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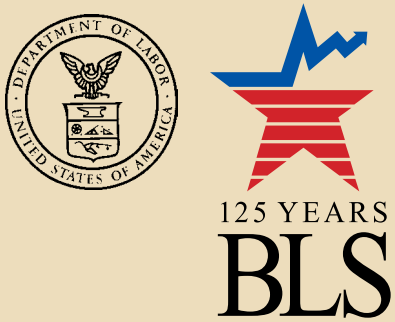
Fatal Workplace Injuries in 2006:
A Collection of Data and Analysis

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

Report 1015



Fatal Workplace Injuries in 2006:
A Collection of Data and Analysis

U.S. Department of Labor
Hilda L. Solis, Secretary

U.S. Bureau of Labor Statistics
Keith Hall, Commissioner

May 2009

Report 1015

PREFACE

The Census of Fatal Occupational Injuries (CFOI), administered by the Bureau of Labor Statistics (BLS) in conjunction with the 50 States, the District of Columbia, and New York City, compiles detailed information on all work-related fatal injuries occurring in the United States. In an effort to compile counts that are as complete as possible, the fatality census uses diverse sources to identify, verify, and profile fatal work injuries. Source documents such as death certificates, news accounts, workers' compensation reports, and Federal and State agency administrative records are cross-referenced to gather key information about each workplace fatality.

The annual CFOI report provides detailed tabulations of data from the fatality census, as well as analytical articles on various topics related to fatal workplace injuries. The report contains charts and text highlighting fatality data from the Census of Fatal Occupational Injuries, including charts derived from three analytical articles using CFOI data.

User-created tables and supplemental tables can be accessed on the Internet at https://www.bls.gov/iif. The online version of the Profiles System can be accessed at http://data.bls.gov/GQT/servlet/InitialPage.

Additional data are available on request from BLS:

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Office of Safety and Health Statistics
Room 3180
2 Massachusetts Avenue, NE.
Washington, DC 20212
(202) 691–6170
Fax: (202) 691–6196
E-Mail: iifstaff@bls.gov
Internet: https://www.bls.gov/iif

This report was prepared in the Office of Compensation and Working Conditions under the administration of Associate Commissioner William Wiatrowski and Assistant Commissioner John Ruser and under the direction of Katharine Newman, Chief for the Division of Safety and Health Program Analysis and Control. Scott Richardson, CFOI Program Manager, supervised the preparation of the report by staff members Dino Drudi, Gregory Fayard, Matt Gunter, Jill Janocha, Joyce Northwood, and Stephen Pegula. Editorial production of this report was provided by Edith S. Baker, and graphic design by Bruce Boyd, both of the Office of Publications and Special Studies, Division of Publishing, William Parks II, Chief. Many other organizations contributed to the success of the census, including the participating State and local agencies that collected the data, the BLS regional offices that helped review and process the data, and the BLS Office of Field Operations, whose staff oversaw the census' implementation in the regions and States.

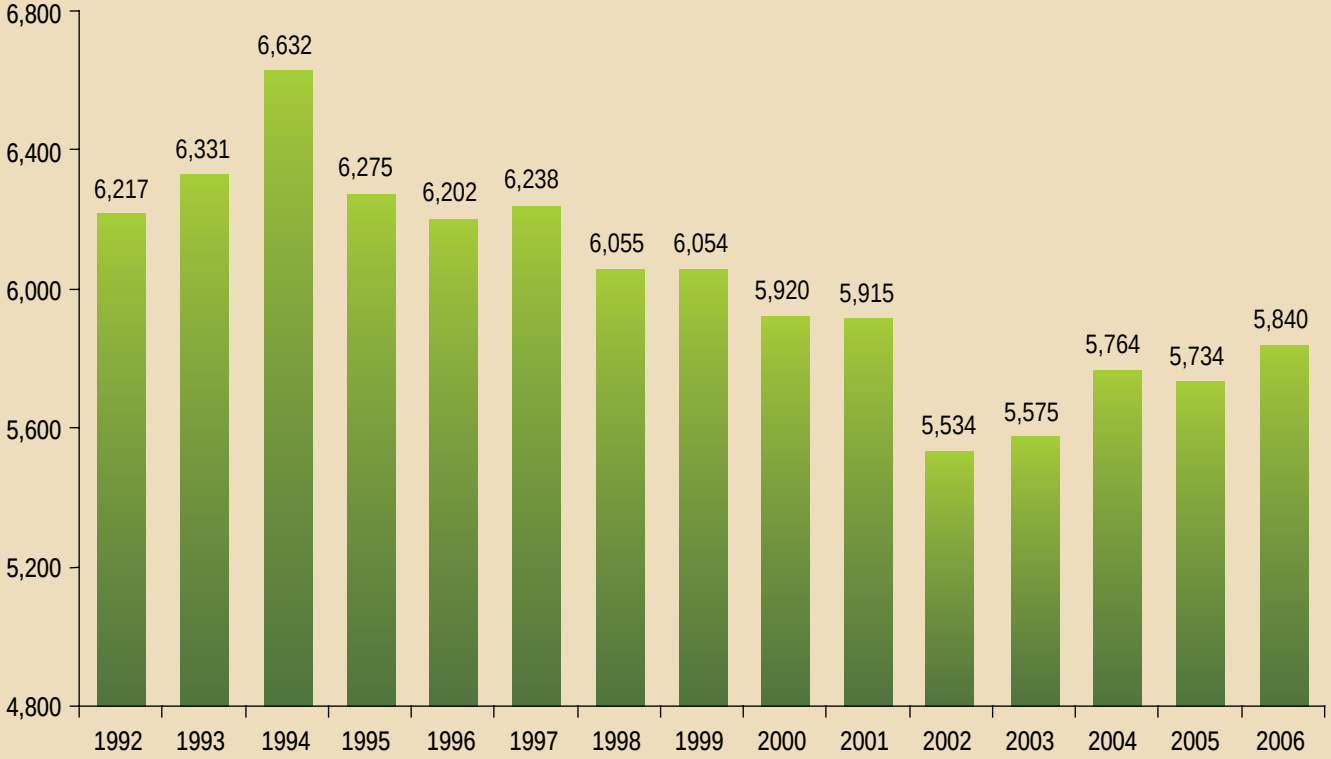
CONTENTS

CHART 1

A total of 5,840 work-related fatalities were recorded in 2006, an increase of 1.8 percent over the 5,734 fatal work injuries reported for 2005. The general trend of workplace fatalities from CFOI's inception in 1992 until 2002 has been downward. However, since 2002, the number of fatal work injuries has trended higher.

The series high for the fatality census was recorded in 1994 (6,632 fatalities). The series low (5,534 fatalities) occurred in 2002.

Number of fatal work injuries, 1992–2006



NOTE: Data from 2001 exclude fatalities resulting from the September 11 terrorist attacks.
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

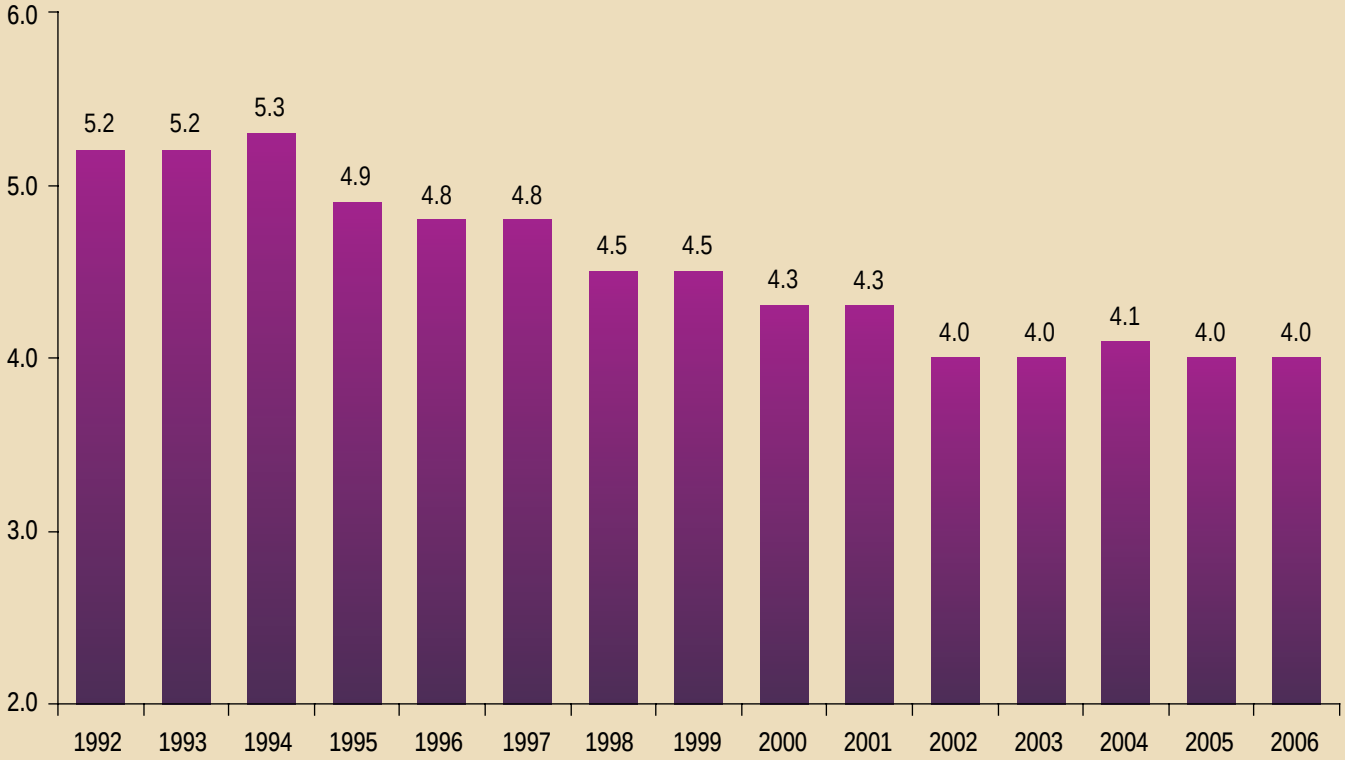
CHART 2

The rate of fatal work injuries in 2006 was 4.0 fatalities per 100,000 workers, unchanged from 2005.

Fatality rates have remained at or near 4.0 since 2002.

Employment data, except for the military, come from the Current Population Survey (CPS). Prior to 1999, the resident military figure was derived from U.S. Bureau of the Census data. From 1999 to the present, the military figure was based on U.S. Department of Defense (DOD) data.

Rate of fatal work injuries per 100,000 workers, 1992–2006



NOTE: Data from 2001 exclude fatalities resulting from the September 11 terrorist attacks. Rates for 1992–2006 were calculated with the use of revised fatality data.
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Current Population Survey, Census of Fatal Occupational Injuries, U.S. Bureau of the Census, and U.S. Department of Defense.

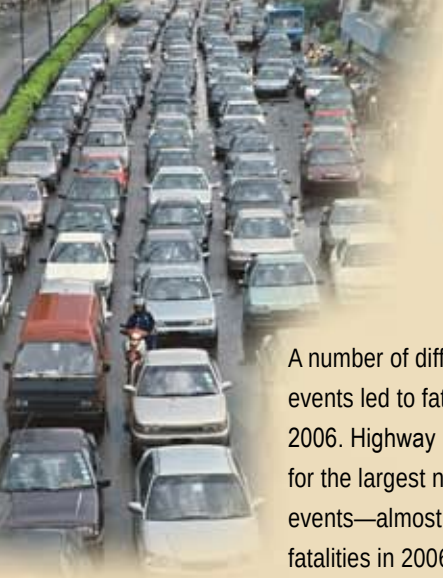
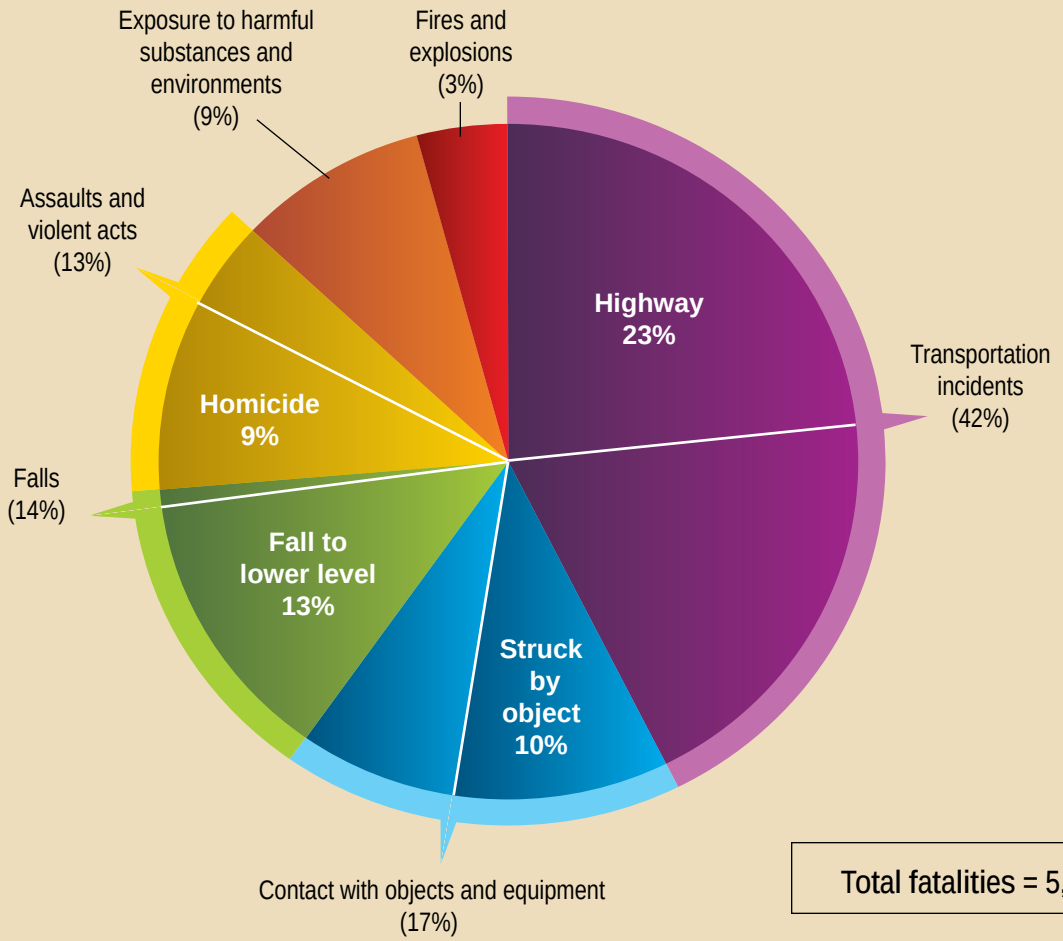


CHART 3

A number of different types of events led to fatal work injuries in 2006. Highway incidents accounted for the largest number of fatal events—almost 1 out of every 4 fatalities in 2006.

Falls accounted for another 14 percent of the fatal injuries recorded in 2006. Workers who were fatally injured after being struck by an object accounted for 10 percent of all fatal work injuries, while homicides accounted for 9 percent

Manner in which workplace fatalities occurred, 2006



Total fatalities = 5,840

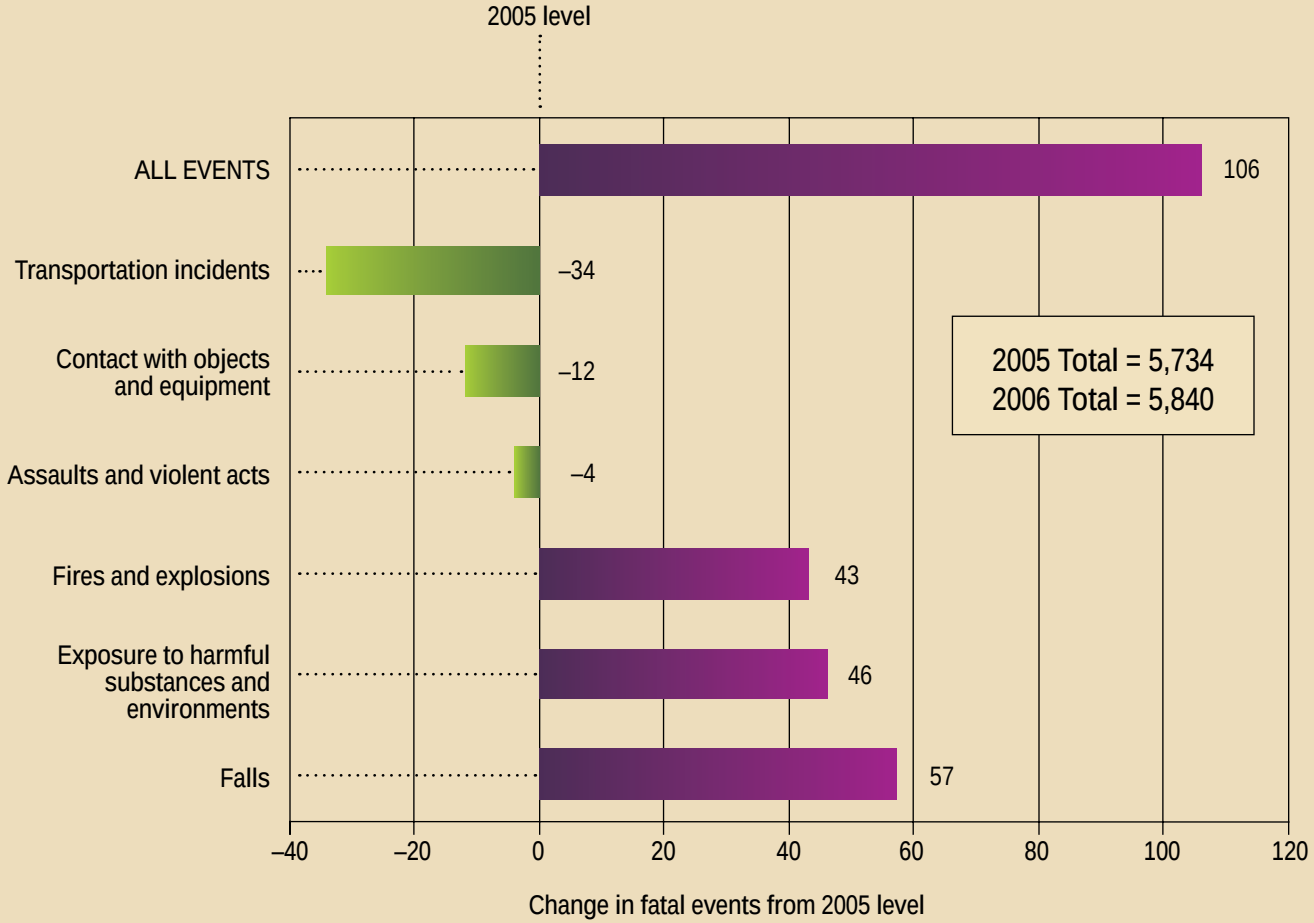
NOTE: Percentages may not add to totals because of rounding.
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 4

Although the total number of fatal work injuries rose in 2006, fatal injuries resulting from transportation incidents, contact with objects and equipment, and assaults and violent acts decreased.

By contrast, fatal injuries resulting from fires and explosions, exposure to harmful substances and environments, and falls increased in 2006.

Difference in workplace fatality counts, by event, 2005–06



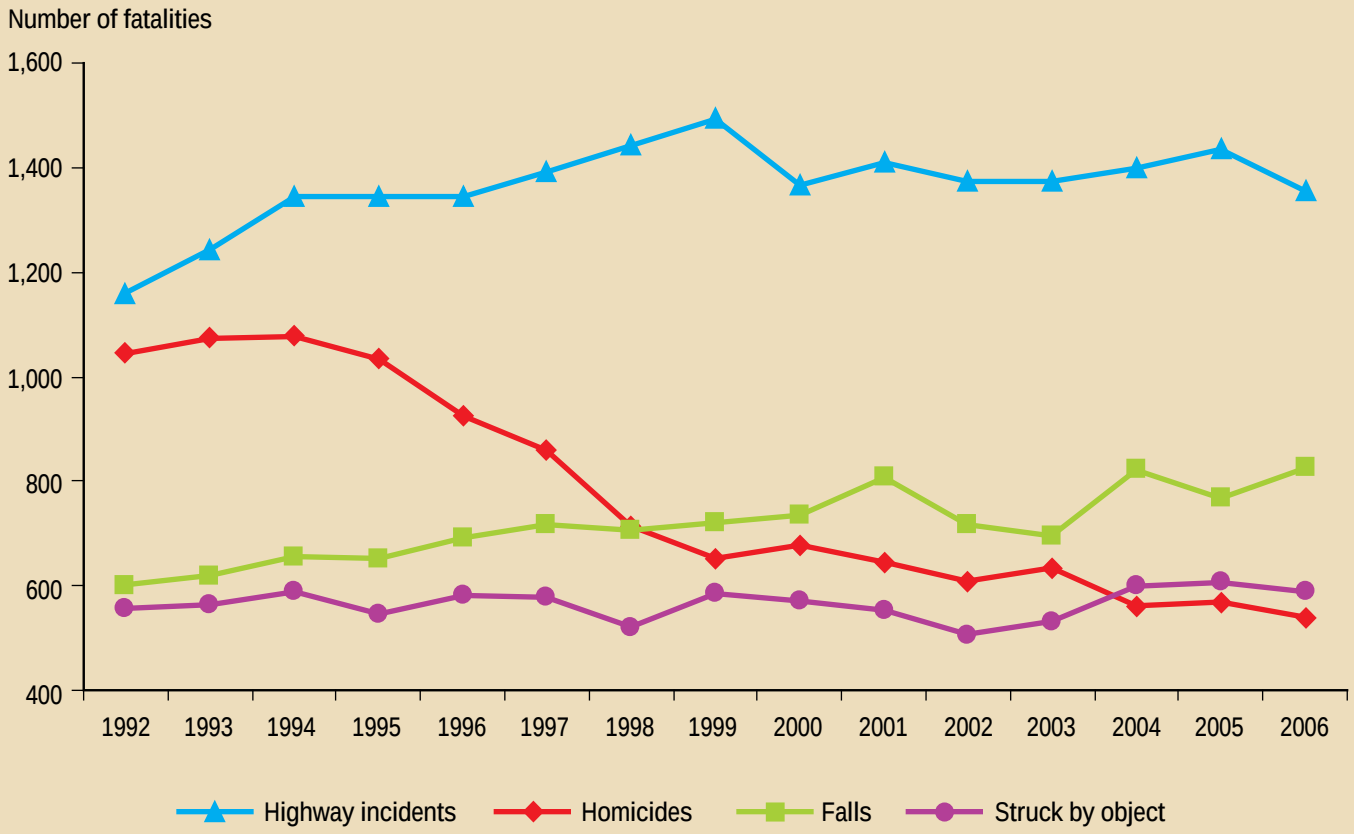
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 5

Four most frequent work-related fatal events, 1992–2006

Four types of events have been the most frequent since the workplace fatality census began. Highway incidents have been the leading event since 1992. Workplace homicides have declined substantially since 1994, while falls and highway incidents have trended higher.

Struck-by-object deaths overtook homicides as the third-most-frequent fatal event in 2004.



NOTE: Data from 2001 exclude fatalities resulting from the September 11 terrorist attacks.
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

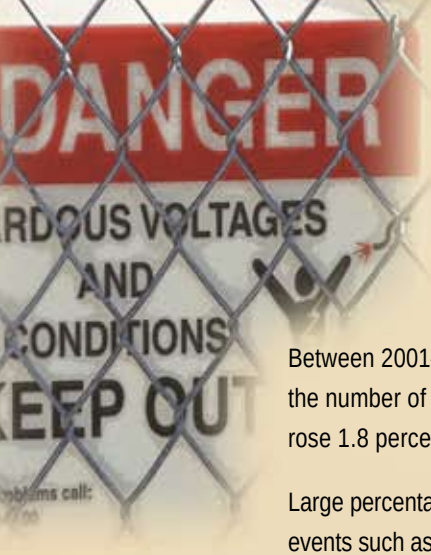
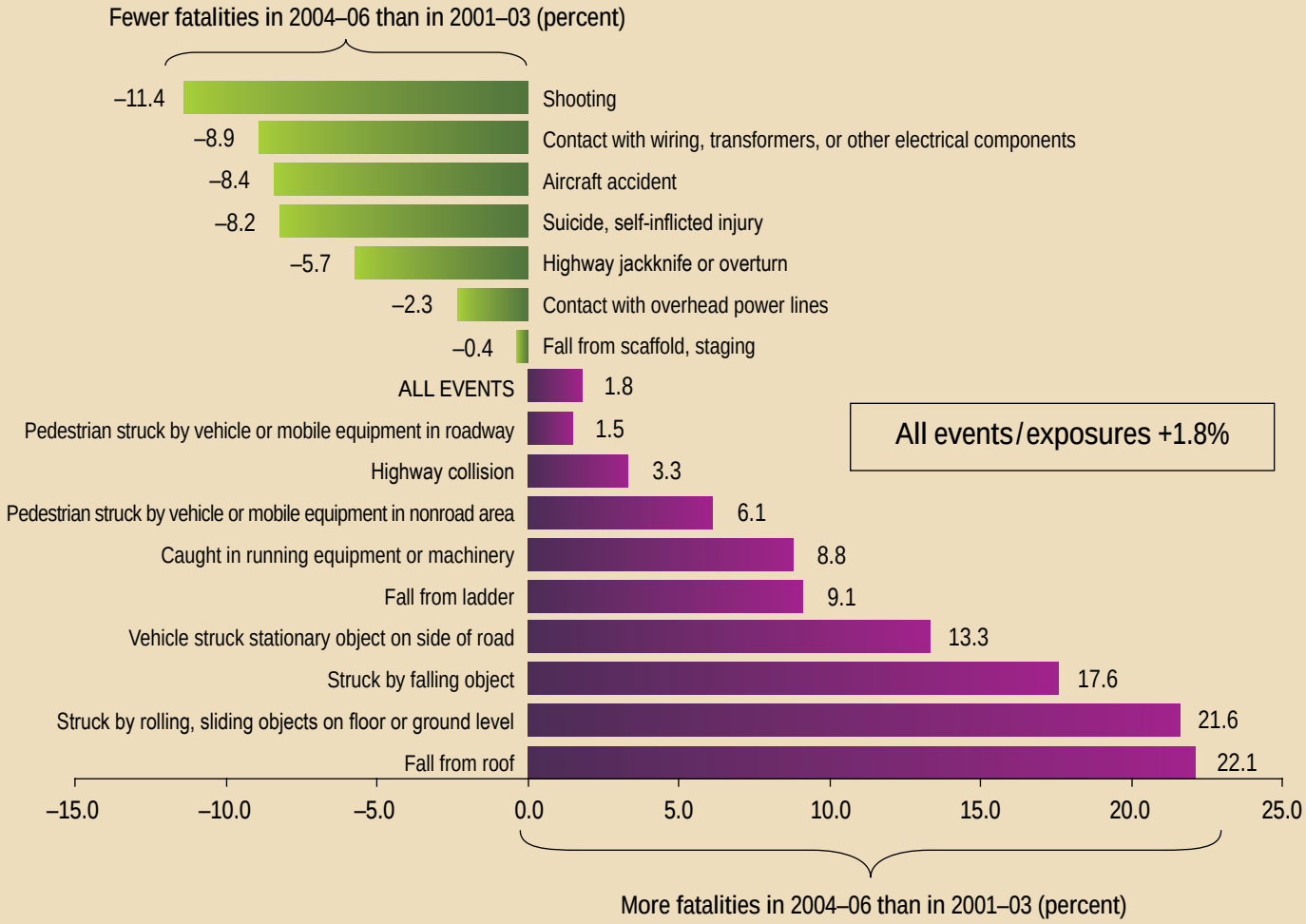


CHART 6

Between 2001–03 and 2004–06, the number of fatal work injuries rose 1.8 percent.

Large percentage increases in events such as falls from roofs, being struck by rolling and sliding objects, and being struck by falling objects led to the increase. However, some events decreased between the two periods: fatalities due to shootings; contact with wiring, transformers, or other electrical equipment; aircraft accidents; and suicides all fell.

Change in events, 2004–06 versus 2001–03



NOTE: Data from 2001 exclude fatalities resulting from the September 11 terrorist attacks.
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

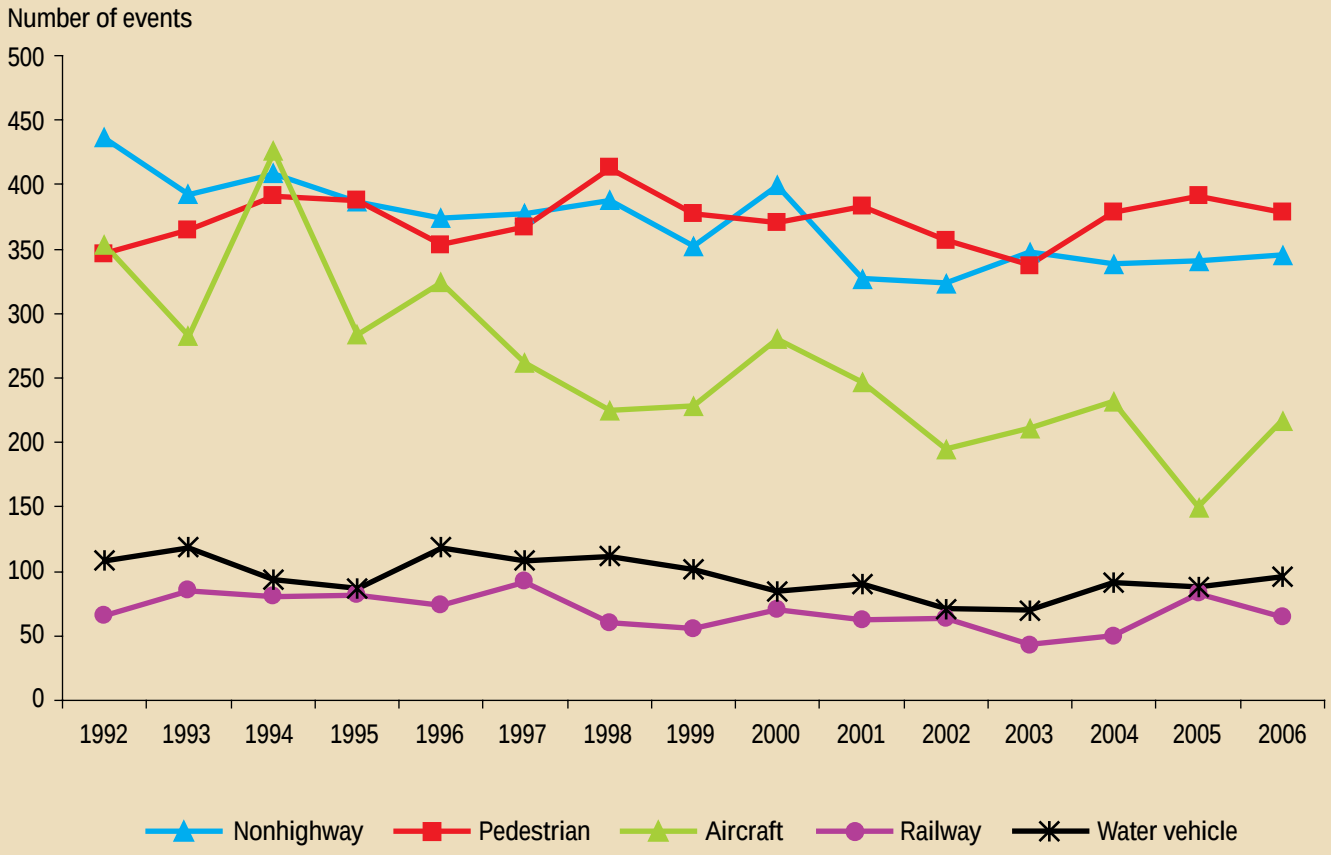
CHART 7

Selected transportation events, 1992–2006

Transportation incidents have historically made up over 40 percent of all work-related fatalities.

Although highway vehicle incidents have been the most common fatal event, accounting for 1 out of every 4 fatalities in 1992–2006, pedestrian and nonhighway vehicle incidents together accounted for, on average, more than 700 fatalities a year, or 12 percent of fatalities during this period. (Pedestrian injuries may occur on or off highways.)

Aircraft fatalities have been generally declining since 1992. The year-to-year percentage increase in aircraft fatalities between 2005 and 2006 was the second largest ever recorded, rising 46 percent, from 149 to 217.



NOTE: Data from 2001 exclude fatalities resulting from the September 11 terrorist attacks.
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 8

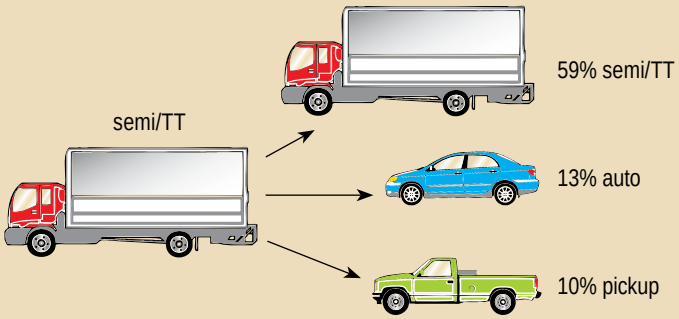
Highway collisions between vehicles and other mobile equipment, 2003–06

Of the 5,544 fatal occupational injuries resulting from highway incidents during 2003–06, 49 percent involved multivehicle collisions.

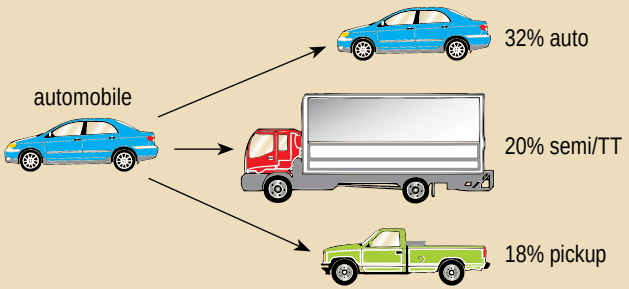
During the 4 years, occupants of semitrailer, tractor-trailer, and trailer trucks (semi/TTs) experienced 695 fatalities involving multivehicle collisions. More than half of these fatalities involved collisions with other semi- and tractor-trailers.

Occupants of automobiles experienced 627 fatalities in multivehicle collisions. About one-third of these deaths resulted from collisions with other automobiles. For fatally injured occupants of pickup trucks, vans, delivery trucks, and dump trucks, the most common vehicle collisions involved semi- or tractor-trailers.

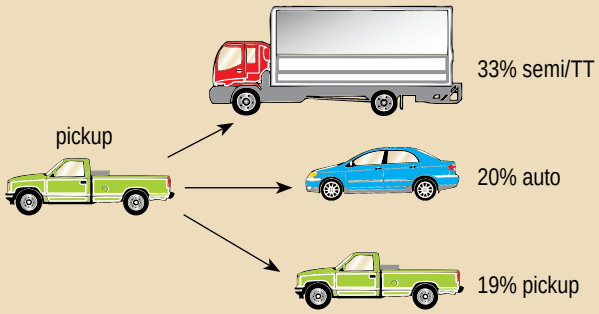
Note that collisions can occur between a variety of vehicles and mobile equipment, including, but not limited to, semitrailer, tractor-trailer, and trailer trucks, pickup trucks, vans, delivery trucks, dump trucks, buses, and motorcycles.



695 fatalities



627 fatalities



444 fatalities

267 fatalities

Total Fatalities = 2,725

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

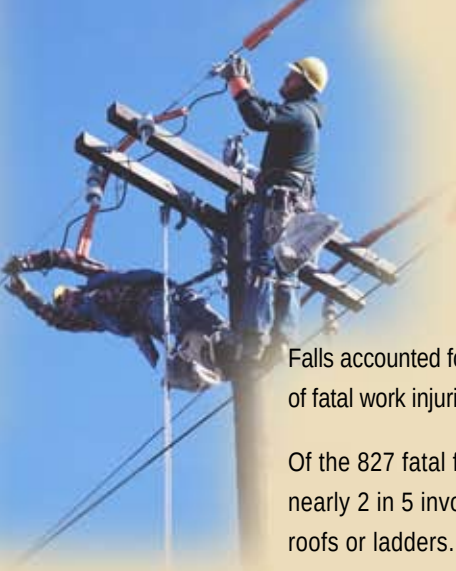


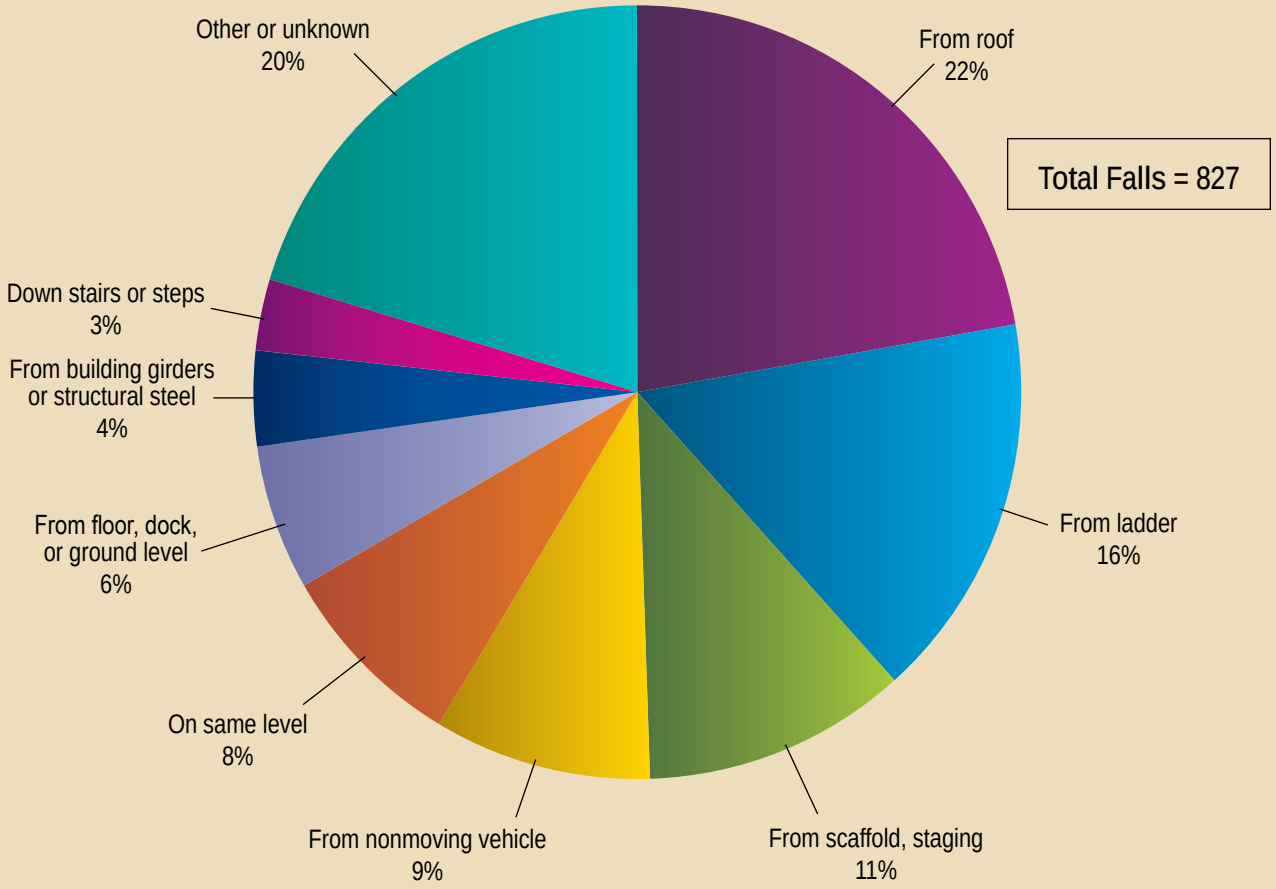
CHART 9

Falls accounted for about 14 percent of fatal work injuries in 2006.

Of the 827 fatal falls that year, nearly 2 in 5 involved falls from roofs or ladders.

Falls from scaffolds and staging, falls from nonmoving vehicles, and falls on the same level each accounted for about one-tenth of fatal falls.

Falls, by type, 2006



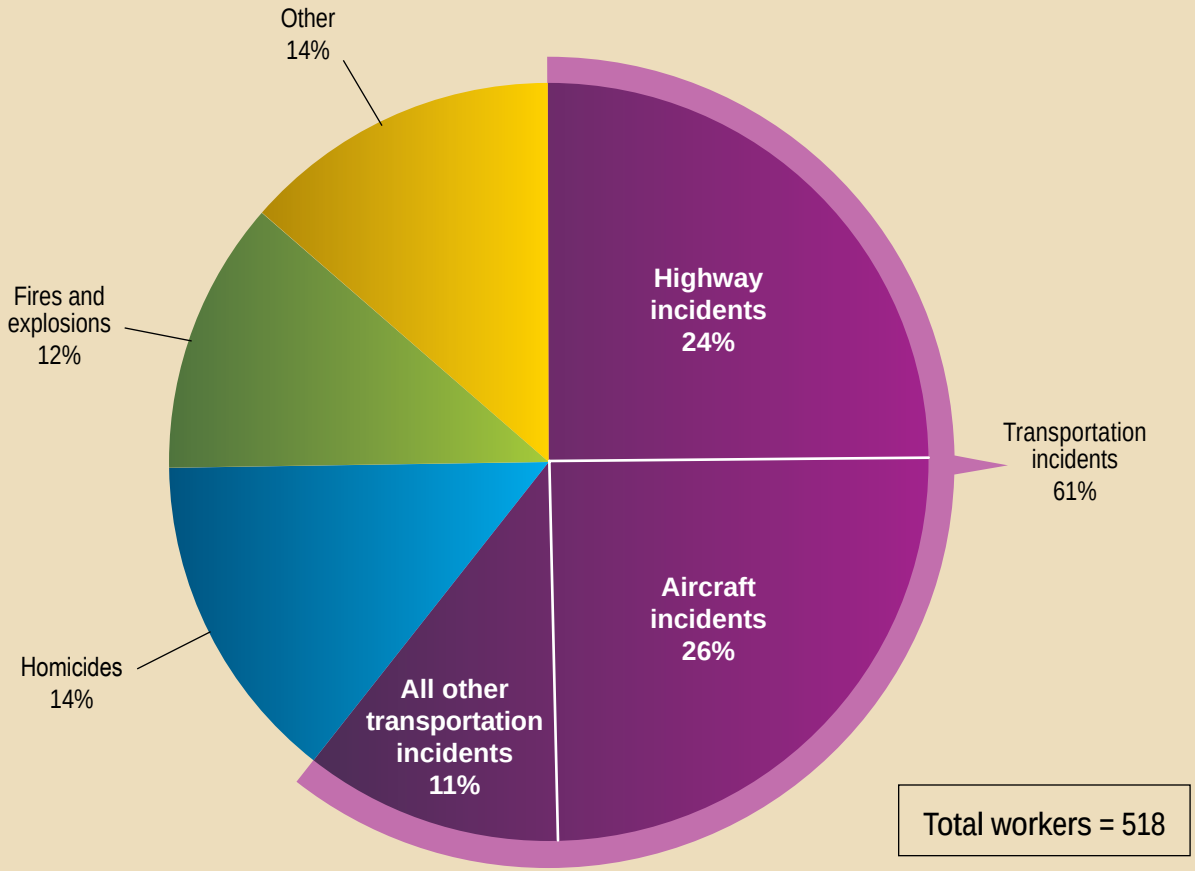
NOTE: Percentages may not add to totals because of rounding.
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 10

Multiple-fatality incidents are defined as single incidents in which two or more workers were fatally injured. In 2006, 518 workers, representing 9 percent of all fatal work injuries, were killed in multiple-fatality incidents.

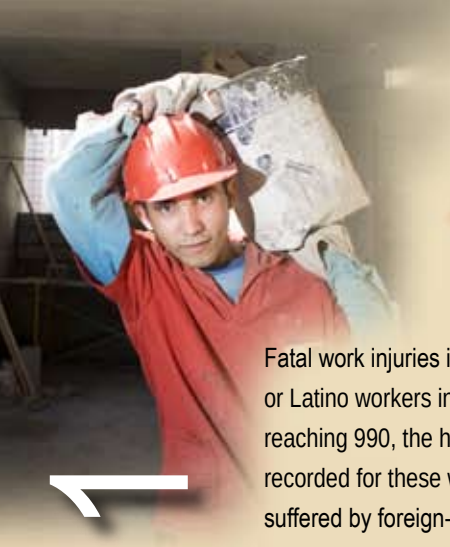
Transportation incidents accounted for 61 percent of the workers killed in multiple-fatality incidents. Fatal injuries resulting from homicides accounted for another 14 percent of these fatalities.

How workers died in multiple-fatality incidents, 2006



NOTE: Percentages may not add to totals because of rounding.
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 11



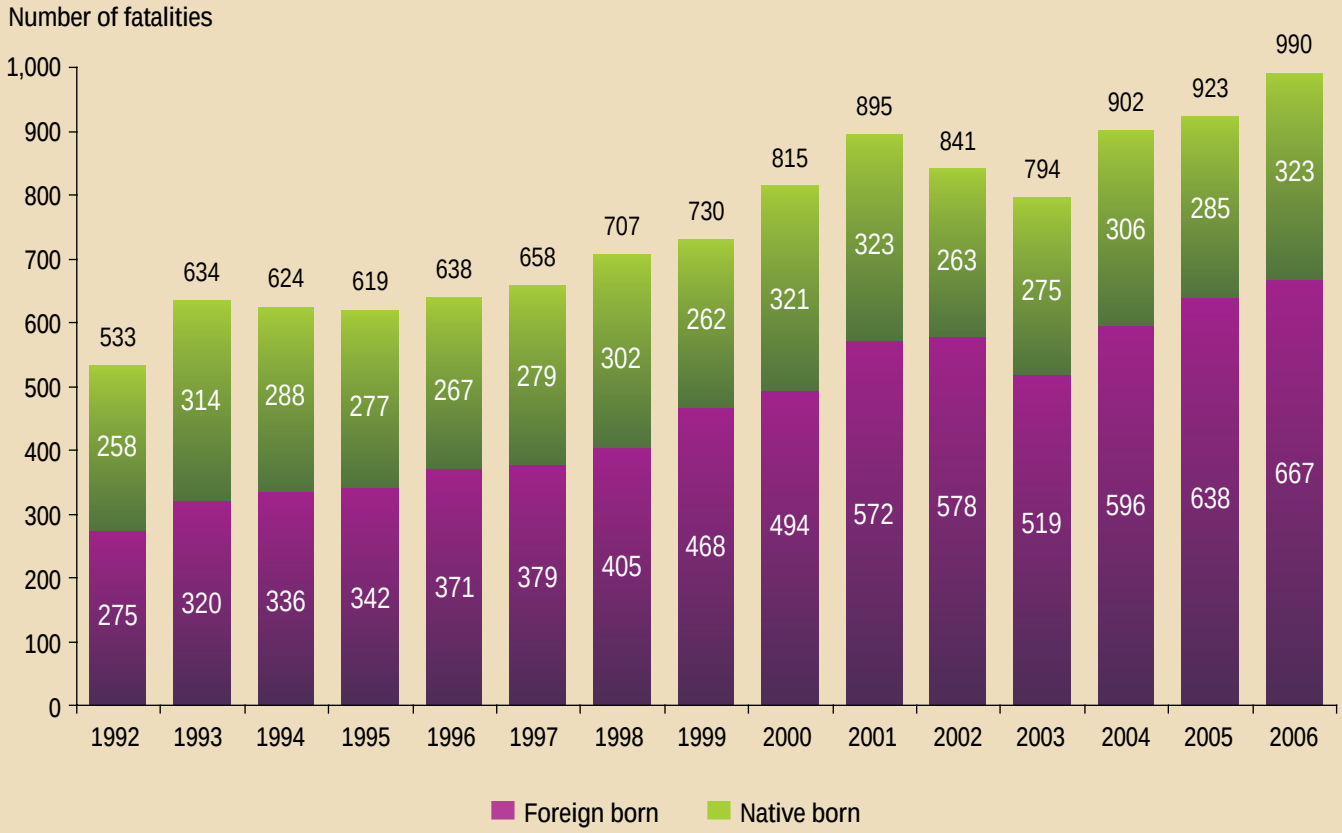
Fatal work injuries involving Hispanic or Latino workers increased in 2006, reaching 990, the highest ever recorded for these workers. Fatalities suffered by foreign-born Hispanics or Latinos rose 4.5 percent, while those suffered by native-born Hispanics or Latinos rose 13 percent.

At the beginning of the census, fatal work injuries to Hispanic or Latino workers were divided almost equally between native and foreign-born workers. In 2006, more than two-thirds of fatal work injuries to Hispanics or Latinos involved foreign-born workers.

Although work-related fatalities to foreign-born Hispanic or Latino workers increased 143 percent from 1992 to 2006, fatalities to native-born Hispanic or Latino workers increased by 25 percent.

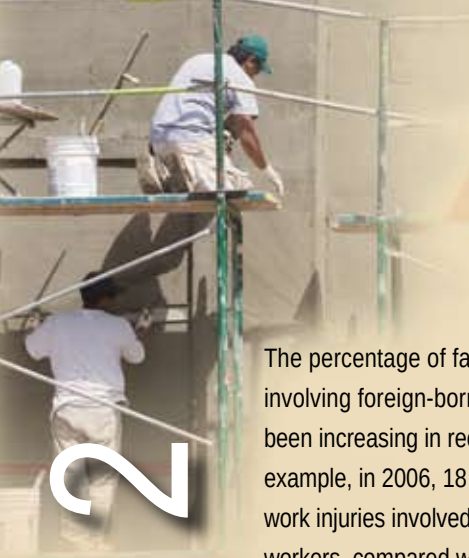
The rate of fatal work injuries to civilian native-born Hispanic workers in 2006 was 3.6 fatalities per 100,000 workers, compared with the fatality rate of 4.0 for all U.S. workers. However, the fatality rate for civilian foreign-born Hispanic workers in 2006 was 6.0, or 50 percent higher than the rate for all workers.

Number of fatal work injuries involving Hispanic or Latino workers, 1992–2006



NOTE: Data from 2001 exclude fatalities resulting from the September 11 terrorist attacks.
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

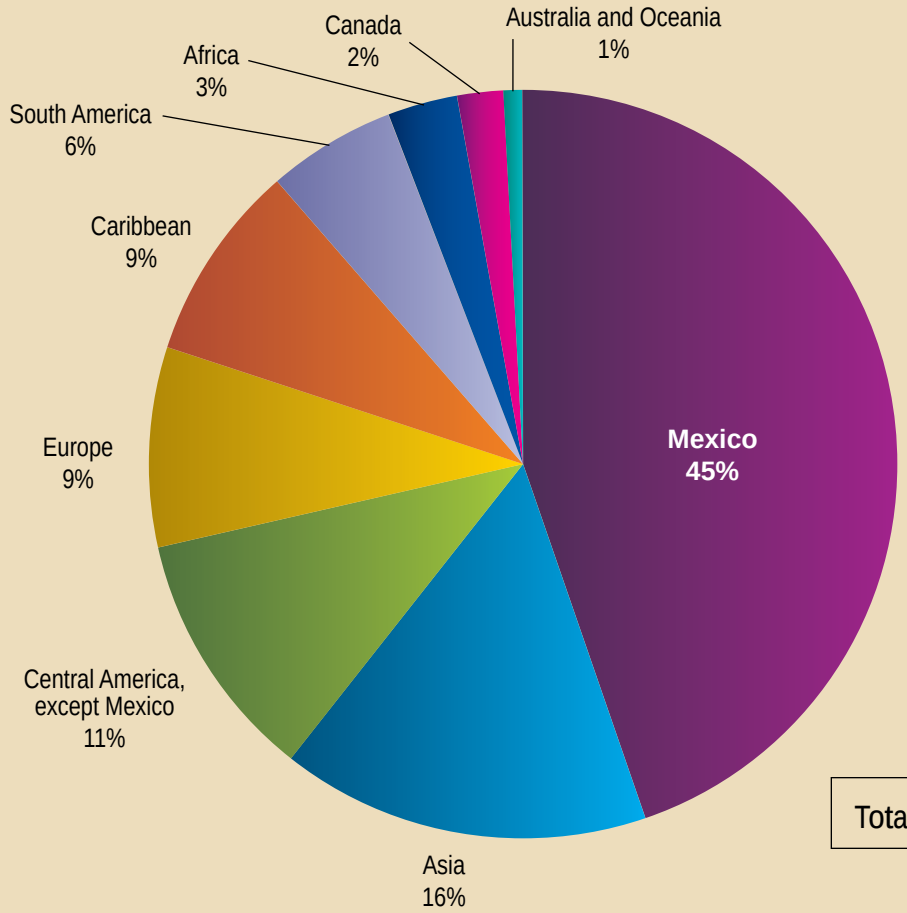
CHART 12



The percentage of fatal injuries involving foreign-born workers has been increasing in recent years. For example, in 2006, 18 percent of fatal work injuries involved foreign-born workers, compared with 12 percent in 1996.

The country of origin of workers killed on the job encompassed approximately 100 foreign nations in 2006. Workers born in Mexico accounted for the largest portion (45 percent) of foreign-born workers who died at work in the United States.

Fatal occupational injuries to foreign-born workers, by region of origin, 2006



NOTE: Percentages may not add to totals because of rounding.
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 13

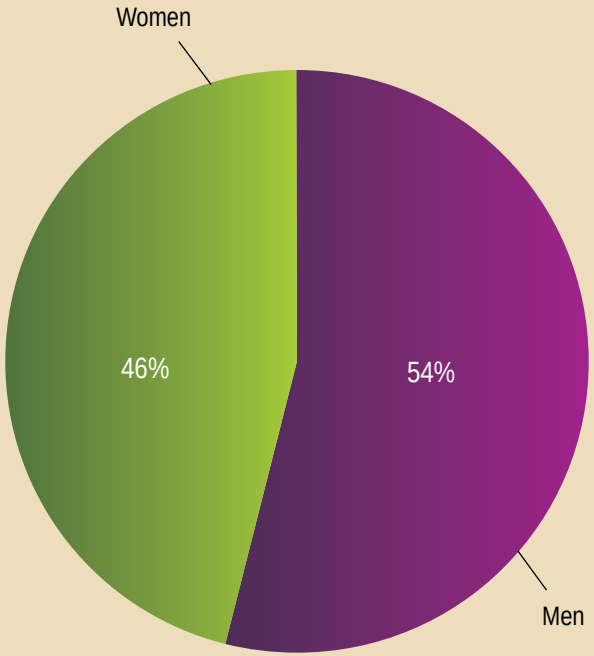
Employment and fatalities, by gender of worker, 2006

Men experience a disproportionate share of fatalities relative to their employment. Although men make up just over half of the workforce, they experience more than 90 percent of workplace fatalities.

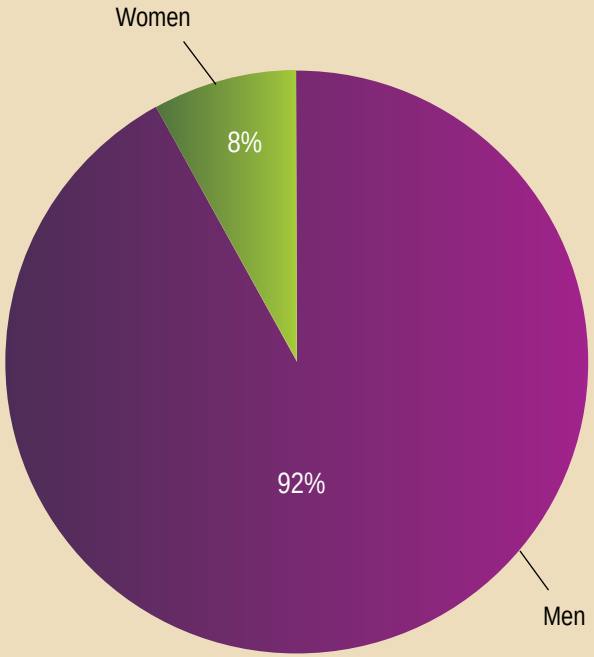
Since 1995, the number of fatal work injuries involving women has declined. In 2005, the 406 fatalities to women represented a series low for the fatality census. However, in 2006, women experienced an increase of 9 percent, to 444 fatalities.

Fatalities to men generally declined from 1995 to 2002, but have risen from a series low of 5,092 in 2002 to 5,396 in 2006.

Employment data come from the Current Population Survey (CPS) for nonmilitary workers and from the U.S. Department of Defense (DOD) for resident military workers.



Employment = 145,501,000



Fatalities = 5,840

SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, Current Population Survey, Census of Fatal Occupational Injuries, and U.S. Department of Defense, 2009.

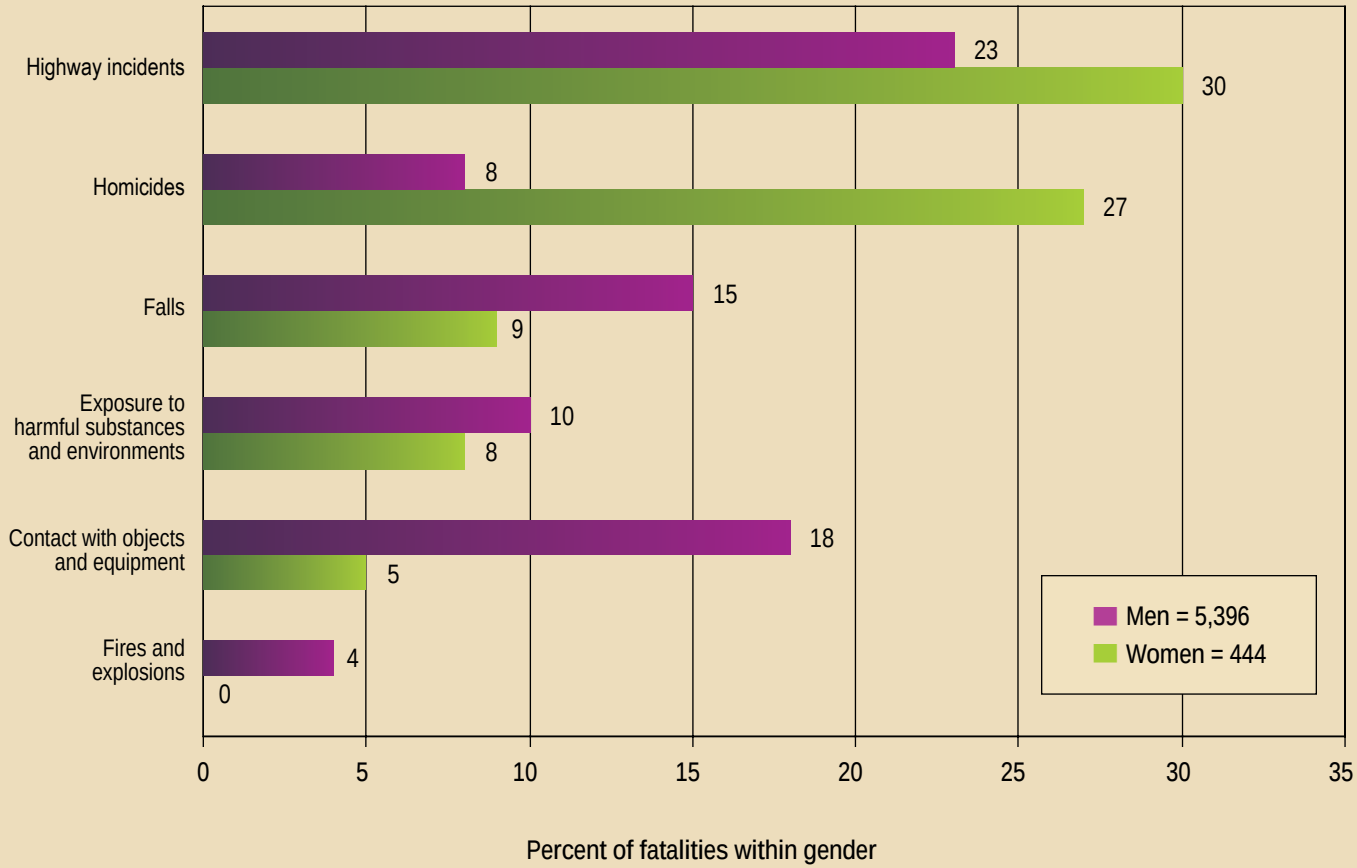
CHART 14

In addition to having fewer fatal work injuries than men relative to their share of employment, women experienced, for the most part, different types of fatal events than men.

Women had a higher percentage of fatal work injuries resulting from homicides and highway incidents.

Men had a higher percentage of fatal work injuries resulting from falls, contact with objects and equipment, and fires and explosions.

Fatal injury events, by gender of worker, 2006



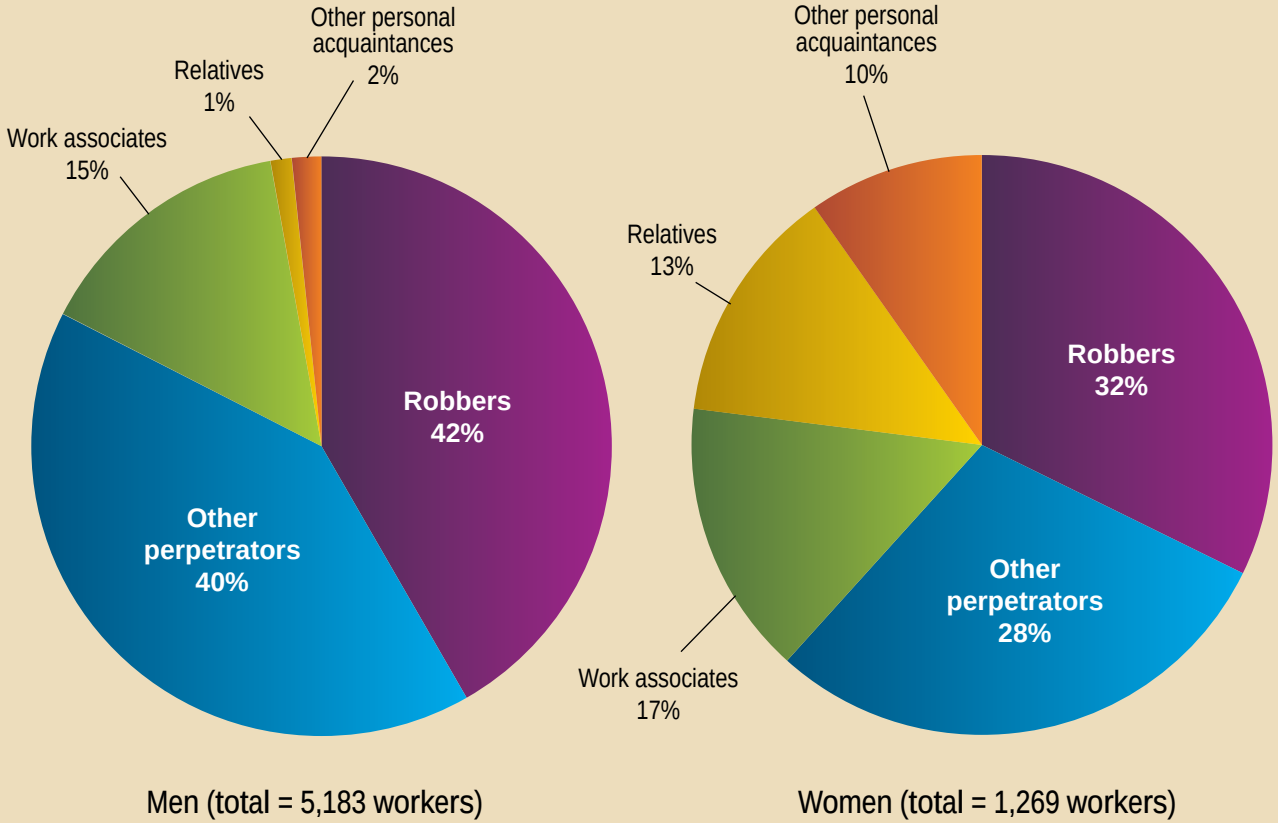
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 15

For the 10 years from 1997 to 2006, there were a total of 6,452 workplace homicides. In 40 percent of these homicides, the perpetrators were robbers. Another 16 percent resulted from violence between work associates.

When the victims were men, the assailant was a robber in about two-fifths of the cases. The assailant was more likely to be a relative or personal acquaintance for fatally assaulted women than for fatally assaulted men. Nevertheless, a robber was the assailant in nearly one-third of homicides committed against women.

Perpetrators of workplace homicides, by gender of decedent, 1997–2006



NOTE: Data from 2001 exclude fatalities resulting from the September 11 terrorist attacks.
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

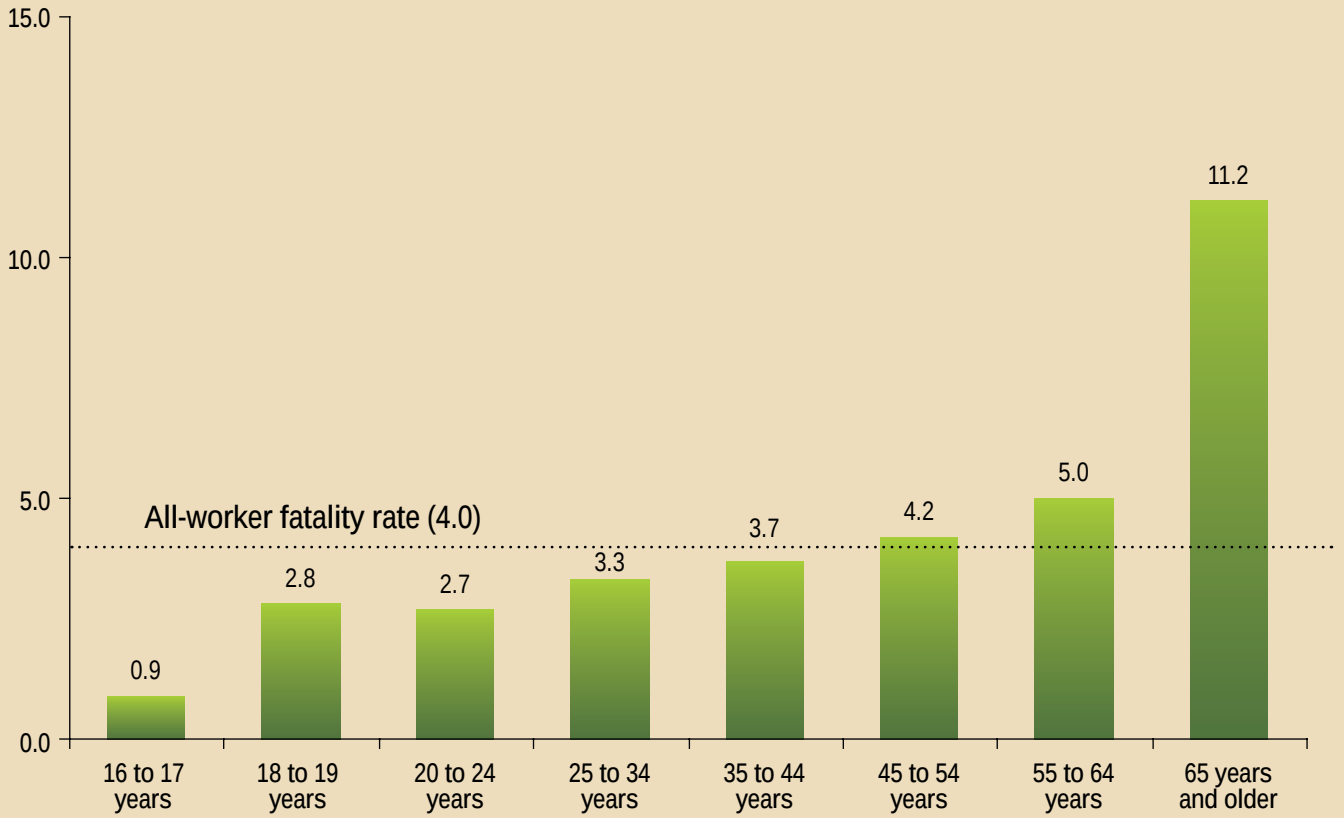
CHART 16

Fatal work injury rates, by age group, 2006

Work-related fatality rates are higher for older workers. In 2006, workers 45 years and older recorded fatality rates higher than the all-worker rate, while workers 44 years and younger recorded fatality rates lower than the all-worker rate.

The fatality rate for workers 65 years and older (11.2 fatal work injuries per 100,000 workers) was nearly 3 times higher than the all-worker rate of 4.0.

Meanwhile, the fatality rate for workers 16 and 17 years old (0.9 fatalities per 100,000 workers) was considerably less than the all-worker rate.



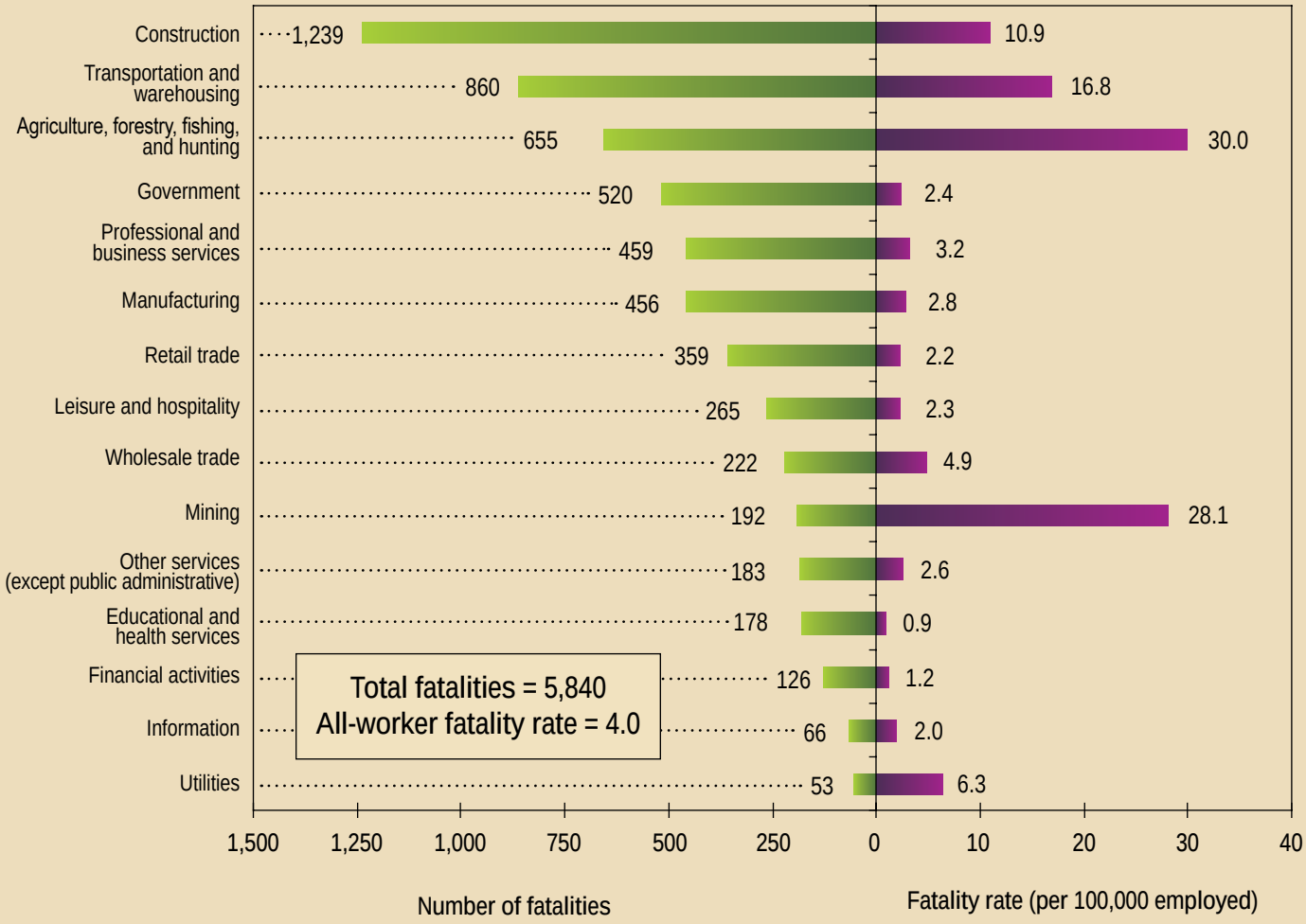
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 17

The highest number of fatal work injuries in 2006 occurred in the private construction sector, followed by transportation and warehousing.

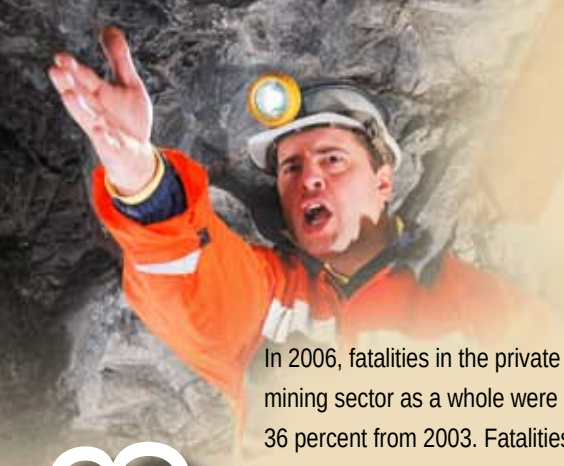
The agriculture, forestry, fishing, and hunting sector and the mining sector each recorded a fatality rate that was more than 7 times higher than the rate of 4.0 recorded for all workers.

Number and rate of fatal occupational injuries, by industry sector, 2006



SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 18



In 2006, fatalities in the private mining sector as a whole were up 36 percent from 2003. Fatalities in oil and gas industries accounted for more than 60 percent of fatal work injuries in mining from 2003 to 2006.

Since 2003, CFOI has classified industries according to the North American Industry Classification System (NAICS). Oil and gas industries include NAICS 211 (oil and gas extraction), NAICS 213111 (drilling oil and gas wells), and NAICS 213112 (support activities for oil and gas operations).

Fatal occupational injuries in the private mining industry, 2003–06

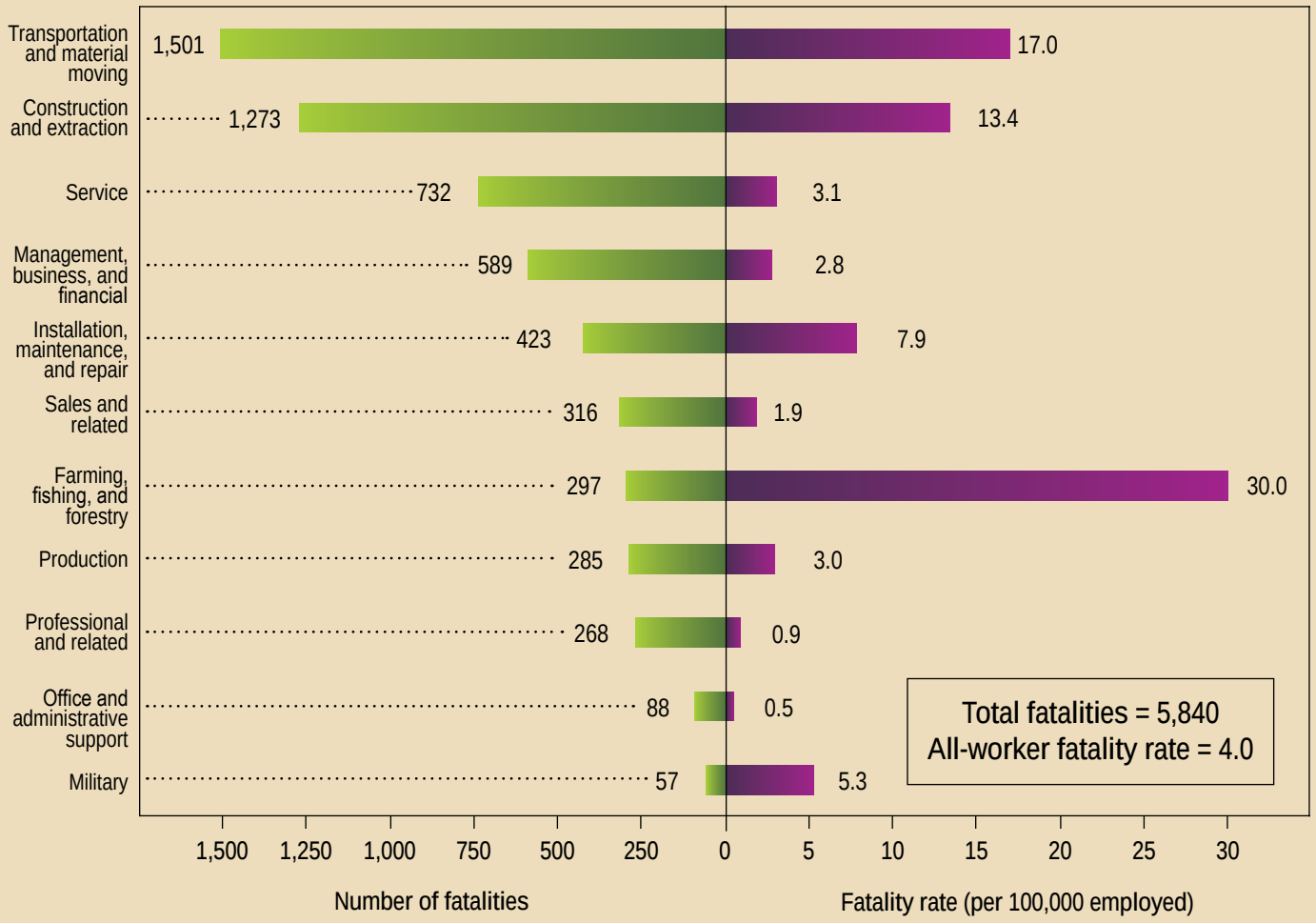
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 19

Among major occupation groups, transportation and material moving occupations recorded the highest number of fatal injuries in 2006, followed by construction and extraction occupations.

The fatality rate for farming, fishing, and forestry occupations was more than 7 times the overall rate of 4.0 fatalities per 100,000 workers and the highest of any occupational group.

Number and rate of fatal occupational injuries, by major occupation group, 2006



SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

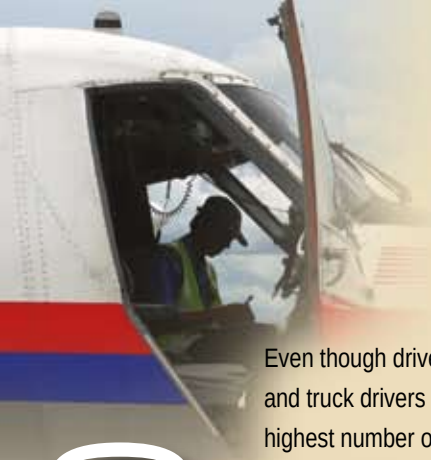
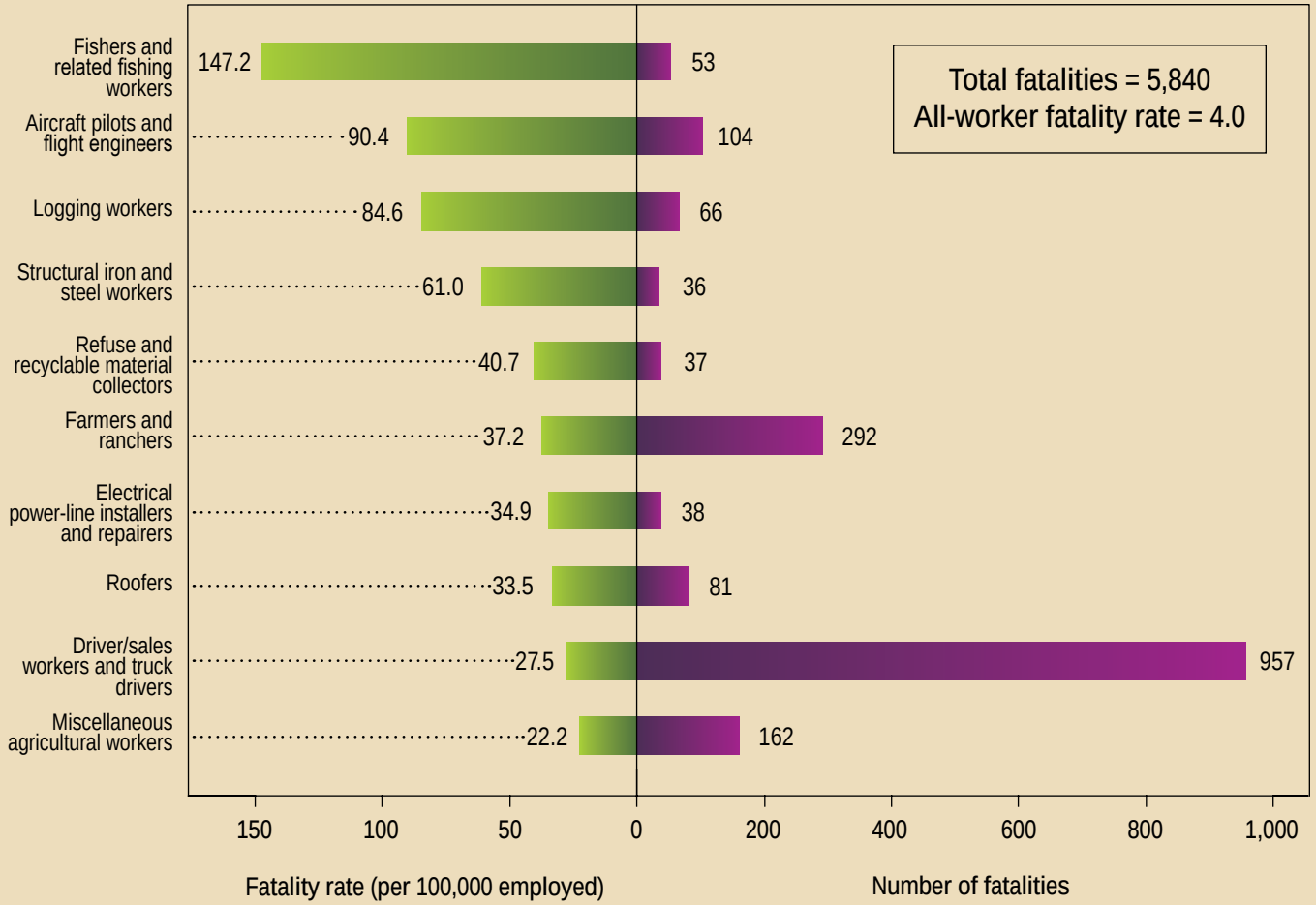


CHART 20

Even though driver/sales workers and truck drivers experienced the highest number of fatalities, the highest fatality rates were recorded by fishers and by aircraft pilots and flight engineers. The fatality rate of 147.2 recorded by fishers was nearly 37 times the fatality rate of 4.0 for all workers.

Logging workers and structural iron and steel workers also recorded high fatality rates.

Selected occupations with high fatality rates, 2006



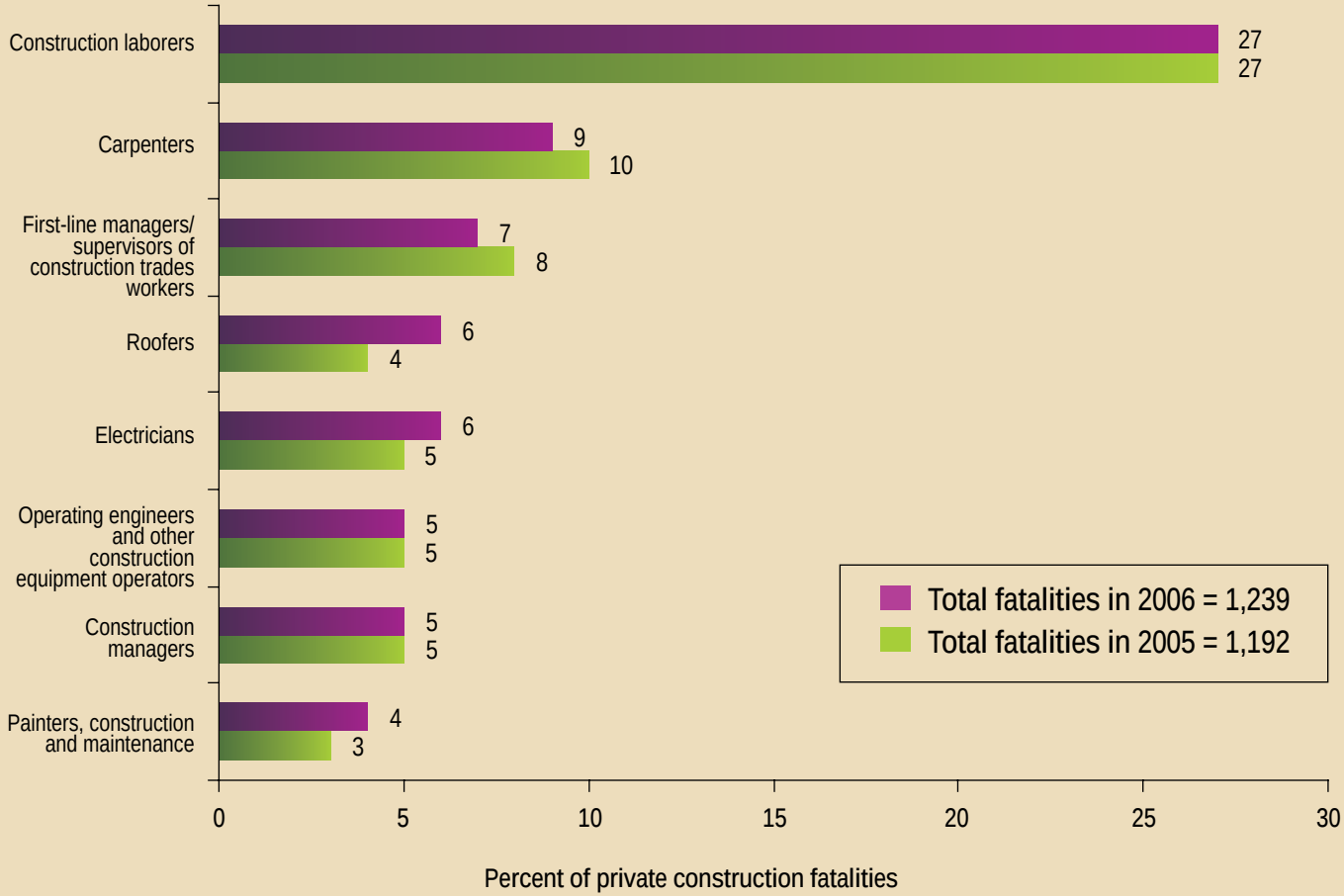
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 21

In the private sector, the highest number of fatal work injuries involved workers in private construction, an industry with a wide variety of occupations.

Overall, fatalities in the private construction industry rose 4 percent from 2005 to 2006. Fatal work injuries involving construction laborers accounted for approximately 1 out of every 4 fatalities in private construction in both 2005 and 2006.

Distribution of fatalities for selected occupations in the private construction industry, 2005–06



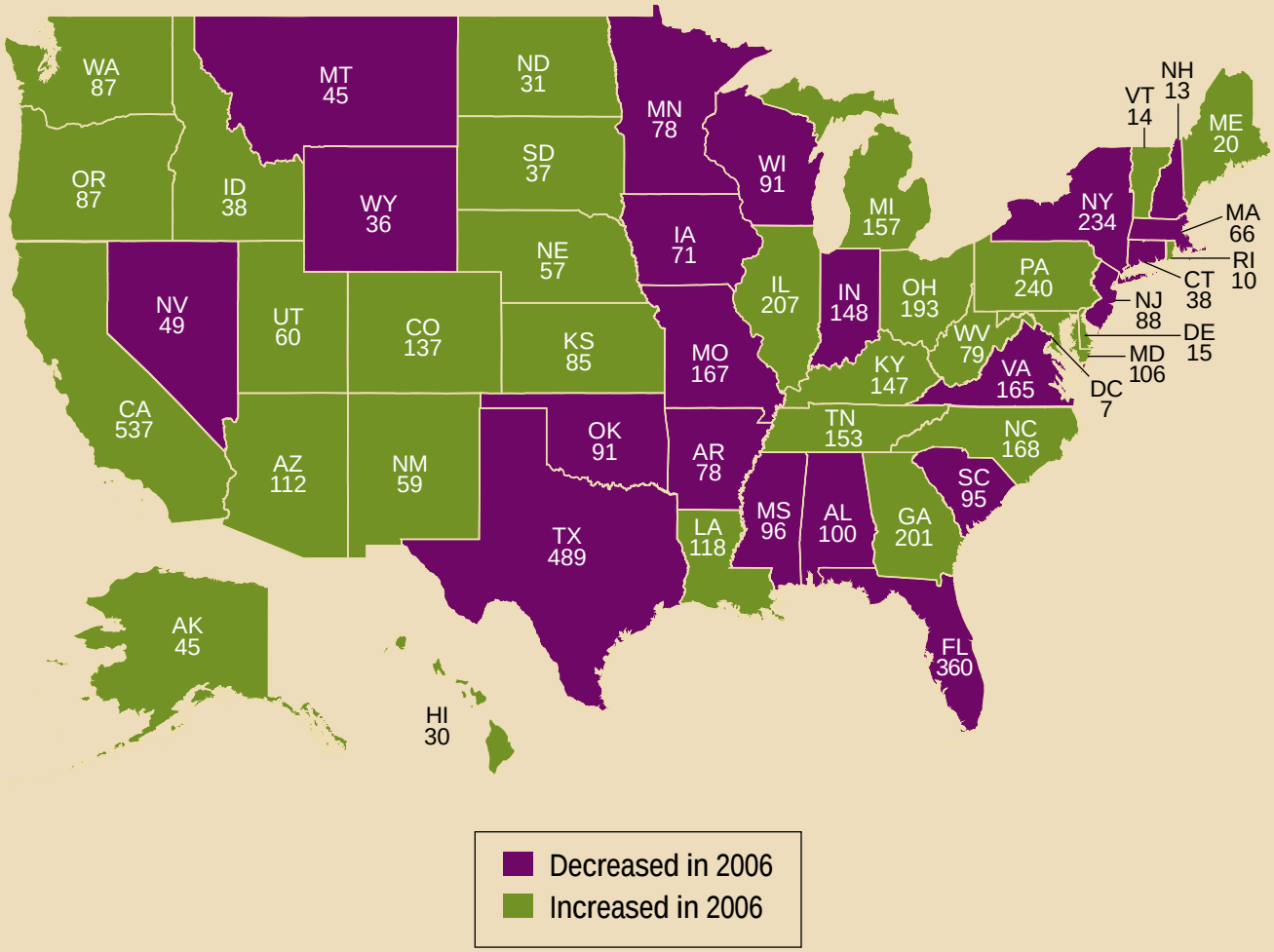
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 22

Twenty-nine States reported higher numbers of fatalities in 2006, and 21 States and the District of Columbia had lower totals.

The States with the highest numbers of workplace fatalities in 2006 were California, Texas, and Florida. These three States are among those with the largest workforce. The States with the lowest numbers were Rhode Island and Delaware. The District of Columbia had fewer fatalities than any State.

Number of fatal work injuries, by State, 2006



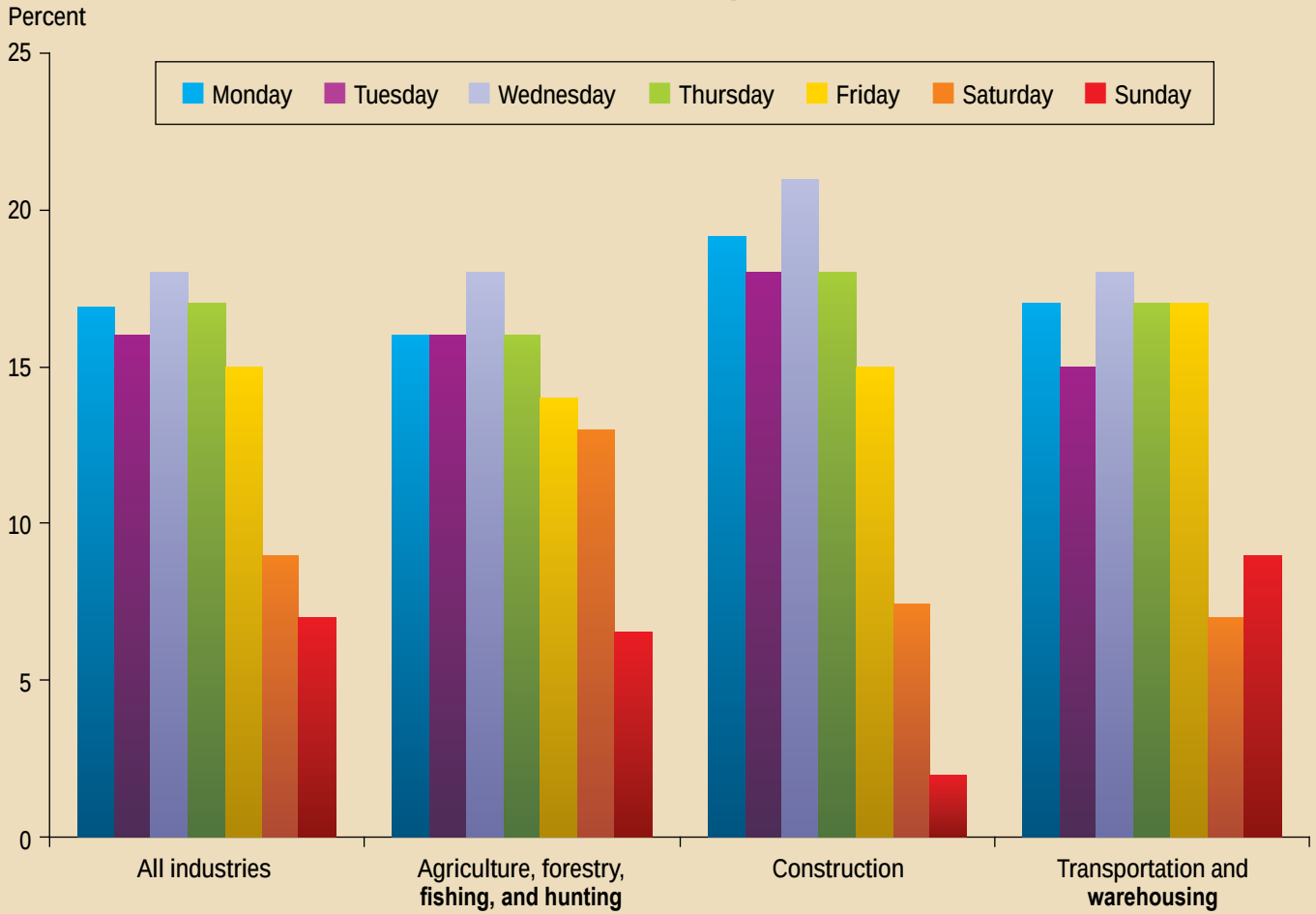
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 23

Overall, more fatal work injuries occurred on Wednesdays than on any other day of the week. The same holds true for fatal injuries in the construction, agriculture, and transportation and warehousing industries.

Aside from the weekend, Fridays reported the least amount of fatal work injuries overall.

Fatal work injuries, by day of incident, selected major industries, all ownerships, 2006



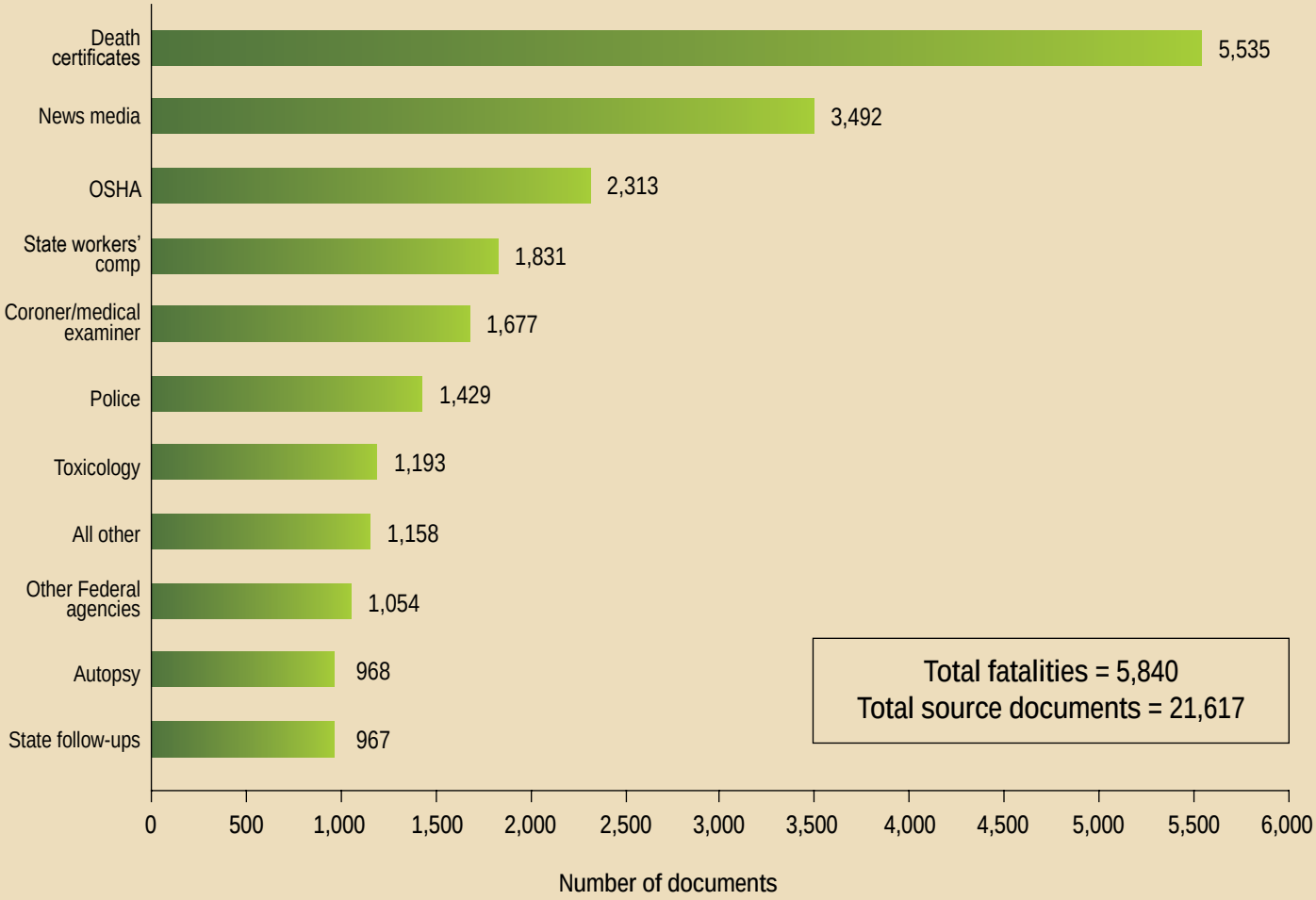
SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 24

The Census of Fatal Occupational Injuries uses a variety of sources to document and verify cases of work-related fatal injury. In 2006, more than 21,000 source documents helped identify and verify information on 5,840 fatal work injuries.

At least 25 different types of source documents may be used by States for worker fatality information. Death certificates are the most prevalent source document used.

Sources of data on fatal work injuries, 2006

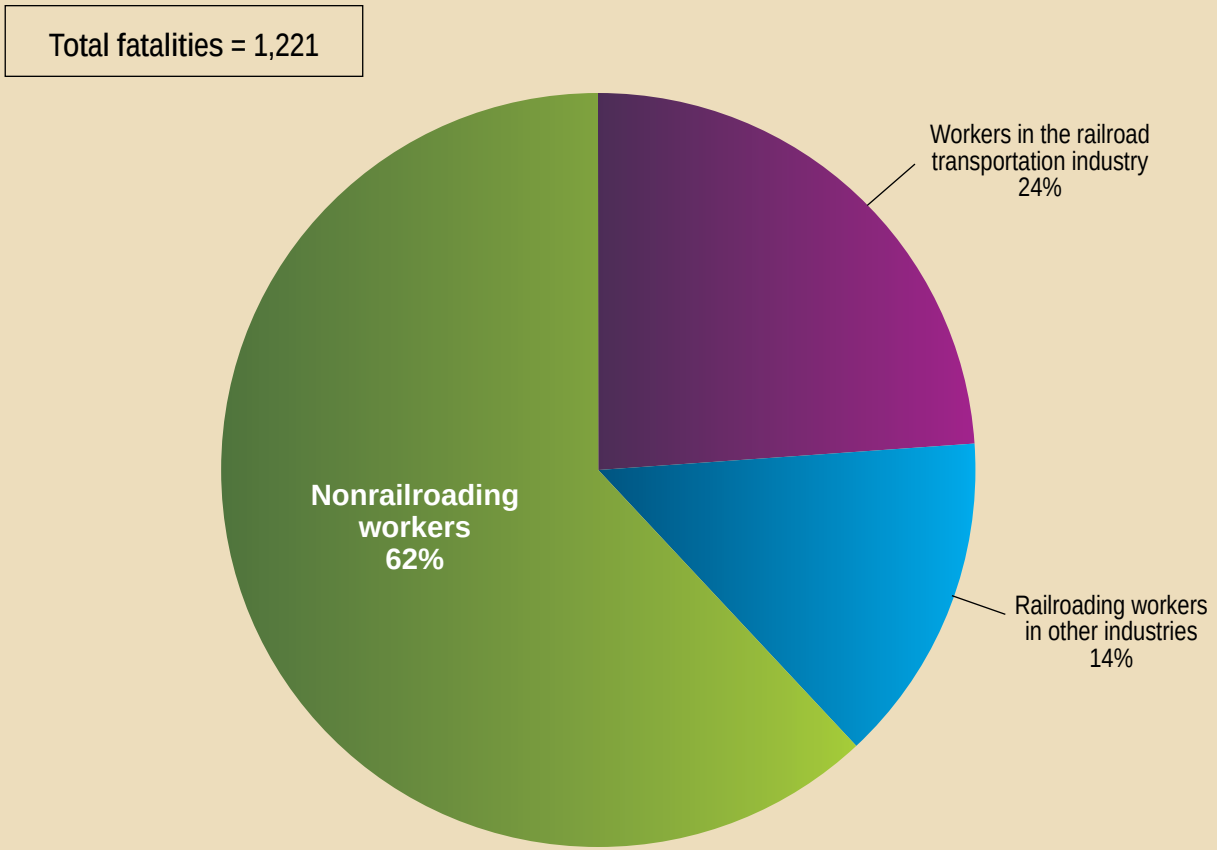


SOURCE: U.S. Bureau of Labor Statistics, U.S. Department of Labor, 2009.

CHART 25

Workplace fatalities related to railroads, 1993–2002

A total of 1,221 fatal railroad-related work injuries occurred from 1993 through 2002. Fatalities involving railroading workers accounted for less than two-fifths of the 1,221 fatal railroad-related work injuries. Railroad-related fatalities involving nonrailroading workers, such as workers in rail transportation occupations outside railroading or truckdrivers in other industries who are fatally injured in at-grade crossing collisions with trains, accounted for more than three-fifths of railroad-related work fatalities.



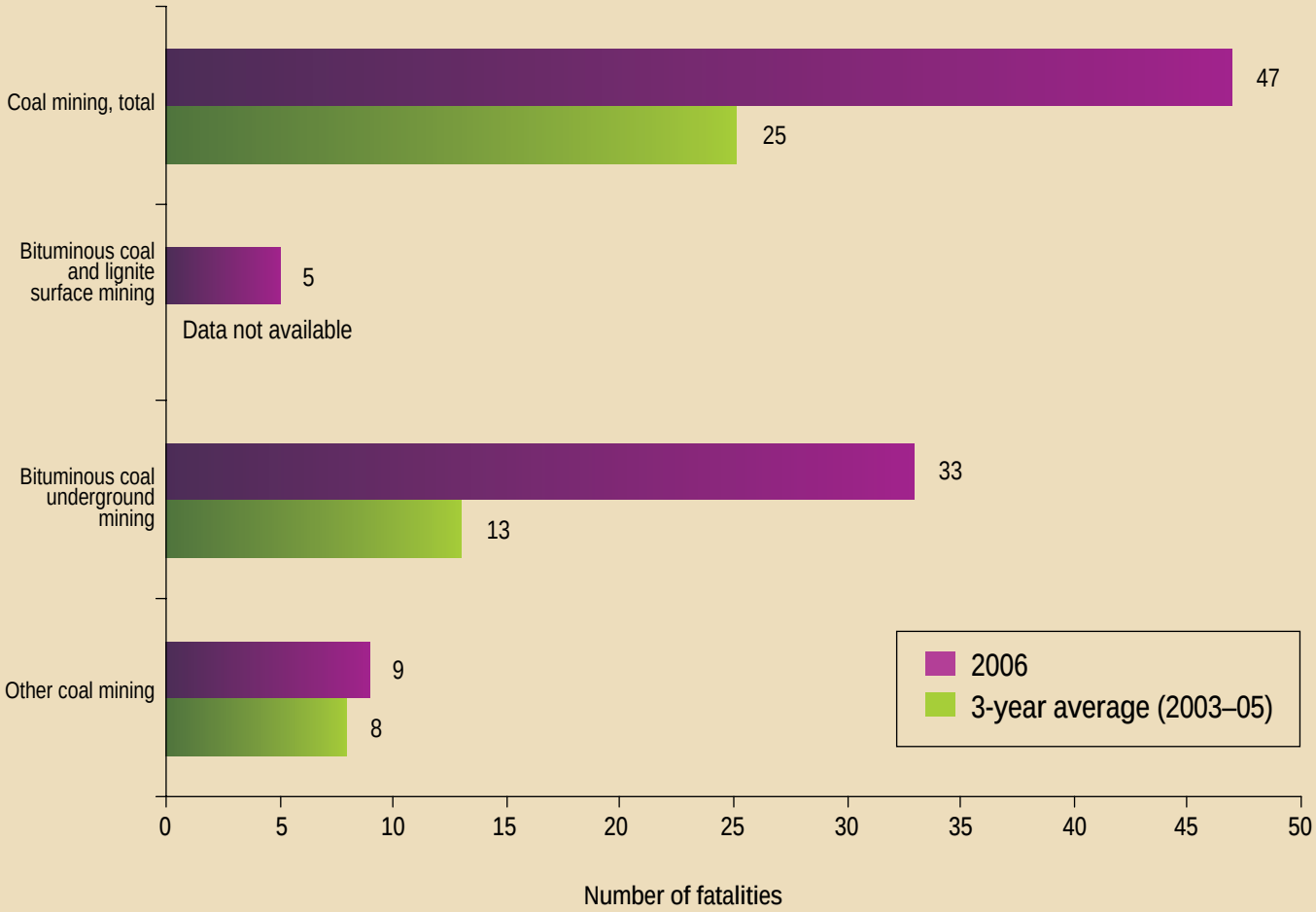
NOTE: Data from 2001 exclude fatalities resulting from the September 11 terrorist attacks.
SOURCE: Drudi, Dino, "Railroad-related Work Injury Fatalities," *Monthly Labor Review,* July–August 2007.

CHART 26

Coal mining had an average of 25 fatalities a year for the period from 2003 to 2005. In 2006, coal mining experienced an 88-percent increase in fatalities over this average.

The increase was accounted for mostly by the large increase in fatalities in bituminous coal underground mining, which almost tripled in 2006. This jump was attributed in part to the Sago Mine disaster and other multiple-fatality coal-mining incidents.

Number of fatalities, coal mining industries, 2003–05 and 2006

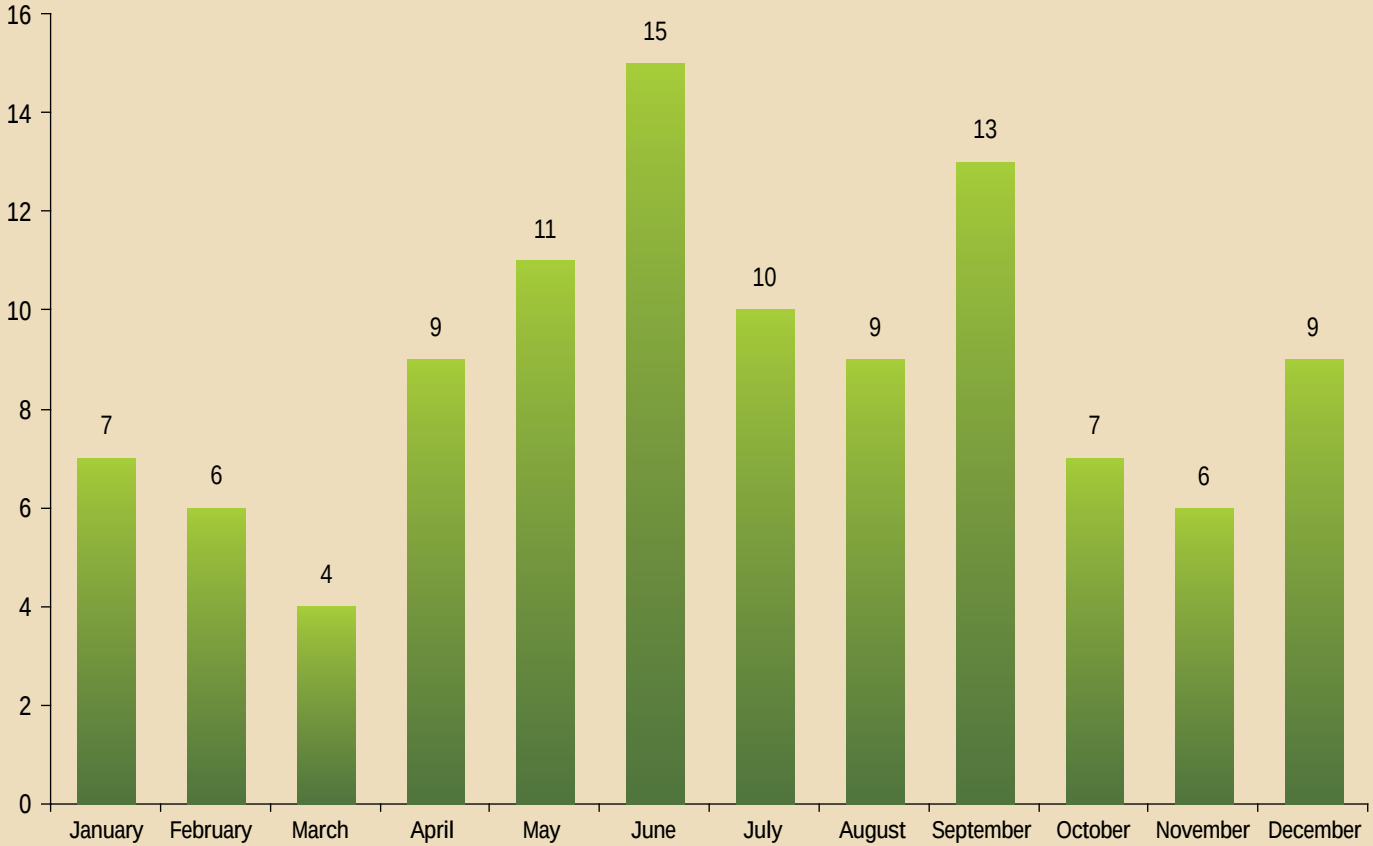


NOTE: The "Other coal mining" category includes both anthracite mining and coal mining that could not be specified any further.
SOURCE: Rice, James B., and Jill A. Janocha, "Coal Mining Injuries, Illnesses, and Fatalities, 2006," *Compensation and Working Conditions*, on the Internet at https://www.bls.gov/opub/cwc/sh20080623ar01p1.htm/.

CHART 27

Fatal occupational injuries related to golf courses occur most frequently during the spring and summer months. Of the 106 workplace fatalities related to golf courses that took place during 2001–06, 67 occurred between April and September.

Fatal occupational injuries related to golf courses, by month of incident, 2001–06



NOTE: Data from 2001 exclude fatalities resulting from the September 11 terrorist attacks.
SOURCE: Pegula, Stephen, "Fatal Occupational Injuries Associated with Golf Courses and Country Clubs, 2001–2006," *Compensation and Working Conditions,* on the Internet at https://www.bls.gov/opub/cwc/sh20080416ar01p1.htm/.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