DEATH ON THE JOB

The Toll of Neglect

A NATIONAL AND
STATE-BY-STATE PROFILE OF
WORKER SAFETY AND HEALTH
IN THE UNITED STATES

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AFL-CIO

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EXECUTIVE SUMMARY

This 2017 edition of "Death on the Job: The Toll of Neglect" marks the 26th year the AFL-CIO has produced a report on the state of safety and health protections for America's workers.

More than 553,000 workers now can say their lives have been saved since the passage of the Occupational Safety and Health Act of 1970, which promised workers in this country the right to a safe job. The Obama administration had a strong track record on worker safety and health, strengthening enforcement, issuing key safety and health standards, and improving anti-retaliation protections and other rights for workers. With the election of President Trump, the political landscape has shifted dramatically, and many of these gains are threatened. President Trump has moved aggressively on his deregulatory agenda, repealing and delaying worker safety and other rules and proposing deep cuts in the budget, and the elimination of worker safety and health training and other programs.

These are challenging times for working people and their unions, and the prospects for worker safety and health protections are uncertain. What is clear, however, is that the toll of workplace injury, illness and death remains too high, and too many workers remain at serious risk. There is much more work to be done.

The High Toll of Job Injuries, Illnesses and Deaths

In 2015:

- 4,836 workers were killed on the job in the United States.
- The fatal injury rate—3.4 per 100,000 workers—remained the same as the rate in 2014.
- An estimated 50,000 to 60,000 workers died from occupational diseases.
- 150 workers died each day from hazardous working conditions.
- Nearly 3.7 million work-related injuries and illnesses were reported.
- Underreporting is widespread—the true toll is 7.4 million to 11.1 million injuries each year.

States with the highest fatality rates in 2015 were:

- North Dakota (12.5 per 100,000 workers)
- Wyoming (12.0 per 100,000 workers)
- Montana (7.5 per 100,000)
- Mississippi (6.8 per 100,000 workers)
- Arkansas (5.8 per 100,000 workers)
- Louisiana (5.8 per 100,000 workers)

Latino and immigrant workers continue to be at higher risk than other workers:

- The Latino fatality rate was 4.0 per 100,000 workers, 18% higher than the national average.
- Deaths among Latino workers increased significantly in 2015; 903 deaths, compared with 804 in 2014.

- Almost the entire increase in Latino deaths was among immigrant workers; 605 (67%) of Latino workers killed were immigrant workers.
- 943 immigrant workers were killed on the job—the highest since 2007.

Older workers are at high risk. In 2015:

- 35% of all fatalities occurred in workers ages 55 or older, with 1,681 deaths.
- Workers 65 or older have more than 2.5 times the risk of dying on the job as other workers, with a fatality rate of 9.4 per 100,000 workers.

The construction, transportation and agriculture industries (private sector) remain very dangerous:

- 937 construction workers were killed in 2015, the highest number in any sector. The number and rate of construction deaths increased for the second year in a row.
- 765 transportation and warehousing workers were killed in 2015. The fatality rate was 13.8 per 100,000 workers, the second highest of any major industry sector.
- Agriculture, fishing and forestry was the most dangerous industry sector, with a fatality rate of 22.8 per 100,000 workers. 570 workers were killed in these industries.

The mining and extraction industries remain dangerous, but safety and health has improved:

- There were 26 deaths in coal, metal and nonmetal mines in 2016, and 29 deaths in 2015, both record low numbers. The fatality rate in these industries also was at record low.
- There were 89 deaths in oil and gas extraction in 2015, a decrease from 144 deaths in 2014.
- The fatality rate for the overall mining sector, including oil and gas extraction, was 11.4 per 100,000 workers, more than three times the national average.
- Oil and gas extraction industries accounted for 74% of the fatal work injuries in the mining sector.

Workplace violence continued to be a growing problem for workers in 2015:

- 703 worker deaths were caused by violence.
- 417 worker deaths were workplace homicides.
- Violence was responsible for 26,420 lost-time injuries.
- Women workers are at greater risk of violence than men; they suffered 68% of the lost-time injuries related to workplace violence.

The cost of job injuries and illnesses is enormous—estimated at $250 billion to $360 billion a year.

Job Safety Oversight and Enforcement

OSHA resources in FY 2016 still are too few and declining:

- There are only 1,838 inspectors (815 federal and 1,023 state) to inspect the 8 million workplaces under the Occupational Safety and Health Act's jurisdiction.
- Federal OSHA has enough inspectors to inspect workplaces once every 159 years.
- State OSHA plans have enough inspectors to inspect workplaces once every 99 years.
- There is one inspector for every 76,402 workers.
- The current OSHA budget amounts to $3.65 to protect the safety and health of each worker in America.

OSHA enforcement has gotten stronger, but penalties in FY 2016 still are too weak:

- The average penalty for a serious violation was $2,402 for federal OSHA.
- The average penalty for a serious violation was $1,747 for OSHA state plans.
- The median penalty for killing a worker was $6,500 for federal OSHA.
- The median penalty for killing a worker was $2,500 for OSHA state plans.
- Only 93 worker death cases have been criminally prosecuted under the Occupational Safety and Health Act since 1970.

Regulatory Action

The Obama administration produced a number of significant safety and health rules and left a solid legacy of worker protections in place. While the first term saw many regulatory delays, the second term was much more productive. The administration's regulatory record includes:

- A final OSHA beryllium standard issued in 2017 to protect workers in general industry, maritime and construction sectors.
- OSHA's final silica standard, issued in 2016, to reduce dust exposures in general industry, maritime and construction sectors, and protect workers from deadly lung diseases and cancer. The silica rule will prevent more than 600 deaths and 1,000 cases of silicosis each year.
- OSHA's electronic injury reporting/anti-retaliation rule, issued in 2016, will require employers to report injury data to OSHA and prohibit employers from retaliating against workers who report job injuries.
- MSHA's final rule issued in 2015 requires proximity detection systems on continuous mining machines in underground coal mines to prevent injuries and deaths from contact with this equipment.
- MSHA's 2014 coal dust rule reduces dust exposures and protects miners from black lung.
- A number of other rules remain unfinished business, including OSHA rules on combustible dust and infectious disease, and MSHA rules on proximity detection for mobile equipment and silica.

Workers' Safety and Health Protections are in Danger

The Trump administration and the Republican majority in Congress have launched a major assault on regulatory protections. They have moved aggressively to roll back

regulations and block new protections. Agency budgets and programs are on the chopping block. Worker protections are threatened, and workers' safety and health are in danger. Major actions taken to date with a direct impact on worker safety and health include:

- A presidential memorandum issued on Jan. 20, 2017, directing agencies to freeze the regulatory process and delay the effective date of final rules not yet in effect.
- Executive Order 13771, issued Jan. 24, 2017, requires that for every new regulatory protection issued, two existing safeguards must be repealed.
- Repeal of OSHA's rule clarifying an employer's obligation to keep accurate injury and illness records.
- Repeal of a rule that would have required companies to disclose safety and health and labor violations in order to qualify for federal contracts.
- Delay in the effective date of OSHA's new beryllium standard and delay in the enforcement of OSHA's silica standard in the construction industry. The delay in the silica rule will allow continued high exposures that will lead to 160 worker deaths.
- Budget proposals to slash the Department of Labor's budget by 21%, eliminate worker safety and health training programs, eliminate the Chemical Safety Board and cut the job safety research budget by $100 million.

Much Work Remains to Be Done

- Workers need more job safety and health protection, not less.
- New OSHA rules on silica, beryllium and injury reporting/anti-retaliation must be defended and fully implemented.
- Rules on infectious diseases, combustible dust and chemical safety should be completed and issued.
- Workplace violence is a growing and serious threat—particularly to women workers and workers in the health care industry. OSHA must keep its promise to develop a workplace violence standard.
- Funding and staffing at job safety agencies should be increased, not cut.
- The serious safety and health problems faced by Latino, immigrant and aging workers must be given increased attention.
- "Regulatory reform" legislation that would require the repeal of existing rules and make it more difficult, if not impossible, to issue new regulatory safeguards should be opposed and stopped.
- Congress should pass the Protecting America's Workers Act to extend the Occupational Safety and Health Act's coverage to workers who are currently excluded, strengthen civil and criminal penalties for violations, enhance antidiscrimination protections, and strengthen the rights of workers, unions and victims.
- The nation must renew its commitment to protect workers from injury, disease and death, and make this protection a high priority.

THE STATE OF WORKERS' SAFETY AND HEALTH

This 2017 edition of "Death on the Job: The Toll of Neglect" marks the 26th year the AFL-CIO has produced a report on the state of safety and health protections for America's workers. This report includes state-by-state profiles of workers' safety and health, and features state and national information on workplace fatalities, injuries, illnesses, the number and frequency of workplace inspections, penalties, funding, staffing and public employee coverage under the Occupational Safety and Health Act. It also includes information on the state of mine safety and health.

More than four decades ago, in 1970, Congress enacted the OSH Act, promising workers in this country the right to a safe job. More than 553,000 workers now can say their lives have been saved since the passage of the OSH Act.[1] Since that time, workplace safety and health conditions have improved. But too many workers remain at serious risk of injury, illness or death as chemical plant and oil rig explosions, major fires, mine disasters and other preventable workplace tragedies continue to occur. Many other workplace disasters do not make the headlines and kill and disable thousands of workers each year.

In 2015, 4,836 workers lost their lives on the job as a result of traumatic injuries, according to final fatality data from the Bureau of Labor Statistics. Each day in this country, an average of 13 workers die because of job injuries—women and men who go to work, never to return home to their families and loved ones. This does not include those workers who die from occupational diseases, estimated to be 50,000–60,000 each year—an average of 150 deaths each day. Chronic occupational diseases receive less attention, because most are not detected for years after workers are exposed to toxic chemicals, and occupational illnesses often are misdiagnosed and poorly tracked.

In 2015, nearly 3.7 million workers across all industries, including state and local government, had work-related injuries and illnesses that were reported by employers, with 2.9 million injuries and illnesses reported in private industry. Due to limitations in the current injury reporting system and widespread underreporting of workplace injuries, this number understates the problem. The true toll is estimated to be two to three times greater—or 7.4 million to 11.1 million injuries and illnesses a year.

The cost of these injuries and illnesses is enormous—estimated at $250 billion to $360 billion a year.

During its eight years in office, the Obama administration had a strong track record on worker safety and health. President Obama appointed dedicated pro-worker advocates to lead the Department of Labor programs and the job safety agencies. Under the leadership of Dr. David

[1]Calculated based on changes in annual fatality rates and employment since 1970. Fatality rate data for 1970 to 1991 is from National Safety Council Accident Facts, 1994. Fatality rate data for 1992 to 2015 is from the Bureau of Labor Statistics, Census of Fatal Occupational Injuries. Annual employment data is from the Bureau of Labor Statistics Current Population Survey.

Michaels at the Occupational Safety and Health Administration and Joe Main at the Mine Safety and Health Administration, the administration returned these programs to their core mission of protecting workers by strengthening enforcement, issuing key safety and health standards, and protecting workers for exercising their right to raise job safety concerns. Landmark regulations to protect workers from deadly silica dust and coal dust were issued, along with long-overdue rules on confined space entry in construction and beryllium. Enforcement was strengthened with a focus on the serious and persistent violators, and expanded to address immigrant workers, temporary workers, and safety and health issues in the changing workforce and economy.

The election of a Republican majority in the House in 2010 and in the Senate in 2014 brought a strong anti-regulatory, pro-business push in Congress that slowed progress. The budgets for OSHA and MSHA were frozen, and many safety and health priorities were delayed or left unfinished, including OSHA rules on combustible dust and process safety management improvements, and MSHA's rule to reduce silica exposures.

But at the end of eight years, the Obama administration had put in place important protections, policies and programs that made jobs safer, reduced injuries and illnesses, and saved workers' lives.

With the election of President Trump and Republicans maintaining their majorities in Congress, the political landscape has shifted dramatically. President Trump ran on a pro-business, deregulatory agenda, promising to cut regulations by 70%. Since taking office at the end of January, he has acted on that promise, issuing a number of executive orders to roll back or review existing regulations, including one order that requires that for any new regulatory protection issued, an agency must remove two safeguards from the books. He has signed more than a dozen bills overturning regulations issued by the Obama administration, including two major worker safety rules.

In March, President Trump released a budget blueprint that proposes to slash the Department of Labor's budget by 21%, eliminate OSHA's worker safety and health training program, eliminate the Chemical Safety Board and cut the budget for job safety research. At the agencies, the implementation and enforcement of new rules, including OSHA's silica standard for construction, have been delayed. To date, President Trump has not nominated individuals to head OSHA or MSHA, but his selections for other posts suggest the nominees are likely to have strong industry ties.

At the same time, Congress is pushing forward with numerous "regulatory reform" bills that would require review and culling of existing rules, make costs the primary consideration in adopting regulations and making it virtually impossible to issue new protections.

These are challenging times for working people and their unions, and the future prospects for safety and health protections is uncertain.

What is clear, however, is that the toll of workplace injury, disease and death remains too high. Workers in the United States need more safety and health protection, not less. More than four decades after the passage of the OSH Act, there is much more work to be done.

JOB FATALITIES, INJURIES AND ILLNESSES

On average, 13 workers were fatally injured and more than 10,000 workers were injured or made ill each day of 2015. These statistics do not include deaths from chronic occupational diseases, which claim the lives of an estimated 50,000–60,000 workers each year.

Job Fatalities

According to final fatality data from the BLS, there were 4,836 workplace deaths due to traumatic injuries in 2015, and 4,821 deaths reported in 2014.[2] The rate of fatal job injuries in 2015 remained the same as the previous year, at 3.4 per 100,000 workers.

State Fatality Comparisons

North Dakota's job fatality rate was the worst of any state in 2015, at 12.5 per 100,000 workers. North Dakota is followed by Wyoming (12.0), Montana (7.5) and Mississippi (6.8). The lowest state fatality rate (1.2 per 100,000 workers) was reported for Rhode Island, followed by Delaware (1.9), Massachusetts and Washington (2.1), and California (2.2).

In 2015, nineteen states experienced significant increases in fatality rates from their 2014 rates. South Carolina experienced a 70% increase, followed by Montana (53%), North Dakota (28%) and Massachusetts (24%).

In 2015, 117 workers died on-the-job in South Carolina—the most workers killed in the state since 2007. The job fatality rate for South Carolina was 5.6 per 100,000 workers, the highest fatality rate in the state since 2008.

Industry, Occupation and Event Comparisons

In private industry, the construction sector had the largest number of fatal work injuries (937) in 2015, followed by transportation and warehousing (765) and agriculture, forestry, fishing and hunting (570). Industry sectors with the highest fatality rates were agriculture, forestry, fishing and hunting (22.8 per 100,000); transportation and warehousing (13.8), and mining, quarrying and oil and gas extraction (11.4).

The number of deaths in construction continued to increase in 2015, after years of decline; the fatality rate increased from 9.8 in 2014 to 10.1 in 2015. The 2015 fatality rate in manufacturing remained the same as the previous year, at 2.3 per 100,000 workers; and the number of fatalities was 353, a slight increase from 2014. The rate in the mining industry also decreased from 14.2 to 11.4 per 100,000 workers; and the number of fatalities decreased from 183 deaths in 2014 to 120 in 2015.

Within the mining and extractive industries in 2015, BLS reported 89 deaths in oil and gas extraction—the lowest since 2009, compared with 144 deaths in oil and gas extraction in 2014. Employment in oil and gas extraction decreased from 613,783 in 2014 to 533,184 in 2015.

[2] 2015 fatality data is from the BLS 2015 Census of Fatal Occupational Injuries, Final Release Dec. 16, 2016.

According to separate statistics reported by the Mine Safety and Health Administration, in 2015 there were 12 deaths in coal mining and 17 deaths in metal and nonmetal mining. Preliminary fatality data from MSHA indicate that 2016 was the safest year in mining history, with a total of 26 mining deaths: nine coal mine fatalities and 17 metal and nonmetal mine fatalities.

Transportation and material moving occupations had the highest number of fatalities, with 1,301 deaths, followed by construction and extraction occupations with 924 fatal injuries. The occupations at greatest risk of experiencing work-related fatalities were the same as the previous year: logging workers (132.7 per 100,000, increased from 110.9 in 2014); fishers and related fishing workers (54.8 per 100,000); and aircraft pilots and flight engineers (40.4 per 100,000).

Transportation incidents, in particular roadway crashes, continue to be the leading cause of workplace deaths, responsible for 2,054 or 42% of all fatalities in 2015. Roadway incidents involving motorized land vehicles accounted for 26% of the fatal work injury total. Roadway incidents now is the leading cause of death for both men and women workers: In 2015, roadway incidents accounted for 31% of female worker deaths and 26% of male worker deaths.

The number of fatalities from falls, slips or trips decreased to 800 fatal falls in 2015 compared with 818 fatal falls in 2014. Falls, slips or trips accounted for 17% of all fatalities in 2015, but accounted for 25% of fatalities among workers ages 65 years and older.

In 2015, male workers were at greater risk of death on the job than female workers, with a fatality rate of 5.5 per 100,000 workers, compared with a rate of 0.6 per 100,000 among women. Men accounted for 93% of job fatalities (4,492) and women accounted for 7% (344). For men, the leading causes were roadway incidents (26%), falls (17%) and contact with objects and equipment (16%). For women, the leading causes of death were roadway incidents (31%), homicides (18%) and falls (12%). Homicides in the workplace continue to be a disproportionate cause of death for women (18%) compared with men (8%).

In response to concerns about the safety and health risks associated with contract work, for the past five years BLS has reported fatalities that involve workers employed as contractors. In 2015, there were 829 fatalities among contract workers. This number has continued to increase since 2011, when BLS first reported 542 fatalities incurred by contract workers. Construction and extraction workers accounted for more than half of the deaths among contract workers, with 464 fatalities reported. Falls were the largest cause of contractor deaths (290), followed by contact with objects and equipment (194) and transportation incidents (156). Eighty-five percent of contract worker fatalities were wage and salary workers, not self-employed.

The job fatality rate for all self-employed workers—a group that lacks OSHA coverage—continues to remain high at 13.1 per 100,000 workers. In 2014, it was 13.6 per 100,000 workers.

Workplace Violence Fatalities

Workplace violence continues to be a leading cause of job fatalities in the United States, with 703 deaths caused by assaults and violent acts reported in 2015, accounting for 15% of all traumatic injury workplace deaths. There were 765 fatalities related to workplace violence in 2014 and 773 in 2013.

Homicide once again was a major cause of death, with 417 deaths reported in 2015, a slight increase from the 409 homicides reported in 2014. There were 229 workplace suicides in 2015. This number is a decrease from the 280 suicides recorded in 2014. Workplace homicide was the second-leading cause of job death among women workers in 2015, accounting for 18% of their work-related fatalities. Women were five times more likely to be killed on the job by a relative or domestic partner than men.

Black workers were at greatest risk of workplace homicide in 2015, experiencing 27% of all such deaths (114 out of 417), while representing only 12% of total employment (hours worked). Homicides among Asian (non-Hispanic) workers also were disproportionate related to overall employment: Asian workers experienced 10% of homicides, while representing 6% of employment.

Overall, homicides were responsible for 33% of all work-related deaths among Asian (non-Hispanic) workers (41 out of 123 deaths), compared with 23% among black workers (114 out of 495 deaths), 6% among white workers (179 out of 3,241 deaths) and 8% among Latino workers (73 out of 903 deaths).

The leading source of death from workplace homicide was assault by an assailant or suspect (203 deaths), and co-workers were responsible for 66 homicide deaths in 2015. Firearms were the primary weapons involved in workplace homicides, causing 355 workplace deaths.

The leading occupations for workplace homicide were motor vehicle operators (51 deaths), retail sales workers (50 deaths) and supervisors of sales workers (42 deaths). Retail trade was the industry with the largest number of workplace homicides in 2015 (98 deaths), followed by accommodation and food services (63 deaths), local government (50 deaths—police protection accounted for 31 of these deaths), and transportation and warehousing (40 deaths—taxi service accounted for 22 of these deaths).

Hispanic or Latino and Immigrant Worker Fatalities

In 2015, Latino workers continued to be at increased risk of dying on the job, with a job fatality rate that is 18% greater than the overall job fatality rate of 3.4 per 100,000 workers.

In 2015, 903 Latino workers died on the job, an increase from 804 in 2014. The fatality rate for Latino workers also increased to 4.0 per 100,000 workers in 2015 from 3.7 in 2014.

The number of Latino workers killed on the job in 2015 was the highest since 2007. The increase in workplace fatalities among Mexican immigrant workers is largely responsible for this increase.

Since 2001, when the rate of Latino worker fatalities reached an all-time high of 6.0 deaths per 100,000 workers, there has been a decline in work-related deaths among Latinos, and the job fatality rate among Latino workers has been reduced by 33%. At the same time, the overall job fatality rate has declined by 21%.

The states with the greatest number of Latino worker fatalities were Texas (220), California (178) and Florida (78). While Latino worker deaths in California had been decreasing since it had 194 deaths in 2013, they seem to be increasing again. In Texas, 58% of Latino deaths were immigrant workers and in California, 68% of Latino deaths were immigrant workers. In Florida, immigrant workers now constitute 86% of Latino worker deaths.

The construction industry was responsible for the greatest number of Latino worker deaths (283), followed by transportation and warehousing (118 with 65% of these deaths in truck transportation), and administrative and support and waste management and remediation services (104, with 66% of these deaths in landscaping services). Latino immigrant worker deaths in the construction industry have increased 48% since 2011. In 2015, 24 Latinos died on the job in support activities for oil and gas operations, a decrease from 2014, when 41 Latino workers died.

Events or exposures responsible for deaths of Latino workers were similar to the causes for all workers, with transportation incidents the leading event (328 deaths), followed by deaths from falls (212), contact with object/equipment (143) and violence (109). Deaths due to violence against Latino workers were similar to last year (111). In 2015, 26 of these violent deaths were work-related suicides, 17 among immigrant workers.

In 2015, 67% of the fatalities (605 deaths) among Latino workers were among workers born outside of the United States. Fatalities among all foreign-born or immigrant workers continue to be a serious problem. In 2015, there were 943 workplace deaths reported for all immigrant workers.

The four states with the greatest number of foreign-born worker fatalities in 2015 were California (162), Texas (156), Florida (93) and New York (69). Of the foreign-born workers who were injured fatally at work in 2015, 64% were Latino; 16% were white; 12% were Asian, Native Hawaiian or Pacific Islander; and 6% were black or African American. Of the foreign-born workers who were injured fatally at work in 2015, 44% were from Mexico.

The largest numbers of immigrant worker deaths were reported in the construction industry, at 275 out of 943 total deaths. Thirty-five percent of the foreign-born worker deaths resulted from transportation incidents; 23% from falls, slips and trips; 19% from violent acts, and 13% from contact with objects and equipment.

Aging Workforce Fatalities

People are working longer, and the number of workers ages 65 years and older has increased 130% since 1995. BLS estimates this trend will continue, and that by 2020, one in four workers will be 55 years or older.[3]

In 2015, 35% of all fatalities (1,681 deaths) occurred in workers ages 55 years or older, with 650 of these deaths occurring in workers ages 65 years or older. Workers 65 years or older have nearly three times the risk of dying on the job as the overall work population, with a fatality rate

[3]The Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections, "Labor force projections to 2020: a more slowly growing workforce," January 2012, *available at* www.bls.gov/opub/mlr/2012/01/art3full.pdf.

of 9.4 deaths per 100,000 workers. Workers ages 55–64 also have an increased fatality risk, with a fatality rate of 4.3 per 100,000 workers.

For workers ages 65 or older, the agriculture, forestry, fishing and hunting industry accounted for 24% of fatalities (154 deaths), followed by transportation and warehousing (94 deaths) and construction (80 deaths).

Transportation incidents were responsible for 46% of fatalities in workers ages 65 years or older (301 deaths). Workers 65 years or older are at greater risk of fatalities due to falls, slips and trips than the overall worker population. Falls, slips and trips accounted for 24% of all fatalities in workers at least 65 years of age, while the same events accounted for 17% of fatalities among the entire workforce.

Job Injuries and Illnesses

In 2015, as in the past few years, 2.9 million injuries and illnesses were reported in private-sector workplaces. The BLS survey also included data on work-related injuries and illnesses among state and local government workers: An additional 752,600 state and local government workers nationwide were injured or made sick in 2015, for a total of nearly 3.7 million reported work-related injuries and illnesses.

The national injury and illness rate for the private sector in 2015 was 3.0 per 100 workers, a decline from the rate reported by BLS for 2014 (3.2). The rate in 2015 for all industries, including state and local government workers, was 3.3 per 100 workers, less than the rate in 2014 (3.4 per 100).

The health care and social assistance industry accounted for the greatest proportion (21%) of nonfatal workplace injuries and illnesses in private industry in 2015, followed by manufacturing (16%) and retail trade (14%). Workers in the construction industry experienced 7% of all private-sector injuries and illnesses in 2015.

The industry with the highest rate of nonfatal workplace injuries and illnesses was agriculture (private industry, 13.6 per 100 workers). Nursing and residential care facilities continue to have a high injury and illness rate (state government, 12.0), although it decreased since 2014 (12.6). These high-hazard industries are followed by police protection (local department, 11.3), household furniture manufacturing, except wood and metal (private industry, 10.8), and fire protection (local government, 10.2) and manufactured home (mobile home) manufacturing (private industry, 10.2). State government nursing and residential care facilities continue to be an industry with a high injury rate—12.0 per 100 workers in 2015; 12.6 in 2014; 13.7 in 2013; and 13.6 in 2012.

Thirty-one percent of all cases of injuries and illnesses involving days away from work, job transfer or restriction in private industry occurred in trade, transportation and utilities, followed by education and health services at 19%, manufacturing at 14% and construction at 9%. Occupations in private industry with the highest number of injuries involving days away from work were laborers and freight, stock and material hand movers; heavy and tractor-trailer truck drivers; nursing assistants; light truck or delivery service drivers; maintenance repair workers;

stock clerks and order fillers; janitors and cleaners; maids and housekeeping cleaners; and personal care aides.

Women workers suffered 38% of lost-time injuries reported (341,130 out of 902,160 cases) in 2015—the same proportion as the previous three years.

The leading industries for lost-time injuries and illnesses among women were nursing and residential care facilities, hospitals, and food services and drinking places. Nursing, psychiatric and home health aides; building cleaning workers; registered nurses; and retail sales workers experienced the greatest number of injuries. Overexertion was the major cause of these injuries, and the major injury type was sprains, strains and tears. These characteristics of lost-time injuries among women workers have been consistent over the past several years.

Among men, 556,370 cases resulting in days away from work were reported in 2015, accounting for 62% of total lost-time injuries. Specialty trade contracting, truck transportation, and food service and drinking places reported the largest number of injuries. Among men, driver/sales workers and truck drivers, laborers and material movers, and maintenance and repair workers were the leading occupations for lost-time injuries. For men, overexertion was the leading cause of injury, and sprains, strains and tears were the leading type of injury.

For all workers, overexertion and bodily reaction (including lifting and repetitive motion) was the leading exposure resulting in injury, responsible for 33% of all lost-time injury cases in private industry, followed by falls, slips and trips (26%), contact with objects (26%) and transportation incidents (5%).

In 2015, there were 26,420 lost-time injuries reported in private-sector workplaces resulting from violence by a person. Women were at much greater risk of injuries from workplace violence, experiencing 68% of such injuries (18,050 cases). Workers in the health care industry were particularly affected, with nursing and residential care facilities experiencing the greatest number of injuries from violence, followed by hospitals, social assistance and educational services. Nursing, psychiatric and home health aides, personal care aides and registered nurses were the occupations at greatest risk of injuries from violence, and patients were responsible for 45% of reported injuries related to violence.

The median number of days away from work for lost-time injury cases in private industry was eight days in 2015.

Public-Sector Workers

For 2015, BLS reported an injury and illness rate of 5.1 per 100 among state and local public-sector workers, significantly higher than the reported rate of 3.0 per 100 among private sector workers. The injury and illness rate in 2015 for state government workers was 3.7 per 100 workers and 5.6 for local government workers. Nearly four in five injuries and illnesses reported in the public sector in 2015 occurred among local government workers.

The incidence rate for state government in 2015 was 149.2 cases per 10,000 full-time workers, slightly less than the rate in 2014 of 170.3 cases per 10,000 workers. The 2015 incidence rate for

local government was 177.5, similar to the injury and illness incidence rate involving days away from work in 2014.

Correctional officers continue to be at great risk of injuries and illnesses, experiencing 18% of the total state government cases of injuries and illnesses in 2015. In local government, 14% of all cases of injuries and illnesses are experienced by police and sheriff's patrol officers. In 2015, the incident rates for state correctional officers (457.5 cases per 10,000 workers) and local police and sheriff's patrol officers (530.2 cases per 10,000 workers) continued to be high and similar to 2014 rates.

Musculoskeletal disorders (MSDs) occur at a higher incidence rate in the public sector than the private sector. In 2015, the incidence rate for state government workers was 41.0 MSDs per 10,000 full-time workers, 38% higher than the private industry rate (29.8). The incidence rate for local government workers was 50.2 MSDs per 10,000 full-time workers, 68% higher than the private sector rate in 2015.

Workplace violence events disproportionately occur among public employees. The incidence rate of injuries caused by workplace violence was more than 675% higher for state government workers (31.2 per 10,000 workers) than the rate for private industry workers (4.0). The incidence rate of violence for local government workers (23.0 per 10,000 workers) was 475% higher than for private industry workers.

In recent years, OSHA began requiring federal employers to report injuries and illnesses in the same method as the private sector. Data on federal government workers is not yet publicly available.

Musculoskeletal Disorders

For 2015, BLS reported 286,350 MSD cases resulting in days away from work in the private sector, a continued decrease from last year (298,460). MSDs accounted for 31.7% of all injuries and illnesses involving days away from work, and remain the largest source of injury and illness cases.

The occupations reporting the highest number of MSDs involving days away from work in 2015 were laborers and freight, stock and material movers and handlers (21,990); nursing assistants (19,360); janitors and cleaners (15,810); and heavy and tractor-trailer truck drivers (15,320). The median number of days away from work for MSDs in 2015 was 12 days.

Industries with the highest incidence rates of musculoskeletal disorders involving days away from work in 2015 were air transportation (194.1 per 10,000 workers); couriers and messengers (138.2); warehousing and storage (78.6); nursing and residential care facilities (76.0); furniture and home furnishings stores (66.2); truck transportation (64.1); and waste management and remediation services (63.4).

In 2015, the MSD incidence rate across all private-sector industries in the United States was 29.8 per 10,000 workers, less than the rate in 2014 (31.9 per 10,000 workers).

It is important to recognize that the numbers and rates of MSDs reported by BLS represent only a portion of the total MSD problem. The BLS MSD data are limited to cases involving one or more days away from work, the cases for which BLS collects detailed reports. Similar detailed reports are not collected for injuries and illnesses that do not involve lost work time or those that result in job transfer or restriction, but not in time lost from work. Moreover, these figures do not include injuries suffered by public-sector workers or postal workers, nor do they reflect the underreporting of MSDs by employers. Based on studies and experience, OSHA has estimated that MSDs are understated by at least a factor of two—that is, for every MSD reported, there is another work-related MSD that is not recorded or reported.[4] However, a study that examined undercounting of injuries and illnesses found that underreporting is even greater, with two additional injuries occurring for every injury that is reported.[5]

Based on the percentage of days away from work cases involving MSDs in 2015 (31.7%), there were an estimated total of 954,501 MSDs reported by private-sector employers; 509,067 MSD cases that resulted in days away from work, restricted activity or job transfer; and 222,717 MSDs that resulted in restricted activity or job transfer.

Reported Cases Understate Problem

In recent years, there has been increased attention to and concern about the accuracy and completeness of the injury and illness data reported by employers that form the basis for the BLS Annual Survey on Occupational Injuries and Illnesses (SOII). While government statistics show that occupational injury and illness are declining, numerous studies have shown that government counts of occupational injury and illness are underestimated by as much as 69%.[6] A study that examined injury and illness reporting in Michigan made similar findings.[7] The study compared injuries and illnesses reported in five different databases: the BLS Annual Survey, the OSHA Annual Survey, the Michigan Bureau of Workers' Compensation, the Michigan Occupational Disease reports and the OSHA Integrated Management Information System. It found that during the years 1999, 2000 and 2001, the BLS Annual Survey, which is based upon employers' OSHA logs, captured approximately 33% of injuries and 31% of illnesses reported in the various databases in the state of Michigan.

A similar study published in 2008 comparing the injuries reported to state workers' compensation systems with those reported to the BLS Annual Survey in six states for the years 1998–2001 found similar results.[8] The study, which examined reporting in Minnesota, New Mexico, Oregon, Washington, West Virginia and Wisconsin, found that the BLS survey captured 50% to 75% of the injuries and illnesses that occurred, missing half to a quarter of the injuries

[4]64 F.R. 65981 and 65 F.R. 68758.
[5]Rosenman, K.D., Kalush, A., Reilly, M.J., Gardiner, J.C., Reeves, M. and Luo, Z., "How Much Work-Related Injury and Illness is Missed by the Current National Surveillance System?" *Journal of Occupational and Environmental Medicine*, Vol. 48, No. 4, pp. 357–67, April 2006.
[6]Leigh, J.P., Marcin, J.P. and Miller, T.R., "An Estimate of the U.S. Government's Undercount of Nonfatal Occupational Injuries," *Journal of Occupational and Environmental Medicine,* Vol. 46, No. 1, January 2004.
[7]Rosenman, *et al*. (2006).
[8]Boden, L.I. and A. Ozonoff, "Capture-Recapture Estimates of Nonfatal Workplace Injuries and Illnesses," *Annals of Epidemiology*, Vol. 18, No. 6 (2008).

and illnesses that occurred in these states. As with the Michigan study, more injuries and illnesses were reported to the state workers' compensation systems than to the BLS survey.

As a follow-up to these findings, BLS funded additional research to examine the subject of undercounting and underreporting of work-related injuries and illnesses. The results published in October 2014 focused on injury reporting in three states: California, Massachusetts and Washington. The studies used different methodologies, but all examined data reported to different systems (e.g., BLS SOII, state workers' compensation and health care facility data). Each of the studies found that the BLS SOII significantly undercounted the injuries that occurred.

The study of California injury and illnesses, which examined data from the BLS SOII and state workers' compensation information, found that the BLS survey captured 42.4% to 49.0% of work-related injuries and illnesses involving at least four days away from work. Workers' compensation reporting was more complete, capturing 76.9% to 77.6% of such injuries.[9]

A study of work-related amputations in Massachusetts found that the BLS SOII undercounted amputations by 48%. Further analysis of the data found that a number of amputations were reported in SOII as a different type of injury. But 24% of amputations were not reported at all.[10]

A study of injury and illness reporting in Washington State found similar problems with differences in injury classification between the BLS survey and the state workers' compensation system. An examination of injury cases that were reported to both BLS and workers' compensation found that the workers' compensation system identified 94% more amputations than the number of amputation injuries identified using BLS coding. But for musculoskeletal disorders, the researchers found that BLS coding identified 34% more MSD cases than those identified in the workers' compensation system.[11]

These studies and others have identified a number of factors that contribute to the undercount of workplace injuries and illnesses in the United States. The BLS survey excludes many categories of workers (self-employed individuals; farms with fewer than 11 employees; employers regulated by other federal safety and health laws; federal government agencies; and private household workers). This results in the exclusion of more than one in six workers from the BLS Annual Survey.[12] As recent studies have documented, there also are problems with the classification of injuries, which may lead to an underestimate of a particular type of injury (e.g., amputations). A lack of knowledge or confusion by employers of what injuries are required to be reported on the OSHA 300 injury log also may lead to underreporting.

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[9]Boden, L.I., "Capture-Recapture Estimates of the Undercount of Workplace Injuries and Illnesses: Sensitivity Analysis," *American Journal of Industrial Medicine,* Vol. 57, No. 10 (2014).
[10]Davis, L., Grattan, K., Tak, S., Bullock, L., Ozonoff, A. and Boden, L., "Use of Multiple Data Sources for Surveillance of Work-related Amputations in Massachusetts, Comparisons with Official Estimates and Implications for National Surveillance," *American Journal of Industrial Medicine,* Vol. 57, No. 10, (2014).
[11]Wuellner, S. and Bonauto, D, "Injury Classification Agreement in Linked Bureau of Labor Statistics and Workers' Compensation Data," *American Journal of Industrial Medicine,* Vol. 57, No. 10, (2014).
[12]Leigh, J. Paul, Marcin, J.P. and Miller, T.R., "An Estimate of the U.S. Government's Undercount of Non-Fatal Occupational Injuries," *Journal of Occupational and Environmental Medicine,* Vol. 46, No. 1, (2004).

But in addition to these problems, there also are incentives and disincentives that impact the reporting of injuries by employers and workers. For employers, these incentives or disincentives may include concern about increased workers' compensation costs for increased reports of injuries; fear of being denied government contracts due to high injury rates; concern about being targeted by OSHA for inspection if a high injury rate is reported; and the promise of monetary bonuses for low injury rates.

There also are significant incentives and disincentives that impact the reporting of injuries and illnesses by workers. Many employers have implemented programs that provide financial rewards or prizes to individual workers or groups of workers for having no injuries or a low injury rate. Other employers have implemented programs or policies that discipline workers for having an injury, regardless of the cause of the injury. Discipline can include warnings, suspension or even termination. Other employers conduct drug testing on all workers who report an injury. All of these policies and practices can suppress the reporting of injuries by workers.

Foreign-born workers face additional barriers to reporting injuries. They may not know how or to whom to report the injury. Undocumented workers may fear being fired, harassed or reported to the U.S. Immigration and Customs Enforcement agency.

In October 2009, the U.S. Government Accountability Office released a report on an in-depth evaluation on injury and illness reporting and employer injury recordkeeping practices. The study found that OSHA's procedures to audit the accuracy of employer injury records were deficient, and that in many workplaces there were significant pressures on workers not to report injuries. As part of the review, GAO conducted a survey of more than 1,000 occupational physicians and other occupational health professionals. Sixty-seven percent of those surveyed reported they had observed fear among workers of disciplinary action for reporting injuries. Fifty-three percent of the health practitioners reported pressure from company officials to downplay the seriousness of injuries and illnesses, and more than one-third had been asked by employers or workers not to provide needed medical treatment to keep the injury from being recorded.

In 2012, GAO released another report that examined safety incentive programs—"Workplace Safety and Health: Better OSHA Guidance Needed on Safety Incentive Programs." Based on a survey conducted in conjunction with the study, GAO estimated that three-quarters of U.S. manufacturers had safety incentive programs or other workplace policies that could affect workers' reporting of injuries and illnesses. Demerit systems were the most prevalent, reported by 69% of manufacturing firms, followed by post-incident drug testing (56% of firms), rate-based incentive programs (22% of firms) and behavior-based programs (14% of firms). Many employers had more than one kind of program or policy in place.

As discussed later in this report, under the Obama administration there were major efforts to address barriers to injury reporting through OSHA's whistleblower program, policy guidance on employer safety incentive and disincentive policies and practices, and amending the injury recordkeeping rule to make retaliation for injury reporting a regulatory violation. These initiatives, if maintained and fully implemented, should reduce barriers to reporting and lead to more complete and accurate information on the extent and scope of workplace injuries and illnesses.

Cost of Occupational Injuries and Deaths

The cost of occupational injuries and deaths in the United States is staggering, estimated at $250 billion to $360 billion a year, according to two recent studies.

The 2017 Workplace Safety Index, published by Liberty Mutual Insurance, estimated the cost of disabling workplace injuries to employers at $60 billion a year—more than $1 billion per week.[13] This analysis, based on 2014 BLS data, estimated direct costs to employers (medical and lost wage payments) of injuries resulting in cases involving six or more days of lost time. If indirect costs also are taken into account, the overall costs are much higher. Based on calculations used in the previous Liberty Mutual Safety Index, the data indicate that businesses pay between $180 billion and $360 billion annually in direct and indirect (overtime, training and lost productivity) costs on workers' compensation losses (indirect costs are estimated to be two to five times direct costs).[14] It is important to note that Liberty Mutual bases its cost estimates on BLS injury data. Thus, all of the problems of underreporting in the BLS system apply to the Liberty Mutual cost estimates as well.

A 2011 comprehensive study examined a broad range of data sources, including data from the BLS, the Centers for Disease Control and Prevention, the National Council on Compensation Insurance and the Healthcare Cost and Utilization Project, to determine the cost of fatal and nonfatal occupational injuries and illnesses for 2007. This study estimated the medical and indirect (productivity) costs of workplace injuries and illnesses at $250 billion annually, more than the cost of cancer.[15] A follow-up analysis found that workers' compensation covered only 21% of these costs, with 13% borne by private health insurance, 11% by the federal government and 5% by state and local governments. The majority of the costs—50%—were borne by workers and the family members.[16]

A 2015 report by the OSHA—"Adding Inequality to Injury: The Costs of Failing to Protect Workers on the Job"—outlined how work-related injuries have devastating impacts on workers and their families. According to the report, workers who are injured on the job suffer great economic loss. Even after receiving workers' compensation benefits, injured workers' incomes are, on average, nearly $31,000 lower over 10 years than if they had not suffered an injury.[17]

One of the major contributors to the severe loss of income is the gross deficiencies and inequities in the workers' compensation system, which continues to be governed by 50 different state laws. A 2015 multipart series by Pro Publica and National Public Radio exposed the failure of the workers' compensation system to provide fair and timely compensation for workers hurt on the

[13]2017 Liberty Mutual *Workplace* Safety Index., *available at* www.libertymutualgroup.com/about-liberty-mutual-site/research-institute-site/Documents/2017%20WSI.pdf.
[14]Liberty Mutual Research Institute for Safety, News Release, April 16, 2002.
[15]Leigh, J.P., "Economic Burden of Occupational Injury and Illness in the United States," *The Milbank Quarterly*, Vol. 89, No. 4, (2011).
[16]Leigh, J.P. and Marcin, J., "Workers' Compensation Benefits and Shifting Costs for Occupational Injuries and Illnesses," *Journal of Occupational and Environmental Medicine*, Vol. 54, No. 4, (2012).
[17]U.S. Department of Labor. Occupational Safety and Health Administration. "Adding Inequality to Injury: The Costs of Failing to Protect Workers on the Job," 2015, *available at* www.dol.gov/osha/report/20150304-inequality.pdf.

job.[18] The series—"Insult to Injury: America's Vanishing Worker Protections"—was based on a yearlong investigation, which found that over the last decade there has been a systematic effort by insurers and employers to weaken workers' compensation benefits for injured workers. Since 2003, legislators in 33 states have passed legislation reducing benefits or limiting eligibility. The benefits provided to workers vary widely across different states. For example, the maximum compensation for loss of an eye is $261,525 in Pennsylvania, but only $27,280 in Alabama. In many states, employers have great control over medical decisions. Workers are not allowed to pick their own doctors, and employers can demand review by "independent medical examiners" picked by employers who can challenge medical determinations regarding the work-relatedness of the condition, the degree of disability and prescribed medical treatment. According to Pro Publica, all of these factors have contributed to the demolition of the workers' compensation system and left injured workers and their families, and society at large, bearing the costs of their injuries.

OSHA ENFORCEMENT AND COVERAGE

The Obama administration strengthened OSHA enforcement and during its first term increased the inspection staff. These additional inspectors were lost later due to Republican cuts, leaving OSHA with fewer inspectors today than the agency had in 2009. At this time, the Trump administration's specific plans for OSHA's enforcement programs, budget and staffing are not known, but any cutbacks in this area will erode the agency's enforcement capacity.

It is clear that OSHA lacks sufficient resources to adequately protect workers. A combination of few OSHA inspectors and low penalties makes the threat of an OSHA inspection hollow for too many employers. Eight million workers still are without OSHA coverage.

Compliance Staffing and Inspections

OSHA's current resources are inadequate to meet the challenge of ensuring safe working conditions for America's workers. In FY 2016, there were at most 1,838 federal and state OSHA inspectors responsible for enforcing the law at more than 8 million workplaces, fewer than the previous year.[19] In FY 2016, the 815 federal OSHA inspectors conducted 31,948 inspections (3,874 fewer than in FY 2015), and the 1,023 inspectors in state OSHA agencies combined conducted 43,299 inspections (683 fewer than in FY 2015).[20]

The majority of federal OSHA inspections were in the construction industry (49%), followed by manufacturing (23%), administrative and support and waste management and remediation services (4%). The health care and social assistance sector, which accounted for 18% of private-

[18]Pro Publica and National Public Radio, "Insult to Injury: America's Vanishing Worker Protections," March 2015, *available at* www.propublica.org/series/workers-compensation.
[19]This reflects the number of federal inspectors plus the number of inspectors "on board" reflected in the FY 2015 state plan grant applications. It does not include compliance supervisors.
[20]In FY 2016, OSHA created a new inspection weighting protocol under which time-intensive inspections involving complicated hazards like ergonomics, workplace violence and chemical process safety management are given greater weight than shorter-duration, routine inspections. This was done to increase the focus on quality inspections rather than the number of inspections conducted.

sector work-related injuries and illnesses, and 16% of private-sector employment in 2015, received less than 2% of federal OSHA inspections in FY 2015.

In the OSHA state plans, the construction industry accounted for 39% of inspections and the manufacturing industry accounted for 16%. But the state plans, which cover both public- and private-sector workers, conducted more of their inspections in administrative support and waste management (6%), public administration (6%), retail trade (5%), agriculture, forestry, fishing and hunting (4%), and health care and social assistance (4%), than federal OSHA.

At its current staffing and inspection levels, it would take federal OSHA, on average, 159 years to inspect each workplace under its jurisdiction just once. In 22 states (Arkansas, California, Colorado, Delaware, Florida, Georgia, Idaho, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Missouri, Montana, Nebraska, New Hampshire, New York, Oklahoma, South Carolina, South Dakota, Texas and West Virginia), it would take 150 years or more for OSHA to pay a single visit to each workplace. In 17 states, it would take between 100 and 149 years to visit each workplace once. Inspection frequency generally is better in states with OSHA-approved plans, yet still is far from satisfactory. In these states, it now would take the state OSHA plans a combined 99 years to inspect each worksite under state jurisdiction once.

The current level of federal and state OSHA inspectors provides one inspector for every 76,402 workers. This compares with the benchmark of one labor inspector for every 10,000 workers recommended by the International Labor Organization for industrialized countries.[21] In the states of Arizona, Arkansas, Delaware, Florida, Indiana, Louisiana, Massachusetts, Mississippi, Missouri, Nebraska, Pennsylvania, South Carolina, South Dakota, Texas and West Virginia, the ratio of inspectors to employees is greater than one per 100,000 workers, with South Dakota having the highest ratio at one inspector per 208,010 workers.

Federal OSHA's ability to provide protection to workers has greatly diminished over the years. When the AFL-CIO issued its first *Death on the Job: The Toll of Neglect* report in 1992, federal OSHA could inspect workplaces under its jurisdiction once every 84 years, compared with once every 159 years at the present time. Since the passage of the OSH Act, the number of workplaces and number of workers under OSHA's jurisdiction has nearly doubled, while at the same time the number of OSHA staff and OSHA inspectors has been reduced. In 1975, federal OSHA had a total of 2,435 staff (inspectors and all other OSHA staff) and 1,102 inspectors responsible for the safety and health of 67.8 million workers at more than 3.9 million establishments. The FY 2017 budget is not yet finalized, but in FY 2016, there were 2,173 federal OSHA staff responsible for the safety and health of 139 million workers at 9.5 million workplaces.

At the peak of federal OSHA staffing in 1980, there were 2,951 total staff and 1,469 federal OSHA inspectors (including supervisors). The ratio of OSHA inspectors per 1 million workers was 14.8. By now, there are only 815 federal OSHA inspectors, or 6.8 inspectors per 1 million workers.

[21] International Labor Office, Strategies and Practice for Labor Inspection, G.B. 297/ESP/3, Geneva, November 2006. The ILO benchmark for labor inspectors is one inspector per 10,000 workers in industrial market economies.

Violations and Penalties

Penalties for significant violations of the law increased during the Obama administration. A revised penalty policy issued by OSHA in October 2010 that increased penalties for higher-gravity violations accounted for part of this increase. The policy changed the formulas for calculating penalties to more fully utilize OSHA's statutory authority for assessing penalties, and to ensure that deep discounts are not given for the most serious of violations. As a result of the 2010 change, the OSHA penalties for serious violations doubled from approximately $1,000 to $2,000. A violation is considered "serious" if it poses a substantial probability of death or serious physical harm to workers.

In November 2015, OSHA penalties were increased further when Congress passed the "Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015," which directed federal agencies to increase statutory penalties to adjust for inflation. This legislation extended coverage of the Inflation Adjustment Act to OSHA, which was one of a few agencies not previously covered. Under the new law, OSHA was authorized to raise maximum penalties by approximately 80%, the amount of inflation since the last time OSHA penalties were raised in 1990.

Regulations issued by the Department of Labor in July 2016 to implement the law increased OSHA maximum penalties from $7,000 to $12,471 for serious violations and from $70,000 to $124,709 for willful and repeated violations. A further update in January 2017 raised these maximums to $12,675 (serious violations) and $126,749 (willful and repeat). State plans also are required to raise their statutory maximum penalties in order to be as effective as the federal OSHA program, and several already have done so.

These statutory increases in federal OSHA penalties took effect Aug. 1, 2016, and are reflected in the latest enforcement data for FY 2016, which ended Sept. 30, 2016.

In FY 2016, the average penalty for a serious violation for federal OSHA was $2,402, compared with an average penalty of $2,148 for such violations in FY 2015, and $1,972 in FY 2014. In the state OSHA plans, the average penalty for a serious violation remained low at $1,747 in FY 2016; it was $1,317 in FY 2015. In FY 2016, the trend of lowest and highest average penalties for serious violations continued: Oregon had the lowest average penalty for serious violations at $570, while California had the highest average penalty at $7,131 per serious violation.

The number of willful violations cited by federal OSHA decreased from 527 in FY 2015 to 524 in FY 2016. The average penalty for willful violations increased from $40,951 per willful violation in FY 2015 to $41,592 in FY 2016. For repeat violations, the average penalty per violation increased from $7,786 in FY 2015 to $8,670 in FY 2016. In states with OSHA plans, in FY 2016, there were 181 willful violations issued, with an average penalty of $40,058 per violation, and 1,739 repeat violations, with an average penalty of $4,518 per violation.
The Obama administration's enforcement program focused on the most serious violations and repeat violators. In FY 2016, 123 significant enforcement cases were brought by federal OSHA; seven of these were against federal agencies. This is a decrease from the 169 significant cases under federal OSHA in FY 2015. As of Aug. 1, 2016, as a result of OSHA's new penalty structure, OSHA raised the threshold for significant enforcement cases from cases resulting in a

total proposed penalty of more than $100,000 to cases with a total proposed penalty of more than $180,000. However, this new threshold was accounted for when totaling significant cases for the new fiscal year.

OSHA enforcement in cases involving worker fatalities, while in recent years somewhat improved, remains too weak. According to OSHA inspection data, the average total penalty in a fatality case in FY 2016 was just $14,767 for federal and state OSHA plans combined. However, averages can distort the real picture of fatality penalties in situations in which large cases with very high penalties raise the averages substantially. Using median penalties that capture the point where half of the penalties are below and half the penalties are above the median provides a better picture of the typical penalties in cases involving worker deaths.

The median current penalty per fatality investigation conducted in FY 2016 was $6,500 for federal OSHA and the median current penalty was $2,500 for the state OSHA plans combined, according to enforcement data provided by OSHA in April 2017. These are less than the respective penalties in FY 2015: $7,000 for federal OSHA and $3,500 for the state OSHA plans. These data also include enforcement cases that still are under contest, and it is likely that after settlements and final resolution, these penalty levels will be much lower.

A state-by-state analysis of fatality investigations shows that penalties in cases involving worker deaths vary widely from state to state. New Hampshire had 13 fatality investigations and North Dakota had 22 fatality investigations, but both states had $0 for both median initial and current penalties in FY 2016. Montana had the lowest median current penalty for fatality investigations with $638 in penalties assessed, followed by Oregon ($1,400), Maine and Utah ($2,000) and South Carolina ($2,250). Alaska had the highest median current penalty ($46,400), followed by Minnesota ($26,750), California ($19,098), Nebraska ($17,816) and Missouri ($12,471).

Enforcement Initiatives and Policies

During the Obama administration, OSHA implemented a number of important enforcement programs and policies to address high-hazard employers and industries, and to respond to changes in the workforce and in employment relationships.

In 2010, OSHA launched the Severe Violator Enforcement Program to focus on the most persistent and egregious violators. SVEP focuses on employers who have a history of willful, repeated or failure-to-abate violations, particularly related to fatalities, major occupational safety and health hazards, or underreporting of injuries or illnesses. The program provides for more frequent inspections, public notification and other measures at workplaces identified as severe violators, and provides for enhanced scrutiny of other establishments of the same employer.

As of Dec. 31, 2016, OSHA had logged 5,561 SVEP cases, of which 380 (6.8%) were in the construction industry. One hundred forty-one (2.5%) of the SVEP cases were related to fatalities, and 36 (0.7%) of SVEP cases resulted in egregious violations.[22]

In 2013, OSHA launched a Temporary Worker Initiative to help prevent injuries and illnesses among temporary workers. The number of temporary workers—those employed by a staffing agency and supplied to a host employer—has grown, and many of these workers may be at increased risk of injury. As part of the initiative, OSHA issued a policy statement making clear that both staffing agencies and host employers have responsibility to comply with the law and regulations, although the assignment of these responsibilities may vary depending on the particular circumstances.[23] OSHA has taken numerous enforcement actions for violations involving temporary workers, often holding both the staffing agency and the host employer responsible for the failure to comply.

In FY 2016, OSHA conducted 621 inspections of host employers as part of the temporary worker initiative and 187 inspections of staffing agencies.[24] The majority of these inspections resulted in violations and citations, a number with significant penalties. Among the high penalty cases were several in the auto parts industry, including $536,000 in proposed fines for amputation hazards at Milmark Industries in Ohio, $704,000 in fines at HP Peltzer Automotive Systems in Georgia and $2.5 million in fines at Ajin USA in Alabama, a plant that manufactured auto parts for Kia and Hyundai. The Ajin penalties were for lock-out and machine guarding violations that caused the death of a 20-year-old temporary worker, Regina Allen Elsea, who was crushed by a robot and killed two weeks before her wedding.[25]

In 2013, OSHA also updated its policy on who could serve as an employee walkaround representative on OSHA inspections. Section 8(e) of the OSH Act provides a right for a representative of employees to have an opportunity to participate in an inspection. Under OSHA regulations, that individual may be an employee who is the collective bargaining representative or another individual designated by the employees where the inspector determines that the individual will aid the inspection. In response to an inquiry from the United Steelworkers (USW) in February 2013, OSHA issued a letter of interpretation stating that nonunion workers could

[22]Galassi, Thomas, Director, Directorate of Enforcement Programs, U.S. Department of Labor, OSHA. PowerPoint Presentation, American Bar Association, Occupational Safety and Health Law Committee, March 2017.
[23]Galassi, Thomas, Director, Directorate of Enforcement Programs, U.S. Department of Labor, OSHA. Memorandum for Regional Administrators. Policy Background on the Temporary Worker Initiative, July 15, 2014.
[24]Galassi, Thomas (2017).
[25]U.S. Department of Labor, Occupational Safety and Health Administration, press release, "Alabama auto parts supplier to Kia and Hyundai. Staffing agencies face $2.5 million in fines after robot fatally crushes young bride-to-be," Dec. 14, 2016, *available at* www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=33540.

designate a walkaround representative who was not an employee of the company, such as a union or a worker center, where the inspector determined it would aid the inspection.[26] OSHA noted that an employee representative could help workers who might be concerned with retaliation, or aid non-English speaking workers to contribute to an inspection.

This inspection right has been used in a relatively small number of cases. In one case, at Exel Inc., a plant that repackaged Hershey's candies, non-English speaking foreign exchange students working at the facility were represented by a community group.[27] OSHA cited the employer for noise violations and for failing to record injuries, and the Wage and Hour Division issued citations for nonpayment of wages.[28]

Employers have vigorously opposed the policy and have challenged it in court. Employers also have asked the Trump administration to rescind the policy, which it appears the new administration is likely to do.

OSHA also broadened its corporate wide enforcement efforts, seeking to require correction of similar hazards and violations at multiple establishments of the inspected employer. While OSHA has utilized enterprise wide abatement for many years through corporate wide settlement agreements, in 2010 in an enforcement action against the U.S. Postal Service, OSHA sought an order from the Occupational Safety and Health Review Commission to require 350 locations of the USPS to correct electrical safety violations, based on inspection findings at multiple locations. In 2013, USPS and OSHA reached a settlement agreement, under which the U.S. Postal Service revised its policies and procedures on electrical work, and enhanced training and personal protective equipment for this work. OSHA successfully used similar corporate wide enforcement orders at other companies, including DeMoulas Super Markets Inc., a New England-based grocery chain, seeking to protect employees from fall and laceration hazards at 60 of the company's stores, and Central Transport LLC to abate forklift truck hazards at the company's freight terminals nationwide.

In 2015 and 2016, OSHA initiated a number of special emphasis enforcement programs at the national, regional and local level to address hazards of particular concern. The initiatives include a national emphasis program to address amputation hazards, regional emphasis programs in the poultry industry to address ergonomic hazards, machine guarding and chemical hazards, and a regional emphasis program in the auto parts industry. These enforcement programs have resulted in major enforcement actions. In one of the poultry industry cases, OSHA utilized its general duty authority under section 5(a)(1) to cite the employer, Pilgrim's Pride, for failing to provide

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[26]Fairfax, Richard E., Deputy Assistant Secretary, Occupational Safety and Health Administration, Letter to Steve Sallman, Health and Safety Specialist, United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, Feb. 21, 2013, *available at* www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=28604.

[27]U.S. Department of Labor, Occupational Safety and Health Administration, press release, "U.S. Labor Department's OSHA cites 2 companies, proposes $288,000 in fines for workplace safety and health violations involving foreign students," Feb. 21, 2012, *available at* www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=21852.

[28]U.S. Department of Labor, Occupational Safety and Health Administration, press release, "U.S. Labor Department recovers back wages for student workers, fines companies for labor violations at warehouse in Palmyra, Pa.," Nov. 14, 2012, *available at* www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=23256.

timely medical evaluation and treatment to workers suffering from musculoskeletal injuries, the first time OSHA has cited an employer for medical mismanagement.[29]

In conjunction with these special emphasis programs, in recent years, OSHA stepped up its enforcement efforts on ergonomic hazards. In FY 2016, there were 13 serious violations for ergonomic hazards under 5(a)(1), six of which were in the poultry industry. In addition, in FY 2016 OSHA issued 96 Hazard Alert Letters (HALs) for ergonomic hazards. These letters are issued in cases where OSHA identifies serious ergonomic hazards, but is not able to meet the legal burden for issuing a general duty citation. Employers in health care, poultry processing and the U.S. Postal Service received the largest number of HALs for ergonomic hazards.

In 2015, OSHA implemented new enforcement procedures for the Severe Injury Reporting regulations adopted in 2014, which require employers to report work-related fatalities to the agency within eight hours and work-related inpatient hospitalizations, amputations and losses of an eye within 24 hours. Under the procedures, OSHA collects information at the time of the report, and then makes a determination whether to conduct an onsite inspection or a rapid response investigation (RRI)—requiring the employer to conduct its own investigation and report back to OSHA on its findings and actions to correct any identified violations.

Results from the first year of the enforcement program indicate that the new Severe Injury Reporting requirements are helping OSHA to identify hazardous workplaces not previously inspected and take action to get hazards corrected. According to a report issued by the agency, in 2015 employers notified OSHA of 10,388 incidents involving severe, nonfatal injuries.[30] There were 7,636 hospitalization reports and 2,644 amputation reports. The manufacturing industry had the highest number of severe injury reports, followed by construction. Sub-industries with high numbers of reports include oil and gas well servicing, the U.S. Postal Service, hospitals and grocery stores. OSHA estimates that many severe injuries—perhaps 50% or more—are not being reported.

In 2015, OSHA responded to 38% of all the severe injury reports with an onsite inspection, but for 62% of reports employers were asked to conduct their own investigations. In 2016, OSHA received 10,877 severe injury reports, 8,100 hospitalization reports and 2,672 amputation reports. Thirty-three percent of the reports received an inspection; 66% of the reports were investigated by employers. OSHA reported that most employers who conduct their own investigations move quickly to correct hazards. However, there have been a number of cases where OSHA inspections have found significant continuing violations that put workers at risk. But to date, OSHA has not yet reported comprehensive detailed results on these inspections and investigations.

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[29]U.S. Department of Labor, Occupational Safety and Health Administration, press release, "OSHA cites Pilgrim's Pride for medical mismanagement, fall, machine guarding and other safety, health hazards; proposes $78,000 in fines," July 27, 2016, *available at* www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=32841.

[30]Michaels, David, Assistant Secretary of Labor for Occupational Safety and Health, "Year One of OSHA's Severe Injury Reporting Program: An Impact Evaluation," March 17, 2016, *available at* www.osha.gov/injuryreport/2015.pdf.

Criminal Enforcement

Throughout OSHA's history, criminal enforcement under the Occupational Safety and Health Act has been rare. According to information provided by the Department of Labor (DOL), since the passage of the act in 1970, only 93 cases have been prosecuted under the act, with defendants serving a total of 110 months in jail. During this time, there were approximately 400,000 workplace fatalities, according to National Safety Council and BLS data, about 20% of which were investigated by federal OSHA.[31, 32]

By comparison, the Environmental Protection Agency reported in FY 2016 that there were 170 criminal enforcement cases initiated under federal environmental laws and 184 defendants charged, resulting in 93 years of jail time and $207 million in fines and restitution—more cases, fines and jail time in one year than during OSHA's entire history.[33] The aggressive use of criminal penalties for enforcement of environmental laws and the real potential for jail time for corporate officials serve as a powerful deterrent.

The criminal penalty provisions of the OSH Act are woefully inadequate. Criminal enforcement is limited to those cases in which a willful violation results in a worker's death or where false statements in required reporting are made. The maximum penalty is six months in jail, making these cases misdemeanors. Criminal penalties are not available in cases in which workers are endangered or seriously injured, but no death occurs. This is in contrast to federal environmental laws, where criminal penalties apply in cases where there is "knowing endangerment" and the law makes such violations felonies. Due to the weak criminal penalties under the OSH Act, few cases are prosecuted by the Department of Justice under the statute. Instead, in some instances DOJ will prosecute OSHA cases under other federal statutes with stronger criminal provisions if those laws have been violated.

In response to the OSH Act's severe limitations, in 2005 the DOJ launched a Worker Endangerment Initiative. This initiative focuses on companies that put workers in danger while violating environmental laws, and prosecutes such employers using the much tougher criminal provisions of environmental statutes. Under the initiative, the DOJ has prosecuted McWane Inc., a major manufacturer of cast iron pipe, responsible for the deaths of several workers; Motiva Enterprises for negligently endangering workers in an explosion that killed one worker and caused major environmental releases; British Petroleum for a 2005 explosion at a Texas refinery that killed 15 workers; W.R. Grace for knowing endangerment of workers exposed to asbestos-contaminated vermiculite in Libby, Montana; and Tyson Foods for exposing employees to hydrogen sulfide gas, which resulted in the poisoning of several workers at multiple facilities.

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[31]"Criminal Referrals by OSHA to DOJ or US Attorneys or Significant Aid to Local Prosecutors (Updated April 8, 2016)" and other information compiled and provided by Office of the Solicitor of Labor. The information for the early years of the statute is incomplete and may not include all cases prosecuted.
[32]In addition to cases prosecuted under the Occupational Safety and Health Act and the U.S. federal criminal code (18 U.S.C. 1001), state and local prosecutors have prosecuted employers for deaths and injuries to workers under their state and local laws. There is no complete accounting of these cases.
[33]U.S. Environmental Protection Agency. *See* www.epa.gov/enforcement/enforcement-annual-results-numbers-glance-fiscal-year-2016.

These prosecutions have resulted in many convictions and significant jail time for defendants.[34,35]

In December 2015, the Department of Labor and Department of Justice expanded the Worker Endangerment Initiative and entered into a formal memorandum of understanding to provide for greater coordination of efforts on cases involving potential criminal prosecution for worker safety.[36, 37] Under the MOU, the DOJ's Environment and Natural Resources Divisions and the U.S. attorney's offices work with OSHA and other DOL agencies to investigate and prosecute worker endangerment violations utilizing all available statutes.

Under this initiative, DOJ significantly enhanced its criminal enforcement for worker safety and health. Recent actions include prosecution of Behr Iron & Steel Inc., an Illinois scrap processing facility, for the death of a worker caught in an unguarded conveyor belt, and Black Elk Energy Offshore Operation LLC for explosions on an oil production platform that killed three workers.[38] It is not known whether the Trump administration will continue this emphasis or the joint programs on criminal enforcement.

During the Obama administration, the Department of Labor stepped up criminal enforcement efforts, referring more cases for criminal prosecution to the DOJ and U.S. attorneys. In addition, DOL expanded assistance to local prosecutors in the investigation and prosecution of cases involving worker deaths and injuries. In FY 2016, DOL referred or assisted with the criminal prosecution of seven new cases involving worker deaths or injuries compared with 12 cases in FY 2015.

While criminal enforcement of job safety violations at the federal level remains quite limited, in a number of states and localities, prosecutors are pursuing criminal charges against employers and individuals in cases involving job deaths and injuries. In Philadelphia, the district attorney successfully prosecuted the general contractor and crane operator for deaths of six individuals in the 2013 Salvation Army building collapse, winning convictions for involuntary manslaughter and jail time. In New York City, the Manhattan district attorney won a manslaughter conviction against the general contractor, Harco Construction, for the 2015 trenching death of a young

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[34]"Frontline: A Dangerous Business Revisited," March 2008, *available at* www.pbs.org/wgbh/pages/frontline/mcwane/penalty/initiative.html.
[35]Goldsmith, Andrew D., Worker Endangerment Initiative, PowerPoint Presentation, American Bar Association, Occupational Safety and Health Committee, Miami Beach, Florida, February 2009.
[36]Department of Justice, Office of Public Affairs News Release, "The Departments of Justice and Labor Announce Expansion of Worker Endangerment Initiative to Address Environmental and Worker Safety Violations," Dec. 17, 2015, *available at* www.justice.gov/opa/pr/departments-justice-and-labor-announce-expansion-worker-endangerment-initiative-address.
[37]Memorandum of Understanding between the U.S. Departments of Labor and Justice on Criminal Prosecutions of Worker Safety Laws, Dec. 17, 2015, *available at* www.justice.gov/enrd/file/800526/download.
[38]U.S. Department of Justice, news release, "Assistant Attorney General John C. Cruden Delivers Keynote Address at the American Bar Association, Section of Environment, Energy and Resources, Environmental and Workplace Safety Criminal Enforcement Conference," Oct. 26, 2016, *available at* www.justice.gov/opa/speech/assistant-attorney-general-john-c-cruden-delivers-keynote-address-american-bar.

undocumented immigrant construction worker. The foreman for the excavation company, Sky Materials, was convicted of criminally negligent homicide and reckless endangerment, and sentenced to one to three years in jail. In both of these cases, unions and local safety and health activists worked with prosecutors to provide assistance and to educate the community about the job safety crimes.

Voluntary Programs

During the Bush administration, OSHA placed great emphasis on the expansion of its voluntary programs, particularly OSHA's program of alliances and Voluntary Protection Programs (VPP). The resources devoted to these programs increased, and the number of voluntary programs increased significantly. Under the Obama administration, the emphasis changed to focus more on strengthening enforcement programs. Voluntary programs, while still a part of the OSHA program, were viewed as a supplement to, not a replacement for, enforcement. In FY 2016, OSHA formed 20 new alliances, up from 18 in FY 2015. The total number of active alliances in FY 2016 is 237. In OSHA's Voluntary Protection Program (VPP), 59 new VPP sites were approved in FY 2016, up from 46 in FY 2015, bringing the total number of federal OSHA VPP sites at the end of FY 2016 to 1,412.[39]

Coverage

The current OSHA law still does not cover 8 million state and local government employees in 24 states and the District of Columbia, although these workers encounter the same hazards as private-sector workers, and in many states have a higher rate of injury than their private-sector counterparts.[40, 41]

Similarly, millions who work in the transportation and agriculture industries and at Department of Energy contract facilities lack full protection under the OSH Act. These workers theoretically are covered by other laws, which in practice have failed to provide equivalent protection.

In 2013, there was major progress in extending OSHA coverage to flight attendants when the Federal Aviation Administration rescinded a longstanding policy and ceded jurisdiction on a number of key safety and health issues to OSHA. Specifically, FAA issued a new policy that extended OSHA regulations and jurisdiction on hazard communication, bloodborne pathogens, hearing conservation, recordkeeping, and access to employee exposure and medical records for cabin crews.[42]

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[39]OSHA Directorate of Cooperative and State Programs.

[40]Under the OSH Act, states may operate their own OSHA programs. Twenty-one states and one territory have state OSHA programs covering both public- and private-sector workers. Connecticut, Illinois, Maine, New Jersey and New York have state programs covering state and local employees only. Maine's state program went into effect Aug. 5, 2015.

[41]Some states provide safety and health protection to public employees under state laws that are not OSHA-approved plans. In 2014, the commonwealth of Massachusetts enacted legislation establishing legally binding safety and health protections for public employees, but this law has not been submitted for federal OSHA approval.

[42]Department of Transportation, Federal Aviation Administration, Occupational Safety and Health Standards for Cabin Crew Members, Aug. 21, 2013, *available at* www.osha.gov/faa/faa_osha.pdf.

This policy action was the culmination of decades of effort by the flight attendant unions to secure OSHA protections for flight attendants. It finally was implemented in response to the FAA Modernization and Reform Act of 2012 (PL 112-95).

Whistleblower Protection

Under the Obama administration, the Department of Labor made the protection of a "worker's voice" a priority initiative. As part of this effort, OSHA took a number of actions to strengthen the Whistleblower Protection Program to protect workers who raise job safety issues and exercise other rights from employer retaliation.

In addition to enforcing the anti-discrimination provisions under section 11(c) of the OSH Act, OSHA has the responsibility to enforce the whistleblower provisions of 21 other statutes, ranging from the Federal Rail Safety Act to the Sarbanes-Oxley finance law. A number of these laws deal with safety and health matters, but others do not. Many of these are relatively new statutes that have been assigned to OSHA for whistleblower enforcement without any accompanying increase in resources.

To strengthen anti-retaliation protections, in 2012 the Obama administration elevated the whistleblower program, creating a new separate Directorate of Whistleblower Protection Programs at OSHA. (Previously, the program had been part of OSHA's enforcement directorate.) This office oversees and coordinates whistleblower policy and enforcement, and reports directly to the OSHA assistant secretary's office. To improve the timeliness and consistency of case handling, the agency updated and revised its investigators' manual and has trained staff on policies and procedures.

In December 2012, OSHA established a new Whistleblower Protection Advisory Committee composed of representatives from labor, management and the public. The committee is charged with overseeing and providing advice and guidance to OSHA on its whistleblower protection program.

OSHA also created a separate budget line item for the whistleblower program that allows the amount of resources dedicated to this effort to be easily ascertained. For FY 2016, the budget for the program is $17.5 million, with 135 staff assigned, the same as in FY 2015. For FY 2017, the Obama administration requested a $4.1 million increase and 22 more positions, similar to the increase requested in FY 2016, but an increase in funding is unlikely.

While the whistleblower program enforces the anti-retaliation provisions of 22 statutes, the OSHA 11(c) program is responsible for the majority of cases. In FY 2016, 61% of the cases received (2,030 out of 3,355) were 11(c) complaints. Large numbers of whistleblower cases also were filed under the Surface Transportation Act (447), the Federal Rail Safety Act (302) and the Sarbanes-Oxley Act (174).

In the last several years, the number of whistleblower complaints received by the agency has grown significantly, from 2,160 complaints in FY 2009 to 3,355 complaints received in FY 2016. While some of this increase is a result of the new statutes assigned to the program, the majority of the increase has been in the number of 11(c) cases filed under the OSH Act. From

FY 2009 to FY 2016, the number of 11(c) cases received increased by 60%, from 1,267 cases to 2,030 cases.[43] It is not clear whether this represents an increase in workplace discrimination for safety and health activities or an increase in filing due to enhanced outreach on worker rights by the Obama administration.

Due to the increase in the number of filed cases, the backlog in cases has grown, and is a serious problem. Overall, the case backlog has increased from 1,247 cases in FY 2009 to 2,473 in FY 2016. For OSHA 11(c) cases, the number of backlogged or pending cases has grown from 663 to 1,349 during the same time period. After steadily increasing from FY 2009 to FY 2014, the amount of time for cases to be resolved has decreased in the last two years to an average of 275 days in FY 2016, down from 291 days in FY 2015 and 305 days in FY 2014. For OSHA 11(c) cases, the average time to complete cases also decreased from 277 days in FY 2015 to 252 days in FY 2016. The long amount of time to resolve cases is particularly problematic under the OSH Act and those other statutes where there is no opportunity for preliminary reinstatement for workers while the case is being resolved, nor a separate right of action for the complainant to pursue the case on his or her own. During this time, workers are in limbo, with no recourse or redress for discriminatory actions. Other whistleblower statutes provide for these rights.

Under the Obama administration, OSHA stepped up its enforcement actions under the Whistleblower Protection Program. In FY 2016, 880 retaliation cases were determined to be meritorious, with a total of $39.1 million in remedies (back pay, damages, etc.) secured, compared with 450 merit cases and $13.2 million in damages in FY 2009. The biggest average awards in FY 2016 were for cases brought under the Energy Reorganization Act ($528,308), Sarbanes-Oxley Act ($468,914) and the Federal Rail Safety Act ($76,350). For the 11(c) program, damage awards were much smaller. In FY 2016, there were 581 meritorious 11(c) cases, with damages averaging $11,504 per case.

OSHA also has addressed the issue of injury reporting through its whistleblower program, in particular programs and policies that retaliate against workers or discourage workers from reporting injuries. In recent years, there has been a growth in employers' use of such programs in a wide range of industries. Under OSHA regulations, reporting work-related injuries is a protected activity, and employers are prohibited from retaliating against workers who report injuries. The Federal Rail Safety Act, for which OSHA enforces the whistleblower provisions, also includes specific provisions that prohibit retaliation against workers who report injuries.

OSHA whistleblower enforcement data confirms that retaliation against workers who report job injuries is a significant problem. In FY 2016, 476 out of 3,307 discrimination cases processed involved retaliation for injury reporting. OSHA 11(c) cases accounted for 335 of these claims, of which 117 (35%) were found to have merit. Claims under the Federal Rail Safety Act accounted for 129 of the injury reporting retaliation cases, of which 27 cases (21%) were deemed meritorious.

[43]Occupational Safety and Health Administration, OSHA Whistleblower Investigation Data, FY 2009–FY 2016.

To address the problems of retaliation related to injury reporting, OSHA issued a policy memorandum in March 2012 to provide guidance to the field.[44] The memo outlined the types of employer safety incentive and disincentive policies and practices that could constitute illegal retaliation under section 11(c) and other whistleblower statutes, and the steps investigators should take in responding to complaints of employer retaliation for injury reporting.

In recent years, in response to a growing number of worker anti-retaliation claims, OSHA took a number of actions to enforce against retaliation for reporting injuries. These include high-profile cases in the rail industry, including cases at Burlington Northern Santa Fe Railway, Union Pacific and Metro-North Railroad, where OSHA took aggressive action, ordering reinstatement of workers and the cessation of injury discipline policies, and seeking punitive damages.

OSHA also has taken action against other employers for similar practices under 11(c) of the OSH Act. In a major enforcement action in February 2014, the Department of Labor filed suit under 11(c) against AT&T on behalf of 13 workers who had received unpaid suspensions after reporting work-related injuries. In addition, the states of Indiana and Michigan took enforcement actions against AT&T for retaliating against workers for reporting job injuries. In February 2016, federal OSHA filed suit against U.S. Steel Corp. for disciplining two workers for not immediately reporting workplace injuries, even though the workers were unaware they had suffered injuries since symptoms didn't develop for several days, charging that the discipline of the two employees was a violation of 11(c).

These enforcement actions brought about changes by some employers. For example, in January 2013, OSHA signed an accord with the BNSF Railway Co. under which BNSF agreed to revise several policies that OSHA alleged dissuaded workers from reporting job injuries and violated the whistleblower provisions of the Federal Railroad Safety Act. Under the agreement, BNSF agreed to eliminate a policy that assigned points to employees who sustained work-related injuries, and changed the company's disciplinary policy so that job injuries no longer are a factor in determining probations.

As a result of the lawsuits filed by the U.S. Department of Labor against AT&T for retaliating against workers for reporting injuries and grievances filed by the Communications Workers of America (CWA), the union representing the AT&T workers, the company changed its policy in 2014. The new policy requires an investigation and review of each accident /injury to determine whether the employee is at fault. If the investigation determines the worker is not at fault, no disciplinary action is taken. AT&T also agreed to fully compensate all affected CWA Ohio members/technicians and remove all references to related disciplinary action from their personnel files.

Even with the significant improvements made in the whistleblower program, serious problems remain. The funding for this program is woefully inadequate. As noted above, OSHA now is responsible for enforcing the anti-retaliation provisions of 22 statutes. Few additional resources

[44]Richard E. Fairfax, Deputy Assistant Secretary, Memorandum for Regional Administrators, Whistleblower Program Managers, "Employer Safety Incentive and Disincentive Policies and Practices," March 12, 2012.

have been provided by Congress to enforce the additional statutes for which the agency has been given enforcement responsibility.

But the biggest impediments to protecting workers from retaliation for exercising their job safety rights are the deficiencies in the OSH Act itself. The anti-retaliation provisions of the law were adopted 46 years ago and are weak and outdated compared with more recently adopted statutes. The OSH Act provides for only 30 days for filing a discrimination complaint, compared with 180 days provided by a number of other laws. If a worker fails to file a complaint within this time period, he or she simply is out of luck.

The OSH Act also has extremely limited procedures for the enforcement of discrimination cases. If there is no agreement or settlement of the findings, the secretary of labor must bring cases in U.S. District Court. Most other statutes provide for an administrative proceeding. The formal procedures of the OSH Act mean that meritorious cases may be dropped simply because the solicitor of labor does not have the resources to pursue them. Moreover, unlike other statutes, such as the Mine Safety and Health Act and Surface Transportation Assistance Act, the OSH Act does not allow a complainant the right to pursue the case on his or own if the secretary fails to act within a designated timeframe or declines to act at all. And the OSH Act does not provide for preliminary reinstatement, as other statutes such as the Mine Safety and Health Act do, which means that workers who are retaliated against for exercising their job safety rights have no remedy while final action on their case is pending. These deficiencies in the whistleblower program only can be remedied through improvements in the OSH Act itself.

REGULATORY ACTION

The Obama Administration's Regulatory Record

When the Obama administration took office in 2009, OSHA set an ambitious agenda to develop and issue much-needed standards to protect workers from life-threatening safety and health hazards, focusing first on rules that were stalled under the Bush administration. New standards to protect workers from silica dust, combustible dust and infectious diseases, and to require employers to set up safety and health programs to find and fix hazards, were top priorities, and OSHA began to move forward to develop and issue important, long-overdue rules.

During the first term, the Obama administration finalized standards on cranes and derricks, working conditions in shipyard employment and the Globally Harmonized System (GHS) for Hazard Communication.

Unfortunately, after the 2010 mid-term elections, with the election of a Republican majority in the U.S. House of Representatives, the regulatory environment became extremely hostile, and progress on needed protections stalled.

The Office of Management and Budget blocked or delayed important safety and health rules, holding them for regulatory review for many months or even years. OSHA's draft proposed silica standard, a rule to protect workers from silicosis, lung cancer and other diseases, was held for review by OMB for two and one-half years—from February 2011 until August 2013.

OSHA's rule to require employers to identify which recorded injuries and illnesses are musculoskeletal disorders (MSDs) by checking a box on the OSHA 300 log also was delayed and then sidetracked. The draft final rule, submitted to OMB for review in July 2010, was withdrawn in January 2011, after objections from business groups, and OSHA was directed to seek further input from small business. The rule never was finalized. OSHA's draft proposed injury and illness prevention rule, a high priority for OSHA Assistant Secretary David Michaels, was slated for review by a small business panel in 2012. But OMB blocked the review and no further progress was made on the rule. Instead, OSHA updated its voluntary guidelines on safety and health management programs. The new guidelines, issued in 2016, are a significant improvement over the previous guidelines and include important new provisions of coordination and communication at multiemployer worksites, but are no substitute for a mandatory standard.

Development of other key OSHA rules, including infectious diseases, beryllium, combustible dust and confined space entry in construction stalled, and for two years no significant rules were proposed or finalized.

In the Obama administration's second term, the *de facto* freeze on safety and health regulations was lifted, and OSHA moved forward with its regulatory priorities. In September 2013, OSHA proposed the silica rule to reduce permissible exposures to 50 $\mu g/m^3$ from the previous t levels of 100 $\mu g/m^3$ in general industry and 250 $\mu g/m^3$ in construction. OSHA held three weeks of public hearings on the proposed rule and provided nearly a year to submit comments.

OSHA issued the final silica rule on March 25, 2016, 19 years after the silica rulemaking began. The rule included a standard for general industry and a separate standard for construction. The final standards set the permissible exposure limit at 50 $\mu g/m^3$ and included provisions on exposure monitoring, medical surveillance and training. Under the construction standard, employers who implement specified control measures for individual tasks set forth in the standard are relieved of obligations to conduct exposure monitoring. This approach will make it much easier for workers and employers to determine whether appropriate controls have been implemented. Construction employers must come into compliance with the standard by June 2017; employers in general industry are given until June 2018; and employers involved with fracking have until June 2021 to comply. OSHA estimates that the standards, when implemented, will save 642 lives a year and prevent 918 cases of silicosis annually.

Industry groups have challenged the rule in court and unions have intervened to defend it while also seeking to strengthen the rule's medical surveillance provisions. The litigation is still in process, with a decision expected this year. As discussed below, the Trump administration has delayed the enforcement date for the silica construction standard for three months until Sept. 23, 2017, and has not committed to support or defend the rule.

In the last two years of the Obama administration, OSHA finalized a number of other significant safety and health rules, including three rules on injury and illness recordkeeping. A 2014 rule updated the list of industries that are subject to OSHA's injury record-keeping requirements and those that are exempt based on the industry's injury rate. The rule also expanded the requirement to report injuries and fatalities directly to OSHA. Specifically, the new rule requires employers to

report all work-related fatalities to OSHA within eight hours, and severe injuries resulting in inpatient hospitalization as well as amputations and loss of an eye within 24 hours of the event.

In 2016, the agency issued a final rule to improve tracking workplace injuries. The rule requires covered employers to electronically report to OSHA establishment-level injury and illness data on annual basis. Establishments in higher-hazard industries with 20–249 employees are required to file summary data on injuries and illnesses. All larger establishments with 250 or more employees are, in addition to summary information, required to submit copies of their OSHA injury logs and detailed case specific information. OSHA has announced that it plans to make the data publicly available on its website. The deadline for submitting injury summaries is July 1, 2017, with the deadline for detailed reports July 1, 2018.

The injury tracking rule also includes important new protections to prohibit employers from retaliating against or discouraging workers from reporting injuries and illnesses. The rule makes such actions a violation of the recordkeeping rule, subject to penalties, in addition to whistleblower violations under section 11(c) of the OSH Act. It is hoped the rule will help stop retaliation against individual workers who report injuries, as well as broad policies and practices that discourage the reporting of work-related injuries. The anti-retaliation provisions of the rule went into effect on Dec. 1, 2016, and they currently are subject to legal challenges by industry groups. The litigation has been delayed at the request of DOL in order to give the Trump administration the opportunity to review the regulation. The AFL-CIO, United Steelworkers (USW) and public health groups have petitioned to intervene in the case in defense and support of the rule.

In December 2016, OSHA issued a third recordkeeping rule to clarify that employers are obligated to make and maintain accurate injury records and are responsible to ensure their accuracy during the entire five-year record retention period. The rule was in response to a 2012 court decision that found that OSHA only could enforce the obligation to keep accurate records for six months following the occurrence of an injury. Since the passage of the OSH Act, OSHA's policy was that accurate recordkeeping was an ongoing obligation, and the rule was issued to make this clear. Some employer groups objected to this change, and as is discussed below, at the request of the U.S. Chamber of Commerce and other industry groups, in March 2017, the Republican majority in Congress repealed the new rule through a resolution of disapproval under the Congressional Review Act.

During the second term of the Obama administration, OSHA finalized a number of important safety rules that had been in process for years and, in some cases, decades. In 2014, OSHA promulgated a final safety rule on electric power generation, transmission and distribution, and in 2015 issued a final standard on confined space entry in construction, which the agency first committed to issuing in 1993. In 2016, the general industry final rule on walking and working surfaces to prevent slips, trips and falls was issued—concluding a rulemaking that began in 1990.

In January 2017, OSHA issued the final standard on beryllium, a toxic metal that causes beryllium disease and cancer. The rule, which covers workers in general industry, construction and maritime, reduces permissible exposure levels to 0.2 $\mu g/m^3$ from 2 $\mu g/m^3$. OSHA first proposed to tighten the beryllium standard in 1975, but that rulemaking was abandoned due to

industry opposition. This new standard was in response to a joint recommendation by the USW and Materion-Brush, the major beryllium producer. The standard was scheduled to go into effect on March 10, 2017, but the Trump administration has delayed the effective date until May 20, 2017, in order to review the rule. At this point it is not clear if there will be attempts to further delay or weaken the rule. Some industry groups have filed legal challenges to the rule, and the USW has intervened to support and defend it.

In January 2017, OSHA took another significant action on a major hazard—workplace violence—when it accepted petitions filed by health care unions and the AFL-CIO, and committed to developing a standard. OSHA placed workplace violence on its regulatory agenda in spring 2016, and issued a request for information seeking input on a rule. But, given the deregulatory agenda of the Trump administration, the prospects for OSHA moving forward to develop and issue a workplace violence rule are at best uncertain.

Unfortunately, the Obama administration was unable to make significant progress on a number of other key regulatory priorities. The proposed infectious disease standard to protect health care workers, initiated in 2009 and subject to a small business review in 2014, was not issued. The rules on combustible dust and back-over protection and updates to strengthen the process safety management (PSM) rule stalled, and the scheduled small business reviews were never conducted. The PSM improvements were being developed in response to the 2013 West, Texas, fertilizer plant explosion that killed 15 people, most of them volunteer responders, in conjunction with an EPA rule under an executive order issued by President Obama. EPA finalized its final updated Risk Management Program rule in January 2017. Industry groups strongly oppose the rule and are seeking to repeal it under the CRA. The Trump administration has delayed the effective date of the EPA rule until June 2017, and in response to industry petitions has proposed a further delay until February 2019 in order to reconsider the rule.

The Trump Administration's Regulatory Record

Deregulation was a major campaign promise by President Trump. He pledged to roll back many of the Obama administration's rules and to repeal 70% of existing regulations. Since taking office, the Trump administration has moved forward aggressively with this deregulatory agenda through executive orders, presidential memoranda, legislation and executive action, targeting individual rules and seeking to fundamentally change the government's role in protecting workers and the public through regulatory safeguards. Actions taken to date with a direct impact on worker safety and health include the following:

Presidential Orders

- A presidential memorandum issued on Jan. 20, 2017, directing agencies to freeze the regulatory process and delay the effective date of final rules not yet in effect.

- Executive Order 13771, "Reducing Regulation and Controlling Regulatory Costs," issued Jan. 30, 2017, requires the elimination of two regulations for every new regulation promulgated. The order will prohibit agencies from instituting new protections unless they offset the costs by removing existing protections from the books, putting workers and the public in greater danger. Public Citizen, joined by CWA and the Natural

Resources Defense Council, filed a legal challenge to the order in the U.S. Court of Appeals for the District of Columbia Circuit.

- Executive Order 13777, "Enforcing the Regulatory Reform Agenda," issued Feb. 24, 2017, requires agencies to appoint a regulatory reform officer and to establish a regulatory reform task force for the purpose of identifying regulations that should be repealed, replaced or modified. Agencies have 90 days to identify regulations for rollback or modification. At his confirmation hearing, the nominee for secretary of labor, Alex Acosta, pointed to this order as the reason why he would not commit to implementing the OSHA silica rule.

- Executive Order 13781, "Comprehensive Plan for Reorganizing the Executive Branch," issued March13, 2017, requires agencies to develop a plan to improve efficiency that includes recommendations to eliminate agencies and programs.

Budget

- The FY 2018 budget blueprint issued March 16, 2017, proposes a $54 billion funding increase for defense and security to be offset by cuts in other domestic programs. The blueprint proposes a 21% cut in the Department of Labor budget, the elimination of the OSHA Susan Harwood training grants and the elimination of the Chemical Safety Board. A separate proposal for FY 2017 proposes to cut NIOSH's budget by $100 million, eliminating the Education Resource Centers and cutting funding for job safety and health research. A detailed budget proposal for FY 2018 is expected in May 2017.

Legislation/Congressional Review Act (CRA) Resolutions of Disapproval

- Legislation (H.J.Res. 37) signed on March 27, 2017, repealed a rule to implement the Obama executive order "Fair Pay, Safe Workplaces." The rule would have required companies to disclose labor and employment law violations for the prior three years before being awarded a federal contract.

- Legislation (H.J.Res. 83) signed on April 3, 2017, repealed OSHA's rule that clarified employers' obligation to keep accurate injury and illness records.

- Statements of administration policy in support of House "regulatory reform" legislation (H.R. 998, 1004, 1009) that would roll back existing rules, impede the regulatory process and weaken future regulations.

Agency Regulations

- Delay in the effective date of OSHA's new final beryllium standard until May 20, 2017, in order to review the rule. The rule was scheduled to go into effect March 10, 2017. Some industry groups are pushing OSHA to significantly weaken provisions of the rule, and several also have filed legal challenges. It is not clear whether the Trump administration's DOL will move to modify the rule or defend it against legal challenges.

- Delay in enforcement of OSHA's silica standard in the construction industry for three months until Sept. 23, 2017. The rule is in effect, and the deadline for compliance in

construction is set for June 23, 2017. But delaying enforcement will allow continued exposure to high silica levels that by OSHA's own estimates will result in 160 worker deaths. To date, DOL still is defending the silica rule against industry legal challenges. But during Senate confirmation hearings, the nominee for secretary of labor, Alex Acosta, refused to commit to supporting and fully implementing the rule.

- Delay in the litigation on the OSHA electronic injury reporting/anti-retaliation rule in order to provide the Trump administration with the opportunity to review the rule. Overturning the rule is a top priority for the U.S. Chamber of Commerce, and at this point it is uncertain whether the Trump administration will move to repeal or weaken the regulation.

KEY ISSUES IN SAFETY AND HEALTH: STATUS AND PROGRESS

There are a large number of safety and health hazards and issues in need of attention. But there are several issues that pose broad and growing threats to workers that warrant special focus and action.

Workplace Violence

Workplace violence is a leading cause of death on the job each year. In 2015, one in every seven work-related deaths was attributed to workplace violence, amounting to 703 workers.

In 2015, there were 417 work-related homicides. Sixty-one of these homicides were among women workers, but women were five times more likely to be killed by a relative or domestic partner at work than men. Domestic violence in the workplace has become a worsening problem. Additionally, the number of work-related suicides decreased to 229 in 2015, but had been increasing over the preceding years. From 2011 to 2014, workplace suicides increased by 12%. One study published by NIOSH examined U.S. workplace suicides from 2003 to 2010.[45] In that time period, 1,719 people died by workplace suicide. According to the study results, workplace suicides were highest for men, workers ages 65 to 74 years, those in protective service occupations and those in farming, fishing and forestry.

While workplace homicides largely occur in retail establishments and transportation operations, nonfatal injuries from violence often occur in health care, social assistance and educational services. Health care workers are twice as likely to suffer a workplace violence injury than other occupations, and workers in psychiatric settings are at especially great risk. The Bureau of Labor Statistics reported that in private industry, more than 26,000 workplace violence incidents led to injuries involving days away from work in 2015. These attacks are serious, underreported and often leave workers physically and emotionally scarred for life. Women workers experience two-thirds of these serious injuries.

[45]Tiesman, H.M., Konda, S., Hartley, D., Chamont Menendez, C., Ridenour, M. and Hendricks, S., "Suicide in U.S. Workplaces, 2003–2010: A Comparison With Non-Workplace Suicides," Vol. 48, Issue 6, pp. 674–682, June 2015, *available at* www.ajpmonline.org/article/S0749-3797(14)00722-3/abstract.

Workplace violence is a major problem that is getting worse. Even as the overall U.S. injury and illness rate has decreased since 1992, the injury rate for workplace violence has been increasing. With the expected job growth in health care and social assistance sectors, workplace violence events will continue to rise.

This is the fifth successive year that the overall workplace violence injury rate has not decreased. The rate in 2015 was 4.0 per 10,000 workers, the same as in 2014 and an increase from previous years. In 2015, the health care and social assistance sector accounted for 74% of the workplace violence events leading to injuries involving days away from work. The private-sector rate of workplace violence in health care and social assistance was 14.0 per 10,000 workers. Private sector rates of workplace violence in health care and social assistance (for injuries and illnesses leading to days away from work) increased 59% between 2005 and 2015. For the same time period, rates for hospitals increased 92%; and for psychiatric hospitals in particular (since 2006—the first year BLS recorded data for this group), rates increased 58%. In 2014, psychiatric hospitals peaked to 170.2 per 10,000 workers. Since 2005, the rate of violence in nursing and residential care facilities has increased 71%, in home health services 74%, and social assistance 39%.

Nursing, psychiatric, home health and personal care aides were among the leading occupations suffering injuries requiring days away from work as a result of a workplace violence event, and a patient was the responsible party in nearly half of the injury cases. Home health has been playing a larger role in health care delivery. The nature of the work required in these occupations makes these workers at great risk for job-related violence, but this type of violence is foreseeable and preventable.

It is not just a problem in the private sector. In 2015, state government health care workers are eight times more likely to be assaulted than private-sector health care workers (127.7 vs. 14.0, per 10,000 workers). In state government, psychiatric aides experienced violence at a rate of 612.8 per 10,000 workers; psychiatric technicians at 448.1 per 10,000 workers; nursing, psychiatric and home health aides at 357.6 per 10,000 workers; health care support occupations at 263.1 per 10,000 workers; and nursing assistants at 238.1 per 10,000 workers. Survey results released in 2012 by the Merit Systems Protection Board reported that one in eight federal government employees witnessed workplace violence.[46] The majority of these accounts came from the Veterans Administration, where 23% of employees said they had witnessed at least one act of violence at work over a two-year period.

It is not only workers in health care and social service who face great risk of violence on the job, and whose risk is increasing. According to the Bureau of Labor Statistics, work-related violence in educational services in 2015 increased 32% since the previous year, and 59% since 2011. All of these rates only reflect injuries that led to days away from work, not all violence-related injuries that are reported or all that occur.

In the past several years, OSHA has taken a number of nonregulatory actions to address the

[46]U.S. Merit Systems Protection Board, "Employee Perceptions of Federal Workplace Violence: A Report to the President and the Congress of the United States," 2012, *available at* www.mspb.gov/netsearch/viewdocs.aspx?docnumber=759001&version=761840&application=ACROBAT.

growing problem of workplace violence. In April 2015, OSHA updated its "Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers,"[47] a comprehensive document outlining the contents of violence prevention programs using hazard assessments and the hierarchy of controls. Over the past several years, OSHA has issued several guidance documents for other high-risk populations, including "Recommendations for Workplace Violence Prevention Programs in Late-Night Retail Establishments," and a fact sheet, "Preventing Violence against Taxi and For-Hire Drivers."[48,49]

In 2011, OSHA issued a directive, "Enforcement Procedures for Investigating or Inspecting Incidents of Workplace Violence," which established uniform procedures for OSHA field staff when responding to incidents and complaints of workplace violence.[50] The directive also applied when conducting inspections in industries considered vulnerable to workplace violence, such as health care and social service settings, and late-night retail establishments. The agency issued a new directive in January 2017, "Enforcement Procedures and Scheduling for Occupational Exposure to Workplace Violence." This directive clarifies the different types of health care settings where workplace violence incidents are reasonably foreseeable; expands the OSHA recognized high-risk industries to include corrections and taxi driving; identifies more resources for OSHA inspectors; explains the review process for settlement agreements; and updates notification dates.[51] Since the first enforcement directive was issued in 2011, OSHA has taken 44 enforcement actions resulting in citations under the general duty clause (section 5(a)(1)) for workplace violence hazards.

On Oct. 1, 2016, federal OSHA Region VIII (Billings, Bismarck, Sioux Falls, Denver and Englewood) instituted a regional emphasis program that describes policies and procedures for enforcement efforts outlined in residential mental intellectual and developmental disability facilities (NAICS 623210).[52] This program focused more OSHA resources on more effective investigations related to workplace violence in this industry, which OSHA selected based on its history of enforcement activity in this region. The program evaluation for this emphasis program is expected by Oct. 31, 2017.

In FY 2016, OSHA strengthened workplace violence hazard enforcement through the general duty clause (section 5(a)(1)), conducting 126 workplace violence inspections—15 of these were fatality investigations, and 59 of the inspections were assigned penalties that resulted in a current median penalty of only $4,200. This compares with a total of 85 inspections in FY 2015, 90

[47]U.S. Department of Labor, OSHA, "Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers," April 2015, *available at* www.osha.gov/Publications/osha3148.pdf.
[48]U.S. Department of Labor, OSHA, "Recommendations for Workplace Violence Prevention Programs in Late-Night Retail Establishments," OSHA 3153-12R. 2009, *available at* www.osha.gov/Publications/osha3153.pdf.
[49]U.S. Department of Labor, OSHA, "Preventing Violence against Taxi and For-Hire Drivers," April 2010, *available at* www.osha.gov/Publications/taxi-driver-violence-factsheet.pdf.
[50]U.S. Department of Labor, OSHA, "Enforcement Procedures for Investigating or Inspecting Workplace Violence," CPL 02-01-052, Sept. 8, 2011, *available at* www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=5055.
[51]U.S. Department of Labor, OSHA, "Enforcement Procedures and Scheduling for Occupational Exposure to Workplace Violence," CPL 02-01-058, Jan. 10, 2017.
[52]U.S. Department of Labor, OSHA, "Regional Notice 17-09 (CPL04-01)," Oct. 1, 2016, *available at* www.osha.gov/dep/leps/RegionVIII/reg8_fy2017_17-09_workplace_violence.pdf.

inspections in FY 2014 and five inspections in FY 2013. When there are workplace violence hazards, but general duty clauses citations cannot be issued, OSHA can issue a Hazard Alert Letter to warn employers about the dangers of workplace violence and identify corrective actions. OSHA issued HALs in 72 investigations in FY 2016, a large increase from 18 in FY 2015 and seven investigations total in FY 2014 and FY 2013.

In March 2016, the U.S. Government Accountability Office published a report that examined existing workplace violence prevention programs and policies, and the need for these programs and policies, including the need for an OSHA workplace violence prevention standard for health care and social service workers. The report found that workplace violence is a serious and growing concern for 15 million health care workers and can be prevented through violence prevention programs.[53] The GAO recommended that OSHA improve workplace violence citation training for its inspectors, follow up on HALs, assess current efforts and determine whether regulatory action should be taken by the agency.

Health care unions supported the release of the report and called for OSHA to address workplace violence through a federal standard. In July 2016, a coalition of unions petitioned OSHA to develop a federal workplace violence standard for health care and social assistance workers.[54] In January 2017, at its stakeholder meeting specifically addressing the issue of workplace violence, OSHA replied to union petitions and announced that it would promulgate a workplace violence standard in health care and social assistance. This is a critical first step in the process for federal OSHA to protect workers with a strong federal standard, but there needs to be a strong commitment from the agency and political will in this administration to continue these efforts and push forward a federal standard.

A number of states have taken action to adopt laws, standards and policies on workplace violence, which vary widely. In December 2016, the California Department of Industrial Relations filed its final workplace violence standard with the California secretary of state, with an effective date of April 1, 2017.[55] This is a comprehensive standard to protect health care workers in the public and private sectors from workplace violence, developed through consensus rulemaking, and it is a good model for a comprehensive regulatory approach to combat workplace violence. In response to a 2014 petition from a teacher, the California Occupational Safety and Health Standards Board tasked an advisory committee to examine workplace violence prevention in *all* California workplaces, specifically in educational workplaces, which is currently going through the state process.

New York passed a comprehensive workplace violence standard in 2006, but it only covers the

[53]U.S. Government Accountability Office, "Additional Efforts Needed to Help Protect Health Care Workers from Workplace Violence," March 2016, *available at* www.gao.gov/products/GAO-16-11.
[54]"Labor Organizations Petitioning the U.S. Department of Labor for an OSHA Workplace Violence Prevention Standard for Healthcare and Social Assistance," July 12, 2016, *available at* www.safetyandhealthmagazine.com/ext/resources/document-downloads/unions-petition.pdf.
[55]"Workplace Violence Prevention in Health Care," General safety orders, New Section: 3342," effective April 1, 2017, *available at* www.dir.ca.gov/oshsb/Workplace-Violence-Prevention-in-Health-Care.html.

public sector.[56] Public employers are required to develop and implement programs to prevent and minimize workplace violence. Connecticut, Illinois, Maryland, New Jersey and Washington have adopted some form of legislation specifically focused on health care settings. The Maryland legislation, which was implemented on Oct. 1, 2014, addresses all workplace injuries in health care facilities by means of an overall safety program, which includes workplace violence hazards. The measure requires public and private health care employers to establish a safety committee consisting of management and employees, and it requires the committee to establish a safety program that consists of: 1) a written policy; 2) an annual comprehensive risk assessment and recommendations for injury prevention; 3) a process for reporting, responding to and tracking incidents of workplace injuries; and 4) regular safety and health training.

State and local ordinances are an important piece in addressing workplace policies and practices related to workplace violence, but a stronger, more comprehensive solution is needed to address this growing national problem.

Oil and Gas Extraction

The rapid growth in the oil and gas industry during the past decade has been accompanied by a sharp increase in fatal injuries for workers, and serious concerns about an industry wrought with dangerous working conditions and largely exempt from protective regulations.[57] According to the BLS, between 2003 and 2015, 1,422 oil and gas workers were killed on the job. In 2015, 89 workers died on the job in the oil and gas industry, the lowest number since 2009, but these deaths account for 74% of the total fatalities in the mining sector.[58] In 2014, the number of worker deaths in the industry reached an all-time high when 144 oil and gas workers were killed by on-the-job injuries, which was similar to 2012 at 142 worker deaths. In 2015, contracted workers accounted for 30% of worker deaths in the overall mining sector, which includes the oil and gas industry.

Fatality rate data for the oil and gas industry are limited, but available data during the past seven years show fatality rates in oil and gas extraction that are four to seven times the national fatality rate. For a number of years, the fatality rate in oil and gas exceeded the fatality rate in coal mining.[59] BLS did not report a fatality rate for the oil and gas sector specifically in 2015; the overall mining sector fatality rate was 11.4 per 100,000 workers. In 2014, the fatality rate was 15.6 per 100,000 workers; the overall mining sector fatality rate was 14.2 per 100,000 workers. Not surprisingly, states with large amounts of oil and gas activity also have high job fatality rates.

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[56]"Public Employer Workplace Violence Prevention Programs," 12 NYCRR PART 800.6, effective June 7, 2006, *available at* https://labor.ny.gov/workerprotection/safetyhealth/PDFs/PESH/WPV/Workplace%20Violence%20Prevention%20Regulations.pdf.

[57]The oil and gas industry is classified as an extractive industry and is part of the mining sector (NAICS Code 21). For the purpose of identifying fatalities in the oil and gas extractive industries, BLS includes oil and gas extraction (NAICS 21111), drilling oil and gas wells (NAICS 213111), and support activities for oil and gas operations (NAICS 213112).

[58]Oil and gas production and related employment has been declining since late 2015.

[59]Bureau of Labor Statistics, hours-based fatal work injury rates, 2008–2014.

A large number of oil and gas worker deaths have been among Latino and immigrant workers. Since 2009, at least 220 Latino workers have died performing oil and gas work. The number of Latinos who died on the job in support activities for oil and gas operations increased more than fivefold from 2009 to 2014, increasing each year and nearly doubling from 2013 to 2014, with seven deaths in 2009, 11 in 2010, 14 in 2011, 23 in 2012, 24 in 2013 and 41 in 2014. In 2015, this number was 24. The trend of increasing numbers of Latino deaths also was true for the entire oil and gas industry: 21 Latino deaths in 2009, 21 in 2010, 25 in 2011, 32 in 2012, 34 in 2013 and 59 in 2014. In 2015, this number was 28 and 42% of Latino worker deaths in mining, quarrying, and oil and gas were immigrant workers. In 2012, 11 of the 12 Latino workers who died in North Dakota were immigrant workers.

From FY 2013 to FY 2016, OSHA conducted a total of 2,285 oil and gas inspections. In FY 2016, federal OSHA conducted 355 inspections in the oil and gas extraction industries, issuing nine HALs and 31 serious citations that resulted in a current median penalty of only $4,900. In FY 2015, federal OSHA conducted 603 inspections, issuing 11 HALs and 56 serious citations that resulted in a current median penalty of $4,200; OSHA also issued one repeat serious and two willful citations that year with larger penalties. In FY 2016, OSHA investigated 21 fatalities and catastrophes related to oil and gas, compared with 52 fatalities in FY 2015. Employment in oil and gas decreased from 613,783 workers in 2014 to 533,184 in 2015.

Many oil and gas workers die from traumatic injuries from being struck by or against tools or equipment, caught in/between equipment, falls, electric shock, and burns or scalds. Deaths from acute chemical exposures near oil tanks often are undercounted. While some deaths are appropriately classified as inhalation deaths, others can be labeled as cardiac arrhythmia or respiratory failure, without further investigation as to whether the health event was induced by acute chemical exposure.

Death from inhalation of toxic chemical fumes near oil tanks is a serious problem in the oil and gas industry. In response to these growing concerns, in February 2016, NIOSH and OSHA published a hazard alert, "Health and Safety Risks for Workers Involved in Manual Tank Gauging and Sampling at Oil and Gas Extraction Sites," to inform employers and workers of the dangers during these operations and methods to control exposure.[60] Many recommendations in the hazard alert are based on OSHA investigations and NIOSH's previous research in this area. For example, in 2014, a peer-reviewed NIOSH publication reported on worker exposures to volatile organic chemicals during flowback and production testing operations at oil and gas sites. Notably, 15 of 17 personal breathing samples measuring benzene exposure for workers gauging flowback or production tanks exceeded the NIOSH recommended exposure limit of 0.1 ppm.[61]

[60]National Institute for Occupational Safety and Health, "Health and Safety Risks for Workers Involved in Manual Tank Gauging and Sampling at Oil and Gas Extraction Sites," February 2016, available at www.osha.gov/Publications/OSHA3843.pdf.

[61]Esswein, E.J., Snawder, J., King, B., Breitenstein, M., Alexander-Scott, M. nad Kiefer, M., "Evaluation of Some Potential Chemical Exposure Risks During Flowback Operations in Unconventional Oil and Gas Extraction: Preliminary Results," *Journal of Occupational and Environmental Hygiene*, Vol.11, No. 10, D174–D184, October 2014.

But as NIOSH notes, even though workers were exposed to higher-than-recommended levels of benzene—a known carcinogen—none of the personal breathing zone sampling results for benzene, toluene, ethyl benzene and xylenes exceeded OSHA's permissible exposure limits, despite being dangerous levels. OSHA's PEL for benzene in the oil and gas sector is 10 ppm, which is 10 times more lenient than OSHA's benzene standard in other sectors (1 ppm). Even so, 1 ppm is well above NIOSH's recommended exposure limit of 0.1 ppm for benzene. OSHA's weak PELs limit the agency's ability to adequately protect workers.

NIOSH also documented flammable atmosphere measurements adjacent to separators and flowback tanks that are indicative of a high risk of fires, which normally are triggered by direct reading personal and fixed flammable gas monitors. Based upon its field investigations in the oil and gas industry, NIOSH has recommended a number of methods to reduce the potential for occupational exposure to acute health and flammable hazards in these work settings. These include alternative tank gauging procedures; dedicated sampling ports; worker training; limiting the time spent in proximity to hydrocarbon sources; monitoring workers for benzene and other contaminants; and the use of portable flammable gas monitors with alarms. In 2014, OSHA issued a guidance document outlining recommendations to reduce flowback hazards in hydraulic fracturing.[62]

Silica dust exposure has been identified as a major health hazard in hydraulic fracturing operations in the oil and gas industry, where silica is used in large quantities along with water and chemicals in the extraction process. In 2012, NIOSH released the findings of a two-year assessment of chemical hazards in hydraulic fracturing that reported high levels of silica dust exposures, particularly in sand handling and transfer operations. NIOSH reported that 47% of the breathing zone samples taken exceeded the OSHA permissible exposure limit at the time (100 $\mu g/m^3$), 79% exceeded the NIOSH recommended exposure limit (50 $\mu g/m^3$) and 31% of the samples were greater than 10 times the NIOSH-recommended limit.

In response to these findings, in June 2012, OSHA and NIOSH issued a hazard alert on silica hazards in hydraulic fracturing, outlining the risks of exposure and recommending measures to control worker exposures to respirable silica dust in these operations.[63] OSHA's final general industry rule on protecting workers from silica exposure—issued in March 2016—includes hydraulic fracturing operations in its scope, but allows five years for implementation in this industry.

Other potential safety and health hazards in oil and gas operations that are less well-studied include exposure to diesel particulate and exhaust gases from equipment; high or low temperature extremes; noise, heavy metals; and naturally occurring radioactive material.

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[62]U.S. Department of Labor, Occupational Safety and Health Administration, "Hydraulic Fracturing and Flowback Hazards Other Than Respirable Silica," 2014, *available at* www.osha.gov/Publications/OSHA3763.pdf.

[63]U.S. Department of Labor, Occupational Safety and Health Administration, "Worker Exposure to Silica during Hydraulic Fracturing," 2012, *available a*t www.osha.gov/dts/hazardalerts/hydraulic_frac_hazard_alert.html.

As noted previously, the oil and gas extraction industry is classified as part of the mining industry (NAICS 21), and has fatality rates that are similar to those experienced in coal mining. But unlike the rest of the mining industry, which is subject to the Mine Safety and Health Act, oil and gas extraction is covered by the Occupational Safety and Health Act. As a result, the oil and gas industry is subject to much weaker regulations and oversight than other dangerous extractive industries.

Under the Mine Act, all underground mines are subject to mandatory comprehensive inspection by the Mine Safety and Health Administration four times a year, in addition to other inspections that may be conducted in response to complaints, fatalities or other information. All surface mines covered by MSHA, including quarrying operations, must be inspected at least twice a year. By comparison, there are no routine mandatory inspections under OSHA, and OSHA's ability to inspect workplaces, including those in the oil and gas industry, is quite limited. In FY 2016, federal OSHA conducted only 157 inspections in the oil and gas industries. This is a large deviation from 603 inspections in FY 2015 and 663 inspections in FY 2014. Employment in oil and gas decreased from 613,783 in 2014 to 533,184 in 2015. Worksites in this industry often are remote and mobile, making oversight even more difficult. Even though some preparation activities for oil and gas, such as in construction, may be unionized, the oil and gas workforce is unrepresented on the job.

Similarly, MSHA has detailed regulations that address the specific hazards in coal mining and metal and nonmetal mining regulations. Oil and gas extraction is subject to OSHA general industry and construction regulations, none of which are designed to address the particular safety and health hazards in the oil and gas industry. Indeed, the oil and gas sector, at the urging of the industry, has been exempted from a number of OSHA regulations, including standards for benzene and process safety management. In 1983, OSHA issued a proposed standard to address the specific safety hazards in the oil and gas industry, but that rule never was issued.

Safety and health practices and protections in the oil and gas industry need to be strengthened and improved. Given the extreme hazards in the industry, and growing reliance on oil and gas as an energy source, it is time to consider a strict regulatory and enforcement system for the oil and gas sector similar to what exists in the rest of the mining industry.

MINE SAFETY AND HEALTH

During the eight years of the Obama administration, the state of mine safety and health in the United States saw tremendous improvements. The administration began with the April 2010 Upper Big Branch (UBB) mining disaster—the worst coal mine disaster in the United States in 40 years that killed 29 miners—and ended with the safest year in mining history.

The UBB explosion and subsequent investigations highlighted major deficiencies in MSHA's oversight, and the poor state of safety and health and a lack of compliance not only at UBB, but also at many of the nation's mines. The UBB explosion, the related investigation and its findings formed the backdrop for many of the MSHA activities and initiatives during the Obama administration.

The UBB investigation found that:

> The physical conditions that led to the explosion were the result of a series of basic safety violations at UBB and were entirely preventable. PCC/Massey disregarded the resulting hazards. While violations of particular safety standards led to the conditions that caused the explosion, the unlawful policies and practices implemented by PCC/Massey were the root cause of this tragedy. The evidence accumulated during the investigation demonstrates that PCC/Massey promoted and enforced a workplace culture that valued production over safety, including practices calculated to allow it to conduct mining operations in violation of the law.
>
> The investigation also revealed multiple examples of systematic, intentional, and aggressive efforts by PCC/Massey to avoid compliance with safety and health standards, and to thwart detection of that noncompliance by federal and state regulators.[64]

The Massey mine disaster also raised serious questions about the adequacy of MSHA oversight and mine safety law and regulations, particularly how a mine with such a significant history of violations could continue to operate. An internal review of MSHA's activities prior to the UBB explosion found that inspectors failed to identify deficiencies in Massey's dust control program and ventilation and roof control plans, despite repeated inspections of the mine. Lack of inspector training, inexperience and management turnover were identified as factors that led to these failures.

Following the investigation of the UBB explosion, MSHA imposed a fine of $10.8 million for civil violations, the largest in the agency's history, for more than 369 citations and orders, including 21 flagrant violations.

The DOJ launched a criminal investigation of the UBB explosion, both of the company and of company officials. In December 2011, DOJ announced a settlement in the criminal case against the company, with Alpha Natural Resources (which had purchased Massey Energy) agreeing to pay a total of $209 million for penalties, payments to families and investments to improve mine safety.

The criminal investigation, conducted by the U.S. attorney for the Southern District of West Virginia, led to convictions or guilty pleadings by three Massey management officials for criminal offenses related to the explosion and related violations. In November 2014, the criminal investigation reached the top management of the company. Don Blankenship, CEO of Massey Energy at the time of the UBB explosion, was indicted by a federal grand jury on charges including conspiracy to violate mandatory federal mine safety and health standards, conspiracy to impede federal mine safety officials, making false statements to the Securities and Exchange Commission, and securities fraud. In December 2015, Blankenship was found guilty of conspiracy to violate mine safety standards. In April 2016, Blankenship was sentenced to one year in prison and fined $250,000—the maximum penalty allowed under the Mine Safety and

[64]United States Department of Labor, Mine Safety and Health Administration, "Coal Mine Safety and Health, Report of Investigation Fatal Underground Mine Explosion," April 5, 2010, Upper Big Branch Mine-South, Montcoal, Raleigh County, West Virginia, ID No. 46-08436.

Health Act. He started serving his sentence on May 10, 2016, and later lost his appeal. The conviction and sentencing, while welcome, underscored the weakness of the criminal provisions of the Mine Act, under which even criminal violations that result in the death of workers are treated as a misdemeanor, not a felony.

Following the UBB explosion, MSHA launched a series of initiatives to strengthen enforcement programs and regulations. In April 2010, immediately after the UBB tragedy, MSHA launched a new program of "impact" inspections to target mines with poor safety records or at high risk of explosions. As of Dec. 31, 2016, 1,270 impact inspections of mines had been conducted, resulting in a total of 17,255 citations, 1,313 orders and 62 safeguards, many of them for serious or life-threatening conditions.[65]

MSHA also strengthened its procedures for addressing patterns of violations. Under the Federal Mine Safety and Health Act, MSHA is authorized to issue a Patterns of Violations notice to mine operators who demonstrate a disregard for the health and safety of miners through a pattern of significant and substantial violations. If a mine receives a POV notice, all subsequent S&S violations identified at that mine must be issued as withdrawal orders, and immediate action must be taken to correct the violations. Prior to 2010, MSHA never had used this authority, and no mine had been placed on a POV status.

In December 2010, new POV screening criteria were put in place to identify mines that had a history of repeated violations. Using those criteria, MSHA identified 51 mines for further review. The top 12 mines identified in the 2010 screening were cited collectively for a combined total of 5,541 violations, 2,050 of which were S&S violations.[66]

In January 2013, OSHA issued a new regulation to further strengthen enforcement for patterns of violations. The regulation allows MSHA to issue a POV notice without first having to issue a "potential" notice. It also provides for violations that are not yet final orders to be considered in determining a pattern, so that coal operators cannot use litigation and contests to avoid these stricter enforcement procedures. If a mine receives a POV notice, all subsequent S&S violations identified at that mine must be issued as withdrawal orders, and immediate action must be taken to correct the violations.

The POV enforcement program has had an impact, resulting in mine operators taking action to correct serious hazards that constitute violations. Since the program was implemented in 2010, the number of mines identified as having a potential pattern of violations has steadily declined,

[65]U.S. Department of Labor, Mine Safety and Health Administration, press release, "Mine Safety and Health Administration announces results of special impact inspections in December 2016," Jan. 18, 2017, *available at* www.msha.gov/news-media/press-releases/2017/01/18/mine-safety-and-health-administration-announces-results-special.

[66]U.S. Department of Labor, Mine Safety and Health Administration, press release, "MSHA Chief: Pattern of Violations Reforms Have Made Mines Safer," Oct. 2, 2014, *available at* www.msha.gov/MEDIA/PRESS/2014/NR141002.asp.

dropping from 51 mines in 2010 to 12 mines in 2014. In 2015, only one mine was identified as having a potential pattern of violations, and in 2016 there were none.[67]

In addition to strengthening enforcement programs, MSHA also developed and issued new mine safety and health standards. In September 2010, the agency issued an emergency temporary standard on rock dusting to reduce the risk of coal dust explosions; it finalized the rule in June 2011. MSHA also finalized a new rule requiring operators to conduct pre-shift examinations of mines to identify hazards and correct them, and a rule to adjust penalties for inflation.

In January 2015, MSHA issued a final rule to require proximity detection systems on continuous mining machines in underground coal mines to prevent injuries and deaths from contact with this equipment. The rule had been proposed in August 2011, but final action was delayed by a lengthy review by OMB.

The most significant MSHA rule issued by the Obama administration was the coal dust rule promulgated in April 2014. The rule, issued to reduce the risk of black lung, which after years of decline has been on the rise, lowered levels to 1.5 mg/m^3 from the prior 2.0 mg/m^3 level, and put in place other dust control, exposure monitoring and medical surveillance measures. The new coal dust rule and MSHA's campaign to End Black Lung have had a dramatic effect. According to MSHA, in FY 2016, coal dust exposures were at a record low—.64 of coal dust per cubic meter of air (mg/m^3).[68] And since the coal dust rule went into effect, as of Sept. 30, 2016, more than 99% of the 154,000 coal dust samples collected from underground and surface coal mines by MSHA and coal operators met compliance levels.[69]

The last MSHA rule issued by the Obama administration was the mine examination rule for metal and nonmetal mines that requires pre-shift examinations at noncoal mines. The rule was published in the Federal Register on Jan. 23, 2017, just days after the Trump administration took office.[70] The Trump administration has postponed the effective date of the rule until July 24, 2017, and is deciding whether to reconsider the rule due to opposition from the mining industry.

Unfortunately, there were a number of important rules left pending at the end of the Obama administration. A rule on proximity detection systems for mobile mining equipment, delayed for two years by OMB and finally proposed in September 2015, was not finalized. In June 2016, the agency issued a request for information on exposure to diesel exhaust, and in January extended the comment period for submitting information until Jan. 8, 2018. Two other important rules

[67]U.S. Mine Safety and Health Administration, "Number of Mines Identified in Pattern of Violations (POV) Screenings, CY 2010-2016," *available at* www.msha.gov/sites/default/files/Data_Reports/Charts/Number_of_Mines_Identified_in_POV_Screenings_CY__1-4-17.pdf.

[68]U.S. Mine Safety and Health Administration, "Lowest Results Ever in Fatalities and Dust Concentration for Fiscal Year 2016," Oct. 12, 2016, *available at* www.msha.gov/news-media/assistant-secretary/2016/10/12/lowest-results-ever-fatalities-and-dust-concentration.

[69]U.S. Mine Safety and Health Administration, "Respirable Coal Mine Dust Samples Since Implementation (8/1/14 – 9/30/16)," *available at* https://www.msha.gov/sites/default/files/Data_Reports/Charts/Respirable_Coal_Mine_Dust_Samples_Since_Implementation__1-5-17.pdf.

[70]The rule was sent to the Federal Register in the last days of the Obama administration, but not published until Jan. 23, 2017.

previously designated as priorities by MSHA also were delayed. A new standard on silica to bring the MSHA limit into conformance with the new OSHA silica standard was not proposed. And a rule on safety and health management systems was removed from the regulatory agenda.

Under the Obama administration, MSHA also undertook a major initiative—Miners' Voice—to encourage miners to exercise their rights under the Mine Act and to support them in these efforts. The agency conducted an extensive outreach campaign to inform workers of their rights. MSHA also developed a new training curriculum to educate miners' representatives on their rights and how to participate effectively in MSHA investigations and other activities under the act.

As part of the miners' rights initiative, MSHA stepped up enforcement of its anti-retaliation protections. The Mine Safety and Health Act protects miners from being discriminated against for exercising their rights under the act. The mine safety law's protections are much stronger than the comparable provisions under the OSH Act, providing for preliminary reinstatement while the case is being adjudicated, an administrative process for resolving complaints and the right of miners to take up the case if the secretary of labor fails or declines to act.

In FY 2016, MSHA filed 45 discrimination complaints on behalf of miners (compared with nine such cases filed in 2008), and sought preliminary reinstatement for 21 miners, compared with three such cases in 2008.[71]

The Obama administration's concerted efforts to strengthen MSHA and to improve safety and health for America's miners made a significant impact. In CY 2016 mine fatalities and injuries were at an all-time low with MSHA reporting 26 mine fatalities and a fatal injury rate of .0099 and an injury rate of 2.17.[72,73]

The Trump administration has yet to nominate an assistant secretary for MSHA or set forth its vision and agenda for protecting the safety and health of the nation's miners. Whether or not the progress of the past eight years will continue remains to be seen.

JOB SAFETY BUDGET

Funding for the nation's job safety and health programs historically has been limited, particularly when compared with the scope of responsibilities of the job safety agencies and the extent of the problems that need to be addressed. During the Bush administration, there was a decrease in funding and staffing for the agencies, further limiting their capacity. The Obama administration made funding for the job safety agencies, particularly the enforcement programs, a priority,

[71]Mine Safety and Health Administration, "Discrimination Complaints and Temporary Reinstatements Filed by DOL on Behalf of Miners, " *available at* www.msha.gov/sites/default/files/Data_Reports/Charts/discrimination_complaints_and_temporary_reinstatements_fy.pdf.
[72]Mine Safety and Health Administration. "Mine Safety and Health at a Glance: Calendar Year," April 3, 2017, *available at* www.msha.gov/data-reports/statistics/mine-safety-and-health-glance.
[73]Injury and fatality rates are per 200,000 hours worked. They are calculated by MSHA and include mine operators and contractors. They may differ from fatality and injury rates calculated by BLS due to differences in the universe of employers covered and methods of calculation.

moving in the early years of the administration to restore the agencies to their FY 2001 levels of operation.

During the first year of the Obama administration, OSHA and MSHA received significant increases in their respective budgets. For FY 2010, the omnibus appropriations bill enacted by the Democratic-controlled Congress provided $559 million in funding for OSHA, $357 million for MSHA and $302 million for NIOSH. This compared with FY 2009 levels of $513 million for OSHA, $347 million for MSHA and $290 million for NIOSH. In subsequent years there were additional increases sought and received for OSHA and MSHA.

But, in FY 2013, as a result of Republican opposition in Congress and following the government shutdown and sequester, OSHA's budget was reduced to $535 million from $564.8 million in FY 2012. In FY 2014, OSHA funding was partially restored to a level of $552.2 million. In FY 2015, OSHA received a very small increase, with a budget of $552.8 million and 2,224 positions funded.

In FY 2013, MSHA's budget also was cut as a result of the budget sequester, with $354 million in funding provided. However, in FY 2014, MSHA's funding was increased to $375.9 million, higher than the pre-sequester level. The FY 2015 appropriation maintained this level of funding for MSHA.

For FY 2016, the Obama administration proposed significant increases in the OSHA and MSHA budgets, seeking $592 million in funding for OSHA and $394.9 in funding for MSHA. However, in the omnibus funding bill for FY 2016, neither agency received an increase in funding.

For FY 2017, the Obama administration again proposed major increases in the OSHA and MSHA budgets, requesting $595 million for OSHA and $397.4 million for MSHA. At the time of publication of this report, FY 2017 funding has not been finalized; agencies were operating under a continuing resolution at FY 2016 funding levels. The continuing resolution expires on April 28, 2017, and it is not clear whether Congress will maintain current funding levels, or seek cuts, in a final funding bill.

Unfortunately, NIOSH did not receive the same ongoing support as OSHA and MSHA for funding under the Obama administration. While increased funding for NIOSH was sought and received in FY 2010, with the agency receiving $302 million in funding, in subsequent budget requests, the administration proposed cuts to NIOSH's funding.

Specifically, beginning with the FY 2012 budget request, and every year thereafter, the Obama administration proposed approximately $50 million in cuts for NIOSH through the elimination of programs for agriculture, fishing, and logging safety and health research, and the Educational Research Center program to train occupational safety and health professionals. As a result of strong opposition to these cuts by the entire safety and health community, and labor and business groups, Congress rejected these proposals and maintained NIOSH's funding. In FY 2015, NIOSH was funded at a level of $334.9 million. In FY 2016, Congress increased NIOSH's budget, providing $339.1 million in funding.

With the Trump administration now in office, and Republicans in control of Congress, future funding for the job safety agencies is uncertain and may be in serious danger. President Trump's budget blueprint for FY 2018, released in March 2017, proposed significant increases in defense and security spending, offset by deep cuts in other domestic programs. The blueprint only provided top-level funding for departments and highlights of programs slated for increased funding, budget cuts or elimination. The budget proposes a 21% cut in the Department of Labor, including the elimination of OSHA's Susan Harwood worker safety and health training grants. The Chemical Safety Board, the independent agency that investigates chemical accidents, also is targeted for elimination. NIOSH was not listed in the FY 2018 budget, but a separate Trump administration proposal for final FY 2017 funding calls for $100 million in cuts for NIOSH, eliminating the Education Resource Centers and reducing funding for future job safety and health research. The president's detailed budget proposal is expected to be released in May 2017, at which time there will be a clearer picture of funding prospects for the job safety agencies. However, at this time, adequate future funding for job safety programs appears to be at risk.

SAFETY AND HEALTH LEGISLATION

During the 114th Congress, with Republicans in control of the House and Senate, there were a series of legislative attempts to block or roll back numerous worker rights and protections, and public safeguards. A large number of anti-regulatory bills and anti-worker bills passed the House. There also were attempts to block regulations and pro-worker policies through appropriations bills. But with President Obama in the White House threatening to veto these measures, few of these bills were taken up by the Senate or became law.

With President Trump in the White House and Republicans still holding majorities in Congress, the political environment in the 115th Congress for worker rights and protections is very challenging and fraught with danger. The only barrier to passing bills is the requirement in the Senate for 60 votes to pass most legislation.

During the first several months of this Congress, the Republicans' top legislative priority has been advancing their deregulatory agenda. Congress has moved to repeal dozens of final rules issued at the end of the Obama administration under the Congressional Review Act (CRA), a law enacted in 1996 that establishes procedures for Congress to review major agency rules and seek to overturn them through a fast-track procedure that requires a simple majority vote. Once a rule is repealed, the CRA prohibits an agency from issuing a substantially similar rule unless it receives specific legislative authorization from Congress.

Until this year, the CRA only had been used successfully to repeal one rule—the OSHA ergonomics standard issued by President Clinton in November 2000, and repealed in March 2001, when President Bush took office. Since January 2017, 13 rules have been repealed under the CRA, and resolutions of disapproval are in process on many others. Two of the enacted resolutions of disapproval repealed worker safety and health rules. H.J.Res. 37 overturned a regulation on fair pay and safe workplaces that enhanced reporting and oversight requirements for federal contractors to improve compliance with federal worker safety and labor laws. H.J.Res. 83 repealed OSHA's regulation clarifying an employer's obligation to make and

maintain accurate workplace injury records. A number of other CRA resolutions still are pending, but the window for utilizing fast-track procedures for disapproval is closing and expires in early May.

In addition to the CRA repeals, there likely will be efforts to use the appropriations process to block the implementation of regulations that industry groups and others oppose. In recent years, Republicans have attempted to attach dozens of ideological policy riders to agency funding bills, including riders regarding NLRB and OSHA rules. But with President Obama threatening a veto, most of these measures were not adopted. At this point it is not clear whether Republicans will attempt to include riders on the final FY 2017 funding bill, which still is pending. (The current continuing resolution funding the government expires on April 28, 2017.) Democrats have strongly opposed these riders, and it is likely their support will be needed to pass the appropriations bill. Whether Republicans or President Trump are willing to shut down the government over these policy issues remains to be seen.

The primary legislative threat to worker safety and health and other public protections in the 115th Congress comes from a wide range of "regulatory reform" bills that would make it more difficult, if not impossible, for agencies to issue needed safeguards. The Regulations from the Executive in Need of Scrutiny (REINS) Act (H.R. 26, S. 21) would set up Congress as the gatekeeper on regulations, and mandate that Congress vote affirmatively to approve all major rules before they went into effect. The Regulatory Accountability Act (RAA) of 2017 (H.R. 5) would upend 40 years of law to make costs to businesses, not the protection of workers and the public, the primary consideration. The Small Business Regulatory Flexibility Improvements Act (SBRFIA) of 2017 (H.R. 33) would add a host of new analytical requirements to the regulatory process, further delaying needed safeguards. The Searching for and Cutting Regulations that are Unnecessarily Burdensome (SCRUB) Act (H.R. 998) would establish a new "regulatory review" commission charged with identifying duplicative or "obsolete" regulations to repeal, with the goal of achieving a 15% reduction in the cumulative cost of regulations.

The House has moved quickly to pass all these bills and other anti-regulatory legislation, largely along party lines. The Senate is moving more slowly, since achieving the necessary Democratic support to achieve a 60-vote threshold is unlikely for most of these bills. At this time, the most significant threat appears to be the Regulatory Accountability Act, which the U.S. Chamber of Commerce has identified as a top priority. To date, no Senate bill has been introduced, but discussions are under way to see whether a bipartisan agreement can be forged on some version of this bill. It is difficult to see how any regulatory reform legislation could be passed in this Congress that would be in the interest of workers and the public.

In the past several sessions of Congress, legislation to strengthen the OSH Act and the Mine Safety and Health Act has been introduced. The Protecting America's Workers Act would expand OSHA coverage, strengthen enforcement and enhance whistleblower protections. The Robert C. Byrd Mine Safety Protection Act proposes to revamp the provisions for patterns of violations, enhance criminal and civil penalties, provide MSHA subpoena power and other enforcement tools, and strengthen miners' whistleblower protections. But with Republicans in control of Congress, there has been no consideration of any of these bills.

WHAT NEEDS TO BE DONE

There has been significant progress made toward improving safety and health, and protecting workers from job injuries, illnesses and deaths. The Obama administration issued important regulations on silica, coal dust and other hazards, strengthened enforcement and expanded worker rights. These initiatives have made workplaces safer and saved lives.
But now, with President Trump in office and Republicans in the majority in Congress, this progress is threatened by rollbacks in worker safety rights and protections, budget cuts and weakened enforcement. Workers safety and health is in danger.

First and foremost, action is needed to defend the important gains that have been won from legal and political attacks, including OSHA's new silica and beryllium standards and injury reporting/anti-retaliation rule.

Efforts to cut the job safety budget must be strongly opposed. OSHA's budget already is meager, and the agency's capacity to provide effective oversight is extremely limited. Further cutbacks would severely harm the agency's enforcement program. Without effective enforcement, employers are more likely to cut corners and reduce their safety and health efforts, leading to more injuries and deaths.

We must push forward. The toll of workplace injuries, illnesses and deaths is too high; and many job safety and health hazards remain unaddressed.

Standards are needed for infectious diseases and combustible dust; standards for chemical hazards are obsolete and must be updated. Workplace violence is a growing and serious threat, particularly to women workers and in the health care industry. OSHA must keep its promise to develop a workplace violence standard and enhance enforcement under the general duty clause.

OSHA's new standard on electronic injury reporting must be fully implemented and the new anti-retaliation protections for workers who report injuries fully enforced. OSHA must continue to address the widespread problem of injury underreporting, and employer policies and practices that discourage the reporting of injuries through discipline or other means.

Initiatives to address the safety and health risks posed by changes in the workforce and employment arrangements must continue. The serious safety and health problems, and increased risk of fatalities and injuries faced by Latino and immigrant workers, should be given increased attention, and efforts to protect temporary and contract workers enhanced.

At MSHA, initiatives to focus increased attention on mines with a record of repeated violations and stronger enforcement action against mines with patterns of violations must continue. The new coal dust rule must be enforced, and the promised rules on silica and proximity detection for mobile equipment must be issued.

Congress must strengthen job safety laws to prevent tragedies like the Massey Upper Big Branch mining disaster. Improvements in the Mine Safety and Health Act are needed to give MSHA more authority to shut down dangerous mines and to enhance enforcement against repeat violators.

The Occupational Safety and Health Act now is more than 46 years old and is out of date. Congress should pass the Protecting America's Workers Act to extend the law's coverage to workers currently excluded, strengthen civil and criminal penalties for violations, and strengthen the rights of workers, unions and victims. Improvements to update and strengthen the Occupational Safety and Health Act's anti-retaliation provisions are particularly needed so workers can report job hazards and injuries, and exercise safety and health rights without fear.

The nation must renew its commitment to protect workers from injury, disease and death, and make this a high priority. We must demand that employers meet their responsibilities to protect workers and hold them accountable if they put workers in danger. Only then can the promise of safe jobs for all of America's workers be fulfilled.

OBAMA AND TRUMP ADMINISTRATIONS'

WORKER SAFETY AND HEALTH RECORDS

Obama Administration's Worker Safety and Health Record

Key Accomplishments

Safety and Health Standards to Protect Workers

Beryllium • Silica • Hazard Communication–Globally Harmonized System
Confined Space Entry–Construction • Cranes and Derricks–Construction
Electric Power Generation–Protective Equipment • Shipyard Safety and Health
Severe Injury Reporting • Electronic Injury Reporting/Anti-retaliation Protection
Coal Dust
Mine Examination–Coal Mines • Mine Examination–Metal Nonmetal Mines
Proximity Detection–Continuous Mining Machines • Rock Dusting

Stronger Enforcement

Increase in OSHA Penalties • Enhanced Criminal Enforcement
Temporary Worker Initiative Enforcement
Severe Violator Enforcement Program
Impact Inspections in Mines • Pattern of Violation Enforcement

Expanding and Protecting Worker Rights

Strengthening OSHA's Whistleblower Program and Enforcement
Stronger Protections for Injury Reporting
OSHA Inspection Walkaround Rights for All Workers
Miners' Voice Initiative

Outreach and Education

Latino Worker Initiative • Expanded Training and Outreach for Vulnerable Workers
Heat Stress Campaign • Fall Protection Campaign
Rules to Live By Campaign • End Black Lung Campaign

Safer Workplaces and Mines

Decrease in Worker Fatalities and Injuries
Record Low Mine Fatalities
Lower Coal Dust Exposures

Unfinished Business

Safety and Health Standards Still Needed

Workplace Violence • Infectious Diseases
Chemical Exposures • Asbestos Ban (EPA)
Combustible Dust • Chemical Process Safety Improvements
Silica (MSHA) • Proximity Detection–Mobile Mining Equipment • Diesel Particulates

Legislation to Strengthen Worker Safety and Health Protections

Protecting America's Workers Act
Robert C. Byrd Mine Safety Protection Act

Trump Administration's Worker Safety and Health Record

Rollbacks and Repeals

Repeal of OSHA rule requiring employers to keep accurate injury records (H.J. Res 83).

Repeal of Fair Pay and Safe Workplaces rule to make sure federal contractors follow safety and labor laws (H.J. Res 37).

Executive Order 13771 requiring that for every new protection, two existing safeguards must be repealed.

FY 2018 proposed budget that would slash the Department of Labor's budget by 21%, eliminate worker safety and health training programs and the Chemical Safety Board, and cut NIOSH's job safety reach by $100 million.

Delays in Protections

Delay in OSHA's new beryllium standard until May 20, 2017, from March 10, 2017.

Delay in enforcement of OSHA silica standard in construction for 90 days until Sept. 23, 2017, allowing continued high dust exposures that will result in the deaths of more than 160 workers.

Delay in MSHA's mine examination rule for metal and nonmetal mines until July 24, 2017, from May 23, 2017.

Delay in litigation on OSHA electronic injury reporting/anti-retaliation rule.

Proposed delay in EPA's RMP rule to prevent chemical accidents for nearly two years, putting workers, the public and first responders in danger.

Possible Threats and Challenges

Executive Order 13777 requiring agencies to identify regulations that are burdensome to industry that should be repealed or modified.

Further delay in or reconsideration of OSHA's new rules on silica, beryllium and electronic injury reporting/anti-retaliation.

Further delay in or reconsideration of MSHA's rule on mine examination for metal and nonmetal mines.

Failure to take action on workplace violence, combustible dust, process safety improvements and diesel particulates, leaving workers in danger.

Rollbacks and weakening of OSHA and MSHA enforcement programs.

Rollbacks and weakening of worker safety and health rights.

Appointment of pro-industry individuals to head OSHA and MSHA.

NATIONAL SAFETY AND HEALTH OVERVIEW

Workplace Fatalities 1970–2007[1,2]

(Employment-Based Fatality Rates)

Year	Work Deaths	Employment (000)[3]	Fatality Rate[4]
1970	13,800	77,700	18
1971	13,700	78,500	17
1972	14,000	81,300	17
1973	14,300	84,300	17
1974	13,500	86,200	16
1975	13,000	85,200	15
1976	12,500	88,100	14
1977	12,900	91,500	14
1978	13,100	95,500	14
1979	13,000	98,300	13
1980	13,200	98,800	13
1981	12,500	99,800	13
1982	11,900	98,800	12
1983	11,700	100,100	12
1984	11,500	104,300	11
1985	11,500	106,400	11
1986	11,100	108,900	10
1987	11,300	111,700	10
1988	10,800	114,300	9
1989	10,400	116,700	9
1990	10,500	117,400	9
1991	9,900	116,400	9
1992[2]	6,217	117,000	5.2
1993	6,331	118,700	5.2
1994	6,632	122,400	5.3
1995	6,275	126,200	4.9
1996	6,202	127,997	4.8
1997	6,238	130,810	4.8
1998	6,055	132,684	4.5
1999	6,054	134,666	4.5
2000	5,920	136,377	4.3
2001	5,915[5]	136,252	4.3
2002	5,534	137,700	4.0
2003	5,575	138,928	4.0
2004	5,764	140,411	4.1
2005	5,734	142,894	4.0
2006	5,840	145,501	4.0
2007	5,657	147,215	3.8

[1]Fatality information for 1971 to 1991 from National Safety Council Accident Facts, 1994.

[2]Fatality information for 1992 to 2007 is from the Bureau of Labor Statistics, Census of Fatal Occupational Injuries (CFOI). In 1994, the National Safety Council changed its reporting method for workplace fatalities and adopted the BLS count. The earlier NSC numbers are based on an estimate; the BLS numbers are based on an actual census.

[3]Employment is an annual average of employed civilians 16 years of age and older from the Current Population Survey, adjusted to include data for resident and armed forces from the Department of Defense.

[4]Deaths per 100,000 workers are based on annual average of employed civilians 16 years of age and older from 1992 to 2007. In 2008, CFOI switched from an employment-based fatality rate to an hours-based fatality rate calculation.

[5]Excludes fatalities from the events of September 11, 2001.

Workplace Fatalities 2006−2015[1]

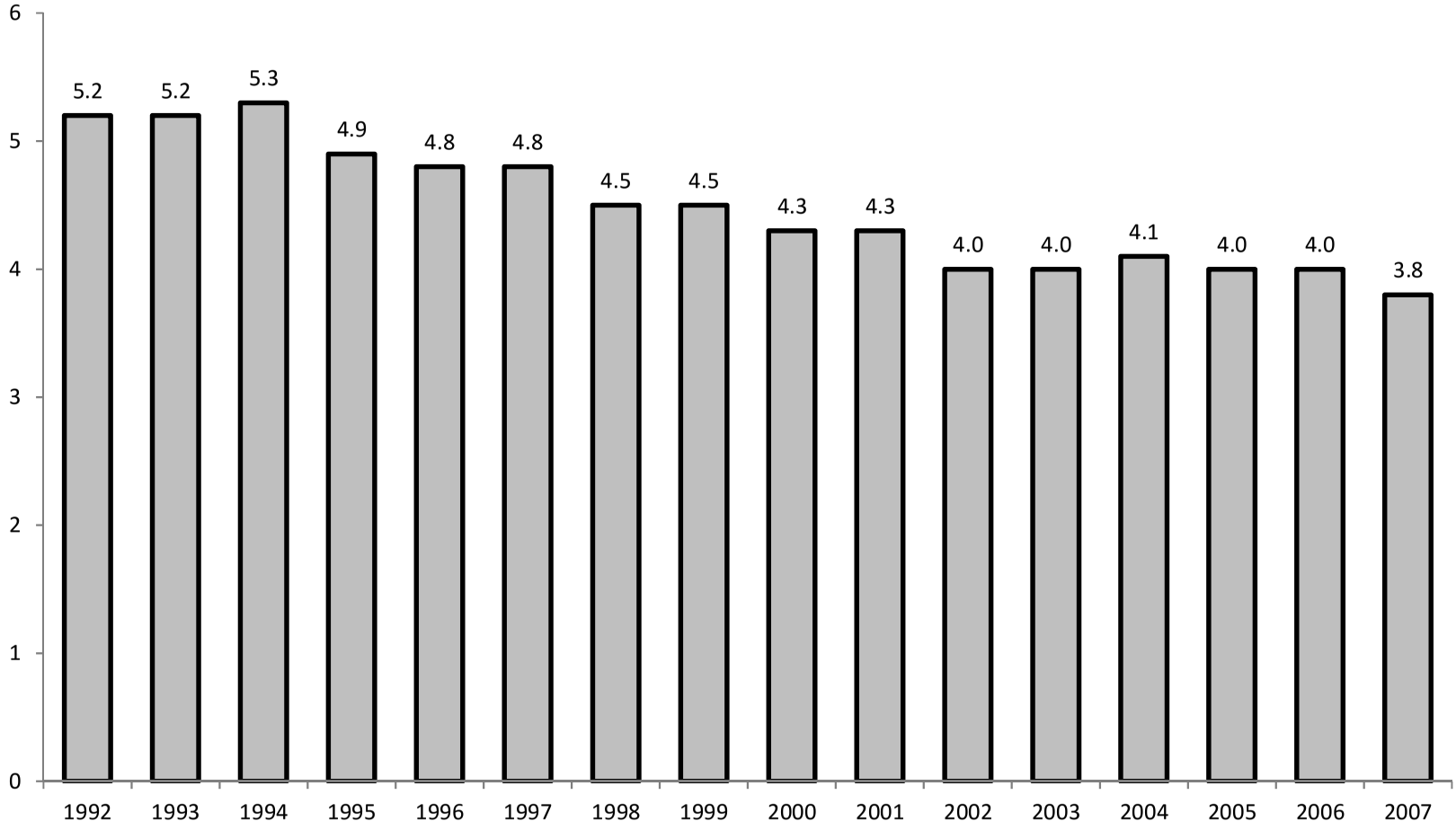
(Hours-Based Fatality Rates)

Year	Work Deaths	Total Hours Worked (Millions)[2]	Fatality Rate[3]
2006	5,840	271,815	4.2
2007	5,657	275,043	4.0
2008	5,214	271,958	3.7
2009	4,551	254,771	3.5
2010	4,690	255,948	3.6
2011	4,693	258,293	3.5
2012	4,628	264,374	3.4
2013	4,585	268,127	3.3
2014	4,821	272,663	3.4
2015	4,836	277,470	3.4

[1]Fatality information is from the U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries (CFOI).
[2]The total hours worked figures are annual average estimates of total at work multiplied by average hours for civilians, 16 years of age and older, from the Current Population Survey (CPS), U.S. Bureau of Labor Statistics.
[3]Deaths per 100,000 workers. In 2008, CFOI switched to an hours-based fatality rate calculation from an employment-based calculation used from 1992 to 2007. Fatality rates for 2006 and 2007 were calculated by CFOI using both approaches during the transition to hours-based rates. Hours-based fatality rates should not be compared directly with the employment-based rates CFOI calculated for 1992 to 2007.

Rate of Fatal Work Injuries Per 100,000 Workers, 1992–2007[1]

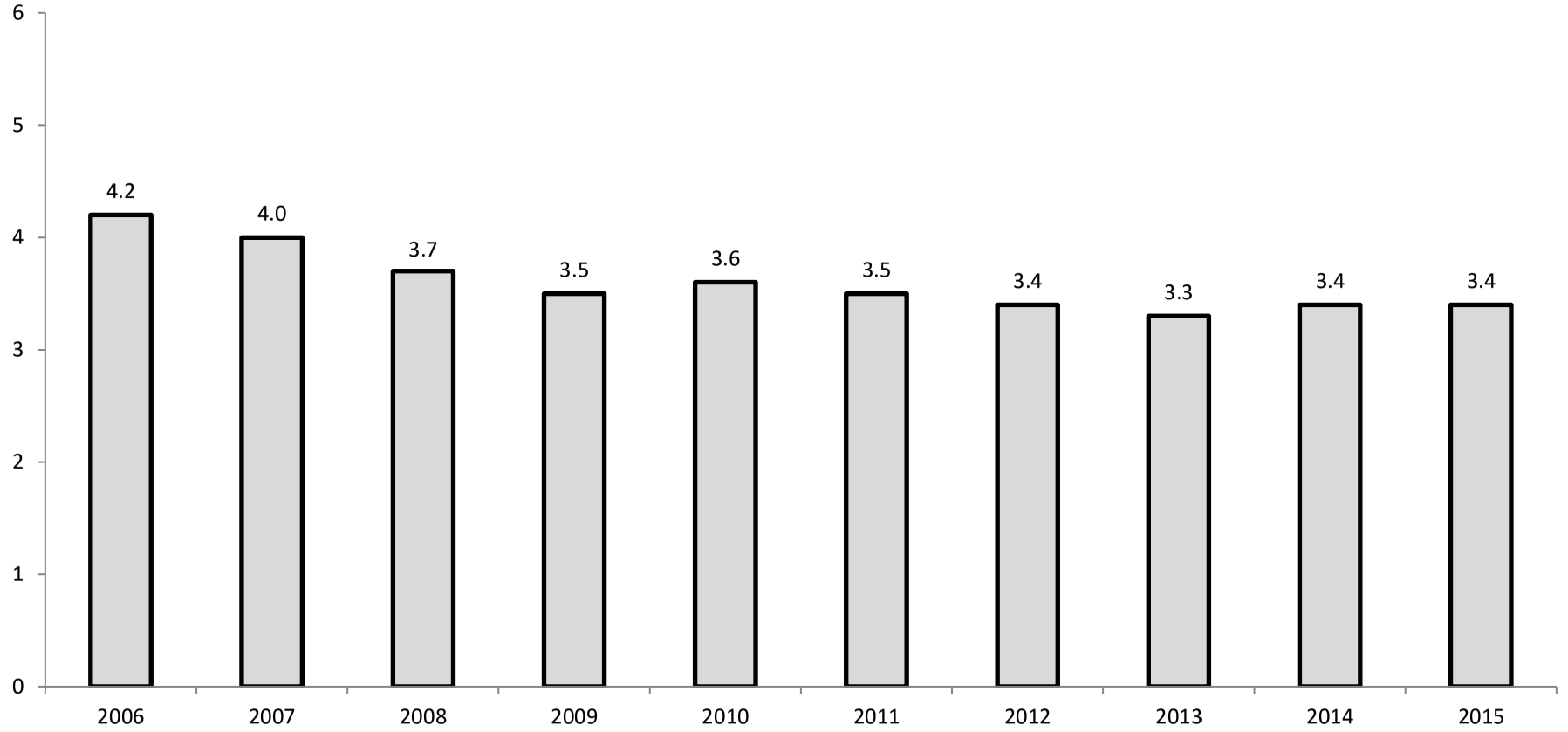
(Employment-Based Rates)



Sources: U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Census of Fatal Occupational Injuries; U.S. Bureau of the Census; and U.S. Department of Defense.

[1]Fatality rate is an employment-based calculation using employment figures that are annual average estimates of employed civilians, 16 years of age and older, from the Current Population Survey (CPS). In 2008, CFOI switched to an hours-based fatality rate calculation. Employment-based fatality rates should not be compared directly with hours-based rates.

Rate of Fatal Work Injuries Per 100,000 Workers, 2006–2015[1]
(Hours-Based Rates)



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries (CFOI).

[1]Fatality rate is an hours-based calculation using total hours worked figures that are annual average estimates of total hours at work multiplied by average hours for civilians, 16 years of age and older, from the Current Population Survey (CPS). Hours-based fatality rates should not be compared directly with the employment-based rates CFOI calculated for 1992 to 2007.

Workplace Fatality Rates by Industry Sector, 1970–2002[1,2]

Year	All Ind.	Mfg.	Const.	Mining	Gov't	Agri.	Trans/Util.	Ret. Trade	Service	Finance
1970	18.0	9	69	100	13	64	N/A	N/A	N/A	N/A
1971	17.0	9	68	83	13	63	N/A	N/A	N/A	N/A
1972	17.0	9	68	100	13	58	N/A	N/A	N/A	N/A
1973	17.0	9	56	83	14	58	38	8	11	N/A
1974	16.0	8	53	71	13	54	35	7	10	N/A
1975	15.0	9	52	63	12	58	33	7	10	N/A
1976	14.0	9	45	63	11	54	31	7	9	N/A
1977	14.0	9	47	63	11	51	32	6	8	N/A
1978	14.0	9	48	56	11	52	29	7	7	N/A
1979	13.0	8	46	56	10	54	30	6	8	N/A
1980	13.0	8	45	50	11	56	28	6	7	N/A
1981	13.0	7	42	55	10	54	31	5	7	N/A
1982	12.0	6	40	50	11	52	26	5	6	N/A
1983	12.0	6	39	50	10	52	28	5	7	N/A
1984	11.0	6	39	50	9	49	29	5	7	N/A
1985	11.0	6	40	40	8	49	27	5	6	N/A
1986	10.0	5	37	38	8	55	29	4	5	N/A
1987	10.0	5	33	38	9	53	26	5	6	N/A
1988	10.0	6	34	38	9	48	26	4	5	N/A
1989	9.0	6	32	43	10	40	25	4	5	N/A
1990	9.0	5	33	43	10	42	20	4	4	N/A
1991	8.0	4	31	43	11	44	18	3	4	N/A
1992	5.2	4	14	27	4	24	13	4	2	2
1993	5.2	4	14	26	3	26	13	4	2	2
1994	5.3	4	15	27	3	24	13	4	3	1
1995	4.9	3	15	25	4	22	12	3	2	2
1996	4.8	3.5	13.9	26.8	3.0	22.2	13.1	3.1	2.2	1.5
1997	4.8	3.6	14.1	25.0	3.2	23.4	13.2	3.0	2.0	1.2
1998	4.5	3.3	14.5	23.6	3.0	23.3	11.8	2.6	2.0	1.1
1999	4.5	3.6	14.0	21.5	2.8	24.1	12.7	2.3	1.9	1.2
2000	4.3	3.3	12.9	30.0	2.8	20.9	11.8	2.7	2.0	0.9
2001	4.3	3.2	13.3	30.0	3.1	22.8	11.2	2.4	1.9	1.0
2002	4.0	3.1	12.2	23.5	2.7	22.7	11.3	2.1	1.7	1.0

[1]Data for 1970–1991 is from the National Safety Council, Accident Facts, 1994. Fatality information for 1992–2002 is from the Bureau of Labor Statistics, Census of Fatal Occupational Injuries (CFOI). In 1994, the National Safety Council changed its reporting method for workplace fatalities and adopted the BLS count. The earlier NSC numbers are based on an estimate; the BLS numbers are based on an actual census. Beginning with 2003, CFOI began using the North American Industry Classification (NAICS) for industries. Prior to 2003, CFOI used the Standard Industrial Classification (SIC) system. The substantial differences between these systems result in breaks in series for industry data.

[2] Deaths per 100,000 workers.

Workplace Fatality Rates by Industry Sector, 2003–2007[1,2]

(Employment-Based Rates)

Industry Sector	2003	2004	2005	2006	2007
All Industries	**4.0**	**4.1**	**4.0**	**4.0**	**3.8**
Agriculture, Forestry, Fishing and Hunting	31.2	30.5	32.5	30.0	27.9
Mining	26.9	28.3	25.6	28.1	25.1
Construction	11.7	12.0	11.1	10.9	10.5
Manufacturing	2.5	2.8	2.4	2.8	2.5
Wholesale Trade	4.2	4.5	4.6	4.9	4.7
Retail Trade	2.1	2.3	2.4	2.2	2.1
Transportation and Warehousing	17.5	18.0	17.7	16.8	16.9
Utilities	3.7	6.1	3.6	6.3	4.0
Information	1.8	1.7	2.0	2.0	2.3
Finance, Insurance, Real Estate	1.4	1.2	1.0	1.2	1.2
Professional and Administrative	3.3	3.3	3.5	3.2	3.1
Educational and Health Services	0.8	0.8	0.8	0.9	0.7
Leisure and Hospitality	2.4	2.2	1.8	2.3	2.2
Other Services, Except Public Administration	2.8	3.0	3.0	2.6	2.5
Government	2.5	2.5	2.4	2.4	2.5

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

[1]Deaths per 100,000 workers.

[2]Fatality rate is an employment-based calculation using employment figures that are annual average estimates of employed civilians, 16 years of age and older, from the Current Population Survery (CPS). In 2008, CFOI switched to an hours-based fatality rate calculation. Employment-based fatality rates should not be compared directly with hours-based rates.

Note: Beginning with the 2003 reference year, both CFOI and the Survey of Occupational Injuries and Illnesses began using the 2002 North American Industry Classification System (NAICS) for industries. Prior to 2003, the surveys used the Standard Industrial Classification (SIC) system. The substantial differences between these systems result in breaks in series for industry data.

Workplace Fatality Rates by Industry Sector, 2007–2015[1,2]

(Hours-Based Rates)

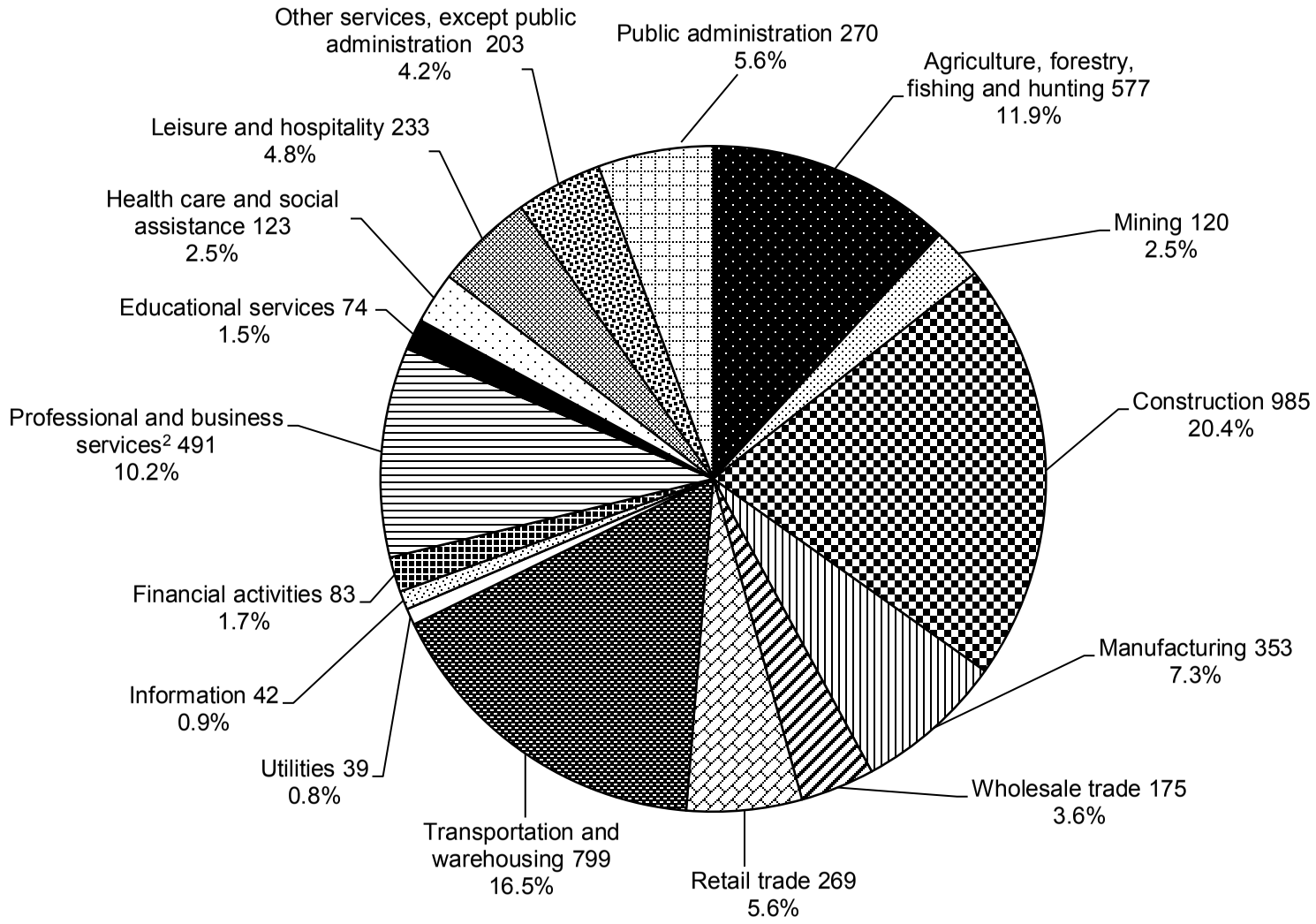
Industry Sector	2007	2008	2009	2010	2011	2012	2013	2014	2015
All Industries	**4.0**	**3.7**	**3.5**	**3.6**	**3.5**	**3.4**	**3.3**	**3.4**	**3.4**
Agriculture, Forestry, Fishing and Hunting	27.0	30.4	27.2	27.9	24.9	22.8	23.2	25.6	22.8
Mining, Quarrying, and Oil and Gas Extraction	21.4	18.1	12.4	19.8	15.9	15.9	12.4	14.2	11.4
Construction	10.8	9.7	9.9	9.8	9.1	9.9	9.7	9.8	10.1
Manufacturing	2.4	2.5	2.3	2.3	2.2	2.2	2.1	2.3	2.3
Wholesale Trade	4.5	4.4	5.0	4.9	4.9	5.4	5.3	5.1	4.7
Retail Trade	2.4	2.0	2.2	2.2	1.9	1.9	1.9	1.9	1.8
Transportation and Warehousing	16.5	14.9	13.3	13.7	15.3	14.6	14.0	14.1	13.8
Utilities	5.7	3.9	1.7	2.8	4.2	2.5	2.6	1.7	2.2
Information	2.3	1.5	1.1	1.5	1.9	1.5	1.5	1.2	1.5
Financial Activities	1.2	1.1	1.2	1.3	1.1	0.9	0.9	1.2	0.9
Professional and Business Services	3.3	2.8	3.1	2.6	2.9	2.7	2.8	2.7	3.0
Educational and Health Services	0.8	0.7	0.8	0.9	0.8	0.7	0.7	0.7	0.7
Leisure and Hospitality	2.5	2.2	2.2	2.3	2.2	2.2	1.9	2.0	2.0
Other Services, Except Public Administration	2.7	2.6	2.8	3.0	3.0	2.7	2.7	2.7	3.0
Government	2.3	2.4	1.9	2.2	2.2	2.0	2.0	1.9	1.9

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

[1]Deaths per 100,000 workers.

[2]In 2008, CFOI switched to an hours-based fatality rate calculation from an employment-based calculation. Fatality rates for 2007 were calculated using both approaches during the transition to hours-based rates. Fatality rate is an hours-based calculation using total hours worked figures that are annual average estimates of total at work multiplied by average hours for civilians, 16 years of age and older, from the Current Population Survey (CPS). Hours-based fatality rates should not be compared directly with employment-based rates that CFOI calculated for 1992 to 2007.

Occupational Fatalities by Industry Sector, 2015
Private Sector, Government and Self Employed Combined[1]
(Total Fatalities 4,836)

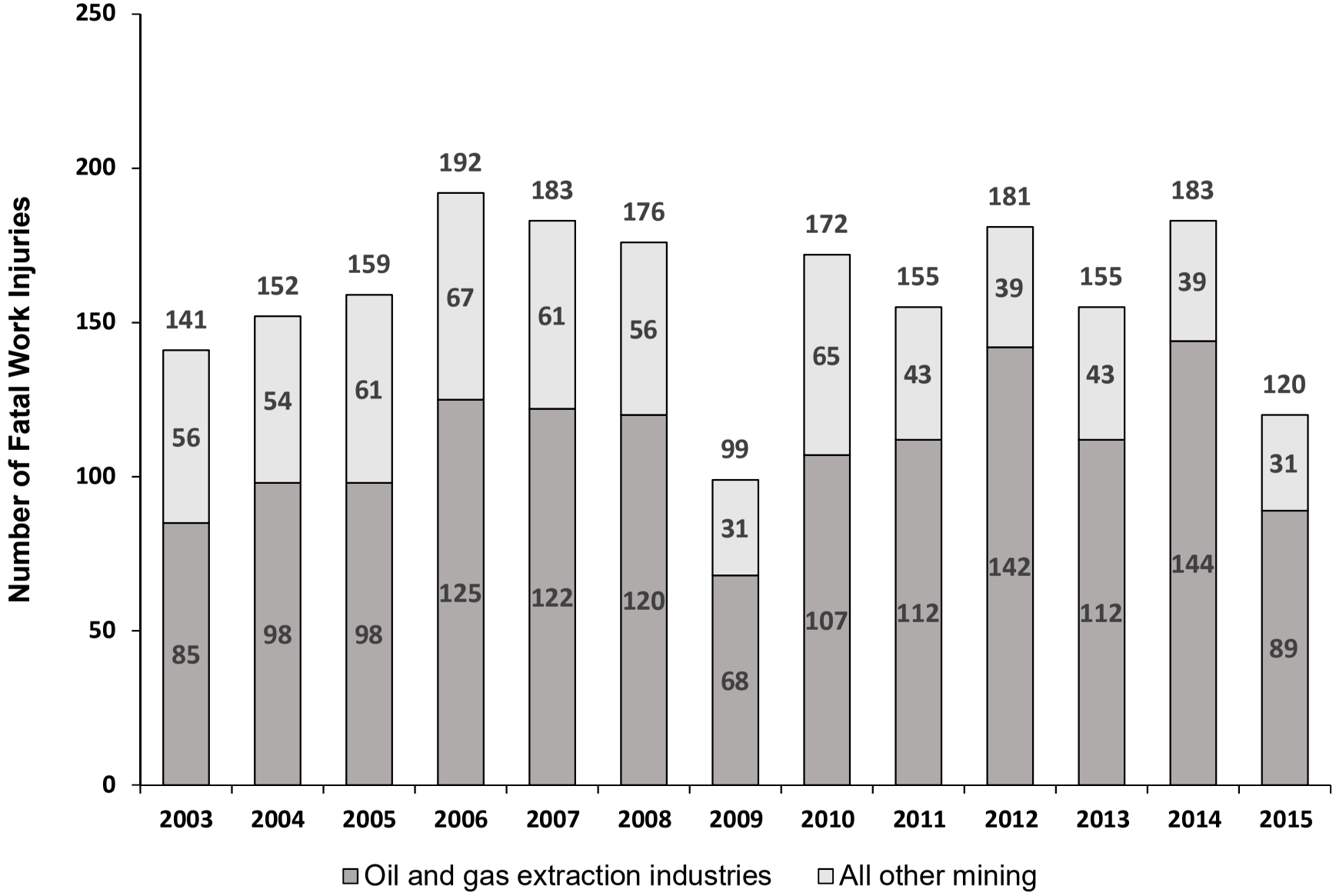


Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2015.

[1]There were 457 work-related deaths in government, making up 9% of the total fatalities. These are distributed throughout the relevant sectors of the graph.

[2]Landscaping services accounted for 187 of these deaths.

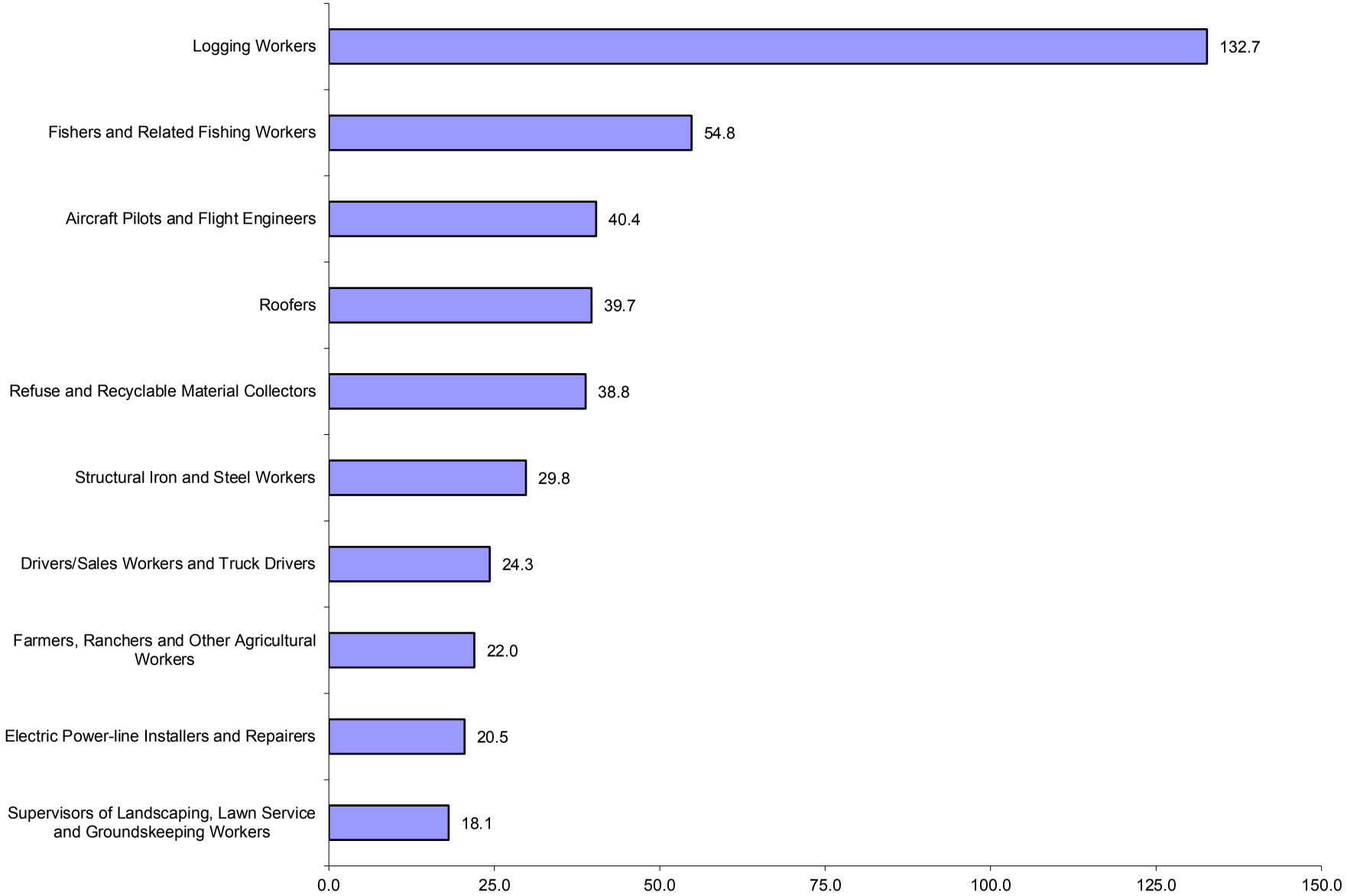
Fatal Occupational Injuries in the Private-Sector Mining, Quarrying, and Oil and Gas Extraction Industries, 2003–2015



Source: U.S. Bureau of Labor Statistics, U.S. Department of Labor.

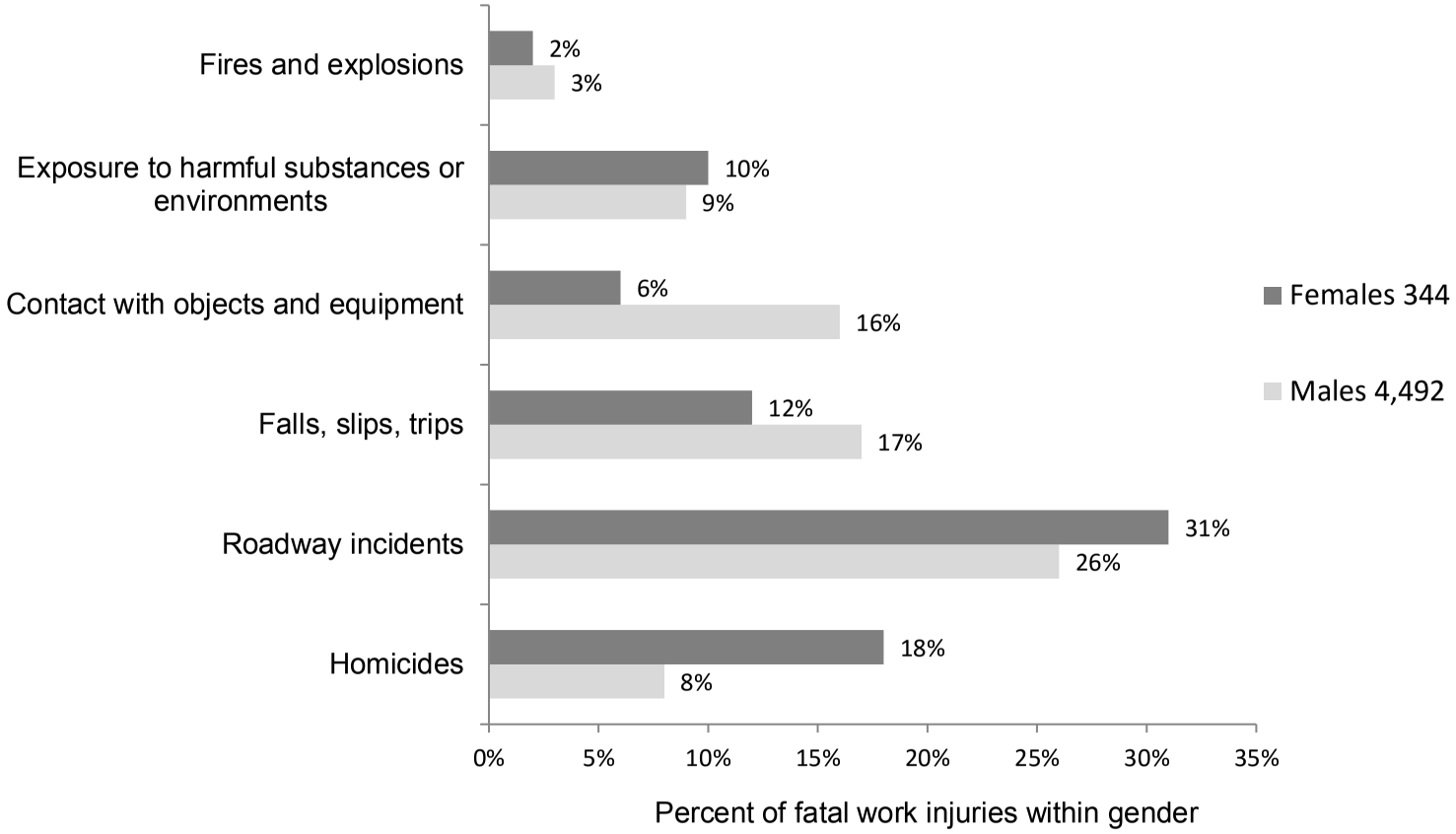
Note: Oil and gas extraction industries include oil and gas extraction (NAICS 21111), drilling oil and gas wells (NAICS 21311), and support activities for oil and gas operations (NAICS 21312).

Selected Occupations With High Fatality Rates, 2015
(Per 100,000 Workers)
National Fatality Rate = 3.4



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2015.

Distribution of Fatal Injury Events by Gender of Worker, 2015



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2015.

Profile of Workplace Homicides, 2015

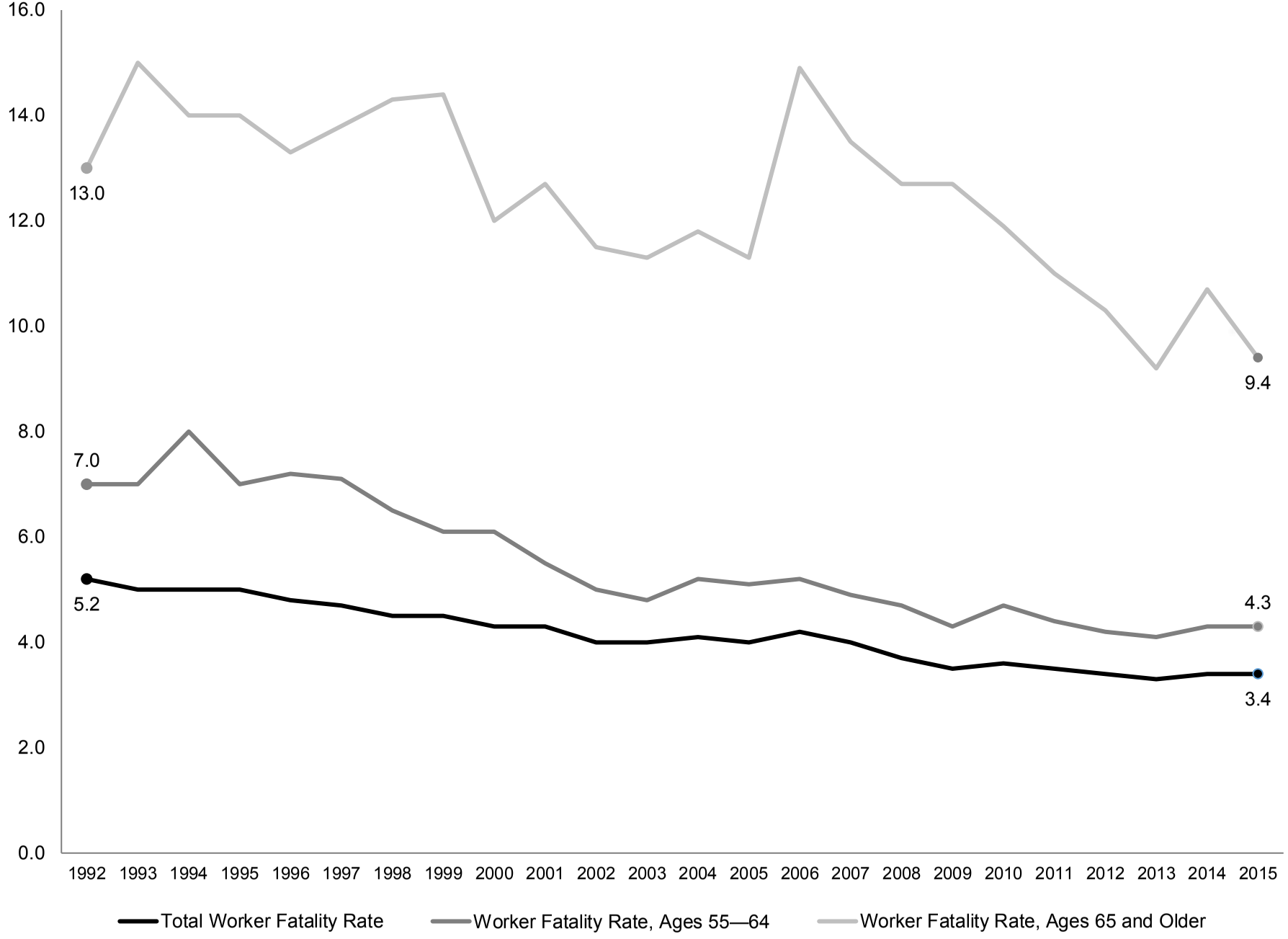
Characteristic	Subcharacteristics	Deaths
Total Homicides		417
Gender	Women	61
	Men	356
Employee Status	Wage and salary workers	297
	Self employed	120
Race	White	179
	Black	114
	Latino	73
Leading Primary Source	Assailant, suspect	203
	Co-worker or work associate	66
	Other client or customer	40
	Relative or domestic partner	33
Leading Secondary Source	Firearm	355
	Knives	22
Leading Worker Activity	Tending a retail establishment	131
	Protective service activities	65
	Vehicular and transportation operations	53
Leading Location	Public building	188
	Street or highway	69
	Private residence	48
Leading Occupations	Motor vehicle operators	51
	Retail sales workers	50
	Supervisors of sales workers	42
Leading Industries	Retail trade	98
	Accomodations and food services	63
	Local government[1]	50
	Transportation and warehousing[2]	40

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2015.

[1]Police protection accounted for 31 of these deaths.

[2]Taxi service accounted for 22 of these deaths.

Total Worker Fatality Rates Compared with Aging Worker Fatality Rates, 1992–2015[1]



Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 1992–2015.

[1]All rates per 100,000 workers.

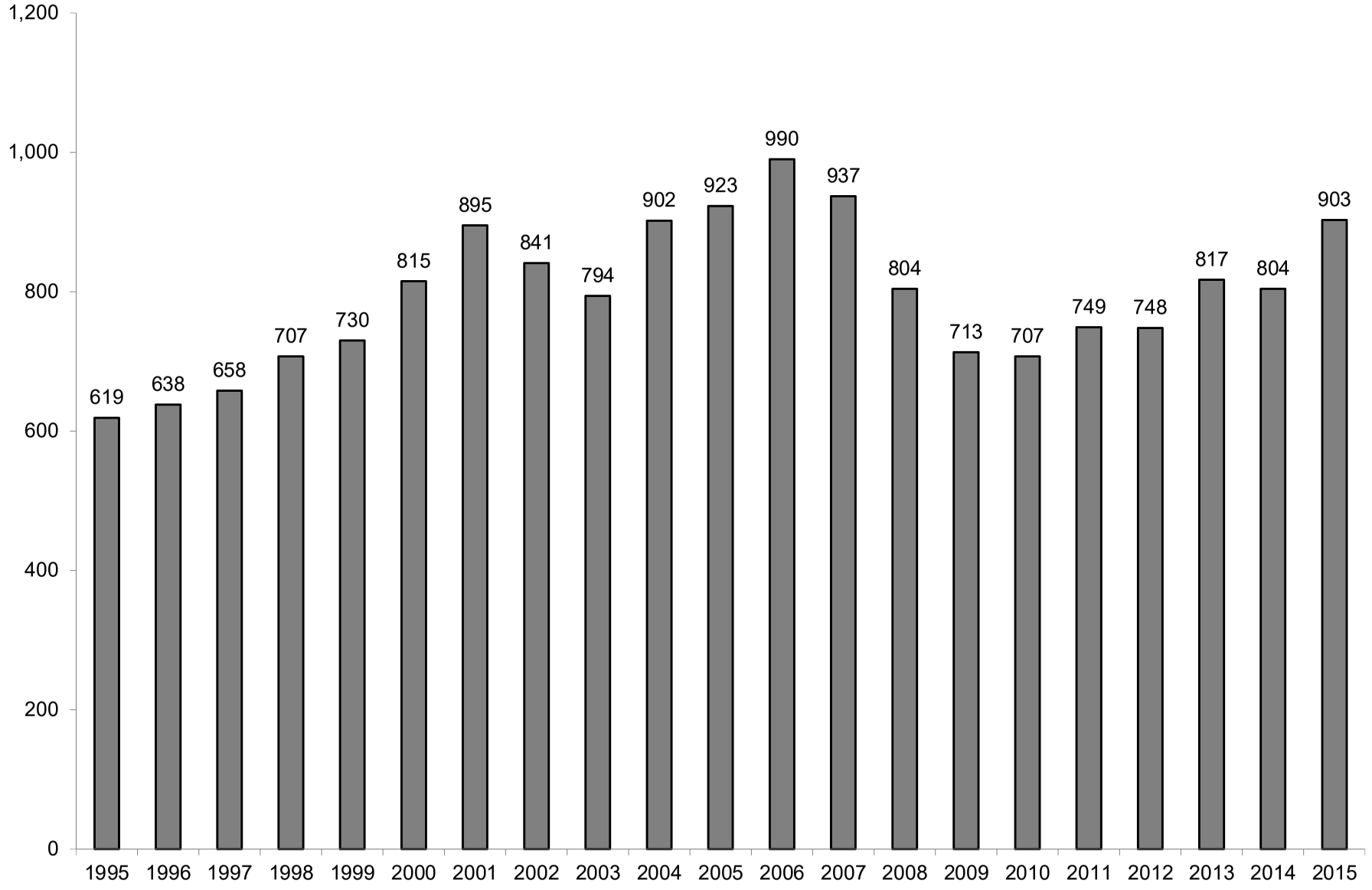
Fatal Work Injuries by Race, 1995–2015

	1995	1996	1997	1998	1999	2000	2001[1]	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Fatalities	6,275	6,202	6,238	6,055	6,054	5,920	5,915	5,534	5,575	5,764	5,734	5,840	5,657	5,214	4,551	4,690	4,693	4,628	4,585	4,821	4,836
White	4,599	4,586	4,576	4,478	4,410	4,244	4,175	3,926	3,988	4,066	3,977	4,019	3,867	3,663	3,204	3,363	3,323	3,177	3,125	3,332	3,241
Black or African American	684	615	661	583	616	575	565	491	543	546	584	565	609	533	421	412	440	486	439	475	495
Latino	619	638	658	707	730	815	895	841	794	902	923	990	937	804	713	707	749	748	817	804	903
Asian or Pacific Islander	161	170	195	148	180	185	182	140	158	180	163	159	172	152	148	149	124	154	132	142	123
American Indian or Alaskan Native	27	35	34	28	54	33	48	40	42	28	50	46	29	32	33	32	30	37	35	34	36
Other Races/Not Reported	185	158	114	111	64	68	50	96	50	42	37	61	43	30	32	27	27	26	37	34	38

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 1995–2015.

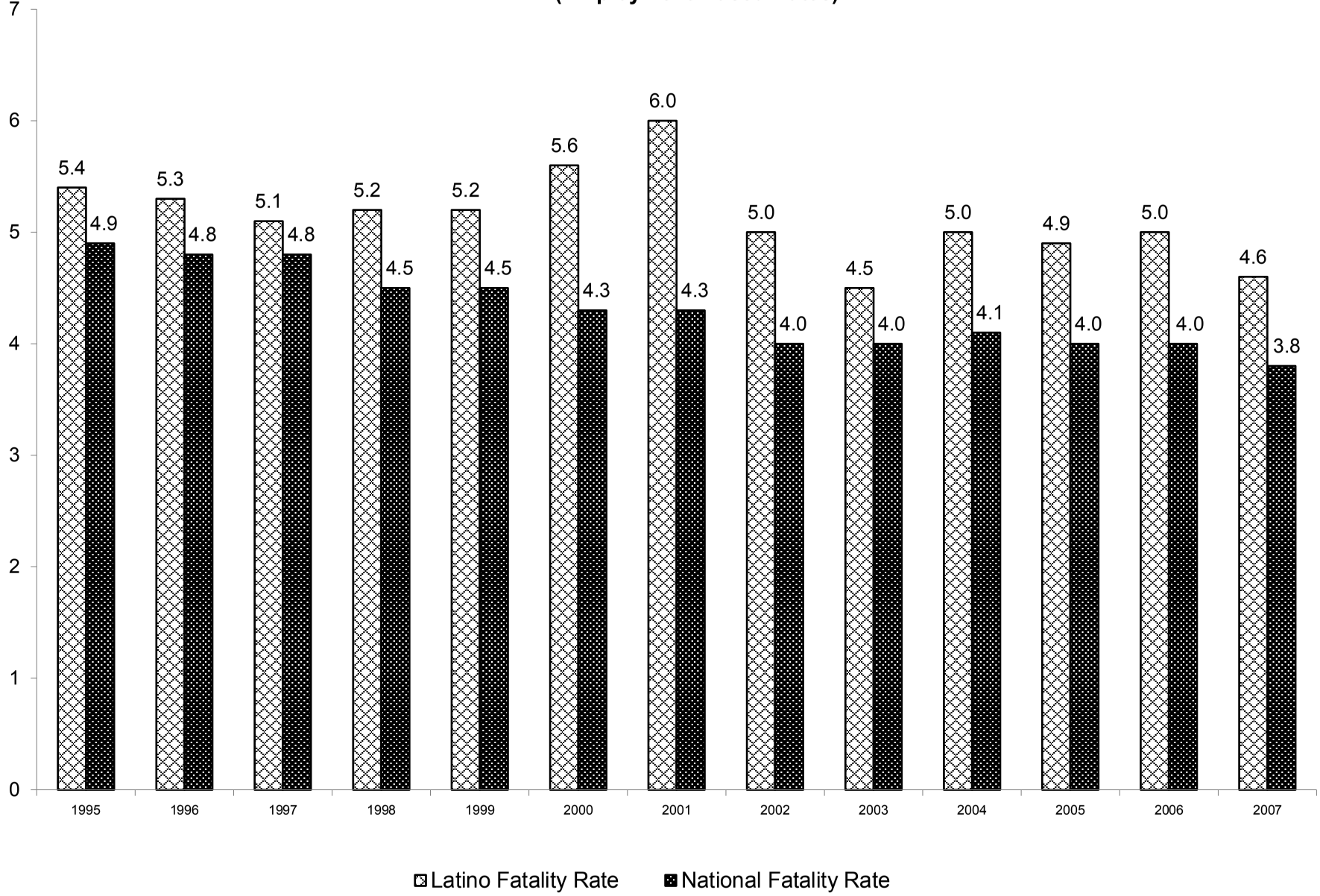
[1]Excludes fatalities from the September 11 terrorist attacks.

Number of Fatal Occupational Injuries to Hispanic and Latino Workers, 1995–2015



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

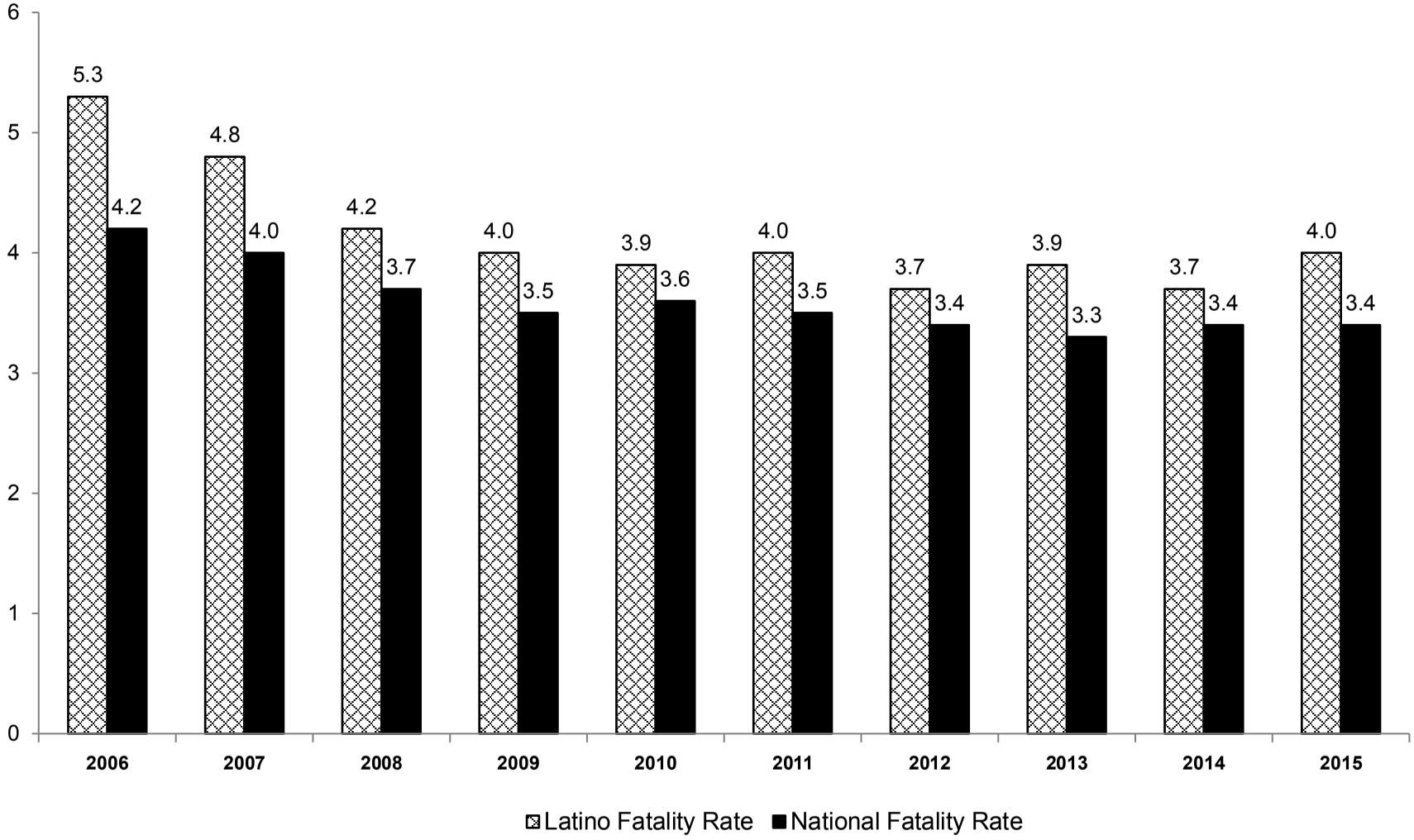
Rate[1] of Fatal Occupational Injuries to Hispanic and Latino Workers, 1995–2007
(Employment-Based Rates)



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries (CFOI).

[1]Incidence rate represents the number of fatalities per 100,000 workers. Fatality rate is an employment-based calculation. In 2008, CFOI switched to an hours-based fatality rate calculation. Employment-based fatality rates should not be compared directly with hours-based rates.

Rate of Fatal Occupational Injuries to Hispanic and Latino Workers, 2006–2015[1]
(Hours-Based Rates)



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries (CFOI).

[1]Incidence rate represents the number of fatalities per 100,000 workers. In 2008, CFOI switched to an hours-based calculation from an employment-based calculation it used from 1992 to 2007. Fatality rate is an hours-based calculation using total hours worked figures that are annual average estimates of total at work multiplied by average hours for civilians, 16 years of age and older, from the Current Population Survey (CPS). Fatality rates for 2006 and 2007 were calculated by CFOI using both employment-based and hours-based calculations during the transition to hours-based rates beginning exclusively in 2008.

Profile of Hispanic and Latino Worker Fatalities, 2015

Characteristic	Subcharacteristics	Deaths
Total Fatalities		903
Country of Birth	Native-born	298
	Foreign-born	605
Leading Birthplace Countries	Mexico	411
	United States	298
	El Salvador	42
Employee Status	Wage and salary workers	785
	Self employed	118
Gender	Men	864
	Women	39
Leading Occupations	Construction trades workers	243
	Motor vehicle operators[1]	141
	Agricultural workers	86
	Grounds maintenance	60
Leading Industries	Construction	283
	Transportation and warehousing[2]	118
	Administrative and support and waste management and remediation services[3]	104
Leading Event or Exposure	Transportation incidents	328
	Fall, slip, trip	212
	Contact with object/equipment	143
	Violence[4]	109

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2015.

[1]Heavy and tractor-trailer truck drivers accounted for 98 of these deaths.

[2]Truck transportation accounted for 77 of these deaths.

[3]Landscaping services accounted for 69 of these deaths.

[4]Excludes animal- and insect-related incidents.

Profile of Foreign-Born Worker Fatalities, 2015

Characteristic	Subcharacteristics	Number
Total Fatalities		943
Leading Birthplace Countries	Mexico	415
	El Salvador	42
	Guatemala	36
	India	35
Employee Status	Wage and salary workers	779
	Self employed	164
Gender	Men	902
	Women	41
Leading Occupations	Construction trades workers	236
	Motor vehicle operators[1]	165
	Agricultural workers	77
	Grounds maintenance	53
	Material moving workers	41
Leading Industries	Construction	275
	Transportation and warehousing[2]	156
	Administrative and support and waste management and remediation services[3]	96
	Agriculture, forestry, fishing and hunting	93
Leading Event or Exposure	Transportation incidents	331
	Fall, slip, trip	218
	Violence[4]	180
	Contact with object/equipment	127

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2015.

[1]Heavy and tractor-trailor truck drivers accounted for 119 of these deaths.

[2]Truck transportation accounted for 104 of these deaths.

[3]Landscaping services accounted for 59 of these deaths.

[4]Excludes animal- and insect-related incidents.

Workplace Injury and Illness Incidence Rates, Private Sector, 1973–2015 (Per 100 Workers)

Year	Total Case Rate	Cases with Days Away from Work, Job Transfer or Restriction		
		Total	Cases with Days Away from Work	Cases with Job Transfer or Restriction[1]
1973	11.0	3.4	N/A	N/A
1974	10.4	3.5	N/A	N/A
1975	9.1	3.3	N/A	N/A
1976	9.2	3.5	3.3	0.2
1977	9.3	3.8	3.6	0.2
1978	9.4	4.1	3.8	0.3
1979	9.5	4.3	4.0	0.3
1980	8.7	4.0	3.7	0.3
1981	8.3	3.8	3.5	0.3
1982	7.7	3.5	3.2	0.3
1983	7.6	3.4	3.2	0.3
1984	8.0	3.7	3.4	0.3
1985	7.9	3.6	3.3	0.3
1986	7.9	3.6	3.3	0.3
1987	8.3	3.8	3.4	0.4
1988	8.6	4.0	3.5	0.5
1989	8.6	4.0	3.4	0.6
1990	8.8	4.1	3.4	0.7
1991	8.4	3.9	3.2	0.7
1992	8.9	3.9	3.0	0.8
1993	8.5	3.8	2.9	0.9
1994	8.4	3.8	2.8	1.0
1995	8.1	3.6	2.5	1.1
1996	7.4	3.4	2.2	1.1
1997	7.1	3.3	2.1	1.2
1998	6.7	3.1	2.0	1.2
1999	6.3	3.0	1.9	1.2
2000	6.1	3.0	1.8	1.2
2001	5.7	2.8	1.7	1.1
2002	5.3	2.8	1.6	1.2
2003	5.0	2.6	1.5	1.1
2004	4.8	2.5	1.4	1.1
2005	4.6	2.4	1.4	1.0
2006	4.4	2.3	1.3	1.0
2007	4.2	2.1	1.2	0.9
2008	3.9	2.0	1.1	0.9
2009	3.6	2.0	1.1	0.8
2010	3.5	1.8	1.1	0.8
2011	3.5	1.8	1.1	0.7
2012	3.4	1.8	1.0	0.7
2013	3.3	1.7	1.0	0.7
2014	3.2	1.7	1.0	0.7
2015	3.0	1.6	0.9	0.7

Source: Department of Labor, Bureau of Labor Statistics.

[1]Through 2001, this column includes cases involving restricted activity only.

Workplace Injury and Illness Rates by Industry Sector, 1973–2002[1]

Per 100 Full-Time Workers

Year	Total Case Rate All Ind.	Total Case Rate Mfg.	Total Case Rate Const.	Total Case Rate Mining	Total Case Rate Finance	Total Case Rate Agri.	Total Case Rate Trans./Util.	Total Case Rate Trade	Total Case Rate Service
1973	11.0	15.3	19.8	12.5	2.4	11.6	10.3	8.6	6.2
1974	10.4	14.6	18.3	10.2	2.4	9.9	10.5	8.4	5.8
1975	9.1	13.0	16.0	11.0	2.2	8.5	9.4	7.3	5.4
1976	9.2	13.2	15.3	11.0	2.0	11.0	9.8	7.5	5.3
1977	9.3	13.1	15.5	10.9	2.0	11.5	9.7	7.7	5.5
1978	9.4	13.2	16.0	11.5	2.1	11.6	10.1	7.9	5.5
1979	9.5	13.3	16.2	11.4	2.1	11.7	10.2	8.0	5.5
1980	8.7	12.2	15.7	11.2	2.0	11.9	9.4	7.4	5.2
1981	8.3	11.5	15.1	11.6	1.9	12.3	9.0	7.3	5.0
1982	7.7	10.2	14.6	10.5	2.0	11.8	8.5	7.2	4.9
1983	7.6	10.0	14.8	8.4	2.0	11.9	8.2	7.0	5.1
1984	8.0	10.6	15.5	9.7	1.9	12.0	8.8	7.2	5.2
1985	7.9	10.4	15.2	8.4	2.0	11.4	8.6	7.4	5.4
1986	7.9	10.6	15.2	7.4	2.0	11.2	8.2	7.7	5.3
1987	8.3	11.9	14.7	8.5	2.0	11.2	8.4	7.4	5.5
1988	8.6	13.1	14.6	8.8	2.0	10.9	8.9	7.6	5.4
1989	8.6	13.1	14.3	8.5	2.0	10.9	9.2	8.0	5.5
1990	8.8	13.2	14.2	8.3	2.4	11.6	9.6	7.9	6.0
1991	8.4	12.7	13.0	7.4	2.4	10.8	9.3	7.6	6.2
1992	8.9	12.5	13.1	7.3	2.9	11.6	9.1	8.4	7.1
1993	8.6	12.1	12.2	6.8	2.9	11.2	9.5	8.1	6.7
1994	8.4	12.2	11.8	6.3	2.7	10.0	9.3	7.9	6.5
1995	8.1	11.6	10.6	6.2	2.6	9.7	9.1	7.5	6.4
1996	7.4	10.6	9.9	5.4	2.4	8.7	8.7	6.8	6.0
1997	7.1	10.3	9.5	5.9	2.2	8.4	8.2	6.7	5.6
1998	6.7	9.7	8.8	4.9	1.9	7.9	7.3	6.5	5.2
1999	6.3	9.2	8.6	4.4	1.8	7.3	7.3	6.1	4.9
2000	6.1	9.0	8.3	4.7	1.9	7.1	6.9	5.9	4.9
2001	5.7	8.1	7.9	4.0	1.8	7.3	6.9	5.6	4.6
2002	5.3	7.2	7.1	4.0	1.7	6.4	6.1	5.3	4.6

Source: U.S. Department of Labor, Bureau of Labor Statistics, Incidence Rates of Nonfatal Occupational Injuries and Illnesses by Industry Division, 1973–2002.

[1]Beginning with the 2003 reference year, the Survey of Occupational Injuries and Illnesses began using the North American Industry Classification System (NAICS) for industries. Prior to 2003, the survey used the Standard Industrial Classification (SIC) system. The substantial differences between these systems result in breaks in series for industry data.

Workplace Injury and Illness Rates by Industry Sector, 2005–2015[1]

	2005	2006	2007	2008[2]	2009	2010	2011	2012	2013	2014	2015
Total Case Rate, Private Industry	**4.6**	**4.4**	**4.2**	**3.9**	**3.6**	**3.5**	**3.5**	**3.4**	**3.3**	**3.2**	**3.0**
Natural resources and mining	5.1	4.9	4.4	4.1	4.0	3.7	4.0	3.8	3.9	3.8	3.7
Agriculture, forestry, fishing and hunting	6.1	6.0	5.4	5.3	5.3	4.8	5.5	5.5	5.7	5.5	5.7
Mining, quarrying, and oil and gas extraction	3.6	3.5	3.1	2.9	2.4	2.3	2.2	2.1	2.0	2.0	1.4
Construction	6.3	5.9	5.4	4.7	4.3	4.0	3.9	3.7	3.8	3.6	3.5
Manufacturing	6.3	6.0	5.6	5.0	4.3	4.4	4.4	4.3	4.0	4.0	3.8
Trade, transportation and utilities	5.2	5.0	4.9	4.4	4.1	4.1	3.9	3.9	3.8	3.6	3.6
Wholesale trade	4.5	4.1	4.0	3.7	3.3	3.4	3.2	3.3	3.1	2.9	3.1
Retail trade	5.0	4.9	4.8	4.4	4.2	4.1	3.9	4.0	3.8	3.6	3.5
Transportation and warehousing	7.0	6.5	6.4	5.7	5.2	5.2	5.0	4.9	4.7	4.8	4.5
Utilities	4.6	4.1	4.0	3.5	3.3	3.1	3.5	2.8	2.1	2.4	2.2
Information	2.1	1.9	2.0	2.0	1.9	1.8	1.6	1.4	1.5	1.4	1.3
Financial activities	1.7	1.5	1.4	1.5	1.5	1.3	1.4	1.3	1.3	1.2	1.1
Professional and business services	2.4	2.1	2.1	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.4
Educational and health services[3]	5.5	5.4	5.2	5.0	5.0	4.8	4.7	4.5	4.4	4.2	4.0
Leisure and hospitality	4.7	4.6	4.5	4.2	3.9	3.9	4.0	3.9	3.8	3.6	3.5
Other services, except public administration	3.2	2.9	3.1	3.1	2.9	2.7	2.6	2.5	2.5	2.5	2.3
State and local government				6.3	5.8	5.7	5.7	5.6	5.2	5.0	5.1
State government				4.7	4.6	4.6	4.6	4.4	3.9	4.1	3.7
Local government				7.0	6.3	6.1	6.1	6.1	5.7	5.4	5.6

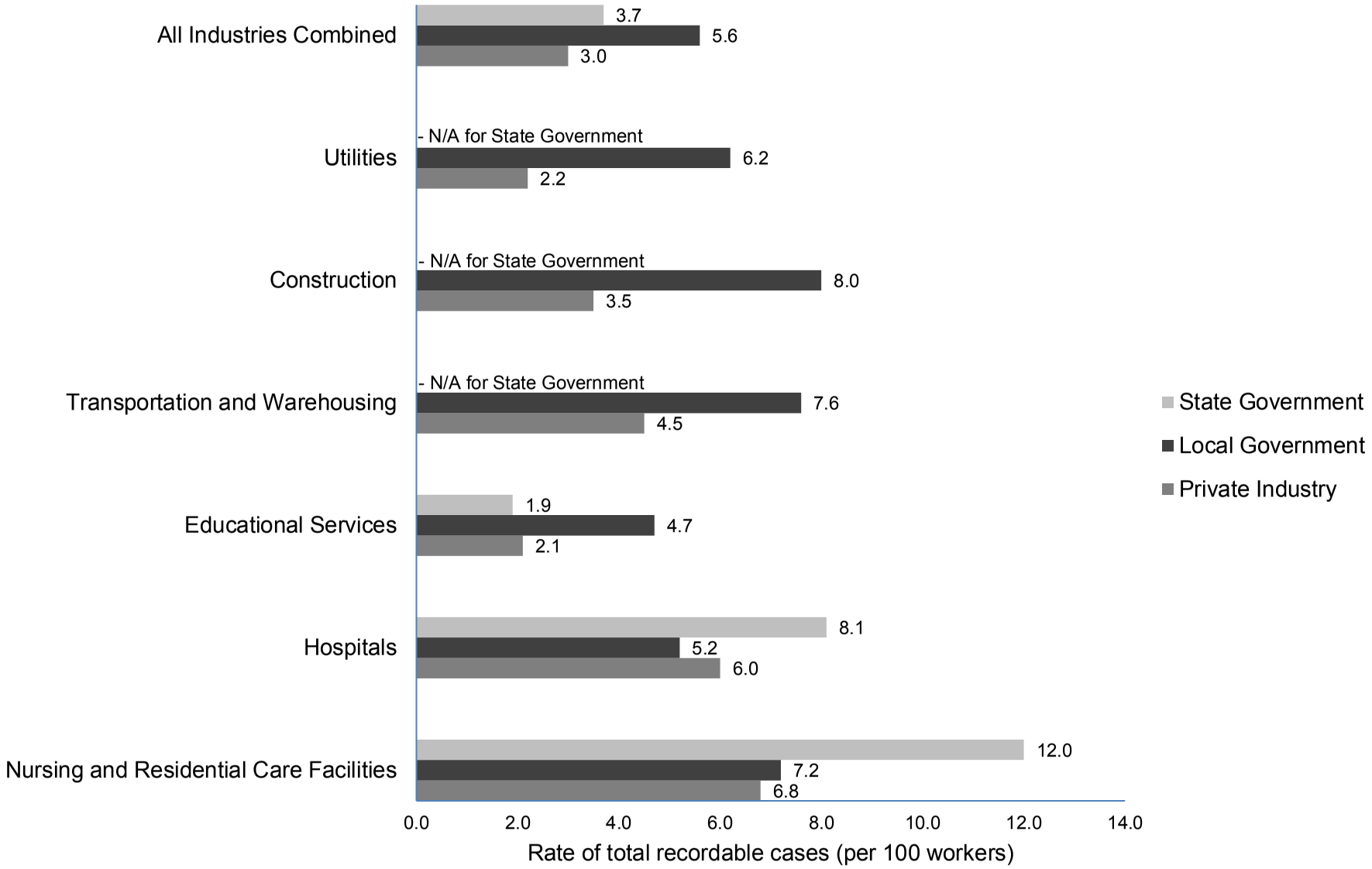
Source: U.S. Department of Labor, Bureau of Labor Statistics.

[1]Total recordable cases per 100 workers.

[2]Beginning with 2008, the Bureau of Labor Statistics provided national public-sector estimates for state and local government workers.

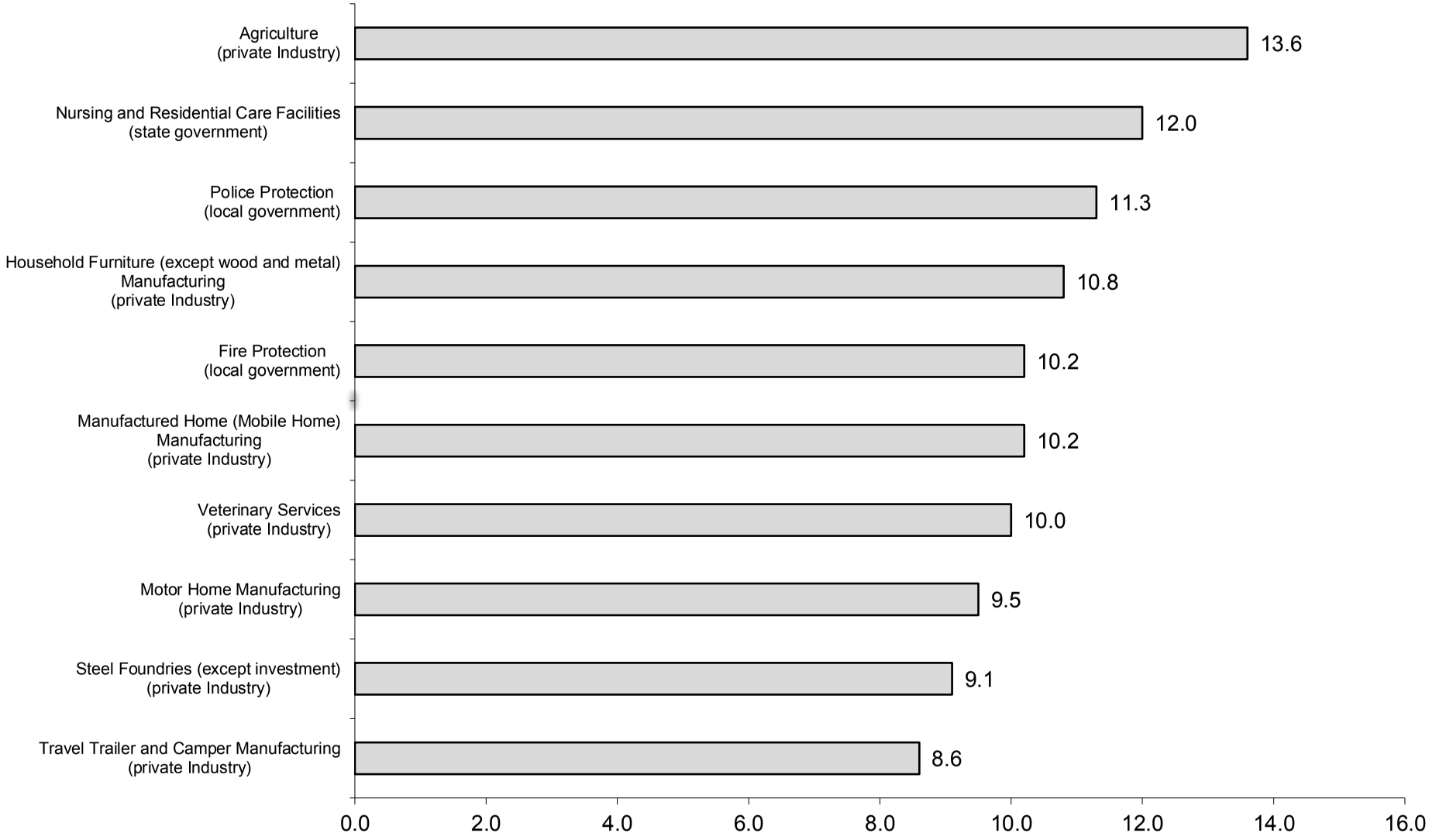
[3]The injury and illness rate for nursing and residential care facilities was 6.8 in 2015.

Rate of Workplace Injuries and Illnesses for Selected Industries in State Government, Local Government and Private Industry, 2015



Source: U.S. Department of Labor, Bureau of Labor Statistic, Survey of Occupational Injuries and Illnesses, 2015.

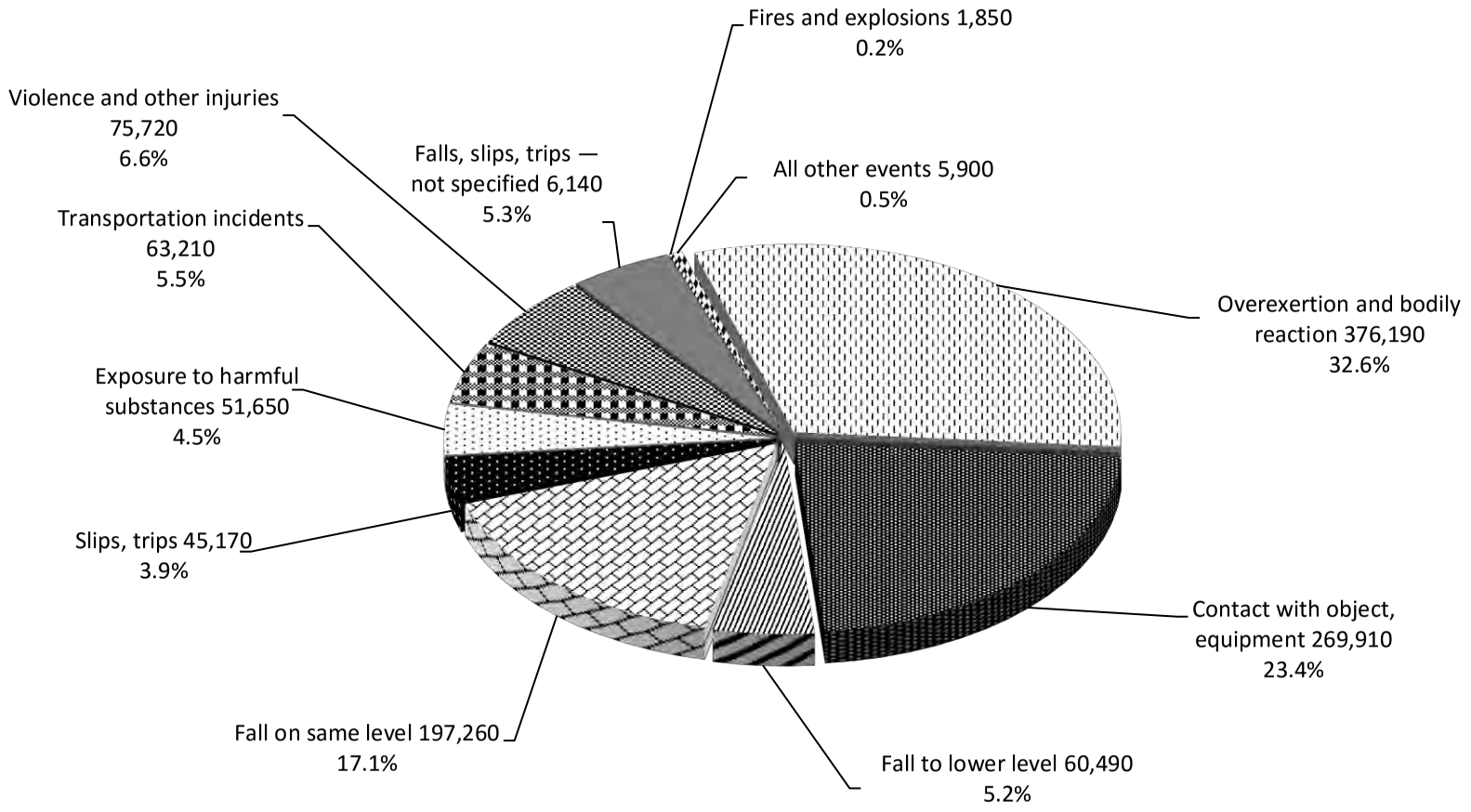
Industries with the Highest Total Nonfatal Injury and Illness Rates, 2015
(Per 100 Workers)
Private Industry = 3.0
State Government = 3.7
Local Government = 5.6



Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2015.

Nonfatal Occupational Injuries and Illnesses with Days Away from Work by Event or Exposure, 2015[1]

Total = 1,153,490



Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2015.

[1]Includes total number in private industry, state and local government.

Number of Injury and Illness Cases in Private Industry with Days Away from Work[1] Among Hispanic and Latino Workers, 1995–2015

Year	Number of Hispanic and Latino Worker Cases	Percent of Total Injury and Illness Cases
1995	191,665	9.4
1996	169,300	9.0
1997	187,221	10.2
1998	179,399	10.4
1999	182,896	10.7
2000	186,029	11.2
2001	191,959	12.5
2002[2]	180,419	12.6
2003[3]	161,330	12.3
2004[3]	164,390	13.1
2005[3]	163,440	13.2
2006[3]	159,440	13.5
2007[3]	157,320	13.6
2008[3]	145,870	13.5
2009[3]	125,790	13.0
2010[3]	122,970	13.2
2011[3]	117,210	12.9
2012[3]	118,940	13.1
2013[3]	124,330	13.6
2014	124,280	13.6
2015	125,360	13.9

Source: U.S. Department of Labor, Bureau of Labor Statistics.

[1]Days away from work include those that result in days away from work with or without restricted work activity. They do not include cases involving only restricted work activity.

[2]Days away from work cases include those that result in days away from work with or without job transfer or restriction.

[3]Classification of workers by race and ethnicity was revised in 2003 to conform to other government data. One result of this revision is that individuals may be categorized in more than one race or ethnic group. Cases reflected here are for those who reported Hispanic or Latino only and Hispanic or Latino and other race. Race and ethnicity data reporting is not mandatory in the BLS Survey of Occupational Injuries and Illnesses. This resulted in 40% or more of the cases not reporting race and ethnicity in 2015, and 30-40% of the cases did not report race and ethnicity in 2003 through 2014.

Workplace Injuries and Illnesses to Women Involving Days Away from Work, Private Industry, 2015

Characteristic	Subcharacteristics	Number
Total Number of Injuries and Illnesses with Days Away from Work		341,130
Leading Industries	Nursing and residential care facilities	42,470
	Hospitals	41,420
	Food service and drinking places	27,000
Leading Occupations	Nursing, psychiatric and home health aides	38,590
	Building cleaning workers	22,120
	Registered nurses	18,680
	Retail salespersons	17,180
Leading Nature	Sprains, strains, tears	127,300
	Soreness, pain, hurt, unspecified	58,520
	Bruises, contusions	36,260
Leading Event or Exposure	Overexertion and bodily reaction	113,620
	Falls, slips, trips	108,790
	Contact with objects and equipment	62,110
Leading Source	Bodily motion or position of injured, ill worker	50,100
	Floors[1]	47,630
	Patient	35,150
Median Days Away from Work	Total cases	8
	Women	7

Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2015.

[1]This category accounts for floors only. Floors, walkways and ground surfaces combined accounted for 82,340 injuries and illnesses involving days away from work for women.

Workplace Injuries and Illnesses to Men Involving Days Away from Work, Private Industry, 2015

Characteristic	Subcharacteristics	Number
Total Number of Injuries and Illnesses with Days Away from Work		556,370
Leading Industries	Specialty trade contractors	53,650
	Truck transportation	30,000
	Food service and drinking places	28,930
Leading Occupations	Driver/sales workers and truck drivers	74,340
	Laborers and material movers, hand	51,470
	Maintenance and repair workers, general	21,850
Leading Nature	Sprains, strains, tears	195,290
	Soreness, pain, hurt, unspecified	77,160
	Cuts, lacerations	60,920
Leading Event or Exposure	Overexertion and bodily reaction	185,670
	Contact with objects and equipment	168,980
	Falls, slips, trips	128,530
Leading Source	Bodily motion or position of injured, ill worker	77,610
	Containers non-pressurized	44,640
	Floors[1]	27,520
Median Days Away from Work	Total cases	8
	Men	9

Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2015.

[1]This category accounts for floors only. Floors, walkways and ground surfaces combined accounted for 69,840 injuries and illnesses involving days away from work for men.

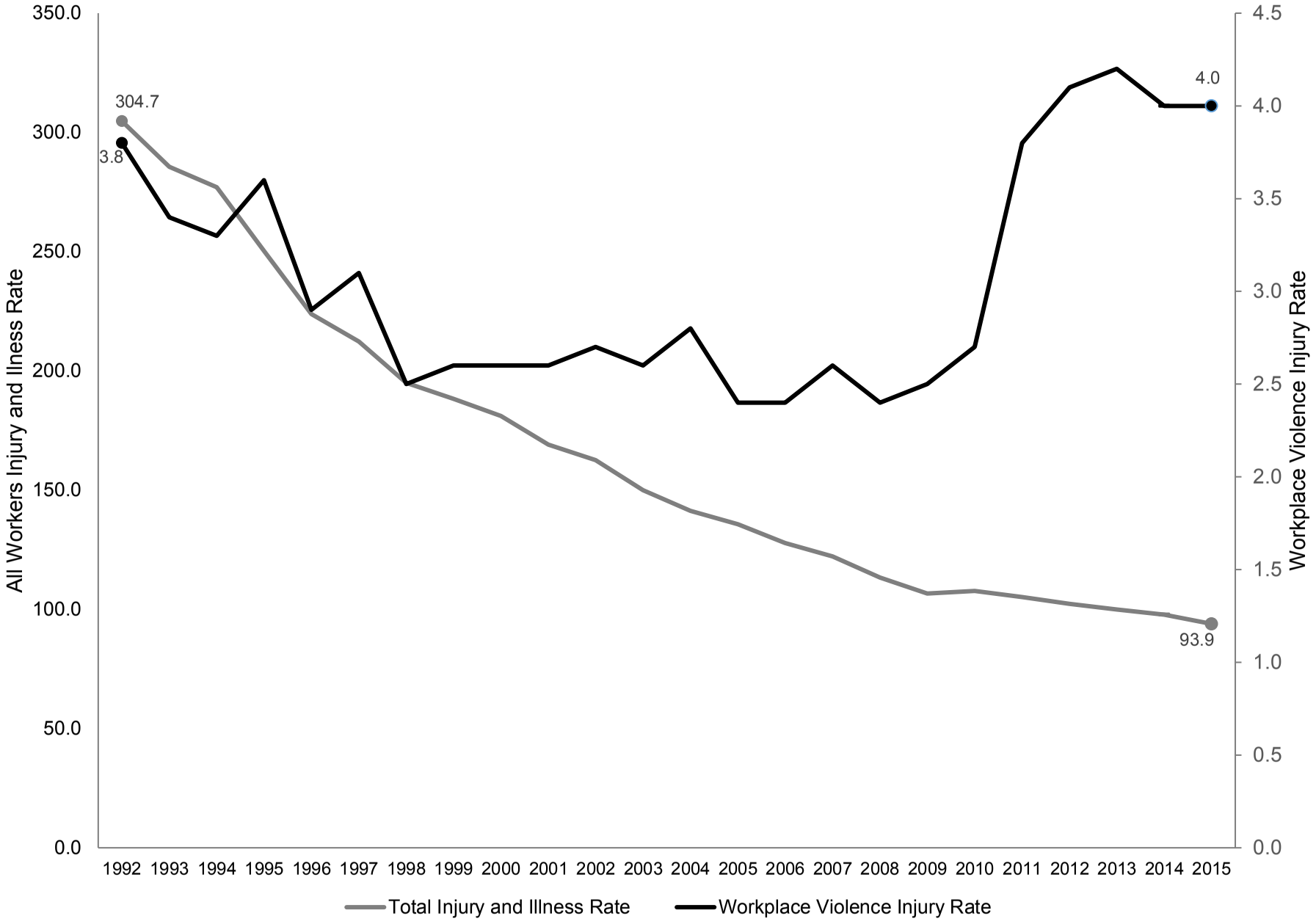
Workplace Violence Events Leading to Injuries Involving Days Away from Work, Private Industry, 2015[1]

Characteristic	Subcharacteristics	Number
Total Events		26,420
Gender	Women	18,050
	Men	8,270
Leading Industries	Nursing and residential care facilities	8,190
	Hospitals	5,610
	Social assistance	2,880
	Educational services	1,900
Leading Occupations	Nursing, psychiatric and home health aides	5,860
	Personal care aides	2,370
	Registered nurses	2,200
Leading Nature of Injury	Sprains, strains, tears	7,540
	Soreness, pain	5,110
	Bruises, contusions	5,070
Leading Source	Patient	11,950
	Other client or customer	6,530
	Student	3,020
Median Days Away from Work	Overall, all injuries and illnesses	8
	Intentional injury by person	5
	Injury by person—unintentional or intent unknown	5

Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2015.

[1]Violence events in private industry include intentional injury by person and injury by person—unintentional or intent unknown.

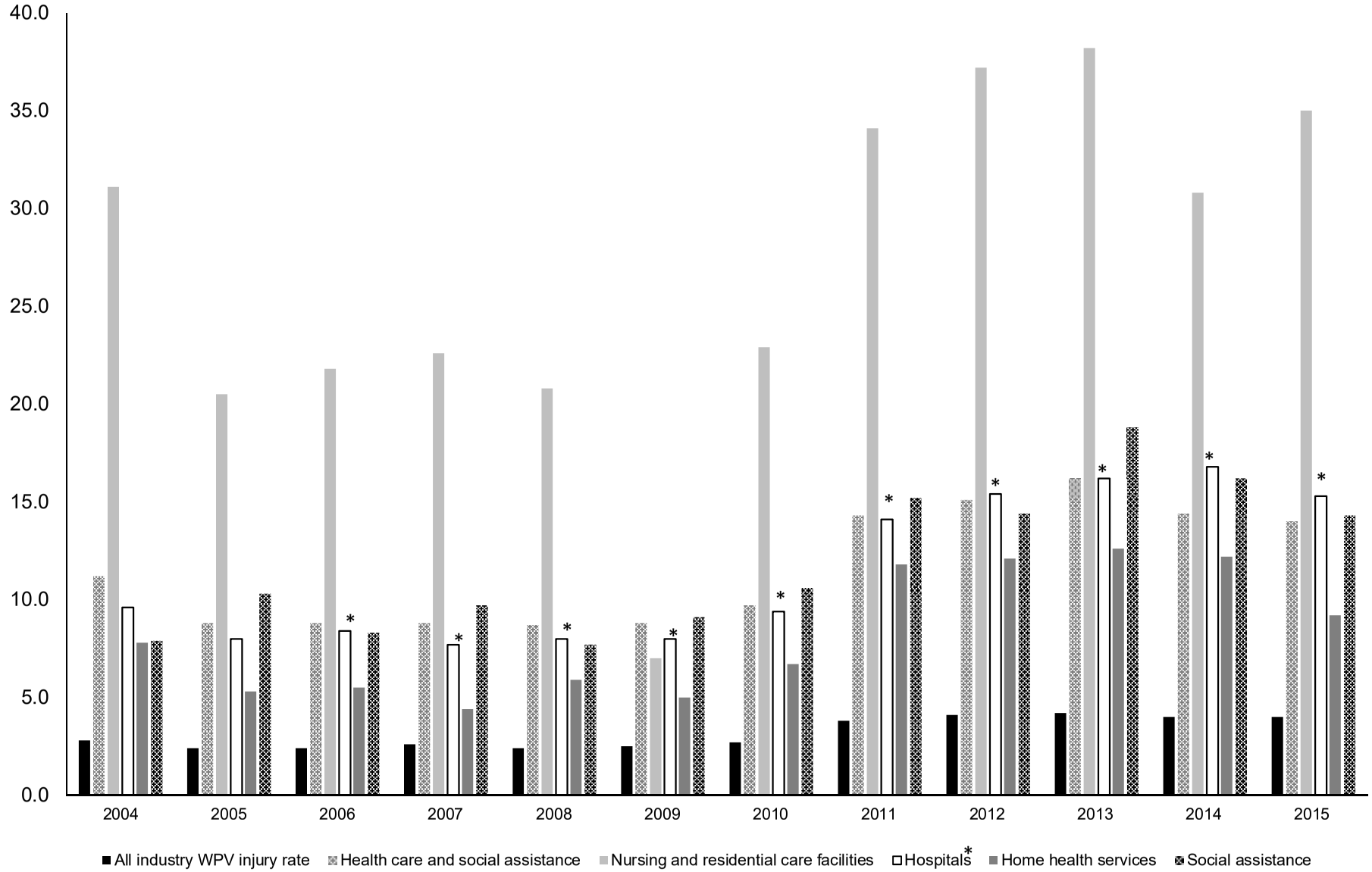
Total Injury and Illness Rates Compared with Workplace Violence Injury Rates, Private Industry, 1992–2015[1]



Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 1992–2015.

[1]Rate of injuries and illnesses leading to days away from work, per 10,000 workers.

Workplace Violence (WPV) Rates for Injuries Leading to Days Away from Work in Selected Health Care Industries, Private Industry, 2004–2015[1]

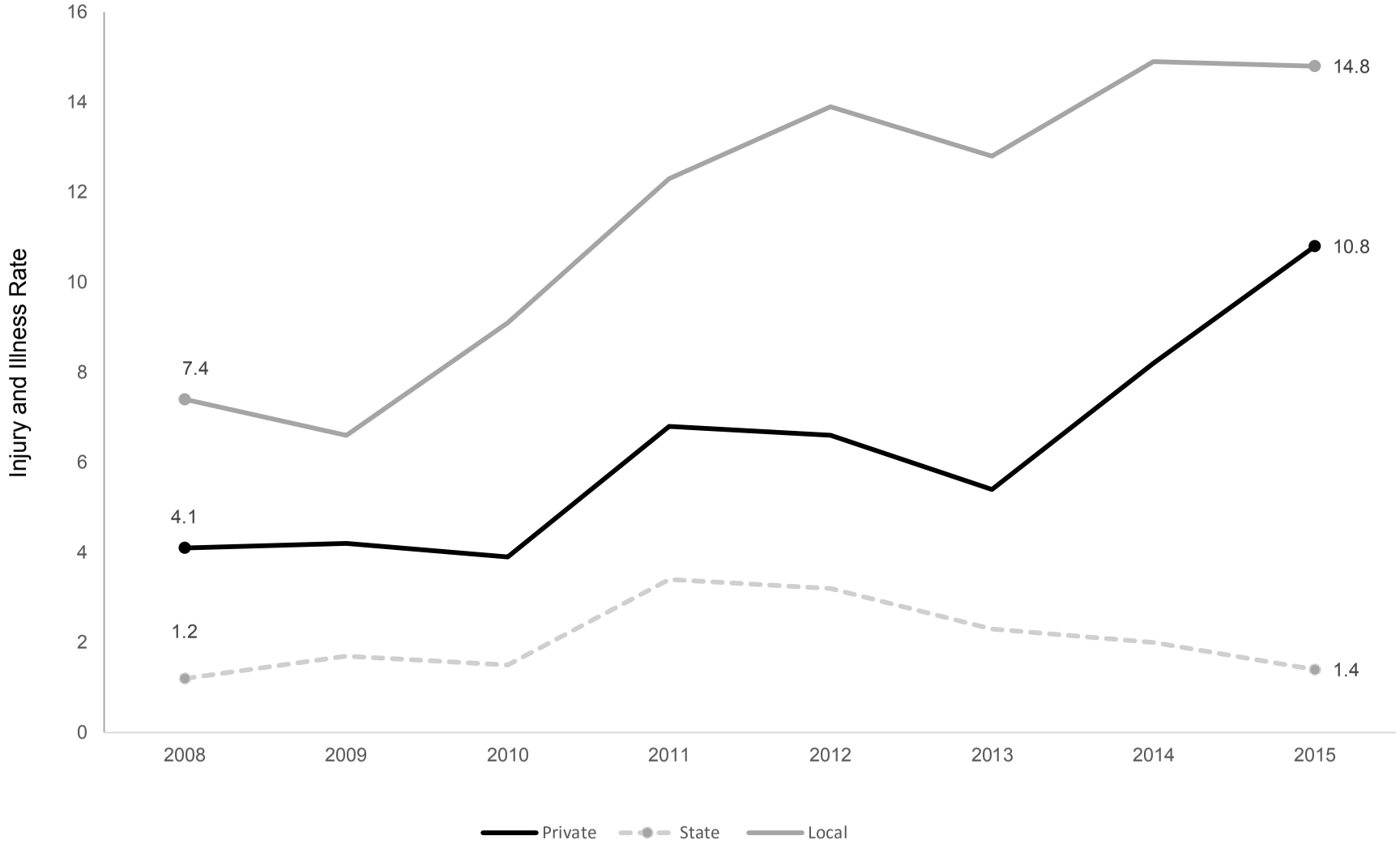


Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2004–2015.

[1]Rate per 10,000 workers.

*The subcategory 'psychiatric and substance abuse hospitals' had a workplace violence injury rate of 133.4 per 10,000 workers in 2015; 170.2 in 2014; 134.6 in 2013; 111.7 in 2012; 117.6 in 2011; 77.0 in 2010; 77.9 in 2009; 70.2 in 2008; 60.1 in 2007; and 84.3 in 2006.

Workplace Violence Rates in Educational Services for Private Industry, State and Local Government, 2008–2015 [1]



Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2008–2015.

[1]Rate of injuries and illnesses leading to days away from work, per 10,000 workers.

Estimated and Reported Cases of Musculoskeletal Disorders, Private Industry, 1994–2015[1,2]

Year	Total MSD Cases[1]	MSD Cases with Days Away from Work, Job Transfer or Restriction[1,3]	MSD Cases with Job Transfer or Restriction[1,4]	MSDs Involving Days Away from Work[5]	Percent of Cases Involving MSDs
1994	2,287,212	1,034,618	278,647	755,600	33.8%
1995	2,242,211	1,013,486	317,539	695,800	34.1%
1996	2,146,182	974,380	327,025	647,355	34.4%
1997	2,101,795	980,240	353,888	626,352	34.2%
1998	2,025,598	950,999	358,455	592,544	34.2%
1999	1,951,862	938,038	355,698	582,340	34.2%
2000	1,960,585	954,979	377,165	577,814	34.7%
2001	1,773,304	870,094	347,310	522,500	34.0%
2002	1,598,204	848,062	359,788	487,915	34.0%
2003	1,440,516	759,627	325,380	435,180	33.0%
2004	1,362,336	712,000	309,024	402,700	32.0%
2005	1,264,260	655,440	285,030	375,540	30.0%
2006	1,233,791	638,609	281,192	357,160	30.2%
2007	1,152,778	586,368	252,634	333,760	28.8%
2008	1,086,653	558,835	241,844	317,440	29.4%
2009	963,644	490,216	206,506	283,800	29.4%
2010	934,337	487,421	202,795	284,340	30.5%
2011	1,018,397	534,697	214,966	309,940	34.1%
2012	1,032,811	539,793	225,515	314,470	34.7%
2013	1,015,212	522,988	215,348	307,640	33.5%
2014	955,072	507,382	208,922	298,460	32.3%
2015	954,501	509,067	222,717	286,350	31.7%

Source: U.S. Department of Labor, Bureau of Labor Statistics.

[1]Total MSD cases, MSD days away, job transfer or restriction cases, and MSD job transfer or restriction cases are estimated based upon the percentage of MSD cases reported by BLS for the total days away from work cases involving MSD in private industry.

[2] These figures are based on employer-reported cases of MSDs provided to BLS. The number of cases shown here does not reflect the impact of under-reporting, which would significantly increase the true toll of MSDs occurring among workers. OSHA has estimated that for every reported MSD, two MSDs go unreported.

[3]Through 2001, this column was titled Total MSD Lost Workday Cases. The new title reflects the change in the recordkeeping standard that went into effect Jan. 1, 2002. Lost workday cases were defined as those that involve days away from work, days of restricted work activity, or both. They do not include cases involving only restricted work activity.

[4]Through 2001, this column was titled MSD Cases with Days of Restricted Activity. The new title reflects the change in the recordkeeping standard that went into effect Jan. 1, 2002.

[5]Days away from work cases include those that result in days away from work or without job transfer or restriction. Prior to 2002, days away from work cases included those that resulted in days away from work or without restricted activity. They do not include cases involving only restricted work activity.

Highest Numbers of Musculoskeletal Disorders by Occupation, 2015[1,2]

Occupation	Number of MSDs[3]
Laborers and freight, stock and material movers, handlers	21,990
Nursing assistants	19,360
Janitors and cleaners, except maids and housekeeping cleaners	15,810
Heavy and tractor-trailer truck drivers	15,320
Light truck or delivery services drivers	10,730
Registered nurses	10,290
Maintenance and repair workers, general	10,290
Store clerks and order fillers	10,150
Retail salespersons	8,920
Production workers, all other	7,860
Maids and housekeeping cleaners	6,680
Firefighters	5,630
First-line supervisors of retail sales workers	5,550
Personal care aides	5,290
Police and sheriffs patrol officers	5,270
Construction laborers	5,150
Assemblers and fabricators, all other	4,500
Emergency medical technicians and paramedics	3,980
Landscaping and groundskeeping workers	3,820
Cargo and freight agents	3,730

Source: U.S. Department of Labor, Bureau of Labor Statistics.

[1]MSDs leading to days away from work with or without job transfer or restriction.

[2]Includes cases where the nature of injury is sprains, tears; back pain, hurt back; soreness, pain, hurt except back; carpal tunnel syndrome; hernia; 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 MSDs, the survey classifies these cases in categories that also include non-MSD cases.

[3]Includes total number in private industry, state and local government.

Highest Incidence Rates of Musculoskeletal Disorders by Industry, 2015

Industry (NAICS Code)[1]	Incidence Rate[2]	Number of Total Cases	Median Days Away from Work
000 All Private Industry	29.8	286,350	12
481 Air transportation	194.1	7,070	20
492 Couriers and messengers	138.2	6,100	50
493 Warehousing and storage	78.6	6,010	16
623 Nursing and residential care facilities	76.0	19,280	6
442 Furniture and home furnishings stores	66.2	2,360	14
484 Truck transportation	64.1	9,840	25
562 Waste management and remediation services	63.4	2,580	20
622 Hospitals	61.1	23,340	8
316 Leather and allied product manufacturing	60.0	170	7
312 Beverage and tobacco product manufacturing	59.9	1,200	20
532 Rental and leasing services	58.2	2,920	7
445 Food and beverage stores	57.5	12,500	11
485 Transit and ground passenger transportion	55.2	1,930	28
444 Building material and garden supply stores	54.6	5,660	12
424 Merchant wholesalers — nondurable goods	53.8	10,580	13
337 Furniture and related product manufacturing	51.6	1,910	12
517 Telecommunications	51.3	4,080	40
721 Accommodation	47.2	7,080	10
112 Animal production and aquaculture	45.6	960	8
336 Transportation equipment manufacturing	43.1	7,010	19
111 Crop production	42.8	1,710	7
711 Performing arts and spectator sports	42.5	1,230	11
321 Wood product manufacturing	41.9	1,550	9
311 Food manufacturing	41.2	6,220	11
238 Specialty trade contractors	41.1	15,230	15
331 Primary metal manufacturing	40.3	1,700	12
212 Mining (except oil and gas)	39.8	880	40
452 General merchandise stores	38.4	8,750	7
332 Fabricated metal product manufacturing	36.4	5,410	8
326 Plastic and rubber products manufacturing	35.9	2,510	11

Source: U.S. Department of Labor, Bureau of Labor Statistics.

[1]Does not include state or local government.

[2]Rates of MSDs leading to days away from work, per 10,000 workers.

Highest Numbers of Musculoskeletal Disorders by Industry, 2015

Industry (NAICS Code)[1]	Number of Total Cases	Incidence Rate[2]	Median Days Away from Work
000 All Private Industry	286,350	29.8	12
622 Hospitals	23,340	61.1	8
623 Nursing and residential care facilities	19,280	76.0	6
238 Specialty trade contractors	15,230	41.1	15
445 Food and beverage stores	12,500	57.5	11
621 Ambulatory health care services	11,260	21.2	9
424 Merchant wholesalers — nondurable goods	10,580	53.8	13
484 Truck transportation	9,840	64.1	25
423 Merchant wholesalers — durable goods	9,050	31.4	8
452 General merchandise stores	8,750	38.3	7
722 Food services and drinking places	8,650	12.7	7
561 Administrative and support services	8,570	18.3	9
721 Accommodation	7,080	47.2	10
481 Air transportation	7,070	194.1	20
336 Transportation equipment manufacturing	7,010	43.1	19
311 Food manufacturing	6,220	41.2	11
492 Couriers and messengers	6,100	138.2	50
493 Warehousing and storage	6,010	78.6	16
624 Social assistance	5,930	26.0	7
444 Building material and garden equipment and supply dealers	5,660	54.6	12
332 Fabricated metal product manufacturing	5,410	36.4	8
441 Motor vehicle and parts dealers	5,300	29.5	12
541 Professional and technical services	4,460	5.6	4
517 Telecommunications	4,080	51.3	40
333 Machinery manufacturing	3,790	33.0	14
531 Real estate	3,480	26.0	7
236 Construction of buildings	3,350	25.7	26
811 Repair and maintenance	3,060	26.1	23
532 Rental and leasing services	2,920	58.2	7
812 Personal and laundry services	2,740	26.8	6
562 Waste management and remediation services	2,580	63.4	20

Source: U.S. Department of Labor, Bureau of Labor Statistics.

[1]Does not include state or local government.

[2]Rates of MSDs leading to days away from work, per 10,000 workers.

Estimates of the True Toll of Workplace Injuries and Illnesses

	Estimated 2015 Figures Accounting for Impact of Undercounting Injuries and Illnesses[1]	2015 Data Reported by Bureau of Labor Statistics (BLS)
Total Number of Nonfatal Injuries and Illnesses in Private Industry	**8.7 million**	**2.9 million**
Total Nonfatal Injury and Illness Case Rate in Private Industry (cases per 100 workers)	**9.0**	**3.0**
Total Number of Injuries and Illnesses Involving Days Away from Work in Private Industry	**2.7 million**	**902,160**
Case Rate for Nonfatal Injuries and Illnesses Involving Days Away from Work (cases per 100 workers) in Private Industry	**3.0**	**1.0**
Total Number of Musculoskeletal Disorders—Cases Involving Days Away from Work in Private Industry	**895,050**	**286,350**
Total Number of Estimated Cases of Musculoskeletal Disorders in Private Industry	**2,577,150**	**859,050**

Source: U.S. Department of Labor, Bureau of Labor Statistics, 2015.

[1] A detailed comparison of individual injury and illness reports from various reporting systems found that only one in three workplace injuries and illnesses was reported on the OSHA Log and captured by the Bureau of Labor Statistics survey. This study did not address the number of injuries and illnesses that are not reported to any reporting system in the first place. Thus, this study represents a conservative estimate of under-reporting of the true toll of injuries and illnesses. For more details on the study, see the paper by Rosenman, et al., "How Much Work-Related Injury and illness is Missed by the Current National Surveillance System?," *Journal of Occupational and Environmental Medicine,* 48(4): 357–365, April 2006.

Federal OSHA Inspection/Enforcement Activity, FY 2010–2016

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Inspections	41,018	40,625	40,950	39,178	36,167	35,822	31,948
Safety	34,353	33,338	33,598	31,920	29,343	28,903	25,704
Health	6,665	7,287	7,352	7,258	6,824	6,917	6,244
Complaints	8,036	8,762	9,568	9,503	9,577	9,037	8,870
Programmed	24,752	23,319	23,082	22,170	19,207	16,527	12,731
Construction	24,441	22,624	22,507	20,430	18,223	17,549	15,610
Maritime	300	340	386	411	370	357	297
Manufacturing	7,921	8,566	8,399	7,945	7,602	8,051	7,450
Other	8,356	9,094	9,654	10,392	9,972	9,863	8,591
Average Case Hours/Inspections							
Safety	19.0	20.4	20.3	22.5	22.0	22.3	21.0
Health	33.8	33.9	34.6	40.1	45.2	39.7	33.4
Violations – Total	96,610	81,861	78,760	78,037	67,556	65,044	59,856
Willful	1,513	572	424	316	433	527	524
Repeat	2,749	3,029	3,031	3,119	2,954	3,088	3,146
Serious	74,721	59,547	57,155	58,234	49,416	47,934	42,984
Unclassified	2	7	1	-	1	1	1
Other	17,298	18,436	18,038	16,260	14,597	13,016	11,895
FTA	327	270	107	77	155	107	152
Penalties – Total ($)	181,391,692	178,289,800	168,842,092	149,994,488	143,535,247	156,525,585	162,872,470
Willful	81,906,139	22,737,340	15,053,400	12,484,996	17,474,793	21,581,025	21,794,276
Repeat	12,007,280	21,076,053	21,884,028	19,563,867	20,407,958	24,042,251	27,277,061
Serious	78,632,344	125,459,324	123,274,497	110,326,980	97,427,404	102,971,432	103,234,454
Unclassified	1,700	317,775	1,200	-	0	4,200	-
Other	5,018,568	7,299,625	7,829,960	6,855,744	6,500,117	7,222,074	8,537,920
FTA	3,825,661	1,399,683	797,507	762,901	1,724,976	704,143	2,028,758
Average Penalty/ Violation ($)	1,878	2,178	2,144	1,922	2,125	2,406	2,721
Willful	54,135	39,751	35,503	39,509	40,357	40,951	41,592
Repeat	4,368	6,958	7,220	6,272	6,909	7,786	8,670
Serious	1,052	2,107	2,157	1,895	1,972	2,148	2,402
Unclassified	850	45,396	1,200	-	0	4,200	-
Other	290	396	434	422	445	555	718
FTA	11,699	5,184	7,453	9,908	11,129	6,581	13,347
Percent Inspections with Citations Contested (%)	8.0%	10.8%	11.4%	6.0%	6.6%	7.4%	8.3%

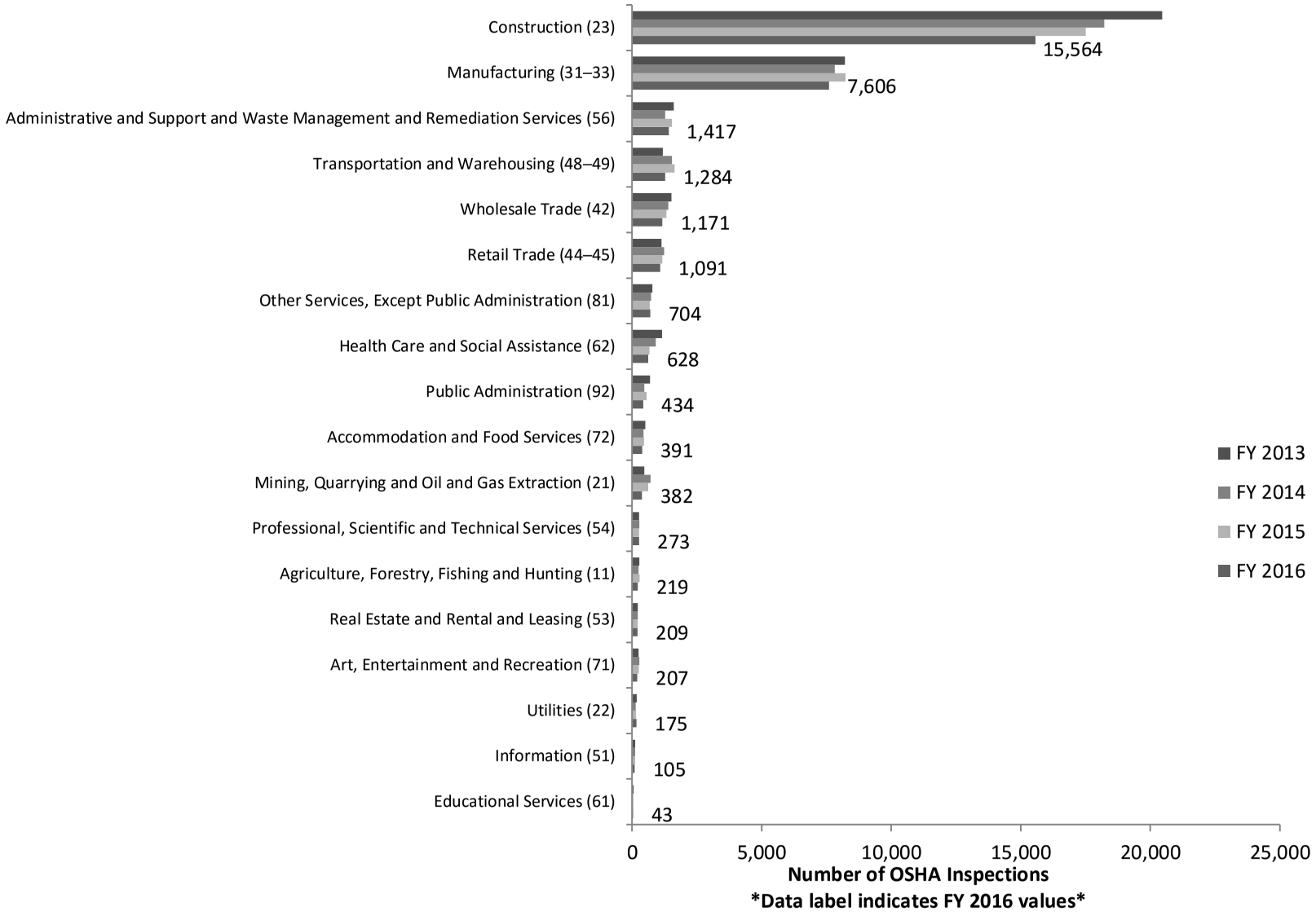
Source: OSHA IMIS Inspection Reports, FY 2010–FY 2013, and OIS Federal Inspection Reports, FY 2012–FY 2016.

Federal OSHA and State Plan OSHA Inspection/Enforcement Activity, FY 2016

	FEDERAL OSHA	STATE PLAN OSHA
Inspections	31,948	43,299
Safety	25,704	33,440
Health	6,244	9,859
Complaints	8,870	9,548
Programmed	12,731	19,789
Construction	15,610	17,024
Maritime	297	105
Manufacturing	7,450	6,907
Other	8,591	19,263
Average Case Hours/Inspection		
Safety	21	21.36
Health	33.43	26.92
Violations – Total	59,856	88,019
Willful	524	181
Repeat	3,146	1,739
Serious	42,984	42,694
Unclassified	1	32
Other	11,895	43,218
FTA	152	152
Penalties – Total ($)	162,872,470	102,339,434
Willful	21,794,276	7,250,515
Repeat	27,277,061	7,856,235
Serious	103,234,454	74,583,993
Unclassified	—	86,632
Other	8,537,920	10,672,637
FTA	2,028,758	1,888,022
Average Penalty/Violation ($)	2,721	1,163
Willful	41,592	40,058
Repeat	8,670	4,518
Serious	2,402	1,747
Unclassified	—	2,707
Other	718	247
FTA	13,347	12,421
Percent Inspections with Citations Contested	8.3%	15.9%

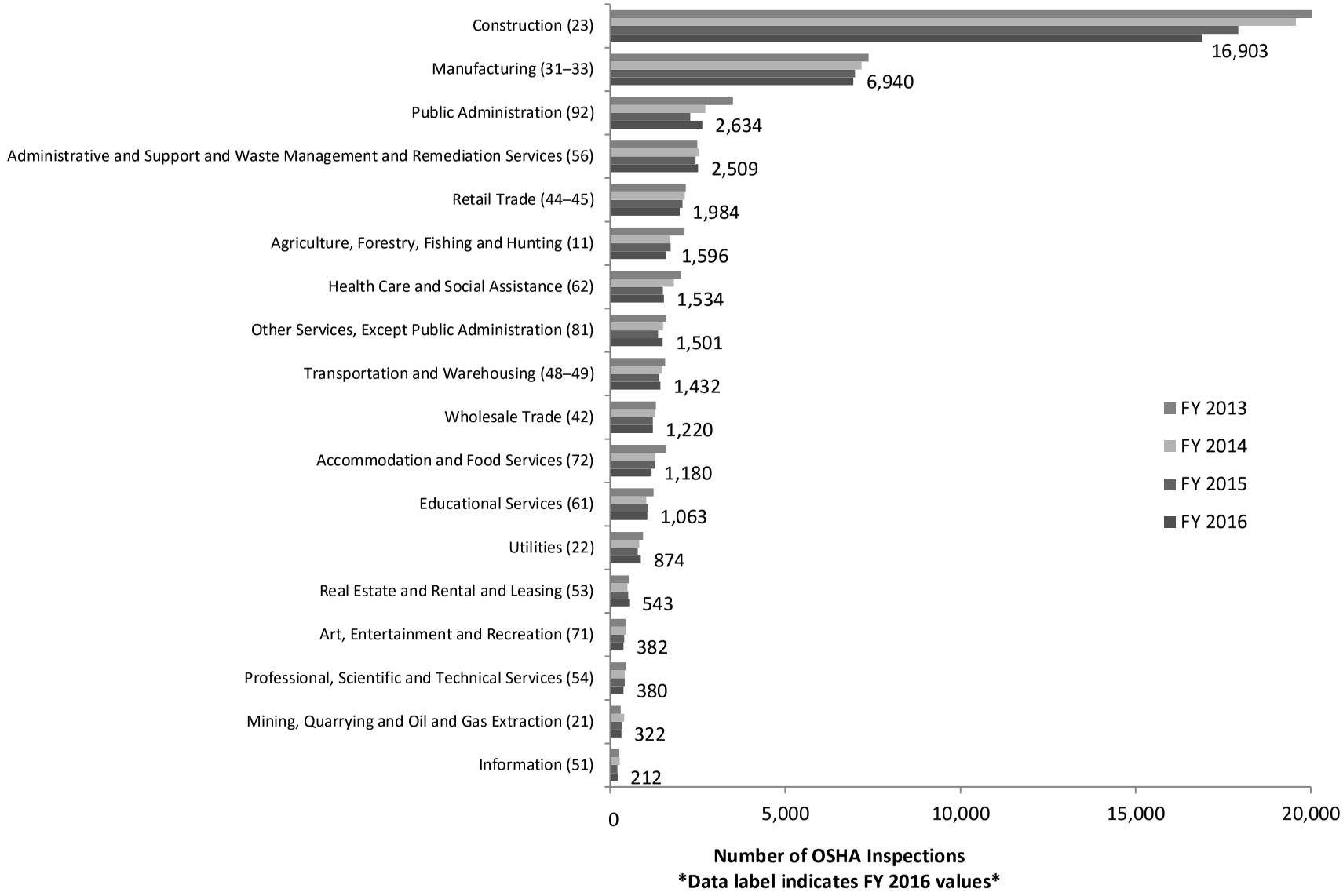
Source: OIS Federal Inspection Reports, FY 2016.

Number of Federal OSHA Inspections by Industry (Two-Digit NAICS Code), FY 2013–2016



Source: OSHA OIS inspection reports, FY2013–FY2016. Most recent data received Jan. 19, 2017.

Number of State Plan OSHA Inspections by Industry (Two-Digit NAICS Code), FY 2013–2016



Source: OSHA IMIS inspection reports, FY2013–FY2015, and OIS inspection reports, FY2014–FY2016. Most recent data received Dec. 22, 2016.

Average Total Penalty per OSHA Fatality Inspection, FY 2009–2016

Fiscal Year	Number of Fatality Inspections Conducted	Total Penalties ($)	Average Total Penalty Per Inspection ($)
FY 2009			
Federal States	824	5,791,896	7,029
State Plan States	626	3,972,586	6,346
Nationwide	1,450	9,764,482	6,734
FY 2010			
Federal States	805	19,258,617	23,924
State Plan States	620	5,116,007	8,252
Nationwide	1,425	24,374,624	17,105
FY 2011			
Federal States	754	12,451,612	16,514
State Plan States	680	9,803,145	14,416
Nationwide	1,434	22,254,757	15,519
FY 2012[1]			
Federal States	945	9,270,422	9,810
State Plan States	599	4,713,458	7,869
Nationwide	1,544	13,983,880	9,057
FY 2013			
Federal States	797	7,744,931	9,718
State Plan States	635	6,131,773	9,656
Nationwide	1,432	13,876,704	9,751
FY 2014			
Federal States	900	11,912,254	13,236
State Plan States	697	6,393,686	9,173
Nationwide	1,597	18,305,940	11,463
FY 2015			
Federal States	967	11,412,315	11,802
State Plan States	842	5,358,100	6,364
Nationwide	1,809	16,770,415	9,271
FY 2016			
Federal States	926	15,920,227	17,192
State Plan States	583	6,363,471	10,915
Nationwide	1,509	22,283,698	14,767

Sources: OSHA IMIS Fatality Inspection Reports, FY 2009–2016, and OSHA OIS Fatality Inspection Report, FY 2013–2016.

[1]OSHA OIS Fatality Inspection Report for FY 2012 may include inspections that did not involve a fatality.

Significant OSHA Enforcement Cases Based on Total Penalty Issued, FY 2016[1]

Company Name	Inspection Number(s)	Date Citations Issued	Total Penalty Issued
Sunfield, Inc.	1117773 1128049	6/29/2016	$3,426,900
Fraser Shipyard	1125468	7/29/2016	$1,395,000
Zodiac Cabin and Structures Support LLC[2]	1091577	1/4/2016	$1,274,000
Nebraska Railcar Cleaning Services LLC	1055463	10/13/2015	$963,000
Premier Tool and Die Cast Corporation[3]	1000843 999635 1009507	10/13/2015	$638,450
Hartman Construction and Equipment, Inc.[4]	1071374	12/8/2015	$560,000
Ashley Furniture	1056700	10/15/2015	$420,000
Roof Doctor, Inc.[2]	1080118	1/14/2016	$427,000
Sinclair Wyoming Refining Company[5]	1085594	1/12/2016	$424,250
Design Plastering West LLC	1063007	11/10/2015	$407,400
U.S. Chutes Corporation	1107107 1107207	5/9/2016	$406,680
HP Pelzer	1133070	9/7/2016	$370,000
St. Louis Cold Drawn, Inc.	1077467 1089873	12/24/2015	$366,300

Source: Occupational Safety and Health Administration.

[1]As of Aug. 1, 2016, as a result of OSHA's new penalty structure, OSHA raised the threshold for significant enforcement cases from cases resulting in a total proposed penalty of more than $100,000 to cases with a total proposed penalty of more than $180,000. In FY 2016, 123 significant enforcement cases were brought by federal OSHA; seven of these were against federal agencies.

[2]This significant case was issued in Washington, a state with its own OSHA plan. This state may have different criteria for a significant case, but exceeds the federal threshold for a significant case.

[3]This significant case was issued in Michigan, a state with its own OSHA plan. This state may have different criteria for a significant case, but exceeds the federal threshold for a significant case.

[4]This significant case was issued in Alaska, a state with its own OSHA plan. This state may have different criteria for a significant case, but exceeds the federal threshold for a significant case.

[5]This significant case was issued in Wyoming, a state with its own OSHA plan. This state may have different criteria for a significant case, but exceeds the federal threshold for a significant case.

Largest-Ever OSHA Enforcement Cases Based on Total Penalty Issued

Company Name	Inspection Number(s)	Date Citations Issued	Total Penalty Issued	Penalty Amount Paid[1]
BP Products North America	311962674 308314640	10/29/2009	$81,340,000	$50,610,000 $14,567,000 $205,000 (Formal settlements)
BP Products North America	308314640 308314988	9/21/2005	$21,361,500	
IMC Fertilizer/Angus Chemical	107607863 107607871	10/31/1991	$11,550,000	$10,000,000
Imperial Suger	310988712 311522858	7/25/2008	$8,777,500	$6,050,000 (Formal settlement)
O&G Industries Inc.	109179937 314295460	8/3/2010	$8,347,000	$1,000,000 (Formal settlement)
Samsung Guam Inc.	107329740 106196801	9/21/1995	$8,260,000	$1,829,000 (Formal settlement)
CITGO Petroleum	110416880	8/29/1991	$8,155,000	$5,800,000
Dayton Tire	109061648	4/18/1994	$7,490,000	$7,490,000
USX (aka U.S. Steel Corp.)	100504950 018252858 102873288	10/26/1989 11/2/1989	$7,275,300	$3,268,845 (Formal settlement)
Keystone Construction Maintenance	109179952 314295445	8/3/2010	$6,623,000	$250,000* (Formal settlement)
Phillips 66/Fish Engineering	106612443 107365751	4/19/1990	$6,395,200	$410,000 (Formal settlement)
Hercules Inc.	108662420 100490705	9/8/1993	$6,328,000	$100,000 (ALJ decision)
Arcadian	102281292 102281128	1/27/1993	$5,085,000	$5,085,000

Largest-Ever OSHA Enforcement Cases Based on Total Penalty Issued

Company Name	Inspection Number(s)	Date Citations Issued	Total Penalty Issued	Penalty Amount Paid[1]
E. Smalis Painting	108753690	6/31/1994	$5,008,500	$1,092,750 (OSHRC decision)
John Morrell	101456325	10/28/1988	$4,330,000	$990,000 (Formal settlement)
Bath Iron Works	101450336 101450294	11/4/1987	$4,175,940	$650,000 (Formal settlement)
Fraser Paper	102749868 102750395	9/17/1991	$3,982,500	$1,286,233 (Formal settlement)
Decoster Egg Farms (aka Maine Contract Farming LLC)	122375512	7/12/1996	$3,555,500	$1,887,500 (Formal settlement)
Arco Chemical Co.	110318540	1/3/1999	$3,481,300	$3,481,300
Sunfield, Inc.	1117773 1128049	6/29/2016	$3,426,900	Violations under contest
The Budd Company	18252510	12/12/1989	$3,345,600	$1,528,000 (Formal settlement)
McCrory Stores	113919278	11/7/1991	$3,188,000	$500,000 (ALJ decision)
IBP	100059591	5/11/1998	$3,133,100	$532,030 (OSHRC decision)
BP North America Inc. and BP Husky Refining LLC's Refinery	311611081	3/8/2010	$3,042,000	$3,042,000
Shell Oil Chemical Co.	103342093	11/22/1994	$3,017,000	$3,017,000
Union Carbide	110398310	9/12/1991	$2,803,500	$1,496,500 (Formal settlement)
Fraser Shipyard	1125468	7/29/2016	$1,395,000	Case open

Source: Occupational Safety and Health Administration.

[1]Penalty amount paid information comes from March 26, 2012, posting by Celeste Monforton on the Pump Handle blog at www:scienceblogs.com/thepumphandle/2012/03/26/federal-osha-penalties-101-a-l/ and from www.osha.gov.

*Settlement called for Keystone Construction Maintenance also to pay 5% of its annual revenue above a set amount for each of the seven years following the settlement.

Disposition of Federal OSHA 11(c) Whistleblower Complaints, FY 2006–2016

Fiscal Year	Cases Received	Cases Completed[1]	Complaint Determinations						
			Total Merit	Merit	Settled	Settled Other	Dismissed	Withdrawn	Total Determinations
2006	1,195	1,229	293	14	213	66	787	196	1,276
2007	1,301	1,167	262	14	190	58	766	176	1,204
2008	1,381	1,255	261	14	202	45	830	227	1,318
2009	1,267	1,168	287	22	210	55	726	187	1,200
2010	1,402	1,144	334	24	244	66	672	177	1,183
2011	1,668	1,234	411	23	314	74	694	177	1,282
2012	1,745	1,653	400	18	294	88	977	340	1,717
2013	1,708	1,827	611	41	369	201	921	415	1,947
2014	1,751	1,794	483	13	309	161	957	426	1,866
2015	2,031	1,952	560	18	362	180	962	459	1,975
2016	2,030	2,035	581	29	342	210	1,043	472	2,096

Sources: For fiscal years 2009–2016, Federal OSHA, Directorate of Whistleblower Protection Programs, and for fiscal years 2006–2008, Federal OSHA Whistleblower Protection Program, "Whistleblower Investigation Data," www.whistleblowers.gov/wb_data_FY06-12.pdf.

[1]Cases completed include cases received and backlog cases.

Disposition of OSHA State Plan 11(c) Whistleblower Complaints, FY 2009–2016

Fiscal Year	Cases Received	Cases Completed[1]	Complaint Determinations						
			Total Merit	Merit Finding	Settled	Settled Other	Dismissed	Withdrawn	Total Determinations
2009	1,043	882	158	31	94	33	654	121	933
2010	1,167	954	160	24	107	29	612	132	904
2011	1,462	839	168	24	125	19	626	135	929
2012	1,457	766	174	20	133	21	443	112	729
2013	1,192	1,059	248	58	139	51	655	215	1,118
2014	1,157	965	221	46	125	50	606	198	1,025
2015	1,060	1,120	219	27	145	47	606	300	1,125
2016	1,143	1,031	169	25	95	49	646	216	1,031

Source: Occupational Safety and Health Administration, Directorate of Cooperative and State Programs.

[1]Cases completed include cases received and backlog cases.

Major OSHA Health Standards Since 1971

	Standard	Year Final Standard Issued
1.	Asbestos	1972
2.	Fourteen Carcinogens	1974
3.	Vinyl Chloride	1974
4.	Coke Oven Emissions	1976
5.	Benzene (vacated)	1978
6.	DBCP	1978
7.	Arsenic	1978
8.	Cotton Dust	1978
9.	Acrylonitrile	1978
10.	Lead	1978
11.	Cancer Policy	1980
12.	Access to Medical Records	1980
13.	Hearing Conservation	1981
14.	Hazard Communication	1983
15.	Ethylene Oxide	1984
16.	Asbestos (revised)	1986
17.	Field Sanitation	1987
18.	Benzene (revised)	1987
19.	Formaldehyde	1987
20.	Access to Medical Records (modified)	1988
21.	Permissible Exposure Limits (PELs) Update (vacated)	1989
22.	Chemical Exposure in Laboratories	1990
23.	Bloodborne Pathogens	1991
24.	4,4'-methylenedianiline	1992
25.	Cadmium	1992
26.	Asbestos (partial response to court remand)	1992
27.	Formaldehyde (response to court remand)	1992
28.	Lead (construction)	1993
29.	Asbestos (response to court remand)	1994
30.	1,3-Butadiene	1996
31.	Methylene Chloride	1998
32.	Respiratory Protection	1998
33.	Ergonomics (revoked under the Congressional Review Act)	2000
34.	Bloodborne Pathogens – Needlestick Injuries	2001
35.	Hexavalent Chromium (response to court order)	2006
36.	Hazard Communication – Globally Harmonized System	2012
37.	Crystalline Silica	2016
38.	Beryllium	2017

Source: Code of Federal Regulations.

Major OSHA Safety Standards Since 1971

Standard		Year Final Standard Issued
1.	Cranes/Derricks (load indicators)	1972
2.	Roll-over Protective Structures (construction)	1972
3.	Power Transmission and Distribution	1972
4.	Scaffolding, Pump Jack Scaffolding and Roof Catch Platform	1972
5.	Lavatories for Industrial Employment	1973
6.	Trucks, Cranes, Derricks and Indoor General Storage	1973
7.	Temporary Flooring – Skeleton Steel Construction	1974
8.	Mechanical Power Presses	1974
9.	Telecommunications	1975
10.	Roll-over Protective Structures of Agricultural Tractors	1975
11.	Industrial Slings	1975
12.	Guarding of Farm Field Equipment, Farmstead Equipment and Cotton Gins	1976
13.	Ground-Fault Protection	1976
14.	Commercial Diving Operations	1977
15.	Servicing Multi-Piece Rim Wheels	1980
16.	Fire Protection	1980
17.	Guarding of Low-Pitched Roof Perimeters	1980
18.	Design Safety Standards for Electrical Standards	1981
19.	Latch-Open Devices	1982
20.	Marine Terminals	1983
21.	Servicing of Single-Piece and Multi-Piece Rim Wheels	1984
22.	Electrical Safety in Construction (Part 1926)	1986
23.	General Environmental Controls – TAGS (Part 1910)	1986
24.	Marine Terminals – Servicing Single-Piece Rim Wheels (Part 1917)	1987
25.	Grain Handling Facilities (Part 1910)	1987
26.	Safety Testing of Certification of Certain Workplace Equipment and Materials	1988
27.	Crane or Derrick Suspended Personnel Platforms (Part 1926)	1988
28.	Concrete and Masonry Construction (Part 1926)	1988
29.	Mechanical Power Presses (modified)	1988
30.	Powered Platforms (Part 1910)	1989
31.	Underground Construction (Part 1926)	1989
32.	Hazardous Waste Operations (Part 1910) (mandated by Congress)	1989
33.	Excavations (Part 1926)	1989
34.	Control of Hazardous Energy Sources (lockout/tagout) (Part 1910)	1989
35.	Stairways and Ladders (Part 1926)	1990
36.	Concrete and Masonry Lift-Slab Operations	1990
37.	Electrical Safety Work Practices (Part 1910)	1990
38.	Welding, Cutting and Brazing (Part 1910) (revision)	1990
39.	Chemical Process Safety	1992
40.	Confined Spaces (general industry)	1993

Major OSHA Safety Standards Since 1971

Standard	Year Final Standard Issued
41. Fall Protection	1994
42. Electrical Power Generation	1994
43. Personal Protective Equipment	1994
44. Logging Operations	1995
45. Scaffolds	1996
46. PPE for Shipyards	1996
47. Longshoring and Marine Terminals	1997
48. Powered Industrial Truck Operator Training	1998
49. Steel Erection	2001
50. Electrical Equipment Installation	2007
51. Employer Payment for Personal Protective Equipment	2007
52. Cranes and Derricks in Construction	2010
53. General Working Conditions for Shipyard Employment	2011
54. Electric Power Generation, Transmission and Distribution	2014
55. Confined Spaces (construction)	2015
56. Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems) (Part 1910)	2016

Source: Code of Federal Regulations.

Impact on Workers' Lives from Delays in Recent OSHA Standards

Hazard/Issue	Year Rulemaking Initiated	Year Rulemaking Completed	Years Elapsed Since Rulemaking Initiated	Lives Lost Per Year of Delay	Lives Lost Over Entire Rulemaking Period
Cranes and Derricks[1]	2002	2010	8	22	176
Hexavalent Chromium[2]	1993	2006	13	40 to 145	520 to 1,885
Silica[3]	1997	2016	19	642	12,198
Beryllium[4]	1998	2017	19	90	1,710

[1]In 2002, OSHA initiated negotiated rulemaking on the cranes and derricks standard. The negotiated rulemaking committee recommended a draft rule in 2004. The proposed rule was issued in 2008 and the final rule promulgated in 2010. According to OSHA, the cranes and derricks standard also will prevent 175 injuries per year. Fatalities and injuries prevented per year by the new standard were obtained from OSHA's preamble to the final rule for cranes and derricks published in the Federal Register on Aug. 9, 2010.

[2]In 1993, a petition for an Emergency Temporary Standard (ETS) for the carcinogen hexavalent chromium was submitted to OSHA. In 1994, OSHA denied the ETS petition but put hexavalent chromium on the regulatory agenda for normal rulemaking. OSHA failed to issue a proposed rule. Lawsuits in 1997 and in 2002 seeking to compel rulemaking resulted in a court-ordered timetable to issue a final standard by Jan. 18, 2006. According to OSHA, the standard also will prevent 209 to 1,045 cases of dermatitis and 1,140 cases of nasal perforations/ulcerations from occurring annually. Lung cancer and silicosis deaths and illnesses avoided per year by the new standard were obtained from OSHA's preamble to the final rule published in the Federal Register on Feb. 28, 2006.

[3]In 1997, silica was put on OSHA's regulatory agenda. In 2003, a draft silica standard underwent a Small Business Regulatory Enforcement Fairness Act (SBREFA) review, but the rule then stalled. Work on the standard was reactivated in 2009, and on Feb. 14, 2011, the draft proposed standard was submitted to the Office of Management and Budget (OMB) for review under Executive Order 12866. OMB review of proposed rules is required to be completed within 120 days under the EO, but due to political pressure from industries opposed to the new rule, the draft proposed rule was held by OMB for two and one-half years. The proposed rule finally was issued on Sept.12, 2013; the final rule was issued on March 25, 2016. According to the preamble of the final rule, reducing the permissible exposure limit for silica to 50 $\mu g/m^3$ will prevent 642 deaths and 918 cases of silica-related disease each year (81 FR 16285).

[4]In 1998, beryllium was put on OSHA's regulatory agenda. A petition for an Emergency Temporary Standard for the carcinogen beryllium was submitted to OSHA in 1999 and again in 2001. In 2002, OSHA denied the petition for an ETS but kept beryllium on the regulatory agenda for normal rulemaking. In 2002, OSHA issued a Request for Information. In 2012, the United Steelworkers and Materion Brush jointly submitted a draft standard to OSHA. OSHA published the proposed rule in 2015 and the final rule on Jan. 9, 2017. According to the preamble of the final rule, reducing the permissible exposure limit for beryllium to 0.2 $\mu g/m^3$ will prevent 90 deaths and 46 cases of chronic beryllium disease each year (82 FR 2597).

Permissible Exposure Limits of OSHA Compared with Other Standards and Recommendations[1]

Chemical[2]	OSHA PEL	Cal/OSHA PEL	ACGIH TLV	NIOSH REL	Units
Acrylamide[3]	0.3	0.03	0.03	0.03	mg/m^3
Ammonia	50	25	25	25	ppm
Asphalt fume[3]	-	5.0	0.5	5.0 (s)	mg/m^3
Benzene[3]	1.0	1.0	0.5	0.1	ppm
1-Bromopropane[4]	-	5.0	-	-	ppm
n-Butanol	100	50 (c)	20	50 (c)	ppm
Carbon disulfide[5]	20	1.0	1.0	1.0	ppm
Carbon monoxide[5]	50	25 (c)	25	35	ppm
Chlorobenzene	75	10	10	-	ppm
Chlorodiphenyl (54% chlorine) (PCB)	0.5	0.5	0.5	0.001	mg/m^3
Cobalt metal, dust and fume	0.1	0.02	0.05	0.02	mg/m^3
Dimethyl sulfate[3,5]	1.00	0.1	0.1	0.1	ppm
2-Ethoxyethanol (EGEE)	200	5.0	5.0	0.5	ppm
Ethyl acrylate[3]	25	5.0	5.0	-	ppm
Formaldehyde	0.75	0.75	0.3 (c)	0.016	ppm
Gasoline[3]	-	300	300	-	ppm
Glutaraldehyde[5]	-	0.05 (c)	0.05 (c)	0.2 (c)	ppm
Manganese compounds	5.0 (c)	0.2	0.02	1.0	mg/m^3
Methylene bisphenyl isocyanate (MDI)	0.02 (c)	0.005	0.005	0.005	ppm
Styrene	100	50	20	50	ppm
Tetrachloroethylene (Perchloroethylene/PERC)[3,4,5]	100	25	25	-	ppm
Toluene[5]	200	10 (c)	20	100	ppm
Toluene-2,4-Diisocyanate (TDI)	0.02 (c)	0.005	0.001	-	ppm
Triethylamine	25	1.0 (c)	0.5	-	ppm
Welding fume[3]	-	5.0	-	-	mg/m^3

[1](c) Ceiling level; (s) Short-term exposure limit.

[2]More available at www.osha.gov/dsg/annotated-pels/, OSHA Permissible Exposure Limits – Annotated Tables.

[3]NIOSH denotes carcinogenicity of chemical according to Appendix A: www.cdc.gov/niosh/npg/nengapdxa.html.

[4]Designated by EPA as a priority chemical for regulation under the amended Toxic Substances Control Act.

[5]Chemicals identified by OSHA for updating permissible exposure limits but subsequently dropped from the agency's regulatory agenda.

Federal OSHA Budget and Personnel
FY 1980–2017

Fiscal Year	Budget (in dollars – $)	Positions (Staff Full-Time Equivalent Employment)
1980	186,394,000	2,951
1985	219,652,000	2,239
1986	208,692,000	2,166
1987	225,811,000	2,211
1988	235,474,000[1]	2,378
1989	247,746,000	2,441
1990	267,147,000	2,425
1991	285,190,000	2,466
1992	296,540,000	2,473
1993	288,251,000	2,368
1994	296,428,000	2,295
1995	311,660,000	2,196
1996	303,810,000	2,069
1997	324,955,000	2,118
1998	336,480,000	2,171
1999	354,129,000	2,154
2000	381,620,000	2,259
2001	425,886,000	2,370
2002	443,651,000	2,313
2003	453,256,000	2,313
2004	457,500,000	2,236
2005	464,224,000	2,208
2006	472,427,000	2,165
2007	486,925,000	2,165
2008	486,001,000	2,118
2009	513,042,000	2,147
2010	558,620,000	2,335
2011	558,619,000	2,335
2012	564,788,000	2,305
2013[2]	535,546,000	2,226
2014	552,247,000	2,238
2015	552,787,000	2,224
2016	552,787,000	2,173
2017(CR)[3]	552,787,000	2,173

Source: Occupational Safety and Health Administration.

[1]Budget and personnel were increased when the California state plan turned back to federal OSHA jurisdiction.

[2]The FY 2013 funding levels reflect budget cuts mandated by the sequester.

[3]Funding levels for FY 2017 were not yet final at the time of publication of this report. Currently, OSHA is being funded at FY 2016 levels under a continuing resolution.

Federal OSHA Safety and Health Compliance Staffing, 1975–2016

Year	Total Number of Federal OSHA Compliance Officers[1]	Employment (000)[2]	OSHA Compliance Officers Per Million Workers
1975	1,102	85,846	12.8
1976	1,281	88,752	14.4
1977	1,353	92,017	14.7
1978	1,422	96,048	14.8
1979	1,441	98,824	14.6
1980	1,469	99,302	14.8
1981	1,287	100,397	12.8
1982	1,003	99,526	10.1
1983	1,160	100,834	11.5
1984	1,040	105,005	9.9
1985	1,027	107,150	9.6
1986	975	109,597	9.0
1987	999	112,440	8.9
1988	1,153	114,968	10.0
1989	1,038	117,342	8.8
1990	1,203	118,793	10.1
1991	1,137	117,718	9.7
1992	1,106	118,492	9.3
1993	1,055	120,259	8.8
1994	1,006	123,060	8.2
1995	986	124,900	7.9
1996	932	126,708	7.4
1997	1,049	129,558	8.1
1998	1,029	131,463	7.8
1999	1,013	133,488	7.6
2000	972	136,891	7.1
2001	1,001	136,933	7.3
2002	1,017	136,485	7.5
2003	1,038	137,736	7.5
2004	1,006	139,252	7.2
2005	956	141,730	6.7
2006	948	144,427	6.6
2007	948	146,047	6.5
2008	936	145,362	6.4
2009	929	139,877	6.6
2010	1,016	139,064	7.3
2011	1,059	139,869	7.6
2012	1,006	142,469	7.1
2013	994	143,929	6.9
2014	986	146,305	6.7
2015	943	148,834	6.3
2016	1,030	151,436	6.8

[1]Compliance officers for 1973 to 1989 from Twentieth Century OSHA Enforcement Data, A Review and Explanation of the Major Trends, U.S. Department of Labor, 2002; Compliance officers for 1990 to 2016 from OSHA Directorate of Enforcement Programs. Compliance officer totals include safety and industrial hygiene CSHOs and supervisory safety and industrial hygiene CSHOs.

[2]Employment is an annual average of employed civilians, 16 years of age and older, from the Current Population Survey (CPS), Bureau of Labor Statistics.

Federal OSHA Compliance Officers per Million U.S. Workers, 1974–2016[1]

Source: Employment data from Current Population Survey, Bureau of Labor Statistics.

[1]Compliance officers from U.S. Department of Labor, OSHA Directorate of Enforcement Programs, includes CSHOs and their supervisors.

Job Safety and Health Appropriations
FY 2007–2017

CATEGORY	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013[4]	FY 2014	FY 2015	FY 2016	*FY 2017 Request*[5]
OSHA (in thousands of dollars)											
TOTAL	486,925	486,001	513,042[2]	558,620	558,619	564,788	535,246	552,247	552,787	552,787	*595,023*
Safety and Health Standards	16,892	16,597	17,204	19,569	20,288	19,962	18,918	20,000	20,000	20,000	*23,173*
Federal Enforcement	176,973	182,136	197,946	223,399	208,146	207,753	207,928	207,785	208,000	208,000	*225,972*
Whistleblower Protection					14,806	15,873	15,043	17,000	17,500	17,500	*21,604*
State Enforcement	91,093	89,502	92,593	104,393	104,393	104,196	98,746	100,000	100,850	100,850	*104,337*
Technical Support	22,392	21,681	22,632	25,920	25,868	25,820	24,344	24,344	24,469	24,469	*25,404*
Federal Compliance Assistance	72,659	71,390	72,659	73,380	73,383	76,355	61,444	69,433	68,433	68,433	*72,783*
State Compliance Assistance	53,357	52,425	54,531	54,798	54,688	57,890	54,862	57,775	57,775	57,775	*59,775*
Training Grants	10,116	9,939	10,000	10,750	10,729	10,709	10,149	10,687	10,537	10,537	*10,537*
Safety and Health Statistics	32,274	31,522	34,128	34,875	34,805	34,739	32,922	34,250	34,250	34,250	*40,095*
Executive Administration	11,169	10,809	11,349	11,536	11,513	11,491	10,890	10,973	10,973	10,973	*11,343*
MSHA (in thousands of dollars)											
TOTAL	301,570	333,925	347,003	357,293	361,844[3]	372,524	353,768	375,887	375,887	375,887	*397,372*
Coal Enforcement	120,396	154,670	154,491	158,662	160,639	164,500	158,713	167,859	167,859	164,296	*171,768*
Metal/Nonmetal Enforcement	72,506	71,420	82,427	85,422	87,644	89,063	86,121	91,697	91,697	94,697	*97,563*
Standards Development	2,727	3,180	3,031	3,481	4,352	4,765	4,547	5,416	5,416	5,416	*6,197*
Assessments	6,556	6,134	6,134	6,233	6,221	7,103	7,036	6,976	6,976	7,089	*8,277*
Education Policy and Development	35,326	36,605	38,605	38,605	38,148	38,325	31,898	36,320	36,320	36,320	*40,419*
Technical Support	29,237	29,476	30,117	30,642	31,031	33,613	32,050	33,791	33,791	34,241	*35,041*
Program Administration	13,637	16,504	15,684	17,391	15,906	16,998	15,974	15,838	15,838	15,838	*16,292*
Program Eval. and Info Resources	21,185	15,936	16,514	16,857	18,173	18,157	17,429	17,990	17,990	17,990	*21,815*
NIOSH (in thousands of dollars)											
TOTAL[1]	252,100	381,955	360,059	373,171	316,079	292,588	323,059	332,860	334,863	339,121	*285,621*

Sources: Budget of the U.S. Government, FY 2007–FY 2017, and U.S. Department of Labor Congressional Budget Justification, FY 2007–FY 2017.

[1]Does not include $55 million in mandatory funding for the Energy Employees Occupational Injury Compensation Program or mandatory funding for the 9/11 Health Program.

[2]Does not include $7 million in American Recovery and Reinvestment Act funding provided to OSHA in FY 2009 and FY 2010.

[3]Includes $6.5 million for addressing the backlog of contested cases, of which up to $3 million may be transferred to the DOL's Office of Solicitor.

[4]The FY 2013 funding levels reflect the budget cuts mandated by the budget sequester.

[5]As of April 7, 2017, Congress had not finalized FY 2017 funding. Agencies were being funded under a continuing resolution at FY 2016 levels.

Funding for OSHA Worker Safety Training Programs vs. Employer Compliance Assistance Programs, FY 2001–2017 ($ in thousands)

Fiscal Year	Worker Safety and Health Training	Employer Compliance Assistance (Federal and State)
FY 2001 Enacted	$11,175	$105,100
FY 2002 Request	$8,175	$106,000
FY 2002 Enacted	$11,175	$109,800
FY 2003 Request	$4,000	$112,800
FY 2003 Enacted	$11,175	$115,300
FY 2004 Request	$4,000	$120,000
FY 2004 Enacted	$11,100	$120,000
FY 2004 Rescission	$10,500	$119,200
FY 2005 Request	$4,000	$125,200
FY 2005 Enacted	$10,500	$124,200
FY 2006 Request	$0	$124,200
FY 2006 Enacted	$10,100	$125,900
FY 2007 Request	$0	$129,900
FY 2007 Enacted	$10,100	$126,000
FY 2008 Request	$0	$134,100
FY 2008 Enacted	$9,900	$123,800
FY 2009 Request	$0	$131,100
FY 2009 Enacted	$10,000	$127,200
FY 2010 Request	$10,000	$128,175
FY 2010 Enacted	$10,750	$128,200
FY 2011 Request	$11,000	$126,100
FY 2011 Enacted	$10,729	$128,200
FY 2012 Request	$12,000	$129,800
FY 2012 Enacted	$10,700	$134,200
FY 2013 Request	$10,700	$131,000
FY 2013 Enacted[1]	$10,150	$116,300
FY 2014 Request	$10,700	$133,200
FY 2014 Enacted	$10,700	$127,200
FY 2015 Request	$10,700	$128,200
FY 2015 Enacted	$10,500	$126,200
FY 2016 Request	$10,700	$130,800
FY 2016 Enacted	$10,537	$126,558
FY 2017 Request[2]	$10,537	$132,558

Sources: Department of Labor, Occupational Safety and Health Administration, Congressional Budget Justification, FY 2002–FY 2017.

[1]FY 2013 funding levels reflect the budget cuts mandated by the sequester.

[2]As of April 7, 2017, Congress had not finalized FY 2017 funding. Agencies were being funded under a continuing resolution at FY 2016 levels. President Trump submitted a budget blueprint for FY 2018 in March with few details, which proposed to eliminate funding OSHA's worker safety and health training program (Harwood Grants).

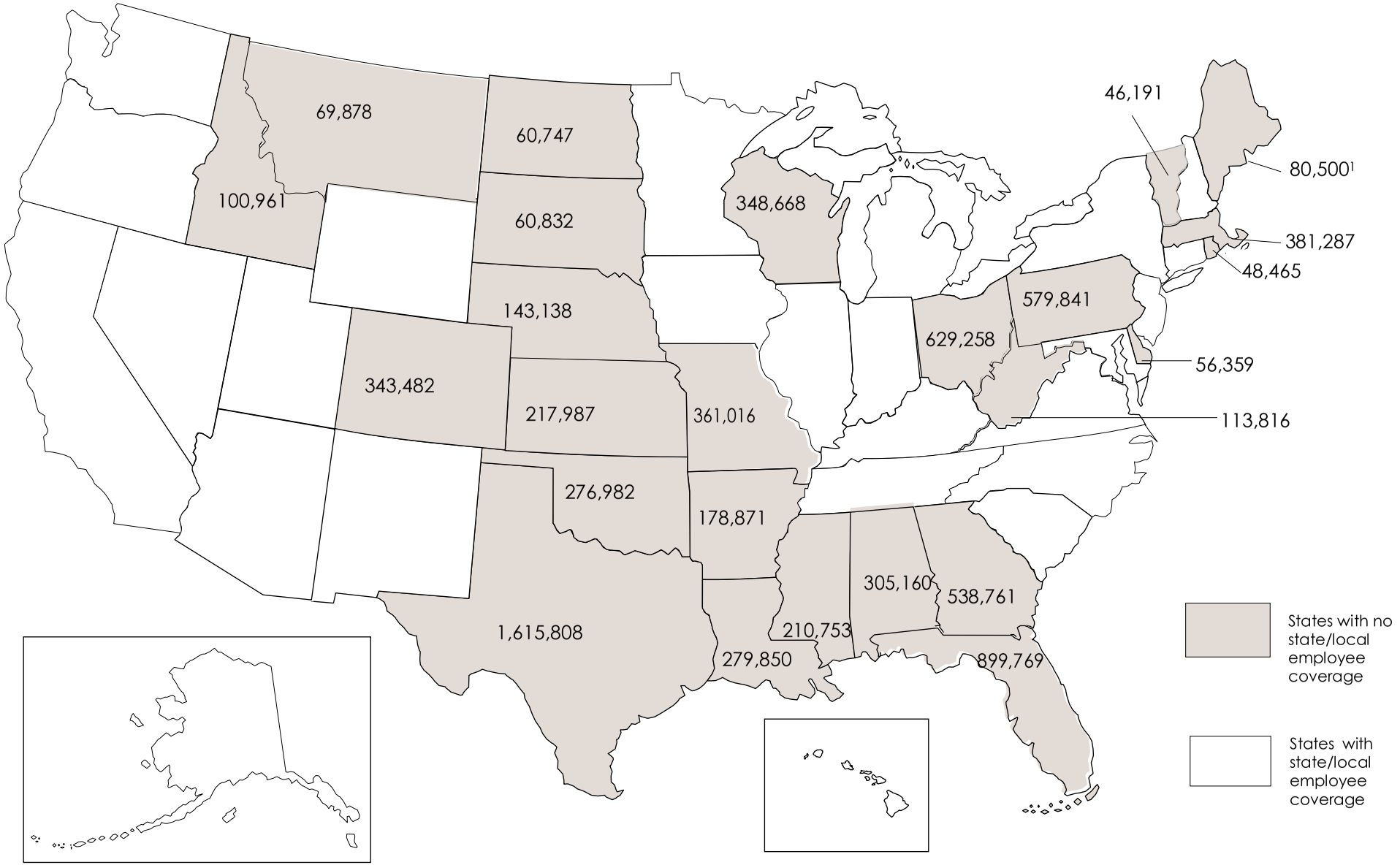
Number of U.S. Establishments and Employees Covered per OSHA Full-Time Equivalent (FTE) Staff, 1980–2015

Fiscal Year	Annual Average Employment[1]	Annual Average Establishments[1]	OSHA Full-Time Equivalent (FTE) Staff[2]	Employees Covered Per OSHA FTE	Establishments Covered Per OSHA FTE
1980	73,395,500	4,544,800	2,951	24,871	1,540
1985	96,314,200	5,305,400	2,239	43,017	2,370
1990	108,657,200	6,076,400	2,425	44,807	2,506
1995	115,487,841	7,040,677	2,196	52,590	3,206
2000	129,877,063	7,879,116	2,259	57,493	3,488
2005	131,571,623	8,571,144	2,208	59,589	3,882
2006	133,833,834	8,784,027	2,165	61,817	4,057
2007	135,366,106	8,971,897	2,165	62,525	4,144
2008	134,805,659	9,082,049	2,118	63,648	4,288
2009	128,607,842	9,003,197	2,147	59,901	4,193
2010	127,820,442	8,993,109	2,335	54,741	3,851
2011	129,411,095	9,072,796	2,335	55,422	3,886
2012	131,696,378	9,121,868	2,305	57,135	3,957
2013	133,968,434	9,205,888	2,226	60,183	4,136
2014	136,613,609	9,361,354	2,238	61,043	4,183
2015	139,491,699	9,522,775	2,224	62,721	4,282

[1]U.S. Department of Labor, Bureau of Labor Statistics, Employment and Wages, Annual Averages (Total Covered).

[2]U.S. Department of Labor, Occupational Safety and Health Administration (OSHA).

8.0 Million State and Local Employees Lacked OSHA Coverage in 2015



Source: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Wages: Annual Averages, 2015.

[1]Maine state plan for public employees went into effect Aug. 5, 2015.

Prepared by the AFL-CIO

Profiles of Mine Safety and Health
2007–2015

Coal Mines

	2007	2008	2009	2010	2011	2012	2013	2014[3]	2015[3]
No. of coal mines	2,030	2,129	2,076	1,944	1,973	1,871	1,701	1,632	1,460
No. of miners	122,936	133,828	134,089	135,500	143,437	137,650	123,259	116,010	102,804
Fatalities	34	30	18	48	20	20	20	16	12
Fatal injury rate[1]	0.0293	0.0237	0.0148	0.0384	0.0156	0.0159	0.0176	0.0150	0.0131
All injury rate[1]	4.21	3.89	3.69	3.43	3.38	3.16	3.11	3.11	2.91
States with coal mining	26	26	26	26	26	26	26	26	26
Coal production (millions of tons)	1,147	1,172	1,075	1,086	1,095	1,018	984	1,000	897
Citations and orders issued[2]	84,184	106,871	102,057	96,814	93,630	79,250	63,493	62,684	49,417

Metal and Nonmetal Mines

	2007	2008	2009	2010	2011	2012	2013	2014[3]	2015[3]
No. of metal/nonmetal mines	12,841	12,778	12,555	12,339	12,230	12,222	12,060	11,976	11,839
No. of miners	255,187	258,918	221,631	225,676	237,772	250,228	251,263	250,574	247,094
Fatalities	33	23	17	23	16	16	22	30	17
Fatal injury rate[1]	0.0149	0.0107	0.0098	0.0129	0.0084	0.0079	0.0103	0.0142	0.0084
All injury rate[1]	3.02	2.87	2.54	2.37	2,28	2.19	2.11	2.09	2.02
States with M/NM mining	50	50	50	50	50	50	50	50	50
Citations and orders issued[2]	59,941	66,785	71,361	74,095	63,983	60,520	55,126	58,790	58,548

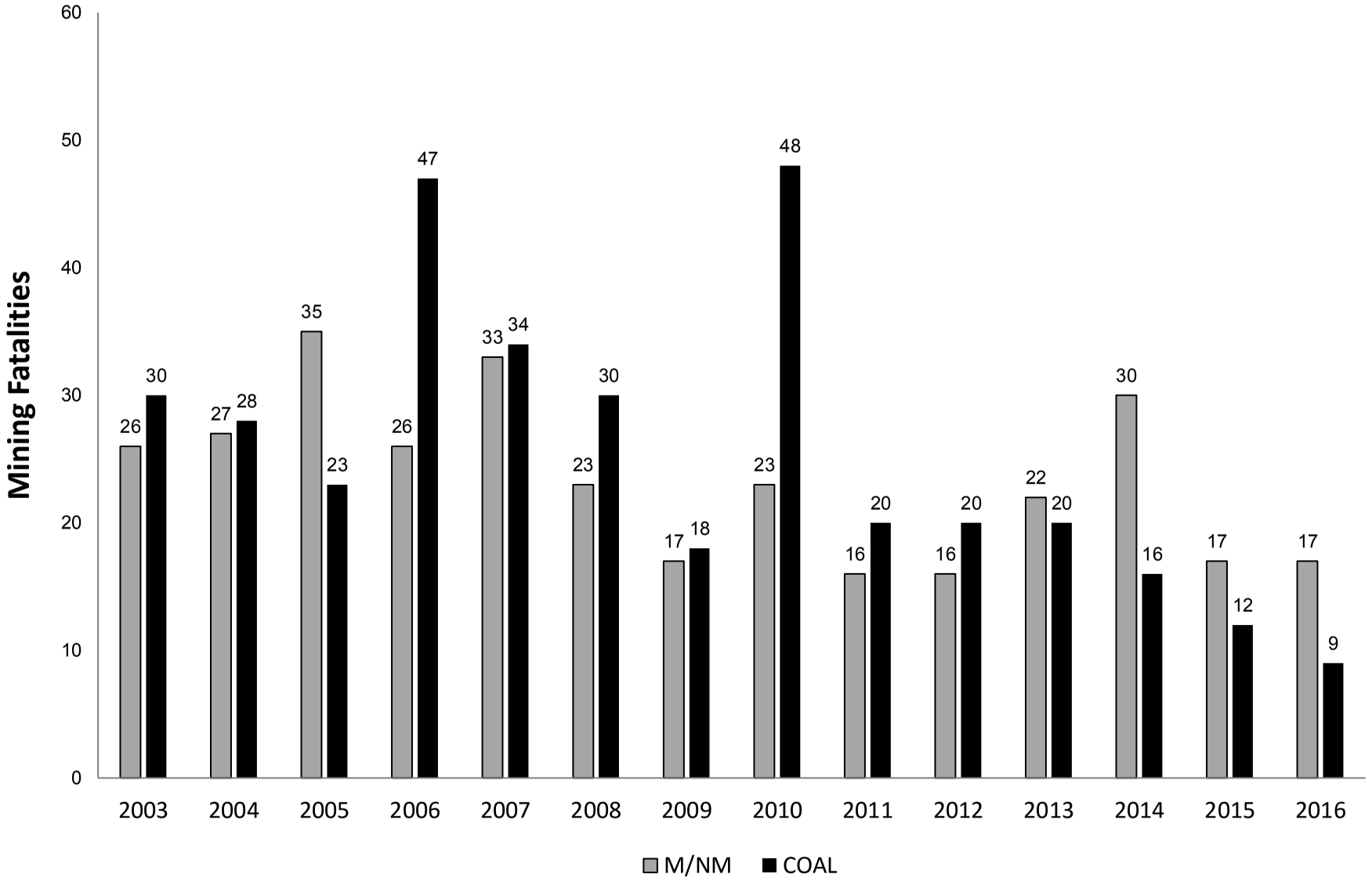
Source: U.S. Department of Labor, Mine Safety and Health Administration (MSHA).

[1]All reported injuries per 200,000 employee hours.

[2]Citations and orders are those not vacated.

[3]Includes operator and contractor employees.

Coal and Metal/Nonmetal Mining Fatality Comparisons, 2003–2016



Source: U.S. Department of Labor, Mine Safety and Health Administration (MSHA).

Coal Mining Fatalities by State, 2002–2016

State	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Alabama	1	1	2	4	2	3	2	3	2		3	1	1	1	1
Alaska															
Arizona					1					1					
Arkansas															
California															
Colorado						1				1	1				
Connecticut															
Delaware															
Florida															
Georgia															
Hawaii															
Idaho															
Illinois		3					1	2	2		1	4	1	3	1
Indiana	1	1	1			3	1		1		1	1	1		
Iowa															
Kansas															
Kentucky	10	10	6	8	16	2	8	6	7	8	4	2	2	2	2
Louisiana								1							
Maine															
Maryland					1	2									
Massachusetts															

Coal Mining Fatalities by State, 2002–2016

State	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Michigan															
Minnesota															
Mississippi															
Missouri															
Montana					1				1				1		
Nebraska															
Nevada															
New Hampshire															
New Jersey															
New Mexico	1					1									
New York															
North Carolina															
North Dakota															
Ohio				1						2	1	1			
Oklahoma				1		1									
Oregon															
Pennsylvania	3	1	1	4	1	1	5	1				2		3	1
Puerto Rico															
Rhode Island															
South Carolina															
South Dakota															

Coal Mining Fatalities by State, 2002–2016

State	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Tennessee			1					1			1				
Texas						1	1								
Utah	1		2		1	10						1	1		
Vermont															
Virginia	4	3	3		1		2	1		1	1		2	1	
Washington															
West Virginia	6	9	12	4	23	9	9	3	35	6	7	6	5	2	4
Wisconsin															
Wyoming	1	2		1			1			1		2	2		
Total	28	30	28	23	47	34	30	18	48	20	20	20	16	12	9

Source: U.S. Department of Labor, Mine Safety and Health Administration (MSHA).

Metal and Nonmetal Mining Fatalities by State, 2002–2016

State	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Alabama		2		1					1		1				
Alaska					2	3				2					
Arizona	4			2	1	2	2	1	2		1	1	1		1
Arkansas	1	1				2		1							1
California		2			2	3	2	1	2		1	2		1	
Colorado	2	1		2								2			
Connecticut															
Delaware															
Florida	4			2	1				1	1	2		1	1	1
Georgia	1	1	1				1	1	1			2		1	1
Hawaii															
Idaho	1								1	2			1		
Illinois	2	1											1		
Indiana	1		2		1	1							1		
Iowa			1				2	1		1			1	1	1
Kansas		1					1		2			1	1		
Kentucky		1		3	1		1	2			1	4	1		1
Louisiana					1	1		1				1	1		
Maine															
Maryland	1								1		1				
Massachusetts					1									1	

Metal and Nonmetal Mining Fatalities by State, 2002–2016

State	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Michigan	1	1	2	1	3										1
Minnesota				1	3	2			1	2					
Mississippi				2											2
Missouri	3		2	1		2	2	2				2	2	2	
Montana				1		1				1	2		1		
Nebraska	1			1		1					1			1	
Nevada	2	2	4	3		2	3	1	2	1	1	2	2	3	1
New Hampshire		1				1								1	
New Jersey		1		1											
New Mexico	2	1	1	2			1	1				1			
New York	1		1				1		1	1	3		2		
North Carolina		1	1			1				1	1				1
North Dakota														1	
Ohio		2		2		2				1			1	1	
Oklahoma			2						3		1				
Oregon	2	1	2	1	1	1									
Pennsylvania			2	1	2		2	1		1		1	2	1	
Puerto Rico	1				1	1		1							
Rhode Island															
South Carolina	1	2	1	1									2		
South Dakota	1														

Metal and Nonmetal Mining Fatalities by State, 2002–2016

State	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Tennessee	3	1	1	1	2	1		1	1			1			1
Texas	4	2	3	2	1	2	3	2	2			1	5	1	2
Utah					1		1		1	1			2		1
Vermont															
Virginia				1	1	1							2	1	1
Washington	1	1		1	1	1			1	1					1
West Virginia						1									
Wisconsin				1			1								
Wyoming	2		1	1		1									
Total	42	26	27	35	26	33	23	17	23	16	16	22	30	17	17

Source: U.S. Department of Labor, Mine Safety and Health Administration (MSHA).

MSHA Impact Inspections, 2016[1]

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	Year Totals
Coal													
Number of Impact Inspections	11	10	10	10	13	11	11	11	11	10	10	10	128
Total # Citations Issued	95	99	101	82	70	65	85	58	89	96	86	84	1,010
# Orders[2] Issued	4	6	0	3	0	0	0	0	0	0	3	0	16
# S&S[3] Citations Issued	24	31	36	23	18	19	25	18	34	26	30	27	311
% S&S Citations	25%	31%	36%	28%	26%	29%	29%	31%	38%	27%	35%	32%	31%
Metal/Nonmetal													
Number of Impact Inspections	6	5	6	3	1	6	6	6	5	5	7	5	61
Total # Citations Issued	43	47	56	8	19	49	76	47	57	34	66	48	550
# Orders[2] Issued	0	0	1	0	0	4	0	1	6	0	2	2	16
# S&S[3] Citations Issued	10	15	20	2	10	23	27	14	26	8	31	8	194
% S&S Citations	23%	32%	36%	25%	53%	47%	36%	30%	46%	24%	47%	17%	35%

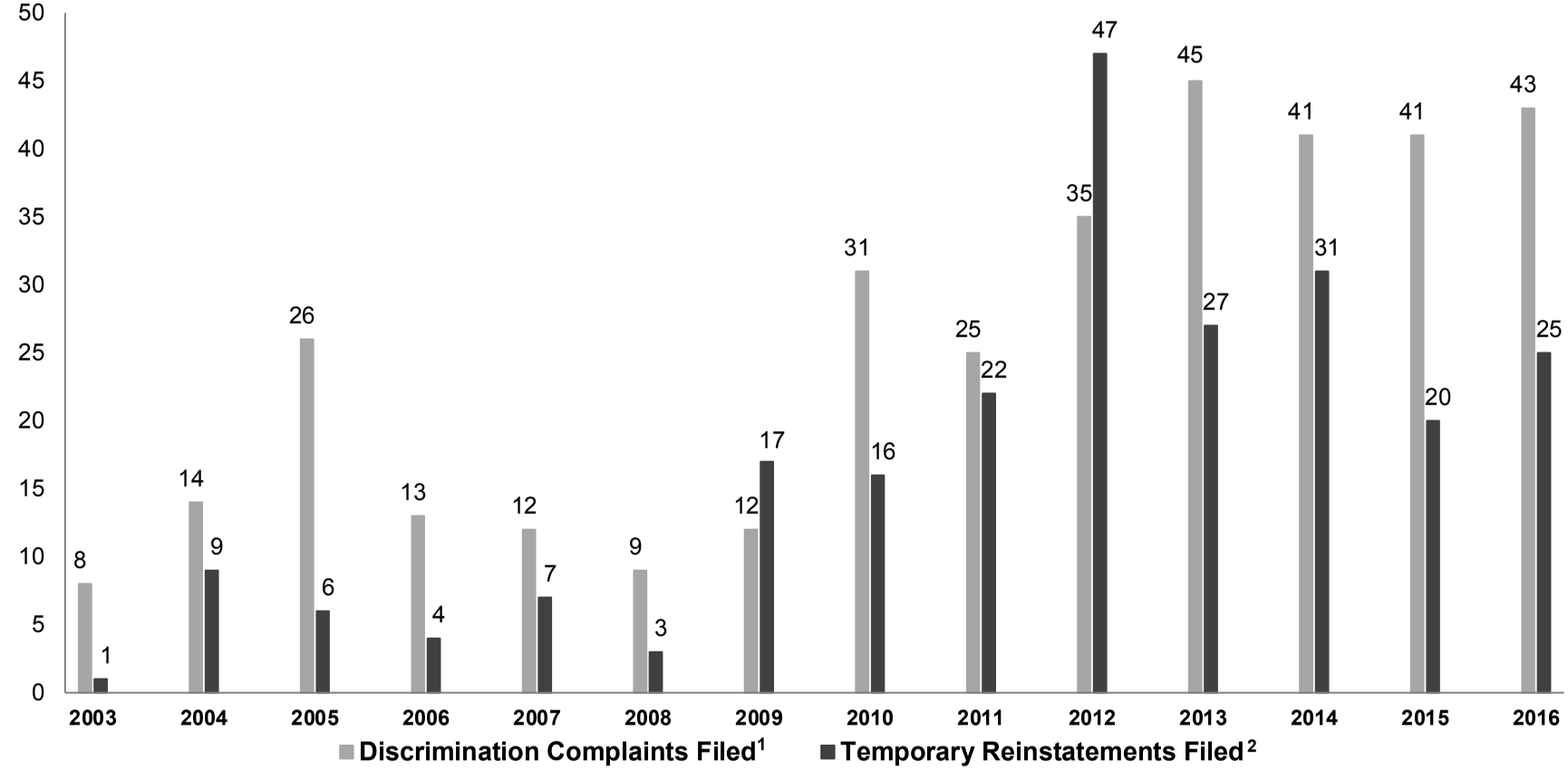
Source: Mine Safety and Health Administration (MSHA).

[1]Impact inspections were initiated after the April 2010 explosion at the Upper Big Branch Mine. The inspections are conducted at mines with a poor compliance history with MSHA standards, high numbers of injuries, illnesses or fatalities, and other indicators of unsafe mines.

[2]MSHA can issue orders to mine operators that require them to withdraw miners from affected areas of the mine for failure to abate violations, for "unwarrantable failure" (reckless disregard, intentional misconduct) to correct significant and substantial violations, and where imminent danger exists. Miners remain withdrawn from the affected area until the violation(s) are abated.

[3]A Significant and Substantial (S&S) citation is a violation of a mandatory MSHA standard in which the hazard resulting from the violation has a reasonable likelihood of resulting in an injury of a reasonably serious nature.

MSHA Discrimination Complaints and Temporary Reinstatements Filed by the Department of Labor on Behalf of Miners, 2003–2016



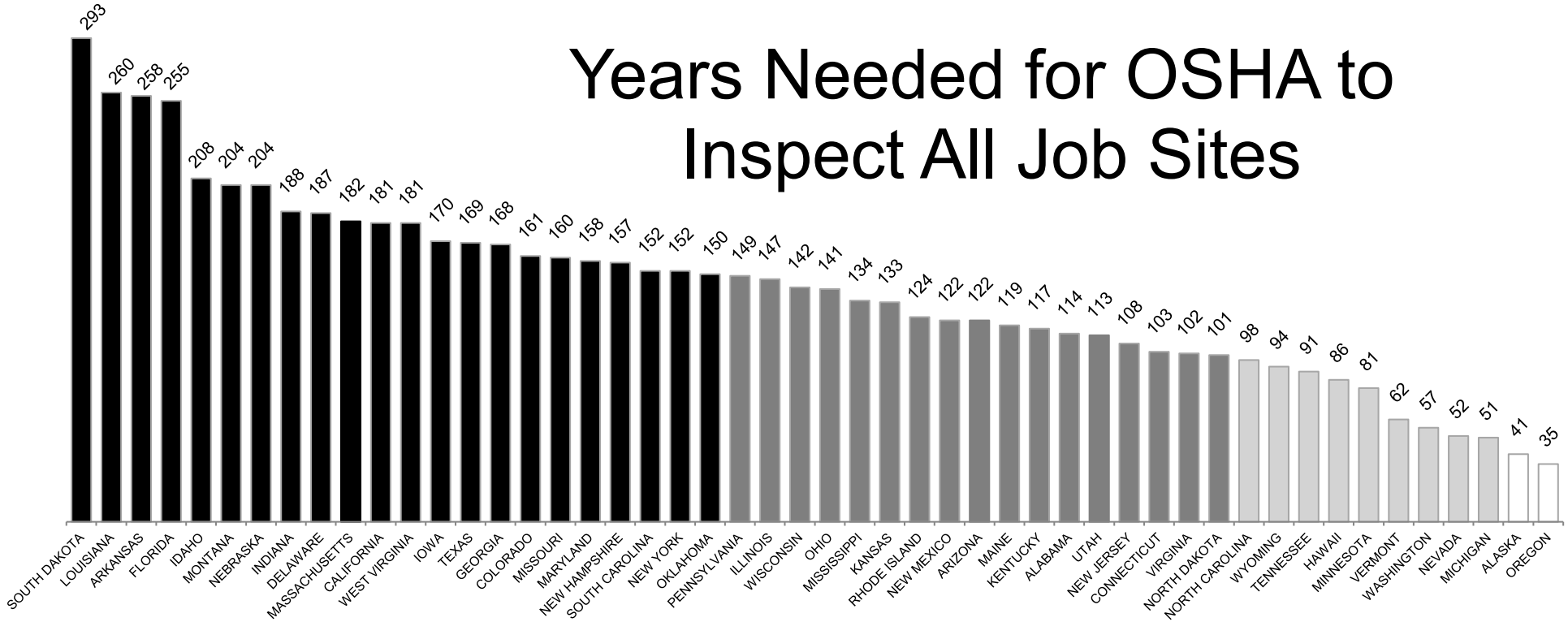
Source: Mine Safety and Health Administration.

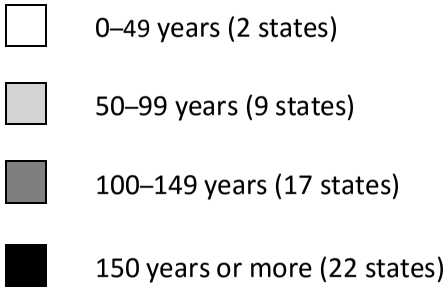
[1]Under Section 105(c)(2) of the Federal Mine Safety and Health Act, any miner who thinks he or she has been discharged, interfered with or discriminated against for exercising his or her rights under the act may file a discrimination complaint.

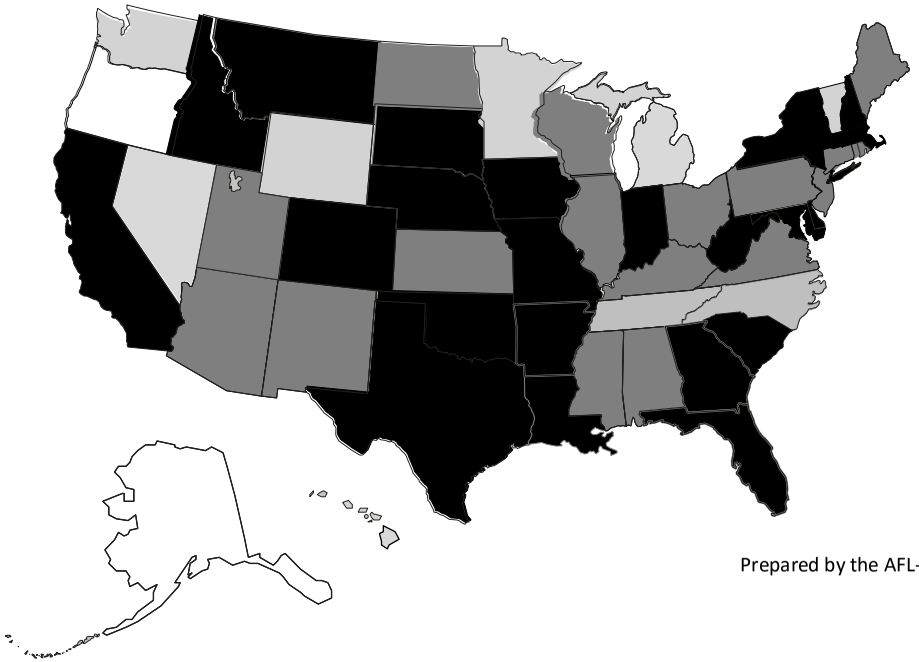
[2]If the Mine Safety and Health Administration (MSHA) finds that a miner's discrimination complaint is "not frivolously brought," MSHA will ask the Federal Mine Safety and Health Review Commission to order immediate reinstatement of the miner while the discrimination case is pending.

STATE COMPARISONS

Years Needed for OSHA to Inspect All Job Sites







Sources: U.S. Department of Labor, Bureau of Labor Statistics, "Employment and Wages Annual Averages 2015," and Occupational Safety and Health Administration OIS data on worksite inspections, FY 2016.

Prepared by the AFL-CIO

Number of OSHA Inspectors by State Compared with ILO Benchmark Number of Labor Inspectors[1]

State	Number of Employees[1]	Actual Number of OSHA Inspectors[2,3]		Number of Labor Inspectors Needed to Meet ILO Benchmark[4]	Ratio of OSHA Inspectors/Number of Employees
		Federal	State		
Alabama	1,890,340	24	0	189	1/78,764
Alaska	331,681	3	9	33	1/27,640
Arizona	2,609,770	2	23	261	1/104,391
Arkansas	1,177,884	7	0	118	1/168,269
California	16,295,204	6	210	1,630	1/75,441
Colorado	2,494,450	30	0	249	1/83,148
Connecticut	1,662,825	17	5	166	1/75,583
Delaware	433,748	4	0	43	1/108,437
Florida	8,039,635	62	0	804	1/129,672
Georgia	4,151,011	46	0	415	1/90,239
Hawaii	637,854	4	17	64	1/30,374
Idaho	664,792	8	0	66	1/83,099
Illinois	5,848,451	61	9	585	1/83,549
Indiana	2,941,991	0	28	294	1/105,071
Iowa	1,530,234	2	22	153	1/63,760
Kansas	1,367,329	28	0	137	1/48,833
Kentucky	1,835,550	0	34	184	1/53,987
Louisiana	1,930,688	13	0	193	1/148,514
Maine	595,889	7	3	60	1/59,589
Maryland	2,591,189	6	42	259	1/53,983
Massachusetts	3,428,020	29	0	343	1/118,208
Michigan	4,161,641	1	55	416	1/74,315

Number of OSHA Inspectors by State Compared with ILO Benchmark Number of Labor Inspectors[1]

State	Number of Employees[1]	Actual Number of OSHA Inspectors[2,3] Federal	State	Number of Labor Inspectors Needed to Meet ILO Benchmark[4]	Ratio of OSHA Inspectors/Number of Employees
Minnesota	2,776,684	0	40	278	1/69,417
Mississippi	1,114,379	11	0	111	1/101,307
Missouri	2,715,579	14	0	272	1/193,970
Montana	448,688	7	0	45	1/64,098
Nebraska	959,176	9	0	96	1/106,575
Nevada	1,244,635	3	42	124	1/27,659
New Hampshire	636,806	7	0	64	1/90,972
New Jersey	3,889,975	42	9	389	1/76,274
New Mexico	806,762	0	10	81	1/80,676
New York	9,014,385	67	26	901	1/96,929
North Carolina	4,161,654	2	83	416	1/48,961
North Dakota	437,072	7	0	44	1/62,439
Ohio	5,257,971	59	0	526	1/89,118
Oklahoma	1,594,011	16	0	159	1/99,626
Oregon	1,787,398	4	68	179	1/24,825
Pennsylvania	5,691,613	54	0	569	1/105,400
Rhode Island	469,981	7	0	47	1/67,140
South Carolina	1,949,881	2	17	195	1/102,625
South Dakota	416,020	2	0	42	1/208,010
Tennessee	2,820,198	3	35	282	1/74,216
Texas	11,655,919	91	0	1,166	1/128,087
Utah	1,340,591	0	18	134	1/74,477
Vermont	307,058	0	7	31	1/43,865

Number of OSHA Inspectors by State Compared with ILO Benchmark Number of Labor Inspectors[1]

State	Number of Employees[1]	Actual Number of OSHA Inspectors[2,3] Federal	State	Number of Labor Inspectors Needed to Meet ILO Benchmark[4]	Ratio of OSHA Inspectors/Number of Employees
Virginia	3,735,713	3	46	374	1/76,239
Washington	3,122,749	3	108	312	1/28,133
West Virginia	696,195	6	0	70	1/116,033
Wisconsin	2,794,170	30	0	279	1/93,139
Wyoming	282,667	0	5	28	1/56,533
Totals[5]	140,426,858	1,838[6]		14,043	1/76,402

[1]U.S. Department of Labor, Bureau of Labor Statistics, Employment and Wages, Annual Averages 2015.

[2]From OSHA records for FY 2017. Includes only safety and industrial hygiene Compliance Safety and Health Officers (CSHOs) who conduct workplace inspections and does not include supervisory CSHOs. Federal CSHOs provided by OSHA's Directorate of Enforcement Programs, CSHO Count By Area Office as of Feb. 24, 2017. State plan CSHOs provided by OSHA's Directorate of Cooperative and State Programs as of Feb. 24, 2017, and includes "on board" safety and health CSHOs from the FY 2017 State Plan Grant Applications. The number of "on board" CSHOs may not accurately reflect the true number of CSHOs actually hired and conducting enforcement inspections due to possible budgetary reasons in any particular state.

[3]Under the OSHAct, states may operate their own OSHA programs. Twenty-one states and one territory have state OSHA programs covering both public- and private-sector workers. Connecticut, Illinois, Maine, New Jersey and New York have state programs covering state and local employees. Maine's state program went into effect Aug. 5, 2015.

[4]The ILO benchmark for labor inspectors is one inspector per 10,000 workers in industrial market economies. International labor Organization, International Labor Office. Strategies and Practice for Labor Inspection. G.B.297/ESP/3. Geneva, November 2006.

[5]Totals include employees and inspectors from the District of Columbia, Puerto Rico and the Virgin Islands.

[6]Total number of inspectors includes two inspectors in the Virgin Islands and 52 inspectors in Puerto Rico.

Profile of Workplace Safety and Health in the United States

State	Fatalities 2015[1]			Injuries/Illnesses 2015[2]		Penalties FY 2016[3]		Inspectors[4,5]		Years to Inspect Each Workplace Once[6]	State or Federal Program
	Number	Rate	Rank[7]	Number	Rate	Average ($)	Rank[8]	Federal	State		
Alabama	70	3.7	27	38,400	3.0	2,582	9	24	0	114	Federal
Alaska	14	4.1	32	8,500	3.9	1,079	43	3	9	41	State
Arizona	69	2.4	7	54,100	2.9	1,002	44	2	23	122	State
Arkansas	74	5.8	45	22,400	2.6	2,480	17	7	0	258	Federal
California	388	2.2	5	363,100	3.3	7,131	1	6	210	181	State
Colorado	75	2.9	17	N/A	N/A	2,044	30	30	0	161	Federal
Connecticut	44	2.6	10	36,300	3.2	2,142	27	17	5	103	Federal[5]
Delaware	8	1.9	2	7,800	2.6	2,878	4	4	0	187	Federal
Florida	272	3.1	21	N/A	N/A	2,451	19	62	0	255	Federal
Georgia	180	4.3	34	78,400	2.7	2,392	24	46	0	168	Federal
Hawaii	18	2.6	10	13,100	3.4	1,604	34	4	17	86	State
Idaho	36	4.8	38	N/A	N/A	2,485	14	8	0	208	Federal
Illinois	172	2.9	17	118,200	2.9	2,380	25	61	9	147	Federal[5]
Indiana	115	3.9	29	75,400	3.7	1,000	45	0	28	188	State
Iowa	60	3.9	29	39,500	3.7	1,488	38	2	22	170	State
Kansas	60	4.4	36	28,100	3.0	2,144	26	28	0	133	Federal

Profile of Workplace Safety and Health in the United States

State	Fatalities 2015[1]			Injuries/Illnesses 2015[2]		Penalties FY 2016[3]		Inspectors[4,5]		Years to Inspect Each Workplace Once[6]	State or Federal Program
	Number	Rate	Rank[7]	Number	Rate	Average ($)	Rank[8]	Federal	State		
Kentucky	99	5.5	42	43,300	3.5	3,295	2	0	34	117	State
Louisiana	112	5.8	45	26,100	1.9	2,847	5	13	0	260	Federal
Maine	15	2.5	9	19,200	4.8	2,508	12	7	3	119	Federal[5]
Maryland	69	2.4	7	50,400	2.9	650	49	6	42	158	State
Massachusetts	69	2.1	3	65,300	2.7	2,484	15	29	0	182	Federal
Michigan	134	3.1	21	96,000	3.3	763	48	1	55	51	State
Minnesota	74	2.7	13	65,600	3.5	832	46	0	40	81	State
Mississippi	77	6.8	47	N/A	N/A	2,440	20	11	0	134	Federal
Missouri	117	4.3	34	55,700	3.0	2,466	18	14	0	160	Federal
Montana	36	7.5	48	12,000	4.3	1,803	33	7	0	204	Federal
Nebraska	50	5.4	41	22,500	3.4	2,891	3	9	0	204	Federal
Nevada	44	3.5	25	33,400	3.8	1,157	41	3	42	52	State
New Hampshire	18	2.7	13	N/A	N/A	2,425	21	7	0	157	Federal
New Jersey	97	2.3	6	72,000	2.7	2,533	11	42	9	108	Federal[5]
New Mexico	35	4.1	32	16,300	3.1	1,140	42	0	10	122	State
New York	236	2.7	13	148,000	2.4	2,492	13	67	26	152	Federal[5]

Profile of Workplace Safety and Health in the United States

State	Fatalities 2015[1]			Injuries/Illnesses 2015[2]		Penalties FY 2016[3]		Inspectors[4,5]		Years to Inspect Each Workplace Once[6]	State or Federal Program
	Number	Rate	Rank[7]	Number	Rate	Average ($)	Rank[8]	Federal	State		
North Carolina	150	3.4	24	74,100	2.6	1,582	35	2	83	98	State
North Dakota	47	12.5	50	N/A	N/A	2,723	7	7	0	101	Federal
Ohio	202	3.9	29	104,700	2.8	2,679	8	59	0	141	Federal
Oklahoma	91	5.5	42	N/A	N/A	2,017	31	16	0	150	Federal
Oregon	44	2.6	10	44,700	3.7	570	50	4	68	35	State
Pennsylvania	173	3.0	20	144,900	3.5	2,484	15	54	0	149	Federal
Rhode Island	6	1.2	1	N/A	N/A	2,077	29	7	0	124	Federal
South Carolina	117	5.6	44	32,900	2.5	790	47	2	17	152	State
South Dakota	21	4.9	39	N/A	N/A	2,419	22	2	0	293	Federal
Tennessee	112	3.7	27	61,200	3.1	1,566	36	3	35	91	State
Texas	527	4.5	37	189,500	2.3	2,397	23	91	0	169	Federal
Utah	42	3.2	23	31,300	3.5	1,322	39	0	18	113	State
Vermont	9	2.9	17	9,100	4.6	1,201	40	0	7	62	State
Virginia	106	2.8	16	58,700	2.4	1,504	37	3	46	102	State
Washington	70	2.1	3	90,700	4.4	2,118	28	3	108	57	State
West Virginia	35	5.0	40	15,400	3.2	1,916	32	6	0	181	Federal

Profile of Workplace Safety and Health in the United States

State	Fatalities 2015[1]			Injuries/Illnesses 2015[2]		Penalties FY 2016[3]		Inspectors[4,5]		Years to Inspect Each Workplace Once[6]	State or Federal Program
	Number	Rate	Rank[7]	Number	Rate	Average ($)	Rank[8]	Federal	State		
Wisconsin	104	3.6	26	68,400	3.6	2,573	10	30	0	142	Federal
Wyoming	34	12.0	49	6,200	3.3	2,732	6	0	5	94	State
Total or National Average:	**4,836**	**3.4**		**2.9 Million**	**3.0**	**2,087[9]**		**1,838[10]**		**126[11]**	

[1]The state fatality rates are calculated by BLS as deaths per 100,000 equivalent workers.

[2]Bureau of Labor Statistics, rate of total cases per 100 workers. Number and rate are for private sector only and include Guam, Puerto Rico and the Virgin Islands.

[3]U.S. Department of Labor, OSHA. OIS Inspection Reports, FY 2016. Penalties shown are average current penalty per serious citation for conditions creating a substantial probability of death or serious physical harm to workers. For Connecticut, Illinois, Maine, New Jersey and New York, averages are based only on federal penalty data.

[4]Includes only safety and industrial hygiene Compliance Safety and Health Officers (CSHOs) who conduct workplace inspections and does not include supervisory CSHOs. Federal CSHOs provided by OSHA's Directorate of Enforcement Programs, CSHO Count By State as of Feb. 24, 2017. State plan CSHOs provided by OSHA's Directorate of Cooperative and State Programs and includes "on board" safety and health CSHOs from the FY 2017 State Plan Grant Applications as of Feb. 24, 2017. The number of "on board" CSHOs may not accurately reflect the true number of CSHOs actually hired and conducting enforcement inspections due to possible budgetary issues in any particular state.

[5]Under the OSHAct, states may operate their own OSHA programs. Twenty-one states and one territory have state OSHA programs covering both public- and private-sector workers. Connecticut, Illinois, Maine, New Jersey, and New York have state programs covering state and local employees only. Maine's state program went into effect August 5, 2015.

[6]Years to inspect is based on the number of establishments in 2015 and the number of OSHA inspections in FY 2016. The number of establishments in OSHA's jurisdiction includes private-sector establishments (except mining) and federal establishments. For any state with a plan that covers public-sector employees, state and local establishments also are included.

[7]Rankings are based on best-to-worst fatality rate (1–best, 50–worst).

[8]Rankings are based on highest-to-lowest average penalty ($) per serious violation (1–highest, 50–lowest).

[9]National average is per citation average for federal OSHA serious penalties and state OSHA plan states' serious penalties combined. Federal serious penalties average $2,402 per citation; state plan OSHA states average $1,747 per citation.

[10]Total number of inspectors includes 815 federal OSHA inspectors and 1,023 state OSHA inspectors, including two inspectors in the Virgin Islands and 52 inspectors in Puerto Rico.

[11]Frequency of all covered establishments for all states combined. Average inspection frequency of covered establishments for federal OSHA states is once every 159 years; inspection frequency of covered establishments for state OSHA plan states is once every 99 years. States with their own OSHA program for public employees only (Connecticut, Illinois, Maine, New Jersey and New York) are considered federal states for these averages.

State-by-State OSHA Fatality Investigations, FY 2016

State	Number of OSHA Fatality Investigations Conducted, FY 2016[1]	Total Penalties[1] ($)	Average Total Penalty Per Investigation ($)	Median Initial Penalty[1] ($)	Median Current Penalty[1] ($)	State or Federal Program
Alabama	34	2,816,276	82,832	12,471	7,418	Federal
Alaska	4	377,150	94,288	49,000	46,400	State
Arizona	13	79,663	6,128	3,300	3,300	State
Arkansas	13	132,828	10,218	4,988	4,200	Federal
California	139	2,414,660	17,372	19,098	19,098	State
Colorado	17	138,749	8,162	3,741	3,741	Federal
Connecticut	13	72,146	5,550	6,413	5,040	Federal[2]
Delaware	3	17,600	5,867	10,600	7,000	Federal
Florida	102	1,060,865	10,401	6,780	6,750	Federal
Georgia	45	745,472	16,566	12,471	9,353	Federal
Hawaii	5	50,775	10,155	10,600	10,600	State
Idaho	6	116,238	19,373	10,025	7,480	Federal
Illinois	53	860,535	16,237	10,500	7,800	Federal[2]
Indiana	25	98,450	3,938	5,550	3,150	State
Iowa	24	406,900	16,954	4,500	4,500	State
Kansas	18	114,427	6,357	8,160	4,000	Federal
Kentucky	27	244,450	9,054	6,000	6,000	State
Louisiana	37	684,517	18,500	12,000	7,000	Federal
Maine	7	32,020	4,574	2,800	2,000	Federal[2]
Maryland	17	43,602	2,565	4,150	4,150	State
Massachusetts	22	334,552	15,207	9,390	8,500	Federal
Michigan	37	342,300	9,251	12,250	8,650	State
Minnesota	15	541,900	36,127	26,750	26,750	State
Mississippi	15	174,863	11,658	12,471	10,000	Federal
Missouri	27	344,739	12,768	12,471	12,471	Federal

State-by-State OSHA Fatality Investigations, FY 2016

State	Number of OSHA Fatality Investigations Conducted, FY 2016[1]	Total Penalties[1] ($)	Average Total Penalty Per Investigation ($)	Median Initial Penalty[1] ($)	Median Current Penalty[1] ($)	State or Federal Program
Montana	5	120,279	24,056	1,275	638	Federal
Nebraska	11	975,014	88,638	21,000	17,816	Federal
Nevada	4	8,840	2,210	3,200	3,200	State
New Hampshire	13	28,726	2,210	0	0	Federal
New Jersey	42	984,461	23,440	10,735	8,000	Federal[2]
New Mexico	11	60,350	5,486	2,500	2,500	State
New York	62	931,238	15,020	7,000	7,000	Federal[2]
North Carolina	46	314,605	6,839	6,600	6,000	State
North Dakota	22	80,825	3,674	0	0	Federal
Ohio	43	687,284	15,983	9,800	7,483	Federal
Oklahoma	37	283,001	7,649	7,000	4,900	Federal
Oregon	19	169,230	8,907	2,240	1,400	State
Pennsylvania	45	471,075	10,468	12,471	8,551	Federal
Rhode Island	4	19,250	4,813	6,250	4,750	Federal
South Carolina	41	93,912	2,291	4,000	2,250	State
South Dakota	6	131,074	21,846	14,175	11,681	Federal
Tennessee	37	181,786	4,913	4,350	4,200	State
Texas	188	2,399,485	12,763	12,471	8,246	Federal
Utah	9	28,500	3,167	2,000	2,000	State
Vermont	3	29,970	9,990	11,270	7,110	State
Virginia	44	647,319	14,712	14,000	8,650	State
Washington	27	160,450	5,943	11,200	11,200	State
West Virginia	10	99,010	9,901	11,136	9,972	Federal
Wisconsin	23	707,682	30,769	12,471	10,648	Federal
Wyoming	10	48,285	4,829	10,080	7,000	State

State-by-State OSHA Fatality Investigations, FY 2016

State	Number of OSHA Fatality Investigations Conducted, FY 2016[1]	Total Penalties[1] ($)	Average Total Penalty Per Investigation ($)	Median Initial Penalty[1] ($)	Median Current Penalty[1] ($)	State or Federal Program
National Median State Plan States				3,500	2,500	
National Median Federal States				7,000	6,500	
Total or National Average[3]	1,509	22,283,698	14,767			

[1]OSHA OIS Fatality Inspection Reports, FY 2016. Federal plan reports were issued on April 4, 2017. State plan reports were issued on April 5, 2017. National median penalties include investigations conducted in American Samoa, the District of Columbia and Puerto Rico.

[2]Under the OSHAct, states may operate their own OSHA programs. Connecticut, Illinois, Maine, New Jersey and New York have state programs covering state and local employees only. (Maine's state plan went into effect on Aug. 5, 2015.) For these five states, only federal data are listed. Twenty-one states and one territory have state OSHA programs covering both public- and private-sector workers. For these 21 states, only state data are listed.

[3]National fatality investigations for all federal OSHA and state OSHA plan states combined. Federal OSHA average is $16,205 per fatality investigation; for state plan OSHA states, the average is $10,915 per fatality investigation. Total investigations, total penalties and national average penalty per investigation includes three in the District of Columbia and seven investigations conducted in Puerto Rico.

Workplace Safety and Health Statistics by State, 2010–2015

	Fatality Rates[1]						Injury/Illness Rates[2]						Average Penalties ($)[3]					
	2010	2011	2012	2013	2014	2015	2010	2011	2012	2013	2014	2015	FY11	FY12	FY13	FY14	FY15	FY16
Alabama	5.1	4.0	4.3	4.0	4.0	3.7	3.5	3.7	3.3	3.3	2.9	3.0	2,352	2,184	1,803	2,016	2,311	2,582
Alaska	11.5	11.1	8.9	7.9	7.8	4.1	4.5	4.5	4.6	4.3	3.9	3.9	707	960	889	823	808	1,079
Arizona	2.8	2.7	2.3	3.5	3.1	2.4	3.3	3.2	3.2	3.3	3.0	2.9	1,030	1,036	891	935	960	1,002
Arkansas	7.6	8.0	5.4	5.6	5.7	5.8	3.3	3.4	3.2	3.0	2.6	2.6	2,311	2,506	2,569	2,329	2,221	2,480
California	2.1	2.4	2.3	2.4	2.0	2.2	3.7	3.5	3.5	3.5	3.4	3.3	4,851	5,043	6,422	5,733	6,543	7,131
Colorado	3.7	3.9	3.5	2.7	3.3	2.9	N/A	N/A	N/A	N/A	N/A	N/A	1,721	1,603	1,649	1,564	1,821	2,044
Connecticut	3.0	2.2	2.1	1.8	2.1	2.6	4.0	4.5	3.9	3.8	3.5	3.2	1,831	1,985	1,735	1,794	1,896	2,142
Delaware	2.2	2.6	3.1	2.6	2.8	1.9	3.2	2.9	2.8	2.7	2.6	2.6	2,569	3,053	2,406	1,985	2,745	2,878
Florida	3.0	2.9	2.7	2.8	2.7	3.1	3.4	N/A	N/A	N/A	N/A	N/A	1,997	1,926	1,821	2,181	2,365	2,451
Georgia	2.8	2.8	2.5	2.8	3.6	4.3	3.1	2.9	2.8	2.8	2.9	2.7	2,002	2,114	2,061	2,127	2,248	2,392
Hawaii	3.2	4.2	3.4	1.6	5.0	2.6	3.9	3.5	3.8	3.7	3.7	3.4	907	1,002	964	1,279	1,214	1,604
Idaho	4.9	5.1	2.7	4.3	4.7	4.8	N/A	N/A	N/A	N/A	N/A	N/A	1,919	1,347	1,449	1,639	1,973	2,485
Illinois	3.7	3.1	2.5	3.1	2.9	2.9	3.3	3.2	3.2	3.2	2.8	2.9	2,151	2,255	1,876	1,980	2,258	2,380
Indiana	4.2	4.5	4.2	4.4	4.4	3.9	4.1	4.2	3.9	3.6	3.8	3.7	886	996	1,054	957	782	1,000
Iowa	5.2	6.3	6.6	4.7	6.0	3.9	4.4	4.3	4.5	4.5	3.9	3.7	1,289	880	790	901	997	1,488
Kansas	6.5	5.9	5.7	4.2	5.5	4.4	3.7	3.9	3.6	3.5	3.4	3.0	2,243	2,293	1,971	2,017	2,055	2,144
Kentucky	4.1	5.4	4.9	4.7	4.5	5.5	4.2	4.2	4.1	4.0	3.7	3.5	2,248	3,368	3,254	2,828	2,607	3,295
Louisiana	6.2	6.3	6.4	6.3	6.3	5.8	2.7	2.5	2.3	2.2	2.0	1.9	2,350	2,348	1,765	2,201	2,334	2,847
Maine	3.3	4.2	3.2	3.1	2.9	2.5	5.6	5.7	5.6	5.3	5.3	4.8	2,231	2,146	2,083	2,013	2,025	2,508
Maryland	2.7	2.6	2.6	2.7	2.6	2.4	3.6	3.0	3.1	3.0	3.1	2.9	726	814	685	746	715	650
Massachusetts	1.8	2.2	1.4	1.8	1.7	2.1	3.2	3.2	3.1	2.9	2.7	2.7	2,183	2,351	1,929	2,104	2,092	2,484
Michigan	3.6	3.5	3.4	3.3	3.3	3.1	4.2	3.8	4.0	3.7	3.6	3.3	463	537	542	585	612	763
Minnesota	2.8	2.3	2.6	2.6	2.3	2.7	3.8	3.7	3.8	3.7	3.6	3.5	730	847	768	752	806	832
Mississippi	6.4	5.5	5.5	6.2	7.1	6.8	N/A	N/A	N/A	N/A	N/A	N/A	1,851	1,521	1,515	1,726	2,054	2,440
Missouri	4.2	4.9	3.3	4.3	3.9	4.3	3.4	3.4	3.3	3.2	3.2	3.0	2,014	2,076	1,931	1,877	2,103	2,466

Workplace Safety and Health Statistics by State, 2010–2015

	Fatality Rates[1]						Injury/Illness Rates[2]						Average Penalties ($)[3]					
	2010	2011	2012	2013	2014	2015	2010	2011	2012	2013	2014	2015	FY11	FY12	FY13	FY14	FY15	FY16
Montana	8.2	11.2	7.3	5.8	4.9	7.5	5.0	5.0	5.0	4.7	4.5	4.3	2,597	2,336	1,983	1,938	1,751	1,803
Nebraska	6.3	3.9	5.2	4.0	5.8	5.4	4.2	3.9	3.9	3.8	3.5	3.4	2,984	2,835	2,565	2,569	2,727	2,891
Nevada	3.7	3.1	3.6	3.0	3.1	3.5	3.8	3.9	4.1	4.0	4.0	3.8	2,263	2,054	2,133	2,244	1,059	1,157
New Hampshire	0.9	1.2	2.2	2.1	2.6	2.7	N/A	N/A	N/A	N/A	N/A	N/A	2,656	2,531	2,243	2,113	2,169	2,425
New Jersey	2.2	2.6	2.4	2.6	2.1	2.3	3.2	3.0	3.1	2.9	2.9	2.7	2,233	2,398	2,151	2,176	2,441	2,533
New Mexico	4.9	6.6	4.8	6.7	6.7	4.1	3.7	4.2	3.9	3.2	3.2	3.1	1,025	1,041	998	879	803	1,140
New York	2.2	2.5	2.4	2.1	2.8	2.7	2.7	2.9	2.5	2.4	2.5	2.4	2,043	2,164	2,016	1,907	2,109	2,492
North Carolina	3.5	3.7	3.5	2.5	3.1	3.4	3.1	3.1	2.9	2.7	2.7	2.6	1,081	970	996	1,250	1,091	1,582
North Dakota	8.5	12.4	17.7	14.9	9.8	12.5	N/A	N/A	N/A	N/A	N/A	N/A	2,091	2,655	3,045	2,659	3,028	2,723
Ohio	3.2	3.1	3.1	3.0	3.6	3.9	N/A	N/A	3.2	2.9	2.9	2.8	2,010	2,320	2,156	2,299	2,462	2,679
Oklahoma	6.3	5.5	6.1	5.8	6.2	5.5	4.0	3.9	3.6	N/A	N/A	N/A	2,098	2,196	1,872	1,880	2,062	2,017
Oregon	2.9	3.4	2.6	2.9	3.9	2.6	3.9	3.8	3.9	4.1	3.9	3.7	346	388	363	364	422	570
Pennsylvania	4.0	3.4	3.4	3.2	3.1	3.0	N/A	4.1	3.9	3.9	3.7	3.5	2,197	2,090	1,916	1,796	2,075	2,484
Rhode Island	1.9	1.5	1.7	2.1	2.1	1.2	N/A	N/A	N/A	N/A	N/A	N/A	1,758	2,332	2,023	1,895	1,910	2,077
South Carolina	3.6	4.5	3.5	3.9	3.3	5.6	3.1	3.3	3.0	2.9	2.8	2.5	519	597	492	521	570	790
South Dakota	8.8	6.7	6.7	4.7	7.2	4.9	N/A	N/A	N/A	N/A	N/A	N/A	2,107	3,574	2,346	2,309	2,712	2,419
Tennessee	5.4	4.5	3.8	3.6	4.8	3.7	3.7	3.5	3.5	3.3	3.2	3.1	894	710	727	687	1,441	1,566
Texas	4.4	4.0	4.8	4.4	4.5	4.5	2.7	2.7	2.7	2.6	2.4	2.3	2,540	2,328	2,187	2,154	2,098	2,397
Utah	3.1	3.3	3.0	2.9	4.2	3.2	3.4	3.6	3.4	3.4	3.2	3.5	974	963	1,053	1,173	1,234	1,322
Vermont	3.9	2.6	3.5	2.2	3.2	2.9	5.2	5.0	5.0	5.2	5.0	4.6	886	1,064	1,008	889	1,038	1,201
Virginia	2.8	3.4	3.8	3.2	2.8	2.8	3.1	2.9	2.7	2.6	2.7	2.4	798	770	726	660	893	1,504
Washington	3.4	1.9	2.2	1.7	2.7	2.1	4.8	4.9	4.8	4.8	4.6	4.4	737	745	791	896	1,089	2,118
West Virginia	13.7	5.9	6.9	8.6	5.2	5.0	4.4	3.9	4.1	3.7	4.0	3.2	1,636	2,177	1,798	1,685	1,801	1,916
Wisconsin	3.4	3.3	4.0	3.5	3.5	3.5	4.3	4.2	4.0	4.0	3.9	3.6	2,094	2,343	2,207	2,121	2,277	2,573
Wyoming	12.9	11.6	12.2	9.5	13.1	12.0	4.0	3.6	3.5	3.4	3.5	3.3	1,147	1,612	1,777	1,911	2,824	2,732

Workplace Safety and Health Statistics by State, 2010–2015

	Fatality Rates[1]						Injury/Illness Rates[2]						Average Penalties ($)[3]					
	2010	2011	2012	2013	2014	2015	2010	2011	2012	2013	2014	2015	FY11	FY12	FY13	FY14	FY15	FY16
National Average	3.6	3.5	3.4	3.3	3.4	3.4	3.5	3.5	3.4	3.3	3.2	3.0	$1,576	$1,603	$1,489	$1,972	$2,148	$2,087

[1]Bureau of Labor Statistics, rate per 100,000 workers.

[2] Bureau of Labor Statistics; rate of total cases per 100 workers. Number and rate are for private-sector only and national average includes Guam, Puerto Rico and the Virgin Islands.

[3] U.S. Department of Labor, OSHA IMIS Inspection Reports, National by Region for 18(B) State (only) and/or National by Region for Federal (only), FY 2011 through FY 2015, and OIS inspection reports for FY 2011 through FY 2016. Penalties shown are averages per serious citation for conditions creating a substantial probability of death or serious physical harm to workers. For Connecticut, Illinois, New Jersey, New York and Maine — states that operate their own state plan for public employees only — averages are based only on federal data. Penalty data for FY 2011 does not include penalty information from approximately 4,500 inspections conducted in federal states in several OSHA regional offices that converted from IMIS to the new OIS data system at some point during FY 2011.

Workplace Fatalities by State, 1997–2015

Total Fatalities																			
State	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Alabama	139	135	123	103	138	102	124	133	128	100	108	107	75	92	75	84	78	75	70
Alaska	51	43	42	53	64	42	28	42	29	45	30	33	17	39	39	31	32	30	14
Arizona	61	74	70	118	87	101	80	84	99	112	97	100	76	77	69	60	95	88	69
Arkansas	102	86	76	106	68	80	87	70	80	78	89	85	75	88	93	63	63	67	74
California	651	626	602	553	515	478	459	467	465	537	461	465	409	326	390	375	396	344	388
Colorado	120	77	106	117	139	123	102	117	125	137	126	105	83	85	92	82	65	84	75
Connecticut	32	57	38	55	41	39	36	54	46	38	38	28	34	49	37	36	29	35	44
Delaware	17	11	14	13	10	11	9	10	11	15	10	11	7	8	10	14	11	12	8
Florida	366	384	345	329	368	354	347	422	406	360	363	291	245	225	226	218	239	228	272
Georgia	242	202	229	195	237	197	199	232	200	201	193	182	110	108	111	101	117	152	180
Hawaii	19	12	32	20	41	24	21	25	15	30	23	19	13	19	26	20	11	31	18
Idaho	56	51	43	35	45	39	43	38	35	38	31	36	27	33	37	19	30	34	36
Illinois	240	216	208	206	231	190	200	208	194	207	185	193	158	206	177	146	176	164	172
Indiana	190	155	171	159	152	136	132	153	157	148	127	143	125	118	125	115	127	130	115
Iowa	80	68	80	71	62	57	76	82	90	71	89	93	80	77	93	97	72	91	60
Kansas	93	98	87	85	94	89	78	80	81	85	101	73	76	85	78	76	55	73	60
Kentucky	143	117	120	132	105	146	145	143	122	147	112	106	101	69	93	91	86	82	99
Louisiana	137	159	141	143	117	103	95	121	111	118	139	135	140	111	111	116	114	120	112
Maine	19	26	32	26	23	30	23	16	15	20	21	24	16	20	26	19	19	19	15
Maryland	82	78	82	84	64	102	92	81	95	106	82	60	65	71	71	72	79	74	69

Workplace Fatalities by State, 1997–2015

Total Fatalities																			
State	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Massachusetts	69	44	83	70	54	46	78	72	75	66	75	68	64	54	68	44	57	55	69
Michigan	174	179	182	156	175	152	152	127	110	157	120	123	94	146	141	137	135	143	134
Minnesota	72	88	72	68	76	81	72	80	87	78	72	65	61	70	60	70	69	62	74
Mississippi	104	113	128	125	111	94	102	88	112	96	93	80	67	68	63	63	68	75	77
Missouri	123	145	165	148	145	175	154	165	185	167	156	148	142	106	132	88	118	106	117
Montana	56	58	49	42	58	51	39	39	50	45	54	40	52	36	49	34	28	28	36
Nebraska	46	56	66	59	57	83	51	46	36	57	63	53	57	54	39	48	39	55	50
Nevada	55	60	58	51	40	47	52	61	57	49	71	41	24	38	38	42	42	40	44
New Hampshire	23	23	14	13	9	19	19	15	18	13	14	7	6	6	9	14	14	17	18
New Jersey	101	103	104	115	129	129	104	129	112	88	106	92	99	81	99	92	102	87	97
New Mexico	50	48	39	35	59	63	46	57	44	59	52	31	42	38	52	39	54	53	35
New York	264	243	241	233	220	240	227	254	239	234	220	213	185	182	206	202	178	241	236
North Carolina	210	228	222	234	203	169	182	183	165	168	167	161	129	139	148	146	109	137	150
North Dakota	35	24	22	34	25	25	26	24	22	31	25	28	25	30	44	65	56	38	47
Ohio	201	186	222	207	209	202	206	202	168	193	165	168	137	161	155	161	149	185	202
Oklahoma	104	75	99	82	115	92	100	91	95	91	104	102	82	94	86	97	92	98	91
Oregon	84	72	69	52	44	63	75	60	65	87	69	55	66	47	58	43	49	69	44
Pennsylvania	259	235	221	199	225	188	208	230	224	240	220	241	168	221	186	194	183	179	173
Rhode Island	11	12	11	7	17	8	18	7	6	10	5	6	7	9	7	8	10	10	6
South Carolina	131	111	139	115	91	107	115	113	132	95	122	87	73	69	81	63	75	64	117

Workplace Fatalities by State, 1997–2015

Total Fatalities																			
State	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
South Dakota	23	28	46	35	35	36	28	24	31	37	22	30	24	36	31	31	20	29	21
Tennessee	168	150	154	160	136	140	137	145	139	153	154	135	111	138	120	101	95	127	112
Texas	459	523	468	572	536	417	491	440	495	489	528	463	482	461	433	536	508	531	527
Utah	66	67	54	61	65	52	54	50	54	60	78	64	48	41	39	39	37	54	42
Vermont	9	16	14	15	6	11	14	7	7	14	10	10	12	12	8	11	7	10	9
Virginia	166	177	154	148	146	142	155	171	186	165	146	156	119	107	127	149	128	116	106
Washington	112	113	88	75	102	86	83	98	85	87	90	84	76	104	60	67	56	88	70
West Virginia	53	57	57	46	63	40	51	58	46	79	61	53	41	95	43	49	61	38	35
Wisconsin	114	97	105	107	110	91	103	94	125	91	104	77	94	91	89	114	97	99	104
Wyoming	29	33	32	36	40	33	37	43	46	36	48	33	19	33	32	35	26	37	34
Total[1,2,3]	6,238	6,055	6,054	5,920	5,915	5,534	5,575	5,764	5,734	5,840	5,657	5,214	4,551	4,690	4,693	4,628	4,585	4,821	4,836

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

[1]In 2015, zero fatal injuries occurred in Guam and 32 fatal injuries occurred in Puerto Rico, but are not reflected in the U.S. total.

[2]Totals include fatalities that occurred in the District of Columbia. In 2015, D.C. had eight fatalities.

[3]States cannot always be assigned to fatality cases. For example, some fatalities occur at sea outside of specific state jurisdictions. In 2015, one fatal injury occurred within the territorial boundaries of the United States, but a state of incident could not be determined.

Fatalities by State and Event or Exposure, 2015

State	Total Fatalities 2015	Assaults and Violent Acts	Transportation Incidents	Fires and Explosions	Falls	Exposure to Harmful Substances or Environments	Contact with Objects and Equipment
Alabama	70	5	37	5	10	4	9
Alaska	14	--	5	--	--	--	6
Arizona	69	15	29	1	10	6	8
Arkansas	74	9	41	1	10	3	9
California	388	77	150	10	77	33	39
Colorado	75	8	34	3	20	--	9
Connecticut	44	10	14	--	7	6	7
Delaware	8	3	3	--	--	--	--
District of Columbia	8	3	--	--	3	--	1
Florida	272	39	127	--	52	21	28
Georgia	180	24	68	6	37	20	25
Hawaii	18	5	6	--	3	3	--
Idaho	36	--	22	--	--	4	6
Illinois	172	27	59	5	33	19	29
Indiana	115	16	55	3	9	14	18
Iowa	60	1	19	4	16	--	17
Kansas	60	8	37	1	7	--	4
Kentucky	99	15	37	--	9	11	25
Louisiana	112	18	47	--	14	13	16
Maine	15	3	5	--	--	--	3
Maryland	69	16	26	--	9	10	7
Massachusetts	69	10	26	2	17	8	6

Fatalities by State and Event or Exposure, 2015

State	Total Fatalities 2015	Assaults and Violent Acts	Transportation Incidents	Fires and Explosions	Falls	Exposure to Harmful Substances or Environments	Contact with Objects and Equipment
Michigan	134	35	45	3	19	10	22
Minnesota	74	7	31	--	13	3	17
Mississippi	77	11	37	--	10	6	13
Missouri	117	13	60	6	14	11	13
Montana	36	3	16	--	5	0	10
Nebraska	50	6	23	4	4	--	11
Nevada	44	4	21	--	7	6	6
New Hampshire	18	4	--	--	--	6	4
New Jersey	97	18	37	--	24	7	11
New Mexico	35	4	24	--	3	--	--
New York	236	43	86	9	45	17	35
North Carolina	150	24	51	3	26	13	33
North Dakota	47	4	28	3	--	--	7
Ohio	202	27	92	2	29	23	29
Oklahoma	91	7	44	3	11	7	19
Oregon	44	5	22	2	5	--	8
Pennsylvania	173	22	70	4	36	16	25
Rhode Island	6	--	--	--	--	--	--
South Carolina	117	17	54	3	16	10	17
South Dakota	21	--	9	3	3	--	4
Tennessee	112	15	47	--	17	12	21
Texas	527	76	238	13	86	41	72

Fatalities by State and Event or Exposure, 2015

State	Total Fatalities 2015	Assaults and Violent Acts	Transportation Incidents	Fires and Explosions	Falls	Exposure to Harmful Substances or Environments	Contact with Objects and Equipment
Utah	42	--	21	--	8	4	7
Vermont	9	1	--	--	1	3	2
Virginia	106	13	36	--	20	15	20
Washington	70	7	29	--	21	3	10
West Virginia	35	--	17	--	4	4	8
Wisconsin	104	11	46	--	17	11	18
Wyoming	34	4	17	--	5	3	3
Total[1,2]	4,836	703	2,054	121	800	424	722

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2015.

[1]Zero fatal injuries occurred in Guam and 32 fatal injuries occurred in Puerto Rico, but are not reflected in the U.S. total.
[2]States cannot always be assigned to fatality cases. Also, some fatalities occur outside of specific state jurisdictions, such as at sea.

Note: State totals include other events and exposures, such as bodily reaction, in addition to those shown separately. Dashes indicate no data reported or data that do not meet BLS publication criteria.

Number and Rate of Injuries and Illnesses by State for All Industries, Private Industry, State Government and Local Government, 2015

State	Number of Injuries/Illnesses				Rate of Injuries/Illnesses[1]			
	All Industries	Private Industry	State Government	Local Government	All Industries	Private Industry	State Government	Local Government
Alabama	44,400	38,400	N/A	N/A	3.0	3.0	N/A	N/A
Alaska	10,500	8,500	600	1,400	4.0	3.9	2.9	5.7
Arizona	65,000	54,100	2,000	8,900	3.1	2.9	3.0	5.3
Arkansas	28,900	22,400	2,100	4,400	2.8	2.6	3.4	4.6
California	470,600	363,100	19,900	87,700	3.8	3.3	5.1	7.3
Colorado	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Connecticut	45,200	36,300	1,800	7,100	3.5	3.2	3.3	7.2
Delaware	9,600	7,800	900	1,000	2.7	2.6	3.1	4.4
Florida	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Georgia	103,000	78,400	N/A	N/A	3.1	2.7	N/A	N/A
Hawaii	15,600	13,100	1,400	1,200	3.5	3.4	2.6	6.7
Idaho	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Illinois	145,900	118,200	4,300	23,300	3.2	2.9	3.5	5.4
Indiana	88,700	75,400	2,200	11,100	3.8	3.7	2.6	5.8
Iowa	48,300	39,500	1,500	7,300	3.9	3.7	3.5	5.9
Kansas	33,500	28,100	N/A	4,900	3.2	3.0	N/A	4.7
Kentucky	53,300	43,300	2,900	7,000	3.7	3.5	3.9	5.7
Louisiana	34,000	26,100	900	6,900	2.1	1.9	1.4	4.2
Maine	22,200	19,200	800	2,200	4.9	4.8	4.6	5.5
Maryland	65,000	50,400	3,500	11,100	3.2	2.9	4.0	6.3

Number and Rate of Injuries and Illnesses by State for All Industries, Private Industry, State Government and Local Government, 2015

State	Number of Injuries/Illnesses				Rate of Injuries/Illnesses[1]			
	All Industries	Private Industry	State Government	Local Government	All Industries	Private Industry	State Government	Local Government
Massachusetts	79,800	65,300	3,400	N/A	3.0	2.7	3.4	N/A
Michigan	109,700	96,000	3,600	10,100	3.4	3.3	2.9	4.1
Minnesota	75,000	65,600	2,000	7,400	3.5	3.5	3.0	4.3
Mississippi	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Missouri	66,800	55,700	N/A	7,500	3.1	3.0	N/A	3.4
Montana	14,400	12,000	600	1,800	4.4	4.3	3.2	6.3
Nebraska	26,300	22,500	N/A	3,000	3.4	3.4	N/A	3.7
Nevada	38,100	33,400	1,000	3,700	3.9	3.8	3.7	5.0
New Hampshire	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Jersey	93,900	72,000	4,400	17,600	3.0	2.7	4.4	6.1
New Mexico	22,000	16,300	1,600	4,100	3.5	3.1	3.7	6.6
New York	209,400	148,000	13,800	47,600	3.0	2.4	6.9	6.4
North Carolina	93,300	74,100	3,600	15,600	2.8	2.6	2.5	4.4
North Dakota	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ohio	125,700	104,700	1,800	19,200	2.9	2.8	1.6	4.8
Oklahoma	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oregon	52,200	44,700	2,000	5,500	3.8	3.7	2.9	4.7
Pennsylvania	163,100	144,900	N/A	N/A	3.6	3.5	N/A	N/A
Rhode Island	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
South Carolina	44,600	32,900	2,900	8,800	2.9	2.5	3.9	5.0

Number and Rate of Injuries and Illnesses by State for All Industries, Private Industry, State Government and Local Government, 2015

State	Number of Injuries/Illnesses				Rate of Injuries/Illnesses[1]			
	All Industries	Private Industry	State Government	Local Government	All Industries	Private Industry	State Government	Local Government
South Dakota	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tennessee	73,900	61,200	1,400	11,200	3.2	3.1	2.0	5.0
Texas	256,100	189,500	N/A	N/A	2.6	2.3	N/A	N/A
Utah	36,100	31,300	1,400	3,400	3.5	3.5	2.8	4.4
Vermont	11,100	9,100	800	1,200	4.6	4.6	4.3	5.6
Virginia	76,900	58,700	3,500	14,700	2.6	2.4	2.9	5.0
Washington	108,800	90,700	4,400	13,700	4.5	4.4	3.8	6.4
West Virginia	19,300	15,400	1,500	2,500	3.4	3.2	3.8	4.1
Wisconsin	78,800	68,400	3,300	7,100	3.6	3.6	4.4	4.1
Wyoming	8,200	6,200	400	1,500	3.5	3.3	3.1	4.5
Total or National Average[2]	3.7 Million	2.9 Million	148,500	604,100	3.3	3.0	3.7	5.6

Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2015.

[1]Rate of total cases of injuries and illnesses per 100 workers.

[2]Total number of injuries and illnesses and national average rate of injuries and illnesses includes the District of Columbia, Guam, Puerto Rico and the Virgin Islands.

Hispanic and Latino Worker Fatalities by State, 1998–2015[1]

	Fatalities																	
State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Alabama	--	--	--	--	5	8	6	9	6	5	5	--	5	3	5	6	--	3
Alaska	--	--	--	--	--	--	--	3	5	--	--	--	--	5	5	3	--	--
Arizona	27	26	26	34	28	17	25	36	36	26	30	22	18	21	16	25	31	18
Arkansas	--	8	9	--	5	9	5	8	3	5	9	--	6	7	3	6	9	10
California	174	216	172	188	176	164	188	190	231	179	180	161	142	154	137	194	130	178
Colorado	15	19	27	25	16	25	25	19	18	30	21	17	19	22	21	14	18	20
Connecticut	10	--	12	9	7	--	10	5	7	4	7	4	5	7	6	5	3	8
Delaware	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	3	--
Florida	58	68	75	84	98	90	119	113	95	111	73	49	38	53	54	68	60	78
Georgia	19	17	26	36	16	26	29	25	35	28	26	10	16	14	10	14	21	26
Hawaii	--	--	--	--	--	--	--	--	--	4	--	--	--	--	1	--	4	3
Idaho	--	6	5	--	9	3	6	3	7	--	5	4	5	--	--	6	5	5
Illinois	17	21	17	30	27	22	29	23	30	27	25	16	25	25	19	26	16	19
Indiana	--	--	--	8	9	7	7	5	7	7	14	3	3	8	8	8	13	6
Iowa	--	--	--	--	--	--	7	--	--	4	6	8	5	3	4	--	3	--
Kansas	15	5	5	6	5	4	11	10	4	5	9	8	4	10	8	6	10	12
Kentucky	--	--	--	--	--	3	--	6	7	6	7	3	--	3	6	--	8	5
Louisiana	--	--	5	5	--	--	9	8	10	11	5	11	7	8	13	15	8	9
Maine	--	--	--	--	14	--	--	--	--	--	--	--	--	--	--	--	--	--
Maryland	--	--	6	--	10	11	17	8	22	7	10	3	12	8	15	15	8	9

Hispanic and Latino Worker Fatalities by State, 1998–2015[1]

	Fatalities																	
State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Massachusetts	--	6	--	6	5	6	9	6	7	11	10	5	7	11	3	3	2	4
Michigan	6	12	6	7	7	4	6	8	12	7	8	4	10	4	4	3	6	12
Minnesota	--	--	5	--	--	5	3	6	4	--	--	--	3	--	--	--	4	--
Mississippi	--	--	5	11	5	--	4	3	3	7	7	4	5	--	--	--	--	7
Missouri	--	--	--	8	--	6	4	--	4	7	4	6	3	4	--	5	5	7
Montana	--	--	--	5	--	--	--	4	3	3	--	3	3	--	--	--	--	--
Nebraska	--	--	--	--	9	3	4	--	--	4	5	--	3	3	5	3	9	4
Nevada	9	6	10	10	8	10	17	9	12	12	13	6	9	8	8	9	8	13
New Hampshire	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
New Jersey	12	17	23	25	33	24	34	30	28	23	25	25	20	26	15	20	31	22
New Mexico	17	13	9	27	21	9	12	19	30	21	10	16	17	23	22	20	22	13
New York	34	42	55	45	43	36	45	34	57	41	33	35	29	30	39	32	50	51
North Carolina	14	12	22	20	25	21	26	27	23	14	20	12	13	21	13	16	19	17
North Dakota	--	--	--	--	--	--	--	--	--	--	--	4	5	3	12	--	--	4
Ohio	5	--	5	6	--	15	5	5	8	6	4	4	8	1	8	2	3	11
Oklahoma	5	--	--	16	8	3	13	8	8	13	9	7	17	10	7	18	16	17
Oregon	10	--	6	5	--	7	4	6	11	6	--	8	6	6	--	9	8	5
Pennsylvania	7	8	16	10	12	10	6	11	14	16	11	10	13	14	13	4	13	17
Rhode Island	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	--	--	--
South Carolina	--	7	12	9	7	18	13	10	10	7	8	10	10	10	4	7	6	10

Hispanic and Latino Worker Fatalities by State, 1998–2015[1]

	Fatalities																	
State	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
South Dakota	--	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--	--	--
Tennessee	--	5	12	5	7	8	9	5	14	8	9	8	8	9	9	9	6	10
Texas	175	151	190	170	147	163	150	200	174	211	148	185	165	171	201	192	206	220
Utah	9	5	6	8	6	11	5	4	6	10	6	8	4	3	6	5	7	4
Vermont	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
Virginia	6	12	5	12	15	13	13	24	13	18	16	7	9	14	15	22	9	9
Washington	17	--	13	13	15	5	14	7	7	10	8	7	14	5	12	4	8	14
West Virginia	--	--	--	--	--	--	--	4	--	--	--	--	--	--	--	--	--	--
Wisconsin	--	--	--	8	--	3	--	9	3	5	--	5	4	4	7	7	5	7
Wyoming	--	--	5	5	8	--	3	--	--	8	--	--	--	--	3	--	3	4
Totals[2]	707	730	815	891	840	794	902	923	990	937	804	713	707	749	748	817	804	903

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

[1]Latino includes both foreign-born and native-born.

[2]Total includes fatalities that may have occurred in the District of Columbia.

Note: Dashes indicate no data reported or data that do not meet BLS publication criteria.

Foreign-Born Worker Fatalities by State, 1998–2015[1]

	Fatalities																	
State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Alabama	--	--	--	--	5	3	6	10	--	5	3	7	10	5	8	7	5	4
Alaska	--	--	--	9	--	--	7	5	4	4	3	--	6	7	4	--	2	2
Arizona	23	21	19	29	22	15	21	31	27	18	21	14	15	15	16	19	22	18
Arkansas	--	5	9	--	--	--	4	--	--	9	7	3	12	5	4	8	11	12
California	111	223	195	208	170	146	174	203	229	182	145	146	145	164	153	176	137	162
Colorado	12	15	11	23	11	22	21	11	21	24	14	16	13	16	14	9	13	12
Connecticut	13	5	14	20	7	7	15	7	10	4	--	3	10	9	8	8	8	14
Delaware	--	--	--	--	--	--	--	--	5	--	--	--	--	5	4	4	3	1
Florida	65	69	91	96	106	109	123	119	119	121	86	62	55	67	64	74	72	93
Georgia	22	14	28	57	20	34	24	31	35	28	27	4	4	18	16	13	31	31
Hawaii	--	--	6	11	8	4	9	4	11	6	4	3	4	7	7	2	8	4
Idaho	--	5	5	--	8	3	4	3	7	3	5	3	6	3	1	5	6	4
Illinois	29	31	28	52	37	42	44	36	37	34	34	23	42	38	28	31	27	24
Indiana	8	5	7	11	11	9	10	13	12	6	13	5	8	8	11	16	15	10
Iowa	--	--	--	--	--	--	5	--	--	7	7	8	3	2	7	4	3	3
Kansas	8	--	5	5	7	6	10	12	4	5	10	5	4	9	8	6	7	7
Kentucky	--	--	--	--	8	--	3	7	10	5	7	6	--	4	6	6	9	8
Louisiana	7	--	7	9	--	--	3	10	11	7	5	9	6	7	16	15	10	10
Maine	5	--	--	--	15	--	--	--	--	--	--	--	3	--	1	2	--	1
Maryland	9	15	12	8	16	21	24	26	34	18	15	10	16	12	20	21	17	16

Foreign-Born Worker Fatalities by State, 1998–2015[1]

	Fatalities																	
State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Massachusetts	6	16	5	7	14	14	22	22	11	18	16	13	15	16	7	16	10	15
Michigan	7	24	18	15	15	16	11	12	19	14	10	8	17	10	12	12	15	16
Minnesota	--	--	--	--	5	5	4	10	6	--	--	--	5	1	5	2	4	4
Mississippi	--	--	--	6	5	--	3	8	--	9	5	3	6	4	2	3	3	10
Missouri	--	10	7	6	7	5	9	6	9	12	8	9	4	--	--	19	10	11
Montana	--	--	--	--	--	--	--	--	4	3	--	5	--	1	4	3	--	2
Nebraska	--	--	--	--	12	--	3	--	--	5	6	4	3	3	7	4	8	2
Nevada	7	9	9	12	13	9	15	8	9	11	11	--	9	13	11	5	9	14
New Hampshire	--	--	--	--	--	3	--	--	--	--	--	--	--	--	1	--	1	1
New Jersey	26	25	31	37	41	41	39	47	34	36	40	41	20	40	27	31	30	38
New Mexico	8	--	--	15	6	4	6	7	10	8	5	5	8	10	10	8	13	7
New York	66	67	91	75	80	73	74	79	90	66	71	57	63	57	65	60	66	69
North Carolina	13	17	7	22	26	26	25	29	27	21	25	22	18	29	21	21	22	26
North Dakota	--	--	--	--	--	4	--	--	--	--	--	--	3	3	12	1	--	6
Ohio	8	9	12	7	13	18	10	11	13	8	10	10	13	8	19	13	12	22
Oklahoma	--	--	--	13	15	7	11	--	--	14	5	7	13	10	7	17	10	16
Oregon	5	11	--	--	6	5	6	8	9	7	--	10	10	6	2	11	8	4
Pennsylvania	9	11	16	16	13	15	19	24	23	28	25	22	34	28	19	11	18	17
Rhode Island	--	--	--	--	--	4	--	--	--	--	--	--	--	--	4	--	2	1
South Carolina	6	7	16	12	8	18	18	13	11	10	8	8	13	11	4	7	8	13

Foreign-Born Worker Fatalities by State, 1998–2015[1]

Fatalities																		
State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
South Dakota	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	3	--	--
Tennessee	--	--	5	--	7	15	12	14	23	12	19	13	17	12	11	15	9	11
Texas	111	100	115	122	110	121	101	135	112	153	104	125	117	115	107	134	124	156
Utah	5	8	6	8	9	12	4	8	5	8	12	4	8	5	4	6	10	5
Vermont	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
Virginia	10	18	17	22	20	22	41	33	17	31	18	21	12	19	25	22	19	11
Washington	19	7	13	17	19	6	21	9	12	23	15	9	11	12	15	8	13	10
West Virginia	--	--	--	--	--	--	--	--	--	3	--	--	--	1	2	2	1	1
Wisconsin	--	7	--	9	--	5	5	9	--	5	--	4	--	9	13	8	7	13
Wyoming	--	--	--	--	--	--	--	--	4	7	--	--	--	5	4	3	1	2
Totals[2]	654	811	849	994	929	890	979	1,035	1,046	1,009	835	740	798	843	824	879	846	943

Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.

[1]The definition of "foreign-born" employed by the Census of Fatal Occupational Injuries refers to workers not born in the United States or U.S. territories and does not convey information on citizenship at birth.

[2]Totals include fatalities that may have occurred in the District of Columbia.

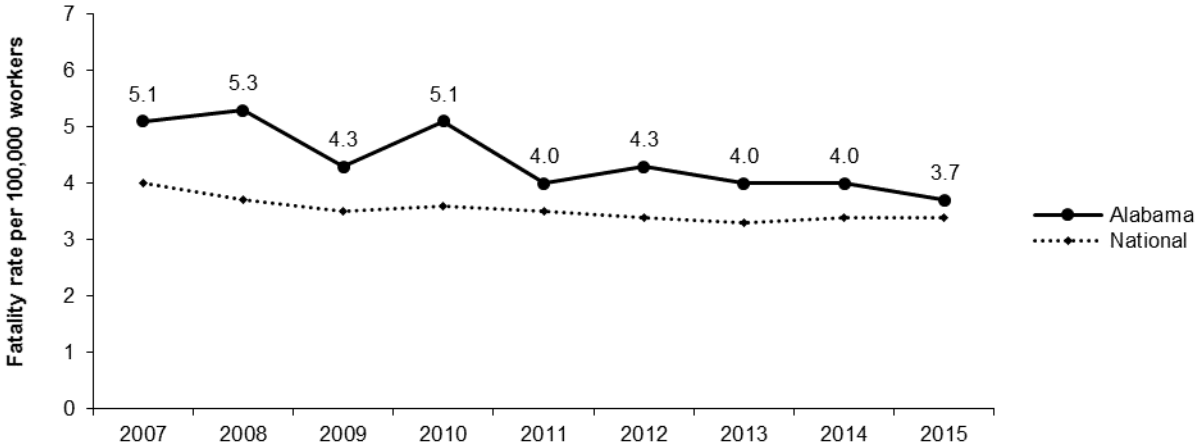
Note: Dashes indicate no data reported or data that do not meet BLS publication criteria.

STATE PROFILES

ALABAMA

Worker Safety and Health

Number of employees:[1]	1,890,340
Number of establishments:[1]	119,251
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	305,160
Number of workplace fatalities, 2015:[3]	70
Rate per 100,000 workers:[4]	3.7
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	27
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	38,400
Rate per 100 workers:	3.0
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	20,600
Rate per 100 workers:	1.6
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	24
Length of time it would take for OSHA to inspect each workplace once:	114 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,001
Construction:	359
Non-construction:	642
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,582
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$82,832
National average:	$14,767

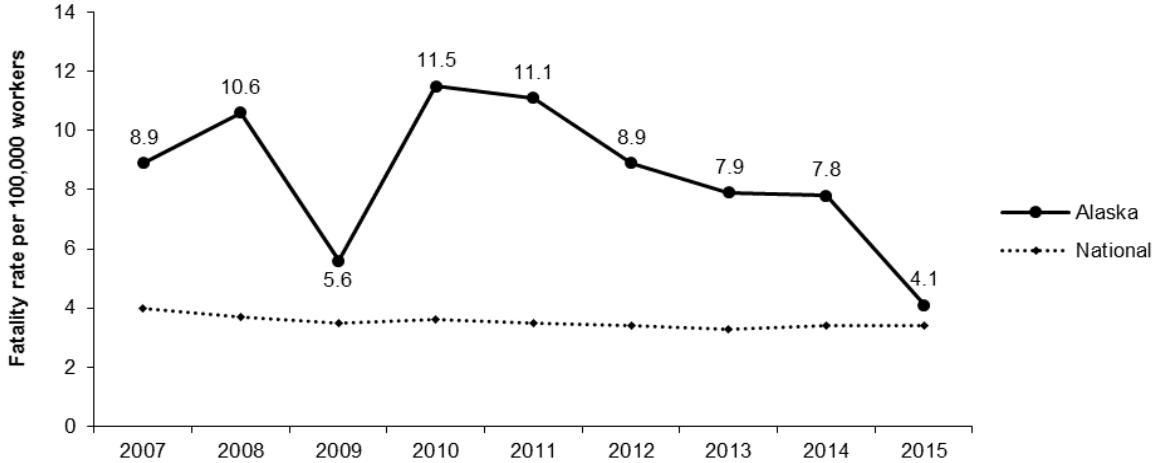


Prepared by AFL-CIO Safety and Health Department, April 2017

ALASKA

Worker Safety and Health

Number of employees:[1]	331,681
Number of establishments:[1]	22,217
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	14
Rate per 100,000 workers:[4]	4.1
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	32
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	8,500
Rate per 100 workers:	3.9
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	4,500
Rate per 100 workers:	2.1
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	12
Length of time it would take for OSHA to inspect each workplace once:	41 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	544
Construction:	151
Non-construction:	393
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,079
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$94,288
National average:	$14,767

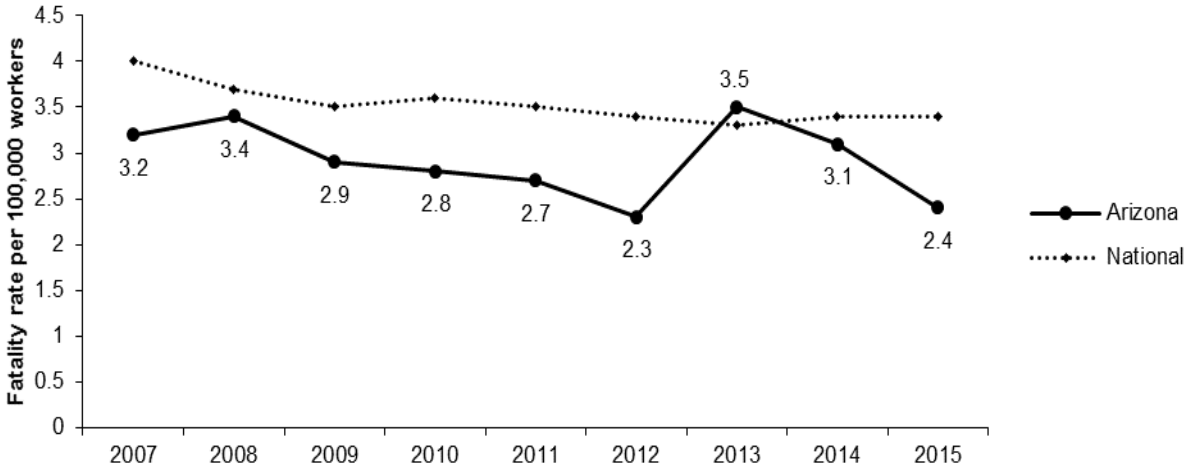


Prepared by AFL-CIO Safety and Health Department, April 2017

ARIZONA

Worker Safety and Health

Number of employees:[1]	2,609,770
Number of establishments:[1]	148,593
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	69
Rate per 100,000 workers:[4]	2.4
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	7
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	54,100
Rate per 100 workers:	2.9
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	28,100
Rate per 100 workers:	1.5
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	25
Length of time it would take for OSHA to inspect each workplace once:	122 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,215
Construction:	491
Non-construction:	724
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,002
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$6,128
National average:	$14,767

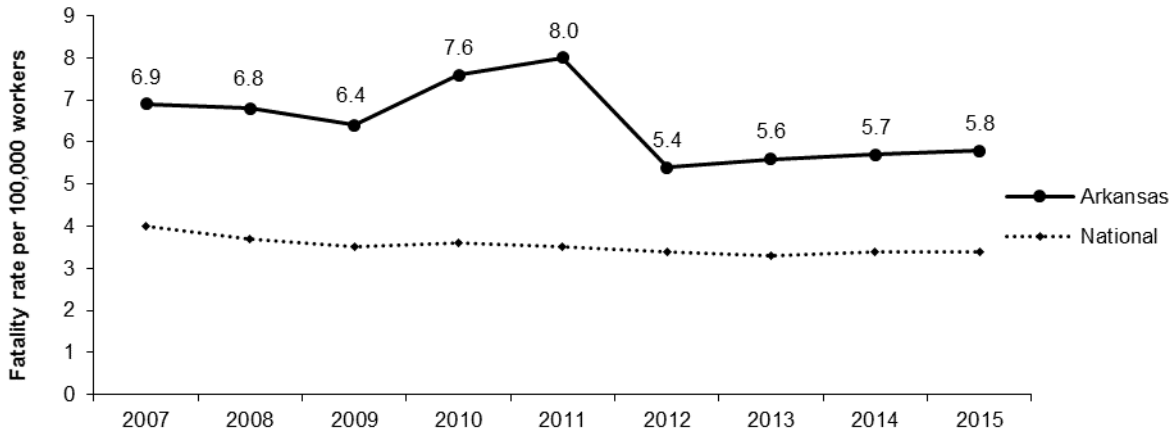


Prepared by AFL-CIO Safety and Health Department, April 2017

ARKANSAS

Worker Safety and Health

Number of employees:[1]	1,177,884
Number of establishments:[1]	87,922
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	178,871
Number of workplace fatalities, 2015:[3]	74
Rate per 100,000 workers:[4]	5.8
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	45
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	22,400
Rate per 100 workers:	2.6
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	11,000
Rate per 100 workers:	1.3
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	7
Length of time it would take for OSHA to inspect each workplace once:	258 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	329
Construction:	171
Non-construction:	158
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,480
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$10,218
National average:	$14,767



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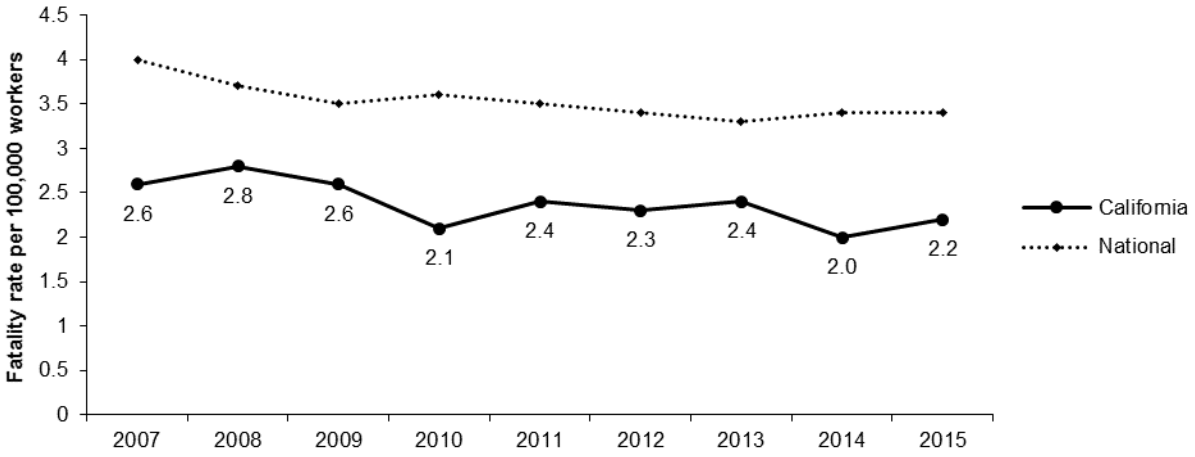
CALIFORNIA

Worker Safety and Health

Number of employees:[1]	16,295,204
Number of establishments:[1]	1,416,493
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	388
Rate per 100,000 workers:[4]	2.2
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	5
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	363,100
Rate per 100 workers:	3.3
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	223,500
Rate per 100 workers:	2.1
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	216
Length of time it would take for OSHA to inspect each workplace once:	181 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	7,809
Construction:	2,365
Non-construction:	5,444
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$7,131
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$17,372
National average:	$14,767



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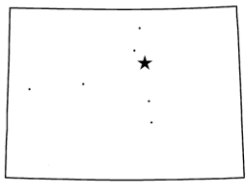
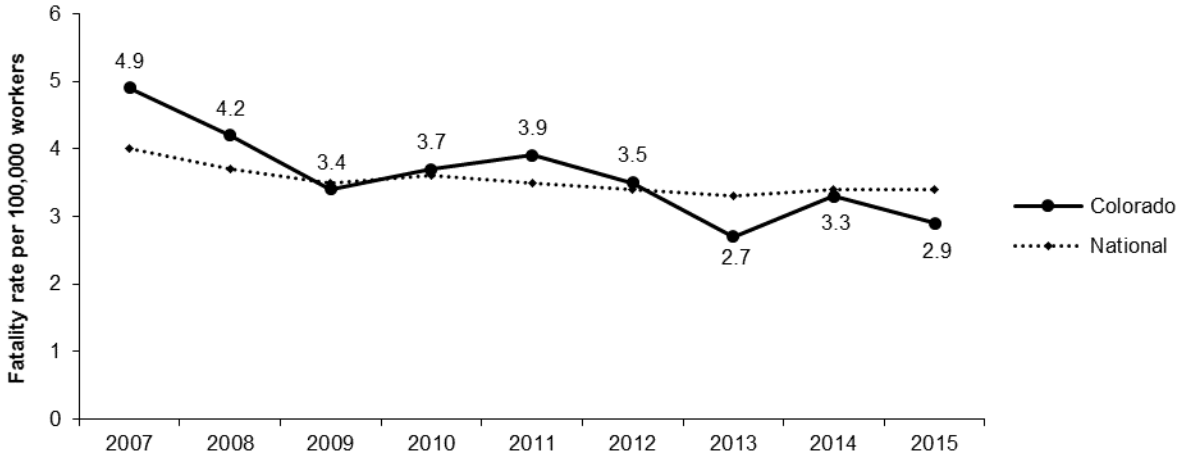
COLORADO



Worker Safety and Health

Number of employees:[1]	2,494,450
Number of establishments:[1]	186,114
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	343,482
Number of workplace fatalities, 2015:[3]	75
Rate per 100,000 workers:[4]	2.9
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	17
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	N/A
Rate per 100 workers:	N/A
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	30
Length of time it would take for OSHA to inspect each workplace once:	161 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,144
Construction:	702
Non-construction:	442
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,044
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$8,162
National average:	$14,767

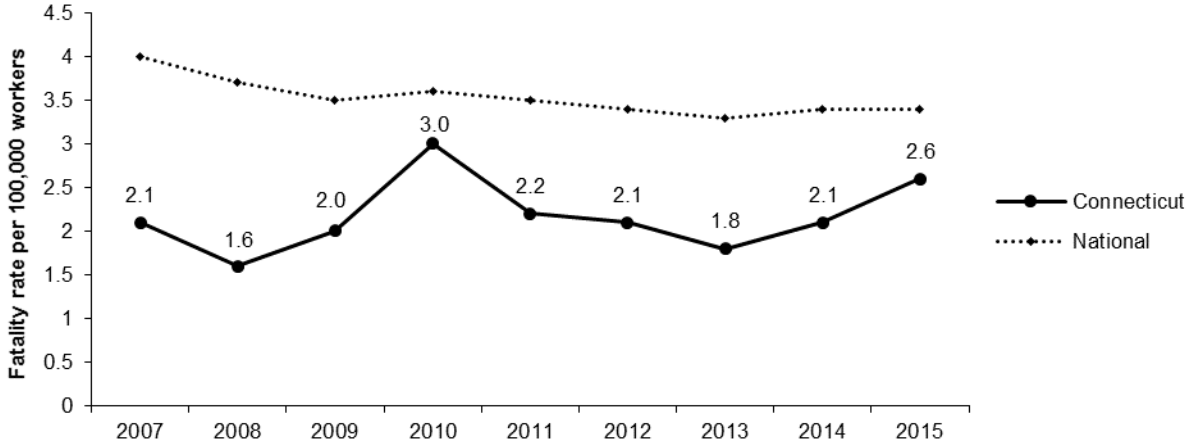


Prepared by AFL-CIO Safety and Health Department, April 2017

CONNECTICUT

Worker Safety and Health

Number of employees:[1]	1,662,825
Number of establishments:[1]	115,612
State or federal OSHA program:[2]	Federal
Number of workplace fatalities, 2015:[3]	44
Rate per 100,000 workers:[4]	2.6
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	10
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	36,300
Rate per 100 workers:	3.2
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	20,900
Rate per 100 workers:	1.8
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	22
Length of time it would take for OSHA to inspect each workplace once:	103 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,120
Construction:	470
Non-construction:	650
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,142
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$5,550
National average:	$14,767

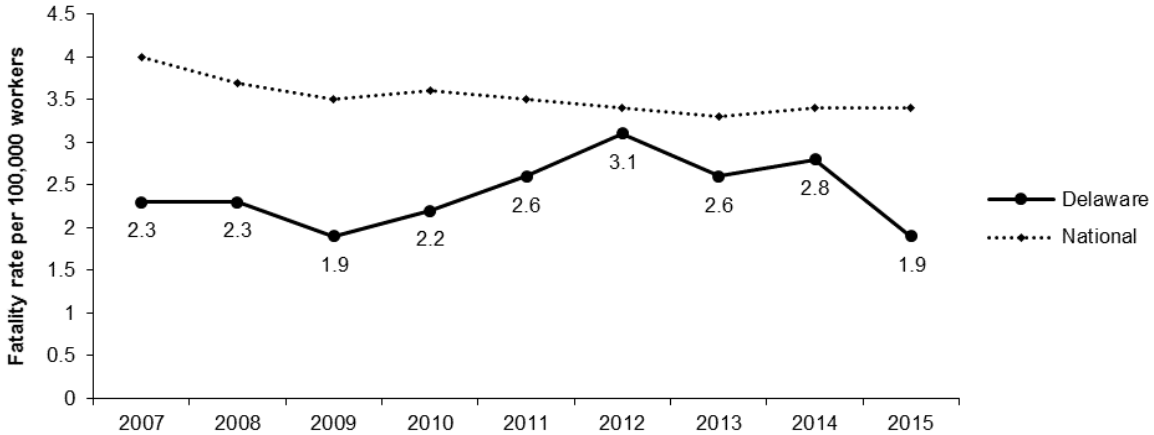


Prepared by AFL-CIO Safety and Health Department, April 2017

DELAWARE

Worker Safety and Health

Number of employees:[1]	433,748
Number of establishments:[1]	30,883
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	56,359
Number of workplace fatalities, 2015:[3]	8
Rate per 100,000 workers:[4]	1.9
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	2
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	7,800
Rate per 100 workers:	2.6
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	4,100
Rate per 100 workers:	1.3
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	4
Length of time it would take for OSHA to inspect each workplace once:	187 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	163
Construction:	88
Non-construction:	75
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,878
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$5,867
National average:	$14,767

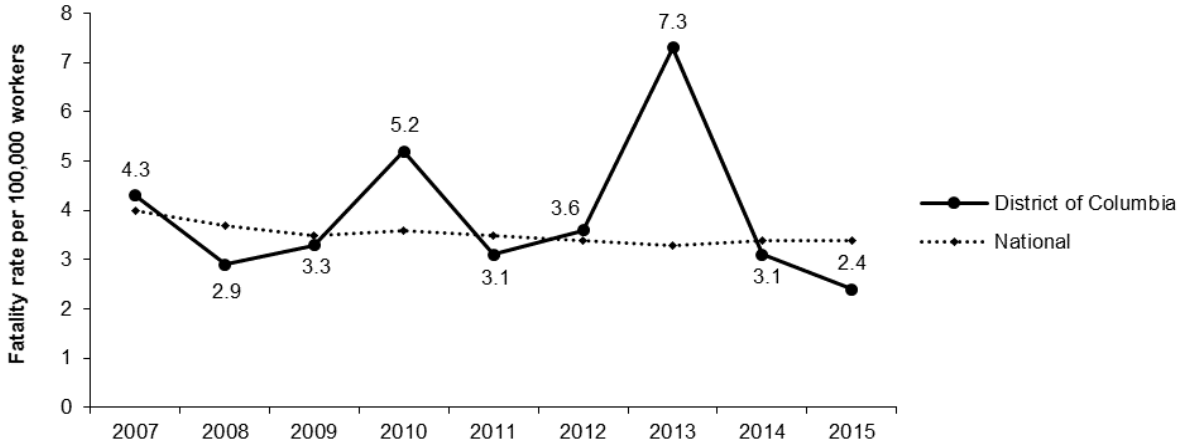


Prepared by AFL-CIO Safety and Health Department, April 2017

DISTRICT OF COLUMBIA

Worker Safety and Health

Number of employees:[1]	743,596
Number of establishments:[1]	37,997
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	38,679
Number of workplace fatalities, 2015:[3]	8
Rate per 100,000 workers:[4]	2.4
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	N/A
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	6,500
Rate per 100 workers:	1.6
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	3,000
Rate per 100 workers:	0.7
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	N/A
Length of time it would take for OSHA to inspect each workplace once:	192
Number of workplace safety and health inspections conducted, FY 2016:[9]	189
Construction:	139
Non-construction:	50
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,278
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$169,848
National average:	$14,767

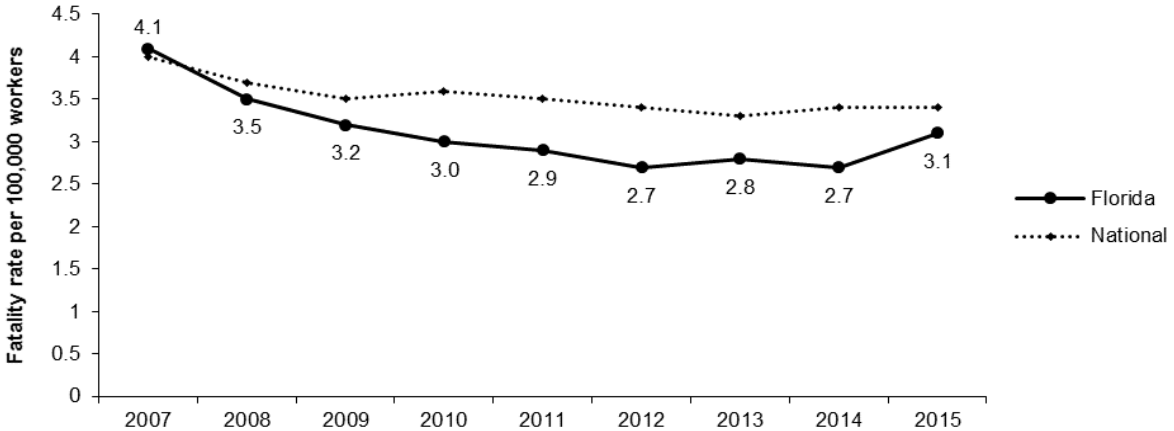


Prepared by AFL-CIO Safety and Health Department, April 2017

FLORIDA

Worker Safety and Health

Number of employees:[1]	8,039,635
Number of establishments:[1]	642,518
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	899,769
Number of workplace fatalities, 2015:[3]	272
Rate per 100,000 workers:[4]	3.1
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	21
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	N/A
Rate per 100 workers:	N/A
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	62
Length of time it would take for OSHA to inspect each workplace once:	255 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	2,500
Construction:	1,329
Non-construction:	1,171
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,451
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$10,401
National average:	$14,767

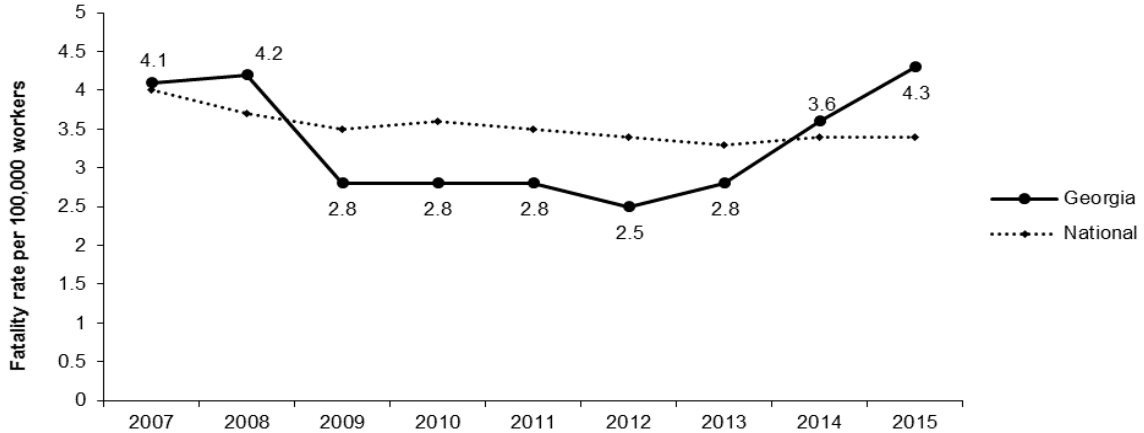


Prepared by AFL-CIO Safety and Health Department, April 2017

GEORGIA

Worker Safety and Health

Number of employees:[1]	4,151,011
Number of establishments:[1]	288,777
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	538,761
Number of workplace fatalities, 2015:[3]	180
Rate per 100,000 workers:[4]	4.3
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	34
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	78,400
Rate per 100 workers:	2.7
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	42,100
Rate per 100 workers:	1.5
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	46
Length of time it would take for OSHA to inspect each workplace once:	168 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,678
Construction:	738
Non-construction:	940
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,392
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$16,566
National average:	$14,767

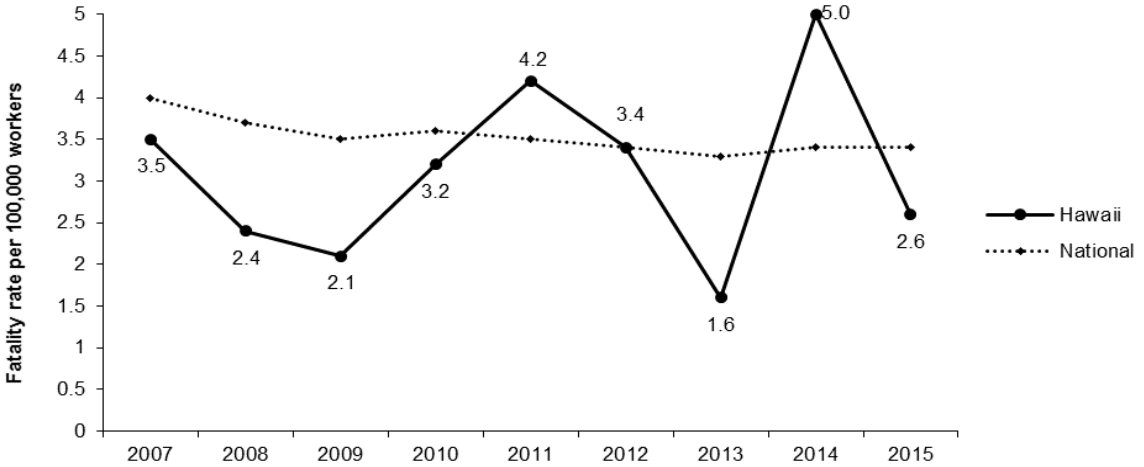


Prepared by AFL-CIO Safety and Health Department, April 2017

HAWAII

Worker Safety and Health

Number of employees:[1]	637,854
Number of establishments:[1]	39,077
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	18
Rate per 100,000 workers:[4]	2.6
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	10
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	13,100
Rate per 100 workers:	3.4
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	7,900
Rate per 100 workers:	2.1
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	21
Length of time it would take for OSHA to inspect each workplace once:	86 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	456
Construction:	292
Non-construction:	164
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,604
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$10,155
National average:	$14,767

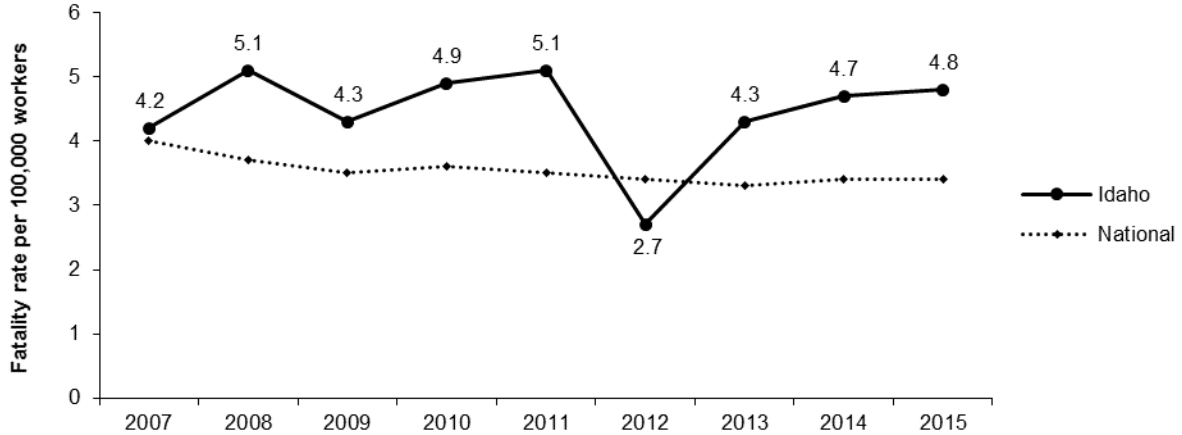


Prepared by AFL-CIO Safety and Health Department, April 2017

IDAHO

Worker Safety and Health

Number of employees:[1]	664,792
Number of establishments:[1]	56,029
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	100,961
Number of workplace fatalities, 2015:[3]	36
Rate per 100,000 workers:[4]	4.8
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	38
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	N/A
Rate per 100 workers:	N/A
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	8
Length of time it would take for OSHA to inspect each workplace once:	208 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	258
Construction:	147
Non-construction:	111
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,485
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$19,373
National average:	$14,767

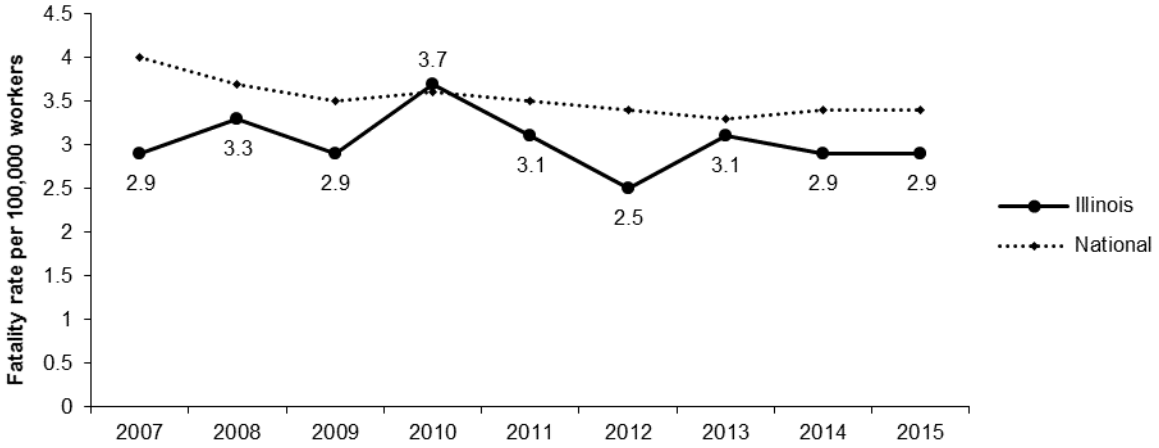


Prepared by AFL-CIO Safety and Health Department, April 2017

ILLINOIS

Worker Safety and Health

Number of employees:[1]	5,848,451
Number of establishments:[1]	403,205
State or federal OSHA program:[2]	Federal
Number of workplace fatalities, 2015:[3]	172
Rate per 100,000 workers:[4]	2.9
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	17
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	118,200
Rate per 100 workers:	2.9
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	66,800
Rate per 100 workers:	1.6
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	70
Length of time it would take for OSHA to inspect each workplace once:	147 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	2,741
Construction:	1,187
Non-construction:	1,554
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,380
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$16,237
National average:	$14,767

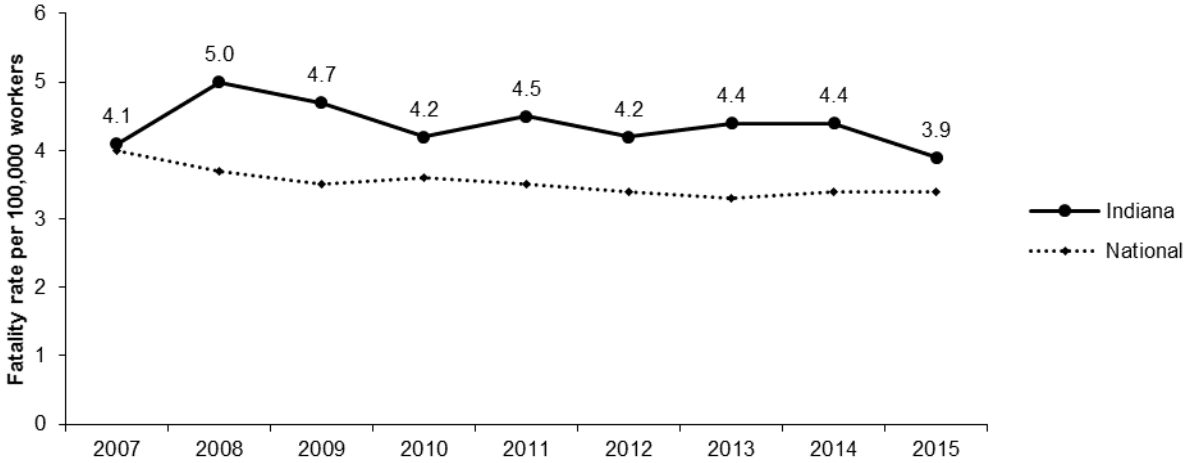


Prepared by AFL-CIO Safety and Health Department, April 2017

INDIANA

Worker Safety and Health

Number of employees:[1]	2,941,991
Number of establishments:[1]	159,303
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	115
Rate per 100,000 workers:[4]	3.9
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	29
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	75,400
Rate per 100 workers:	3.7
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	39,700
Rate per 100 workers:	1.9
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	28
Length of time it would take for OSHA to inspect each workplace once:	188 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	847
Construction:	423
Non-construction:	424
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,000
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$3,938
National average:	$14,767

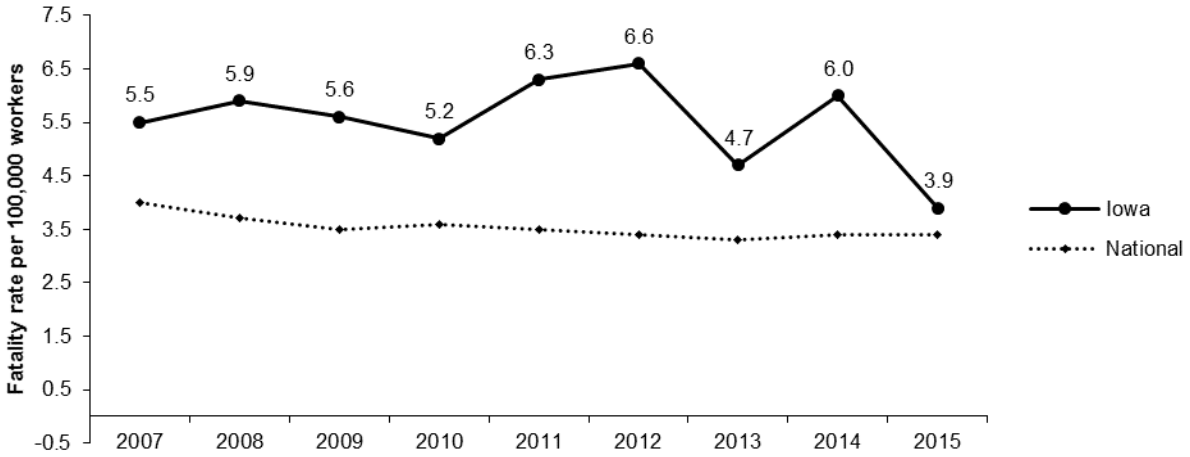


Prepared by AFL-CIO Safety and Health Department, April 2017

IOWA

Worker Safety and Health

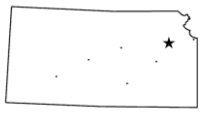
Number of employees:[1]	1,530,234
Number of establishments:[1]	100,264
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	60
Rate per 100,000 workers:[4]	3.9
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	29
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	39,500
Rate per 100 workers:	3.7
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	20,500
Rate per 100 workers:	1.9
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	24
Length of time it would take for OSHA to inspect each workplace once:	170 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	588
Construction:	177
Non-construction:	411
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,488
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$16,954
National average:	$14,767



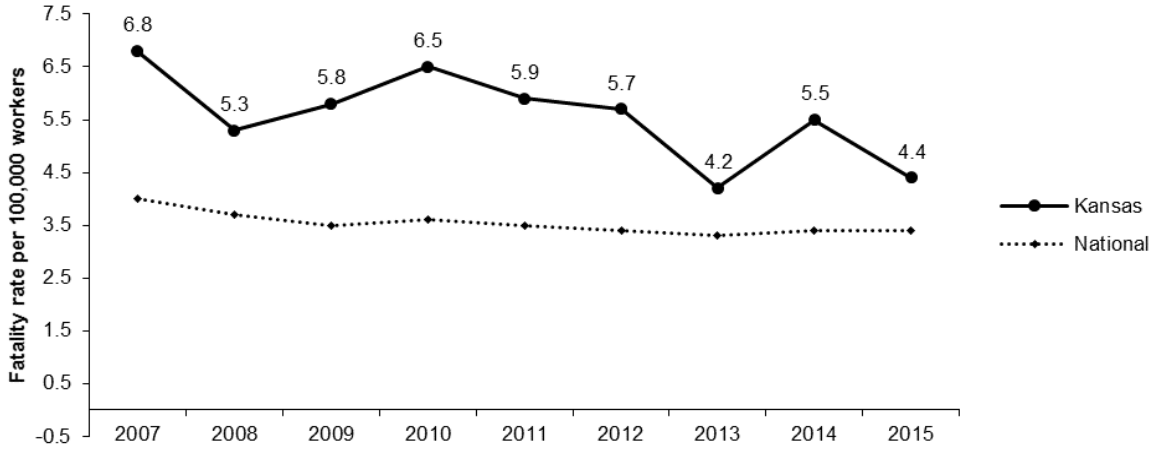
Prepared by AFL-CIO Safety and Health Department, April 2017

KANSAS

Worker Safety and Health



Number of employees:[1]	1,367,329
Number of establishments:[1]	86,786
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	217,987
Number of workplace fatalities, 2015:[3]	60
Rate per 100,000 workers:[4]	4.4
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	36
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	28,100
Rate per 100 workers:	3.0
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	13,600
Rate per 100 workers:	1.5
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	28
Length of time it would take for OSHA to inspect each workplace once:	133 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	624
Construction:	192
Non-construction:	432
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,144
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$6,357
National average:	$14,767

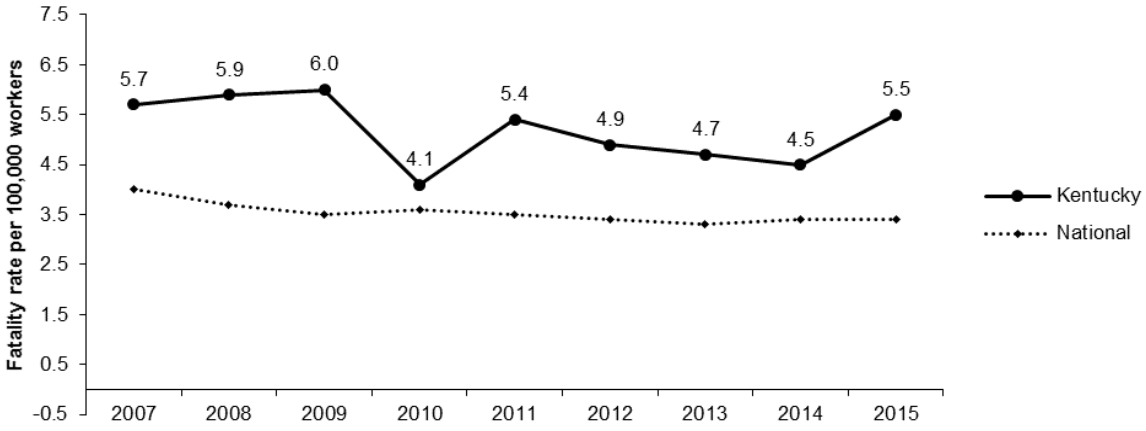


Prepared by AFL-CIO Safety and Health Department, April 2017

KENTUCKY

Worker Safety and Health

Number of employees:[1]	1,835,550
Number of establishments:[1]	122,322
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	99
Rate per 100,000 workers:[4]	5.5
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	42
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	43,300
Rate per 100 workers:	3.5
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	23,000
Rate per 100 workers:	1.9
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	34
Length of time it would take for OSHA to inspect each workplace once:	117 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,044
Construction:	459
Non-construction:	585
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$3,295
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$9,054
National average:	$14,767

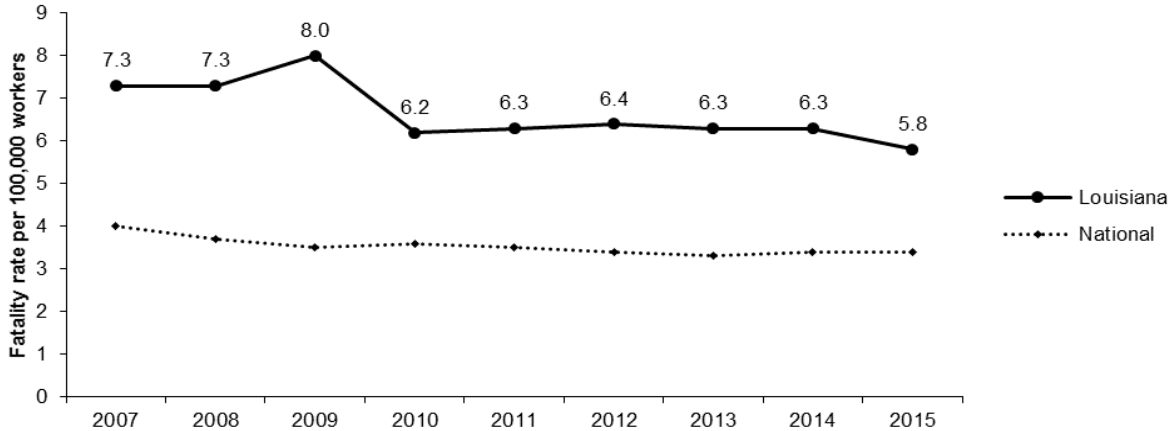


Prepared by AFL-CIO Safety and Health Department, April 2017

LOUISIANA

Worker Safety and Health

Number of employees:[1]	1,930,688
Number of establishments:[1]	125,264
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	279,850
Number of workplace fatalities, 2015:[3]	112
Rate per 100,000 workers:[4]	5.8
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	45
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	26,100
Rate per 100 workers:	1.9
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	12,600
Rate per 100 workers:	0.9
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	13
Length of time it would take for OSHA to inspect each workplace once:	260 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	464
Construction:	205
Non-construction:	259
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,847
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$18,500
National average:	$14,767

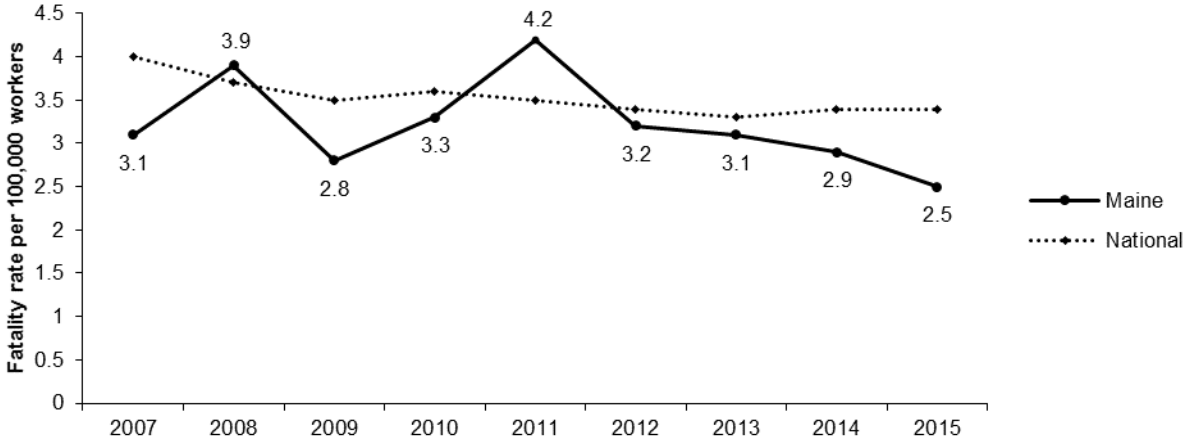


Prepared by AFL-CIO Safety and Health Department, April 2017

MAINE

Worker Safety and Health

Number of employees:[1]	595,889
Number of establishments:[1]	50,769
State or federal OSHA program:[2]	Federal
Number of workplace fatalities, 2015:[3]	15
Rate per 100,000 workers:[4]	2.5
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	9
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	19,200
Rate per 100 workers:	4.8
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	10,600
Rate per 100 workers:	2.7
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	10
Length of time it would take for OSHA to inspect each workplace once:	119 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	428
Construction:	146
Non-construction:	282
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,508
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$4,574
National average:	$14,767

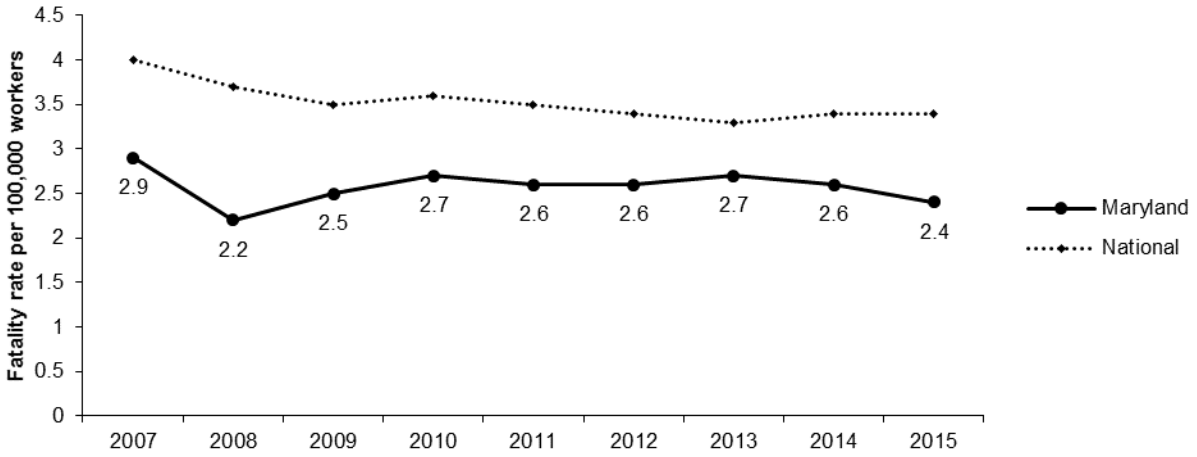


Prepared by AFL-CIO Safety and Health Department, April 2017

MARYLAND

Worker Safety and Health

Number of employees:[1]	2,591,189
Number of establishments:[1]	168,788
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	69
Rate per 100,000 workers:[4]	2.4
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	7
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	50,400
Rate per 100 workers:	2.9
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	27,400
Rate per 100 workers:	1.6
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	48
Length of time it would take for OSHA to inspect each workplace once:	158 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,066
Construction:	748
Non-construction:	318
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$650
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$2,565
National average:	$14,767

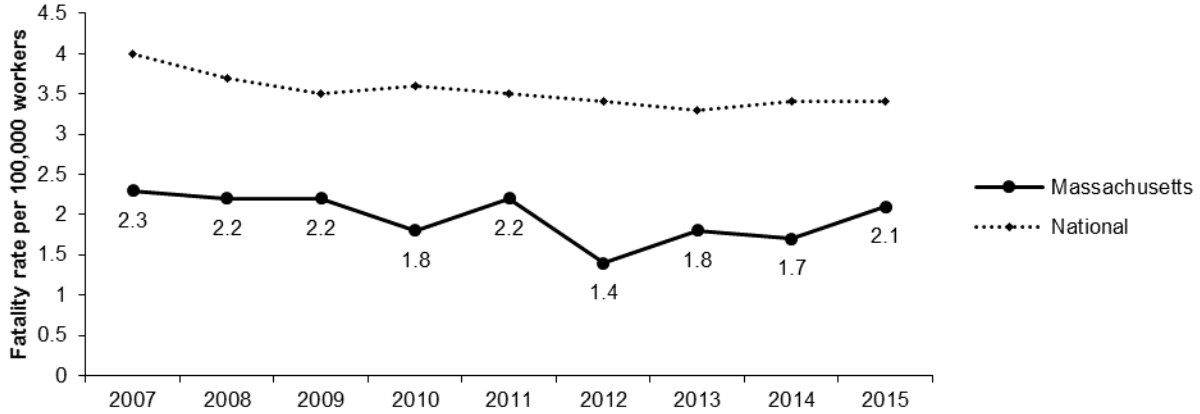


Prepared by AFL-CIO Safety and Health Department, April 2017

MASSACHUSETTS

Worker Safety and Health

Number of employees:[1]	3,428,020
Number of establishments:[1]	237,928
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	381,287
Number of workplace fatalities, 2015:[3]	69
Rate per 100,000 workers:[4]	2.1
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	3
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	65,300
Rate per 100 workers:	2.7
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	35,800
Rate per 100 workers:	1.5
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	29
Length of time it would take for OSHA to inspect each workplace once:	182 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,271
Construction:	722
Non-construction:	549
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,484
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$15,207
National average:	$14,767

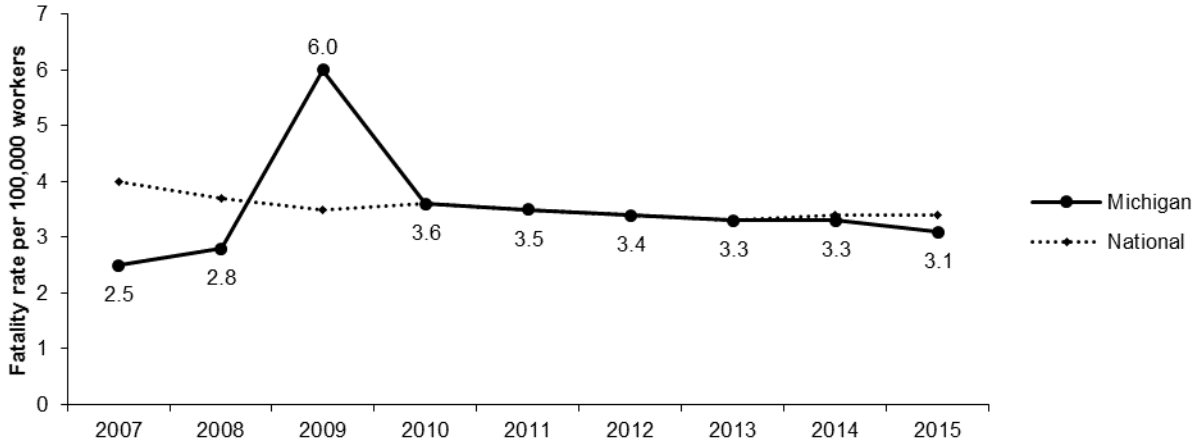


Prepared by AFL-CIO Safety and Health Department, April 2017

MICHIGAN

Worker Safety and Health

Number of employees:[1]	4,161,641
Number of establishments:[1]	238,969
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	134
Rate per 100,000 workers:[4]	3.1
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	21
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	96,000
Rate per 100 workers:	3.3
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	46,700
Rate per 100 workers:	1.6
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	56
Length of time it would take for OSHA to inspect each workplace once:	51 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	4,694
Construction:	2,772
Non-construction:	1,922
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$763
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$9,251
National average:	$14,767

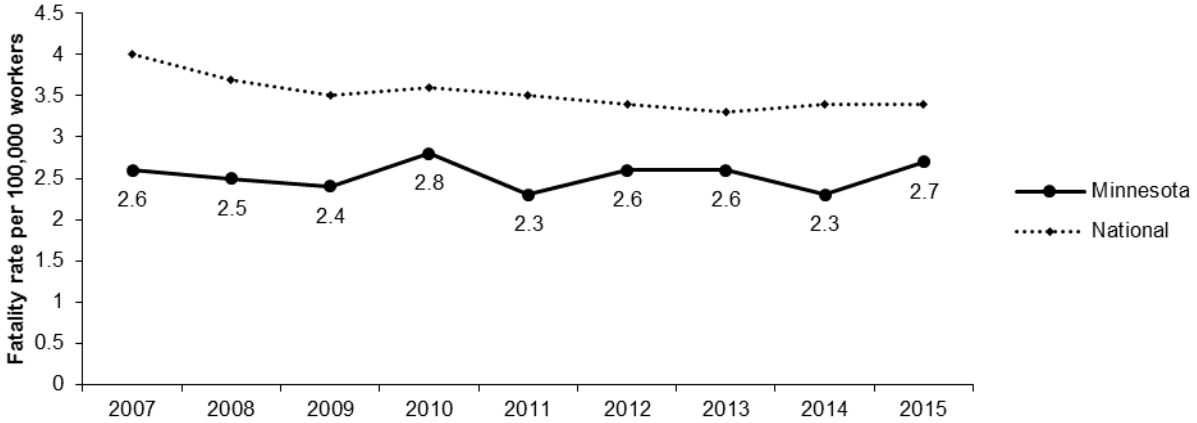


Prepared by AFL-CIO Safety and Health Department, April 2017

MINNESOTA

Worker Safety and Health

Number of employees:[1]	2,776,684
Number of establishments:[1]	160,615
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	74
Rate per 100,000 workers:[4]	2.7
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	13
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	65,600
Rate per 100 workers:	3.5
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	31,200
Rate per 100 workers:	1.7
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	40
Length of time it would take for OSHA to inspect each workplace once:	81 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,989
Construction:	722
Non-construction:	1,267
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$832
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$36,127
National average:	$14,767

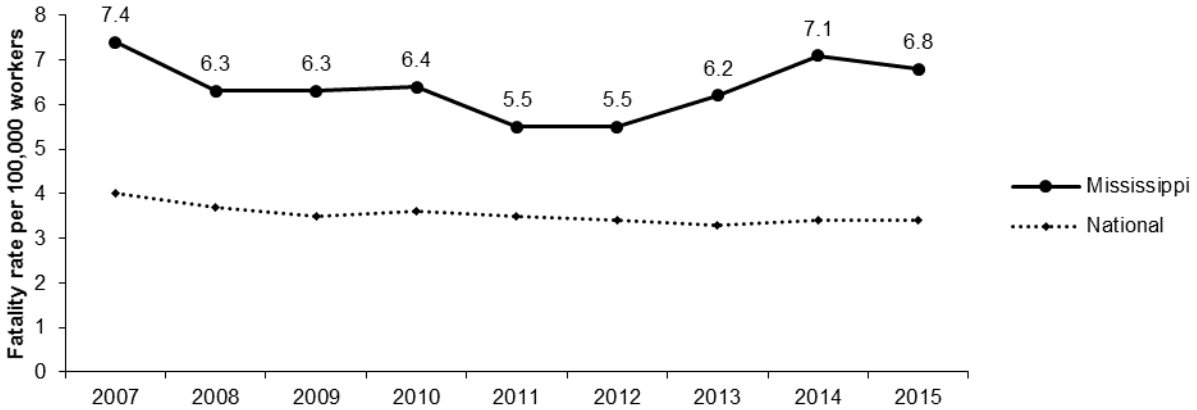


Prepared by AFL-CIO Safety and Health Department, April 2017

MISSISSIPPI

Worker Safety and Health

Number of employees:[1]	1,114,379
Number of establishments:[1]	71,761
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	210,753
Number of workplace fatalities, 2015:[3]	77
Rate per 100,000 workers:[4]	6.8
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	47
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	N/A
Rate per 100 workers:	N/A
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	11
Length of time it would take for OSHA to inspect each workplace once:	134 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	513
Construction:	258
Non-construction:	255
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,440
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$11,658
National average:	$14,767

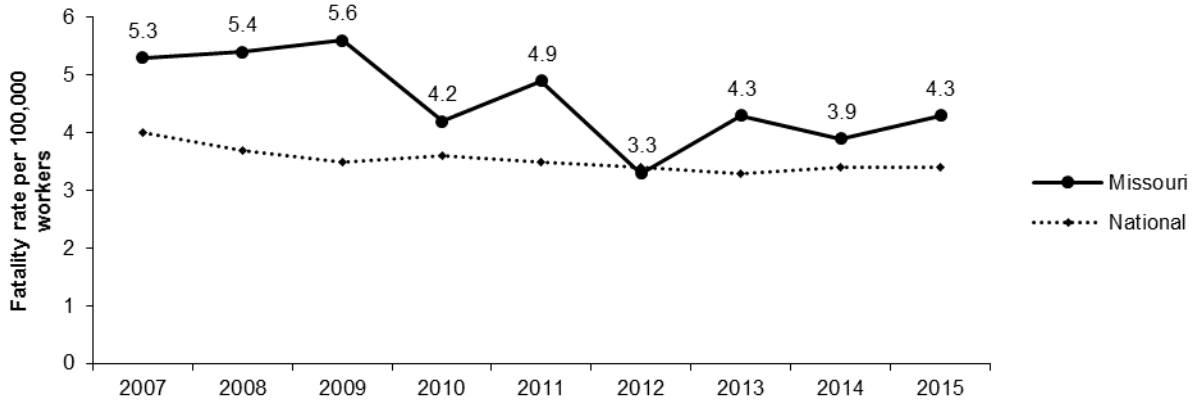


Prepared by AFL-CIO Safety and Health Department, April 2017

MISSOURI

Worker Safety and Health

Number of employees:[1]	2,715,579
Number of establishments:[1]	191,647
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	361,016
Number of workplace fatalities, 2015:[3]	117
Rate per 100,000 workers:[4]	4.3
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	34
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	55,700
Rate per 100 workers:	3.0
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	28,000
Rate per 100 workers:	1.5
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	14
Length of time it would take for OSHA to inspect each workplace once:	160 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,147
Construction:	498
Non-construction:	649
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,466
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$12,768
National average:	$14,767

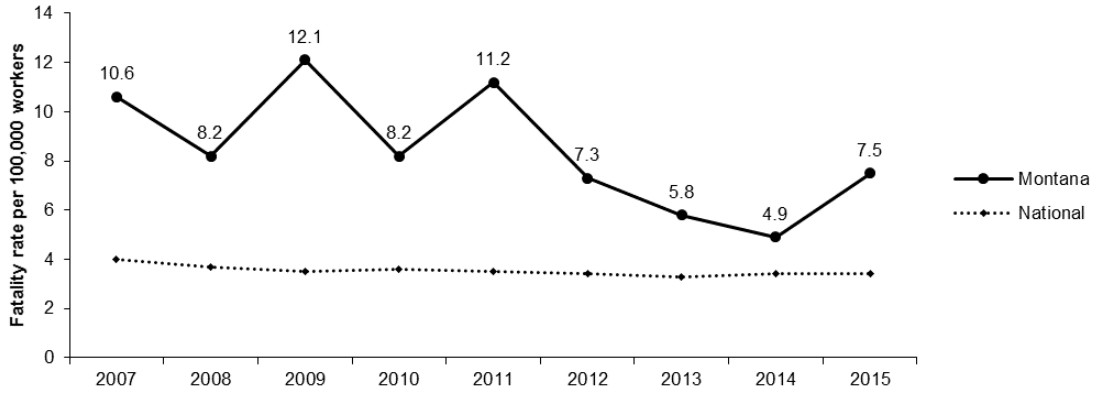


Prepared by AFL-CIO Safety and Health Department, April 2017

MONTANA

Worker Safety and Health

Number of employees:[1]	448,688
Number of establishments:[1]	45,032
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	69,878
Number of workplace fatalities, 2015:[3]	36
Rate per 100,000 workers:[4]	7.5
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	48
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	12,000
Rate per 100 workers:	4.3
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	5,700
Rate per 100 workers:	2.0
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	7
Length of time it would take for OSHA to inspect each workplace once:	204 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	213
Construction:	122
Non-construction:	91
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,803
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$24,056
National average:	$14,767

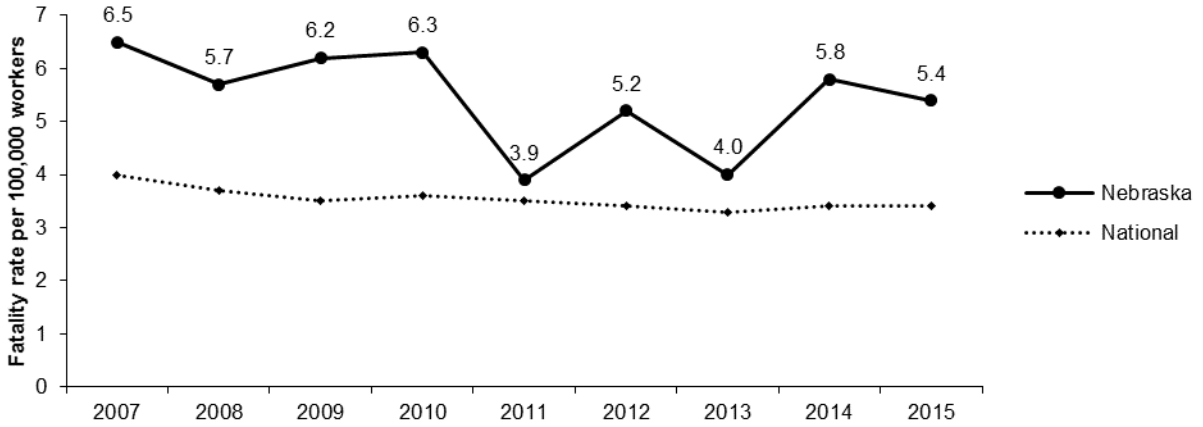


Prepared by AFL-CIO Safety and Health Department, April 2017

NEBRASKA

Worker Safety and Health

Number of employees:[1]	959,176
Number of establishments:[1]	70,816
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	143,138
Number of workplace fatalities, 2015:[3]	50
Rate per 100,000 workers:[4]	5.4
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	41
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	22,500
Rate per 100 workers:	3.4
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	11,800
Rate per 100 workers:	1.8
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	9
Length of time it would take for OSHA to inspect each workplace once:	204 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	333
Construction:	141
Non-construction:	192
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,891
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$88,638
National average:	$14,767

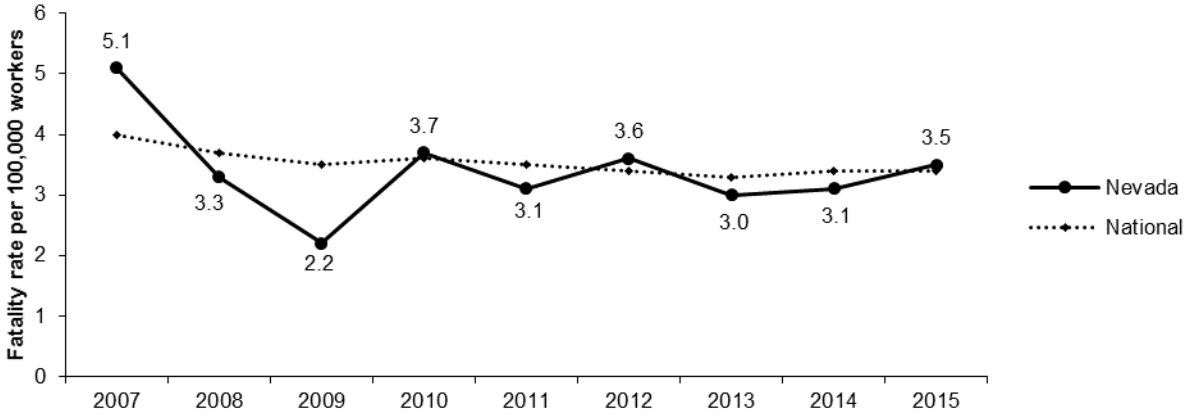


Prepared by AFL-CIO Safety and Health Department, April 2017

NEVADA

Worker Safety and Health

Number of employees:[1]	1,244,635
Number of establishments:[1]	78,902
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	44
Rate per 100,000 workers:[4]	3.5
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	25
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	33,400
Rate per 100 workers:	3.8
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	18,600
Rate per 100 workers:	2.1
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	45
Length of time it would take for OSHA to inspect each workplace once:	52 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,517
Construction:	559
Non-construction:	958
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,157
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$2,210
National average:	$14,767

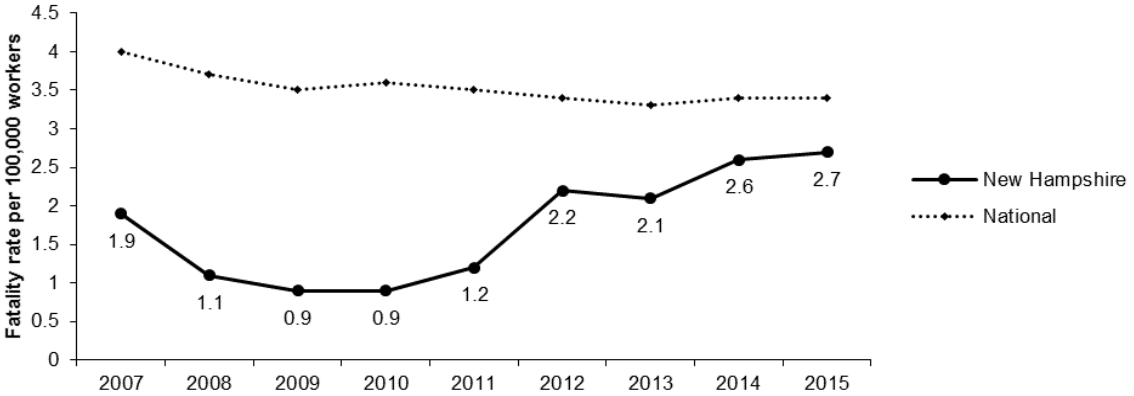


Prepared by AFL-CIO Safety and Health Department, April 2017

NEW HAMPSHIRE

Worker Safety and Health

Number of employees:[1]	639,806
Number of establishments:[1]	50,660
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	77,012
Number of workplace fatalities, 2015:[3]	18
Rate per 100,000 workers:[4]	2.7
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	13
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	N/A
Rate per 100 workers:	N/A
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	7
Length of time it would take for OSHA to inspect each workplace once:	157 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	309
Construction:	158
Non-construction:	151
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,425
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$2,210
National average:	$14,767

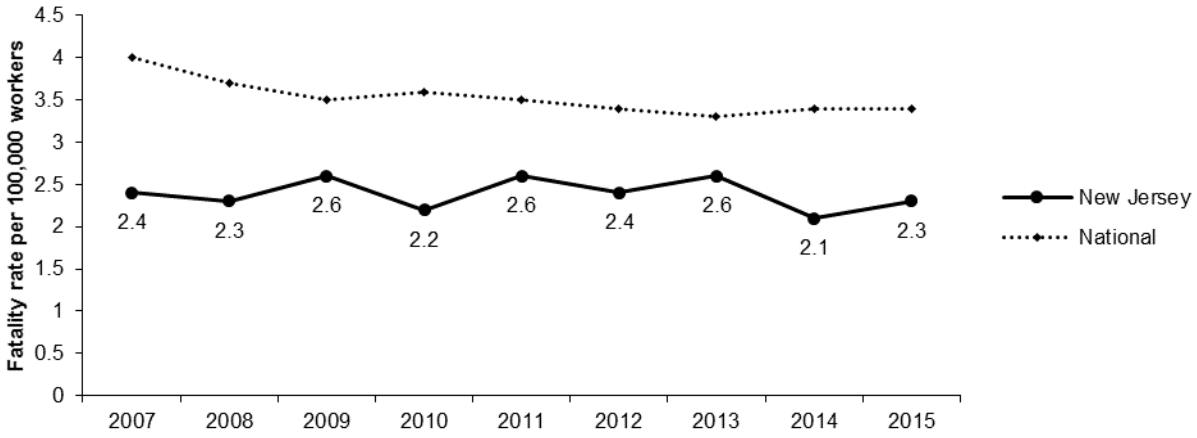


Prepared by AFL-CIO Safety and Health Department, April 2017

NEW JERSEY

Worker Safety and Health

Number of employees:[1]	3,889,975
Number of establishments:[1]	259,277
State or federal OSHA program:[2]	Federal
Number of workplace fatalities, 2015:[3]	97
Rate per 100,000 workers:[4]	2.3
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	6
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	72,000
Rate per 100 workers:	2.7
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	40,900
Rate per 100 workers:	1.5
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	51
Length of time it would take for OSHA to inspect each workplace once:	108 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,614
Construction:	861
Non-construction:	753
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,533
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$23,440
National average:	$14,767



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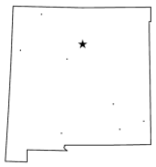
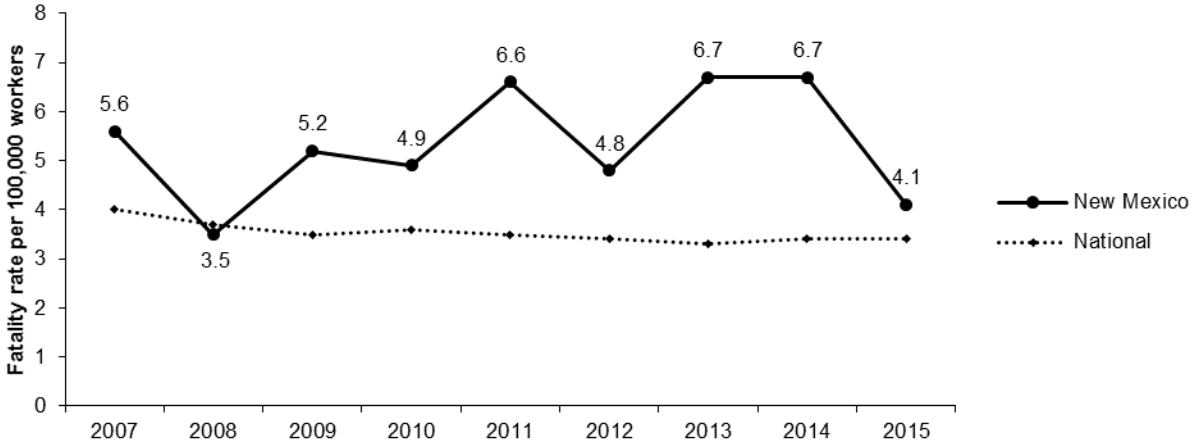
NEW MEXICO



Worker Safety and Health

Number of employees:[1]	806,762
Number of establishments:[1]	56,911
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	35
Rate per 100,000 workers:[4]	4.1
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	32
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	16,300
Rate per 100 workers:	3.1
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	7,600
Rate per 100 workers:	1.5
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	10
Length of time it would take for OSHA to inspect each workplace once:	122 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	464
Construction:	245
Non-construction:	219
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,140
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$5,486
National average:	$14,767

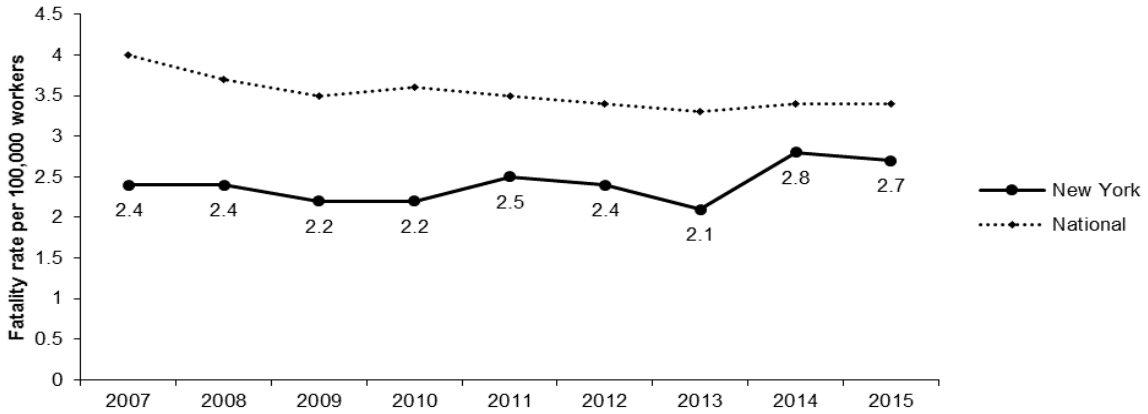


Prepared by AFL-CIO Safety and Health Department, April 2017

NEW YORK

Worker Safety and Health

Number of employees:[1]	9,014,385
Number of establishments:[1]	627,270
State or federal OSHA program:[2]	Federal
Number of workplace fatalities, 2015:[3]	236
Rate per 100,000 workers:[4]	2.7
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	13
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	148,000
Rate per 100 workers:	2.4
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	86,800
Rate per 100 workers:	1.4
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	93
Length of time it would take for OSHA to inspect each workplace once:	152 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	4,127
Construction:	1,868
Non-construction:	2,259
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,492
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$15,020
National average:	$14,767

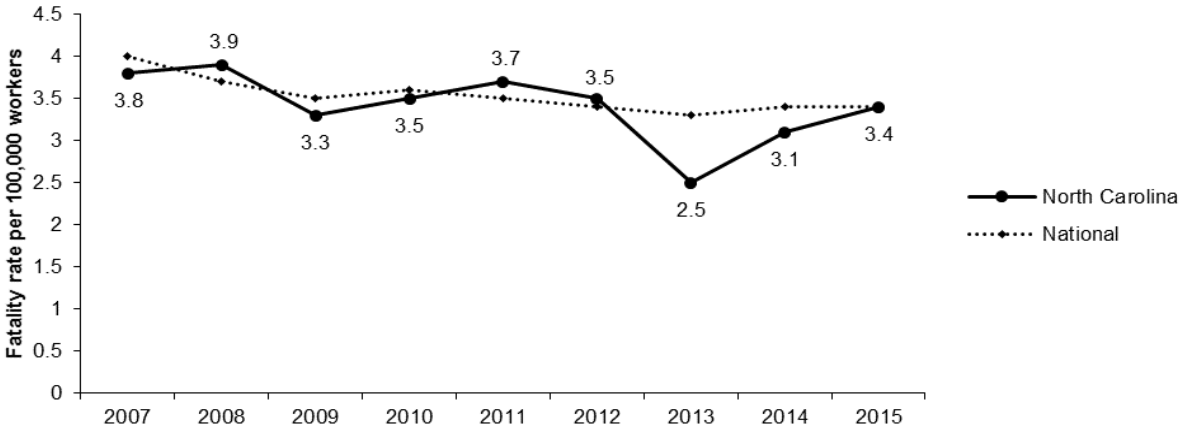


Prepared by AFL-CIO Safety and Health Department, April 2017

NORTH CAROLINA

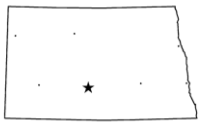
Worker Safety and Health

Number of employees:[1]	4,161,654
Number of establishments:[1]	266,421
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	150
Rate per 100,000 workers:[4]	3.4
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	24
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	74,100
Rate per 100 workers:	2.6
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	38,300
Rate per 100 workers:	1.4
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	85
Length of time it would take for OSHA to inspect each workplace once:	98 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	2,712
Construction:	1,173
Non-construction:	1,539
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,582
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$6,839
National average:	$14,767



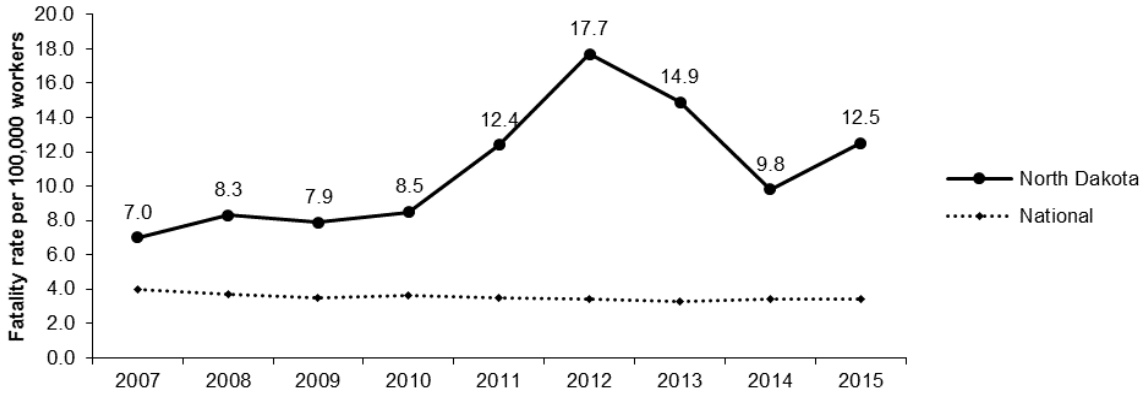
Prepared by AFL-CIO Safety and Health Department, April 2017

NORTH DAKOTA



Worker Safety and Health

Number of employees:[1]	437,072
Number of establishments:[1]	32,140
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	60,747
Number of workplace fatalities, 2015:[3]	47
Rate per 100,000 workers:[4]	12.5
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	50
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	N/A
Rate per 100 workers:	N/A
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	7
Length of time it would take for OSHA to inspect each workplace once:	101 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	304
Construction:	180
Non-construction:	124
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,723
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$3,674
National average:	$14,767

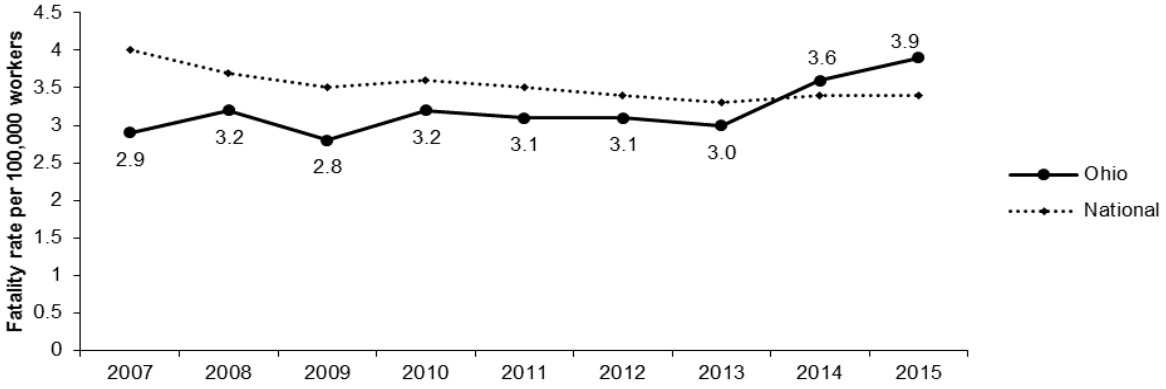


Prepared by AFL-CIO Safety and Health Department, April 2017

OHIO

Worker Safety and Health

Number of employees:[1]	5,257,971
Number of establishments:[1]	290,876
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	629,258
Number of workplace fatalities, 2015:[3]	202
Rate per 100,000 workers:[4]	3.9
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	29
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	104,700
Rate per 100 workers:	2.8
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	53,000
Rate per 100 workers:	1.4
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	59
Length of time it would take for OSHA to inspect each workplace once:	141 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,978
Construction:	808
Non-construction:	1,170
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,679
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$15,983
National average:	$14,767

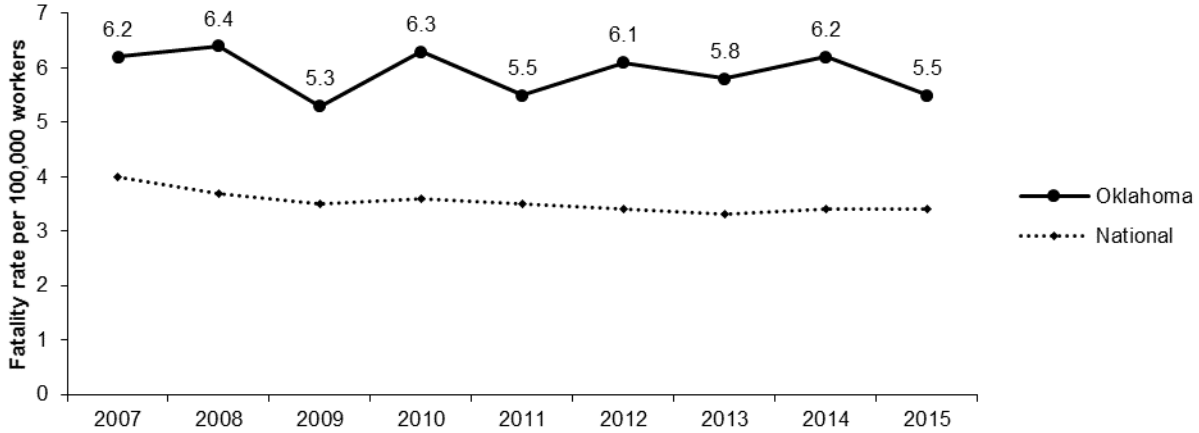


Prepared by AFL-CIO Safety and Health Department, April 2017

OKLAHOMA

Worker Safety and Health

Number of employees:[1]	1,594,011
Number of establishments:[1]	108,626
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	276,982
Number of workplace fatalities, 2015:[3]	91
Rate per 100,000 workers:[4]	5.5
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	42
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	N/A
Rate per 100 workers:	N/A
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	16
Length of time it would take for OSHA to inspect each workplace once:	150 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	692
Construction:	378
Non-construction:	314
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,017
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$7,649
National average:	$14,767

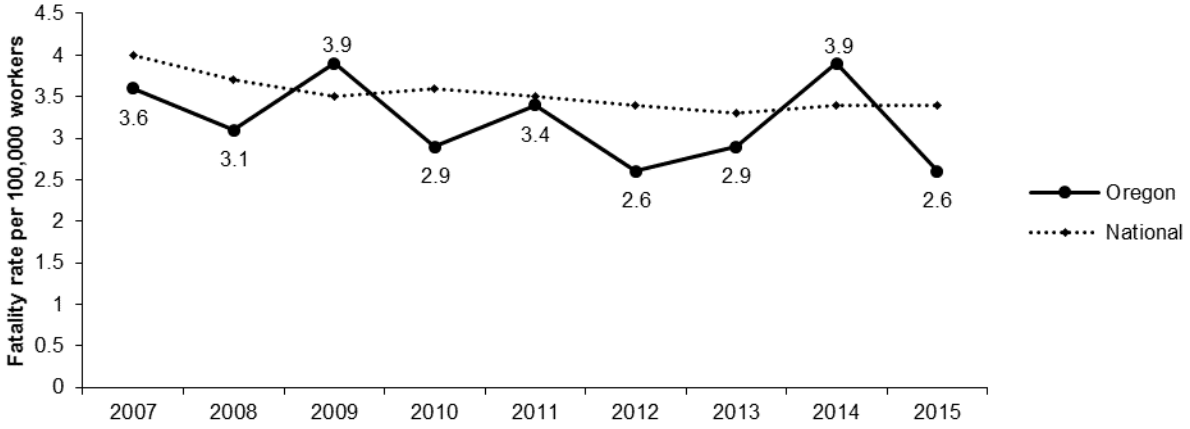


Prepared by AFL-CIO Safety and Health Department, April 2017

OREGON

Worker Safety and Health

Number of employees:[1]	1,787,398
Number of establishments:[1]	141,395
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	44
Rate per 100,000 workers:[4]	2.6
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	10
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	44,700
Rate per 100 workers:	3.7
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	24,900
Rate per 100 workers:	2.1
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	72
Length of time it would take for OSHA to inspect each workplace once:	35 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	3,992
Construction:	1,333
Non-construction:	2,659
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$570
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$8,907
National average:	$14,767



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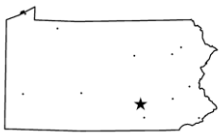
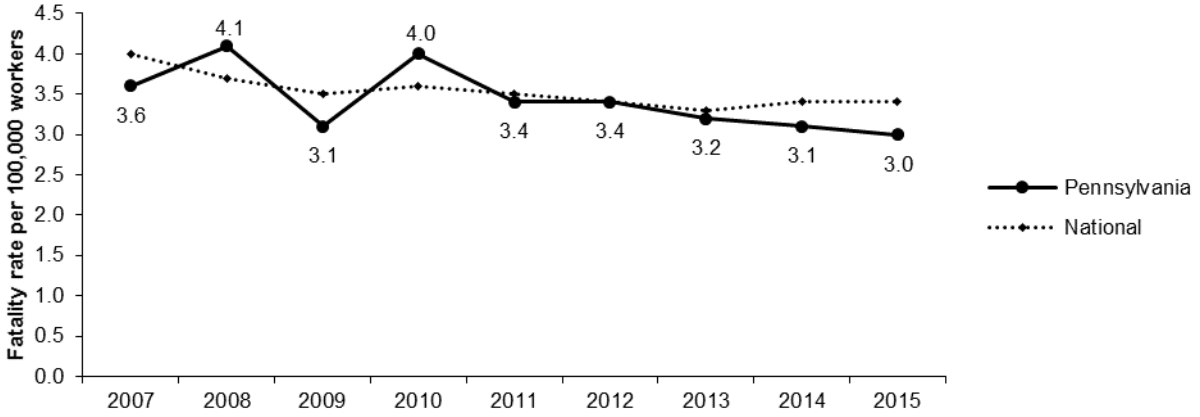
PENNSYLVANIA



Worker Safety and Health

Number of employees:[1]	5,691,613
Number of establishments:[1]	349,719
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	579,841
Number of workplace fatalities, 2015:[3]	173
Rate per 100,000 workers:[4]	3.0
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	20
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	144,900
Rate per 100 workers:	3.5
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	77,900
Rate per 100 workers:	1.9
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	54
Length of time it would take for OSHA to inspect each workplace once:	149 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	2,273
Construction:	1,013
Non-construction:	1,260
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,484
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$10,468
National average:	$14,767

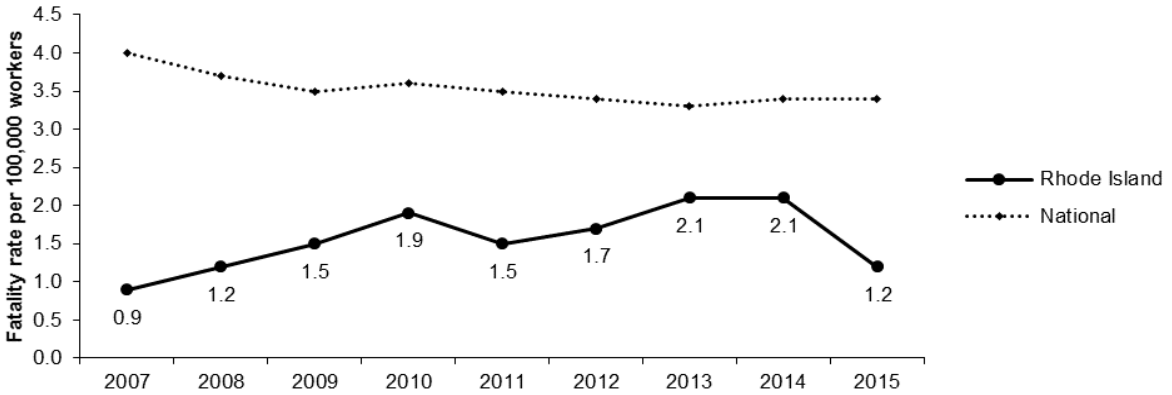


Prepared by AFL-CIO Safety and Health Department, April 2017

RHODE ISLAND

Worker Safety and Health

Number of employees:[1]	469,981
Number of establishments:[1]	36,347
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	48,465
Number of workplace fatalities, 2015:[3]	6
Rate per 100,000 workers:[4]	1.2
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	1
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	N/A
Rate per 100 workers:	N/A
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	7
Length of time it would take for OSHA to inspect each workplace once:	124 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	288
Construction:	167
Non-construction:	121
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,077
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$4,813
National average:	$14,767

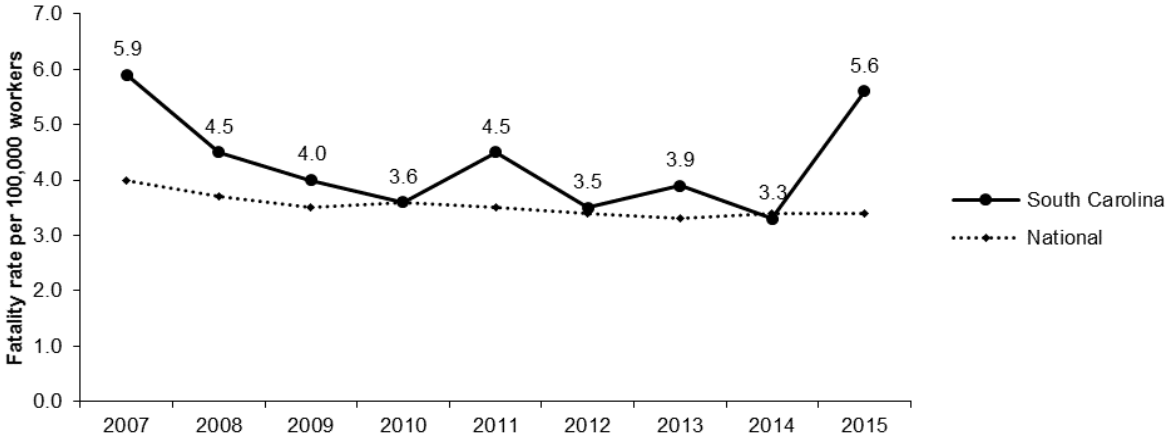


Prepared by AFL-CIO Safety and Health Department, April 2017

SOUTH CAROLINA

Worker Safety and Health

Number of employees:[1]	1,949,881
Number of establishments:[1]	122,383
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	117
Rate per 100,000 workers:[4]	5.6
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	44
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	32,900
Rate per 100 workers:	2.5
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	18,100
Rate per 100 workers:	1.4
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	19
Length of time it would take for OSHA to inspect each workplace once:	152 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	805
Construction:	524
Non-construction:	281
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$790
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$2,291
National average:	$14,767

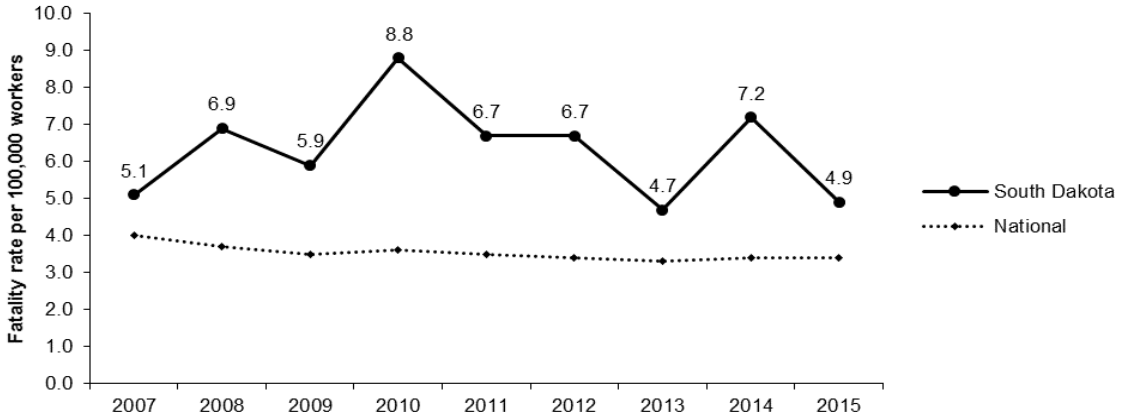


Prepared by AFL-CIO Safety and Health Department, April 2017

SOUTH DAKOTA

Worker Safety and Health

Number of employees:[1]	416,020
Number of establishments:[1]	32,486
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	60,832
Number of workplace fatalities, 2015:[3]	21
Rate per 100,000 workers:[4]	4.9
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	39
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	N/A
Rate per 100 workers:	N/A
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	2
Length of time it would take for OSHA to inspect each workplace once:	293 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	105
Construction:	51
Non-construction:	54
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,419
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$21,846
National average:	$14,767

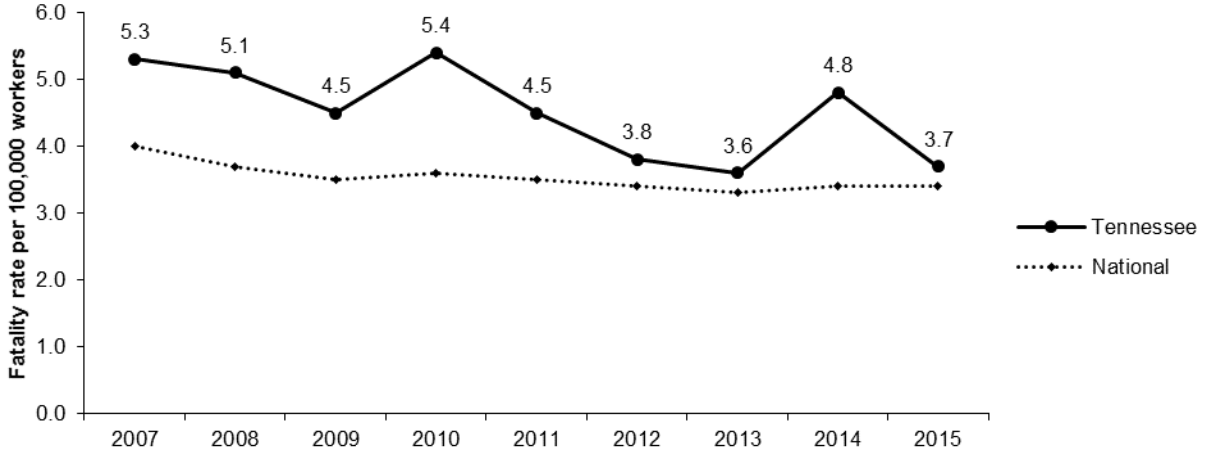


Prepared by AFL-CIO Safety and Health Department, April 2017

TENNESSEE

Worker Safety and Health

Number of employees:[1]	2,820,198
Number of establishments:[1]	150,237
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	112
Rate per 100,000 workers:[4]	3.7
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	27
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	61,200
Rate per 100 workers:	3.1
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	30,600
Rate per 100 workers:	1.5
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	38
Length of time it would take for OSHA to inspect each workplace once:	91 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,615
Construction:	305
Non-construction:	1,310
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,566
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$4,913
National average:	$14,767

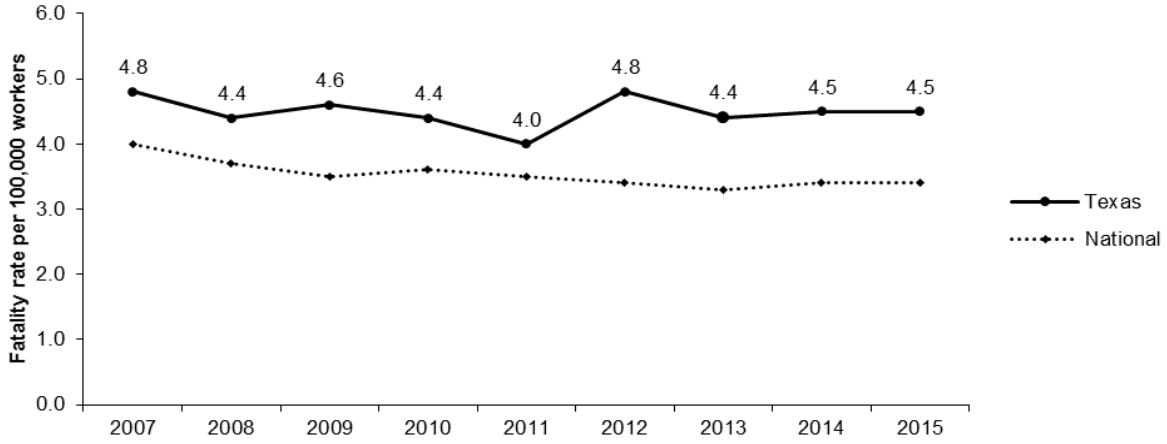


Prepared by AFL-CIO Safety and Health Department, April 2017

TEXAS

Worker Safety and Health

Number of employees:[1]	11,655,919
Number of establishments:[1]	639,721
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	1,615,808
Number of workplace fatalities, 2015:[3]	527
Rate per 100,000 workers:[4]	4.5
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	37
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	189,500
Rate per 100 workers:	2.3
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	103,400
Rate per 100 workers:	1.2
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	91
Length of time it would take for OSHA to inspect each workplace once:	169 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	3,706
Construction:	2,051
Non-construction:	1,655
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,397
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$12,763
National average:	$14,767



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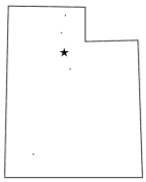
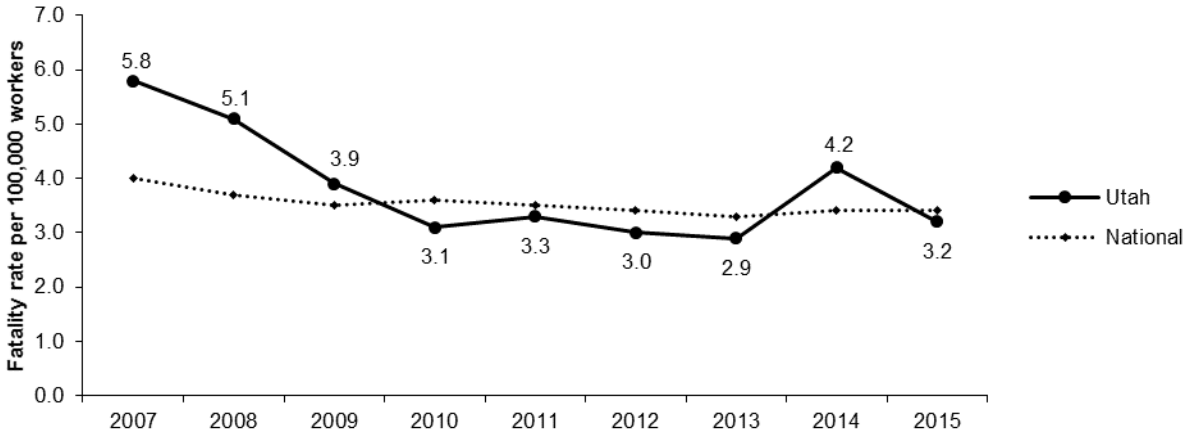
UTAH

Worker Safety and Health



Number of employees:[1]	1,340,591
Number of establishments:[1]	93,169
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	42
Rate per 100,000 workers:[4]	3.2
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	23
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	31,300
Rate per 100 workers:	3.5
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	12,900
Rate per 100 workers:	1.4
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	18
Length of time it would take for OSHA to inspect each workplace once:	113 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	824
Construction:	402
Non-construction:	422
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,322
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$3,167
National average:	$14,767

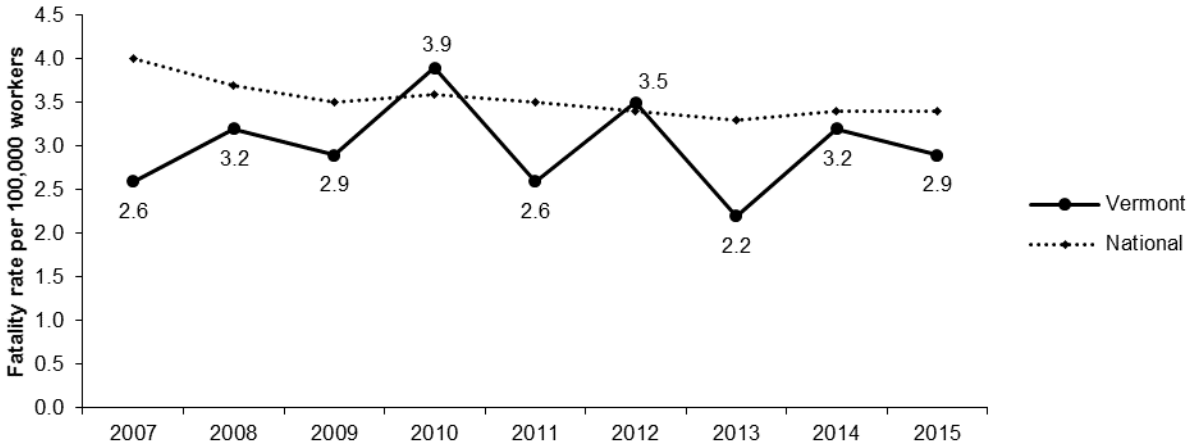


Prepared by AFL-CIO Safety and Health Department, April 2017

VERMONT

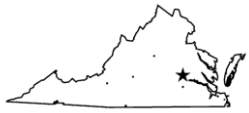
Worker Safety and Health

Number of employees:[1]	307,058
Number of establishments:[1]	24,624
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	9
Rate per 100,000 workers:[4]	2.9
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	17
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	9,100
Rate per 100 workers:	4.6
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	4,600
Rate per 100 workers:	2.3
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	7
Length of time it would take for OSHA to inspect each workplace once:	62 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	394
Construction:	209
Non-construction:	185
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,201
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$9,990
National average:	$14,767



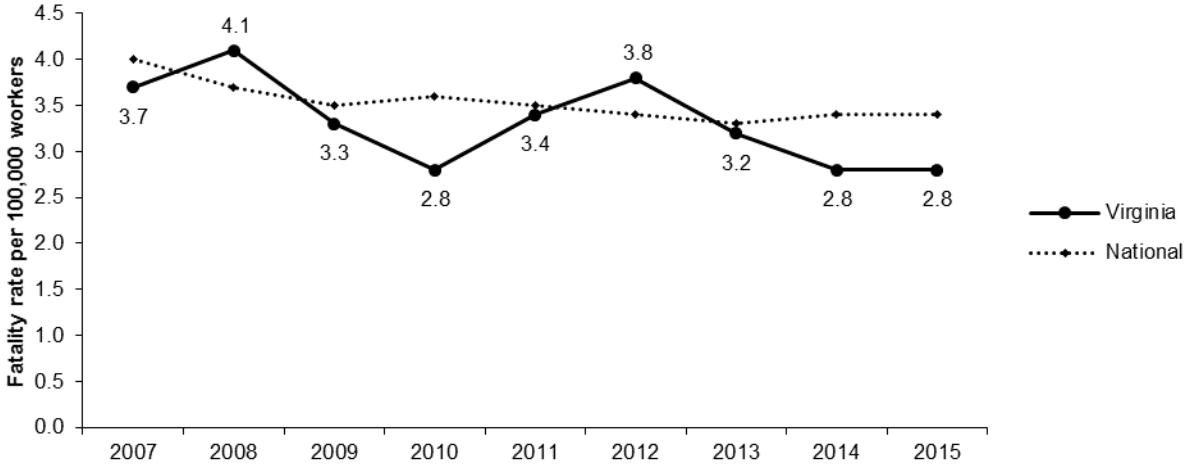
Prepared by AFL-CIO Safety and Health Department, April 2017

VIRGINIA



Worker Safety and Health

Number of employees:[1]	3,735,713
Number of establishments:[1]	254,270
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	106
Rate per 100,000 workers:[4]	2.8
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	16
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	58,700
Rate per 100 workers:	2.4
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	32,400
Rate per 100 workers:	1.3
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	49
Length of time it would take for OSHA to inspect each workplace once:	102 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	2,492
Construction:	1,339
Non-construction:	1,153
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,504
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$14,712
National average:	$14,767

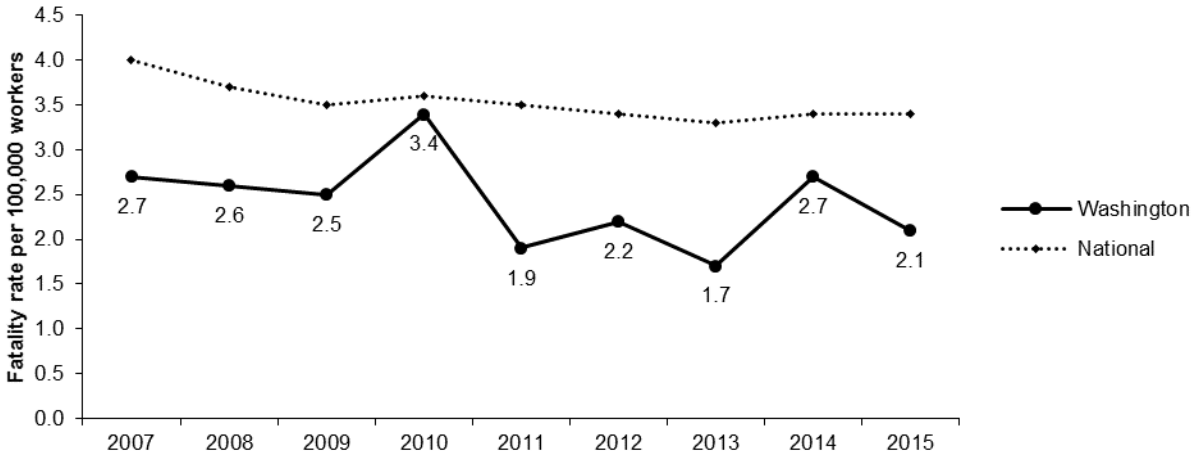


Prepared by AFL-CIO Safety and Health Department, April 2017

WASHINGTON

Worker Safety and Health

Number of employees:[1]	3,122,749
Number of establishments:[1]	239,221
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	70
Rate per 100,000 workers:[4]	2.1
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	3
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	90,700
Rate per 100 workers:	4.4
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	50,000
Rate per 100 workers:	2.4
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	111
Length of time it would take for OSHA to inspect each workplace once:	57 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	4,219
Construction:	1,776
Non-construction:	2,443
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,118
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$5,943
National average:	$14,767

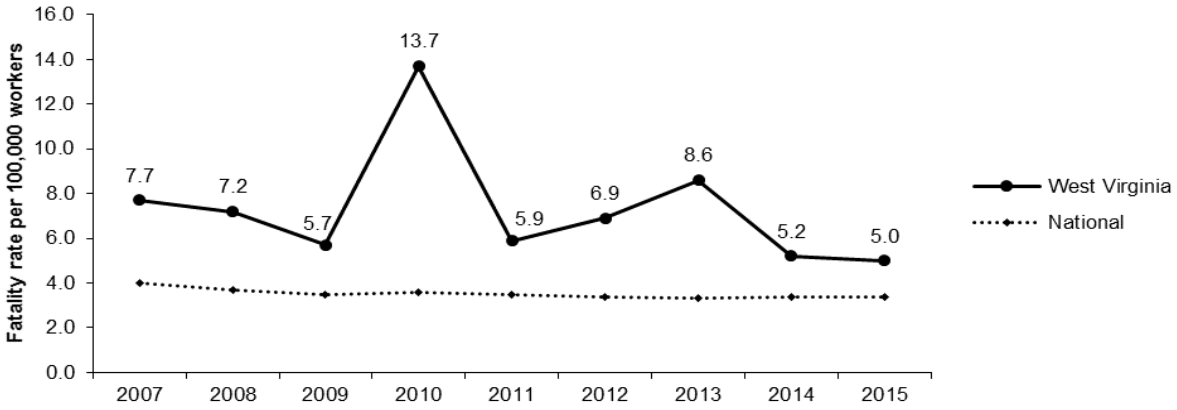


Prepared by AFL-CIO Safety and Health Department, April 2017

WEST VIRGINIA

Worker Safety and Health

Number of employees:[1]	696,195
Number of establishments:[1]	50,156
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	113,816
Number of workplace fatalities, 2015:[3]	35
Rate per 100,000 workers:[4]	5.0
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	40
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	15,400
Rate per 100 workers:	3.2
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	7,800
Rate per 100 workers:	1.6
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	6
Length of time it would take for OSHA to inspect each workplace once:	181 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	260
Construction:	107
Non-construction:	153
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$1,916
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$9,901
National average:	$14,767

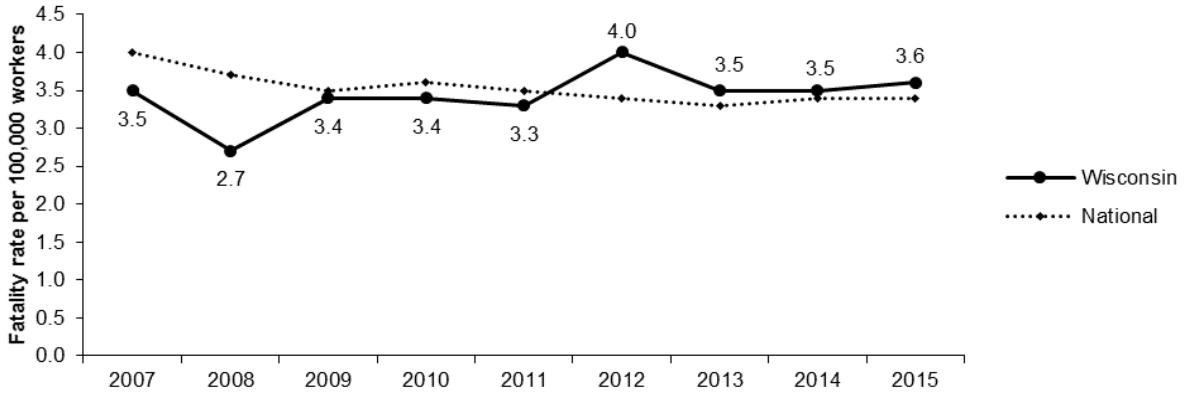


Prepared by AFL-CIO Safety and Health Department, April 2017

WISCONSIN

Worker Safety and Health

Number of employees:[1]	2,794,170
Number of establishments:[1]	166,922
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	348,668
Number of workplace fatalities, 2015:[3]	104
Rate per 100,000 workers:[4]	3.6
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	26
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	68,400
Rate per 100 workers:	3.6
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	34,900
Rate per 100 workers:	1.8
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	30
Length of time it would take for OSHA to inspect each workplace once:	142 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	1,132
Construction:	423
Non-construction:	709
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,573
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$30,769
National average:	$14,767



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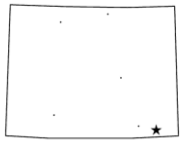
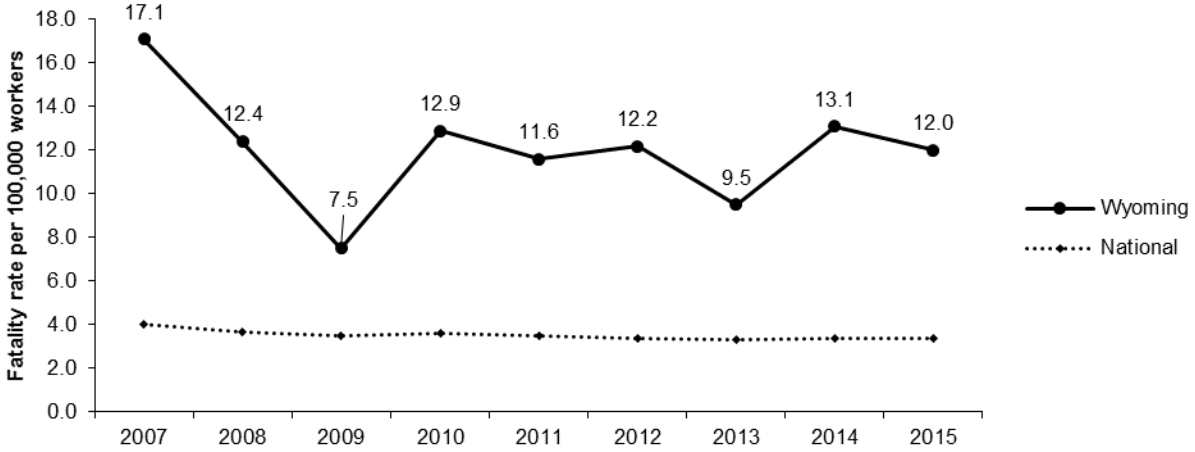
WYOMING



Worker Safety and Health

Number of employees:[1]	282,667
Number of establishments:[1]	26,097
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2015:[3]	34
Rate per 100,000 workers:[4]	12.0
National rate:	3.4
Ranking of state fatality rate, 2015:[5]	49
Total cases of workplace injuries and illnesses, private industry, 2015:[6]	6,200
Rate per 100 workers:	3.3
National rate:	3.0
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2015:[7]	3,200
Rate per 100 workers:	1.7
National rate:	1.6
Number of workplace safety and health inspectors, FY 2017:[8]	5
Length of time it would take for OSHA to inspect each workplace once:	94 years
Number of workplace safety and health inspections conducted, FY 2016:[9]	278
Construction:	177
Non-construction:	101
Avg. penalty assessed for serious violations of the OSH Act, FY 2016:[9]	$2,732
National average:	$2,087
Avg. total penalty per fatality investigation, FY 2016:[10]	$4,829
National average:	$14,767



Prepared by AFL-CIO Safety and Health Department, April 2017

SOURCES AND METHODOLOGY FOR STATE PROFILES

Employment and Establishment Data: *Employment and Wages, Annual Averages, 2015*, Bureau of Labor Statistics, U.S. Department of Labor.

Coverage of State and Local Employees: OSHA coverage of state and local employees depends on whether the state has adopted and runs its own OSHA program. States that run their own OSHA programs are required, as a condition of gaining federal approval, to cover state and local employees. Public employees in the 24 states that do not run their own OSHA programs are not covered by the OSH Act. Statistics on the number of state and local employees are from *Employment and Wages, Annual Averages, 2015*.

Workplace Fatality Information: *Census of Fatal Occupational Injuries, 2015,* Bureau of Labor Statistics, U.S. Department of Labor. Rate reflects fatalities per 100,000 workers.

Private-Sector Injury and Illness Data: *Survey of Occupational Injuries and Illnesses, 2015,* Bureau of Labor Statistics, U.S. Department of Labor. Rate reflects injuries and illnesses per 100 workers.

Inspector Information: The number of federal OSHA inspectors comes from OSHA's Directorate of Enforcement Programs records and reflects the number of inspectors, excluding supervisors and discrimination complaint inspectors. For the state-by-state profiles, inspectors are counted for the state in which the area office is located. Inspector data for state plan states are from OSHA's Directorate of Cooperative and State Programs, and reflects the number of "on board" inspectors included in the states' FY 2017 state plan grant applications. The number of "on board" inspectors may not accurately reflect the true number of inspectors that are hired and in place conducting enforcement inspections due to possible budgetary and staffing changes in individual states. National total for inspectors includes inspectors from Puerto Rico and the Virgin Islands.

Inspection Information: The number of inspections comes from the OIS (OSHA Information System). Federal and state inspection information was provided by OSHA for FY 2015 from the OIS.

Penalty Information: Data on average penalties comes from the above-referenced OIS reports. Average penalty data is divided into individual state penalties, federal OSHA states penalties, state OSHA states penalties and a national average of penalties. The average penalty numbers are ascertained by dividing the total cost for serious penalties by the total number of serious violations. It should be noted that the national average includes penalty data from the District of Columbia and U.S. territories and protectorates: American Samoa, the Guam, the Marshall Islands, Puerto Rico and the Virgin Islands.

The Length of Time It Would Take for OSHA to Inspect Each Establishment Once: This information is calculated separately for each federal OSHA state, each state plan OSHA state, the average for federal OSHA states, the average for state plan OSHA states and the national average for all states for one-time inspections. Establishment data is obtained from *Employment and Wages, Annual Averages, 2015*, at www.bls.gov/cew/cewbultn15.htm.

For individual *federal OSHA states*, the total number of private-industry (except mines) plus federal establishments is divided by the number of inspections per federal OSHA state.

For individual *state plan OSHA states*, and for Connecticut, Illinois, Maine, New Jersey and New York, the total number of private-industry (except mines) plus federal, state and local establishments is divided by the number of federal inspections plus the number of 18(b) state inspections per state. (Federal OSHA conducts a limited number of inspections in state plan states, presumably in federal facilities and maritime operations, for which state OSHA programs are not responsible. These inspections and establishments are included in the state profiles). It should be noted that the national average includes inspection data from American Samoa, the District of Columbia, Guam, the Marshall Islands, Puerto Rico and the Virgin Islands.

For the *average of federal or state plans to inspect establishments one time*, the total number of establishments for individual federal or state plan states are added together and then divided by the total number of federal or state inspections, respectively. For the calculation of the average, Connecticut, Illinois, Maine, New Jersey and New York are considered federal states.

For the *national average for one-time inspections*, the total number of establishments for both federal states and state plan states are divided by the total number of federal and state inspections.

NOTES: Due to the revised recordkeeping rule, which became effective Jan. 1, 2002, the estimates from the 2002 BLS Survey of Occupational Injuries and Illnesses are not comparable with those from previous years. Among the changes that could affect comparisons are: changes to the list of low-hazard industries that are exempt from recordkeeping; employers are no longer required to record all illnesses regardless of severity; a new category of injuries/illnesses diagnosed by a physician or health care professional; changes to the definition of first aid; and days away from work are recorded as calendar days.

Beginning with the 2003 reference year, both the Census of Fatal Occupational Injuries and the Survey of Occupational Injuries and Illnesses began using the 2002 North American Industry Classification System (NAICS) for industries and the Standard Occupation Classification system (SOC) for occupations. Prior to 2003, the surveys used the Standard Industrial Classification (SIC) system and the Bureau of the Census occupational classification system. The substantial differences between these systems result in breaks in series for industry and occupational data. Therefore, this report makes no comparisons of industry and occupation data from BLS for years beginning with 2003 and beyond with industry and occupation data reported by BLS prior to 2003.

FOOTNOTES FOR STATE PROFILES

[1]U.S. Department of Labor, Bureau of Labor Statistics, Employment and Wages: Annual Averages, 2015.
[2]Under §18 of the Occupational Safety and Health Act, a state may elect to run its own occupational safety and health program, provided it is as effective as the federal program. One condition of operating a state plan is that the program must cover state and local employees who otherwise are not covered by the OSH Act. Currently, 21 states and one territory administer their own OSHA programs for both public- and private-sector workers. Connecticut, Illinois, Maine, New Jersey, New York and the Virgin Islands have state programs for public employees only. Maine's state plan went into effect Aug. 5, 2015.
[3]U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2015, released Dec. 16, 2016.
[4]*Ibid.*
[5]Ranking based on best to worst (1=best; 50=worst).
[6]U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2015 private sector only.
[7]U.S. Department of Labor, Bureau of Labor Statistics, State Data, Nonfatal Occupational Injuries and Illnesses Requiring Days Away from Work, Job Transfer or Restriction, 2015 private sector only.
[8]U.S. Department of Labor, OSHA. Federal Compliance Safety and Health Officer Totals by State, Feb. 24, 2017. State plan state Compliance Safety and Health Officers "on board" from FY 2017 State Plan Grant Applications, Feb. 24, 2017.
[9]U.S. Department of Labor, OSHA. Inspection data provided by the Directorate of Enforcement programs, OIS Inspection Report; and the Directorate of Cooperative and State programs, OIS State by Year for 18(b) State (only).
[10]U.S. Department of Labor, OSHA, FY 2016. Fatality inspection penalty data provided by the Directorate of Enforcement programs, OIS Inspection Report; and the Directorate of Cooperative and State programs, OIS State by Year for 18(b) State (only). Average penalties may appear very high if there was an enforcement case in that state with a substantial penalty. For example, in 2016, one willful fatality case in Alabama resulted in total penalties of $2.5 million, which resulted in an average penalty for the state of $85,832 in FY 2016. In FY 2015, the average penalty for a fatality case in Alabama was $8,781.

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