerical.....	157.2	159.1	159.5	160.4	160.8	162.6	163.0	163.9	164.0	.1	2.0
Blue-collar workers.....	156.5	157.6	158.3	158.9	159.2	160.7	161.4	162.4	163.2	.5	2.5
Workers, by industry division:											
Services.....	159.8	161.6	162.1	162.6	162.7	164.8	165.5	166.2	166.6	.2	2.4
Services excluding schools <sup>4</sup> .....	161.8	163.2	164.5	165.1	165.6	167.5	168.3	169.4	170.1	.4	2.7
Health services.....	163.5	165.1	166.7	167.4	167.8	169.6	170.7	171.9	172.6	.4	2.9
Hospitals.....	163.8	165.5	166.7	167.4	167.9	169.9	171.0	172.0	172.5	.3	2.7
Educational services.....	159.3	161.2	161.6	162.0	162.1	164.2	164.9	165.5	165.8	.2	2.3
Schools.....	159.5	161.4	161.8	162.1	162.3	164.3	165.0	165.6	166.0	.2	2.3
Elementary and secondary.....	158.5	160.6	160.9	161.3	161.5	163.8	164.5	164.8	165.1	.2	2.2
Colleges and universities.....	162.1	163.5	164.0	164.3	164.4	165.4	166.3	167.9	168.2	.2	2.3
Public administration <sup>2</sup> .....	158.0	159.4	160.0	161.1	161.4	162.6	163.5	165.0	165.6	.4	2.6

<sup>1</sup> Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

<sup>2</sup> Consists of legislative, judicial, administrative, and regulatory activities.

<sup>3</sup> This series has the same industry and occupational coverage as the Hourly Earnings index, which was discontinued in January 1989.

<sup>4</sup> Includes, for example, library, social, and health services.

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

[June 1989 = 100]

Series	2003			2004				2005		Percent change	
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
										June 2005	
<b>Private industry workers.....</b>	182.0	184.3	185.8	192.2	195.3	196.9	198.7	203.3	204.9	0.8	4.9
Workers, by occupational group:											
White-collar workers.....	185.5	187.7	189.2	194.4	197.4	199.1	201.1	206.8	208.5	.8	5.6
Blue-collar workers.....	176.1	178.4	179.9	188.3	191.8	193.3	194.9	197.8	199.4	.8	4.0
Workers, by industry division:											
Goods-producing.....	180.2	182.3	183.8	193.7	196.2	198.1	201.2	207.0	209.4	1.2	6.7
Service-producing.....	182.3	184.7	186.2	190.6	194.1	195.5	196.5	200.5	201.6	.5	3.9
Manufacturing.....	179.0	181.1	182.3	194.4	196.9	199.2	200.4	206.7	208.8	1.0	6.0
Nonmanufacturing.....	182.8	185.1	186.7	190.9	194.3	195.7	197.6	201.6	203.0	.7	4.5

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

[June 1989 = 100]

Series	2003			2004			2005		Percent change		
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	3 months ended	12 months ended
	June 2005										
<b>COMPENSATION</b>											
<b>Workers, by bargaining status<sup>1</sup></b>											
Union.....	164.1	165.7	166.8	171.4	173.9	175.3	176.2	177.5	179.0	0.8	2.9
Goods-producing.....	163.4	164.7	165.9	172.3	174.6	176.0	176.7	178.2	179.8	.9	3.0
Service-producing.....	164.6	166.5	167.5	170.2	172.9	174.4	175.4	176.6	177.9	.7	2.9
Manufacturing.....	163.8	165.0	166.3	175.0	177.0	178.4	178.9	180.6	181.7	.6	2.7
Nonmanufacturing.....	163.7	165.5	166.5	168.8	171.6	173.0	174.1	175.2	176.9	1.0	3.1
Nonunion.....	166.8	168.4	169.1	171.3	172.7	174.2	174.9	177.1	178.3	.7	3.2
Goods-producing.....	164.9	166.1	166.7	169.7	170.9	172.4	173.5	176.5	178.0	.8	4.2
Service-producing.....	167.2	169.0	169.8	171.6	173.2	174.6	175.1	177.0	178.0	.6	2.8
Manufacturing.....	165.8	166.9	167.3	170.6	172.0	173.8	174.3	177.5	179.0	.8	4.1
Nonmanufacturing.....	166.7	168.5	139.3	171.1	172.6	174.0	174.7	176.6	177.7	.6	3.0
<b>Workers, by region<sup>1</sup></b>											
Northeast.....	165.2	166.9	167.9	170.2	172.3	173.7	174.2	176.1	177.6	.9	3.1
South.....	161.6	163.2	163.9	166.4	167.9	169.5	170.6	172.5	173.4	.5	3.3
Midwest (formerly North Central).....	170.4	171.7	172.5	174.7	176.2	177.6	177.9	180.0	180.9	.5	2.7
West.....	169.5	171.4	172.2	175.3	176.8	178.1	179.0	181.4	183.3	1.0	3.7
<b>Workers, by area size<sup>1</sup></b>											
Metropolitan areas.....	166.6	168.3	169.1	171.5	173.1	174.6	175.3	177.4	178.6	.7	3.2
Other areas.....	165.0	166.1	166.9	170.2	172.1	173.3	174.3	176.4	177.3	.5	3.0
<b>WAGES AND SALARIES</b>											
<b>Workers, by bargaining status<sup>1</sup></b>											
Union.....	154.3	155.3	156.2	157.2	158.7	160.0	160.6	160.8	162.1	.8	2.1
Goods-producing.....	153.9	154.8	155.4	156.3	157.5	158.7	158.9	159.6	161.1	.9	2.3
Service-producing.....	155.1	156.3	157.3	158.5	160.3	161.7	162.6	162.3	163.6	.8	2.1
Manufacturing.....	155.9	156.7	157.1	158.1	159.2	160.5	160.7	161.5	162.8	.8	2.3
Nonmanufacturing.....	153.5	154.6	155.6	156.6	158.4	159.6	160.4	160.3	161.7	.9	2.1
Nonunion.....	161.5	163.0	163.4	164.6	165.6	167.0	167.3	168.6	169.6	.6	2.4
Goods-producing.....	158.9	159.7	160.1	161.4	162.4	163.8	163.9	165.2	166.4	.7	2.5
Service-producing.....	162.3	164.0	164.5	165.6	166.6	168.0	168.4	169.7	170.7	.6	2.5
Manufacturing.....	160.2	160.9	161.3	162.6	163.7	165.2	165.3	166.8	167.8	.6	2.5
Nonmanufacturing.....	161.5	163.1	163.7	164.7	165.7	167.1	167.5	168.7	169.7	.6	2.4
<b>Workers, by region<sup>1</sup></b>											
Northeast.....	158.4	160.0	160.9	162.0	163.6	164.9	165.0	166.0	167.3	.8	2.3
South.....	156.1	157.4	157.9	159.1	160.1	161.6	162.3	163.6	164.4	.5	2.7
Midwest (formerly North Central).....	165.0	166.1	166.5	166.9	167.7	169.2	169.2	170.6	171.3	.4	2.1
West.....	163.1	164.7	165.2	166.8	167.9	169.1	169.5	170.3	171.9	.9	2.4
<b>Workers, by area size<sup>1</sup></b>											
Metropolitan areas.....	160.7	162.2	162.7	163.8	164.9	163.3	166.6	167.7	168.8	.7	2.4
Other areas.....	158.0	158.9	159.5	160.8	162.1	162.1	163.8	165.1	166.3	.7	2.6

<sup>1</sup> 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.

**34. 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
<b>Time-off plans</b>										
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 <sup>1</sup> .....	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
<b>Insurance plans</b>										
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 <sup>1</sup> .....	-	-	-	-	-	-	-	-	53	55
<b>Retirement plans</b>										
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
<b>Other benefits</b>										
Employees eligible for:										
Flexible benefits plans.....	-	-	-	2	5	9	10	12	12	13
Reimbursement accounts <sup>2</sup> .....	-	-	-	5	12	23	36	52	38	32
Premium conversion plans.....	-	-	-	-	-	-	-	-	5	7

<sup>1</sup> 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-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 bene-

fits at less than full pay.

<sup>2</sup> 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.

**35. 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
<b>Time-off plans</b>								
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 <sup>1</sup> .....	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 <sup>2</sup> .....	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
<b>Insurance plans</b>								
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 <sup>2</sup> .....	—	—	—	29	—	—	—	—
<b>Retirement plans</b>								
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
<b>Other benefits</b>								
Employees eligible for:								
Flexible benefits plans.....	1	2	3	4	5	5	5	5
Reimbursement accounts <sup>3</sup> .....	8	14	19	12	5	31	50	64
Premium conversion plans.....	—	—	—	7	—	—	—	—

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

**36. Work stoppages involving 1,000 workers or more**

Measure	Annual totals		2004					2005							
	2003	2004	July	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug. <sup>P</sup>
Number of stoppages:															
Beginning in period.....	14	17	0	2	1	2	3	0	0	3	4	5	4	1	1
In effect during period.....	15	18	1	3	3	4	4	2	2	5	7	8	9	3	3
Workers involved:															
Beginning in period (in thousands).....	129.2	170.7	.0	4.5	10.0	3.2	9.8	.0	.0	5.9	12.8	9.6	5.5	1.5	4.2
In effect during period (in thousands).	130.5	316.5	1.6	6.5	16.1	16.1	8.5	2.5	2.6	8.5	17.0	13.9	12.8	3.9	6.6
Days idle:															
Number (in thousands).....	4,091.2	3,344.1	3.2	57.0	300.0	114.9	97.5	50.0	49.4	98.0	95.3	115.5	84.1	64.5	98.0
Percent of estimated working time <sup>1</sup> .....	.01	.01	( <sup>2</sup> )	( <sup>2</sup> )	.01	( <sup>2</sup> )									

<sup>1</sup> 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.

<sup>2</sup> Less than 0.005.

NOTE: P = preliminary.

**37. 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		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS</b>															
All items.....	184.0	188.9	189.5	189.9	190.9	191.0	190.3	190.7	191.8	193.3	194.6	194.4	194.5	195.4	196.4
All items (1967 = 100).....	551.1	565.8	567.6	568.7	571.9	572.2	570.1	571.2	574.5	579.0	582.9	582.4	582.6	585.2	588.2
Food and beverages.....	180.5	186.6	187.3	187.2	188.4	188.6	188.9	189.5	189.3	189.6	190.7	191.1	190.9	191.3	191.3
Food.....	180.0	186.2	186.8	186.7	187.9	188.2	188.5	189.1	188.8	189.1	190.2	190.6	190.4	190.8	190.9
Food at home.....	179.4	186.2	186.7	186.1	187.9	188.1	188.5	188.9	188.0	188.1	189.8	189.3	189.4	189.8	189.5
Cereals and bakery products.....	202.8	206.0	207.2	206.4	207.0	206.8	206.4	207.6	208.4	208.5	209.1	209.7	209.4	209.4	210.1
Meats, poultry, fish, and eggs.....	169.3	181.7	183.7	183.4	182.9	182.4	183.1	183.4	183.9	184.3	184.7	185.0	185.2	184.7	184.4
Dairy and related products <sup>1</sup> .....	167.9	180.2	184.9	181.6	182.1	180.9	180.1	183.3	181.8	181.4	182.2	183.3	181.0	181.6	182.9
Fruits and vegetables.....	225.9	232.7	224.0	226.0	240.0	248.3	250.8	242.9	234.8	233.7	240.1	244.7	238.4	240.3	236.6
Nonalcoholic beverages and beverage materials.....	139.8	140.4	140.3	140.3	140.6	139.6	140.4	142.2	142.5	143.6	144.8	144.3	144.0	144.8	144.3
Other foods at home.....	162.6	164.9	166.2	165.2	165.4	164.4	163.6	165.6	165.3	165.7	167.5	166.3	166.9	167.6	167.7
Sugar and sweets.....	162.0	163.2	164.4	163.5	162.6	163.1	161.3	163.0	164.2	162.6	164.9	163.3	165.7	167.1	164.7
Fats and oils.....	157.4	167.8	169.7	170.4	170.2	167.8	167.4	170.4	169.3	167.0	169.4	167.8	164.5	167.3	167.6
Other foods.....	178.8	179.7	180.9	179.4	180.1	178.9	178.3	180.3	179.7	181.3	183.0	182.0	182.9	183.0	183.9
Other miscellaneous foods <sup>1,2</sup> .....	110.3	110.4	111.5	110.5	109.9	110.5	110.8	110.1	110.3	111.9	110.8	110.8	110.2	111.5	111.8
Food away from home <sup>1</sup> .....	182.1	187.5	188.4	188.9	189.4	189.6	189.9	190.8	191.4	191.7	192.8	192.6	193.2	193.6	194.2
Other food away from home <sup>1,2</sup> .....	121.3	125.3	125.4	125.9	126.8	126.7	127.0	127.5	128.7	129.4	129.6	130.3	131.6	132.0	132.6
Alcoholic beverages.....	187.2	192.1	192.5	193.4	193.6	194.0	193.9	194.3	195.2	195.7	195.9	195.5	195.9	195.8	195.9
Housing.....	184.8	189.5	191.2	191.0	191.0	190.8	190.7	191.8	192.7	194.1	194.4	194.5	195.5	196.6	196.9
Shelter.....	213.1	218.8	220.3	220.2	220.6	219.9	219.8	221.0	222.5	224.4	224.4	224.4	224.5	225.6	225.6
Rent of primary residence.....	205.5	211.0	211.9	212.4	212.8	213.2	213.9	214.5	215.0	215.5	216.0	216.4	216.8	217.5	218.0
Lodging away from home.....	119.3	125.9	130.6	127.2	128.0	121.9	118.7	122.6	128.9	138.3	136.2	131.7	132.8	136.4	134.3
Owners' equivalent rent of primary residence <sup>3</sup> .....	219.9	224.9	225.7	226.1	226.5	226.8	227.2	227.8	228.4	228.7	229.0	229.4	230.2	230.2	230.7
Tenants' and household insurance <sup>1,2</sup> .....	114.8	116.2	116.3	116.6	116.3	117.7	118.7	118.5	118.7	119.0	118.2	118.0	118.0	118.1	117.8
Fuels and utilities.....	154.5	161.9	167.7	166.7	162.8	165.6	165.7	166.9	166.4	166.7	169.6	171.7	177.4	180.1	181.8
Fuels.....	138.2	144.4	150.5	149.3	144.9	147.8	148.0	149.0	148.1	148.4	151.5	153.7	159.9	162.6	164.4
Fuel oil and other fuels.....	139.5	160.5	157.4	161.6	177.3	186.6	183.7	181.2	188.5	195.5	199.5	193.9	195.0	202.9	209.8
Gas (piped) and electricity.....	145.0	150.6	157.6	156.0	150.0	152.7	153.0	154.3	152.9	152.7	155.9	158.7	165.6	168.1	169.6
Household furnishings and operations.....	126.1	125.5	124.8	125.0	126.1	125.8	125.5	126.1	126.1	126.1	126.3	126.7	126.0	125.9	125.8
Apparel.....	120.9	120.4	116.5	121.2	124.1	123.0	118.8	116.1	118.7	123.5	123.7	122.4	118.3	113.8	115.8
Men's and boys' apparel.....	118.0	117.5	113.8	116.2	118.3	118.9	116.3	115.0	116.3	119.6	120.4	119.7	115.3	111.6	112.4
Women's and girls' apparel.....	113.1	113.0	107.5	114.4	119.2	116.8	110.0	105.1	109.3	117.1	116.6	114.2	109.1	112.8	105.1
Infants' and toddlers' apparel <sup>1</sup> .....	122.1	118.5	115.0	119.5	120.6	120.3	118.6	117.5	118.1	119.0	121.3	119.8	116.4	112.8	113.5
Footwear.....	119.6	119.3	117.3	121.7	122.1	121.8	120.3	119.4	121.1	122.8	123.8	123.2	121.7	119.3	121.7
Transportation.....	157.6	163.1	162.9	162.9	166.4	167.2	164.8	164.0	166.1	168.8	173.2	172.1	171.8	174.4	177.7
Private transportation.....	153.6	159.4	159.1	159.4	162.9	163.6	161.3	160.5	162.6	165.2	169.6	168.3	167.7	170.3	173.8
New and used motor vehicles <sup>2</sup> .....	96.5	94.2	93.4	93.9	94.3	95.2	95.4	95.8	95.9	95.6	95.6	95.7	95.6	95.2	95.0
New vehicles.....	137.9	137.1	134.9	134.9	135.9	137.9	138.8	139.8	139.9	139.1	138.8	138.7	138.1	136.3	135.0
Used cars and trucks <sup>1</sup> .....	142.9	133.3	133.8	136.5	136.8	136.7	137.3	137.5	137.6	137.7	138.1	138.8	139.9	141.0	142.0
Motor fuel.....	135.8	160.4	162.0	161.2	173.1	171.9	161.2	156.4	164.3	175.9	193.9	188.2	185.5	197.5	212.7
Gasoline (all types).....	135.1	159.7	161.2	160.5	172.2	171.0	160.4	155.6	163.4	175.0	193.9	187.3	184.6	196.5	211.7
Motor vehicle parts and equipment.....	107.8	108.7	109.0	109.3	109.5	109.9	109.9	110.6	110.9	110.9	110.8	111.0	111.2	111.9	112.4
Motor vehicle maintenance and repair.....	195.6	200.2	200.8	200.7	201.7	202.9	203.3	204.0	203.9	204.7	205.0	205.6	206.1	206.7	207.3
Public transportation.....	209.3	209.1	209.7	205.3	206.5	208.6	205.4	204.4	205.9	210.1	215.0	218.0	222.4	226.1	223.3
Medical care.....	297.1	310.1	311.6	312.3	313.3	314.1	314.9	316.8	319.3	320.7	321.5	322.2	322.9	324.1	323.9
Medical care commodities.....	262.8	269.3	270.0	270.9	271.7	271.2	270.8	271.6	272.8	273.2	273.5	274.6	275.6	276.3	276.8
Medical care services.....	306.0	321.3	323.1	323.7	324.8	326.0	327.3	329.5	332.5	334.3	335.2	335.9	336.3	337.8	337.3
Professional services.....	261.2	271.5	273.3	273.3	273.7	274.2	274.6	276.2	278.6	279.7	281.0	281.6	281.9	282.6	282.4
Hospital and related services.....	394.8	417.9	418.8	420.3	422.5	425.0	428.0	431.0	434.7	437.3	437.1	437.3	437.9	440.9	439.6
Recreation <sup>2</sup> .....	107.5	108.6	108.5	108.6	108.7	108.7	108.5	108.9	109.0	109.0	109.2	109.5	109.1	109.1	109.3
Video and audio <sup>1,2</sup> .....	103.6	104.2	104.1	104.0	104.2	104.0	103.9	104.2	104.3	104.6	104.8	104.6	103.1	103.1	104.3
Education and communication <sup>2</sup> .....	109.8	111.6	111.7	112.9	112.5	112.7	112.6	112.7	112.8	112.7	112.9	112.7	112.8	112.9	113.7
Education <sup>2</sup> .....	134.4	143.7	145.1	147.9	148.3	148.4	148.5	148.8	149.2	149.3	149.5	149.9	150.5	151.3	153.9
Educational books and supplies.....	335.4	351.0	353.3	352.8	353.8	354.4	355.9	357.4	359.9	360.6	361.3	362.3	363.4	364.0	364.6
Tuition, other school fees, and child care.....	362.1	414.3	418.3	427.4	428.2	428.7	428.9	429.7	430.6	430.9	431.4	432.7	434.4	436.6	444.8
Communication <sup>1,2</sup> .....	89.7	86.7	86.1	86.2	85.5	85.6	85.4	85.4	85.4	85.2	85.4	84.9	84.6	84.4	84.0
Information and information processing <sup>1,2</sup> .....	87.8	84.6	84.0	84.1	83.4	83.5	83.3	83.2	83.3	83.1	83.2	82.7	82.4	82.2	81.8
Telephone services <sup>1,2</sup> .....	98.3	95.8	95.0	95.3	94.6	94.5	94.8	94.8	95.1	95.0	95.3	94.8	94.6	94.4	94.1
Information and information processing other than telephone services <sup>1,4</sup> .....	16.1	14.8	14.7	14.7	14.5	14.3	14.2	14.2	14.0	14.0	13.9	13.8	13.6	13.6	13.4
Personal computers and peripheral equipment <sup>1,2</sup> .....	17.6	15.3	15.1	15.0	14.6	14.2	13.9	14.0	13.5	13.4	13.4	13.2	13.0	12.8	12.4
Other goods and services.....	298.7	304.7	305.5	306.3	306.8	307.0	307.8	309.3	310.8	311.2	311.5	312.5	312.5	314.1	314.4
Tobacco and smoking products.....	469.0	478.0	481.6	482.9	482.3	481.7	484.8	493.9	496.1	496.6	497.0	498.0	497.8	503.4	506.5
Personal care <sup>1</sup> .....	178.0	181.7	181.9	182.3	182.8	83.0	183.3	183.5	184.4	184.7	184.9	185.5	185.5	186.1	186.1
Personal care products <sup>1</sup> .....	153.5	153.9	152.8	153.5	154.0	153.8	153.4	153.9	153.0	153.4	154.4	154.4	154.3	155.0	155.2
Personal care services <sup>1</sup> .....	193.2	197.6	198.9	199.1	199.4	200.0	201.2	201.9	202.9	203.3	203.3	202.8	203.0	203.9	204.1

See footnotes at

**37. 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		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Miscellaneous personal services.....	283.5	293.9	295.2	295.9	296.3	296.9	297.7	298.5	299.8	300.8	301.4	302.8	302.9	303.9	304.2
Commodity and service group:															
Commodities.....	151.2	154.7	154.2	154.9	157.1	157.2	155.8	155.4	156.5	158.2	160.3	159.8	158.9	159.5	161.1
Food and beverages.....	180.5	186.6	187.3	187.2	188.4	188.6	188.9	189.5	189.3	189.6	190.7	191.1	190.9	191.3	191.3
Commodities less food and beverages.....	134.5	136.7	135.6	136.7	139.4	139.4	137.2	136.4	138.1	140.4	142.9	142.0	140.8	141.4	143.7
Nondurables less food and beverages.....	149.7	157.2	156.1	157.8	162.6	162.0	157.4	155.2	158.6	163.7	168.9	167.0	164.7	166.7	171.8
Apparel.....	120.9	120.4	116.5	121.2	124.1	123.0	118.8	116.1	118.7	123.5	123.7	122.4	118.3	113.8	115.8
Nondurables less food, beverages, and apparel.....	171.5	183.9	184.4	184.4	190.6	190.2	185.2	183.3	187.3	192.7	201.0	198.6	197.5	203.3	210.4
Durables.....	117.5	114.8	113.7	114.1	114.7	115.3	115.5	116.0	116.0	115.7	115.6	115.7	115.4	114.9	114.4
Services.....	216.5	222.8	224.5	224.5	224.5	224.6	224.6	225.6	226.8	228.0	228.6	228.8	229.8	230.9	231.3
Rent of shelter <sup>3</sup> .....	221.9	227.9	229.4	229.3	229.8	229.0	228.9	230.1	231.7	233.7	233.7	233.2	233.8	234.9	235.0
Transportation services.....	216.3	220.6	220.8	220.1	221.4	222.8	221.8	221.7	222.4	223.3	224.4	225.1	226.0	227.1	227.0
Other services.....	254.4	261.3	261.9	263.8	263.7	264.2	264.3	265.1	265.8	266.1	266.7	266.9	267.2	267.2	268.7
Special indexes:															
All items less food.....	184.7	189.4	189.9	190.4	191.4	191.5	190.6	190.9	192.3	194.0	195.3	195.1	195.2	196.1	197.3
All items less shelter.....	174.6	179.3	179.5	180.1	181.4	181.9	180.9	180.9	181.9	183.2	185.1	185.0	184.9	185.7	187.1
All items less medical care.....	178.1	182.7	183.2	183.6	184.6	184.7	183.9	184.2	185.3	186.8	188.1	187.9	187.9	188.8	189.8
Commodities less food.....	136.5	138.8	137.7	138.8	141.1	141.4	139.3	138.6	140.2	142.5	144.9	144.0	142.8	143.5	145.7
Nondurables less food.....	151.9	159.3	158.2	159.9	164.2	163.9	159.5	157.5	160.8	165.6	170.6	168.7	166.6	168.5	173.3
Nondurables less food and apparel.....	172.1	183.8	184.3	184.4	190.0	189.7	185.1	183.5	187.2	192.1	199.7	197.5	196.5	201.8	208.3
Nondurables.....	165.3	172.2	171.9	172.8	175.8	175.6	173.3	172.5	174.2	177.0	180.3	179.4	178.2	179.4	182.1
Services less rent of shelter <sup>3</sup> .....	226.4	233.5	235.6	235.9	235.1	236.4	236.5	237.4	238.0	238.5	239.8	240.7	242.4	243.6	244.5
Services less medical care services.....	208.7	214.5	216.2	216.1	216.0	216.1	216.0	217.0	218.0	219.2	219.7	219.9	220.9	222.0	222.5
Energy.....	136.5	151.4	155.3	154.3	157.7	158.6	153.7	151.9	155.2	160.8	170.9	169.4	171.4	178.5	186.6
All items less energy.....	190.6	194.4	194.7	195.2	196.0	196.0	195.8	196.4	197.3	198.3	198.6	198.6	198.5	198.7	198.9
All items less food and energy.....	193.2	196.6	196.8	197.4	198.2	198.1	197.8	198.4	199.5	200.7	200.9	200.8	200.6	200.8	201.0
Commodities less food and energy.....	140.9	139.6	138.1	139.4	140.5	140.6	139.8	139.7	140.3	141.1	141.2	141.1	140.0	138.9	139.0
Energy commodities.....	136.7	161.2	162.5	162.0	174.2	173.6	163.4	158.7	166.6	178.0	195.2	189.4	187.0	198.8	213.6
Services less energy.....	223.8	230.2	231.4	231.6	232.1	231.9	231.9	232.9	234.3	235.7	236.0	235.9	236.4	237.4	237.7
<b>CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS</b>															
All items.....	179.8	184.5	185.0	185.4	186.5	186.8	186.0	186.3	187.3	188.6	190.2	190.0	190.1	191.0	192.1
All items (1967 = 100).....	535.6	549.5	551.0	552.4	555.7	556.3	554.2	554.9	557.9	561.9	566.4	566.0	566.2	568.8	572.3
Food and beverages.....	179.9	186.2	186.9	186.8	187.9	188.1	188.4	189.0	188.8	189.1	190.1	190.4	190.3	190.6	190.6
Food.....	179.4	185.7	186.4	186.2	187.4	187.6	187.9	188.5	188.2	188.5	189.6	190.0	189.8	190.2	190.2
Food at home.....	178.5	185.4	186.1	185.5	187.1	187.3	187.6	188.0	187.2	187.4	188.9	189.4	188.6	188.9	188.7
Cereals and bakery products.....	202.8	206.0	207.0	206.3	206.9	206.8	206.3	207.6	208.5	208.5	209.0	209.7	209.5	209.2	209.9
Meats, poultry, fish, and eggs.....	169.2	181.8	183.7	183.4	183.0	182.4	183.2	183.4	183.9	184.3	184.5	184.9	185.2	184.6	184.5
Dairy and related products <sup>1</sup> .....	167.6	180.0	184.9	181.4	181.8	180.8	179.9	183.2	181.6	181.3	182.1	183.1	180.9	181.4	182.8
Fruits and vegetables.....	224.3	230.4	222.2	223.9	238.0	246.4	248.6	240.1	232.2	231.3	237.5	242.2	235.9	238.0	234.7
Nonalcoholic beverages and beverage materials.....	139.1	139.7	139.6	139.7	140.0	138.9	140.0	141.6	141.8	143.0	144.1	143.7	143.4	144.1	143.4
Other foods at home.....	162.2	164.5	165.8	164.8	165.0	163.8	163.2	165.3	165.0	165.3	167.0	165.8	166.3	167.0	167.1
Sugar and sweets.....	161.6	162.5	163.8	163.1	162.2	162.1	160.6	162.2	163.6	161.8	163.9	162.3	164.8	166.3	163.8
Fats and oils.....	157.4	167.8	169.9	170.3	170.0	167.7	167.3	170.4	169.1	167.2	169.4	168.0	164.5	167.4	167.6
Other foods.....	179.2	180.1	181.4	179.7	180.5	179.2	178.6	180.8	180.2	181.7	183.4	182.3	183.1	183.3	184.0
Other miscellaneous foods <sup>1,2</sup> .....	110.8	110.9	112.0	111.0	110.3	111.1	111.3	110.7	110.9	112.5	111.1	111.3	110.5	111.9	112.1
Food away from home <sup>1</sup> .....	182.0	187.4	188.2	188.8	189.3	189.5	189.7	190.6	191.2	191.6	192.0	192.4	193.0	193.4	194.0
Other food away from home <sup>1,2</sup> .....	121.5	125.1	125.2	125.8	126.8	126.8	127.0	127.3	128.4	129.1	129.2	129.6	131.5	131.8	132.4
Alcoholic beverages.....	187.1	192.4	192.8	194.0	193.9	194.2	194.2	194.4	195.2	196.0	196.2	195.3	195.7	195.6	195.3
Housing.....	180.4	185.0	186.6	186.5	186.2	186.4	186.4	187.3	188.1	188.9	189.4	189.7	190.9	191.9	192.3
Shelter.....	206.9	212.2	213.4	213.4	213.8	213.4	213.5	214.4	215.7	216.8	216.9	216.8	217.3	218.3	218.5
Rent of primary residence.....	204.7	210.2	211.0	211.6	212.0	212.4	213.0	213.7	214.2	214.6	215.2	215.5	215.9	216.6	217.1
Lodging away from home <sup>2</sup> .....	119.8	126.4	131.6	127.7	128.3	121.8	118.6	122.2	129.1	137.1	135.2	131.1	132.9	136.9	134.5
Owners' equivalent rent of primary residence <sup>3</sup> .....	199.7	204.1	204.7	205.1	205.5	205.8	206.1	206.6	207.2	207.4	207.7	208.0	208.4	208.8	209.3
Tenants' and household insurance <sup>1,2</sup> .....	114.7	116.4	116.5	116.8	116.5	118.1	118.9	118.8	118.9	119.4	118.5	118.3	118.3	118.4	118.1
Fuels and utilities.....	153.9	161.2	167.2	166.2	161.9	164.5	164.7	166.0	165.4	165.7	168.6	170.7	176.7	179.2	181.0
Fuels.....	137.0	143.2	149.3	148.2	143.5	146.2	146.4	147.4	146.6	146.8	149.8	152.1	158.5	161.0	162.7
Fuel oil and other fuels.....	138.7	160.0	156.8	161.1	177.2	186.5	183.4	180.9	187.7	195.3	199.2	193.6	194.8	201.8	208.9
Gas (piped) and electricity.....	144.1	149.8	156.8	155.3	149.1	151.7	152.0	153.3	152.0	151.8	155.0	157.7	164.8	167.2	168.7
Household furnishings and operations.....	121.9	121.1	120.4	120.6	121.7	121.5	121.3	121.9	121.9	121.9	122.1	122.5	121.9	121.5	121.5
Apparel.....	120.0	120.0	115.9	120.6	123.5	122.6	118.6	116.1	118.6	123.0	123.2	121.9	117.9	113.8	115.5
Men's and boys' apparel.....	117.5	117.3	113.3	115.6	117.8	118.6	115.7	114.6	116.1	119.6	119.9	119.2	114.9	111.2	111.8
Women's and girls' apparel.....	112.1	112.8	106.9	114.0	119.3	116.9	110.2	105.3	109.3	116.8	124.1	113.9	108.7	102.7	104.5
Infants' and toddlers' apparel <sup>1</sup> .....	124.1	121.3	117.6	122.3	123.3	123.1	121.4	120.5	121.0	121.9	122.7	122.5	118.9	115.2	116.0
Footwear.....	119.1	118.2	116.3	120.4	120.6	120.6	119.4	118.8	120.6	121.7	122.7	122.4	121.3	119.0	121.2
Transportation.....	156.3	161.5	161.4	161.6	165.3	165.8	163.4	163.6	164.7	167.6	172.2	171.0	170.6	173.5	177.1
Private transportation.....	153.5	158.8	158.6	159.1	162.7	163.2	160.9	160.0	162.2	164.9	169.5	168.2	167.7	170.5	174.4
New and used motor vehicles <sup>2</sup> .....	96.0	92.8	92.2	92.3	93.3	94.0	9								

**37. 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		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
New vehicles.....	139.0	138.1	136.0	136.0	136.9	138.9	139.8	140.7	140.7	140.0	139.7	139.6	139.0	137.2	136.0
Used cars and trucks <sup>1</sup> .....	143.7	134.1	134.6	137.3	137.6	137.5	138.1	138.3	138.4	138.5	138.9	139.6	140.7	141.9	142.9
Motor fuel.....	136.1	160.9	162.4	161.7	173.6	172.3	161.7	156.9	164.9	176.5	194.5	188.7	186.1	198.1	213.4
Gasoline (all types).....	135.5	160.2	161.7	161.0	172.9	171.6	160.9	156.1	164.1	175.7	193.7	187.9	185.3	197.2	212.4
Motor vehicle parts and equipment.....	107.3	108.2	108.4	108.7	108.9	109.4	109.3	110.1	110.4	110.5	110.4	110.5	110.8	111.4	111.9
Motor vehicle maintenance and repair.....	197.3	202.0	202.7	202.7	203.8	204.9	205.3	206.0	206.1	206.9	207.2	207.9	208.4	209.1	209.7
Public transportation.....	206.0	207.1	208.0	203.1	204.2	207.1	204.2	203.4	204.9	209.0	213.3	215.8	219.8	223.3	220.8
Medical care.....	296.3	309.5	311.0	311.7	312.7	313.6	314.4	316.3	318.9	320.3	321.1	321.9	322.5	323.7	323.5
Medical care commodities.....	257.4	263.2	263.8	264.8	265.4	264.9	264.4	265.2	266.3	266.6	266.9	267.9	268.8	269.4	269.9
Medical care services.....	305.9	321.5	323.2	323.9	325.0	326.3	327.7	330.0	333.0	334.8	335.8	336.5	337.0	338.4	337.9
Professional services.....	263.4	274.0	275.8	275.9	276.3	276.9	277.2	278.9	281.2	282.3	283.6	284.3	284.6	285.3	285.0
Hospital and related services.....	391.2	414.0	414.9	416.4	418.5	421.0	424.2	427.4	430.9	433.6	433.4	434.3	434.3	436.9	435.3
Recreation <sup>2</sup> .....	105.5	106.3	106.1	106.2	106.2	106.3	106.1	106.5	106.5	106.5	106.8	107.0	106.6	106.5	106.8
Video and audio <sup>1,2</sup> .....	102.9	103.4	103.4	103.3	103.5	103.3	103.2	103.4	103.5	103.9	104.0	103.9	102.5	102.4	103.6
Education and communication <sup>2</sup> .....	109.0	110.0	109.9	110.8	110.5	110.6	110.5	110.6	110.7	110.7	110.8	110.6	110.7	110.7	111.1
Education <sup>2</sup> .....	133.8	142.5	143.6	146.3	146.7	146.8	147.0	147.3	147.7	147.8	148.0	148.5	149.1	149.7	152.0
Educational books and supplies.....	336.5	352.2	354.7	354.8	355.6	356.1	357.6	359.0	361.5	362.4	363.1	364.0	365.1	365.6	365.9
Tuition, other school fees, and child care.....	377.3	402.5	405.8	414.0	415.2	415.6	415.8	416.8	417.6	418.0	418.5	419.8	421.6	423.4	430.4
Communication <sup>1,2</sup> .....	91.2	88.3	87.6	87.8	87.1	87.2	87.0	87.0	87.0	86.8	87.0	86.5	86.3	86.0	85.7
Information and information processing <sup>1,2</sup> .....	89.9	86.8	86.2	86.3	85.6	85.7	85.5	85.5	85.5	85.3	85.5	85.0	84.8	84.5	84.1
Telephone services <sup>1,2</sup> .....	98.5	96.0	95.2	95.5	94.8	95.1	95.0	94.9	95.3	95.1	95.4	94.9	94.8	94.6	94.3
Information and information processing other than telephone services <sup>1,4</sup> .....	16.7	15.3	15.3	15.2	15.0	14.9	14.8	14.8	14.6	14.5	14.5	14.3	14.2	14.1	14.0
Personal computers and peripheral equipment <sup>1,2</sup> .....	17.3	15.0	14.9	14.8	14.3	13.9	13.7	13.7	13.3	13.2	13.2	13.0	12.7	12.5	12.2
Other goods and services.....	307.0	312.6	313.5	314.4	314.7	314.9	315.9	318.0	319.4	319.6	319.9	320.8	320.9	323.1	323.6
Tobacco and smoking products.....	470.5	478.8	482.6	483.9	483.0	482.5	485.7	494.9	496.9	497.4	497.8	498.7	498.9	505.2	508.5
Personal care <sup>1</sup> .....	177.0	180.4	180.5	180.9	181.4	181.7	181.9	182.1	182.9	183.0	183.2	183.8	183.8	184.6	184.4
Personal care products <sup>1</sup> .....	154.2	154.4	153.1	154.0	154.3	154.3	153.8	153.3	154.2	153.3	153.6	153.5	154.5	155.4	155.4
Personal care services <sup>1</sup> .....	193.9	198.2	199.5	199.7	199.9	200.6	201.8	202.4	203.3	203.6	203.6	203.1	203.3	204.1	204.4
Miscellaneous personal services.....	283.3	294.0	295.4	296.2	296.6	297.5	298.4	299.2	299.8	300.8	301.5	303.2	303.2	304.4	304.6
Commodity and service group:															
Commodities.....	151.8	155.4	154.9	155.7	158.0	158.1	156.6	156.3	157.4	159.2	161.5	160.9	160.1	160.8	162.7
Food and beverages.....	179.9	186.2	186.9	186.8	187.9	188.1	188.4	189.0	188.8	189.1	190.1	190.4	190.3	190.6	190.6
Commodities less food and beverages.....	135.8	138.1	137.1	138.2	141.0	141.0	138.8	138.0	139.8	142.2	145.0	144.0	142.8	143.8	146.4
Nondurables less food and beverages.....	152.1	160.6	159.5	161.2	166.5	165.9	160.9	158.8	162.5	167.8	173.6	171.5	169.2	171.7	177.3
Apparel.....	120.0	120.0	115.9	120.6	123.5	122.6	118.6	116.1	118.6	123.0	123.2	121.9	117.9	113.8	115.5
Nondurables less food, beverages, and apparel.....	175.6	189.6	190.2	190.1	196.9	196.5	190.8	188.8	193.3	199.4	208.9	206.0	204.7	211.3	219.5
Durables.....	117.4	114.0	113.1	113.7	114.3	114.8	115.1	115.5	115.5	115.3	115.3	115.5	115.3	114.9	114.7
Services.....	212.6	218.6	220.2	220.3	220.0	220.4	220.5	221.5	222.3	223.2	223.8	224.2	225.3	226.3	226.8
Rent of shelter <sup>3</sup> .....	199.2	204.3	205.5	205.5	205.9	205.5	205.6	206.5	207.7	208.8	208.9	208.8	209.3	210.2	210.4
Transportation services.....	216.2	220.9	221.0	220.5	222.0	223.4	222.7	222.8	223.4	224.0	224.8	225.3	226.0	226.8	226.9
Other services.....	248.5	254.1	254.4	256.0	255.9	256.3	256.5	257.2	257.8	258.1	258.7	258.9	258.6	258.9	260.2
Special indexes:															
All items less food.....	179.7	184.1	184.5	185.1	186.2	186.4	185.5	185.7	187.0	188.5	190.1	189.9	190.0	190.9	192.3
All items less shelter.....	171.9	176.4	176.6	177.3	178.6	179.1	178.0	178.0	179.0	180.4	182.4	182.3	182.2	183.1	184.6
All items less medical care.....	174.8	179.1	179.6	180.0	181.1	181.3	180.6	180.8	181.7	183.1	184.6	184.4	184.5	185.3	186.5
Commodities less food.....	137.7	140.0	139.0	140.2	142.2	142.9	140.7	140.0	141.7	144.1	146.8	145.9	144.7	145.7	148.2
Nondurables less food.....	154.2	162.6	161.5	163.2	168.2	167.6	162.9	160.9	164.4	169.5	175.1	173.0	170.8	173.2	178.5
Nondurables less food and apparel.....	175.9	189.0	189.6	189.7	195.6	195.4	190.3	188.5	192.7	198.3	206.9	204.2	203.0	209.0	216.5
Nondurables.....	166.4	173.9	173.6	174.5	177.7	177.5	175.1	174.3	176.1	179.0	182.5	181.5	180.3	181.7	184.6
Services less rent of shelter <sup>3</sup> .....	201.3	207.4	209.3	209.5	208.6	209.8	209.9	210.8	211.2	211.6	212.7	213.6	215.3	216.3	217.0
Services less medical care services.....	205.2	210.6	212.2	212.3	212.0	212.3	212.4	213.2	214.0	214.7	215.4	215.7	216.8	217.8	218.3
Energy.....	135.9	151.3	155.1	154.2	157.8	158.5	153.3	151.4	155.0	160.9	171.4	169.6	171.5	178.7	187.2
All items less energy.....	186.1	189.5	189.5	190.2	191.0	191.1	191.0	191.5	192.2	192.9	193.3	193.4	193.2	193.3	193.6
All items less food and energy.....	187.9	190.6	190.5	191.4	192.1	192.2	192.0	192.4	193.4	194.2	194.5	194.5	194.3	194.3	194.6
Commodities less food and energy.....	141.1	139.4	138.0	139.5	140.5	140.6	139.9	139.9	140.5	141.3	141.4	141.3	140.4	139.3	139.6
Energy commodities.....	136.8	161.5	162.8	162.3	174.5	173.7	163.4	158.7	166.6	178.1	195.5	189.7	187.3	199.0	214.0
Services less energy.....	220.2	226.2	227.1	227.4	227.9	228.0	228.1	229.0	230.1	231.1	231.5	231.5	231.9	232.8	233.1

<sup>1</sup> Not seasonally adjusted.

<sup>2</sup> Indexes on a December 1997 = 100 base.

<sup>3</sup> Indexes on a December 1982 = 100 base.

<sup>4</sup> Indexes on a December 1988 = 100 base.

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

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

[1982-84 = 100, unless otherwise indicated]

	Pricing schedule <sup>1</sup>	All Urban Consumers						Urban Wage Earners					
		2005						2005					
		Mar.	Apr.	May	June	July	Aug.	Mar.	Apr.	May	June	July	Aug.
U.S. city average.....	M	193.3	194.6	194.4	194.5	195.4	196.4	188.6	190.2	190.0	190.1	191.0	192.1
<b>Region and area size<sup>2</sup></b>													
Northeast urban.....	M	206.0	206.9	206.2	206.2	207.9	208.7	201.8	202.9	202.5	202.5	204.0	204.8
Size A—More than 1,500,000.....	M	208.6	209.3	208.6	208.5	210.2	211.2	202.8	203.8	203.5	203.4	204.9	206.0
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	121.3	122.0	121.6	121.8	123.0	123.0	121.2	122.1	121.6	121.8	122.8	122.9
Midwest urban <sup>4</sup> .....	M	186.3	187.7	187.4	187.8	188.4	189.7	181.2	182.8	182.4	182.9	183.6	185.1
Size A—More than 1,500,000.....	M	188.3	189.6	189.4	189.8	190.1	191.5	182.5	184.1	183.8	184.0	184.4	186.1
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	118.7	119.6	119.3	119.6	120.2	120.9	117.8	118.8	118.5	119.0	119.8	120.5
Size D—Nonmetropolitan (less than 50,000).....	M	179.9	181.7	181.6	182.3	182.9	184.6	177.3	179.1	178.8	179.6	180.4	182.5
South urban.....	M	185.9	187.3	187.3	187.8	188.5	189.4	182.7	184.3	184.2	184.7	185.5	186.6
Size A—More than 1,500,000.....	M	187.9	189.9	189.2	189.7	190.3	191.0	185.3	186.7	186.8	187.3	188.1	189.2
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	118.4	119.3	119.4	119.7	120.2	120.9	117.0	117.9	117.9	118.2	118.7	119.5
Size D—Nonmetropolitan (less than 50,000).....	M	184.5	187.2	186.6	186.9	187.5	188.6	184.1	186.7	186.2	186.7	187.3	188.8
West urban.....	M	197.1	198.6	198.8	198.0	198.6	199.6	192.0	193.7	193.9	193.1	193.7	194.9
Size A—More than 1,500,000.....	M	199.8	201.3	201.5	200.5	201.3	202.4	193.2	194.9	195.2	194.1	195.0	196.1
Size B/C—50,000 to 1,500,000 <sup>3</sup> .....	M	120.4	121.4	121.3	121.1	121.3	122.0	119.8	120.8	120.8	120.6	120.9	121.6
Size classes:													
A <sup>5</sup> .....	M	177.0	178.1	178.0	177.9	178.6	179.6	175.0	176.3	176.3	176.2	177.0	178.1
B/C <sup>3</sup> .....	M	119.2	120.1	120.0	120.2	120.8	121.3	118.3	119.2	119.1	119.3	119.9	120.5
D.....	M	184.8	186.9	186.9	186.9	187.2	188.7	182.9	185.1	185.0	185.1	185.6	187.3
<b>Selected local areas<sup>6</sup></b>													
Chicago—Gary—Kenosha, IL—IN—WI.....	M	191.3	193.2	193.3	194.0	194.2	195.8	184.8	186.9	186.8	187.1	187.4	189.2
Los Angeles—Riverside—Orange County, CA.....	M	199.2	201.1	201.5	200.7	201.4	203.1	192.1	194.2	194.6	193.7	194.6	196.4
New York, NY—Northern NJ—Long Island, NY—NJ—CT—PA.....	M	212.4	212.5	211.4	210.7	212.5	214.1	205.5	206.0	205.6	205.1	206.5	208.3
Boston—Brockton—Nashua, MA—NH—ME—CT.....	1	214.2	—	214.6	—	217.2	—	213.1	—	214.0	—	216.0	—
Cleveland—Akron, OH.....	1	186.3	—	186.8	—	187.8	—	177.2	—	177.9	—	178.8	—
Dallas—Ft Worth, TX.....	1	181.3	—	183.5	—	184.3	—	181.6	—	184.1	—	185.4	—
Washington—Baltimore, DC—MD—VA—WV <sup>7</sup> .....	1	122.7	—	123.6	—	125.0	—	122.3	—	123.2	—	124.5	—
Atlanta, GA.....	2	—	188.0	—	189.6	—	189.5	—	186.0	—	187.5	—	188.3
Detroit—Ann Arbor—Flint, MI.....	2	—	189.8	—	189.6	—	192.2	—	185.2	—	184.7	—	187.7
Houston—Galveston—Brazoria, TX.....	2	—	175.0	—	174.2	—	175.5	—	172.8	—	172.7	—	174.4
Miami—Ft. Lauderdale, FL.....	2	—	193.2	—	192.6	—	195.6	—	191.2	—	190.7	—	193.8
Philadelphia—Wilmington—Atlantic City, PA—NJ—DE—MD.....	2	—	203.3	—	204.8	—	206.6	—	202.9	—	204.0	—	206.0
San Francisco—Oakland—San Jose, CA.....	2	—	202.5	—	201.2	—	203.0	—	199.3	—	197.5	—	199.5
Seattle—Tacoma—Bremerton, WA.....	2	—	201.3	—	199.8	—	199.9	—	196.2	—	194.8	—	195.3

<sup>1</sup> 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.

<sup>2</sup> Regions defined as the four Census regions.

<sup>3</sup> Indexes on a December 1996 = 100 base.

<sup>4</sup> The "North Central" region has been renamed the "Midwest" region by the Census Bureau. It is composed of the same geographic entities.

<sup>5</sup> Indexes on a December 1986 = 100 base.

<sup>6</sup> 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; Cincinnati, OH—KY—IN; Kansas City, MO—KS; Milwaukee—Racine, WI; Minneapolis—St. Paul, MN—WI; Pittsburgh, PA; Portland—Salem, OR—WA; St. Louis, MO—IL; San Diego, CA; Tampa—St. Petersburg—Clearwater, FL.

<sup>7</sup> 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.

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

[1982-84 = 100]

Series	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Consumer Price Index for All Urban Consumers:											
All items:											
Index.....	148.2	152.4	156.9	160.5	163.0	166.6	172.2	177.1	179.9	184.0	188.9
Percent change.....	2.6	2.8	3.0	2.3	1.6	2.2	3.4	2.8	1.6	2.3	2.7
Food and beverages:											
Index.....	144.9	148.9	153.7	157.7	161.1	164.6	168.4	173.6	176.8	180.5	186.6
Percent change.....	2.3	2.8	3.2	2.6	2.2	2.2	2.3	3.1	1.8	2.1	3.3
Housing:											
Index.....	144.8	148.5	152.8	156.8	160.4	163.9	169.6	176.4	180.3	184.8	189.5
Percent change.....	2.5	2.6	2.9	2.6	2.3	2.2	3.5	4.0	2.2	2.5	2.5
Apparel:											
Index.....	133.4	132.0	131.7	132.9	133.0	131.3	129.6	127.3	124.0	120.9	120.4
Percent change.....	-2	-1.0	-2	.9	.1	-1.3	-1.3	-1.8	-2.6	-2.5	-4
Transportation:											
Index.....	134.3	139.1	143.0	144.3	141.6	144.4	153.3	154.3	152.9	157.6	163.1
Percent change.....	3.0	3.6	2.8	0.9	-1.9	2.0	6.2	0.7	-9	3.1	3.5
Medical care:											
Index.....	211.0	220.5	228.2	234.6	242.1	250.6	260.8	272.8	285.6	297.1	310.1
Percent change.....	4.8	4.5	3.5	2.8	3.2	3.5	4.1	4.6	4.7	4.0	4.4
Other goods and services:											
Index.....	198.5	206.9	215.4	224.8	237.7	258.3	271.1	282.6	293.2	298.7	304.7
Percent change.....	2.9	4.2	4.1	4.4	5.7	8.7	5.0	4.2	3.8	1.9	2.0
Consumer Price Index for Urban Wage Earners and Clerical Workers:											
All items:											
Index.....	145.6	149.8	154.1	157.6	159.7	163.2	168.9	173.5	175.9	179.8	188.9
Percent change.....	2.5	2.9	2.9	2.3	1.3	2.2	3.5	2.7	1.4	2.2	5.1

**40. Producer Price Indexes, by stage of processing**

[1982 = 100]

Grouping	Annual average		2004					2005							
	2003	2004	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May <sup>P</sup>	June <sup>P</sup>	July <sup>P</sup>	Aug. <sup>P</sup>
<b>Finished goods.....</b>	143.3	148.5	148.5	148.7	152.0	151.7	150.6	151.4	152.1	153.6	154.4	154.1	154.0	155.4	156.1
Finished consumer goods.....	145.3	151.6	151.8	152.1	155.7	155.4	153.8	154.8	155.7	157.6	158.7	158.3	158.4	160.0	161.2
Finished consumer foods.....	145.9	152.6	152.2	152.7	155.1	154.7	154.9	154.2	155.4	156.3	156.3	156.8	155.1	154.4	154.0
Finished consumer goods excluding foods.....	144.7	150.9	151.3	151.5	155.6	155.3	153.0	154.6	155.5	157.8	159.2	158.6	159.2	161.8	163.5
Nondurable goods less food.....	148.4	156.6	157.9	158.2	162.1	161.8	158.5	160.7	162.4	165.7	167.9	167.1	168.6	172.3	175.0
Durable goods.....	133.1	135.1	133.6	133.5	137.8	137.4	137.2	137.8	137.0	137.0	136.9	136.7	135.6	135.8	135.4
Capital equipment.....	139.5	141.5	141.2	141.2	143.4	143.4	143.6	144.1	143.9	144.2	144.5	144.4	144.0	144.4	144.3
<b>Intermediate materials, supplies, and components.....</b>	133.7	142.5	144.8	145.3	146.5	147.7	146.9	148.0	148.8	150.4	151.5	151.0	151.6	152.8	153.6
Materials and components for manufacturing.....	129.7	137.9	139.4	140.6	141.5	142.0	142.8	143.9	144.4	145.2	145.3	144.9	144.3	144.1	144.0
Materials for food manufacturing.....	134.4	145.0	144.9	144.3	144.2	143.9	145.2	145.7	145.6	146.6	146.1	147.6	145.0	145.1	144.9
Materials for nondurable manufacturing...	137.2	147.6	149.8	152.6	154.4	155.5	156.8	157.9	158.1	160.4	159.6	160.4	159.8	159.8	160.1
Materials for durable manufacturing.....	127.9	146.6	150.3	152.1	153.0	153.6	155.2	157.3	159.1	159.1	158.6	156.7	155.8	154.3	153.1
Components for manufacturing.....	125.9	127.4	127.7	128.0	128.2	128.3	128.5	129.2	129.5	129.5	129.9	129.7	129.6	129.9	130.0
Materials and components for construction.....	153.6	166.4	169.8	170.9	170.8	170.7	171.3	173.1	174.7	175.1	175.4	174.9	175.4	175.1	175.1
Processed fuels and lubricants.....	112.6	124.1	128.5	126.9	130.8	134.0	128.9	129.5	130.9	136.0	141.5	139.3	142.5	148.9	152.9
Containers.....	153.7	159.2	162.0	162.5	164.6	164.9	165.2	165.5	166.1	166.9	167.5	167.1	167.7	167.2	166.9
Supplies.....	141.5	146.7	147.6	147.9	147.9	147.9	148.5	149.6	150.0	150.7	151.1	151.4	151.7	152.1	152.1
<b>Crude materials for further processing.....</b>	135.3	159.0	162.2	154.4	160.5	171.5	165.7	163.0	162.5	170.4	175.0	171.7	165.7	176.2	180.5
Foodstuffs and feedstuffs.....	113.5	126.9	124.8	122.0	120.1	119.5	121.5	123.8	121.5	127.7	124.9	126.2	122.1	120.9	119.6
Crude nonfood materials.....	148.2	179.2	186.6	174.9	187.3	207.1	195.3	188.7	189.7	198.7	208.9	202.1	194.8	214.3	222.9
<b>Special groupings:</b>															
Finished goods, excluding foods.....	142.4	147.2	147.3	147.5	150.9	150.7	149.2	150.5	151.0	152.6	153.6	153.2	153.5	155.3	156.4
Finished energy goods.....	102.0	113.0	115.0	115.1	121.1	120.1	114.5	116.4	118.6	123.8	126.9	125.2	127.3	132.9	137.1
Finished goods less energy.....	149.0	152.4	151.9	152.1	154.5	154.4	154.6	155.1	155.3	155.7	155.9	156.0	155.3	155.4	155.2
Finished consumer goods less energy.....	153.1	157.2	156.6	156.9	159.3	159.2	159.4	159.9	160.4	160.7	160.9	161.1	160.3	160.2	159.9
Finished goods less food and energy.....	150.5	152.7	152.2	152.3	154.7	154.7	154.9	155.8	155.7	155.9	156.1	156.1	155.7	156.1	155.9
Finished consumer goods less food and energy.....	157.9	160.3	159.6	159.7	162.2	162.3	162.5	163.8	163.7	163.7	164.0	164.1	163.7	164.0	163.8
Consumer nondurable goods less food and energy.....	177.9	180.7	180.8	181.2	181.7	182.2	182.8	184.8	185.4	185.6	186.1	186.6	187.0	187.3	187.3
Intermediate materials less foods and feeds.....	134.2	142.9	145.3	145.9	147.3	148.3	147.8	148.9	149.7	151.3	152.5	151.9	152.5	153.7	154.5
Intermediate foods and feeds.....	125.9	137.0	136.3	134.4	131.2	130.7	131.0	132.0	131.7	133.3	133.6	135.2	134.3	135.6	134.7
Intermediate energy goods.....	111.9	123.1	127.1	125.8	129.9	132.7	128.4	129.0	130.0	134.9	139.8	138.2	141.9	148.4	152.5
Intermediate goods less energy.....	137.7	145.8	147.5	148.5	149.0	149.4	149.9	151.1	151.8	152.5	152.6	152.4	152.1	152.0	151.9
Intermediate materials less foods and energy.....	138.5	146.5	148.3	149.5	150.1	150.6	151.1	152.3	153.1	153.8	153.9	153.6	153.3	153.1	153.0
Crude energy materials.....	147.2	174.7	181.9	166.6	181.8	208.3	192.7	183.9	186.6	199.7	212.6	206.7	200.2	225.8	234.3
Crude materials less energy.....	123.4	143.9	144.6	141.6	141.9	142.7	143.3	144.5	142.0	146.4	145.5	144.0	138.5	139.1	140.7
Crude nonfood materials less energy.....	152.5	192.8	200.8	197.4	203.5	207.9	204.9	203.3	200.2	199.9	204.0	194.7	185.5	191.2	200.3

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

[December 2003 = 100, unless otherwise indicated]

NAICS	Industry	2004					2005							
		Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May <sup>P</sup>	June <sup>P</sup>	July <sup>P</sup>	Aug. <sup>P</sup>
	<b>Total mining industries (December 1984=100)</b> .....	159.3	149.6	160.6	179.1	169.2	163.3	166.2	176.0	184.3	179.1	175.8	194.1	201.1
211	Oil and gas extraction (December 1985=100) .....	202.7	184.0	203.0	234.8	214.7	202.5	205.3	221.3	236.4	227.0	219.7	248.9	260.9
212	Mining, except oil and gas.....	110.4	112.3	112.8	114.0	116.4	120.2	121.0	123.8	124.0	122.8	123.3	127.8	127.8
213	Mining support activities.....	105.3	106.4	109.2	111.4	114.9	115.5	122.2	124.4	124.2	126.9	131.4	135.1	137.9
	<b>Total manufacturing industries (December 1984=100)</b> .....	143.7	144.2	146.5	146.1	145.0	146.2	147.0	148.9	149.6	149.3	149.4	150.8	151.6
311	Food manufacturing (December 1984=100).....	144.6	143.8	143.5	143.3	144.2	144.7	145.0	146.0	146.3	147.2	145.9	146.4	146.2
312	Beverage and tobacco manufacturing.....	101.1	100.6	101.2	101.2	101.5	104.1	104.0	104.2	104.4	104.6	105.0	104.8	104.9
313	Textile mills.....	101.2	101.4	101.6	101.7	101.5	102.3	102.4	102.7	103.2	103.7	103.4	103.1	103.3
315	Apparel manufacturing.....	99.7	100.2	100.3	100.4	100.5	100.4	100.2	99.9	99.8	99.9	99.9	99.7	99.6
316	Leather and allied product manufacturing (December 1984=100).....	143.6	143.6	143.5	143.8	143.9	143.8	144.2	144.3	144.3	144.5	144.3	144.6	144.6
321	Wood products manufacturing.....	109.8	110.7	107.6	105.1	105.9	108.8	108.8	109.4	108.9	107.5	109.4	108.2	107.1
322	Paper manufacturing.....	104.4	105.0	105.5	105.7	105.8	106.1	106.5	106.9	107.1	107.1	107.1	106.8	106.5
323	Printing and related support activities.....	101.3	101.8	101.8	102.0	102.0	102.5	102.4	102.5	102.8	102.4	103.2	103.3	103.6
324	Petroleum and coal products manufacturing (December 1984=100).....	155.6	158.9	176.7	170.4	150.3	155.9	163.6	182.8	189.6	183.3	189.1	204.9	215.3
325	Chemical manufacturing (December 1984=100).....	173.8	175.5	177.2	179.3	180.5	182.7	183.4	184.7	185.9	186.4	185.4	185.3	185.9
326	Plastics and rubber products manufacturing (December 1984=100).....	131.7	133.1	134.3	135.3	136.1	137.4	138.4	138.9	139.4	139.8	140.1	140.1	140.2
331	Primary metal manufacturing (December 1984=100).....	148.3	150.8	152.9	154.2	155.5	158.6	159.5	158.5	157.9	156.0	153.6	151.2	149.6
332	Fabricated metal product manufacturing (December 1984=100).....	143.4	144.2	144.9	145.4	145.7	146.9	148.2	148.6	149.1	149.0	149.4	149.5	149.5
333	Machinery manufacturing.....	102.3	102.5	102.9	103.2	103.4	104.1	104.5	104.9	105.1	105.6	105.6	105.6	105.8
334	Computer and electronic products manufacturing.....	98.9	98.7	98.6	98.4	98.5	98.3	98.2	98.0	97.9	97.4	97.5	97.6	97.5
335	Electrical equipment, appliance, and components manufacturing.....	103.8	104.2	104.7	104.6	104.9	106.0	106.6	107.0	107.2	107.4	107.5	107.6	107.8
336	Transportation equipment manufacturing.....	99.8	99.9	103.2	102.7	102.9	103.2	102.6	102.6	102.7	102.3	101.4	101.8	101.6
337	Furniture and related product manufacturing (December 1984=100).....	152.7	152.8	153.4	154.6	155.1	155.5	156.2	156.2	156.7	157.1	157.4	158.1	158.0
339	Miscellaneous manufacturing.....	101.4	101.8	101.3	101.3	101.6	102.2	102.5	102.7	102.6	102.8	102.8	102.9	103.0
	<b>Retail trade</b>													
441	Motor vehicle and parts dealers.....	103.8	104.4	104.2	104.2	104.2	106.2	106.7	107.2	107.6	108.3	108.3	107.2	106.9
442	Furniture and home furnishings stores.....	102.8	103.4	103.8	103.7	104.6	105.6	106.6	106.4	108.9	108.2	109.7	108.9	111.1
443	Electronics and appliance stores.....	98.7	99.2	98.4	97.9	93.6	98.3	100.2	102.3	103.5	102.9	99.9	99.9	101.4
446	Health and personal care stores.....	105.6	105.1	104.1	106.8	107.2	106.5	105.6	107.8	107.2	107.6	107.4	102.7	103.7
447	Gasoline stations (June 2001=100).....	48.6	46.3	43.1	53.3	59.8	49.0	49.8	48.3	50.7	51.9	38.9	48.8	43.3
454	Nonstore retailers.....	102.0	105.6	104.7	111.5	117.4	117.5	122.6	117.7	123.4	123.2	120.2	123.4	118.1
	<b>Transportation and warehousing</b>													
481	Air transportation (December 1992=100).....	163.4	159.8	160.9	162.2	161.4	164.9	164.5	169.5	168.8	167.0	173.6	176.4	172.9
483	Water transportation.....	102.1	103.2	103.8	103.7	103.5	104.0	104.3	105.0	106.0	105.7	105.1	105.6	105.5
491	Postal service (June 1989=100).....	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0
	<b>Utilities</b>													
221	Utilities.....	107.4	105.2	104.3	108.8	108.9	108.3	107.5	108.7	110.6	111.1	111.3	113.9	116.8
	<b>Health care and social assistance</b>													
6211	Office of physicians (December 1996=100).....	114.3	114.4	114.4	114.4	114.5	115.7	115.9	116.3	116.3	115.6	115.8	116.2	116.4
6215	Medical and diagnostic laboratories.....	100.1	100.1	100.1	100.1	100.1	102.4	104.2	104.2	104.2	104.3	104.2	104.2	104.2
6216	Home health care services (December 1996=100).....	119.7	119.8	120.1	120.2	120.3	120.9	121.0	120.9	120.8	120.9	120.9	120.8	120.8
622	Hospitals (December 1992=100).....	141.6	141.7	143.3	143.5	143.8	144.8	145.6	145.6	145.6	145.8	145.9	146.3	146.4
6231	Nursing care facilities.....	103.0	103.2	103.7	103.9	103.9	105.3	105.4	105.4	105.8	105.7	105.7	105.9	106.4
62321	Residential mental retardation facilities.....	102.1	102.5	102.5	102.5	102.5	103.8	103.7	104.4	104.4	103.8	103.7	104.4	104.5
	<b>Other services industries</b>													
511	Publishing industries, except Internet .....	101.5	101.4	101.8	102.1	101.9	103.0	103.4	103.3	103.5	103.7	104.1	104.2	104.2
515	Broadcasting, except Internet.....	100.9	100.8	104.3	103.2	100.8	100.2	100.5	101.5	103.0	104.2	104.3	100.7	99.5
517	Telecommunications.....	99.9	99.6	99.4	99.2	99.9	99.0	98.1	98.2	98.4	98.4	98.1	98.3	98.0
5182	Data processing and related services.....	99.0	98.7	98.7	98.6	98.6	98.7	98.8	98.7	98.7	98.6	99.0	98.9	98.7
523	Security, commodity contracts, and like activity.....	104.1	104.5	104.3	105.8	106.0	108.0	109.8	108.5	109.8	111.4	112.0	112.2	113.5
53112	Lessors or nonresidential buildings (except miniwarehouse).....	104.0	103.9	104.6	103.0	104.2	104.2	103.5	102.6	104.0	104.2	103.6	103.1	106.1
5312	Offices of real estate agents and brokers.....	101.0	104.0	103.1	103.1	105.9	106.0	106.0	105.9	105.8	105.9	105.6	105.8	105.8
5313	Real estate support activities.....	101.0	99.8	101.5	101.2	102.3	103.2	102.0	102.0	102.5	101.6	103.9	101.9	104.5
5321	Automotive equipment rental and leasing (June 2001=100).....	110.8	108.0	107.8	107.7	108.1	105.2	106.9	108.1	105.2	106.0	108.4	109.4	107.8
5411	Legal services (December 1996=100).....	131.5	131.8	132.0	132.0	132.0	136.8	137.1	137.2	137.6	137.7	138.9	138.7	138.6
541211	Offices of certified public accountants.....	101.4	101.4	101.6	101.7	101.3	101.8	102.8	102.9	101.6	104.3	104.1	101.6	103.0
5413	Architectural, engineering, and related services (December 1996=100).....	127.0	127.3	127.3	127.3	127.7	128.2	128.6	128.5	128.4	129.2	129.4	129.1	129.3
54181	Advertising agencies.....	100.3	100.4	100.3	100.5	100.5	100.8	101.0	100.9	100.8	101.0	101.9	101.3	101.0
5613	Employment services (December 1996=100).....	114.6	114.2	115.2	115.2	114.4	115.1	115.7	115.4	115.8	115.6	115.8	116.3	117.7
56151	Travel agencies.....	94.7	94.5	95.8	95.2	96.1	94.5	93.7	95.1	96.3	95.9	95.3	96.7	96.1
56172	Janitorial services.....	101.1	100.9	101.4	101.4	101.4	101.7	101.8	101.8	102.0	102.1	101.9	102.0	102.0
5621	Waste collection.....	101.4	101.4	101.5	101.5	101.5	101.5	101.5	101.5	102.5	103.1	102.7	102.6	102.6
721	Accommodation (December 1996=100).....	127.0	127.2	127.0	125.1	123.8	125.7	129.1	130.7	130.7	129.1	133.7	135.4	134.9

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

[1982 = 100]

Index	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Finished goods</b>											
Total.....	125.5	127.9	131.3	131.8	130.7	133.0	138.0	140.7	138.9	143.3	148.5
Foods.....	126.8	129.0	133.6	134.5	134.3	135.1	137.2	141.3	140.1	145.9	152.6
Energy.....	77.0	78.1	83.2	83.4	75.1	78.8	94.1	96.8	88.8	102.0	113.0
Other.....	137.1	140.0	142.0	142.4	143.7	146.1	148.0	150.0	150.2	150.5	152.7
<b>Intermediate materials, supplies, and components</b>											
Total.....	118.5	124.9	125.7	125.6	123.0	123.2	129.2	129.7	127.8	133.7	142.5
Foods.....	118.5	119.5	125.3	123.2	123.2	120.8	119.2	124.3	123.3	134.4	145.0
Energy.....	83.0	84.1	89.8	89.0	80.8	84.3	101.7	104.1	95.9	111.9	123.1
Other.....	127.1	135.2	134.0	134.2	133.5	133.1	136.6	136.4	135.8	138.5	146.5
<b>Crude materials for further processing</b>											
Total.....	101.8	102.7	113.8	111.1	96.8	98.2	120.6	121.3	108.1	135.3	159.0
Foods.....	106.5	105.8	121.5	112.2	103.9	98.7	100.2	106.2	99.5	113.5	126.9
Energy.....	72.1	69.4	85.0	87.3	68.6	78.5	122.1	122.8	102.0	147.5	174.7
Other.....	97.0	105.8	105.7	103.5	84.5	91.1	118.0	101.8	101.0	116.8	149.0

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

[2000 = 100]

SITC Rev. 3	Industry	2004					2005							
		Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
0	<b>Food and live animals.....</b>	116.4	117.6	118.3	118.7	118.1	118.2	118.3	120.1	121.1	123.9	124.2	124.2	123.8
01	Meat and meat preparations.....	126.1	124.8	126.9	125.4	124.6	121.3	125.1	128.5	132.9	140.1	140.0	137.0	136.0
04	Cereals and cereal preparations.....	120.6	122.0	115.6	113.1	116.4	119.2	116.2	121.4	116.9	116.1	118.7	120.5	118.4
05	Vegetables, fruit, and nuts, prepared fresh or dry.....	113.2	119.8	130.6	137.2	129.9	127.4	128.1	125.1	130.4	137.4	133.6	132.1	131.8
2	<b>Crude materials, inedible, except fuels.....</b>	118.0	119.4	118.2	119.5	119.4	123.1	122.1	127.5	129.3	128.5	130.4	130.3	129.7
22	Oilseeds and oleaginous fruits.....	117.4	125.1	109.1	110.3	111.1	115.2	109.7	128.9	124.6	127.7	136.5	137.1	135.7
24	Cork and wood.....	98.8	99.1	99.1	98.4	98.8	98.7	98.9	98.9	98.4	97.8	97.6	96.5	96.1
25	Pulp and waste paper.....	99.5	98.7	98.1	98.2	98.8	100.0	100.7	103.0	101.8	101.8	101.6	99.9	98.9
26	Textile fibers and their waste.....	101.1	102.1	100.2	97.5	96.4	98.4	98.7	104.1	105.6	105.0	103.1	104.3	103.2
28	Metalliferous ores and metal scrap.....	183.6	178.5	190.4	197.0	195.0	205.8	206.0	206.4	222.3	212.3	212.9	214.2	210.9
3	<b>Mineral fuels, lubricants, and related products.....</b>	139.6	141.2	156.0	151.1	146.5	148.5	154.2	169.3	182.1	174.1	179.5	191.9	195.9
33	Petroleum, petroleum products, and related materials.....	136.2	138.0	156.4	151.0	144.6	147.3	155.7	174.9	190.6	178.3	186.6	198.1	201.9
5	<b>Chemicals and related products, n.e.s. ....</b>	108.6	109.7	111.6	112.9	114.0	116.1	116.3	117.0	117.8	116.8	115.5	115.7	115.7
54	Medicinal and pharmaceutical products.....	108.1	108.0	106.7	106.9	107.2	108.3	107.9	107.9	108.2	107.9	107.5	106.8	106.6
55	Essential oils; polishing and cleaning preparations.....	105.1	105.6	106.6	107.5	109.1	109.8	111.1	111.3	112.4	112.4	112.4	112.4	112.5
57	Plastics in primary forms .....	107.3	109.9	113.2	117.2	118.9	126.6	127.5	128.3	128.4	124.8	122.2	121.9	122.8
58	Plastics in nonprimary forms.....	97.1	97.4	98.1	98.7	99.9	101.5	102.1	103.2	103.4	103.3	103.2	103.6	103.6
59	Chemical materials and products, n.e.s. ....	106.2	105.5	105.2	105.3	105.8	106.5	106.4	106.0	106.7	106.6	106.1	105.9	105.6
6	<b>Manufactured goods classified chiefly by materials.....</b>	109.6	110.5	111.3	111.8	112.2	113.0	113.5	113.7	114.3	114.3	113.9	113.6	113.6
62	Rubber manufactures, n.e.s. ....	112.0	111.4	111.6	112.4	112.9	113.8	114.2	114.4	115.0	115.4	115.5	116.8	116.5
64	Paper, paperboard, and articles of paper, pulp, and paperboard.....	101.9	102.7	104.0	103.7	104.2	104.1	104.1	103.8	103.6	103.6	103.8	103.3	103.3
66	Nonmetallic mineral manufactures, n.e.s. ....	100.2	100.4	101.1	101.3	101.6	101.9	102.0	102.2	102.5	102.5	103.5	104.0	104.0
68	Nonferrous metals.....	96.5	99.0	99.1	100.6	101.5	103.4	105.6	107.2	109.3	108.5	106.1	106.5	106.8
7	<b>Machinery and transport equipment.....</b>	98.2	98.2	98.4	98.4	98.5	98.7	98.7	98.7	98.6	98.6	98.7	98.4	98.1
71	Power generating machinery and equipment.....	109.0	109.0	109.4	110.3	110.4	111.4	111.4	111.5	111.3	111.3	111.3	111.1	111.1
72	Machinery specialized for particular industries.....	105.9	106.1	107.3	107.6	108.0	109.3	109.2	109.4	110.7	110.7	110.8	111.4	111.5
74	General industrial machines and parts, n.e.s., and machine parts.....	105.3	105.3	106.2	106.4	106.6	107.6	108.2	108.3	108.9	109.1	109.3	109.4	109.4
75	Computer equipment and office machines.....	86.4	86.0	85.1	84.4	83.8	83.0	82.9	82.3	81.5	81.2	80.8	79.2	79.8
76	Telecommunications and sound recording and reproducing apparatus and equipment.....	90.7	90.7	90.5	90.5	90.4	90.5	90.5	90.5	89.9	89.8	89.7	89.5	89.5
77	Electrical machinery and equipment.....	88.2	88.1	87.9	87.7	87.9	87.8	87.6	87.7	87.5	87.3	87.5	87.0	85.3
78	Road vehicles.....	102.5	102.4	102.8	102.8	103.0	103.0	103.0	103.0	102.9	103.1	103.0	103.2	103.2
87	<b>Professional, scientific, and controlling instruments and apparatus.....</b>	101.9	101.8	102.2	102.3	102.6	103.4	103.4	103.4	103.5	103.1	103.1	103.6	103.5

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

[2000 = 100]

SITC Rev. 3	Industry	2004					2005							
		Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
0	<b>Food and live animals.....</b>	107.4	109.2	111.1	111.0	111.9	110.9	112.6	117.5	116.4	116.0	113.9	112.9	112.7
01	Meat and meat preparations.....	134.2	134.9	134.2	131.8	133.0	134.5	134.8	135.9	136.5	138.6	138.7	138.9	139.0
03	Fish and crustaceans, mollusks, and other aquatic invertebrates.....	86.9	86.0	85.6	84.7	85.0	86.0	87.0	88.5	88.3	87.8	87.6	89.0	89.7
05	Vegetables, fruit, and nuts, prepared fresh or dry.....	100.6	109.2	114.5	116.3	112.2	107.0	107.5	121.6	117.6	117.2	109.0	106.6	106.1
07	Coffee, tea, cocoa, spices, and manufactures thereof.....	103.4	105.6	104.5	108.9	114.4	118.9	122.8	130.2	128.9	126.2	127.8	120.5	118.8
1	<b>Beverages and tobacco.....</b>	106.1	106.2	106.5	106.7	107.1	107.5	107.7	107.8	108.2	108.3	108.4	108.6	108.7
11	Beverages.....	106.6	106.7	106.9	107.1	107.6	107.9	108.1	108.2	108.6	108.8	108.9	109.1	109.2
2	<b>Crude materials, inedible, except fuels.....</b>	134.0	135.1	125.1	121.7	125.5	129.6	135.7	135.0	134.4	131.9	130.5	128.1	127.2
24	Cork and wood.....	148.9	151.1	126.3	117.1	124.7	127.0	132.0	136.9	132.5	122.6	127.0	122.3	120.8
25	Pulp and waste paper.....	107.7	105.5	99.8	98.0	100.3	103.6	107.2	108.7	109.6	107.8	103.6	104.2	102.9
28	Metalliferous ores and metal scrap.....	160.8	162.6	166.2	167.0	167.3	170.8	169.6	176.9	183.8	181.3	176.0	178.8	184.1
29	Crude animal and vegetable materials, n.e.s. ....	97.6	98.7	96.3	96.5	98.3	110.1	137.5	109.9	109.0	122.8	111.7	100.8	91.3
3	<b>Mineral fuels, lubricants, and related products.....</b>	144.2	146.8	161.2	157.2	140.6	142.2	148.3	166.5	173.6	166.3	178.6	189.1	202.6
33	Petroleum, petroleum products, and related materials...	144.8	149.5	165.7	155.3	137.0	140.4	148.6	169.0	174.6	167.0	182.0	193.2	207.6
34	Gas, natural and manufactured.....	136.3	121.9	124.1	166.2	163.5	150.8	143.3	145.8	161.3	158.0	148.5	157.3	164.1
5	<b>Chemicals and related products, n.e.s. ....</b>	105.1	106.7	108.4	108.9	109.6	110.2	111.8	112.2	114.0	113.2	112.4	113.8	113.5
52	Inorganic chemicals.....	123.8	124.1	125.5	126.8	126.7	127.6	128.9	130.2	133.0	135.1	138.2	140.6	140.5
53	Dyeing, tanning, and coloring materials.....	98.4	98.4	98.5	98.7	98.7	97.9	98.6	98.6	99.8	101.0	101.0	100.3	102.5
54	Medicinal and pharmaceutical products.....	107.3	106.6	106.4	107.4	108.9	110.5	110.1	110.2	110.8	110.4	110.3	110.4	110.2
55	Essential oils; polishing and cleaning preparations.....	93.4	93.4	93.6	93.7	94.4	94.9	95.2	95.5	95.4	94.5	94.5	94.5	96.0
57	Plastics in primary forms.....	108.4	109.6	109.9	113.2	116.1	123.0	124.2	125.9	126.7	126.9	125.1	125.9	123.8
58	Plastics in nonprimary forms.....	103.2	103.8	104.4	105.1	105.7	106.7	106.4	106.4	106.9	106.9	107.2	106.6	106.5
59	Chemical materials and products, n.e.s. ....	94.1	94.4	95.3	95.8	96.1	96.2	97.7	99.2	101.8	102.7	102.4	102.2	102.3
6	<b>Manufactured goods classified chiefly by materials.....</b>	107.7	108.9	108.9	109.4	110.4	111.4	111.8	112.8	113.1	112.8	112.8	112.3	111.8
62	Rubber manufactures, n.e.s. ....	100.8	100.8	101.0	101.3	101.9	102.2	102.6	103.5	104.2	104.2	104.6	104.4	104.4
64	Paper, paperboard, and articles of paper, pulp, and paperboard.....	96.9	97.9	99.2	99.4	99.0	100.0	99.9	100.3	101.4	101.7	102.1	103.9	103.7
66	Nonmetallic mineral manufactures, n.e.s. ....	100.2	100.4	100.5	100.5	100.7	100.9	100.8	100.9	101.1	101.1	101.4	101.4	101.6
68	Nonferrous metals.....	105.6	106.3	106.6	108.6	111.0	112.1	114.1	116.1	118.5	118.8	117.7	118.2	118.2
69	Manufactures of metals, n.e.s. ....	103.3	103.9	104.4	105.3	106.7	108.1	108.4	108.7	108.9	108.8	108.6	108.4	108.1
7	<b>Machinery and transport equipment.....</b>	95.0	95.0	94.9	95.1	95.2	95.3	95.2	95.1	95.1	95.1	95.0	94.6	94.6
72	Machinery specialized for particular industries.....	107.6	107.4	107.8	108.5	109.5	110.5	110.6	110.8	111.2	111.3	110.9	110.6	110.5
74	General industrial machines and parts, n.e.s., and machine parts.....	104.1	104.3	104.6	104.9	105.3	106.2	106.6	106.8	107.3	107.2	107.3	107.5	107.1
75	Computer equipment and office machines.....	74.3	73.9	73.2	73.0	72.8	72.4	71.9	71.2	71.2	70.7	70.5	69.1	69.1
76	Telecommunications and sound recording and reproducing apparatus and equipment.....	84.0	83.8	83.4	83.4	83.1	83.0	82.8	82.7	81.9	82.1	82.0	81.6	81.2
77	Electrical machinery and equipment.....	94.7	94.6	94.3	94.4	94.6	94.6	94.4	94.5	94.4	94.5	94.5	94.5	94.1
78	Road vehicles.....	102.8	103.1	103.4	103.6	103.7	103.6	103.7	103.7	103.8	103.8	103.8	103.9	103.9
85	Footwear.....	100.1	100.5	100.5	100.5	100.5	100.3	100.3	100.3	100.3	100.4	100.5	100.9	100.7
88	Photographic apparatus, equipment, and supplies, and optical goods, n.e.s. ....	98.2	98.2	98.2	98.3	98.6	99.1	99.1	99.1	99.3	99.1	99.0	98.3	97.9

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

[2000 = 100]

Category	2004					2005							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>ALL COMMODITIES</b> .....	103.4	103.8	104.4	104.7	104.8	105.6	105.7	106.4	106.9	106.7	106.6	106.7	106.6
Foods, feeds, and beverages.....	116.5	118.7	117.5	118.3	116.9	117.1	116.4	120.9	121.0	123.6	125.1	125.3	124.8
Agricultural foods, feeds, and beverages.....	117.0	119.3	117.8	118.5	116.6	116.7	116.0	120.7	120.9	123.8	125.6	125.6	124.8
Nonagricultural (fish, beverages) food products.....	110.9	113.0	114.4	115.5	118.4	119.7	119.7	121.8	120.9	120.8	119.7	122.0	124.8
Industrial supplies and materials.....	113.1	114.0	116.6	117.4	118.0	120.1	120.7	122.3	124.1	122.7	122.1	123.0	123.3
Agricultural industrial supplies and materials.....	108.4	109.4	109.2	108.5	109.5	112.9	112.8	115.6	117.0	117.1	116.2	116.3	115.3
Fuels and lubricants.....	120.4	121.5	132.2	128.3	125.4	128.3	133.0	143.8	152.3	145.0	148.1	157.3	160.4
Nonagricultural supplies and materials, excluding fuel and building materials.....	113.5	114.4	116.4	117.9	118.9	121.0	121.0	121.4	122.5	121.6	120.4	120.4	120.4
Selected building materials.....	103.3	104.0	103.9	104.0	104.4	104.6	104.8	105.3	105.4	105.8	106.2	105.9	105.8
Capital goods.....	97.8	97.8	98.0	98.1	98.2	98.4	98.5	98.4	98.4	98.4	98.4	98.0	97.6
Electric and electrical generating equipment.....	102.2	102.4	103.3	103.5	103.6	103.8	103.5	103.9	103.7	103.6	103.5	103.1	103.0
Nonelectrical machinery.....	94.0	93.9	93.9	93.8	93.9	94.0	94.0	93.9	93.8	93.7	93.7	93.2	92.6
Automotive vehicles, parts, and engines.....	102.6	102.5	102.7	102.8	102.9	103.1	103.1	103.3	103.3	103.4	103.4	103.5	103.5
Consumer goods, excluding automotive.....	101.1	101.0	100.9	101.0	101.2	101.7	101.6	101.6	101.9	101.7	101.5	101.5	101.5
Nondurables, manufactured.....	101.0	101.0	100.5	100.6	101.0	101.6	101.5	101.5	101.8	101.6	101.2	100.9	100.9
Durables, manufactured.....	101.0	100.9	100.8	101.0	101.1	101.4	101.5	101.5	101.7	101.5	101.5	101.5	101.6
Agricultural commodities.....	115.5	117.6	116.3	116.7	115.4	116.1	115.5	119.9	120.3	122.7	124.0	123.9	123.1
Nonagricultural commodities.....	102.5	102.8	103.6	103.9	104.1	104.9	105.0	105.4	106.0	105.5	105.3	105.4	105.3

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

[2000 = 100]

Category	2004					2005							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>ALL COMMODITIES</b> .....	103.6	104.1	105.8	105.5	104.0	104.6	105.5	107.8	108.8	107.9	109.2	110.1	111.5
Foods, feeds, and beverages.....	107.3	108.7	110.0	110.3	111.5	111.1	112.2	115.9	115.6	115.5	114.1	113.3	113.2
Agricultural foods, feeds, and beverages.....	114.1	116.4	118.4	119.1	120.7	119.6	120.8	125.7	125.5	125.5	123.5	121.9	121.6
Nonagricultural (fish, beverages) food products.....	92.3	91.4	91.1	90.7	91.0	92.0	92.8	94.0	93.5	93.2	93.0	94.0	94.5
Industrial supplies and materials.....	126.6	128.5	134.9	133.2	126.4	127.9	130.7	139.8	143.7	139.8	145.3	150.2	156.0
Fuels and lubricants.....	143.4	146.2	160.8	157.0	141.0	142.5	148.0	165.6	173.0	165.9	177.7	188.1	200.9
Petroleum and petroleum products.....	144.4	149.2	165.8	155.9	138.1	141.2	148.4	168.3	174.4	166.7	181.1	192.1	205.7
Paper and paper base stocks.....	100.4	101.1	101.4	101.1	101.3	102.4	103.0	103.8	104.7	104.5	103.8	104.9	104.4
Materials associated with nondurable supplies and materials.....	107.7	108.0	108.7	109.3	109.8	111.3	112.0	113.0	114.0	113.8	113.5	114.4	114.5
Selected building materials.....	124.0	125.6	115.3	111.8	115.6	117.9	119.8	122.7	120.3	115.8	118.0	114.7	113.8
Unfinished metals associated with durable goods..	129.8	133.1	134.2	136.4	138.5	139.6	138.8	140.4	142.4	141.3	139.9	138.6	136.8
Nonmetals associated with durable goods.....	98.5	98.8	98.9	99.2	99.7	100.9	100.9	100.8	101.1	101.0	100.9	100.3	100.3
Capital goods.....	92.1	92.0	91.8	91.9	92.2	92.5	92.4	92.3	92.5	92.4	92.3	91.7	91.7
Electric and electrical generating equipment.....	97.7	97.4	97.4	97.5	98.0	98.4	98.7	98.8	98.9	98.8	98.9	98.7	98.6
Nonelectrical machinery.....	89.9	89.8	89.5	89.6	89.9	90.1	90.0	89.8	90.0	89.9	89.8	89.0	89.0
Automotive vehicles, parts, and engines.....	102.5	102.7	103.0	103.1	103.2	103.2	103.2	103.2	103.3	103.3	103.4	103.4	103.4
Consumer goods, excluding automotive.....	98.4	98.4	98.5	98.7	99.0	99.6	100.1	99.9	99.8	99.9	99.9	99.7	99.5
Nondurables, manufactured.....	100.9	100.8	100.9	101.1	101.4	102.2	102.8	102.8	102.9	102.8	102.8	102.9	102.9
Durables, manufactured.....	95.9	95.9	96.0	96.2	96.5	96.8	96.7	96.8	96.5	96.6	96.6	96.3	96.0
Nonmanufactured consumer goods.....	97.9	97.9	97.9	98.0	98.2	100.1	105.0	100.3	100.3	103.0	101.8	100.1	98.6

#### 47. U.S. international price indexes for selected categories of services

[2000 = 100, unless indicated otherwise]

Category	2003			2004			2005		
	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June
Air freight (inbound).....	109.4	112.5	112.9	116.2	116.6	118.7	125.2	126.3	125.9
Air freight (outbound).....	95.4	95.5	94.9	96.1	99.0	100.7	104.7	103.8	107.6
Inbound air passenger fares (Dec. 2003 = 100).....	—	—	100.0	105.1	106.1	110.1	112.5	114.5	116.1
Outbound air passenger fares (Dec. 2003 = 100).....	—	—	100.0	99.3	114.2	114.2	105.4	105.0	120.5
Ocean liner freight (inbound).....	116.1	116.2	117.7	119.1	121.1	120.3	122.7	121.3	128.4

NOTE: Dash indicates data not available.

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

[1992 = 100]

Item	2002			2003				2004				2005	
	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
<b>Business</b>													
Output per hour of all persons.....	123.2	124.6	124.7	125.6	127.9	130.5	130.6	131.7	132.8	133.3	134.3	135.3	135.5
Compensation per hour.....	145.0	145.7	145.8	147.8	150.3	152.0	152.8	154.4	155.7	158.2	162.5	164.4	165.7
Real compensation per hour.....	115.7	115.7	115.1	115.5	117.3	118.0	118.4	118.5	118.2	119.6	121.8	122.5	122.2
Unit labor costs.....	117.7	116.9	116.9	117.7	117.5	116.4	117.0	117.3	117.2	118.7	121.0	121.5	122.3
Unit nonlabor payments.....	112.9	115.0	116.3	116.4	117.2	120.3	120.5	123.0	126.1	124.2	122.3	123.9	124.3
Implicit price deflator.....	115.9	116.2	116.7	117.2	117.4	117.9	118.3	119.4	120.5	120.7	121.5	122.3	123.0
<b>Nonfarm business</b>													
Output per hour of all persons.....	122.7	123.9	124.0	124.9	126.9	129.9	130.1	130.8	132.2	132.7	133.5	134.5	135.3
Compensation per hour.....	144.2	144.8	145.0	147.0	149.3	151.2	152.2	153.5	154.9	157.2	161.0	163.2	162.0
Real compensation per hour.....	115.0	114.9	114.5	114.9	116.5	117.4	117.9	117.8	117.6	118.8	120.7	121.6	121.7
Unit labor costs.....	117.5	116.9	116.9	117.7	117.6	116.4	116.9	117.3	117.1	118.5	120.7	121.3	122.1
Unit nonlabor payments.....	115.0	116.9	118.0	118.2	118.7	121.6	121.3	123.5	126.5	125.3	123.7	125.0	125.7
Implicit price deflator.....	116.6	116.9	117.3	117.9	118.0	118.3	118.6	119.6	120.6	121.0	121.8	122.7	123.4
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	127.9	129.1	130.1	130.4	132.7	135.1	135.9	136.1	136.9	139.4	142.3	143.2	145.6
Compensation per hour.....	141.8	142.7	143.2	144.6	147.0	148.9	149.8	150.3	151.7	154.0	158.0	160.3	161.8
Real compensation per hour.....	113.1	113.3	113.1	113.0	114.8	115.5	116.0	115.4	115.2	116.5	118.4	119.4	119.4
Total unit costs.....	110.9	110.4	110.0	111.0	110.7	110.4	110.4	110.7	111.0	110.5	110.5	110.9	109.9
Unit labor costs.....	110.9	110.6	110.1	110.9	110.8	110.2	110.2	110.4	110.8	110.5	111.0	111.9	111.2
Unit nonlabor costs.....	110.7	110.0	109.6	111.4	110.5	110.9	110.8	111.4	111.5	110.3	108.8	108.2	106.6
Unit profits.....	94.5	100.3	111.2	107.8	113.7	119.9	124.8	130.2	138.6	139.7	143.1	145.3	159.2
Unit nonlabor payments.....	106.4	107.4	110.0	110.5	111.4	113.3	114.6	116.4	118.7	118.2	118.0	118.2	120.7
Implicit price deflator.....	109.4	109.5	110.1	110.7	111.0	111.3	111.7	112.4	113.4	113.1	113.4	114.0	114.3
<b>Manufacturing</b>													
Output per hour of all persons.....	146.5	148.7	149.5	151.6	152.9	156.9	158.1	159.3	162.2	164.0	166.5	168.2	169.7
Compensation per hour.....	147.6	149.0	150.2	156.5	159.2	161.5	163.2	159.1	161.1	164.9	169.3	172.2	175.8
Real compensation per hour.....	117.7	118.3	118.6	122.3	124.3	125.4	126.5	122.1	122.3	124.7	126.9	128.3	129.6
Unit labor costs.....	100.8	100.2	100.5	103.2	104.1	102.9	103.2	99.9	99.3	100.6	101.7	102.4	103.6

NOTE: Dash indicates data not available.

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

[2000 = 100, unless otherwise indicated]

Item	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Private business</b>													
Productivity:													
Output per hour of all persons.....	81.4	82.7	86.2	86.5	87.5	87.7	90.3	91.9	94.4	97.2	100.0	102.7	107.2
Output per unit of capital services.....	102.6	99.7	101.7	102.6	104.5	103.6	103.9	104.1	102.6	101.8	100.0	96.3	95.5
Multifactor productivity.....	90.9	90.3	92.7	93.1	94.1	93.8	95.5	96.3	97.4	98.7	100.0	100.1	102.0
Output.....	68.6	68.1	70.9	73.2	76.9	79.1	82.8	87.2	91.5	96.2	100.0	100.4	102.3
Inputs:													
Labor input.....	80.1	79.1	80.0	82.4	86.1	88.5	90.4	94.0	96.2	99.0	100.0	98.6	97.4
Capital services.....	66.9	68.4	69.7	71.3	73.5	76.4	79.7	83.8	89.2	94.5	100.0	104.2	107.1
Combined units of labor and capital input.....	75.5	75.4	76.5	78.6	81.7	84.3	86.7	90.5	93.9	97.5	100.0	100.4	100.3
Capital per hour of all persons.....	79.3	83.0	84.8	84.4	83.7	84.6	86.9	88.3	92.0	95.4	100.0	106.6	112.2
<b>Private nonfarm business</b>													
Productivity:													
Output per hour of all persons.....	81.7	83.1	86.5	86.9	87.9	88.4	90.8	92.2	94.7	97.3	100.0	102.6	107.2
Output per unit of capital services.....	104.2	101.1	102.8	103.8	105.4	104.7	104.7	104.6	103.0	102.1	100.0	96.3	95.4
Multifactor productivity.....	91.5	91.0	93.2	93.6	94.5	94.6	96.0	96.6	97.7	98.8	100.0	100.0	102.0
Output.....	68.6	68.1	70.8	73.2	76.7	79.3	82.9	87.2	91.5	96.3	100.0	100.5	102.4
Inputs:													
Labor input.....	79.8	78.7	79.6	82.2	85.6	88.0	90.0	93.7	96.0	99.0	100.0	98.8	97.3
Capital services.....	65.8	67.4	68.8	70.6	72.8	75.7	79.2	83.3	88.8	94.3	100.0	104.4	107.3
Combined units of labor and capital input.....	75.0	74.8	75.9	78.2	81.2	83.8	86.3	90.2	93.7	97.5	100.0	100.5	100.3
Capital per hour of all persons.....	78.4	82.3	84.1	83.7	83.3	84.4	86.7	88.2	91.9	95.3	100.0	106.6	112.4
<b>Manufacturing [1996 = 100]</b>													
Productivity:													
Output per hour of all persons.....	82.2	84.1	88.6	90.2	93.0	96.5	100.0	103.8	108.9	114.0	118.3	119.7	—
Output per unit of capital services.....	97.5	93.6	95.9	96.9	99.7	100.6	100.0	101.4	101.7	101.7	101.0	95.1	—
Multifactor productivity.....	93.3	92.4	94.0	95.1	97.3	99.2	100.0	103.1	105.7	108.7	111.3	110.3	—
Output.....	83.2	81.5	85.5	88.3	92.9	96.9	100.0	105.6	110.5	114.7	117.4	112.1	—
Inputs:													
Hours of all persons.....	101.1	96.9	96.5	97.8	99.9	100.4	100.0	101.7	101.5	100.7	99.2	93.6	—
Capital services.....	85.3	87.1	89.1	91.1	93.2	96.4	100.0	104.1	108.7	112.8	116.2	117.9	—
Energy.....	93.1	93.2	93.1	96.6	99.9	102.3	100.0	97.5	100.6	102.9	104.3	98.9	—
Nonenergy materials.....	77.5	78.5	83.5	86.5	90.3	93.1	100.0	101.9	107.5	107.9	106.9	105.5	—
Purchased business services.....	84.7	84.6	92.0	92.9	96.0	100.4	100.0	103.9	103.1	105.4	106.5	97.7	—
Combined units of all factor inputs.....	89.1	88.3	90.9	92.8	95.5	97.7	100.0	102.4	104.6	105.5	105.5	101.6	—

NOTE: Dash indicates data not available.

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

[1992 = 100]

Item	1960	1970	1980	1990	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Business</b>													
Output per hour of all persons.....	48.9	66.3	79.1	94.5	104.7	106.7	109.7	112.9	116.1	119.0	123.8	128.6	133.0
Compensation per hour.....	13.9	23.6	54.1	90.6	109.6	113.1	120.0	125.8	134.5	140.2	145.0	150.7	157.7
Real compensation per hour.....	60.8	78.8	89.1	96.3	99.6	100.6	105.3	108.1	111.9	113.4	115.1	117.3	119.5
Unit labor costs.....	28.4	35.6	68.4	96.0	104.7	106.1	109.4	111.4	115.9	117.8	117.1	117.2	118.6
Unit nonlabor payments.....	24.8	31.5	61.3	93.8	112.0	113.9	110.1	109.5	107.4	110.2	114.4	8.6	123.9
Implicit price deflator.....	27.1	34.1	65.8	95.1	107.4	109.0	109.7	110.7	112.7	114.9	116.1	117.7	120.6
<b>Nonfarm business</b>													
Output per hour of all persons.....	51.9	68.0	80.6	94.5	104.9	106.6	109.5	112.6	115.6	118.5	123.3	128.0	132.3
Compensation per hour.....	14.5	23.7	54.4	90.4	109.5	112.9	119.6	125.2	134.0	139.3	144.2	149.9	156.7
Real compensation per hour.....	63.3	79.2	89.5	96.0	99.5	100.4	105.0	107.5	111.4	112.6	114.8	116.7	118.7
Unit labor costs.....	27.9	34.9	67.5	95.7	104.5	105.9	109.3	111.2	115.9	117.5	117.0	117.1	118.4
Unit nonlabor payments.....	24.3	31.2	60.4	93.5	112.2	114.6	111.1	111.1	108.9	111.8	116.3	120.0	124.7
Implicit price deflator.....	26.6	33.5	64.9	94.9	107.3	109.1	109.9	111.1	113.3	115.4	116.7	118.2	120.7
<b>Nonfinancial corporations</b>													
Output per hour of all employees.....	56.2	69.8	80.8	95.4	107.1	109.9	113.5	117.3	121.5	123.5	128.2	133.5	138.7
Compensation per hour.....	16.2	25.7	57.2	91.1	108.5	111.7	118.1	123.6	132.0	137.3	142.0	147.6	153.5
Real compensation per hour.....	70.8	85.9	94.1	96.8	98.5	99.4	103.6	106.2	109.7	111.1	113.0	114.8	116.4
Total unit costs.....	27.3	35.6	69.2	96.0	100.9	101.1	102.9	104.0	107.4	111.6	110.7	110.6	110.6
Unit labor costs.....	28.8	36.9	70.8	95.5	101.3	101.7	104.1	105.3	108.6	111.2	110.7	110.5	110.7
Unit nonlabor costs.....	23.3	32.2	64.9	97.3	100.0	99.7	99.5	100.4	104.2	112.6	110.8	110.9	110.5
Unit profits.....	50.2	44.4	66.9	96.9	150.0	154.3	137.0	129.1	108.7	82.2	95.4	116.7	138.0
Unit nonlabor payments.....	30.5	35.4	65.5	97.2	113.3	114.3	109.5	108.0	105.4	104.5	107.4	112.5	117.8
Implicit price deflator.....	29.4	36.4	69.0	96.1	105.3	105.9	105.9	106.2	107.5	108.9	109.6	111.2	113.1
<b>Manufacturing</b>													
Output per hour of all persons.....	41.8	54.2	70.1	92.9	113.9	118.0	123.6	128.1	134.1	136.9	147.3	154.8	163.0
Compensation per hour.....	14.9	23.7	55.6	90.5	109.3	112.2	118.7	123.4	134.7	137.8	147.9	160.1	163.6
Real compensation per hour.....	65.0	79.2	91.4	96.1	99.3	99.8	104.2	106.0	112.0	111.5	117.7	124.6	124.0
Unit labor costs.....	35.6	43.8	79.3	97.3	96.0	95.1	96.0	96.4	100.5	100.7	100.4	102.4	100.4
Unit nonlabor payments.....	26.8	29.3	80.2	100.8	110.7	110.4	104.2	105.1	107.1	105.9	-	-	-
Implicit price deflator.....	30.2	35.0	79.9	99.5	105.2	104.6	101.1	101.8	104.6	103.9	-	-	-

Dash indicates data not available.

51. Annual indexes of output per hour for selected NAICS industries, 1987–2004

[1997=100]

NAICS	Industry	1987	1990	1992	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Mining</b>														
21	Mining.....	85.5	85.1	95.0	101.7	101.3	100.0	103.6	111.4	111.2	109.1	113.9	116.2	—
211	Oil and gas extraction.....	80.1	75.7	81.6	95.3	98.1	100.0	101.2	107.9	119.4	121.6	124.0	130.5	—
212	Mining, except oil and gas.....	69.8	79.3	86.8	94.0	96.0	100.0	104.6	105.9	106.8	109.0	111.4	113.6	—
2121	Coal mining.....	58.4	68.1	75.3	88.2	94.9	100.0	106.5	110.3	115.8	114.4	112.2	113.1	—
2122	Metal ore mining.....	71.2	79.9	91.7	98.5	95.3	100.0	109.5	112.7	124.4	131.8	142.4	141.0	—
2123	Nonmetallic mineral mining and quarrying.....	88.5	92.3	96.1	97.3	97.1	100.0	101.3	101.2	96.2	99.3	103.6	108.6	—
<b>Utilities</b>														
2211	Power generation and supply.....	65.6	71.1	74.5	88.5	95.2	100.0	103.7	103.5	107.0	106.4	102.9	105.1	—
2212	Natural gas distribution.....	67.8	71.4	76.1	89.0	96.0	100.0	99.0	102.7	113.2	110.1	115.4	114.3	—
<b>Manufacturing</b>														
3111	Animal food.....	83.6	91.5	90.5	93.8	86.1	100.0	109.0	110.9	109.7	131.4	142.7	140.4	—
3112	Grain and oilseed milling.....	81.1	88.6	91.1	98.7	90.0	100.0	107.5	116.1	113.1	119.5	123.8	122.0	—
3113	Sugar and confectionery products.....	87.6	89.5	89.2	93.2	97.8	100.0	103.5	106.5	109.8	108.6	108.2	112.2	—
3114	Fruit and vegetable preserving and specialty.....	92.4	87.6	91.9	98.3	98.8	100.0	107.1	109.5	111.8	121.4	126.7	121.8	—
3115	Dairy products.....	82.7	91.1	95.2	97.6	97.8	100.0	100.0	93.6	95.9	97.1	105.0	110.1	—
3116	Animal slaughtering and processing.....	97.4	94.3	101.8	99.0	94.2	100.0	100.0	101.2	102.6	103.7	107.8	107.0	—
3117	Seafood product preparation and packaging.....	123.1	119.7	117.8	110.3	118.0	100.0	120.2	131.6	140.5	153.0	170.0	177.8	—
3118	Bakeries and tortilla manufacturing.....	100.9	94.5	97.1	100.7	97.3	100.0	103.8	108.6	108.3	109.9	110.7	110.9	—
3119	Other food products.....	97.5	92.4	97.6	104.0	105.0	100.0	107.8	111.3	112.7	106.2	113.6	118.9	—
3121	Beverages.....	77.1	87.6	94.9	103.2	102.0	100.0	99.0	90.7	90.8	92.7	99.8	105.0	—
3131	Fiber, yarn, and thread mills.....	66.5	74.4	80.2	91.9	98.9	100.0	102.1	103.9	101.3	109.1	133.5	150.2	—
3132	Fabric mills.....	68.0	75.3	81.4	95.5	98.1	100.0	104.2	110.0	110.1	110.3	125.7	136.1	—
3133	Textile and fabric finishing mills.....	91.3	82.0	83.5	84.3	85.0	100.0	101.2	102.2	104.4	108.5	119.7	124.8	—
3141	Textile furnishings mills.....	91.2	88.0	92.7	92.3	93.8	100.0	99.3	99.1	104.5	103.1	103.5	111.9	—
3149	Other textile product mills.....	92.2	91.4	91.8	95.9	97.2	100.0	96.7	107.6	108.9	103.1	105.1	104.6	—
3151	Apparel knitting mills.....	76.2	86.2	93.3	109.3	122.1	100.0	96.1	101.4	108.9	105.6	114.8	107.5	—
3152	Cut and sew apparel.....	69.8	70.1	72.9	85.2	90.6	100.0	102.3	114.6	119.8	119.5	110.9	123.5	—
3211	Sawmills and wood preservation.....	77.6	79.4	85.7	90.4	95.9	100.0	100.3	104.7	105.4	108.8	114.4	120.6	—
3212	Plywood and engineered wood products.....	99.8	102.9	114.3	101.5	101.1	100.0	105.2	98.8	98.9	105.3	110.3	106.5	—
3219	Other wood products.....	103.2	105.5	103.2	99.8	100.5	100.0	101.1	104.6	103.1	104.9	114.2	112.9	—
3221	Pulp, paper, and paperboard mills.....	81.7	84.0	87.9	98.4	95.4	100.0	102.5	111.1	116.3	119.9	133.1	138.0	—
3222	Converted paper products.....	89.0	90.1	94.0	97.2	97.7	100.0	102.5	100.1	101.1	100.5	105.5	109.3	—
3231	Printing and related support activities.....	97.7	97.6	101.7	98.8	99.9	100.0	100.6	102.8	104.6	105.3	110.0	110.7	—
3241	Petroleum and coal products.....	72.1	76.1	79.0	89.9	93.5	100.0	102.2	107.1	113.5	112.1	117.9	118.9	—
3251	Basic chemicals.....	94.6	93.4	90.2	91.3	89.4	100.0	102.7	115.7	117.5	108.8	124.0	132.0	—
3252	Resin, rubber, and artificial fibers.....	77.4	76.4	80.4	95.4	93.1	100.0	106.0	109.8	109.8	106.2	123.0	120.9	—
3253	Agricultural chemicals.....	80.4	85.8	82.1	89.9	91.7	100.0	98.8	87.4	92.1	90.0	98.9	107.2	—
3254	Pharmaceuticals and medicines.....	87.3	91.3	87.5	95.9	100.0	100.0	93.8	95.7	95.6	99.5	96.0	98.6	—
3255	Paints, coatings, and adhesives.....	89.3	87.1	89.6	92.3	99.1	100.0	100.1	100.3	100.8	105.6	109.1	113.5	—
3256	Soap, cleaning compounds, and toiletries.....	84.4	84.8	85.0	96.1	97.3	100.0	98.0	93.0	102.8	106.0	124.5	114.6	—
3259	Other chemical products and preparations.....	75.4	77.8	85.8	93.5	94.0	100.0	99.2	109.3	119.7	110.4	118.9	122.7	—
3261	Plastics products.....	83.1	85.2	90.8	94.5	96.6	100.0	104.2	109.9	112.3	114.6	122.7	127.6	—
3262	Rubber products.....	75.5	83.5	84.7	92.9	94.2	100.0	99.4	100.2	101.7	102.3	107.9	111.7	—
3271	Clay products and refractories.....	86.9	89.4	92.0	97.4	102.4	100.0	101.2	102.7	102.9	98.4	99.8	103.5	—
3272	Glass and glass products.....	82.3	79.1	83.8	87.5	94.7	100.0	101.4	106.7	108.2	102.8	107.4	115.2	—
3273	Cement and concrete products.....	93.6	96.6	96.2	99.7	102.0	100.0	105.1	105.9	101.6	98.0	102.4	106.9	—
3279	Other nonmetallic mineral products.....	83.0	79.5	90.3	91.4	96.0	100.0	99.0	95.6	96.6	98.6	106.7	112.4	—
3311	Iron and steel mills and ferroalloy production.....	64.8	70.2	74.7	90.0	94.1	100.0	101.3	104.8	106.0	108.5	123.8	125.8	—
3312	Steel products from purchased steel.....	79.7	84.4	90.1	100.6	100.5	100.0	100.1	93.0	95.5	94.3	105.2	101.6	—
3313	Alumina and aluminum production.....	90.5	90.7	95.8	95.9	95.4	100.0	101.4	103.5	96.5	96.0	125.0	127.1	—
3314	Other nonferrous metal production.....	96.8	96.3	99.7	102.7	105.9	100.0	111.3	108.4	102.3	99.5	108.5	120.5	—
3315	Foundries.....	81.4	86.5	86.4	93.1	96.0	100.0	101.2	104.5	103.6	107.4	117.0	117.5	—
3321	Forging and stamping.....	85.4	89.0	92.2	93.9	97.4	100.0	103.5	110.9	121.1	120.7	125.3	132.9	—
3322	Cutlery and hand tools.....	86.3	85.4	87.4	97.2	103.8	100.0	99.9	108.0	105.9	110.3	107.5	109.0	—
3323	Architectural and structural metals.....	88.7	87.9	92.7	93.3	93.9	100.0	101.0	102.0	100.7	101.7	106.3	109.1	—
3324	Boilers, tanks, and shipping containers.....	86.0	90.1	95.4	97.3	100.7	100.0	100.4	97.1	94.7	94.6	99.7	102.0	—
3325	Hardware.....	88.7	84.8	87.3	97.2	102.2	100.0	100.5	105.2	114.3	113.5	114.9	123.1	—
3326	Spring and wire products.....	82.2	85.2	90.8	99.0	102.4	100.0	110.6	111.4	112.6	111.9	129.1	138.8	—
3327	Machine shops and threaded products.....	76.9	79.2	87.4	98.3	99.8	100.0	99.6	104.2	108.2	108.8	115.6	115.8	—
3328	Coating, engraving, and heat treating metals.....	75.5	81.3	86.6	102.2	101.7	100.0	100.9	101.0	105.5	107.3	115.2	116.9	—
3329	Other fabricated metal products.....	91.0	86.5	90.4	96.3	98.2	100.0	101.9	99.6	99.9	96.7	106.5	111.2	—
3331	Agriculture, construction, and mining machinery.....	74.6	83.3	79.0	95.4	95.7	100.0	103.3	94.3	100.3	100.3	103.7	116.6	—
3332	Industrial machinery.....	75.1	81.6	79.9	97.1	98.5	100.0	95.1	105.8	130.0	105.8	106.0	109.0	—
3333	Commercial and service industry machinery.....	86.9	95.6	100.1	103.6	107.2	100.0	105.9	109.8	100.9	94.3	102.0	109.7	—
3334	HVAC and commercial refrigeration equipment.....	84.0	90.6	91.5	96.4	97.2	100.0	106.2	110.2	107.9	110.8	117.6	127.5	—

**51. Continued—Annual indexes of output per hour for selected NAICS industries, 1987–2004**

[1997=100]

NAICS	Industry	1987	1990	1992	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
3335	Metalworking machinery.....	85.1	86.5	89.2	99.2	97.5	100.0	99.1	100.3	106.1	103.3	115.6	117.4	—
3336	Turbine and power transmission equipment.....	80.2	85.9	80.9	91.3	98.0	100.0	105.0	110.8	114.9	126.9	132.7	141.8	—
3339	Other general purpose machinery.....	83.5	86.8	85.4	94.0	94.9	100.0	103.7	106.0	113.7	110.5	117.6	124.5	—
3341	Computer and peripheral equipment.....	11.0	14.7	21.4	49.9	72.6	100.0	140.4	195.8	234.9	252.0	297.3	379.6	—
3342	Communications equipment.....	39.8	48.4	60.6	74.4	84.5	100.0	107.1	135.4	164.1	152.9	128.1	142.2	—
3344	Semiconductors and electronic components.....	17.0	21.9	29.8	63.8	83.1	100.0	125.8	173.9	232.4	230.4	264.1	322.1	—
3345	Electronic instruments.....	70.2	78.5	85.9	97.9	97.6	100.0	102.3	106.7	116.7	119.3	119.3	128.5	—
3351	Electric lighting equipment.....	91.1	88.2	94.1	91.9	95.8	100.0	104.4	102.7	102.0	106.7	112.3	113.1	—
3352	Household appliances.....	73.3	76.5	82.3	91.8	91.9	100.0	105.3	103.9	117.2	124.7	136.0	151.6	—
3353	Electrical equipment.....	68.7	73.6	79.0	98.0	100.4	100.0	100.2	98.7	99.4	101.0	103.2	104.9	—
3359	Other electrical equipment and components.....	78.7	76.0	82.2	92.0	96.3	100.0	105.7	114.6	119.6	112.9	115.6	116.9	—
3361	Motor vehicles.....	75.4	85.6	90.8	88.5	91.0	100.0	113.4	122.6	109.7	110.0	126.3	138.7	—
3362	Motor vehicle bodies and trailers.....	85.0	75.9	88.4	97.4	98.5	100.0	102.9	103.1	98.8	88.7	105.5	109.3	—
3363	Motor vehicle parts.....	78.7	76.0	82.3	92.3	93.0	100.0	105.0	110.0	112.3	114.8	130.7	135.9	—
3364	Aerospace products and parts.....	86.5	89.1	96.8	94.9	98.9	100.0	120.2	120.0	103.2	116.7	117.8	121.7	—
3366	Ship and boat building.....	95.5	99.6	99.4	93.1	93.5	100.0	99.3	112.0	121.9	121.5	131.0	133.8	—
3369	Other transportation equipment.....	73.7	62.9	89.5	94.1	101.5	100.0	111.5	113.8	132.4	140.2	151.1	166.0	—
3371	Household and institutional furniture.....	85.2	88.2	92.5	97.2	99.8	100.0	102.2	103.1	101.9	105.5	115.7	118.2	—
3372	Office furniture and fixtures.....	85.8	82.2	86.4	84.9	86.3	100.0	100.0	98.2	100.2	98.0	115.2	125.3	—
3379	Other furniture-related products.....	86.3	88.9	87.6	94.8	97.6	100.0	106.9	102.0	99.5	105.0	110.4	110.5	—
3391	Medical equipment and supplies.....	76.3	82.9	89.2	96.6	100.5	100.0	108.7	110.4	114.6	119.3	128.6	137.1	—
3399	Other miscellaneous manufacturing.....	85.4	90.5	90.3	95.9	99.7	100.0	102.0	105.0	113.6	111.7	129.5	135.3	—
	<b>Wholesale trade</b>													
42	Wholesale trade.....	73.0	79.6	86.3	93.5	96.9	100.0	103.6	111.4	116.8	119.8	126.5	130.7	140.8
423	Durable goods.....	62.2	67.4	75.5	89.7	94.6	100.0	106.6	118.1	123.5	127.1	137.3	143.2	161.6
4231	Motor vehicles and parts.....	74.6	79.0	84.1	94.0	96.3	100.0	107.0	124.1	120.5	126.7	142.0	145.0	154.6
4232	Furniture and furnishings.....	84.8	93.6	98.2	104.7	104.7	100.0	97.9	100.3	105.7	107.9	107.9	116.9	128.7
4233	Lumber and construction supplies.....	114.7	113.4	114.7	101.8	102.9	100.0	103.0	103.5	99.6	105.9	112.5	119.8	139.6
4234	Commercial equipment.....	27.3	33.1	47.5	74.5	88.1	100.0	121.0	151.7	164.7	191.6	226.0	253.5	288.9
4235	Metals and minerals.....	101.7	102.8	107.2	103.5	103.2	100.0	102.1	93.6	97.1	99.3	100.5	103.5	119.6
4236	Electric goods.....	41.7	49.4	54.4	82.2	88.7	100.0	106.2	128.6	154.0	152.4	163.3	169.0	206.0
4237	Hardware and plumbing.....	82.5	88.0	96.2	98.7	99.5	100.0	102.2	106.6	107.7	98.6	101.9	106.3	111.3
4238	Machinery and supplies.....	75.4	83.0	80.2	89.8	93.9	100.0	104.2	101.8	104.9	103.9	101.9	104.6	120.2
4239	Miscellaneous durable goods.....	86.9	88.6	107.6	99.2	101.8	100.0	99.6	109.7	111.0	108.6	112.4	109.7	123.8
424	Nondurable goods.....	90.9	98.6	101.1	97.9	98.8	100.0	100.0	103.1	107.6	110.5	114.3	119.5	124.8
4241	Paper and paper products.....	85.6	81.7	96.0	96.1	94.6	100.0	98.5	102.0	102.8	108.8	118.2	123.0	131.6
4242	Druggists' goods.....	70.7	79.9	88.4	94.1	98.6	100.0	101.0	107.6	110.5	119.1	138.4	155.4	168.7
4243	Apparel and piece goods.....	89.0	102.8	100.3	91.9	98.9	100.0	106.3	107.9	109.8	117.0	125.7	123.4	129.3
4244	Grocery and related products.....	88.1	95.8	103.9	103.4	99.9	100.0	100.9	101.2	101.8	102.3	100.7	103.1	103.6
4245	Farm product raw materials.....	80.9	77.8	81.8	85.5	88.2	100.0	98.2	110.3	112.5	111.7	122.2	120.6	134.3
4246	Chemicals.....	90.3	100.2	104.9	98.1	97.9	100.0	98.0	94.8	90.0	87.4	91.1	93.8	89.2
4247	Petroleum.....	85.2	109.4	113.6	100.2	106.6	100.0	86.7	98.4	122.9	124.9	136.1	139.8	159.6
4248	Alcoholic beverages.....	100.3	110.1	106.4	103.6	104.8	100.0	110.3	108.8	113.1	112.0	113.7	112.6	108.3
4249	Miscellaneous nondurable goods.....	107.6	107.1	93.5	96.9	99.0	100.0	102.3	102.5	108.3	106.0	98.8	104.8	113.4
425	Electronic markets and agents and brokers.....	64.3	74.3	84.5	95.4	100.4	100.0	103.5	111.3	119.9	118.6	119.3	112.7	112.1
	<b>Retail trade</b>													
44-45	Retail trade.....	79.1	81.3	85.2	94.1	97.7	100.0	105.6	112.4	116.4	120.2	125.6	132.6	140.7
441	Motor vehicle and parts dealers.....	78.1	82.2	87.6	95.7	98.2	100.0	106.7	115.5	114.4	116.2	119.7	124.2	129.2
4411	Automobile dealers.....	79.1	83.7	89.7	96.1	98.2	100.0	106.9	116.6	113.9	115.4	116.6	119.6	127.4
4412	Other motor vehicle dealers.....	73.5	73.3	81.6	90.9	98.8	100.0	109.5	117.2	116.7	124.9	130.2	131.1	138.8
4413	Auto parts, accessories, and tire stores.....	67.0	73.8	77.4	92.6	96.0	100.0	106.2	109.2	110.2	104.9	113.1	119.3	113.7
442	Furniture and home furnishings stores.....	71.9	75.4	83.4	92.5	99.1	100.0	103.7	112.3	120.1	125.9	132.6	141.6	153.5
4421	Furniture stores.....	73.5	80.2	87.1	92.1	97.2	100.0	104.1	109.6	116.5	124.2	129.3	135.9	149.3
4422	Home furnishings stores.....	69.4	68.8	78.4	92.7	101.3	100.0	103.4	115.9	124.7	128.2	137.0	149.2	159.2
443	Electronics and appliance stores.....	38.6	47.3	57.8	89.7	94.9	100.0	121.3	149.0	174.2	195.0	230.0	287.2	320.5
444	Building material and garden supply stores.....	76.2	80.2	81.4	92.6	97.3	100.0	108.1	114.2	115.0	117.7	121.9	129.8	142.6
4441	Building material and supplies dealers.....	77.1	81.8	82.1	93.7	97.3	100.0	109.0	115.3	115.5	116.5	121.3	130.0	142.9
4442	Lawn and garden equipment and supplies stores.....	71.7	72.3	77.7	86.2	96.8	100.0	102.9	107.3	112.0	126.5	127.1	128.7	140.7
445	Food and beverage stores.....	109.7	106.6	106.1	101.9	100.5	100.0	99.5	101.6	101.5	103.9	104.6	107.9	114.1
4451	Grocery stores.....	110.6	106.5	106.7	102.8	101.0	100.0	99.5	102.6	101.5	103.8	105.2	107.4	113.6
4452	Specialty food stores.....	127.5	120.1	106.4	97.6	94.4	100.0	96.4	92.7	97.9	103.1	100.6	111.2	121.7
4453	Beer, wine and liquor stores.....	95.6	98.7	97.2	95.1	103.8	100.0	106.3	100.6	109.9	110.9	109.6	121.0	129.0
446	Health and personal care stores.....	85.2	92.1	89.7	91.2	96.2	100.0	104.3	105.5	110.4	113.7	120.7	130.9	139.1
447	Gasoline stations.....	83.0	83.7	87.7	99.7	99.8	100.0	107.0	111.4	108.3	114.6	124.8	120.0	121.6
448	Clothing and clothing accessories stores.....	65.8	69.2	74.8	92.9	99.5	100.0	106.1	113.6	123.3	126.6	130.9	139.1	138.9
4481	Clothing stores.....	66.6	69.1	77.8	91.5	98.6	100.0	108.4	113.9	125.0	130.5	136.1	142.5	142.5

51. Continued—Annual indexes of output per hour for selected NAICS industries, 1987–2004

[1997=100]

NAICS	Industry	1987	1990	1992	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
4482	Shoe stores.....	65.1	71.1	75.2	96.8	104.7	100.0	94.3	105.3	111.9	112.5	125.0	132.0	120.7
4483	Jewelry, luggage, and leather goods stores.....	63.6	67.8	61.9	95.7	98.6	100.0	108.0	120.7	127.3	123.2	115.9	131.5	139.9
451	Sporting goods, hobby, book, and music stores	73.7	81.1	85.0	94.3	94.6	100.0	108.8	114.0	119.7	126.3	126.3	127.7	147.5
4511	Sporting goods and musical instrument stores.....	69.5	78.3	81.7	94.0	93.2	100.0	113.0	119.8	126.4	131.9	130.9	133.2	157.3
4512	Book, periodical, and music stores.....	84.4	87.2	92.2	95.0	97.4	100.0	100.9	103.2	107.4	115.6	117.8	118.0	129.7
452	General merchandise stores.....	73.7	75.3	82.9	92.0	96.9	100.0	104.9	112.9	119.6	123.8	127.9	134.9	140.5
4521	Department stores.....	87.7	84.2	91.7	94.7	98.7	100.0	100.5	104.5	106.3	104.0	102.5	107.0	108.6
4529	Other general merchandise stores.....	54.8	61.4	69.5	87.2	93.9	100.0	113.1	129.3	145.0	160.9	173.9	182.3	192.0
453	Miscellaneous store retailers.....	65.9	69.5	74.0	88.7	94.7	100.0	107.7	109.4	110.4	109.2	114.7	119.1	124.0
4531	Florists.....	77.9	73.3	83.2	82.5	92.0	100.0	101.9	117.1	112.5	104.9	113.3	107.4	101.2
4532	Office supplies, stationery and gift stores.....	56.6	61.0	74.9	91.5	93.1	100.0	111.3	119.4	124.6	127.3	134.9	144.4	153.4
4533	Used merchandise stores.....	78.5	82.2	81.8	86.2	95.7	100.0	115.0	107.8	115.5	116.2	123.3	116.3	116.3
4539	Other miscellaneous store retailers.....	75.2	81.9	71.7	88.8	97.3	100.0	104.4	99.1	97.3	93.8	95.9	102.9	105.6
454	Nonstore retailers.....	53.9	58.2	64.8	81.5	92.9	100.0	114.5	128.2	159.8	171.0	199.4	233.0	267.0
4541	Electronic shopping and mail-order houses.....	44.0	48.3	55.6	74.1	86.4	100.0	122.0	149.3	172.9	200.7	241.7	288.9	338.7
4542	Vending machine operators.....	98.7	97.2	95.0	88.5	97.6	100.0	110.0	109.2	113.2	93.9	95.1	100.9	100.0
4543	Direct selling establishments.....	71.2	74.7	79.0	92.9	102.1	100.0	100.3	98.1	123.6	122.4	136.4	149.2	164.0
	<b>Transportation and warehousing</b>													
481	Air transportation.....	81.1	77.5	81.4	95.3	98.8	100.0	97.6	98.2	98.2	91.9	102.0	112.1	—
482111	Line-haul railroads.....	58.9	69.8	82.3	92.0	98.4	100.0	102.1	105.5	114.3	121.9	131.9	142.0	—
48412	General freight trucking, long-distance.....	86.8	87.5	97.2	95.2	96.7	100.0	99.8	99.2	101.0	102.1	106.6	108.8	—
48421	Used household and office goods moving.....	102.3	115.5	113.4	102.3	95.4	100.0	97.0	101.3	100.2	86.3	81.8	88.7	—
491	U.S. Postal service.....	92.4	96.1	96.5	98.3	96.7	100.0	101.4	102.4	104.9	106.1	107.0	108.7	—
492	Couriers and messengers.....	147.8	138.8	155.8	101.5	100.2	100.0	112.5	117.5	122.1	122.9	131.4	134.4	—
	<b>Information</b>													
5111	Newspaper, book, and directory publishers.....	104.8	96.6	96.0	93.4	92.7	100.0	103.8	104.0	106.1	104.3	102.6	105.8	—
5112	Software publishers.....	10.2	28.5	43.0	73.2	88.3	100.0	119.0	117.8	112.2	113.7	122.5	138.4	—
51213	Motion picture and video exhibition.....	90.4	109.2	104.3	99.8	99.0	100.0	99.5	102.0	107.2	101.8	100.7	104.8	—
515	Broadcasting, except internet.....	99.0	97.9	102.6	103.4	102.1	100.0	105.0	105.7	105.9	100.5	106.5	108.4	—
5151	Radio and television broadcasting.....	97.2	97.2	103.8	105.9	104.4	100.0	98.1	97.3	95.7	91.5	97.1	99.0	—
5152	Cable and other subscription programming.....	105.9	100.6	96.5	93.2	93.3	100.0	131.4	136.0	140.2	128.9	135.4	138.0	—
5171	Wired telecommunications carriers.....	56.1	65.3	71.4	87.2	96.5	100.0	104.8	113.2	119.2	120.1	129.0	134.7	—
5172	Wireless telecommunications carriers.....	79.4	72.1	75.0	90.2	102.0	100.0	97.6	131.4	142.8	190.3	218.9	247.7	—
5175	Cable and other program distribution.....	105.4	100.3	96.2	93.5	93.3	100.0	95.4	93.5	89.3	85.1	92.2	97.2	—
	<b>Finance and insurance</b>													
52211	Commercial banking.....	72.8	80.7	83.3	95.6	100.0	100.0	96.7	98.6	100.8	96.3	98.6	101.5	—
	<b>Real estate and rental leasing</b>													
532111	Passenger car rental.....	90.9	88.7	103.5	100.2	109.0	100.0	100.3	112.7	112.1	112.7	114.2	120.4	—
53212	Truck, trailer and RV rental and leasing.....	60.7	69.0	67.2	88.6	97.0	100.0	95.8	103.1	105.1	105.2	105.1	105.7	—
53223	Video tape and disc rental.....	71.5	92.9	99.6	115.7	101.2	100.0	114.6	133.0	140.6	137.8	135.8	154.0	—
	<b>Professional, scientific and technical services</b>													
541213	Tax preparation.....	89.9	91.9	105.4	96.9	92.6	100.0	112.2	110.5	101.3	91.2	115.9	114.9	—
54181	Advertising agencies.....	94.3	105.2	112.9	100.7	102.8	100.0	96.1	111.3	119.5	121.6	128.1	138.3	—
541921	Photography studios, portrait.....	104.8	107.7	108.2	118.7	102.0	100.0	106.3	101.3	101.6	104.1	103.3	113.2	—
	<b>Administrative and waste management</b>													
56151	Travel agencies.....	91.4	95.6	93.4	93.6	100.1	100.0	107.1	111.3	120.0	114.0	130.8	151.9	—
56172	Janitorial services.....	70.2	85.4	92.6	90.0	96.2	100.0	107.9	107.2	111.1	105.2	104.4	115.9	—
	<b>Health care and social assistance</b>													
62151	Medical and diagnostic laboratories.....	—	—	94.8	91.2	94.5	100.0	115.7	124.2	134.5	138.0	142.7	136.8	—
621511	Medical laboratories.....	—	—	95.3	91.4	94.7	100.0	108.6	115.8	125.1	127.7	126.3	117.0	—
621512	Diagnostic imaging centers.....	—	—	94.1	90.8	94.2	100.0	128.8	139.6	153.2	156.6	173.2	172.0	—
	<b>Accommodation and food services</b>													
7211	Traveler accommodations.....	83.8	80.8	90.7	97.9	99.7	100.0	100.3	106.6	113.0	109.4	113.2	115.6	—
722	Food services and drinking places.....	96.5	102.7	101.4	100.4	99.2	100.0	101.0	101.0	103.6	104.1	104.6	106.0	108.6
7221	Full-service restaurants.....	91.9	99.1	97.4	96.3	96.3	100.0	100.2	99.8	102.0	102.9	103.7	102.5	104.8
7222	Limited-service eating places.....	96.0	103.1	102.4	104.4	102.1	100.0	101.5	100.9	102.8	103.7	103.9	106.0	109.5
7223	Special food services.....	100.0	108.1	106.8	98.8	97.4	100.0	103.4	108.8	117.8	115.4	115.1	121.7	121.5
7224	Drinking places, alcoholic beverages.....	136.2	123.0	119.0	104.8	102.6	100.0	100.0	99.5	100.8	100.2	104.0	121.8	122.5
	<b>Other services (except public administration)</b>													
8111	Automotive repair and maintenance.....	85.9	90.6	89.4	102.4	99.1	100.0	104.7	106.5	108.5	109.0	103.5	104.3	—
81211	Hair, nail and skin care services.....	83.3	81.5	85.6	92.8	97.2	100.0	103.8	106.4	106.6	114.0	110.0	124.8	—
81221	Funeral homes and funeral services.....	100.2	93.1	104.2	100.7	97.0	100.0	107.3	103.9	94.9	91.8	93.1	95.5	—
8123	Drycleaning and laundry services.....	96.4	94.2	94.0	99.1	101.6	100.0	104.4	109.1	110.9	115.7	114.0	110.1	—
81292	Photofinishing.....	100.0	110.8	115.2	106.5	102.8	100.0	90.6	93.5	84.0	82.6	96.0	91.6	—

Note: Dash indicates data are not available.

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

Country	Annual average		2003				2004				2005
	2003	2004	I	II	III	IV	I	II	III	IV	I
United States.....	6.0	5.5	5.8	6.1	6.1	5.9	5.6	5.6	5.5	5.4	5.3
Canada.....	6.9	6.4	6.7	6.9	7.1	6.8	6.6	6.5	6.4	6.3	6.2
Australia.....	6.1	5.5	6.2	6.2	6.0	5.8	5.7	5.6	5.6	5.2	5.1
Japan.....	5.3	4.8	5.4	5.5	5.2	5.1	4.9	4.7	4.8	4.6	4.6
France.....	9.6	9.8	9.3	9.5	9.7	9.8	9.7	9.8	9.8	9.8	9.9
Germany.....	9.7	9.8	9.6	9.8	9.8	9.7	9.7	9.8	10.0	10.1	11.0
Italy.....	8.5	8.1	8.7	8.4	8.6	8.4	8.3	8.1	8.1	8.1	—
Sweden.....	5.8	6.6	5.3	5.5	5.8	6.3	6.7	6.8	6.6	6.4	6.3
United Kingdom.....	5.0	4.8	5.1	5.0	5.0	4.9	4.8	4.8	4.7	4.7	—

NOTE: Dash indicates data not available. Quarterly figures for Japan, France, Germany, Italy, and Sweden 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, 1960-2004* (Bureau of Labor Statistics, May 13, 2005), on the Internet at <http://www.bls.gov/fls/home.htm>.

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

### 53. Annual data: employment status of the working-age population, approximating U.S. concepts, 10 countries

[Numbers in thousands]

Employment status and country	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Civilian labor force</b>												
United States.....	129,200	131,056	132,304	133,943	136,297	137,673	139,368	142,583	143,734	144,863	146,510	147,401
Canada.....	14,233	14,336	14,439	14,604	14,863	15,115	15,389	15,632	15,892	16,367	16,729	16,956
Australia.....	8,613	8,770	8,995	9,115	9,204	9,339	9,414	9,590	9,752	9,907	10,092	10,244
Japan.....	65,470	65,780	65,990	66,450	67,200	67,240	67,090	66,990	66,860	66,240	66,010	65,760
France.....	24,490	24,676	24,743	24,985	25,109	25,434	25,764	26,078	26,354	26,686	26,870	—
Germany.....	39,102	39,074	38,980	39,142	39,415	39,754	39,375	39,301	39,456	39,499	39,591	39,698
Italy.....	22,771	22,592	22,574	22,674	22,749	23,000	23,172	23,357	23,520	23,728	24,021	24,065
Netherlands.....	7,014	7,152	7,208	7,301	7,536	7,617	7,848	8,149	8,338	8,285	8,353	8,457
Sweden.....	4,444	4,418	4,460	4,459	4,418	4,402	4,430	4,489	4,530	4,544	4,567	4,576
United Kingdom.....	28,094	28,124	28,135	28,243	28,406	28,478	28,782	28,957	29,090	29,340	29,562	29,748
<b>Participation rate<sup>1</sup></b>												
United States.....	66.3	66.6	66.6	66.8	67.1	67.1	67.1	67.1	66.8	66.6	66.2	66.0
Canada.....	65.5	65.1	64.8	64.6	64.9	65.3	65.7	65.8	65.9	66.7	67.3	67.3
Australia.....	63.5	63.9	64.5	64.6	64.3	64.3	64.0	64.4	64.4	64.4	64.6	64.7
Japan.....	63.3	63.1	62.9	63.0	63.2	62.8	62.4	62.0	61.6	60.8	60.3	60.0
France.....	55.4	55.6	55.4	55.7	55.6	55.9	56.3	56.6	56.9	57.2	57.4	—
Germany.....	57.8	57.4	57.1	57.1	57.3	57.7	56.9	56.7	56.7	56.5	56.4	—
Italy.....	48.3	47.6	47.3	47.3	47.3	47.6	47.9	48.1	48.2	48.5	49.1	49.1
Netherlands.....	57.9	58.6	58.8	59.2	60.8	61.1	62.6	64.5	65.6	64.7	64.9	65.5
Sweden.....	64.5	63.7	64.1	64.0	63.3	62.8	62.8	63.8	63.7	64.0	64.0	63.7
United Kingdom.....	62.6	62.4	62.4	62.4	62.5	62.5	62.8	62.9	62.7	62.9	63.0	63.0
<b>Employed</b>												
United States.....	120,259	123,060	124,900	126,708	129,558	131,463	133,488	136,891	136,933	136,485	137,736	139,252
Canada.....	12,694	12,960	13,185	13,309	13,607	13,946	14,314	14,676	14,866	15,221	15,579	15,864
Australia.....	7,699	7,942	8,256	8,364	8,444	8,618	8,762	8,989	9,091	9,271	9,481	9,677
Japan.....	63,820	63,860	63,900	64,200	64,900	64,450	63,920	63,790	63,460	62,650	62,510	62,630
France.....	21,714	21,750	21,956	22,039	22,169	22,597	23,053	23,693	24,128	24,293	24,293	—
Germany.....	35,989	35,756	35,780	35,637	35,508	36,061	36,042	36,236	36,346	36,061	35,754	35,796
Italy.....	20,543	20,171	20,030	20,120	20,165	20,366	20,613	20,969	21,356	21,665	21,973	22,105
Netherlands.....	6,572	6,664	6,730	6,858	7,163	7,321	7,595	7,912	8,130	8,059	8,035	8,061
Sweden.....	4,028	3,992	4,056	4,019	3,973	4,034	4,117	4,229	4,303	4,310	4,303	4,276
United Kingdom.....	25,165	25,691	25,696	25,945	26,418	26,691	27,056	27,373	27,604	27,817	28,079	28,334
<b>Employment-population ratio<sup>2</sup></b>												
United States.....	61.7	62.5	62.9	63.2	63.8	64.1	64.3	64.4	63.7	62.7	62.3	62.3
Canada.....	58.4	58.9	59.2	59.0	59.5	60.3	61.2	61.9	61.9	62.4	63.0	63.4
Australia.....	56.8	57.8	59.2	59.3	59.0	59.3	59.6	60.3	60.1	60.3	60.7	61.2
Japan.....	61.7	61.3	60.9	60.9	61.0	60.2	59.4	59.0	58.4	57.5	57.1	57.1
France.....	49.2	49.0	49.2	49.1	49.1	49.7	50.4	51.5	52.1	52.1	51.9	—
Germany.....	53.2	52.6	52.4	52.0	51.6	52.3	52.1	52.2	52.2	51.6	51.0	—
Italy.....	43.6	42.5	42.0	42.0	41.9	42.2	42.6	43.2	43.8	44.3	44.9	45.1
Netherlands.....	54.3	54.6	54.9	55.6	57.8	58.7	60.6	62.7	63.9	62.9	62.4	62.4
Sweden.....	58.5	57.6	58.3	57.7	56.9	57.6	58.4	60.1	60.5	60.7	60.3	59.5
United Kingdom.....	56.0	57.0	57.0	57.3	58.2	58.5	59.1	59.4	59.5	59.6	59.8	60.0
<b>Unemployed</b>												
United States.....	8,940	7,996	7,404	7,236	6,739	6,210	5,880	5,692	6,801	8,378	8,774	8,149
Canada.....	1,538	1,376	1,254	1,295	1,256	1,169	1,075	956	1,026	1,146	1,150	1,092
Australia.....	914	829	739	751	759	721	652	602	661	636	611	567
Japan.....	1,660	1,920	2,100	2,250	2,300	2,790	3,170	3,200	3,400	3,590	3,500	3,130
France.....	2,776	2,926	2,787	2,946	2,940	2,837	2,711	2,385	2,226	2,393	2,577	2,630
Germany.....	3,113	3,318	3,200	3,505	3,907	3,693	3,333	3,065	3,109	3,438	3,838	3,899
Italy.....	2,227	2,421	2,544	2,555	2,584	2,634	2,559	2,388	2,164	2,062	2,048	1,960
Netherlands.....	442	489	478	443	374	296	253	237	208	227	318	396
Sweden.....	416	426	404	440	445	368	313	260	227	234	264	300
United Kingdom.....	2,930	2,433	2,439	2,298	1,987	1,788	1,726	1,584	1,486	1,524	1,484	1,414
<b>Unemployment rate</b>												
United States.....	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5
Canada.....	10.8	9.6	8.7	8.9	8.4	7.7	7.0	6.1	6.5	7.0	6.9	6.4
Australia.....	10.6	9.4	8.2	8.2	8.3	7.7	6.9	6.3	6.8	6.4	6.1	5.5
Japan.....	2.5	2.9	3.2	3.4	3.4	4.1	4.7	4.8	5.1	5.4	5.3	4.8
France.....	11.3	11.9	11.3	11.8	11.7	11.2	10.5	9.1	8.4	9.0	9.6	9.8
Germany.....	8.0	8.5	8.2	9.0	9.9	9.3	8.5	7.8	7.9	8.7	9.7	9.8
Italy.....	9.8	10.7	11.3	11.3	11.4	11.5	11.0	10.2	9.2	8.7	8.5	8.1
Netherlands.....	6.3	6.8	6.6	6.1	5.0	3.9	3.2	2.9	2.5	2.7	3.8	4.7
Sweden.....	9.4	9.6	9.1	9.9	10.1	8.4	7.1	5.8	5.0	5.1	5.8	6.6
United Kingdom.....	10.4	8.7	8.7	8.1	7.0	6.3	6.0	5.5	5.1	5.2	5.0	4.8

<sup>1</sup> Labor force as a percent of the working-age population.

<sup>2</sup> Employment as a percent of the working-age population.

NOTE: Dash indicates data not available. 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, 1960–2004* (Bureau of Labor Statistics, May 13, 2005), on the Internet at

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

## 53. Annual data: employment status of the working-age population, approximating U.S. concepts, 10 countries

[Numbers in thousands]

Employment status and country	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Civilian labor force</b>												
United States.....	129,200	131,056	132,304	133,943	136,297	137,673	139,368	142,583	143,734	144,863	146,510	147,401
Canada.....	14,233	14,336	14,439	14,604	14,863	15,115	15,389	15,632	15,892	16,367	16,729	16,956
Australia.....	8,613	8,770	8,995	9,115	9,204	9,339	9,414	9,590	9,752	9,907	10,092	10,244
Japan.....	65,470	65,780	65,990	66,450	67,200	67,240	67,090	66,990	66,860	66,240	66,010	65,760
France.....	24,490	24,676	24,743	24,985	25,109	25,434	25,764	26,078	26,354	26,686	26,870	—
Germany.....	39,102	39,074	38,980	39,142	39,415	39,754	39,375	39,301	39,456	39,499	39,591	39,698
Italy.....	22,771	22,592	22,574	22,674	22,749	23,000	23,172	23,357	23,520	23,728	24,021	24,065
Netherlands.....	7,014	7,152	7,208	7,301	7,536	7,617	7,848	8,149	8,338	8,285	8,353	8,457
Sweden.....	4,444	4,418	4,460	4,459	4,418	4,402	4,430	4,489	4,530	4,544	4,567	4,576
United Kingdom.....	28,094	28,124	28,135	28,243	28,406	28,478	28,782	28,957	29,090	29,340	29,562	29,748
<b>Participation rate<sup>1</sup></b>												
United States.....	66.3	66.6	66.6	66.8	67.1	67.1	67.1	67.1	66.8	66.6	66.2	66.0
Canada.....	65.5	65.1	64.8	64.6	64.9	65.3	65.7	65.8	65.9	66.7	67.3	67.3
Australia.....	63.5	63.9	64.5	64.6	64.3	64.3	64.0	64.4	64.4	64.4	64.6	64.7
Japan.....	63.3	63.1	62.9	63.0	63.2	62.8	62.4	62.0	61.6	60.8	60.3	60.0
France.....	55.4	55.6	55.4	55.7	55.6	55.9	56.3	56.6	56.9	57.2	57.4	—
Germany.....	57.8	57.4	57.1	57.1	57.3	57.7	56.9	56.7	56.7	56.5	56.4	—
Italy.....	48.3	47.6	47.3	47.3	47.3	47.6	47.9	48.1	48.2	48.5	49.1	49.1
Netherlands.....	57.9	58.6	58.8	59.2	60.8	61.1	62.6	64.5	65.6	64.7	64.9	65.5
Sweden.....	64.5	63.7	64.1	64.0	63.3	62.8	62.8	63.8	63.7	64.0	64.0	63.7
United Kingdom.....	62.6	62.4	62.4	62.4	62.5	62.5	62.8	62.9	62.7	62.9	63.0	63.0
<b>Employed</b>												
United States.....	120,259	123,060	124,900	126,708	129,558	131,463	133,488	136,891	136,933	136,485	137,736	139,252
Canada.....	12,694	12,960	13,185	13,309	13,607	13,946	14,314	14,676	14,866	15,221	15,579	15,864
Australia.....	7,699	7,942	8,256	8,364	8,444	8,618	8,762	8,989	9,091	9,271	9,481	9,677
Japan.....	63,820	63,860	63,900	64,200	64,900	64,450	63,920	63,790	63,460	62,650	62,510	62,630
France.....	21,714	21,750	21,956	22,039	22,169	22,597	23,053	23,693	24,128	24,293	24,293	—
Germany.....	35,989	35,756	35,780	35,637	35,508	36,061	36,042	36,236	36,346	36,061	35,754	35,796
Italy.....	20,543	20,171	20,030	20,120	20,165	20,366	20,613	20,969	21,356	21,665	21,973	22,105
Netherlands.....	6,572	6,664	6,730	6,858	7,163	7,321	7,595	7,912	8,130	8,059	8,035	8,061
Sweden.....	4,028	3,992	4,056	4,019	3,973	4,034	4,117	4,229	4,303	4,310	4,303	4,276
United Kingdom.....	25,165	25,691	25,696	25,945	26,418	26,691	27,056	27,373	27,604	27,817	28,079	28,334
<b>Employment-population ratio<sup>2</sup></b>												
United States.....	61.7	62.5	62.9	63.2	63.8	64.1	64.3	64.4	63.7	62.7	62.3	62.3
Canada.....	58.4	58.9	59.2	59.0	59.5	60.3	61.2	61.9	61.9	62.4	63.0	63.4
Australia.....	56.8	57.8	59.2	59.3	59.0	59.3	59.6	60.3	60.1	60.3	60.7	61.2
Japan.....	61.7	61.3	60.9	60.9	61.0	60.2	59.4	59.0	58.4	57.5	57.1	57.1
France.....	49.2	49.0	49.2	49.1	49.1	49.7	50.4	51.5	52.1	52.1	51.9	—
Germany.....	53.2	52.6	52.4	52.0	51.6	52.3	52.1	52.2	52.2	51.6	51.0	—
Italy.....	43.6	42.5	42.0	42.0	41.9	42.2	42.6	43.2	43.8	44.3	44.9	45.1
Netherlands.....	54.3	54.6	54.9	55.6	57.8	58.7	60.6	62.7	63.9	62.9	62.4	62.4
Sweden.....	58.5	57.6	58.3	57.7	56.9	57.6	58.4	60.1	60.5	60.7	60.3	59.5
United Kingdom.....	56.0	57.0	57.0	57.3	58.2	58.5	59.1	59.4	59.5	59.6	59.8	60.0
<b>Unemployed</b>												
United States.....	8,940	7,996	7,404	7,236	6,739	6,210	5,880	5,692	6,801	8,378	8,774	8,149
Canada.....	1,538	1,376	1,254	1,295	1,256	1,169	1,075	956	1,026	1,146	1,150	1,092
Australia.....	914	829	739	751	759	721	652	602	661	636	611	567
Japan.....	1,660	1,920	2,100	2,250	2,300	2,790	3,170	3,200	3,400	3,590	3,500	3,130
France.....	2,776	2,926	2,787	2,946	2,940	2,837	2,711	2,385	2,226	2,393	2,577	2,630
Germany.....	3,113	3,318	3,200	3,505	3,907	3,693	3,333	3,065	3,109	3,438	3,838	3,899
Italy.....	2,227	2,421	2,544	2,555	2,584	2,634	2,559	2,388	2,164	2,062	2,048	1,960
Netherlands.....	442	489	478	443	374	296	253	237	208	227	318	396
Sweden.....	416	426	404	440	445	368	313	260	227	234	264	300
United Kingdom.....	2,930	2,433	2,439	2,298	1,987	1,788	1,726	1,584	1,486	1,524	1,484	1,414
<b>Unemployment rate</b>												
United States.....	6.9	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5
Canada.....	10.8	9.6	8.7	8.9	8.4	7.7	7.0	6.1	6.5	7.0	6.9	6.4
Australia.....	10.6	9.4	8.2	8.2	8.3	7.7	6.9	6.3	6.8	6.4	6.1	5.5
Japan.....	2.5	2.9	3.2	3.4	3.4	4.1	4.7	4.8	5.1	5.4	5.3	4.8
France.....	11.3	11.9	11.3	11.8	11.7	11.2	10.5	9.1	8.4	9.0	9.6	9.8
Germany.....	8.0	8.5	8.2	9.0	9.9	9.3	8.5	7.8	7.9	8.7	9.7	9.8
Italy.....	9.8	10.7	11.3	11.3	11.4	11.5	11.0	10.2	9.2	8.7	8.5	8.1
Netherlands.....	6.3	6.8	6.6	6.1	5.0	3.9	3.2	2.9	2.5	2.7	3.8	4.7
Sweden.....	9.4	9.6	9.1	9.9	10.1	8.4	7.1	5.8	5.0	5.1	5.8	6.6
United Kingdom.....	10.4	8.7	8.7	8.1	7.0	6.3	6.0	5.5	5.1	5.2	5.0	4.8

<sup>1</sup> Labor force as a percent of the working-age population.<sup>2</sup> Employment as a percent of the working-age population.

NOTE: Dash indicates data not available. 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, 1960–2004* (Bureau of Labor Statistics, May 13, 2005), on the Internet at<http://www.bls.gov/fls/home.htm>.

## 54. Annual indexes of manufacturing productivity and related measures, 15 economies

[1992 = 100]

Measure and economy	1960	1970	1980	1990	1991	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
<b>Output per hour</b>																
United States.....	—	0.0	70.5	96.9	97.9	102.1	107.3	113.8	117.0	121.3	126.5	132.8	143.5	145.2	160.0	171.0
Canada.....	37.8	54.9	72.9	93.4	95.3	105.8	110.8	112.4	109.7	113.5	115.5	122.1	129.3	127.0	130.5	132.1
Australia.....	—	—	69.5	91.6	96.4	106.1	104.9	105.8	113.6	115.2	118.5	119.9	128.0	132.4	136.2	140.7
Japan.....	13.9	37.7	63.6	94.4	99.0	101.7	103.3	111.0	116.1	121.0	121.2	126.7	135.9	135.9	139.9	146.2
Korea.....	—	—	—	81.5	91.6	108.5	118.2	129.3	142.3	160.4	178.8	198.9	215.8	214.3	235.2	256.4
Taiwan.....	—	—	47.6	88.8	96.5	102.8	106.7	115.1	123.1	129.3	135.9	143.4	151.0	160.8	170.9	177.2
Belgium.....	18.0	32.9	65.4	96.8	99.1	102.5	108.4	113.2	116.3	125.5	126.9	125.5	130.8	132.6	141.7	146.2
Denmark.....	25.2	46.3	83.2	98.4	100.3	100.2	112.6	112.5	109.8	118.0	117.4	123.1	126.6	127.2	131.3	136.9
France.....	19.9	39.0	61.6	93.9	97.0	101.0	108.9	114.4	114.7	121.7	127.9	133.0	142.5	148.0	155.1	158.0
Germany.....	29.2	52.0	77.2	99.0	98.3	101.8	109.6	112.3	114.7	120.4	122.0	121.4	127.0	127.8	131.0	134.4
Italy.....	24.6	46.2	78.6	96.6	96.1	101.2	104.8	107.9	108.3	110.3	110.8	110.6	113.5	114.0	112.1	110.9
Netherlands.....	18.8	38.5	69.1	98.7	99.0	102.0	113.1	117.3	119.3	121.4	124.1	127.0	132.7	132.5	135.4	—
Norway.....	37.6	59.1	77.9	98.1	98.2	99.6	99.6	100.7	102.5	102.0	99.9	103.6	106.6	109.8	111.7	113.5
Sweden.....	27.3	52.2	73.1	94.6	95.5	107.3	117.8	124.5	129.5	141.0	149.5	162.7	175.5	170.3	185.6	196.5
United Kingdom.....	30.0	43.2	54.3	89.2	93.9	103.8	108.0	106.2	105.4	106.9	108.4	113.6	121.0	125.1	127.7	134.8
<b>Output</b>																
United States.....	—	—	75.8	101.6	98.3	103.5	111.1	118.4	121.3	127.9	133.1	138.9	147.6	139.6	142.9	145.4
Canada.....	33.4	58.9	83.6	106.0	99.0	105.9	114.1	119.6	119.6	127.7	133.9	144.9	159.2	153.6	158.0	157.3
Australia.....	—	—	89.8	104.1	100.7	103.8	109.1	108.7	112.6	115.1	118.6	118.3	123.8	123.8	128.7	130.2
Japan.....	10.8	39.4	60.8	97.1	102.0	96.3	94.9	98.9	103.0	106.5	100.2	101.9	109.2	105.5	103.4	106.7
Korea.....	—	7.0	29.9	86.7	95.0	105.4	116.8	129.9	138.3	145.0	133.5	162.6	190.2	194.3	209.1	219.1
Taiwan.....	—	12.7	44.0	90.0	96.1	102.4	108.5	114.9	120.3	128.3	132.6	141.5	151.8	143.1	152.1	160.9
Belgium.....	30.7	57.6	78.2	101.0	100.7	97.0	101.4	104.2	105.9	112.7	114.4	114.4	119.9	120.4	121.6	120.9
Denmark.....	42.0	72.7	94.3	101.7	100.7	97.0	107.3	112.6	107.7	115.9	116.7	117.9	121.9	121.6	120.8	121.4
France.....	27.9	57.7	81.6	99.1	99.8	95.7	100.3	104.9	104.6	109.7	115.0	118.7	124.3	128.0	129.1	128.5
Germany.....	41.5	70.9	85.3	99.1	102.3	92.4	95.1	95.2	92.5	95.7	97.7	95.8	100.1	99.9	99.6	99.8
Italy.....	23.0	48.1	84.4	99.4	99.3	96.5	102.4	107.2	105.4	108.8	110.7	110.3	113.6	113.0	111.7	110.2
Netherlands.....	31.9	59.8	76.9	99.0	99.8	97.7	104.5	108.2	108.9	111.6	114.9	117.6	122.8	121.9	121.0	117.6
Norway.....	57.7	91.0	104.9	101.4	99.0	101.7	104.6	107.3	110.3	114.2	113.7	113.6	112.8	112.3	111.5	107.3
Sweden.....	45.9	80.7	90.7	110.1	104.1	101.9	117.0	131.9	136.4	146.5	158.3	172.5	188.3	183.1	190.6	194.4
United Kingdom.....	67.5	90.2	87.2	105.3	100.1	101.5	106.2	107.8	108.6	110.7	111.3	112.1	115.0	113.4	109.9	110.3
<b>Total hours</b>																
United States.....	92.1	104.4	107.5	104.8	100.4	101.4	103.6	104.0	103.6	105.4	105.2	104.6	102.9	96.2	89.3	85.0
Canada.....	88.3	107.1	114.6	113.5	103.9	100.1	103.0	106.4	109.0	112.4	115.9	118.7	123.1	120.9	121.1	119.1
Australia.....	—	—	129.2	113.6	104.4	97.8	103.9	102.8	99.1	100.0	100.1	98.7	96.7	93.5	94.5	92.5
Japan.....	77.8	104.3	95.5	102.9	103.1	94.7	91.9	89.1	88.7	88.0	82.7	80.4	80.3	77.7	74.0	73.0
Korea.....	—	—	—	106.5	103.7	97.1	98.8	100.4	97.2	90.4	74.7	81.8	88.1	90.7	88.9	85.4
Taiwan.....	—	—	92.4	101.4	99.6	99.6	101.7	99.8	97.7	99.2	97.6	98.7	100.5	89.0	89.0	90.8
Belgium.....	170.7	174.7	119.7	104.3	101.5	94.7	93.6	92.0	91.0	89.8	90.2	91.2	91.7	90.8	85.8	82.7
Denmark.....	166.7	157.1	113.4	103.3	100.5	96.7	95.2	100.1	98.1	98.2	99.4	95.8	96.3	95.6	92.0	88.7
France.....	140.3	147.8	132.5	105.6	102.9	94.7	92.1	91.7	91.2	90.2	89.9	89.2	87.2	86.5	83.2	81.3
Germany.....	142.3	136.3	110.5	100.1	104.1	90.8	86.8	84.8	80.6	79.5	80.1	78.9	78.8	78.2	76.1	74.3
Italy.....	93.5	104.0	107.4	102.9	103.3	95.4	97.7	99.4	97.3	98.6	99.9	99.8	100.1	99.1	99.7	99.3
Netherlands.....	169.8	155.5	111.2	100.3	100.8	95.8	92.4	92.3	91.2	91.9	92.6	92.6	92.5	92.0	89.4	—
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	105.9	102.3	99.8	94.5
Sweden.....	168.3	154.7	124.0	116.4	109.0	94.9	99.4	105.9	105.3	103.9	105.9	106.0	107.3	107.5	102.7	98.9
United Kingdom.....	224.6	208.8	160.5	118.1	106.6	97.7	98.4	101.5	103.1	103.5	102.7	98.7	95.0	90.7	86.0	81.9
<b>Hourly compensation (national currency basis)</b>																
United States.....	14.9	23.7	55.6	90.8	95.6	102.7	105.6	107.9	109.4	111.5	117.4	122.0	133.2	136.3	145.4	157.8
Canada.....	10.0	17.1	47.5	88.3	95.0	102.0	103.7	106.0	107.0	109.3	111.7	115.8	119.6	123.7	126.8	131.4
Australia.....	—	—	—	86.3	94.0	105.9	104.3	113.2	122.8	124.6	128.2	133.0	140.0	149.5	154.7	—
Japan.....	4.3	16.4	58.6	90.6	96.5	102.7	104.7	108.3	109.1	112.6	115.4	114.8	113.7	114.6	122.8	123.8
Korea.....	—	—	—	68.6	86.2	114.3	129.8	158.3	184.3	200.3	218.2	219.4	234.2	241.7	266.1	290.9
Taiwan.....	—	—	29.6	85.2	93.5	105.9	111.1	120.2	128.2	132.4	140.3	144.3	146.6	150.0	145.8	146.7
Belgium.....	5.4	13.7	52.5	90.1	97.3	104.8	106.1	109.2	111.1	115.2	117.0	118.5	120.6	127.2	136.5	—
Denmark.....	3.9	11.1	45.1	93.5	97.9	102.4	106.0	108.1	112.8	116.6	119.6	127.3	130.2	136.5	143.2	150.0
France.....	4.3	10.5	41.2	90.9	96.4	103.1	106.5	110.4	112.2	111.8	112.7	116.6	122.8	128.3	135.2	139.1
Germany.....	8.1	20.7	53.6	89.4	91.5	106.4	111.8	117.6	123.3	125.7	127.6	130.6	137.4	142.0	145.5	148.9
Italy.....	1.8	5.3	30.4	87.6	94.2	105.7	106.8	111.3	119.0	123.0	122.2	124.2	127.8	132.5	135.7	140.0
Netherlands.....	6.2	19.4	60.5	89.8	94.8	104.5	109.0	112.1	114.4	117.2	122.0	126.0	132.0	138.2	147.3	—
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	140.5	148.9	157.9	164.6
Sweden.....	4.1	10.7	37.3	87.8	95.5	97.4	99.8	106.8	115.2	121.0	125.6	130.3	136.8	143.8	148.8	154.3
United Kingdom.....	2.9	6.1	32.0	82.9	93.8	104.5	107.3	108.8	111.4	115.7	123.0	129.9	137.6	144.3	152.2	160.3

See notes at end of table.

55. Occupational injury and illness rates by industry,<sup>1</sup> United States

Industry and type of case <sup>2</sup>	Incidence rates per 100 full-time workers <sup>3</sup>												
	1989 <sup>1</sup>	1990	1991	1992	1993 <sup>4</sup>	1994 <sup>4</sup>	1995 <sup>4</sup>	1996 <sup>4</sup>	1997 <sup>4</sup>	1998 <sup>4</sup>	1999 <sup>4</sup>	2000 <sup>4</sup>	2001 <sup>4</sup>
<b>PRIVATE SECTOR<sup>5</sup></b>													
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	5.7
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	2.8
Lost workdays.....	78.7	84.0	86.5	93.8	-	-	-	-	-	-	-	-	-
<b>Agriculture, forestry, and fishing<sup>5</sup></b>													
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	7.3
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	3.6
Lost workdays.....	100.9	112.2	108.3	126.9	-	-	-	-	-	-	-	-	-
<b>Mining</b>													
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	4.0
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	2.4
Lost workdays.....	137.2	119.5	129.6	204.7	-	-	-	-	-	-	-	-	-
<b>Construction</b>													
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	7.9
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	4.0
Lost workdays.....	143.3	147.9	148.1	161.9	-	-	-	-	-	-	-	-	-
<b>General building contractors:</b>													
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	6.9
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	3.5
Lost workdays.....	137.3	137.6	132.0	142.7	-	-	-	-	-	-	-	-	-
<b>Heavy construction, except building:</b>													
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	7.8
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	4.0
Lost workdays.....	147.1	144.6	160.1	165.8	-	-	-	-	-	-	-	-	-
<b>Special trades contractors:</b>													
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	8.2
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	4.1
Lost workdays.....	144.9	153.1	151.3	168.3	-	-	-	-	-	-	-	-	-
<b>Manufacturing</b>													
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	8.1
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	4.1
Lost workdays.....	113.0	120.7	121.5	124.6	-	-	-	-	-	-	-	-	-
<b>Durable goods:</b>													
Total cases .....	14.1	14.2	13.6	13.4	13.1	13.5	12.8	11.6	11.3	10.7	10.1	-	8.8
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	-	4.3
Lost workdays.....	116.5	123.3	122.9	126.7	-	-	-	-	-	-	-	-	-
<b>Lumber and wood products:</b>													
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	10.6
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	5.5
Lost workdays.....	177.5	172.5	172.0	165.8	-	-	-	-	-	-	-	-	-
<b>Furniture and fixtures:</b>													
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	11.0
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	5.7
Lost workdays.....	-	-	-	128.4	-	-	-	-	-	-	-	-	-
<b>Stone, clay, and glass products:</b>													
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	10.1
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	5.1
Lost workdays.....	149.8	160.5	156.0	152.2	-	-	-	-	-	-	-	-	-
<b>Primary metal industries:</b>													
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	10.7
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	5.3
Lost workdays.....	168.3	180.2	169.1	175.5	-	-	-	-	-	-	-	-	11.1
<b>Fabricated metal products:</b>													
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	11.1
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	5.3
Lost workdays.....	147.6	155.7	146.6	144.0	-	-	-	-	-	-	-	-	-
<b>Industrial machinery and equipment:</b>													
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	11.0
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	6.0
Lost workdays.....	86.8	88.9	86.6	87.7	-	-	-	-	-	-	-	-	-
<b>Electronic and other electrical equipment:</b>													
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	5.0
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	2.5
Lost workdays.....	77.5	79.4	83.0	81.2	-	-	-	-	-	-	-	-	-
<b>Transportation equipment:</b>													
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	12.6
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	6.0
Lost workdays.....	138.6	153.7	166.1	186.6	-	-	-	-	-	-	-	-	-
<b>Instruments and related products:</b>													
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	4.0
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	2.0
Lost workdays.....	55.4	57.8	64.4	65.3	-	-	-	-	-	-	-	-	-
<b>Miscellaneous manufacturing industries:</b>													
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	6.4
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	3.2
Lost workdays.....	97.6	113.1	104.0	108.2	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

55. Continued—Occupational injury and illness rates by industry,<sup>1</sup> United States

Industry and type of case <sup>2</sup>	Incidence rates per 100 workers <sup>3</sup>												
	1989 <sup>1</sup>	1990	1991	1992	1993 <sup>4</sup>	1994 <sup>4</sup>	1995 <sup>4</sup>	1996 <sup>4</sup>	1997 <sup>4</sup>	1998 <sup>4</sup>	1999 <sup>4</sup>	2000 <sup>4</sup>	2001 <sup>4</sup>
<b>Nondurable goods:</b>													
Total cases .....	11.6	11.7	11.5	11.3	10.7	10.5	9.9	9.2	8.8	8.2	7.8	7.8	6.8
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	4.2	3.8
Lost workdays.....	107.8	116.9	119.7	121.8	-	-	-	-	-	-	-	-	-
<b>Food and kindred products:</b>													
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	10.9
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	6.3
Lost workdays.....	174.7	202.6	207.2	211.9	-	-	-	-	-	-	-	-	-
<b>Tobacco products:</b>													
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	6.7
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	4.2
Lost workdays.....	64.2	62.3	52.0	42.9	-	-	-	-	-	-	-	-	-
<b>Textile mill products:</b>													
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	5.2
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	2.7
Lost workdays.....	81.4	85.1	88.3	87.1	-	-	-	-	-	-	-	-	-
<b>Apparel and other textile products:</b>													
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	5.0
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	2.4
Lost workdays.....	80.5	92.1	99.9	104.6	-	-	-	-	-	-	-	-	-
<b>Paper and allied products:</b>													
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	6.0
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	3.2
Lost workdays.....	132.9	124.8	122.7	125.9	-	-	-	-	-	-	-	-	-
<b>Printing and publishing:</b>													
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	4.6
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	2.4
Lost workdays.....	63.8	69.8	74.5	74.8	-	-	-	-	-	-	-	-	-
<b>Chemicals and allied products:</b>													
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	4.0
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	2.1
Lost workdays.....	63.4	61.6	62.4	64.2	-	-	-	-	-	-	-	-	-
<b>Petroleum and coal products:</b>													
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	2.9
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	1.4
Lost workdays.....	68.1	77.3	68.2	71.2	-	-	-	-	-	-	-	-	-
<b>Rubber and miscellaneous plastics products:</b>													
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	8.7
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	4.8
Lost workdays.....	147.2	151.3	150.9	153.3	-	-	-	-	-	-	-	-	-
<b>Leather and leather products:</b>													
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	8.7
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	4.4
Lost workdays.....	130.4	152.3	140.8	128.5	-	-	-	-	-	-	-	-	-
<b>Transportation and public utilities</b>													
Total cases .....	9.2	9.6	9.3	9.1	9.5	9.3	9.1	8.7	8.2	7.3	7.3	6.9	6.9
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	4.3
Lost workdays.....	121.5	134.1	140.0	144.0	-	-	-	-	-	-	-	-	-
<b>Wholesale and retail trade</b>													
Total cases .....	8.0	7.9	7.6	8.4	8.1	7.9	7.5	6.8	6.7	6.5	6.1	5.9	6.6
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	2.7	2.5
Lost workdays.....	63.5	65.6	72.0	80.1	-	-	-	-	-	-	-	-	-
<b>Wholesale trade:</b>													
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	5.3
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	3.1	2.8
Lost workdays.....	71.9	71.5	79.2	82.4	-	-	-	-	-	-	-	-	-
<b>Retail trade:</b>													
Total cases .....	8.1	8.1	7.7	8.7	8.2	7.9	7.5	6.9	6.8	6.5	6.1	5.9	5.7
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	2.5	2.4
Lost workdays.....	60.0	63.2	69.1	79.2	-	-	-	-	-	-	-	-	-
<b>Finance, insurance, and real estate</b>													
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	1.8
Lost workday cases.....	.9	1.1	1.1	1.2	1.2	1.1	1.0	.9	.9	.5	.8	.8	.7
Lost workdays.....	17.6	27.3	24.1	32.9	-	-	-	-	-	-	-	-	-
<b>Services</b>													
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	4.6
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	2.2
Lost workdays.....	51.2	56.4	60.0	68.6	-	-	-	-	-	-	-	-	-

<sup>1</sup> Data for 1989 and subsequent years are based on the *Standard Industrial Classification Manual*, 1987 Edition. For this reason, they are not strictly comparable with data for the years 1985-88, which were based on the *Standard Industrial Classification Manual*, 1972 Edition, 1977 Supplement.

<sup>2</sup> 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.

<sup>3</sup> The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as (NEH) 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).

<sup>4</sup> 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.

<sup>5</sup> Excludes farms with fewer than 11 employees since 1976.

NOTE: Dash indicates data not available.

## Preretirement Distributions: Can You Take Them with You?

by [William J. Wiatrowski](#)

Bureau of Labor Statistics

*Originally Posted: October 24, 2005*<

*Editor's note: This is the second of two companion articles, the first of which was published last month in Compensation and Working Conditions Online. The earlier article, entitled "Retirement Plan Design and the Mobile Workforce," addressed plan design issues and their effect on employees who work for short periods for many employers. The present article looks at what those employees can do regarding their retirement benefits after they have switched employers.*

*Workers may accumulate retirement benefits from several employers over a lifetime; complicated rules and choices make it difficult to ensure that such workers have adequate income when they reach retirement age.*

Only 31 percent of workers in 2004 had been with their current employer 10 years earlier.<sup>1</sup> Among those who left jobs with retirement coverage, only 35 percent chose to transfer benefits directly to another retirement account. The largest percentage of those receiving a lump sum from the retirement plan of a prior employer chose to use the funds for current consumption.<sup>2</sup>

These data suggest that a large number of U.S. workers face a decision regarding retirement benefits from a former employer at some point in their careers. They also suggest that many of these workers are not putting those benefits toward their future retirement. When leaving an employer that provided retirement income benefits, former employees generally receive a *preretirement distribution of benefits*, giving employees access and control of their retirement assets prior to retirement age. As with many facets of retirement benefits, there are competing trends and rules associated with such distributions. There may be tax consequences, which may differ based on the type of plan or how the plan assets are distributed.

This article explores the options available to employees who receive preretirement distributions. For background, it includes some information on employee tenure and mobility. Data on employment and retirement income trends from the Bureau of Labor Statistics form the basis for much of the analysis. The article discusses how employees who have changed employers have chosen to use their preretirement distributions and what effect these choices have on the adequacy of future retirement benefits. It concludes with a brief discussion of the aging baby boomers, who will soon be faced with these choices.

### Employee Tenure

A few facts can help to define today's "mobile workforce":

- Data from surveys of individuals indicate that in January 2004 workers had been with their current employer for a median of 4 years.
- Among workers aged 25 and over, only 31 percent had been with their current employer for 10 or more years.
- These and other data suggest a lot of job "churning" exists in today's labor market; over the past few years, nearly 50 million hires and 50 million separations have occurred in any 12-month period.<sup>3</sup>

Short job tenure can impact employer-provided retirement benefits in a number of ways. First, many retirement income plans impose eligibility requirements; new employees are not allowed to participate in the plan until they have been working with the employer for a period of time, typically 1 year.<sup>4</sup> Second, plans often include a vesting requirement, which is the amount of service an employee must complete before he or she obtains a nonforfeitable right to the benefits of the plan. Lastly, tenure affects the amount of retirement benefit, either because the benefit formula incorporates years of service or because more years of contributions have accumulated. These issues are largely the same for both [defined benefit plans](#) (which specify benefits available to employees at retirement, and require employers to provide sufficient funds to pay these benefits) and [defined contribution plans](#) (which specify contributions placed in individual employee accounts and identify retirement benefits as the accumulated contributions and earnings in the account). The earlier article covered these features in more

detail; the present article looks at the choices and consequences available once an employee has chosen to leave his or her employer.

## Employee Choices

Employees who leave their employer prior to retirement age typically face one or more of the following consequences:

- Forfeit benefits
- Receive benefits
  - Take the benefits in a lump sum
  - Transfer them to a personal account
  - Transfer them to the plan of a new employer
- Leave benefits with the former employer until some future time.

Which of these consequences actually occurs may depend upon the type of plan, the rules of the plan, and the choices of the employee. Also, as discussed in the paragraphs that follow, these choices may not be mutually exclusive. In some cases, individuals may make one choice only to make another choice subsequently, or they may make one choice for some part of their account and another choice for the remainder.

**Forfeit benefits.** For those who are not yet vested, benefits from employer funds are forfeited. Some plans have partial vesting features, meaning that a portion of the accumulated benefit will be available to the former employee, calculated on the basis of length of service. The remainder is forfeited. Any benefits attributed to employee funds, such as employee contributions to a 401(k) plan, are never forfeited; they may be received by the employee or transferred to another account.

**Receive benefits.** If the employee is entitled to a benefit, the first thing that must be done is to determine the value of that benefit. In the case of a traditional defined benefit plan, the present value of vested benefits is computed. The present value is the amount the employer must have in the plan today, which is based on certain interest rate and life expectancy assumptions, to pay the separated employee's retirement benefits when such benefits are scheduled to begin.<sup>5</sup> In newer types of defined benefit plans, known as "hybrid" plans, the present value is computed on a regular basis and shared with the employee. Thus, no additional calculation is needed.<sup>6</sup> Similarly, there is no need to calculate the present value of a defined contribution plan; the value of vested benefits in the participant's account is the amount to be distributed.

What follows is an example of a present-value calculation for a person retiring at age 55:

*Employee's age: 55*

*Life expectancy (at age 55): 83*

*Annual benefit: \$20,000*

*Interest rate: 5 percent*

*Present value of future stream of payments: \$297,962*

If the employee were to receive \$20,000 per year from age 55 to age 83, the total benefit would be \$560,000. To pay that benefit, the employer must have accumulated nearly \$300,000. That amount is available to the employee who leaves the employer.<sup>7</sup>

By law, employers may distribute benefits to the former employee if the present value is less than \$5,000. In such a case, the employee does not have the option to leave the benefits in the employer plan. This is designed to reduce the administrative burden of maintaining former employees with small benefits within the plan. If the present value is \$5,000 or more, the employer must provide the separated employee with the option of leaving the benefit in the employer plan. With the consent of both the employer and employee, benefits of any amount may be distributed to the employee.

**Take the benefits in a lump sum.** Because accumulated benefits in employer retirement plans are intended for retirement purposes, and both employers and employees may receive tax advantages when funds are placed in a retirement plan, a distribution of benefits in cash can trigger certain Federal (and possibly State and local) income tax consequences. Preretirement distributions to employees are taxable in the year of receipt and may be subject to a 10-percent tax penalty. By law, plan sponsors must withhold 20 percent of the distribution and deposit such funds for Federal tax purposes. When individuals complete their Federal income tax returns for the year of distribution, the entire benefit is considered income, the 20 percent withheld from the payment is considered income tax paid, and the 10-percent penalty may be assessed. Depending on the recipient's tax bracket, the tax withheld may or may not cover the tax liability.

Individuals who receive a lump sum distribution from a prior employer plan may still transfer those funds to another retirement account. By law, the individual has a limited time from receipt of the distribution to deposit it into another retirement account. At the individual's option, only part of the benefit may be deposited in a retirement account. Because of the 20 percent withheld by the employer for income tax purposes, the decision to receive a lump sum and subsequently deposit some or all of it into a retirement account can be messy. First, the individual only has 80 percent of the funds. If only 80 percent is deposited, the other 20 percent is considered a preretirement distribution and is subject to income taxes and penalties. If the individual deposits 100 percent of the distribution (by using personal funds to make up the difference), there are no tax consequences but extra income tax has been withheld unnecessarily. This overpayment is reconciled upon completion of income tax returns for the year of distribution.

**Transfer the benefit to a personal account.** Rather than receive a cash payment and deal with the related tax complexities, employees interested in transferring benefits to another retirement account may have such a transfer handled by the former employer. To encourage such transfers, a 2001 law establishes an automatic process for such distributions.<sup>8</sup> Under this new provision, the standard method of distribution for accounts valued at over \$1,000 is to transfer all vested funds into an Individual Retirement Account (IRA).<sup>9</sup> Employees leaving their job will still have the option of handling the distribution of their account in different ways—including receiving the funds with the appropriate tax withholding—but absent any other choice, the funds will be transferred automatically into an IRA.

**Transfer benefits to the plan of a new employer.** Employer plans can help to facilitate the transfer of preretirement distributions between one employer and another by accepting such distributions into their plan. In 2000, 72 percent of workers covered by a defined contribution plan were in plans that accepted contributions from other plans. In general, defined benefit plans do not accept distributions from other plans, largely due to administrative difficulties in coordinating benefits from two plans. Coordination of defined benefit plans does occur in limited cases, such as certain multiemployer plans and plans operated by employers who have a certain relationship, such as that resulting from a merger.<sup>10</sup>

**Leave benefits with the former employer until some future time.** What is the difference between leaving benefits in an employer plan and transferring them to an IRA? In general, the individual is likely to have fewer investment options in an employer plan than would exist with an IRA, although there may be certain advantages to the former, such as lower brokerage costs. Other differences that may affect the decision to leave funds with a former employer or transfer them to an IRA include future access to benefits, methods of distribution, and the consequences if the employee becomes disabled or dies.

The decision to maintain funds in a defined benefit plan or to deposit them in an IRA may be affected by additional factors. First, the defined benefit plan may restrict the time period when funds may next be distributed. A vested employee who chooses to leave benefits in the plan may not have another opportunity to access those benefits until reaching the plan's early or normal retirement age. Second, the availability of benefits at the plan's early retirement age—available subject to a reduction to account for the longer receipt of benefits—may be subject to certain additional reductions.<sup>11</sup>

Finally, an advantage of maintaining benefits in an employer plan—either a defined benefit or a defined contribution plan—may be the availability of distribution options when benefits are received. This is most likely to occur in a defined benefit plan, but may also occur in a defined contribution plan. The option that may be most advantageous to a deferred vested annuitant is a survivor income benefit that provides income protection for a spouse (or other survivor) in the event that the annuitant dies.<sup>12</sup>

## Maintaining Adequate Retirement Income

Several studies have looked at what former employees actually do with preretirement distributions. These studies generally try to categorize distributions into those that are maintained for retirement and those that are used for personal consumption. An intermediate category can also exist, where distributions are used to pay off debt, invest in nonretirement assets, or take care of pressing financial needs (such as health care needs or income during periods of unemployment).

A 2002 study by James H. Moore, Jr., and Leslie A. Muller found that the largest percentage of individuals receiving preretirement distributions used the funds for personal consumption.<sup>13</sup> (See table.) The study also found that older individuals tend to use preretirement distributions for retirement purposes more often than their younger counterparts. In addition, the larger the distribution, the more likely it is to be used for retirement.

Given current trends in the U.S. retirement system,<sup>14</sup> a person would be better off in retirement if even the smallest preretirement distributions were to become part of his or her total retirement income plan, just as Social Security benefits account for a person's entire working life.<sup>15</sup> Thanks largely to the "miracle of compound interest," small distributions can grow and make a substantial contribution to an individual's overall retirement income. (See chart.)

## An Issue For The Future

The oldest members of the post-World War II "baby boom" generation will turn 60 in 2006, and retirement is certainly on the mind of that population cohort. Because of the aging of the population, the availability of adequate retirement income will continue to be a policy concern for years to come. Some recent changes to retirement policy, such as the automatic transfer of lump sum benefits to an IRA, acknowledge the need for individuals to accumulate a lifetime of retirement income and help them meet that need. Job tenure patterns suggest that younger generations are more likely to work for multiple employers over their working lives and thus need continued encouragement to save for their retirement.

William J. Wiatrowski

Economist, Office of Safety, Health, and Working Conditions, Bureau of Labor Statistics.

Telephone: (202) 691-6305; E-mail: [Wiatrowski.William@bls.gov](mailto:Wiatrowski.William@bls.gov)

## Notes

1 See [Employee Tenure in 2004](#), USDL 04-1829 (U.S. Department of Labor), September 21, 2004, table 2; on the Internet at <http://www.bls.gov/news.release/pdf/tenure.pdf>. The data in this news release are from the [Current Population Survey \(CPS\)](#); the cited figures are for wage and salary workers aged 25 years and over.

2 Studies on the use of lump sum payments received prior to retirement indicate a wide variation in the use of the funds, depending on the age of the recipient and the amount of funds. There are also differences in the way that studies classify the use of funds. For more information on this issue, see James H. Moore, Jr., and Leslie A. Muller, "[An Analysis of Lump-Sum Pension Distribution Recipients](#)," *Monthly Labor Review*, May 2002, pp. 29-46; on the Internet at <http://www.bls.gov/opub/mlr/2002/05/art3full.pdf>.

3 These data are from the BLS [Job Openings and Labor Turnover Survey](#). For more information on this program, see Kelly A. Clark, "[The Job Opening and Labor Turnover Survey: what initial data show](#)," *Monthly Labor Review*, November 2004, pp. 14-23., on the Internet at <http://www.bls.gov/opub/mlr/2004/11/art2full.pdf>.

4 Unless otherwise indicated, all data on benefit provisions are from the BLS [National Compensation Survey](#). See [National Compensation Survey: Employee Benefits in Private Industry in the United States, 2002-2003](#), Bulletin 2573 (Bureau of Labor Statistics, January 2005); available on the Internet at <http://www.bls.gov/ncs/ebs/sp/ebb10020.pdf>.

5 The present value of a benefit payment--both preretirement and retirement--is determined in part by the interest rate used in the calculation. In the past, many employer plans used the interest rate of 30-year Treasury bonds; these bonds were discontinued in 2001, leading to increased debate over the relationship of interest rates to retirement plans.

6 The increased prevalence of nontraditional types of defined benefit plans, specifically cash balance plans and pension equity plans, is designed in part to make it easier for participants to understand the value of their benefit at any time. Such plans maintain an "account" balance for each participant; in essence, the plan is maintaining a present value calculation at all times. In 2002, 18 percent of defined benefit plan participants were in nontraditional plans, almost all of which were cash balance plans. For more information on hybrid defined benefit plans, see Kenneth R. Elliott and James H. Moore, Jr. "Cash Balance Pension Plans: The New Wave," *Compensation and Working Conditions*, Summer 2000, pp. 3-11; and L. Bernard Green, "What is a Pension Equity Plan?," *Compensation and Working Conditions Online*, October 29, 2003.

7 The calculation assumes a single annual payment paid at the end of each year. Changes to the number of payments per year and the timing of those payments will affect the present value calculation.

8 See Public Law 107-16, Economic Growth and Tax Relief Reconciliation Act of 2001.

9 This applies to both the present value of defined benefit plans and to the accumulated value of a defined contribution account.

10 For more information on defined benefit plan portability, see Ann C. Foster, "Portability of pension benefits among jobs," *Monthly Labor Review*, July 1994, pp. 45-50; on the Internet at <http://www.bls.gov/opub/mlr/1994/07/art6full.pdf>.

11 In most cases where deferred vested benefits are available at early retirement age, the reduction is the same as for those still working for the employer. But for about one in four participants in traditional defined benefit plans that offer deferred vested benefits at early retirement, the reduction is less generous (a greater reduction). In such cases, employers are granting a subsidy to those who remain at the job until early retirement but choose not to provide such a subsidy to those who have left the employer.

12 For more information on retirement plan distribution options, see Allan P. Blostin, "Distribution of Retirement Income Benefits," *Monthly Labor Review*, April 2003, pp. 3-9; on the Internet at <http://www.bls.gov/opub/mlr/2003/04/art1full.pdf>.

13 See James H. Moore, Jr., and Leslie A. Muller, "An Analysis of Lump-Sum Pension Distribution Recipients," *Monthly Labor Review*, May 2002, pp. 29-46; on the Internet at <http://www.bls.gov/opub/mlr/2002/05/art3full.pdf>. Recent changes to the law that make transfers to an IRA the default method of distribution may lead to changes in this trend in the future.

14 Consider, for example, the Savings Are Vital to Everyone's Retirement (SAVER) Act of 1997 (Public Law 105-92, November 19, 1997), which directs the Secretary of Labor to "maintain an ongoing program of outreach to the public designed to effectively promote retirement income savings among the public."

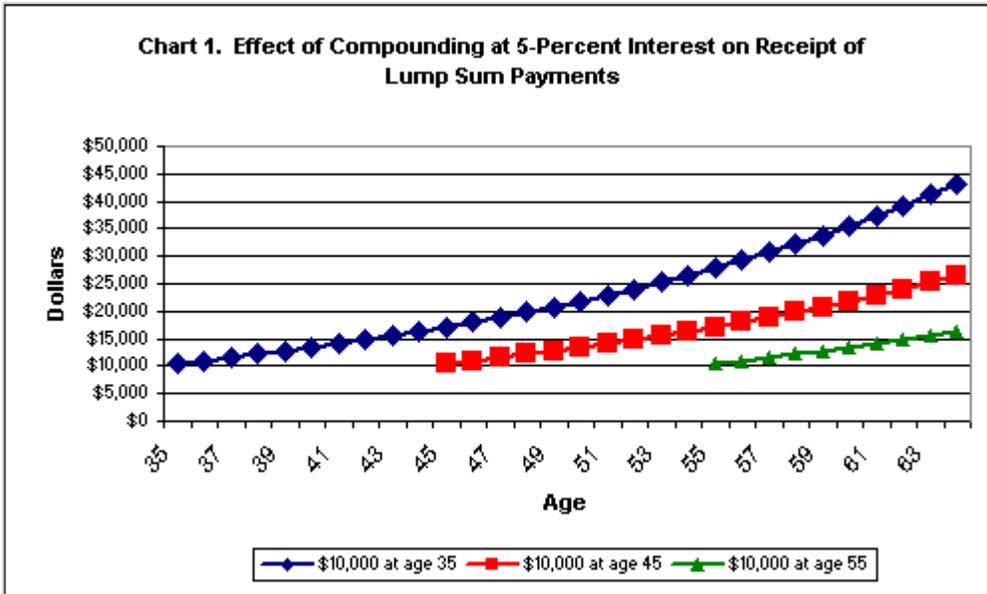
15 In contrast to employer-provided retirement plans, Social Security is considered a portable retirement plan, because credits toward future benefits can be earned from many different employers. Two employees who are the same age, have the same number of years of Social Security-covered work experience, and have the same pattern of earnings throughout their working lives will generally receive the same level of Social Security benefits, even if one of the workers was employed by the same organization their entire life while the other worked for many different organizations.

**Table 1. Percent Distribution of Individuals Who Specified One Use for their Lump Sum Distribution, by Amount and Age at Distribution**

Use of funds	All	Age of recipient at distribution			Amount of distribution			
		20 to 49	50 to 59	60 years and older	Less than \$1,500	\$1,501 to \$5,000	\$5,001 to \$15,000	More than \$15,000
<b>Total</b>	100	100	100	100	100	100	100	100
<b>Transferred to another retirement plan</b>	35	44	55	56	16	26	37	60
<b>Other savings</b>	17	14	16	21	13	25	20	20
<b>Spent</b>	42	36	26	17	63	51	36	17
<b>Education</b>	1	1	-	-	-	-	1	-
<b>Unemployment expenses</b>	2	3	1	1	3	3	3	1
<b>Other</b>	39	32	24	16	60	48	32	16
<b>Not determinable</b>	6	6	3	6	8	8	7	3

NOTE: Dash indicates less than 1 percent.

SOURCE: Survey of Income and Program Participation (SIPP), 1991, 1992, 1993; see James H. Moore, Jr., and Leslie A. Muller, "An Analysis of Lump-Sum Pension Distribution Recipients," *Monthly Labor Review*, May 2002, pp. 29-46, tables 2 and 3.



Data for Chart. Effect of Compounding at 5-Percent Interest on Receipt of Lump Sum Payments

Age	\$10,000 at age 35	\$10,000 at age 45	\$10,000 at age 55
35	\$10,500.00		
36	\$11,025.00		
37	\$11,576.25		
38	\$12,155.06		
39	\$12,762.82		
40	\$13,400.96		
41	\$14,071.00		
42	\$14,774.55		
43	\$15,513.28		
44	\$16,288.95		
45	\$17,103.39	\$10,500.00	
46	\$17,958.56	\$11,025.00	
47	\$18,856.49	\$11,576.25	
48	\$19,799.32	\$12,155.06	
49	\$20,789.28	\$12,762.82	
50	\$21,828.75	\$13,400.96	
51	\$22,920.18	\$14,071.00	
52	\$24,066.19	\$14,774.55	
53	\$25,269.50	\$15,513.28	
54	\$26,532.98	\$16,288.95	
55	\$27,859.63	\$17,103.39	\$10,500.00
56	\$29,252.61	\$17,958.56	\$11,025.00
57	\$30,715.24	\$18,856.49	\$11,576.25
58	\$32,251.00	\$19,799.32	\$12,155.06
59	\$33,863.55	\$20,789.28	\$12,762.82

Age	\$10,000 at age 35	\$10,000 at age 45	\$10,000 at age 55
60	\$35,556.73	\$21,828.75	\$13,400.96
61	\$37,334.56	\$22,920.18	\$14,071.00
62	\$39,201.29	\$24,066.19	\$14,774.55
63	\$41,161.36	\$25,269.50	\$15,513.28
64	\$43,219.42	\$26,532.98	\$16,288.95

---

U.S. Bureau of Labor Statistics | Division of Information and Marketing Services, PSB Suite 2850, 2 Massachusetts Avenue, NE Washington, DC 20212-0001 | [www.bls.gov/OPUB](http://www.bls.gov/OPUB) | Telephone: 1-202-691-5200 | [Contact Us](#)