Fatal Occupational Injuries and Nonfatal Occupational Injuries and Illnesses, 2008

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

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

May 2011
Report 1028
The Bureau of Labor Statistics (BLS, the Bureau) reports the number and frequency of work-related fatal injuries and nonfatal injuries and illnesses each year. The Bureau also provides detailed information on the circumstances of the injuries and illnesses and on the characteristics of the affected worker. These data come from two programs: the Census of Fatal Occupational Injuries (CFOI) and the Survey of Occupational Injuries and Illnesses (SOII).

The CFOI, administered by the Bureau 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 CFOI 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 SOII produces data on work-related nonfatal injuries and illnesses. These data identify the industrial, occupational, and worker groups having a relatively high risk of work-related injuries and illnesses. This survey is made possible through the cooperation of participating State agencies and nearly 200,000 business establishments that provide information on workplace injuries and illnesses to the Bureau. State agencies collect and verify most of the data provided. BLS field offices collect and verify data from nonparticipating States.

Two major enhancements are reflected in the data in this report. For the first time, national data on nonfatal injuries and illnesses are produced for government. Also for the first time, fatal injury rates are calculated on the basis of the number of hours worked rather than the number of days worked. The number of hours worked provides a more accurate picture of the risk experienced at work.

This report includes charts and text highlighting fatal injuries and nonfatal injuries and illnesses by industry, type of case, and case and worker characteristics. Supplementary data, such as injury and illness rates, broken down by detailed industry and establishment size, as well as data on factors to calculate relative standard errors for nonfatal injury and illness estimates can be accessed on the Internet at http://www.bls.gov/iif. The online version of the Occupational Injuries and Illnesses Profiles System is found at http://data.bls.gov/GQT/servlet/InitialPage.

Supplementary data also are available from the Bureau at the following address:

Bureau of Labor Statistics
Office of Safety and Health Statistics
Room 3180
2 Massachusetts Avenue, NE.
Washington, DC 20212
(202) 691-6170
Fax: (202) 691-6196
Email: iifstaff@bls.gov

Jim Rice, Jill Janocha, Andrew Marsh, and Luis Felipe Martinez, of the BLS Occupational Safety and Health Statistics program, prepared this report under the general direction of Katharine Newman. Production of the report was coordinated by Edith S. Baker of the Office of Publications and Special Studies under the management of William Parks II. Bruce Boyd, of the same office, designed and laid out the report. Many other organizations contributed to the success of the survey, including the participating State agencies that collected the data, the BLS regional offices that helped review and process them, and the BLS National Office of Field Operations, whose staff members oversaw survey processes in the State and regional offices. In addition, the BLS National Office of Technology and Survey Processing and the Statistical Methods Group of the BLS Office of Compensation and Working Conditions helped tabulate the data and performed quality control. The Bureau expresses its appreciation to the many employers who responded to the survey and without whose cooperation this report would not have been possible.

Material in this publication is in the public domain and, with appropriate credit, may be used without permission. The information is available to sensory-impaired individuals upon request.

Voice phone: (202) 691–5200
Federal Relay Service: (800) 877–8339.
PREFACE .................................................................................................................................................. iii

Total injuries and illnesses
CHART 1. Number of fatal work injuries, 1992–2008 .................................................................................. 6
CHART 2. Rate of fatal work injuries, per 100,000 full-time equivalent workers, 2005–08 ............................ 7
CHART 3. Incidence rate of nonfatal occupational injuries and illnesses, by type of case, private industry, 2003–08 .................................................................................................................. 8
CHART 4. Incidence rate of nonfatal occupational injuries and illnesses, by type of case and category of ownership, 2008 ........................................................................................................ 9
CHART 5. Number and rate of injuries and illnesses with days away from work, by category of ownership, 2008 ................................................................................................................................ 10
CHART 6. Total recordable nonfatal occupational injury and illness rates, by employment size class, private industry, 2004–08 ..................................................................................................11

Industry
CHART 7. Number and rate of fatal occupational injuries, by industry sector, 2008 ......................................... 12
CHART 8. Incidence rate and number of nonfatal occupational injuries and illnesses, by private industry sector, 2008 .............................................................................................................. 13
CHART 9. Incidence rate of cases with days away from work, job transfer, or restriction, by private industry sector, 2008 .............................................................................................................. 14
CHART 10. Number of cases with days away from work, job transfer, or restriction, by private industry sector, 2008 .................................................................................................................. 15
CHART 11. Incidence rate and number of nonfatal occupational injuries and illnesses, by industry, State government, 2008 ......................................................................................................... 16
CHART 12. Incidence rate and number of nonfatal occupational injuries and illnesses, by selected industries, local government, 2008 ....................................................................................... 17
CHART 13. Incidence rate of nonfatal occupational injuries and illnesses of employees in public and private hospitals, by type of case, 2008 .................................................................................. 18
CHART 14. Highest nonfatal occupational injury and illness rates among NAICS industry subsectors, private industry, 2008 ........................................................................................................ 19

Injuries and Illnesses
CHART 15. Distribution of nonfatal occupational injury and illness cases, by category of illness, private industry, 2008 .................................................................................................................. 20
CHART 16. Incidence rate and number of nonfatal occupational illnesses, by private industry sector, 2008 ........................................................................................................................................ 21

Occupations
CHART 17. Number and rate of fatal occupational injuries, by major civilian occupation group, 2008 ................................................................................................................................................. 22
CHART 18. Selected occupations with high fatal injury rates, 2008 ................................................................ 23
CHART 19. Incidence rate and number of injuries and illnesses for occupations with high rates, 2008 ................................................................................................................................. 24
CHART 20. Occupations with 18,000 or more injuries and illnesses involving days away from work, 2005–08 .................................................................................................................................. 25
CHART 21. Injuries and illnesses involving days away from work for selected occupations in State government with high numbers of cases, by category of ownership, 2008 ........................................................................ 26
CHART 22. Injuries and illnesses involving days away from work for selected occupations in local government with high numbers of cases, by ownership, 2008 .................................................................................. 27
Events
CHART 23. Manner in which fatal work injuries occurred, 2008 ................................................................. 28
CHART 24. Difference in fatal work injury counts, by event, 2007–08 .......................................................... 29
CHART 25. Four most frequent work-related fatal events, 1992–2008 ......................................................... 30
CHART 26. Fatal falls, by type of fall, 2008 ........................................................................................................ 31
CHART 27. How workers died in multiple-fatality incidents, 2008 ................................................................. 32
CHART 28. Median days away from work and incidence rate of injuries and illnesses, by event or exposure, 2008 . 33
CHART 29. Distribution of injuries and illnesses, by event or exposure, 2008 ................................................. 34
CHART 30. Cases of bodily reaction and exertion, by occupation group and part of body, 2008 ....................... 35
CHART 31. Incidence rate of injuries and illnesses with days away from work, by event and category of ownership, 2008 ................................................................. 36
CHART 32. Percent change in incidence rate of injuries and illnesses, by selected events and exposures, 2007–08 ................................................................. 37

Gender, age, ethnicity, and region of worker
CHART 33. Fatal injury events, by gender of worker, 2008 ............................................................................ 38
CHART 34. Number of workplace homicides, by gender of decedent, 1997–2008 ............................................. 39
CHART 35. Distribution of injuries and illnesses with days away from work, and employment, by gender, 2008 .................................................................................. 40
CHART 36. Fatal work injury rates, by age group, 2008 .................................................................................. 41
CHART 37. Median days away from work and incidence rate of injuries and illnesses, by age of worker, 2008 .................................................................................. 42
CHART 38. Number of fatal work injuries involving Hispanic or Latino workers, 1992–2008 ....................... 43
CHART 40. Number of injuries and illnesses, and percentage of cases with days away from work of Hispanic or Latino workers, by industry, 2008 ................................. 45

Musculoskeletal disorders
CHART 41. Incidence rate of musculoskeletal disorders (MSDs), by category of ownership, 2008. .......................... 46
CHART 42. Distribution of musculoskeletal disorders, by nature of injury or illness, 2008 ......................... 47
CHART 43. Incidence rate and number of musculoskeletal disorders, selected occupations, 2008 .................. 48

Special topic: Resident military
CHART 44. Fatal injuries to resident military, by event, 2003–08 ................................................................. 49

Special topic: Mining
CHART 45. Fatal occupational injuries in the private sector mining industry, 2003–08 ................................. 50
CHART 46. Incidence rate of nonfatal injuries and illnesses in mining, private sector, 2008 .................................... 51
A total of 5,214 work-related fatal injuries was recorded in 2008, a decrease of 8 percent from the 5,657 fatal work injuries reported for 2007.

The general trend of fatal workplace injuries from CFOI’s inception in 1992 to 2008 has been downward. The number of fatal work injuries in 2008 was the lowest total recorded by the census.

The highest number of fatal work-related injuries was recorded in 1994 (6,632 fatal injuries).

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

In 2008, BLS implemented a new method for calculating fatal work injury rates. The new method uses hours worked rather than employment.

The rate of fatal work injuries in 2008 was 3.7 per 100,000 full-time equivalent workers, down from 4.0 in 2007.

Rates are expressed per 100,000 full-time equivalent workers. Additional information on changes in the fatal work injury rate methodology is found on the Internet at http://www.bls.gov/iif/oshnotice10.htm.

Estimates of total hours worked are annual average estimates of total employees at work multiplied by average hours for civilians 16 years and older from the Current Population Survey (CPS). Workers under 16 years, volunteer workers, and members of the resident military are not included, in order to maintain consistency with CPS employment estimates.

**Rate of fatal work injuries, per 100,000 full-time equivalent workers, 2005–08**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>4.0</td>
</tr>
<tr>
<td>2006</td>
<td>4.0</td>
</tr>
<tr>
<td>2007</td>
<td>3.8</td>
</tr>
<tr>
<td>2008</td>
<td>3.7</td>
</tr>
</tbody>
</table>

**NOTE:** In 2005, BLS used only employment-based rates. Hours-based rates were phased in in 2006, and employment-base rates were phased out in 2007.

The total recordable case rate of nonfatal injuries and illnesses in 2008 was 3.9 per 100 full-time workers, down from 4.2 in 2007. The total recordable case rate has declined every year since 2003.

The incidence rate of nonfatal injuries and illnesses for each type of case declined from 2007 to 2008, with the exception of cases that involved job transfers or restricted work, which remained unchanged at 0.9 per 100 full-time workers.

The total number of nonfatal occupational injuries and illnesses reported declined from about 4 million cases in 2007 to about 3.7 million cases in 2008, a drop that is reflected in a corresponding decline in the total recordable case rate.
The year 2008 marks the first year for which national public sector data are available. The private sector reported a lower total recordable case rate than did State and local government. Local government had a rate of 7.0 cases per 100 full-time workers, the highest by far of all three categories of ownership in 2008.

Local government had the highest rate for total recordable cases; (1) cases with days away from work; (2) cases with days away from work, job transfer, or restriction; and (3) other recordable cases. Private industry had a slightly higher rate for the cases with job transfer or restriction.

**Incidence rate of nonfatal occupational injuries and illnesses, by type of case and category of ownership, 2008**

<table>
<thead>
<tr>
<th>Type of case</th>
<th>Private industry</th>
<th>State government</th>
<th>Local government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total recordable cases</td>
<td>3.9</td>
<td>4.7</td>
<td>7.0</td>
</tr>
<tr>
<td>Cases with days away from work, job transfer, or restriction</td>
<td>2.0</td>
<td>2.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Cases with days away from work</td>
<td>1.1</td>
<td>1.7</td>
<td>1.9</td>
</tr>
<tr>
<td>Cases with days of job transfer or restriction only</td>
<td>0.9</td>
<td>0.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Other recordable cases</td>
<td>1.9</td>
<td>2.4</td>
<td>4.2</td>
</tr>
</tbody>
</table>

**Type of case**

**Rate per 100 full-time workers**

Of the categories of ownership for which data are available, private industry reported the overwhelming majority of the cases with days away from work, with nearly 4 times as many cases as occurred in State and local government combined.

State and local government injury and illness rates were 170.0 and 194.6 cases per 10,000 full-time workers, respectively. These rates were markedly higher than the private industry incidence rate of 113.3 cases per 10,000 full-time workers.

**Number of injuries and illnesses with days away from work, by category of ownership, 2008**

<table>
<thead>
<tr>
<th>Category of ownership</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>State government</td>
<td>71,100</td>
</tr>
<tr>
<td>Local government</td>
<td>206,580</td>
</tr>
<tr>
<td>Private industry</td>
<td>1,078,140</td>
</tr>
</tbody>
</table>

**Rate of injuries and illnesses with days away from work, by category of ownership, 2008**

<table>
<thead>
<tr>
<th>Category of ownership</th>
<th>Rate per 10,000 full-time workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>State government</td>
<td>170.0</td>
</tr>
<tr>
<td>Local government</td>
<td>194.6</td>
</tr>
<tr>
<td>Private industry</td>
<td>113.3</td>
</tr>
</tbody>
</table>

The total recordable case rate in 2008 was highest among midsized establishments (those with 50 to 249 employees), at 4.9 per 100 full-time workers. The rate was lowest among the smallest establishments (those with 1 to 10 employees), at 1.8 per 100 full-time workers in 2008.

The rate for the largest establishments (those with more than 1,000 employees) has declined the most out of all size groups since 2004. In 2004, the rate in this largest size class was 5.4 per 100 full-time workers. The rate has since declined to 4.1 per 100 full-time workers in 2008.

The total recordable case rate declined by statistically significant amounts from 2004 to 2008 in all sizes classes except the smallest (with 1 to 10 employees).
The highest number of fatal work injuries in 2008 occurred in the private construction sector, followed by transportation and warehousing. However, the highest fatal work injury rates were in the agriculture, forestry, fishing, and hunting sector and the mining sector. Both of these sectors recorded a fatality rate that was more than 4 times higher than the rate of 3.7 recorded for all workers.

In 2008, the Bureau implemented a new methodology, using hours worked, rather than employment, for fatal work injury rate calculations. Rates are expressed per 100,000 full-time equivalent workers. Additional information on changes in the fatal work injury rate methodology is found on the Internet at http://www.bls.gov/iif/oshnotice10.htm.

Number and rate of fatal occupational injuries, by industry sector, 2008

Incidence rate and number of nonfatal occupational injuries and illnesses, by private industry sector, 2008

Three sectors alone—manufacturing, health care and social assistance, and retail trade—combined to account for about half of recordable cases reported among all private industry establishments in 2008.

The rate of nonfatal injuries and illnesses among private industry sectors in 2008 ranged from 5.7 cases per 100 workers in transportation and warehousing down to 0.9 case in finance and insurance. Manufacturing had the highest number of nonfatal cases, 689,700.

<table>
<thead>
<tr>
<th>Industry sector</th>
<th>Incidence rate (per 100 full-time workers)</th>
<th>Number of cases (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and warehousing</td>
<td>5.7</td>
<td>241.8</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>5.4</td>
<td>660.2</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing, and hunting</td>
<td>5.3</td>
<td>46.5</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>5.1</td>
<td>68.7</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5.0</td>
<td>689.7</td>
</tr>
<tr>
<td>Construction</td>
<td>4.7</td>
<td>322.7</td>
</tr>
<tr>
<td>Retail trade</td>
<td>4.4</td>
<td>311.7</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>4.1</td>
<td>218.5</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>3.5</td>
<td>154.3</td>
</tr>
<tr>
<td>Utilities</td>
<td>3.1</td>
<td>95.0</td>
</tr>
<tr>
<td>Administrative and waste services</td>
<td>3.1</td>
<td>57.2</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>3.1</td>
<td>24.3</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>3.1</td>
<td>39.1</td>
</tr>
<tr>
<td>Mining</td>
<td>3.0</td>
<td>52.4</td>
</tr>
<tr>
<td>Educational services</td>
<td>2.9</td>
<td>28.7</td>
</tr>
<tr>
<td>Information</td>
<td>2.3</td>
<td>81.9</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>2.0</td>
<td>51.0</td>
</tr>
<tr>
<td>Professional and technical services</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.9</td>
<td></td>
</tr>
</tbody>
</table>
Manufacturing was the only industry sector in which the rate of cases involving job transfer or restriction exceeded the rate of cases involving days away from work in 2008, a trend that has continued since 1998.

In the goods-producing industries, mining had the lowest rate for days away from work, job transfer, or restriction in 2008. In the service-providing industries, finance and insurance had the lowest rate for days away from work, job transfer, or restriction in 2008.

Transportation and warehousing had the highest rates for days away from work, job transfer, or restriction and days away from work among all industries with a days-away-from-work rate of 2.5 per 100 full-time workers.
Number of cases with days away from work, job transfer, or restriction, by private industry sector, 2008

Manufacturing was the only industry sector in which the number of cases involving days of job transfer or restriction was significantly higher than the number of cases involving days away from work. This sector also reported more cases of job transfer or restriction than any other industry sector in 2008, with 70,800 more estimated cases than the next-highest industry.

The manufacturing, health care and social assistance, and retail trade industries made up about 58 percent of all the cases involving job transfer and restriction in private industry in 2008.

Health care and social assistance and manufacturing were the two industries with the most days-away-from-work cases in 2008.

The year 2008 was the first year that SOII produced national public sector estimates for injuries and illnesses. The survey covered nearly 5 million State government employees.

In State government, hospitals had 36,900 injuries and illnesses, and a rate of 11.9. Colleges and universities, by contrast, had 31,500 injuries and illnesses, and a rate of 2.6.

Injuries and illnesses in hospitals, correctional institutions, and colleges and universities make up over 52 percent of the total recorded SOII cases for State government in 2008.

The year 2008 was the first year that SOII produced national public sector estimates for injuries and illnesses. The survey covered nearly 14 million local government employees.

Almost 40 percent (a total of 284,500) of all recordable local government injuries and illnesses occurred among elementary and secondary school workers in 2008. The rate for elementary and secondary schools in local government was 5.6 per 100 full-time workers in 2008.

Incidence rate and number of nonfatal occupational injuries and illnesses, by selected industries, local government, 2008

<table>
<thead>
<tr>
<th>Industry</th>
<th>Incidence Rate (per 100 full-time workers)</th>
<th>Number of Cases (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire protection (NAICS 92216)</td>
<td>14.8</td>
<td>262</td>
</tr>
<tr>
<td>Police protection (NAICS 92212)</td>
<td>14.5</td>
<td>618</td>
</tr>
<tr>
<td>Heavy and civil engineering construction (NAICS 237)</td>
<td>12.9</td>
<td>126</td>
</tr>
<tr>
<td>Nursing and residential care facilities (NAICS 623)</td>
<td>9.5</td>
<td>52</td>
</tr>
<tr>
<td>Water, sewage, and other systems (NAICS 2213)</td>
<td>9.0</td>
<td>135</td>
</tr>
<tr>
<td>Hospitals (NAICS 622)</td>
<td>7.3</td>
<td>392</td>
</tr>
<tr>
<td>Transit and ground passenger transportation (NAICS 485)</td>
<td>6.8</td>
<td>131</td>
</tr>
<tr>
<td>Elementary and secondary schools (NAICS 6111)</td>
<td>5.6</td>
<td>284</td>
</tr>
</tbody>
</table>

Employees at State hospitals experienced nonfatal occupational injuries and illnesses at a rate of 11.9 per 100 full-time workers, a rate that was notably higher than that of employees at either private or local government hospitals. The latter two rates were not significantly different from each another.

There were about 275,600 nonfatal occupational injuries and illnesses in private hospitals, 36,900 in State hospitals, and 39,200 in local government hospitals in 2008.
Injuries and illnesses are coded in the North American Industry Classification System (NAICS) of codes. Couriers and messengers, air transportation, and nursing and residential care facilities had the highest incidences of nonfatal occupational injuries and illnesses in 2008. All exhibited rates that were more than twice the rate for all private industry, which was 3.9 per 100 full-time workers.

Four out of the 10 industries shown in the chart experienced declines in rates from 2007. The four were three industries in transportation and warehousing (couriers and messengers; air transportation; and warehousing and storage) and primary metal manufacturing.

**Highest nonfatal occupational injury and illness rates among NAICS industry subsectors, private industry, 2008**

<table>
<thead>
<tr>
<th>Industry sector</th>
<th>Incidence rate (per 100 full-time workers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couriers and messengers (NAICS 492)</td>
<td>8.7</td>
</tr>
<tr>
<td>Air transportation (NAICS 481)</td>
<td>8.7</td>
</tr>
<tr>
<td>Nursing and residential care facilities (NAICS 623)</td>
<td>8.4</td>
</tr>
<tr>
<td>Hospitals (NAICS 622)</td>
<td>7.6</td>
</tr>
<tr>
<td>Primary metal manufacturing (NAICS 331)</td>
<td>7.2</td>
</tr>
<tr>
<td>Wood product manufacturing (NAICS 321)</td>
<td>7.2</td>
</tr>
<tr>
<td>Animal production (NAICS 112)</td>
<td>6.9</td>
</tr>
<tr>
<td>Warehousing and storage (NAICS 493)</td>
<td>6.8</td>
</tr>
<tr>
<td>Fabricated metal product manufacturing (NAICS 332)</td>
<td>6.8</td>
</tr>
<tr>
<td>Beverage and tobacco product manufacturing (NAICS 312)</td>
<td>6.8</td>
</tr>
</tbody>
</table>

Total private industry rate: 3.9

CHART 15

Illnesses

Injuries accounted for the vast majority of the nearly 3.7 million injury and illness cases reported in the private sector in 2008. Illnesses accounted for 5.1 percent of all injury and illness cases reported among private industry workplaces in 2008, about the same percentage as in 2007.

The number of reported occupational illnesses in private industry declined from 206,300 in 2007 to 187,400 in 2008, and the rate declined from 21.8 per 10,000 full-time workers in 2007 to 19.7 per 10,000 full-time workers in 2008.

The rate and number for the “all other illnesses” category fell significantly; however, the rates and numbers for skin diseases, respiratory conditions, poisonings, and hearing loss stayed about the same from 2007 to 2008.

Because illnesses make up a smaller fraction of cases than injuries, the rates are reported per 10,000 full-time workers. Injuries are reported per 100 full-time workers.

NOTE: Illness rates are per 10,000 full-time workers; injuries are reported per 100 full-time workers.

ILLNESSES

More cases of illness were reported in manufacturing than in any other industry sector in 2008. The rate of illness in manufacturing was 43.2 cases per 10,000 full-time workers, more than twice the rate of illnesses in private industry nationally, which was 19.7 cases per 10,000 full-time workers.

In 2008, manufacturing, retail trade, and wholesale trade were the only three sectors in which illness rates changed from 2007. Illness rates declined in manufacturing and retail trade, while they rose in wholesale trade.

Some conditions, such as long-term latent illnesses caused by exposure to carcinogens, often are difficult to relate to the workplace and are not adequately recognized and reported. These are believed to be understated in the SOII. The overwhelming majority of new illnesses reported are those which are easier to relate directly to workplace activity (for example, contact dermatitis or carpal tunnel syndrome).

Incidence rate and number of nonfatal occupational illnesses, by private industry sector, 2008

**Chart 16**

Among major occupation groups, transportation and material moving occupations recorded the highest number of fatal injuries in 2008, followed by construction and extraction occupations.

The fatal injury rate for farming, fishing, and forestry occupations, the highest of any occupational group, was more than 7 times the overall rate of 3.7 fatal work injuries per 100,000 full-time equivalent workers.

In 2008, the Bureau implemented a new methodology, using hours worked, rather than employment, for fatal work injury rate calculations. Rates are expressed per 100,000 full-time equivalent workers. Additional information on changes in the fatal work injury rate methodology is found on the Internet at http://www.bls.gov/iif/oshnotice10.htm.

**Number and rate of fatal occupational injuries, by major civilian occupation group, 2008**

<table>
<thead>
<tr>
<th>Occupational group</th>
<th>Number of fatal work injuries</th>
<th>Fatal work injury rate (per 100,000 full-time equivalent workers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and material moving</td>
<td>1,376</td>
<td>16.1</td>
</tr>
<tr>
<td>Construction and extraction</td>
<td>977</td>
<td>11.8</td>
</tr>
<tr>
<td>Service</td>
<td>681</td>
<td>3.2</td>
</tr>
<tr>
<td>Management, business, and financial</td>
<td>577</td>
<td>2.5</td>
</tr>
<tr>
<td>Installation, maintenance, and repair</td>
<td>354</td>
<td>6.7</td>
</tr>
<tr>
<td>Farming, fishing, and forestry</td>
<td>286</td>
<td>28.4</td>
</tr>
<tr>
<td>Sales and related</td>
<td>275</td>
<td>1.8</td>
</tr>
<tr>
<td>Production</td>
<td>267</td>
<td>3.0</td>
</tr>
<tr>
<td>Professional and related</td>
<td>267</td>
<td>0.9</td>
</tr>
<tr>
<td>Office and administrative support</td>
<td>89</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Total fatal work injuries = 5,214**

**All-worker fatal injury rate = 3.7**
Even though driver/sales workers and truck drivers experienced the highest number of fatal injuries, the highest fatal work injury rates were recorded by fishers and by logging workers. The fatal injury rate of 128.2 recorded by fishers was more than 30 times the rate of 3.7 for all workers.

Aircraft pilots and flight engineers also recorded relatively high fatality rates.

In 2008, the Bureau implemented a new methodology, using hours worked, rather than employment, for fatal work injury rate calculations. Rates are expressed per 100,000 full-time equivalent workers. Additional information on changes in the fatal work injury rate methodology is found on the Internet at http://www.bls.gov/iif/oshnotice10.htm.

Selected occupations with high fatal injury rates, 2008

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Total fatal work injuries</th>
<th>Number of fatal work injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishers and related fishing workers</td>
<td>50</td>
<td>324</td>
</tr>
<tr>
<td>Logging workers</td>
<td>85</td>
<td>150</td>
</tr>
<tr>
<td>Aircraft pilots and flight engineers</td>
<td>91</td>
<td>100</td>
</tr>
<tr>
<td>Structural iron and steel workers</td>
<td>36</td>
<td>50</td>
</tr>
<tr>
<td>Farmers and ranchers</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Refuse and recyclable material collectors</td>
<td>69</td>
<td>50</td>
</tr>
<tr>
<td>Roofers</td>
<td>69</td>
<td>50</td>
</tr>
<tr>
<td>Electrical power-line installers and repairers</td>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td>Driver/sales workers and truck drivers</td>
<td>856</td>
<td>100</td>
</tr>
</tbody>
</table>

In private industry, 12 occupations with at least 0.1 percent of employment had incidence rates of cases involving days away from work that were at least 2 1/2 times the average. Together, these occupations accounted for 26.1 percent of all cases involving days away from work.

Of the 12 occupations, nursing aides, orderlies, and attendants; and laborers and freight, stock and material movers had the highest rates. Emergency medical technicians and paramedics also had a high rate, but a comparatively low number of cases.

### Incidence rate and number of injuries and illnesses for occupations with high rates, 2008

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Rate per 10,000 full-time workers</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing aides, orderlies, and attendants</td>
<td>449</td>
<td>44,610</td>
</tr>
<tr>
<td>Laborers and freight, stock, and material movers</td>
<td>440</td>
<td>79,590</td>
</tr>
<tr>
<td>Emergency medical technicians and paramedics</td>
<td>387</td>
<td>4,560</td>
</tr>
<tr>
<td>Construction laborers</td>
<td>383</td>
<td>31,310</td>
</tr>
<tr>
<td>Heavy and tractor-trailer truck drivers</td>
<td>362</td>
<td>57,700</td>
</tr>
<tr>
<td>Reservation and transportation ticket agents and travel clerks</td>
<td>354</td>
<td>4,920</td>
</tr>
<tr>
<td>Roofers</td>
<td>349</td>
<td>3,400</td>
</tr>
<tr>
<td>Cooks, institution and cafeteria</td>
<td>331</td>
<td>5,510</td>
</tr>
<tr>
<td>Light or delivery service truck drivers</td>
<td>324</td>
<td>7,820</td>
</tr>
<tr>
<td>Industrial machinery mechanics</td>
<td>300</td>
<td>3,470</td>
</tr>
<tr>
<td>Food servers, nonrestaurant</td>
<td>298</td>
<td>10,870</td>
</tr>
<tr>
<td>Welders, cutters, solderers, and brazers</td>
<td>292</td>
<td></td>
</tr>
</tbody>
</table>

In private industry, 12 occupations had 18,000 or more injuries and illnesses involving days away from work in 2008, making up 36.4 percent of days-away-from-work injuries and illnesses.

The three occupations shown from the transportation and material moving occupation group (laborers and freight, stock, and material movers; heavy and tractor-trailer truck drivers; and light or delivery truck drivers) made up 15.3 percent of all injuries and illnesses involving days away from work in 2008.

From 2007 to 2008, the number of cases decreased for construction laborers, retail salespersons, janitors and cleaners, light or delivery truck drivers, general maintenance and repair workers, registered nurses, and carpenters. The other occupations were statistically unchanged from 2007.

**Occupations with 18,000 or more injuries and illnesses involving days away from work, 2005–08**

Injuries and illnesses involving days away from work for selected occupations in State government with high numbers of cases, by category of ownership, 2008

Eight occupations in State government experienced more than 2,000 cases involving days away from work. Of these occupations, correctional officers and jailers had the highest number of cases and accounted for 17.5 percent of days-away-from-work cases in State government. No other occupation had more than 5,000 cases.

Psychiatric aides and psychiatric technicians both had large numbers of cases in State government but almost no cases in local government.

In local government, 11 occupations experienced more than 4,000 cases involving days away from work. Of these occupations, police and sheriffs’ patrol officers had the highest number of cases and accounted for 11.6 percent of days-away-from-work cases in local government.

Firefighters had 16,800 cases and accounted for 8.1 percent of cases in local government; there were fewer than 200 cases each in State government and private industry. Of the injuries to firefighters in local government, 61.8 percent were sprains and strains.

In addition to firefighters, several other occupations exhibited many cases in local government but few cases in State government. This difference is due in part to the different responsibilities of State and local government.
Manner in which fatal work injuries occurred, 2008

In percent

- Transportation incidents, 41%
- Highway, 23%
- Falls, 13%
- Fall to lower level, 11%
- Struck by object, 10%
- Homicide, 10%
- Assaults and violent acts, 16%
- Contact with objects and equipment, 18%
- Exposure to harmful substances or environments, 8%
- Fires and explosions, 3%

TOTAL = 5,214

NOTE: Percentages may not add to totals because of rounding.
Events

Although the total number of fatal work injuries declined from 2007 to 2008, fatal injuries resulting from contact with objects and equipment and from fires and explosions increased.

By contrast, fatal injuries resulting from transportation incidents, falls, exposure to harmful substances or environments, and assaults and violent acts all decreased in 2008.

Difference in fatal work injury counts, by event, 2007–08

Event

All events
Transportation incidents
Falls
Exposure to harmful substances or environments
Assaults and violent acts
Contact with objects and equipment
Fires and explosions

2007 total = 5,657; 2008 total = 5,214

Change in fatal events from 2007 level

Four types of fatal events in the workplace—highway incidents, homicides, falls, and incidents in which a worker was struck by an object—have been the most frequent since the census began. Highway incidents have been the leading fatal event since 1992.

Workplace homicides have declined more than 50 percent since 1994. Highway incidents declined from 1,414 in 2007 to 1,215 in 2008.

Homicides were the third most frequent fatal event in 2007 and 2008, overtaking struck-by-object deaths, which had been third from 2004 through 2006.

Falls accounted for about 13 percent of fatal work injuries in 2008.

Of the 700 fatal falls in 2008, more than one-third were 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 accounted for about 13 percent of fatal work injuries in 2008.

Of the 700 fatal falls in 2008, more than one-third were 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 accounted for about 13 percent of fatal work injuries in 2008.

Of the 700 fatal falls in 2008, more than one-third were 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.
In 2008, 495 workers were killed in 187 multiple-fatality incidents, defined as single incidents in which two or more workers were fatally injured. These incidents involved 9 percent of all fatal injuries.

Transportation incidents accounted for more than three-fifths of the workers killed in multiple-fatality events. Highway and aircraft transportation incidents each made up a quarter of the total number of multiple-fatality work injuries.
The median number of days away from work is a key measure of the severity of injuries and illnesses.

In private industry, repetitive motion had the highest median days away from work among leading events and exposures, but it had a relatively low incidence rate. At 18 median days away from work, cases due to repetitive motion injuries required more than twice the median number of days away from work than did all injuries and illnesses in private industry. Women accounted for 57.5 percent of injury and illnesses cases due to repetitive motion and 35.7 percent of days-away-from-work cases.

With a median 15 days away from work, falls to a lower level required the second-highest median days away from work among leading exposures. Of cases due to falls to a lower level, 37.8 percent required more than 31 days away from work, a higher number than that for private industry cases, in which 26.0 percent required more than 31 days away from work.

Median days away from work and incidence rate of injuries and illnesses, by event or exposure, 2008

Median days away from work (private industry median days = 8)

Days-away-from-work rate (private industry rate = 113)
In private industry, bodily reaction and exertion, contact with objects and equipment, and falls accounted for 9 out of 10 nonfatal injuries and illnesses involving days away from work in 2008.

Of those cases that were due to contact with objects and equipment, 46.5 percent involved the upper extremities of the body and 30.7 percent resulted in cuts, lacerations, and punctures. Men accounted for 75.7 percent of cases due to contact with objects and equipment, and 63.9 percent of days-away-from-work cases.

**Distribution of injuries and illnesses, by event or exposure, private industry, 2008**

**In percent**

- Bodily reaction and exertion, 38.6
- Contact with objects and equipment, 27.1
- Falls, 21.8
- Exposures to harmful substances, 4.2
- Transportation accidents, 4.5
- Assaults and violent acts, 2.1
- Fires and explosions, 0.2
- Other events, 1.5

Cases of bodily reaction and exertion, by occupation group and part of body, 2008

In percent

<table>
<thead>
<tr>
<th>Bodily reaction and exertion, by occupation group</th>
<th>In percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service</td>
<td>22.0</td>
</tr>
<tr>
<td>Transportation and material moving</td>
<td>21.2</td>
</tr>
<tr>
<td>Production</td>
<td>12.6</td>
</tr>
<tr>
<td>All other occupation groups</td>
<td>34.7</td>
</tr>
<tr>
<td>Construction and extraction</td>
<td>9.5</td>
</tr>
<tr>
<td>Construction and extraction, 9.5</td>
<td></td>
</tr>
<tr>
<td>transportation and material moving, 21.2</td>
<td></td>
</tr>
<tr>
<td>All other parts</td>
<td>31.6</td>
</tr>
<tr>
<td>Back</td>
<td>41.2</td>
</tr>
<tr>
<td>Wrist</td>
<td>5.7</td>
</tr>
<tr>
<td>Knee</td>
<td>9.7</td>
</tr>
<tr>
<td>Shoulder</td>
<td>11.8</td>
</tr>
</tbody>
</table>

Days-away-from-work cases = 1,078,140
Total cases, bodily reaction and exertion = 415,690

Bodily reaction and exertion cases made up 38.6 percent of all cases involving days away from work. These cases most often afflicted workers in service occupations and in transportation and material moving occupations. In each of these two occupational groups, more than 9 in 10 of all bodily reaction and exertion cases involved traumatic injury.

Cases with bodily reaction and exertion most often resulted in injuries to the back. Of these injuries, more than 4 out of 5 involved traumatic injury to muscles, tendons, ligaments, and joints.

EVENTS

Assaults against workers in State government occurred at a rate of 28.6 cases per 10,000 full-time workers, much higher than the rates for local government (12.6) and private industry (2.4). In State government, the rate of assaults was especially high in the health care and social assistance industry, with 122.3 cases per 10,000 full-time employees. Most of these assaults were injuries caused by health care patients.

Local government and State government had high rates for overexertion and for falls on the same level. In each ownership category, patient handling was the source of a large portion of total overexertion cases, accounting for 24.8 percent of cases in State government, 18.0 percent in local government, and 14.8 percent in private industry.

Incidence rate of injuries and illnesses with days away from work, by event and category of ownership, 2008

The days-away-from-work rate for all events in private industry fell by 7.3 percent between 2007 and 2008. Cases involving repetitive motion fell by 17.9 percent, while cases involving exposure to harmful substances fell by 14.3 percent. The 2008 incidence rate of repetitive motion injuries was 3.2 per 10,000 full-time workers. Exposure to harmful substances had an incidence rate of 4.8 per 10,000 full-time workers.

Assaults by animals fell by 25.0 percent (from 0.8 to 0.6 per 10,000 full-time workers), while total assaults fell by 7.7 percent.

The rates for “struck by object,” “fall on same level,” and “total overexertion” fell by less than the average for all events and exposures.

Men experienced a disproportionate share of fatal work injuries relative to their hours worked in 2008. Although men make up just over half of the workforce, they experienced more than 90 percent of workplace fatalities.

In 2008, the number of fatal work injuries fell to CFOI series lows for both men and women, with 4,827 and 387 such injuries, respectively. 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 highway incidents and homicides. Men had a higher percentage of fatal work injuries resulting from contact with objects and equipment, falls, exposure to harmful substances or environments, and fires and explosions.

### Chart 33: Fatal injury events, by gender of worker, 2008

- **Highway incidents**: Men (23) vs. Women (28)
- **Homicides**: Men (9) vs. Women (25)
- **Contact with objects and equipment**: Men (19) vs. Women (6)
- **Falls**: Men (14) vs. Women (11)
- **Exposure to harmful substances or environments**: Men (9) vs. Women (6)
- **Fires and explosions**: Men (3) vs. Women (2)

**Percent of fatal work injuries, by gender**

Workplace homicides declined by 16 percent in 2008, following a 16-percent increase between 2006 and 2007. In 2008, workplace homicides with women victims dropped to 98 (the same level as in 2005), the lowest level in the history of the CFOI. Men account for about 80 percent of workplace homicide victims each year.

Overall, workplace homicides declined 39 percent from 1997 to 2008.

**Number of workplace homicides, by gender of decedent, 1997–2008**

Number of homicides

<table>
<thead>
<tr>
<th>Year</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>715</td>
<td>145</td>
</tr>
<tr>
<td>1998</td>
<td>714</td>
<td>164</td>
</tr>
<tr>
<td>1999</td>
<td>651</td>
<td>126</td>
</tr>
<tr>
<td>2000</td>
<td>677</td>
<td>134</td>
</tr>
<tr>
<td>2001</td>
<td>643</td>
<td>128</td>
</tr>
<tr>
<td>2002</td>
<td>609</td>
<td>136</td>
</tr>
<tr>
<td>2003</td>
<td>632</td>
<td>119</td>
</tr>
<tr>
<td>2004</td>
<td>559</td>
<td>99</td>
</tr>
<tr>
<td>2005</td>
<td>567</td>
<td>98</td>
</tr>
<tr>
<td>2006</td>
<td>540</td>
<td>120</td>
</tr>
<tr>
<td>2007</td>
<td>628</td>
<td>113</td>
</tr>
<tr>
<td>2008</td>
<td>526</td>
<td>98</td>
</tr>
</tbody>
</table>

NOTE: Data from 2001 exclude fatal work injuries resulting from the September 11 terrorist attacks.

In all categories of ownership (both private and public) for which data are available, men account for at least 52 percent or more of cases involving days away from work. This is most pronounced in private industry, where men account for 64 percent of such cases. In private industry, men compose 54 percent of employment.

In State and local government, men also compose the majority of cases involving days away from work, but in both of these ownership categories women make up the majority of employment, with 58 percent in State government and 61 percent in local government.

**Distribution of injuries and illnesses with days away from work, and employment, by gender, 2008**

**Private industry injuries and illnesses**
- Men: 64
- Women: 36

**State government injuries and illnesses**
- Men: 52
- Women: 48

**Local government injuries and illnesses**
- Men: 59
- Women: 41

**Employment (Current Population Survey, wage and salary workers)**
- Private industry
  - Men: 54
  - Women: 46
- State government
  - Men: 42
  - Women: 58
- Local government
  - Men: 39
  - Women: 61

Fatal work injury rates are higher for older workers. In 2008, workers 45 years and older recorded rates higher than the all-worker rate, while workers 44 years and younger recorded rates lower than the all-worker rate.

The fatal injury rate for workers 65 years and older (12.7 fatal work injuries per 100,000 full-time equivalent workers) was more than 3 times higher than the all-worker rate of 3.7. The rate for workers 16 and 17 years old (2.5 fatal work injuries per 100,000 full-time equivalent workers) was considerably lower than the all-worker rate.

In 2008, the Bureau implemented a new methodology, using hours worked, rather than employment, for fatal work injury rate calculations. Data on hours worked are provided by the Current Population Survey. Rates are expressed per 100,000 full-time equivalent workers. Additional information on changes in the fatal work injury rate methodology are found on the Internet at http://www.bls.gov/iif/oshnotice10.htm.

Gender, Age, Ethnicity, and Region of Worker

The median number of days away from work increases with age. Median days away from work for workers ages 35 years and older are above the median of 8 days away from work for all private industry. Median days away from work for workers in all age groups below age 35 are below the median for all private industry.

Workers ages 25 to 44 years and workers 65 years and older have rates lower than the average of 113 cases per 10,000 full-time workers for private industry, while all other groups have rates similar to or greater than the average.

The rate of injuries to workers 65 years and older increased 6.4 percent from 2007 to 2008. The rate for other groups declined.

Median days away from work and incidence rate of injuries and illnesses, by age of worker, 2008

- **Median days away from work (Private industry median days = 8)**
- **Days-away-from-work rate (Private industry rate = 113)**

### Age Group
- **65 years and older**
  - Median days away from work: 15
  - Rate per 10,000 full-time workers: 102
- **55 to 64 years**
  - Median days away from work: 12
  - Rate per 10,000 full-time workers: 117
- **45 to 54 years**
  - Median days away from work: 10
  - Rate per 10,000 full-time workers: 117
- **35 to 44 years**
  - Median days away from work: 9
  - Rate per 10,000 full-time workers: 111
- **25 to 34 years**
  - Median days away from work: 6
  - Rate per 10,000 full-time workers: 109
- **20 to 24 years**
  - Median days away from work: 5
  - Rate per 10,000 full-time workers: 119
- **16 to 19 years**
  - Median days away from work: 4
  - Rate per 10,000 full-time workers: 116

The number of fatal work injuries involving Hispanic or Latino workers declined to 804 in 2008, after reaching a series high of 990 in 2006.

Fatal injuries suffered by foreign-born Hispanics or Latinos fell 21 percent from 2007, while those suffered by native-born Hispanics or Latinos fell 1 percent. About three-fifths of fatally injured Hispanic or Latino workers in 2008 were born outside of the United States.

Since 1992, fatal work injuries to foreign-born Hispanic or Latino workers have increased 83 percent, while those to native-born Hispanic or Latino workers increased by 17 percent.

NOTE: Data from 2001 exclude fatal work injuries resulting from the September 11 terrorist attacks.
In 2008, 16 percent of fatal work injuries involved foreign-born workers.

The country of origin of foreign-born workers fatally injured on the job encompassed approximately 100 nations in 2008. Workers born in Mexico accounted for the largest portion (43 percent) of foreign-born workers who died from injuries at work in the United States.

**Fatal occupational injuries to foreign-born workers, by region of birth, 2008**

In percent

- **Mexico**, 43
- **Asia**, 18
- **Europe**, 11
- **Central America, except Mexico**, 10
- **Caribbean**, 6
- **South America**, 5
- **Africa**, 5
- **Australia and Oceania, less than 1
- **Canada**, 2

**Total = 835**

NOTE: Percentages may not add to totals because of rounding.

In 2008, there were 145,870 injuries and illnesses involving days away from work among Hispanic or Latino workers. Of these cases, 22 percent were in the trade, transportation, and utilities industry, while the construction and manufacturing industries each accounted for 17 percent of total cases involving days away from work.

Hispanic or Latino workers made up 20 percent of injuries and illnesses where race or ethnicity was reported, while accounting for 14 percent of total employment.

Neither race nor ethnicity is reported in one-third of all cases.

Number of injuries and illnesses, and percentage of cases with days away from work of Hispanic or Latino workers, by industry, 2008

Local government had the highest rate of musculoskeletal disorders, with 48.7 days-away-from-work cases per 10,000 full-time employees. State government had a lower rate of 36.7, while private industry had an even lower 33.4.

In local government, the construction industry had a high rate of 131.1 cases per 10,000 full-time employees. The rates in State government and private industry construction were 67.0 and 41.1 per 10,000 full-time employees, respectively.

MSDs accounted for the highest percentage of total injuries in private industry, composing 29.4 percent of the total, compared with 25.0 percent in local government and 21.6 percent in State government.

Incidence rate of musculoskeletal disorders (MSDs), by category of ownership, 2008

**State government**: 36.7

**Local government**: 48.7

**Private industry**: 33.4

In private industry, sprains, strains and tears caused 236,260 cases of musculoskeletal disorders (MSDs), accounting for nearly three-quarters of all MSD cases. Soreness, pain, and hurt (except in the back) were the next-largest proportion of MSDs, with 7.9 percent. Hernias of various types were 5.0 percent of MSDs, and carpal tunnel syndrome made up 3.2 percent.

**Distribution of musculoskeletal disorders, by nature of injury or illness, 2008**

- Sprains, strains, tears, 74.4%
- Soreness, pain, hurt, except the back, 7.9%
- Back pain, hurt back, 7.1%
- Hernia, 5.0%
- Carpal tunnel syndrome, 3.2%
- Musculoskeletal system and connective tissue diseases and disorders, except tendonitis, 1.4%
- Tendonitis, 1.0%

Twelve occupations constituted at least one-tenth of 1 percent of employment and had an incidence rate of musculoskeletal disorder (MSD) higher than 75 per 10,000 full-time workers in 2008.

Nursing aides, orderlies, and attendants; and emergency medical technicians and paramedics had the highest rates of MSDs. Nursing aides, orderlies, and attendants also had the second-highest total MSD cases, behind laborers and freight, stock, and material movers.

Three occupations—nursing aides, orderlies, and attendants; laborers and freight, stock, and material movers; and heavy and tractor-trailer truck drivers—accounted for more than 20 percent of all MSD cases.
In 2008, 57 fatal occupational injuries, or 1 percent of all fatal occupational injuries in the United States, were incurred by members of the resident military.

From 2003 to 2008, there were 359 fatal military injuries that occurred in the United States.

In order to be included in the CFOI, the fatalities must occur in the United States. For the purposes of the CFOI, fatally injured members of the resident military, regardless of occupation, are deemed to have been employed in military occupations.

Transportation incidents accounted for a leading 60 percent (217) of all fatal injuries to resident military from 2003 to 2008. Of these 217 fatal injuries, 127 (59 percent) were aircraft incidents, 65 of which involved a helicopter.

Assaults and violent acts are the second major event leading to resident military fatalities, accounting for 62 fatalities (17 percent). Over the 6-year period examined, 92 percent of assaults and violent acts were suicides while only 5 percent were homicides.


NOTE: Percentages may not add to totals because of rounding.

In 2008, fatal work injuries in private sector mining as a whole were up 25 percent from 2003, though down slightly from 2007.

Fatal injuries in oil and gas extraction industries accounted for more than three-fifths of fatal work injuries in mining from 2003 to 2008.

The Bureau classifies 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). NAICS 213110 (support activities for mining, unspecified) may include some oil and gas activities.

**Fatal occupational injuries in the private sector mining industry, 2003–08**

<table>
<thead>
<tr>
<th>Year</th>
<th>Oil and gas extraction industries</th>
<th>All other mining</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>85</td>
<td>56</td>
</tr>
<tr>
<td>2004</td>
<td>98</td>
<td>54</td>
</tr>
<tr>
<td>2005</td>
<td>98</td>
<td>61</td>
</tr>
<tr>
<td>2006</td>
<td>125</td>
<td>67</td>
</tr>
<tr>
<td>2007</td>
<td>122</td>
<td>61</td>
</tr>
<tr>
<td>2008</td>
<td>120</td>
<td>56</td>
</tr>
</tbody>
</table>

Coal mining is a relatively dangerous industry. Employees in coal mining are more likely to be killed or to incur a nonfatal injury or illness, and their nonfatal injuries are more likely to be severe, compared with workers in private industry as a whole.

In 2008, the rate of total recordable nonfatal injuries and illnesses in coal mining was 4.4 cases per 100 full-time workers, 13 percent higher than the rate for all private industry. In bituminous coal underground mining, the rate of nonfatal injuries and illnesses was 67 percent higher than that of all private industry. Bituminous coal and lignite surface mining had a rate that was 49 percent lower than that of all private industry. Anthracite mining had a rate 59 percent higher than that of all private industry, but a very small number of cases.

The severity of injuries and illnesses can be measured by the median number of days away from work. Injuries and illnesses in coal mining required a median of at least 31 days to recovery and return to work, much higher than the 8 days required for injuries and illnesses in all private industry.
