DEATH ON THE JOB

THE TOLL OF NEGLECT

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

31ST EDITION • APRIL 2022

AFL-CIO

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For more information, contact the AFL-CIO Safety and Health Office at oshmail@aflcio.org.

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EXECUTIVE SUMMARY

This 2022 edition of "Death on the Job: The Toll of Neglect" marks the 31st year the AFL-CIO has produced a report on the state of safety and health protections for America's workers. The Occupational Safety and Health Act, promising every worker the right to a safe job, has been in effect for more than 50 years, and more than 647,000 workers now can say their lives have been saved since the passage of the OSH Act.

Over the last 50 years, there has been significant progress toward improving working conditions and protecting workers from job injuries, illnesses and deaths. Federal job safety agencies have issued many important regulations on safety hazards and silica, coal dust and other health hazards, strengthened enforcement and expanded worker rights. These initiatives have undoubtedly made workplaces safer and saved lives. But much more progress is needed.

Over the years, the progress has become more challenging as employers' opposition to workers' rights and protections has grown, and attacks on unions have intensified. Big Business and many Republicans have launched an aggressive assault on worker protections. They are attempting to shift employers' responsibilities to provide safe jobs to individual workers, and undermine the core responsibilities of workplace safety agencies.

The nation must renew its commitment to protecting workers from job injury, disease and death, and make this a high priority. Employers must meet their responsibilities to protect workers and be held accountable if they put workers in danger. Only then can the promise of safe jobs for all of America's workers be fulfilled. There is much more work to be done to ensure the fundamental right to a safe job is a reality for all.

The High Toll of Job Injuries, Illnesses and Deaths

In 2020:

- 340 workers died each day from hazardous working conditions.
- 4,764 workers were killed on the job in the United States.
- An estimated 120,000 workers died from occupational diseases.
- The job fatality rate was 3.4 per 100,000 workers.
- Latino and Black workers remain at greater risk of dying on the job than all workers.
- Employers reported nearly 3.2 million work-related injuries and illnesses.
- Musculoskeletal disorders continue to make up the largest portion (21%) of work-related injuries and illnesses.
- Underreporting is widespread—the true toll of work-related injuries and illnesses is 5.4 million to 8.1 million each year.

The cost of job injuries and illnesses is enormous—estimated at $176 billion to $352 billion a year.

States with the highest fatality rates in 2020 were:
- Wyoming (13.0 per 100,000 workers)
- Alaska (10.7 per 100,000 workers)
- South Dakota (7.8 per 100,000 workers)
- North Dakota (7.4 per 100,000 workers)
- West Virginia (6.6 per 100,000 workers)

Industries with the highest fatality rates in 2020 were:
- Agriculture, forestry, and fishing and hunting (21.5 per 100,000 workers)
- Transportation and warehousing (13.4 per 100,000 workers)
- Mining, quarrying, and oil and gas extraction (10.5 per 100,000 workers)
- Construction (10.2 per 100,000 workers)
- Wholesale trade (4.6 per 100,000 workers)

Latino and Black workers, often laboring in dangerous working conditions, are more likely to die on the job:
- The Latino fatality rate increased again to 4.5 per 100,000 workers in 2020, 32% greater than the national average; that marks a 15% increase over the past decade.
- The number of Latino worker deaths in 2020 was similar to the previous year: 1,072 deaths in 2020, compared with 1,088 in 2019. Of those who died in 2020, 65% were immigrants.
- The Black worker fatality rate of 3.5 per 100,000 workers continues to be greater than the national average.
- 541 Black workers died on the job, a decrease from 2019.

Older workers are at high risk. In 2020:
- More than one-third of workplace fatalities occurred among workers ages 55 and older.
- Workers 65 and older have 2.5 times the risk of dying on the job as other workers, with a fatality rate of 8.6 per 100,000 workers.

During the COVID-19 pandemic:
- America's workplaces are a primary source of COVID-19 outbreaks, with thousands of workers infected and dying as they work in indoor, poorly ventilated spaces. However, workplace infection and outbreak information is limited because there is no national data surveillance system.
- Racial inequities in working conditions, disease and death were made worse and exploited.
- The federal Occupational Safety and Health Administration (OSHA) issued a COVID-19 emergency temporary standard for health care (ETS for health care) on June 21, 2021. This provided health care workers with enforceable protections against exposure to the virus at work. On Dec. 27, 2021, OSHA announced a plan to withdraw the emergency standard and focus on permanent protections, leaving health care workers without COVID-19 protections in the meantime, including during the Omicron surge.
- All other workers have worked throughout the pandemic with only unenforceable guidance by federal OSHA. Recommendations from the Centers for Disease Control and Prevention (CDC) are weak, insufficient and have changed frequently within these two years, and have been plagued with political interference and corporate influence.

- Federal OSHA so far has issued 2,507 COVID-19-related violations, including 203 ETS for health care citations, 26 5(a)(1) citations, as well as respiratory protection, personal protective equipment and recordkeeping citations. The average penalty for a COVID-19-related violation was $3,281 per violation.
- Several state OSHA plans issued emergency temporary standards for COVID-19, and other states have issued executive orders requiring employers to implement workplace safety protections, or are enforcing current OSHA standards in their states—but many of these actions have been revoked or weakened as variants continue to spread in workplaces.

Workplace violence remains a serious and growing problem:
- Workplace violence deaths increased to 705 in 2020, while more than 27,000 violence-related lost-time injuries were reported.
- 392 worker deaths were workplace homicides.
- Workplace violence is the fourth-leading cause of workplace death overall and the second-leading cause of workplace death for women.
- Women workers are at greater risk of violence than men; they suffer seven of every 10 lost-time injuries related to workplace violence, and are 50% more likely to be killed by a relative or domestic partner in the workplace than men.
- There is no federal OSHA standard to protect workers from workplace violence.

Job Safety Oversight and Enforcement

OSHA resources in FY 2021 still are too few to be a deterrent:
- There are only 1,719 inspectors (755 federal and 964 state) to inspect the 10.4 million workplaces under the Occupational Safety and Health Act's jurisdiction.
- The number of OSHA inspectors is near its lowest number since the agency opened more than 50 years ago.
- There is one inspector for every 81,427 workers.
- The current OSHA budget amounts to $4.37 to protect each worker.

Penalties in FY 2021 still are too weak:
- The average penalty for a serious violation was $4,460 for federal OSHA.
- The average penalty for a serious violation was $2,421 for OSHA state plans.
- The median penalty for killing a worker was $9,753 for federal OSHA.
- The median penalty for killing a worker was $5,825 for state OSHA plans.
- Only 115 worker death cases have been criminally prosecuted under the Occupational Safety and Health Act since 1970.

Much Work Remains to Be Done

Workers need more job safety and health protection, not less. We call on:
- OSHA and the Mine Safety and Health Administration (MSHA) to fully enforce job safety and health protections to hold employers accountable for not following workplace safety and health laws, and federal OSHA to strengthen oversight of state OSHA plans.
- OSHA to increase attention to the significant safety and health problems faced by Latino, Black, immigrant and aging workers, and those under other work arrangements.

- OSHA and MSHA to strengthen anti-retaliation protections and worker participation rights.
- OSHA to expeditiously issue a permanent COVID-19 standard to protect health care workers from airborne and other routes of exposure, and require employers to protect other workers in congregate work settings, such as in food processing and other manufacturing, corrections and transit.
- OSHA to issue a workplace violence standard for health care and social service workers. The Senate should pass legislation to ensure this is done.
- OSHA to develop and issue new protections and initiatives to address emergency response, heat illness and injury, combustible dust and musculoskeletal disorders.
- MSHA to develop and issue a rule on silica in mining and finalize protections on powered haulage equipment.
- The Environmental Protection Agency to fully implement the Toxic Substances Control Act to protect workers from chemical exposures, coordinating with OSHA and the National Institute for Occupational Safety and Health.
- Congress to increase funding and staffing at job safety agencies, modernizing the stagnant budget that has prevented agencies from fulfilling their obligations.
- Congress to pass the Protecting America's Workers Act to extend the Occupational Safety and Health Act's coverage to workers currently excluded, strengthen civil and criminal penalties for violations, enhance antidiscrimination protections, and strengthen the rights of workers, unions and those who have been injured or made ill because of their jobs.
- Elected leaders to oppose Big Business's regulatory "reform" efforts and legislation that would make it more difficult—or impossible—for agencies to issue needed safeguards.

THE STATE OF WORKERS' SAFETY AND HEALTH 2022

This 2022 edition of "Death on the Job: The Toll of Neglect" marks the 31st year the AFL-CIO has produced a report on the state of safety and health protections for America's workers. This report features national and state information on workplace fatalities, injuries and illnesses, as well as the workplace safety 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 and the state of worker safety during the COVID-19 pandemic.

Fifty-one years ago on April 28, the OSH Act went into effect, promising every worker the right to a safe job. More than 647,000 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 explosions, major fires, construction collapses, infectious disease outbreaks, workplace assaults and other preventable workplace tragedies continue to occur. Workplace hazards kill and disable approximately 125,000 workers each year—4,764 from traumatic injuries, and an estimated 120,000 from occupational diseases. Job injury and illness numbers continue to be severe undercounts of the real problem.

Over the years, our progress has become more challenging as employers' opposition to workers' rights and protections has grown, and attacks on unions have intensified. Big Business and many Republicans have launched an aggressive assault on worker protections. They are attempting to shift employers' responsibility to maintain a safe workplace to individual worker behavior, and undermine the core responsibilities of workplace safety agencies.

The Trump administration rolled back progress, attacking longstanding workplace safety protections—targeting job safety rules on beryllium, mine safety examinations and injury reporting, and cutting agency budgets and staff—and attempted to dismantle the systems for future protections. They totally failed to respond to the COVID-19 pandemic and the disparities of those most affected by workplace infection.

In the fall of 2019, the Occupational Safety and Health Administration (OSHA) began reducing the number of inspections involving significant cases and complex health hazards, a policy that is still in place today. In the first year of the COVID-19 pandemic, OSHA was largely absent from workplaces where it has the authority and responsibility to enforce workplace safety laws. While the number of inspectors and inspections have improved in FY 2021, there is much more progress to be made to meet or exceed pre-pandemic levels. The COVID-19 pandemic also brought to light the weaknesses in federal oversight of state OSHA plans. Congress continues to fund job safety at stagnant levels, allowing an OSHA budget that still only amounts to $4.37 to protect each worker covered by the OSH Act.

[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 2020 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.

While progress is slow, the Biden administration has taken important steps to protect workers, prioritizing worker protections on its regulatory agenda, taking steps on targeted enforcement efforts on urgent hazards, and filling staff and leadership vacancies. It also launched broad efforts on worker empowerment and targeting workplace inequities.

President Joe Biden has appointed and nominated strong candidates focused on worker protection to lead job safety and health agencies and labor agencies. Immediately upon taking office, he appointed a longtime United Steelworkers (USW) safety and health leader, James Frederick, as acting assistant secretary for occupational safety and health. In April 2021, the Senate confirmed Marty Walsh, the Boston mayor from the construction trades unions, as secretary of labor. In April 2021, Biden nominated Doug Parker to be assistant secretary of labor for occupational safety and health—the head of OSHA—and he was confirmed Oct. 25, 2021. Parker served as the California OSHA chief, on the Biden-Harris transition team, in chief policy roles at the Mine Safety and Health Administration (MSHA) and was executive director of Worksafe—a nonprofit organization focused on workplace injury, illness and death prevention. John Howard continues to serve as the head of the National Institute for Occupational Safety and Health (NIOSH). This is a sharp contrast to President Donald Trump, who nominated corporate officials to head the job safety agencies—people who had records of opposing enforcement and regulatory actions, and who often lacked safety experience.

WHAT NEEDS TO BE DONE

Over the more than 50 years since the passage of the OSH Act, there has been significant progress made toward improving working conditions and protecting workers from job injuries, illnesses and deaths, preventing devastating losses to working families and saving lives. Federal job safety agencies have issued important regulations on many safety hazards, as well as on silica, coal dust and other health hazards, strengthened enforcement and expanded worker rights. These initiatives undoubtedly have made workplaces safer and saved lives. But much more progress is needed.

The pandemic exposed the regulatory safety and health structural systems that had been weakened over decades and exploited by the Trump administration. Job safety agencies need to be rebuilt, not only restored to the pre-Trump era, but in ways that reflect solutions to the most significant barriers to ensuring workers are protected and can fully exercise their rights. This requires refocusing national attention, energy and action on the enormous role and impact these agencies play to provide workplace oversight and prevent the disease, injuries and death that plague working people across the country. After years of starved budgets, funding and staffing for job safety agencies, and decades of allocating an agency with an extensive mission—OSHA—too few resources, there must be new dedication to substantially increase resources to protect workers, and address ongoing and emerging safety and health problems.

Employers and elected leaders must recognize that employment is a significant determinant of health—and our government must emphasize workplace exposure control measures to resolve this. Severe inequities in dangerous working conditions have created an unacceptable discrepancy in those who face the largest burdens of disease, injury and death because of their jobs. Initiatives to address the safety and health risks posed by changes in the workforce and employment arrangements must take more prominence, and workplace safety and health

regulations must be seen as a significant tool to raise the level of working conditions for those disproportionately affected. There must be renewed, dedicated attention given to the increased risk of fatalities and injuries faced by workers of color and immigrant workers, and aging workers, and enhanced efforts to protect temporary and contract workers.

OSHA must immediately issue a permanent standard to protect health care and other workers in congregate settings from COVID-19. The agency needs to fully enforce this standard and other workplace safety laws by developing a proactive enforcement plan across industries, fully investigating complaints, performing on-site inspections, issuing violations and penalties that reflect the size and scope of the real problem and that deter other employers, and ensure workers' rights to report unsafe working conditions and refuse dangerous work.

OSHA must swiftly finalize its proposed standard on electronic injury reporting, make more of the data collected public and fully enforce the anti-retaliation protections for workers who report injuries. OSHA must move forward to issue proposed rules on emergency response, heat illness prevention and infectious disease.

Workplace violence is a growing and serious threat, particularly to women workers and those in the health care and social services sectors. OSHA must develop and issue a workplace violence standard, and the Senate should pass the Workplace Violence Prevention for Health Care and Social Service Workers Act to ensure this is done.

OSHA standards for chemical hazards are obsolete and must be updated. The Environmental Protection Agency (EPA) must fully implement the new toxic chemicals reform law and coordinate with OSHA and NIOSH, taking action to address the risks to the public and to workers. New initiatives are needed to address musculoskeletal disorders and combustible dust.

In mining, MSHA must continue initiatives to focus increased attention on mines with a record of repeated violations and stronger enforcement action against mines with patterns of violations. The agency must fully enforce the coal dust rule and act swiftly on new rules on silica and proximity detection for mobile equipment. Congress must strengthen job safety laws to prevent tragedies like the Massey Upper Big Branch mining disaster, which killed 29 miners in West Virginia. 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 50 years old and is out of date. Congress must 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 and their representatives. Improvements to update and strengthen the OSH 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.

JOB FATALITIES

In 2020, 4,764 workers lost their lives on the job as a result of traumatic injuries, an increase from 2018, according to fatality data from the Bureau of Labor Statistics (BLS). The rate of fatal job injuries in 2020 was 3.4 per 100,000 workers, the first decrease in years.[2] Each day in this country, an average of 15 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 workers who die from occupational diseases, estimated to be 120,000 each year.[3] This number does not include the many thousands who died from being exposed to COVID-19 at work. Chronic occupational diseases receive less attention and place little accountability on employers because most are not detected until years after workers have been exposed to toxic chemicals and other agents, and because occupational illnesses often are misdiagnosed and poorly tracked. There is no national comprehensive surveillance system for occupational illnesses. In total, about 340 workers die each day due to job injuries and illnesses. The cost of these injuries and illnesses is enormous—estimated at $176 billion to $352 billion a year.[4,5]

In 2020, agriculture, forestry, and fishing and hunting continues to be the most dangerous industry (21.5 deaths per 100,000 workers), followed by transportation and warehousing (13.4 per 100,000 workers), mining, quarrying, and oil and gas extraction (10.5 per 100,000 workers), construction (10.2 per 100,000 workers) and wholesale trade (4.6 per 100,000 workers).

Transportation incidents, in particular roadway crashes, continue to be the leading cause of workplace deaths, responsible for 1,778 or 37% of all fatalities in 2020, followed by deaths from falls, slips and trips (805, or 16.9%) and contact with objects and equipment (716, or 15%).

The job fatality rate for all self-employed workers—a group that lacks OSHA coverage—continues to remain high at 12.3 per 100,000 workers, more than four times the rate among wage and salary workers (2.9 per 100,000). In 2020, 900 contract workers died on the job—19% of all worker deaths. BLS had begun reporting details on fatalities that involve workers employed as contractors in 2012 in response to concerns about safety and health issues among these workers. Fatality data in 2019 and forward no longer report details of contractor deaths due to a 2020 BLS policy on disclosure methodology and reduction in publishable data—pulling back on transparency of details among contract worker deaths.

States with the highest fatality rates include Wyoming (13.0 per 100,000 workers), Alaska (10.7 per 100,000 workers), South Dakota (7.8 per 100,000 workers), North Dakota (7.4 per 100,000 workers) and West Virginia (6.6 per 100,000 workers). In 2020, despite the overall job fatality rate decrease, the job fatality rate increased in 20 states, compared with 2019.

[2] U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2020.
[3] Takala, J., P. Hämäläinen, N. Nenonen, et al. "Comparative Analysis of the Burden of Injury and Illness at Work in Selected Countries and Regions," *Central European Journal of Occupational and Environmental Hygiene* 23:1–2, 6–31, (2017). icohweb.org/site/images/news/pdf/CEJOEM%20Comparative%20analysis%20published%2023_1-2_Article_01.pdf.
[4] Liberty Mutual Research Institute for Safety, news release, April 16, 2002.
[5] Leigh, J.P. "Economic Burden of Occupational Injury and Illness in the United States." *The Milbank Quarterly* 89, No. 4. December 2011. *Available at* 10.1111/j.1468-0009.2011.00648.x

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. In 1994, the National Safety Council changed its reporting fatalities and adopted the BLS count. The earlier NSC numbers are based on an estimate; the BLS method for workplace 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. Employment-based fatality rates should not be compared with hours-based fatality rates.

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

Workplace Fatalities 2006−2020[1]

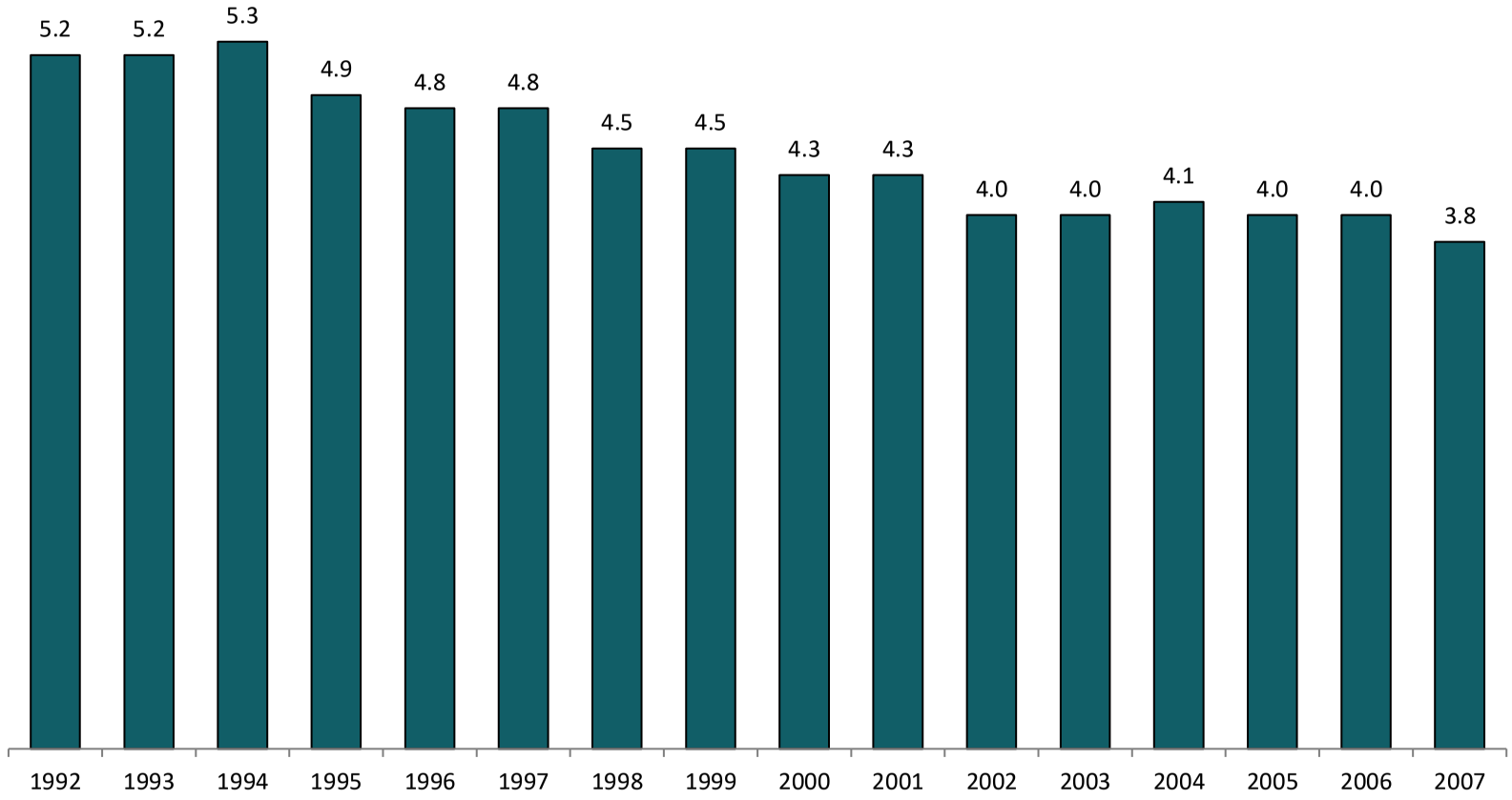
(Hours-Based Fatality Rates)

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
2016	5,190	283,101	3.6
2017	5,147	285,977	3.5
2018	5,250	292,528	3.5
2019	5,333	296,600	3.5
2020	4,764	269,900	3.4

[1]Fatality information is from the U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries.
[2]The total hours worked figures are annual average estimates of total persons at work multiplied by average hours for civilians, 16 years of age and older, from the Current Population Survey, 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 beginning exclusively in 2008. 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)

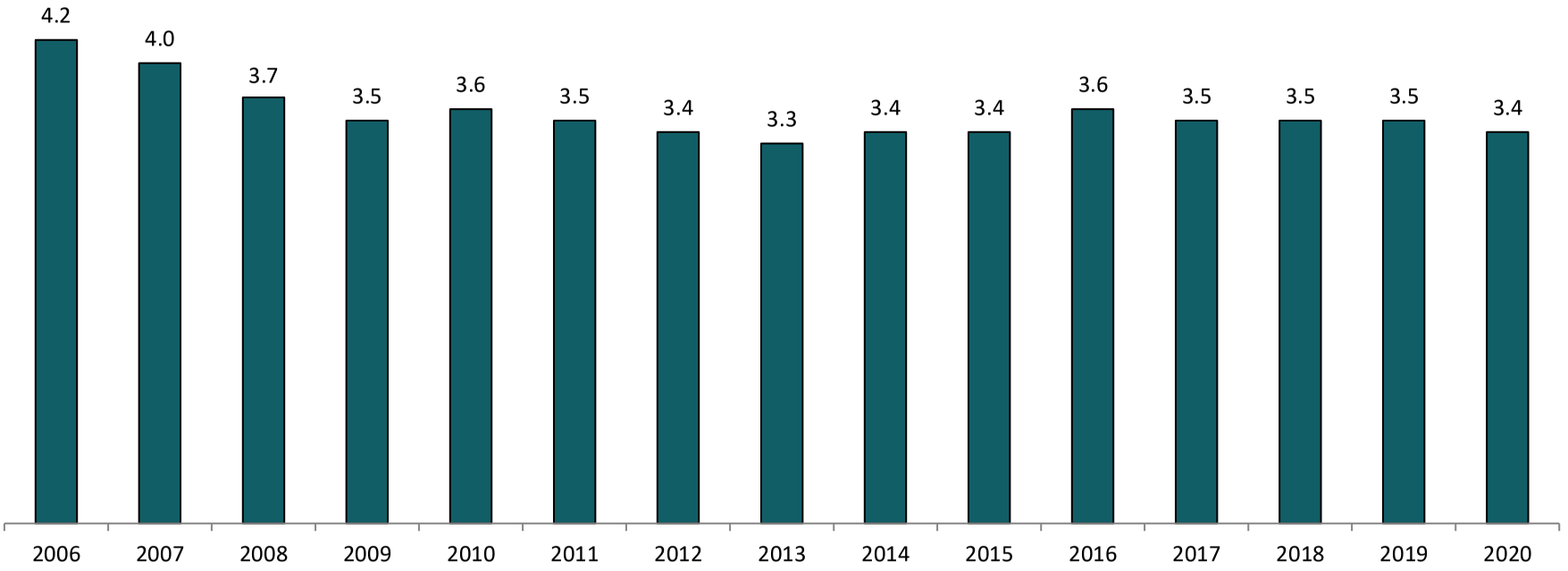


Sources: U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, Census of Fatal Occupational Injuries; U.S. Bureau of the Census; and U.S. Department of Defense.

[1]Incidence rate represents the number of fatalities per 100,000 workers. 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, U.S. Bureau of of Labor Statistics. 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, 2006–2020[1]

(Hours-Based Rates)



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

[1]Incidence rate represents the number of fatalities per 100,000 workers. Fatality rate is an hours-based calculation using total hours worked figures that are annual average estimates of total persons at work multiplied by average hours for civilians, 16 years of age and older, from the Current Population Survey, U.S. Bureau of Labor Statistics. 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. 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 for industries. Prior to 2003, CFOI used the Standard Industrial Classification 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 Survey. 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, 2010–2020[1,2]
(Hours-Based Rates)

Industry Sector	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
All Industries	3.6	3.5	3.4	3.3	3.4	3.4	3.6	3.5	3.5	3.5	3.4
Agriculture, Forestry, Fishing and Hunting	27.9	24.9	22.8	23.2	25.6	22.8	23.2	23.0	23.4	23.1	21.5
Mining, Quarrying, and Oil and Gas Extraction	19.8	15.9	15.9	12.4	14.2	11.4	10.1	12.9	14.1	14.6	10.5
Construction	9.8	9.1	9.9	9.7	9.8	10.1	10.1	9.5	9.5	9.7	10.2
Manufacturing	2.3	2.2	2.2	2.1	2.3	2.3	2.0	1.9	2.2	-	2.3
Wholesale Trade	4.9	4.9	5.4	5.3	5.1	4.7	4.8	4.8	5.3	4.9	4.6
Retail Trade	2.2	1.9	1.9	1.9	1.9	1.8	1.9	2.0	1.9	2.0	2.0
Transportation and Warehousing	13.7	15.3	14.6	14	14.1	13.8	14.3	15.1	14.0	13.9	13.4
Utilities	2.8	4.2	2.5	2.6	1.7	2.2	2.8	2.6	2.6	2.0	1.8
Information	1.5	1.9	1.5	1.5	1.2	1.5	1.7	1.6	1.2	-	1.3
Financial Activities	1.3	1.1	0.9	0.9	1.2	0.9	1.2	1.0	1.1	1.0	0.9
Professional, Scientific and Technical Services[3]	2.6	2.9	2.7	2.8	2.7	3.0	3.1	3.0	3.3	0.7	0.5
Educational and Health Services	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.8	0.7
Leisure and Hospitality	2.3	2.2	2.2	1.9	2.0	2.0	2.6	2.2	2.2	2.2	2.5
Other Services, Except Public Administration	3.0	3.0	2.7	2.7	2.7	3.0	3.2	2.9	2.6	3.0	3.3
Government[4]	2.2	2.2	2.0	2.0	1.9	1.9	2.2	2.0	1.8	1.8	1.8

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

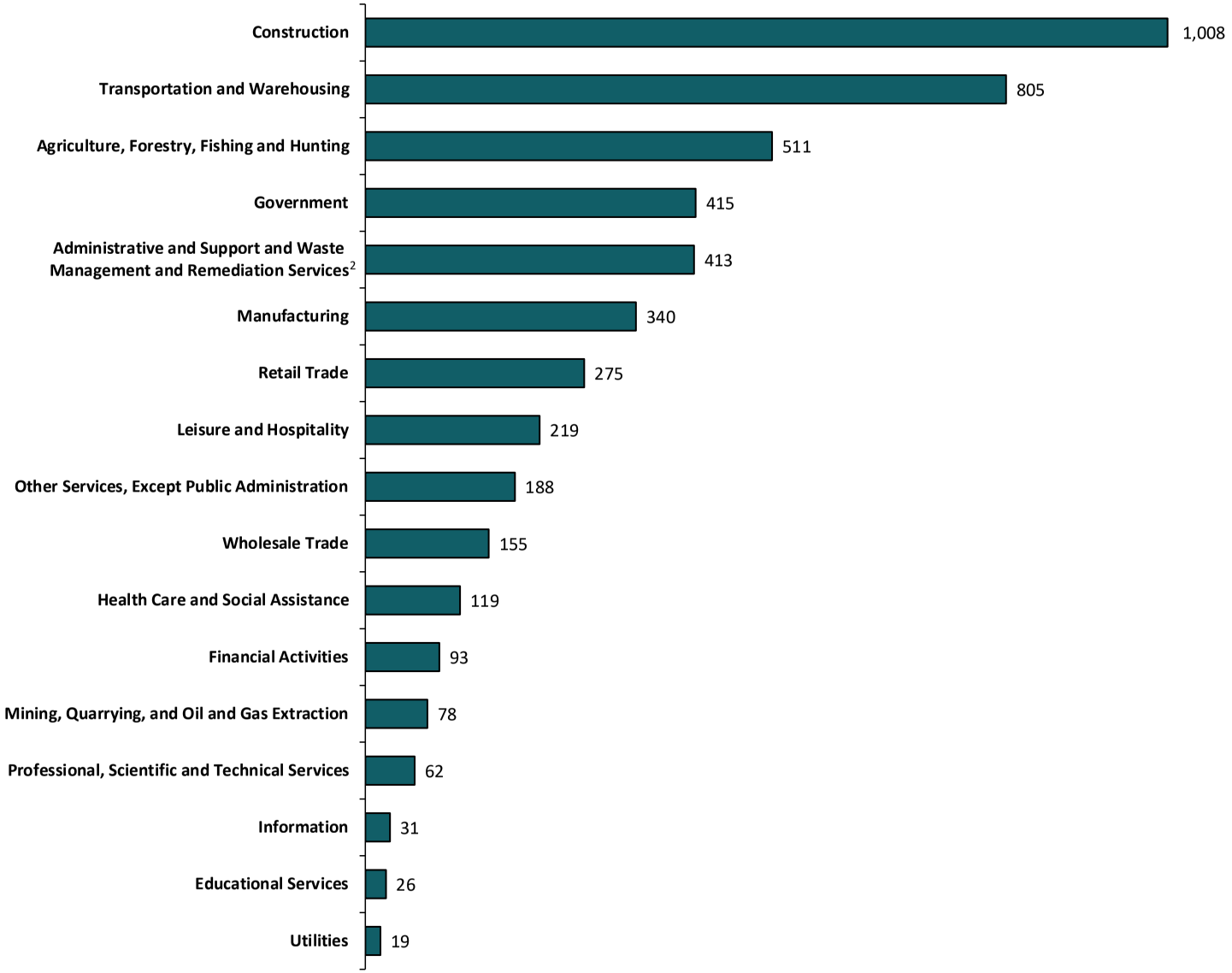
[1]Deaths per 100,000 workers.

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

[3]In this sector, landscaping services had a fatality rate of 17.9 and waste management services and remediation services had a fatality rate of 15.0 in 2020.

[4]Government fatalities may overlap with specific industry sectors listed.

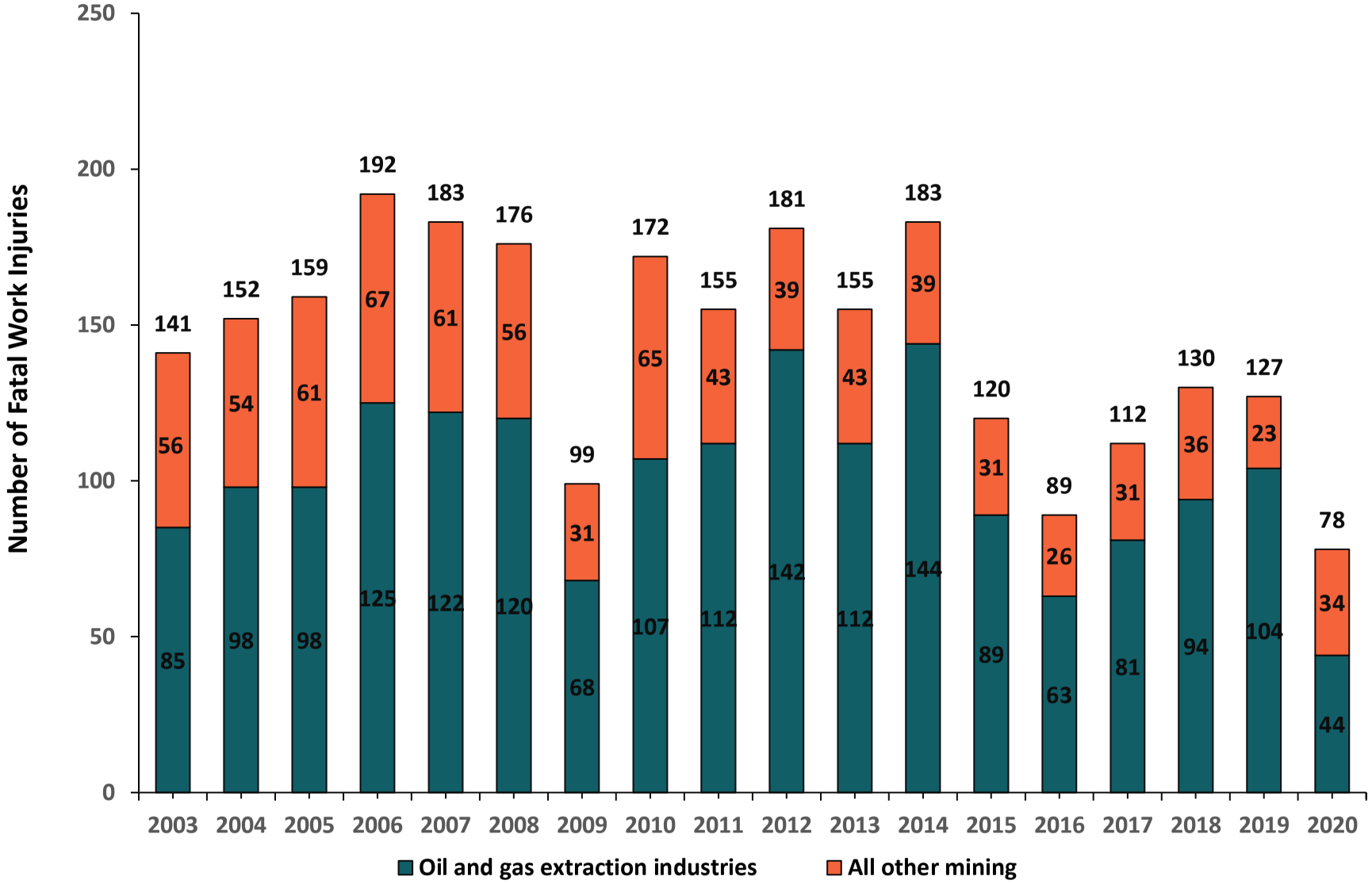
Occupational Fatalities by Industry Sector, 2020
(Total Fatalities 4,764)[1]



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

[1]Fatalities reported for all ownerships and government fatalities may overlap with specific industry sectors listed.
[2]Landscaping services accounted for 206 of these deaths.

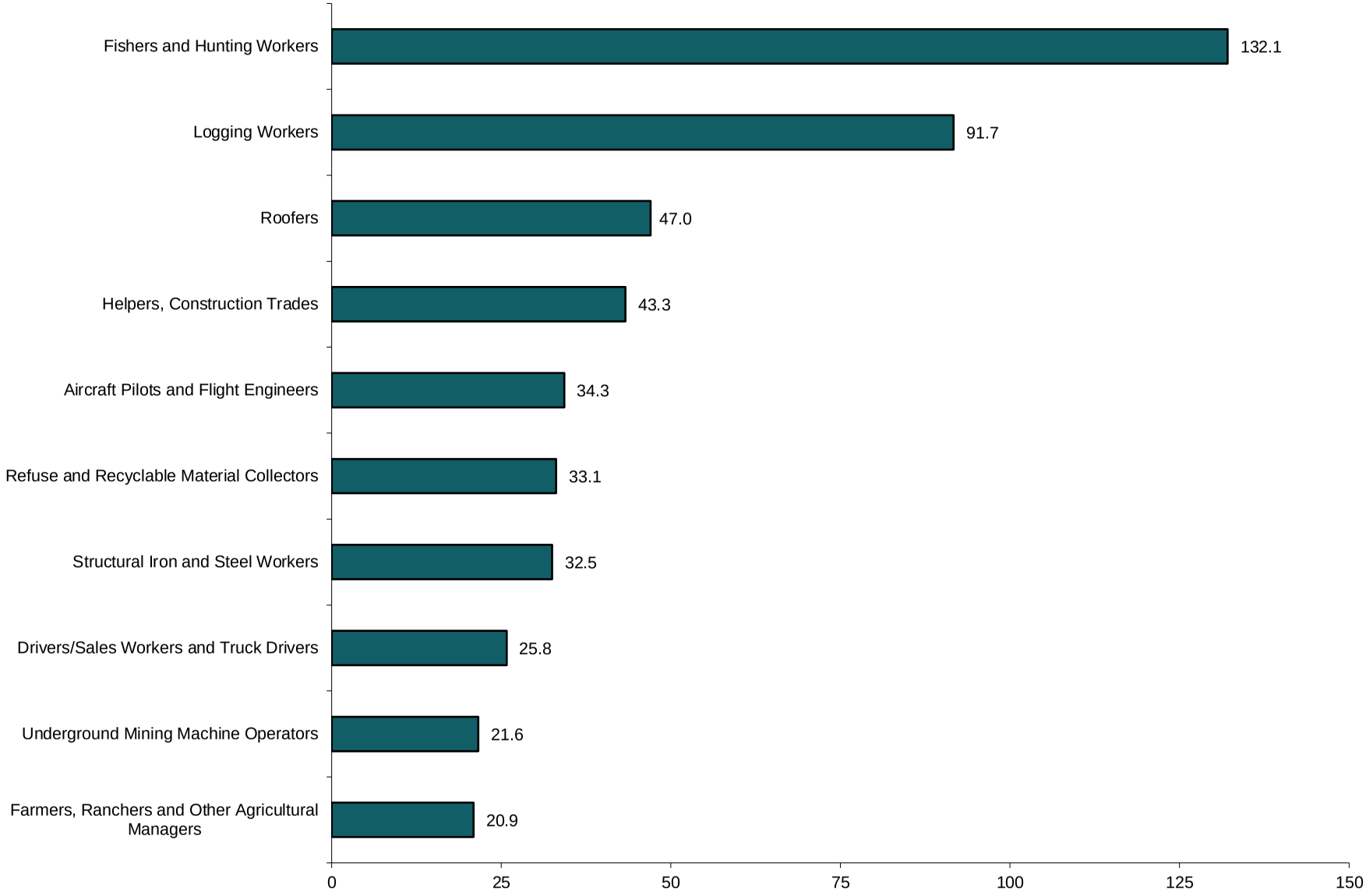
Fatal Occupational Injuries in the Private-Sector Mining, Quarrying, and Oil and Gas Extraction Industries, 2003–2020



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 213111), and support activities for oil and gas operations (NAICS 213112).

Selected Occupations with High Fatality Rates, 2020
(Per 100,000 Workers)
National Fatality Rate = 3.4



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

Workplace Fatalities by State, 2001–2020

State	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Alabama	138	102	124	133	128	100	108	107	75	92	75	84	78	75	70	100	83	89	89	85
Alaska	64	42	28	42	29	45	30	33	17	39	39	31	32	30	14	35	33	32	51	31
Arizona	87	101	80	84	99	112	97	100	76	77	69	60	95	88	69	77	90	82	94	97
Arkansas	68	80	87	70	80	78	89	85	75	88	93	63	63	67	74	68	76	76	62	64
California	515	478	459	467	465	537	461	465	409	326	390	375	396	344	388	376	376	422	451	463
Colorado	139	123	102	117	125	137	126	105	83	85	92	82	65	84	75	81	77	72	84	78
Connecticut	41	39	36	54	46	38	38	28	34	49	37	36	29	35	44	28	35	48	26	29
Delaware	10	11	9	10	11	15	10	11	7	8	10	14	11	12	8	12	10	7	18	7
Florida	368	354	347	422	406	360	363	291	245	225	226	218	239	228	272	309	299	332	306	275
Georgia	237	197	199	232	200	201	193	182	110	108	111	101	117	152	180	171	194	186	207	193
Hawaii	41	24	21	25	15	30	23	19	13	19	26	20	11	31	18	29	20	22	26	16
Idaho	45	39	43	38	35	38	31	36	27	33	37	19	30	34	36	30	37	45	36	32
Illinois	231	190	200	208	194	207	185	193	158	206	177	146	176	164	172	171	163	184	158	135
Indiana	152	136	132	153	157	148	127	143	125	118	125	115	127	130	115	137	138	173	146	158
Iowa	62	57	76	82	90	71	89	93	80	77	93	97	72	91	60	76	72	77	76	58
Kansas	94	89	78	80	81	85	101	73	76	85	78	76	55	73	60	74	72	61	83	55
Kentucky	105	146	145	143	122	147	112	106	101	69	93	91	86	82	99	92	70	83	78	92
Louisiana	117	103	95	121	111	118	139	135	140	111	111	116	114	120	112	95	117	98	119	103
Maine	23	30	23	16	15	20	21	24	16	20	26	19	19	19	15	18	18	17	20	20
Maryland	64	102	92	81	95	106	82	60	65	71	71	72	79	74	69	92	87	97	78	59
Massachusetts	54	46	78	72	75	66	75	68	64	54	68	44	57	55	69	109	108	97	86	69
Michigan	175	152	152	127	110	157	120	123	94	146	141	137	135	143	134	162	153	155	164	131

Workplace Fatalities by State, 2001–2020

State	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Minnesota	68	76	81	72	80	87	78	72	65	61	70	60	70	69	62	74	92	101	80	67
Mississippi	125	111	94	102	88	112	96	93	80	67	68	63	63	68	75	77	71	90	59	44
Missouri	148	145	175	154	165	185	167	156	148	142	106	132	88	118	106	117	124	125	106	105
Montana	42	58	51	39	39	50	45	54	40	52	36	49	34	28	28	36	38	32	38	29
Nebraska	59	57	83	51	46	36	57	63	53	57	54	39	48	39	55	50	60	35	53	48
Nevada	51	40	47	52	61	57	49	71	41	24	38	38	42	42	40	44	54	32	40	37
New Hampshire	13	9	19	19	15	18	13	14	7	6	6	9	14	14	17	18	22	11	11	14
New Jersey	115	129	129	104	129	112	88	106	92	99	81	99	92	102	87	97	101	69	74	82
New Mexico	35	59	63	46	57	44	59	52	31	42	38	52	39	54	53	35	41	44	55	37
New York	233	220	240	227	254	239	234	220	213	185	182	206	202	178	241	236	272	313	273	223
North Carolina	234	203	169	182	183	165	168	167	161	129	139	148	146	109	137	150	174	183	186	189
North Dakota	34	25	25	26	24	22	31	25	28	25	30	44	65	56	38	47	28	38	37	26
Ohio	207	209	202	206	202	168	193	165	168	137	161	155	161	149	185	202	164	174	166	117
Oklahoma	82	115	92	100	91	95	91	104	102	82	94	86	97	92	98	91	92	91	73	75
Oregon	52	44	63	75	60	65	87	69	55	66	47	58	43	49	69	44	72	60	69	60
Pennsylvania	199	225	188	208	230	224	240	220	241	168	221	186	194	183	179	173	163	172	154	148
Rhode Island	7	17	8	18	7	6	10	5	6	7	9	7	8	10	10	6	9	8	10	5
South Carolina	115	91	107	115	113	132	95	122	87	73	69	81	63	75	64	117	96	88	108	102
South Dakota	35	35	36	28	24	31	37	22	30	24	36	31	31	20	29	21	31	30	20	32
Tennessee	160	136	140	137	145	139	153	154	135	111	138	120	101	95	127	112	122	128	124	142
Texas	572	536	417	491	440	495	489	528	463	482	461	433	536	508	531	527	545	534	608	469

Workplace Fatalities by State, 2001–2020

State	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Utah	61	65	52	54	50	54	60	78	64	48	41	39	39	37	54	42	44	43	51	48
Vermont	15	6	11	14	7	7	14	10	10	12	12	8	11	7	10	9	10	22	10	8
Virginia	148	146	142	155	171	186	165	146	156	119	107	127	149	128	116	106	153	118	180	118
Washington	75	102	86	83	98	85	87	90	84	76	104	60	67	56	88	70	78	84	84	83
West Virginia	46	63	40	51	58	46	79	61	53	41	95	43	49	61	38	35	47	51	46	47
Wisconsin	107	110	91	103	94	125	91	104	77	94	91	89	114	97	99	104	105	106	113	108
Wyoming	36	40	33	37	43	46	36	48	33	19	33	32	35	26	37	34	34	20	32	35
Total[1,2,3]	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	5,190	5,147	5,333	4,764

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

[1]In 2020, 21 fatal injuries occurred among wage and salary workers in Puerto Rico (total fatalities not reported). These are not reflected in the U.S. total. Fatalties were not reported in 2020 for Guam or the U.S. Virgin Islands.

[2]Totals include fatalities that occurred in the District of Columbia. In 2020, D.C. had 13 fatalities.

[3]States cannot always be assigned to fatality cases. For example, some fatalities occur at sea outside of specific state jurisdictions. In 2020, three fatal injuries 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, 2020

State	Total Fatalities	Assaults and Violent Acts	Transportation Incidents	Fires and Explosions	Falls	Exposure to Harmful Substances or Environments	Contact with Objects and Equipment
Alabama	85	15	43	—	7	—	17
Alaska	31	5	18	1	—	4	—
Arizona	97	17	30	—	9	25	14
Arkansas	64	11	36	—	7	3	7
California	463	97	122	5	99	85	52
Colorado	78	9	29	—	22	9	6
Connecticut	29	4	9	—	6	4	6
Delaware	7	—	—	—	2	—	—
District of Columbia	13	3	—	—	5	—	—
Florida	275	36	90	3	77	43	25
Georgia	193	23	80	—	32	21	34
Hawaii	16	—	7	—	—	—	—
Idaho	32	—	18	—	—	—	10
Illinois	135	22	55	—	24	—	17
Indiana	158	27	60	2	24	21	23
Iowa	58	4	31	—	7	7	9
Kansas	55	4	34	—	7	5	5
Kentucky	92	9	39	—	12	13	19
Louisiana	103	14	36	4	17	18	14
Maine	20	—	11	—	5	—	—
Maryland	59	—	18	—	12	11	8

Fatalities by State and Event or Exposure, 2020

State	Total Fatalities	Assaults and Violent Acts	Transportation Incidents	Fires and Explosions	Falls	Exposure to Harmful Substances or Environments	Contact with Objects and Equipment
Massachusetts	69	11	21	—	10	21	6
Michigan	131	26	41	—	22	—	27
Minnesota	67	—	28	—	15	7	11
Mississippi	44	6	20	—	—	4	10
Missouri	105	18	43	—	—	21	13
Montana	29	3	18	—	3	—	—
Nebraska	48	4	26	—	—	5	10
Nevada	37	5	14	—	8	—	4
New Hampshire	14	—	—	—	3	3	4
New Jersey	82	—	24	—	18	19	12
New Mexico	37	—	15	—	3	8	5
New York	223	36	—	—	52	40	34
North Carolina	189	—	75	—	28	36	26
North Dakota	26	—	9	—	4	—	7
Ohio	117	9	41	—	21	18	28
Oklahoma	75	12	29	3	14	6	10
Oregon	60	—	24	—	10	7	10
Pennsylvania	148	15	49	2	28	25	27
Rhode Island	5	—	—	—	—	—	—
South Carolina	102	—	42	—	15	12	16
South Dakota	32	—	18	—	6	—	6

Fatalities by State and Event or Exposure, 2020

State	Total Fatalities	Assaults and Violent Acts	Transportation Incidents	Fires and Explosions	Falls	Exposure to Harmful Substances or Environments	Contact with Objects and Equipment
Tennessee	142	29	57	—	20	20	16
Texas	469	55	214	—	71	48	70
Utah	48	7	9	1	16	8	7
Vermont	8	—	3	—	1	—	4
Virginia	118	24	44	—	--	16	18
Washington	83	20	20	—	15	12	16
West Virginia	47	8	17	—	--	7	10
Wisconsin	108	26	29	—	13	—	27
Wyoming	35	4	20	—	—	—	6
Total[1,2]	4,764	705	1,778	71	805	672	716

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

[1]In 2020, 11 fatalities occurred among wage and salary workers in Puerto Rico (total fatalities not reported). These are not reflected in the U.S. total. Fatalities were not reported in 2020 in Guam and the U.S. Virgin Islands.
[2]States and events or exposures 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. Dashes indicate no data reported or data that do not meet BLS publication criteria.

WORKPLACE INJURIES AND ILLNESSES ARE UNDERREPORTED AND COSTLY

Nonfatal Injuries and Illnesses

In 2020, nearly 3.2 million workers across all industries, including state and local government, had work-related injuries and illnesses that were reported by employers, with 2.7 million injuries and illnesses reported in private industry. In 2020, state and local public sector employers reported an injury rate of 3.9 per 100 workers, 44% higher than the reported rate of 2.7 per 100 among private sector workers.[6]

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 5.4 million to 8.1 million injuries and illnesses a year. In addition, states are not required to report to BLS; its Survey of Occupational Injuries and Illnesses is voluntary.

The total number of reported illnesses, including COVID-19, more than quadrupled in 2020 to 54,600 illnesses, compared with 127,200 in 2019. This is not a true count of occupational COVID-19 illness. However, studies have not been done to determine the number of cases of all work-related illnesses, and recently, work-related COVID-19, have been missed by the survey. This estimate is likely much greater given other documentation throughout the pandemic.

Reported Cases Understate the Problem

Over the last decade, there has been significant research documenting that the BLS survey fails to capture a large proportion of work-related injuries and illnesses—one-third to two-thirds of work-related injuries and illnesses are missed by the survey. Studies comparing injuries captured by the BLS survey with injuries reported to workers' compensation or other injury reporting systems have found that the BLS survey missed 33% to 69% of work-related injuries.[7, 8, 9, 10] A 2018 study of injury reporting in the mining industry found a similar result. Two-thirds of the injuries among miners in Illinois that were reported to workers' compensation were not reported to MSHA by mine operators as required by the law.[11] A study that compared state fatality rates in the construction industry with rates of injuries that result in lost time or job restriction found

[6] U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2020.
[7] Boden, L.I., and A. Ozonoff. "Capture-Recapture Estimates of Nonfatal Workplace Injuries and Illnesses." *Annals of Epidemiology* 18, No. 6. 2008. *Available at* 10.1016/j.annepidem.2007.11.003.
[8] Rosenman, K.D., A. Kalush, M.J. Reilly, et al. "How Much Work-Related Injury and Illness is Missed by the Current National Surveillance System?" *Journal of Occupational and Environmental Medicine* 48, No. 4, 357–67. April 2006. *Available at* 10.1097/01.jom.0000205864.81970.63.
[9] Davis, L., K. Grattan, S. Tak, et al. "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* 57, No. 10. April 29, 2014. *Available at* 10.1002/ajim.22327.
[10] Wuellner, S., and D. Bonauto. "Injury Classification Agreement in Linked Bureau of Labor Statistics and Workers' Compensation Data." *American Journal of Industrial Medicine* 57, No. 10. Dec. 17, 2013. *Available at* 10.1002/ajim.22289.
[11] Almberg, K.S., L.S. Friedman, D. Swedler and R.A. Cohen. "Mine Safety and Health Administration's Part 50 program does not fully capture chronic disease and injury in the Illinois mining industry." *American Journal of Industrial Medicine* 61, 436–443. March 9, 2018. *Available at* 10.1002/ajim.22826.

there was little correlation between the two, and in some cases there was a negative correlation.[12] The study observed that multiple factors impacted the reporting and recording of injuries, and concluded that fatality rates are a much more valid measure of risk.

Some of the undercount in the BLS survey is due to injuries excluded from the BLS survey's scope, including injuries among self-employed individuals, and the design of the survey.[13] But other factors, including employees' reluctance to report injuries due to fear of retaliation, incentive programs that penalize workers who report injuries and drug testing programs for workplace injuries, suppress reporting.[14] In addition, there are disincentives for employers to report injuries, which 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. A 2020 study by BLS investigating additional causes of underreporting indicated that keeping of injury and illness logs was not widely prevalent, and that small establishments were less likely than mid-sized and large establishments to keep records.[15]

BLS also has recognized the need to make changes in its program in order to collect more complete and accurate injury and illness statistics. It launched a pilot of a Household Survey on Occupational Injuries and Illnesses to collect information on work-related injuries and illnesses through interviews with workers.[16] The initial results showed that the survey needed improvements to reduce respondent burden, to improve survey completion and to identify OSHA-recordable injuries, but it has potential to be a supplement to the existing employer-based injury and illness survey. BLS will continue to work on improvements to the survey.[17] A 2018 report from the National Academies of Sciences, Engineering and Medicine on occupational safety and health surveillance strongly endorsed BLS conducting this new household survey.[18] Hopefully, if the pilot is successful, Congress will provide the necessary funding to continue and expand this important work.

[12] Mendeloff, J., and R. Burns. "States with low non-fatal injury rates have high fatality rates and vice-versa." *American Journal of Industrial Medicine* 56, 509–519. April 2, 2012. *Available at* 10.1002/ajim.22047 (2013).
[13] Wiatrowski, W.J. "Examining the Completeness of Occupational Injury and Illness Data: An Update on Current Research." *Monthly Labor Review*. June 2014. *Available at* BLS.gov/opub/mlr/2014/article/examining-the-completeness-of-occupational-injury-and-illness-data-an-update-on-current-research.htm.
[14] United States Government Accountability Office. "Enhancing OSHA's Records Audit Process Could Improve the Accuracy of Worker Injury and Illness Data." GAO-10-10. October 15, 2009. *Available at* GAO.gov/products/GAO-10-10.
[15] Rogers, E. "The Survey of Occupational Injuries and Illnesses Respondent Follow-Up Survey." *Monthly Labor Review*. U.S. Bureau of Labor Statistics. May 2020. *Available at* doi.org/10.21916/mlr.2020.9.
[16] U.S. Bureau of Labor Statistics. Research on the Completeness of the Injury and Illness Counts from the Survey of Occupational Injuries and Illnesses. *Available at* BLS.gov/iif/undercount.htm.
[17] Yu, E., and K. Monaco. "Overview of the Results of the Household Survey of Occupational Injuries and Illnesses Pilot and On-going BLS Activities." U.S. Bureau of Labor Statistics. Dec. 5, 2020. *Available at* BLS.gov/iif/hsoii-update-12052020-final.pdf.
[18] National Academies of Sciences, Engineering, and Medicine. *A Smarter National Surveillance System for Occupational Safety and Health for the 21st Century*. Washington, D.C.: The National Academies Press, (2018). *Available at* doi.org/10.17226/24835.

Cost of Occupational Injuries and Deaths

The cost of occupational injuries and deaths in the United States is staggering, estimated at $176 billion to $352 billion a year, according to two recent studies.

The 2021 Workplace Safety Index, published by Liberty Mutual Insurance, estimated the cost of the most disabling workplace injuries to employers at more than $58 billion a year—more than $1 billion per week.[19] This analysis, based on 2018 data from Liberty Mutual, BLS and the National Academy of Social Insurance, estimated direct costs to employers (medical and lost-wage payments) of injuries resulting in cases involving five or more days of lost time. If indirect costs also are considered, the overall costs are much higher. Based on calculations used in the previous Liberty Mutual Safety Index, the data indicate that businesses pay between $176 billion and $352 billion annually in direct and indirect (overtime, training and lost productivity) costs on workers' compensation losses for the most disabling injuries (indirect costs are estimated to be two to five times direct costs).[20] It is important to note that the safety index excludes a large number of injury cases (those resulting in less than five days of lost time). In addition, Liberty Mutual bases its cost estimates on BLS injury data. Thus, all 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 (CDC), 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.[21] 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. Fifty percent of the costs were borne by workers and their family members.[22]

A 2015 report by 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.[23]

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.

[19] 2021 Liberty Mutual Workplace Safety Index. *Available at* Business.LibertyMutual.com/wp-content/uploads/2021/06/2021_WSI_1000_R2.pdf.
[20] Liberty Mutual Research Institute for Safety, news release, April 16, 2002.
[21] Leigh, J.P. "Economic Burden of Occupational Injury and Illness in the United States." *The Milbank Quarterly* 89, No. 4. December 2011. *Available at* doi.org/10.1111/j.1468-0009.2011.00648.x.
[22] Leigh, J.P., and J. Marcin. "Workers' Compensation Benefits and Shifting Costs for Occupational Injuries and Illnesses." *Journal of Occupational and Environmental Medicine* 54, No. 4. April 2012. *Available at* 10.1097/JOM.0b013e3182451e54.
[23] 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* OSHA.gov/sites/default/files/inequality_michaels_june2015.pdf.

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 job.[24] The series—"Insult to Injury: America's Vanishing Worker Protections"—was based on a yearlong investigation, which found that over the previous decade there had 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. For example, at the time of the investigation, the maximum compensation for loss of an eye was $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 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.

[24] Pro Publica and National Public Radio. "Insult to Injury: America's Vanishing Worker Protections." March 2015. *Available at* ProPublica.org/series/workers-compensation.

Workplace Injury and Illness Incidence Rates, Private Sector, 1974–2020 (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]
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
2016	2.9	1.6	0.9	0.7
2017	2.8	1.5	0.9	0.7
2018	2.8	1.6	0.9	0.7
2019	2.8	1.5	0.9	0.7
2020	2.7	1.7	1.2	0.5

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

	Total Case Rate								
Year	**All Ind.**	**Mfg.**	**Const.**	**Mining**	**Finance**	**Agri.**	**Trans./Util.**	**Trade**	**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.

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

Workplace Injury and Illness Rates by Industry Sector, 2005–2020[1,2]

	2005	2006	2007	2008[3]	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
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**	**2.9**	**2.8**	**2.8**	**2.8**	**2.7**
State and local government	**-**	**-**	**-**	**6.3**	**5.8**	**5.7**	**5.7**	**5.6**	**5.2**	**5**	**5.1**	**4.7**	**4.6**	**4.8**	**4.6**	**3.9**
State government	-	-	-	4.7	4.6	4.6	4.6	4.4	3.9	4.1	3.7	3.7	3.6	3.6	3.5	3.3
Local government	-	-	-	7.0	6.3	6.1	6.1	6.1	5.7	5.4	5.6	5.0	5.0	5.3	5.0	4.2
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**	**4.2**	**3.6**	**3.7**	**3.4**	**3.3**
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	6.1	5.0	5.3	5.2	4.6
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	1.4	1.5	1.5	1.4	1.2	1.2
Construction	**6.3**	**5.9**	**5.4**	**4.7**	**4.3**	**4.0**	**3.9**	**3.7**	**3.8**	**3.6**	**3.5**	**3.2**	**3.1**	**3.0**	**2.8**	**2.5**
Construction (local government)	-	-	-	12.7	13.0	9.5	8.7	10.2	7.9	8.6	8.0	9.1	-	-	-	-
Manufacturing	**6.3**	**6.0**	**5.6**	**5.0**	**4.3**	**4.4**	**4.4**	**4.3**	**4.0**	**4**	**3.8**	**3.6**	**3.5**	**3.4**	**3.3**	**3.1**
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**	**3.4**	**3.4**	**3.5**	**3.4**	**3.1**
Wholesale trade	4.5	4.1	4.0	3.7	3.3	3.4	3.2	3.3	3.1	2.9	3.1	2.8	2.8	2.9	2.7	2.4
Retail trade	5.0	4.9	4.8	4.4	4.2	4.1	3.9	4.0	3.8	3.6	3.5	3.3	3.3	3.5	3.4	3.1
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	4.6	4.6	4.5	4.4	4.0
Utilities	4.6	4.1	4.0	3.5	3.3	3.1	3.5	2.8	2.1	2.4	2.2	2.1	2.0	1.9	2.2	1.5
Information	**2.1**	**1.9**	**2.0**	**2.0**	**1.9**	**1.8**	**1.6**	**1.4**	**1.5**	**1.4**	**1.3**	**1.3**	**1.3**	**1.3**	**1.2**	**0.8**
Financial activities	**1.7**	**1.5**	**1.4**	**1.5**	**1.5**	**1.3**	**1.4**	**1.3**	**1.3**	**1.2**	**1.1**	**1.1**	**1.0**	**1.0**	**0.9**	**0.8**
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**	**1.4**	**1.3**	**1.3**	**1.3**	**1.1**
Educational and health services	**5.5**	**5.4**	**5.2**	**5.0**	**5.0**	**4.8**	**4.7**	**4.5**	**4.4**	**4.2**	**4.0**	**3.9**	**3.8**	**3.7**	**3.6**	**5.0**
Hospitals (private)	8.1	8.1	7.7	7.6	7.3	7.0	6.8	6.6	6.4	6.2	6.0	5.9	5.7	5.6	5.5	7.6
Hospitals (state government)	-	-	-	11.9	11.0	11.8	9.2	9.2	7.7	8.7	8.1	8.2	7.7	8.1	8.1	8.9
Nursing and residential care (private)	9.1	8.9	8.8	8.4	8.4	8.3	7.8	7.6	7.3	7.1	6.8	6.4	6.3	6.1	5.9	11.5
Nursing and residential care (state gov.)	-	-	-	12.5	-	15.1	13.1	13.6	13.7	12.6	12.0	13.7	10.9	11.9	11.5	13.7
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**	**3.4**	**3.4**	**3.3**	**3.3**	**2.7**
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**	**2.3**	**2.1**	**2.2**	**2.0**	**1.8**

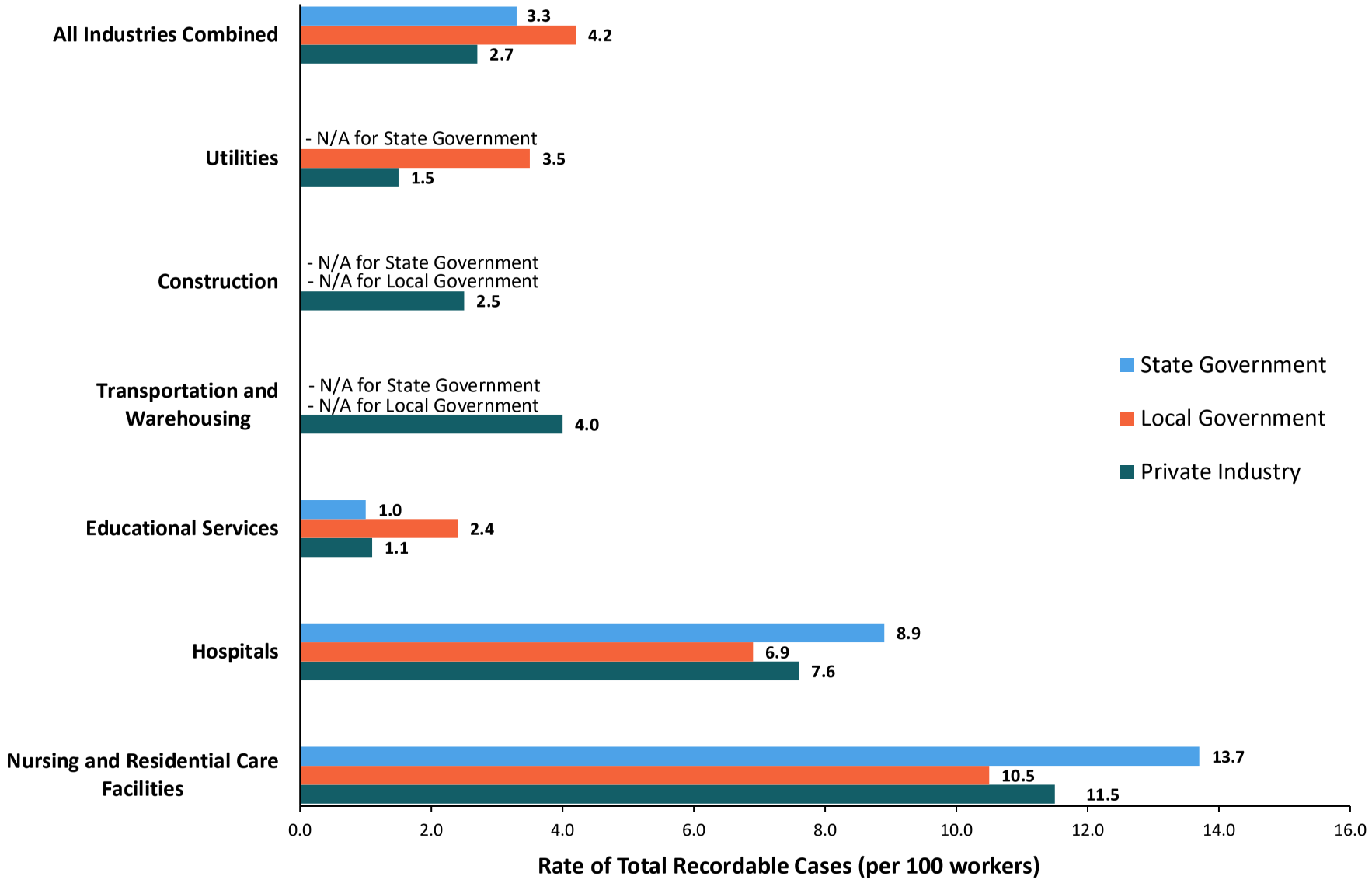
Source: U.S. Department of Labor, Bureau of Labor Statistics.

[1]Total recordable cases per 100 workers.

[2]Private industry, unless otherwise noted.

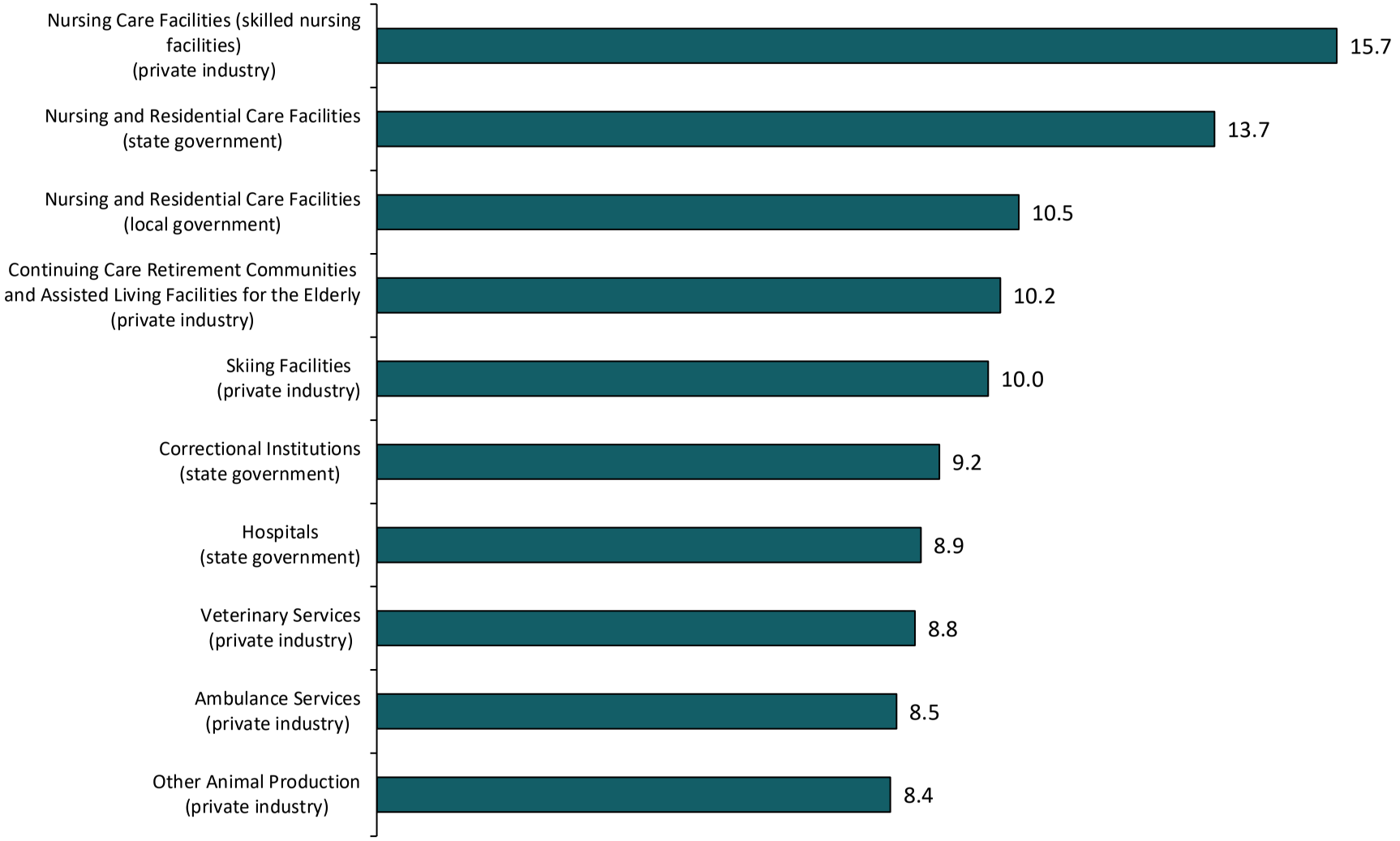
[3]Beginning in 2008, the Bureau of Labor Statistics provided national public sector estimates for state and local government workers.

Rate of Workplace Injuries and Illnesses for Selected Industries in State Government, Local Government and Private Industry, 2020



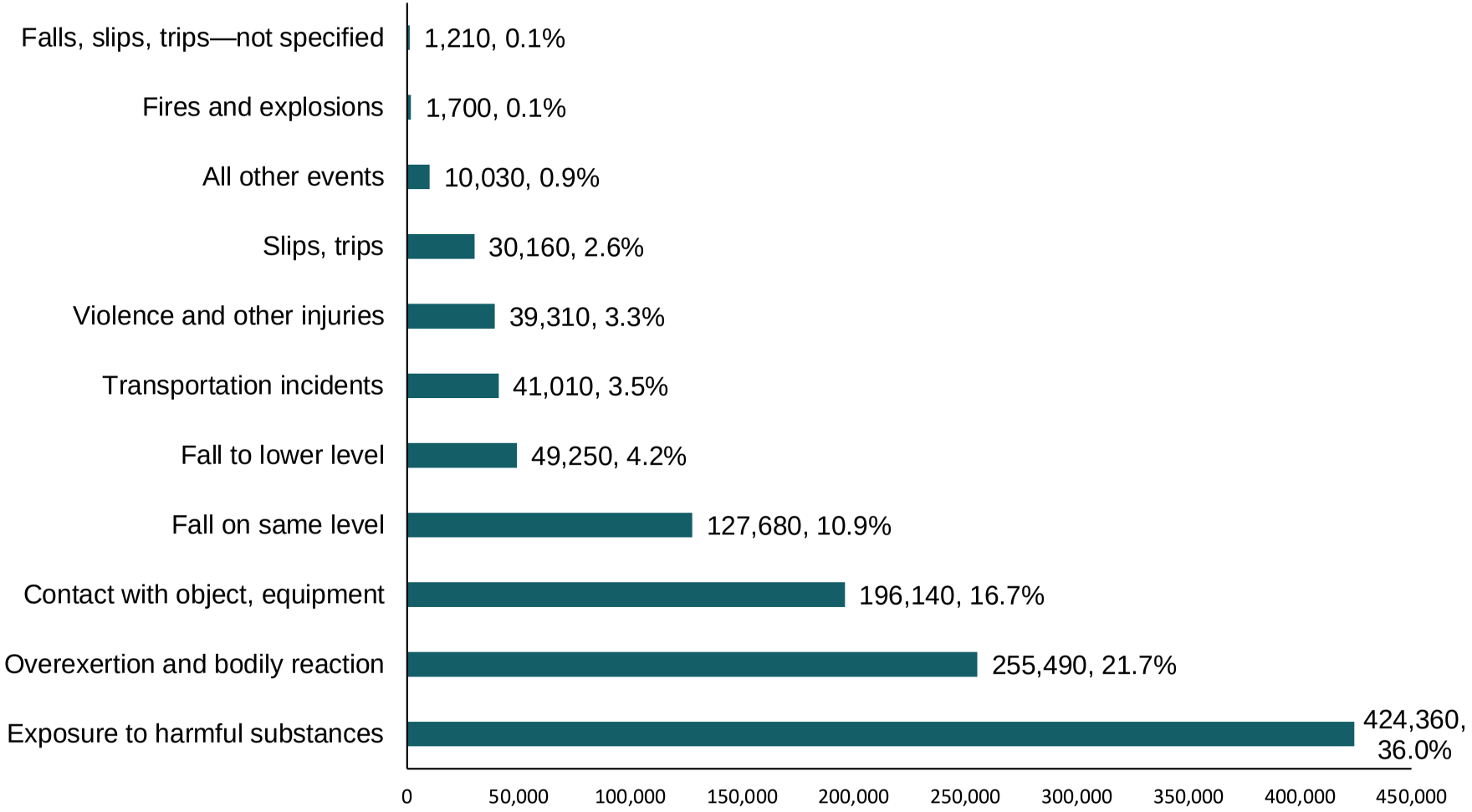
Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

Industries with the Highest Total Nonfatal Injury and Illness Rates, 2020
(Per 100 Workers)
Private Industry = 2.7
State Government = 3.3
Local Government = 4.2



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

Nonfatal Occupational Injuries and Illnesses with Days Away from Work by Event or Exposure, Private Industry, 2020[1]
Total = 1,176,340



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

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

Number and Rate of Injuries and Illnesses by State for All Industries, Private Industry, State Government and Local Government, 2020

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	40,500	33,800	N/A	N/A	2.6	2.6	N/A	N/A
Alaska	8,000	6,700	400	800	3.5	3.5	2.5	3.7
Arizona	68,800	59,800	1,200	7,900	3.1	3.0	1.7	4.3
Arkansas	30,200	25,100	1,400	3,700	2.9	2.8	2.4	4.1
California	448,300	355,200	19,700	73,500	3.5	3.2	4.9	5.7
Colorado	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Connecticut	39,300	33,300	1,800	4,200	3.2	3.0	3.9	4.5
Delaware	7,900	6,700	600	600	2.2	2.2	2.1	2.4
Florida	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Georgia	N/A	N/A	N/A	N/A	2.5	2.5	N/A	N/A
Hawaii	12,700	10,900	900	N/A	2.9	3.0	1.6	N/A
Idaho	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Illinois	128,400	106,900	2,900	18,600	2.8	2.7	3.5	4.2
Indiana	73,800	64,300	1,600	7,900	3.1	3.1	1.8	4.3
Iowa	40,600	34,000	1,800	4,800	3.4	3.3	4.4	3.9
Kansas	36,800	26,800	N/A	4,000	3.3	2.9	N/A	2.8
Kentucky	47,900	40,000	1,700	6,200	3.3	3.2	2.5	4.9
Louisiana	27,800	22,900	N/A	N/A	1.8	1.8	N/A	N/A
Maine	19,300	16,700	700	1,900	4.3	4.3	3.9	4.1
Maryland	51,700	42,400	2,500	6,700	2.6	2.5	3.0	3.9
Massachusetts	69,400	58,800	2,500	8,000	2.5	2.4	2.5	4.0

Number and Rate of Injuries and Illnesses by State for All Industries, Private Industry, State Government and Local Government, 2020

Michigan	107,400	88,800	6,500	12,200	3.3	3.1	5.3	5.0
Minnesota	76,700	66,900	2,400	7,500	3.5	3.4	3.5	4.3
Mississippi	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Missouri	N/A	53,600	N/A	N/A	2.8	3.0	N/A	N/A
Montana	11,700	10,200	300	1,200	3.4	3.4	2.0	3.9
Nebraska	21,600	19,300	N/A	2,000	2.8	2.9	N/A	2.4
Nevada	33,100	29,800	600	2,700	3.2	3.2	1.8	3.7
New Hampshire	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Jersey	92,400	75,800	3,200	13,400	3.0	2.9	3.0	4.5
New Mexico	16,800	13,200	1,000	2,600	2.7	2.6	2.3	3.8
New York	189,300	129,000	11,200	N/A	2.7	2.2	5.5	N/A
North Carolina	80,300	64,900	2,400	13,000	2.2	2.1	1.6	3.5
North Dakota	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ohio	101,000	85,300	N/A	11,400	2.4	2.4	N/A	2.7
Oklahoma	34,100	29,100	1,100	3,900	2.7	2.7	1.4	3.7
Oregon	49,100	43,400	1,000	4,700	3.4	3.4	3.0	3.0
Pennsylvania	137,300	122,700	N/A	N/A	3.1	3	N/A	N/A
Rhode Island	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
South Carolina	38,600	29,100	2,300	7,200	2.4	2.1	2.7	4.0
South Dakota	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tennessee	68,500	57,500	1,300	9,700	2.8	2.7	1.7	4.2
Texas	210,100	178,600	N/A	N/A	2.1	2.0	N/A	N/A
Utah	30,000	26,300	1,200	N/A	2.6	2.6	2.1	N/A
Vermont	7,900	6,900	N/A	600	3.5	3.6	N/A	3.3

Number and Rate of Injuries and Illnesses by State for All Industries, Private Industry, State Government and Local Government, 2020

Virginia	65,400	52,600	2,600	10,300	2.3	2.1	2.1	3.4
Washington	90,900	78,200	3,200	9,500	3.6	3.5	3.0	4.1
West Virginia	15,600	12,900	900	1,800	2.9	2.9	2.3	3.4
Wisconsin	67,900	59,900	1,400	6,600	3.2	3.1	2.3	3.6
Wyoming	6,900	5,000	500	1,400	3.3	3.0	4.4	4.3
Total or National Average[2]	3.2 million	2.7 million	131,100	443,400	2.9	2.7	3.3	4.2

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

[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.

Estimates of the True Toll of Workplace Injuries and Illnesses

	Estimated 2020 Figures Accounting for Impact of Undercounting Injuries and Illnesses[1]	2020 Data Reported by Bureau of Labor Statistics
Total Number of Nonfatal Injuries and Illnesses in Private Industry	**8.1 million**	**2.7 million**
Total Nonfatal Injury and Illness Case Rate in Private Industry (cases per 100 workers)	**8.1**	**2.7**
Total Number of Injuries and Illnesses Involving Days Away from Work in Private Industry	**3.5 million**	**1,176,340**
Case Rate for Nonfatal Injuries and Illnesses Involving Days Away from Work (cases per 100 workers) in Private Industry	**3.6**	**1.2**
Total Number of Musculoskeletal Disorders—Cases Involving Days Away from Work in Private Industry	**742,860**	**266,530**
Total Number of Estimated Cases of Musculoskeletal Disorders in Private Industry	**1,657,149**	**552,383**

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

[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 underreporting 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.

DEMOGRAPHICS

Women Workers

In 2020, 387 women died on the job, compared with 4,377 men, who often work in more dangerous industries. However, in 2020, a larger percentage of women died in the workplace due to exposure to harmful substances or environments than men (15% of all workplace fatalities for women compared with 14% for men) and homicide (17% compared with 7%). Workplace homicides were the second-leading cause of workplace job death for women workers. Domestic violence in the workplace has become a worsening problem; women were more than 50% more likely to be killed by a relative or domestic partner at work than men.

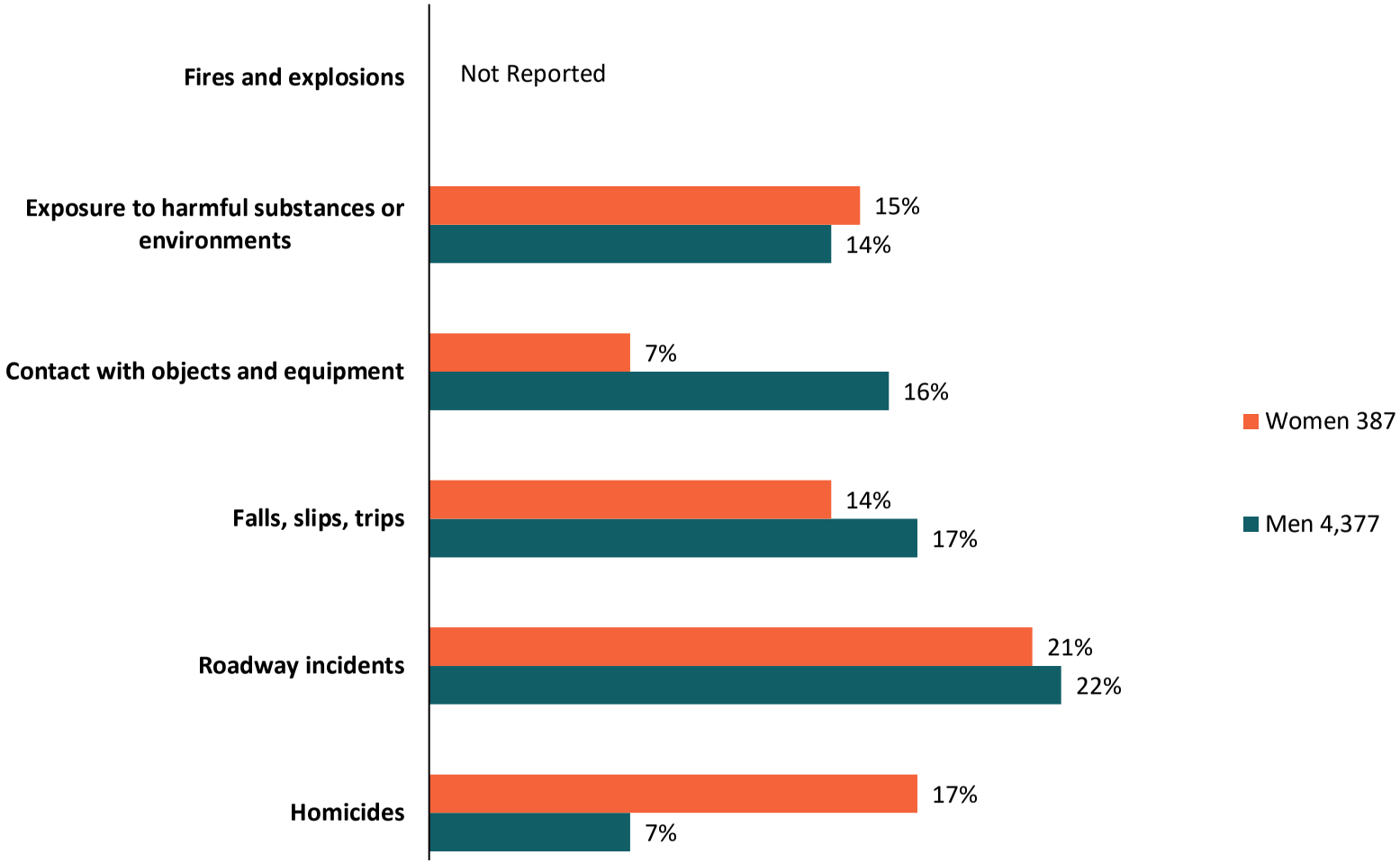
In 2020, women suffered 585,540 serious lost-time injuries and illnesses, 1.3% higher than men. These numbers included COVID-19 illnesses that have been reported. Women nursing assistants, orderlies and psychiatric aides; registered nurses; laborers and material movers; and building cleaning workers had the highest numbers of serious injuries in 2020. Women were at much greater risk of injuries from workplace violence, experiencing seven of every 10 serious injuries.

Aging Workers

Workers 65 and older have 2.5 times the risk of dying on the job than all workers, with a fatality rate of 8.6 per 100,000 workers in 2020. Workers ages 55–64 also are at increased risk, with a fatality rate of 4.4 per 100,000 workers. In 2020, 38% of all fatalities (1,727 deaths) occurred in workers ages 55 years and older, with 676 of these deaths occurring in workers ages 65 years and older. People are working longer, and by 2030, all baby boomers will be 66 years and older, and one in four workers will be 65 years and older.[25]

[25] Bureau of Labor Statistics. "Employment Projections Overview and Highlights—2020–30" (press release). Sept. 8, 2021. *Available at* BLS.gov/news.release/pdf/ecopro.pdf.

Distribution of Fatal Injury Events by Gender of Worker, 2020



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

Workplace Injuries and Illnesses to Women Involving Days Away from Work, Private Industry, 2020

Characteristic	Subcharacteristics	Number
Total Number of Injuries and Illnesses with Days Away from Work		585,540
Leading Industries	Nursing and residential care facilities	172,500
	Hospitals	113,920
	Ambulatory health care services	55,280
Leading Occupations	Nursing assistants, orderlies and psychiatric aides	87,270
	Registered nurses	68,720
	Laborers and material movers	33,330
	Building cleaning workers	27,890
Leading Nature	Other, including COVID-19[1]	316,110
	Sprains, strains, tears	107,710
	Soreness, pain	64,280
Leading Event or Exposure	Exposure to harmful substances or environments	291,560
	Falls, slips, trips	98,680
	Overexertion and bodily reaction	98,380
Leading Source	Other, including COVID-19[2]	313,730
	Floors[3]	49,590
	Patient	43,070
	Bodily motion or position of injured, ill worker	38,920
Median Days Away from Work	Total cases	12
	Women	12

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

[1]This category includes COVID-19 illnesses involving days away from work, and all other nonclassified injuries and illnesses. For comparison, there were 44,190 injuries and illnesses from other natures in 2019.

[2]This category includes COVID-19 illnesses involving days away from work, and all other nonclassified injuries and illnesses. For comparison, there were 43,500 injuries and illnesses from other natures in 2019.

[3]This category accounts for floors only. Floors, walkways and ground surfaces combined accounted for 76,280 injuries and illnesses involving days away from work for women.

Workplace Injuries and Illnesses to Men Involving Days Away from Work, Private Industry, 2020

Characteristic	Subcharacteristics	Number
Total Number of Injuries and Illnesses with Days Away from Work		577,990
Leading Industries	Specialty trade contractors	50,010
	Hospitals	32,250
	Nursing and residential care facilities	31,850
Leading Occupations	Laborers and material movers	69,610
	Driver/sales workers and truck drivers	66,740
	Maintenance and repair workers	22,600
	Construction laborers	15,770
Leading Nature	Other, including COVID-19[1]	172,150
	Sprains, strains, tears	156,570
	Soreness, pain	85,140
Leading Event or Exposure	Overexertion and bodily reaction	155,150
	Contact with objects and equipment	136,910
	Exposure to harmful substances or environments	126,300
Leading Source	Other, including COVID-19[2]	169,260
	Bodily motion or position of injured, ill worker	62,810
	Containers, nonpressurized	39,260
	Floors[3]	20,900
Median Days Away from Work	Total cases	12
	Men	12

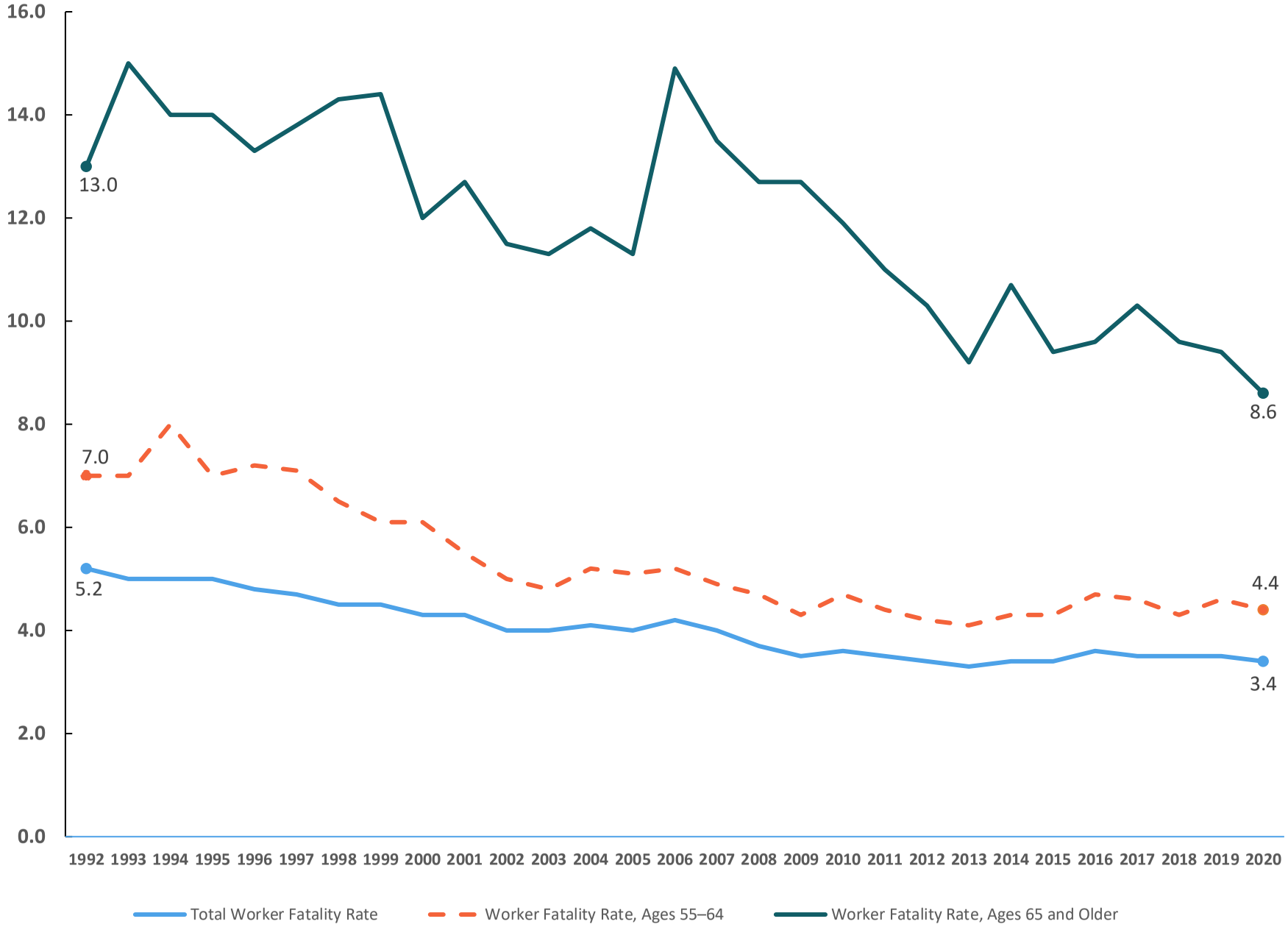
Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses.

[1]This category includes COVID-19 illnesses involving days away from work, and all other nonclassified injuries and illnesses. For comparison, there were 80,750 injuries and illnesses from other natures in 2019.

[2]This category includes COVID-19 illnesses involving days away from work, and all other nonclassified injuries and illnesses. For comparison, there were 67,910 injuries and illnesses from other sources in 2019.

[3]This category accounts for floors only. Floors, walkways and ground surfaces combined accounted for 52,110 injuries and illnesses involving days away from work.

Total Worker Fatality Rates Compared with Aging Worker Fatality Rates, 1992–2020[1]



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

[1]All rates per 100,000 workers.

RACIAL DISPARITIES

The fatality rate among Latino workers (4.5 per 100,000) increased for the second year in a row and has increased 15% over the past decade. The Latino fatality rate is 32% higher than the overall job fatality rate of 3.4 per 100,000 workers. The job fatality rate for Latino workers peaked in 2001 at 6.0 per 100,000 workers.

Latino worker deaths slightly decreased in 2020 to 1,072 deaths. This is following a drastic increase in Latino worker deaths immediately leading up to the pandemic: 1,088 Latino workers died on the job in 2019, an increase from 961 in 2018 and 903 deaths in 2017. In 2020, 269 Latino workers died from falls, slips or trips, compared with 267 in 2019 and 190 in 2018. In 2020, 170 Latino workers died from exposure to harmful substances or environments, a 14% increase from 2019 (149). Of the 1,072 Latino workers killed on the job in 2020, 65% were born outside of the United States.

Black workers face an increased risk of work-related deaths, with a job fatality rate of 3.5 per 100,000 workers, a decrease from 3.6 in 2019 but the second year in a row the fatality rate for Black workers is greater than the overall job fatality rate of 3.4. In 2020, 541 Black workers died—down from 634 in 2019, the highest number seen in more than two decades.. In 2018, 615 Black workers died on the job and 530 Black workers died on the job in 2017. The number of Black deaths due to violence on the job (125) decreased from 162 in 2019.[26]

The number of serious work injuries and illnesses increased for all races in 2020 and included illnesses from COVID-19. The number of serious work injuries and illnesses in all industries among Asian workers increased 70% in 2020 (from 13,730 to 23,420). Serious work injuries and illnesses increased 40% among Black workers (from 89,360 to 125,350), 27% among Hispanic or Latino workers (from 139,790 to 177,290) and 22% among White workers (from 369,660 to 450, 820).

In 2020, the Bureau of Labor Statistics updated its disclosure methodology resulting in significantly fewer publishable data for immigrants—leading to less transparency about a significant number of workplace deaths in the United States. This has resulted in previously published data by state, country and gender no longer being available for Latino workers, as well as occupation, industry and other information no longer being available for many other immigrant workers.[27] Fatalities among all foreign-born workers continue to be a serious problem. Targeted OSHA enforcement and training programs in workplaces and industries with greater density of Latino and immigrant workers have been effective at reducing job fatalities and improved working conditions. The Obama administration instituted these programs, yet they have not been carried forward through other administrations.

[26] Excludes animal-related violence incidents.
[27] *See* BLS.gov/iif/oshfaq1.htm#accessingourdata.

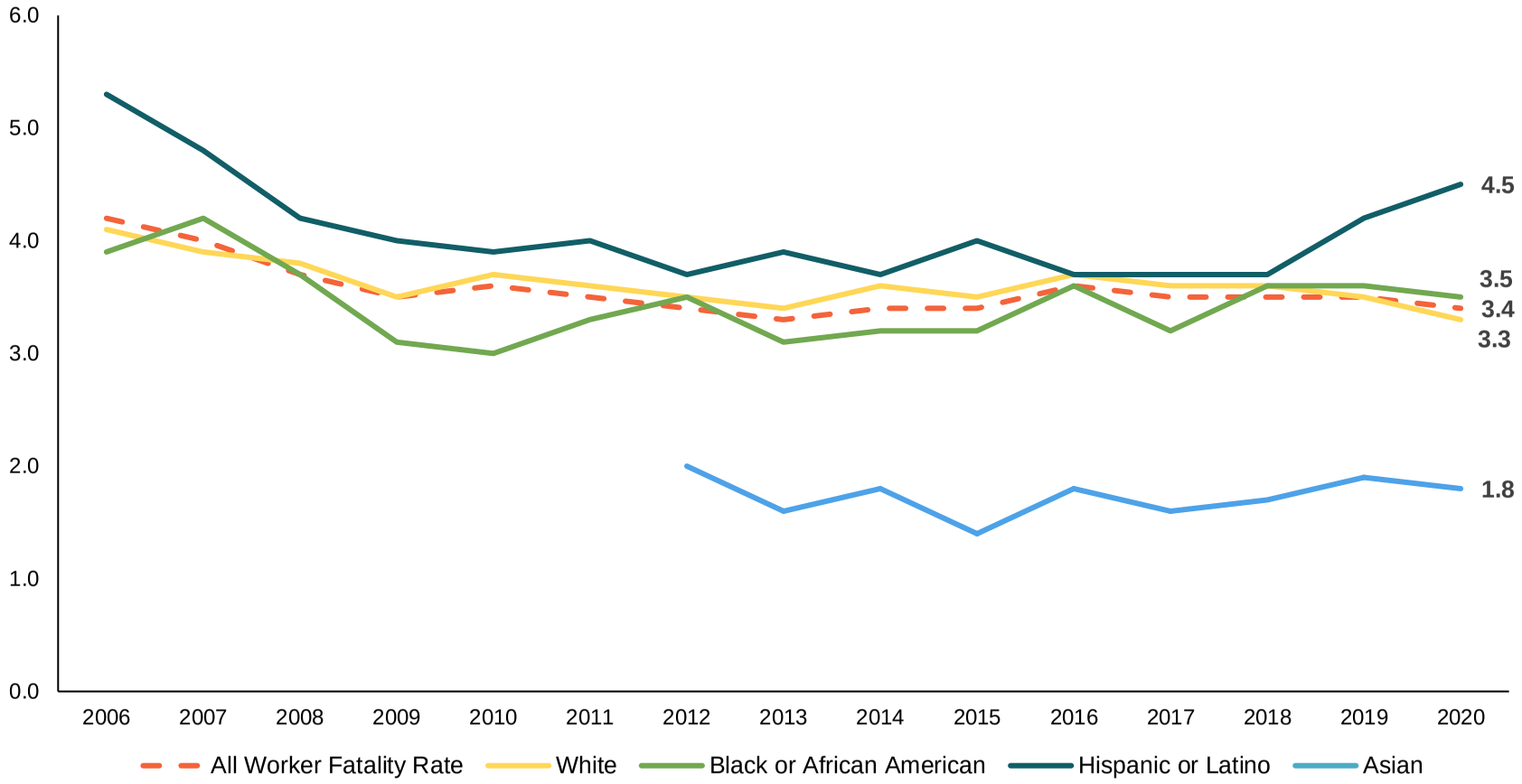
Fatal Work Injuries by Race, 2001–2020

	2001[1]	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total Fatalities	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	5,190	5,147	5,250	5,333	4,764
White	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	3,481	3,449	3,405	3,297	2,898
Black or African American	565	491	543	546	584	565	609	533	421	412	440	486	439	475	495	587	530	615	634	541
Hispanic or Latino	895	841	794	902	923	990	937	804	713	707	749	748	817	804	903	879	903	961	1,088	1,072
Asian, Native Hawaiian or Pacific Islander	182	140	158	180	163	159	172	152	148	149	124	154	132	142	123	167	161	163	195	158
American Indian or Alaskan Native	48	40	42	28	50	46	29	32	33	32	30	37	35	34	36	38	38	42	30	32
Multiple Races	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	14	22	14
Other Races/Not Reported	50	96	50	42	37	61	43	30	32	27	27	26	37	34	38	38	57	50	67	49

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

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

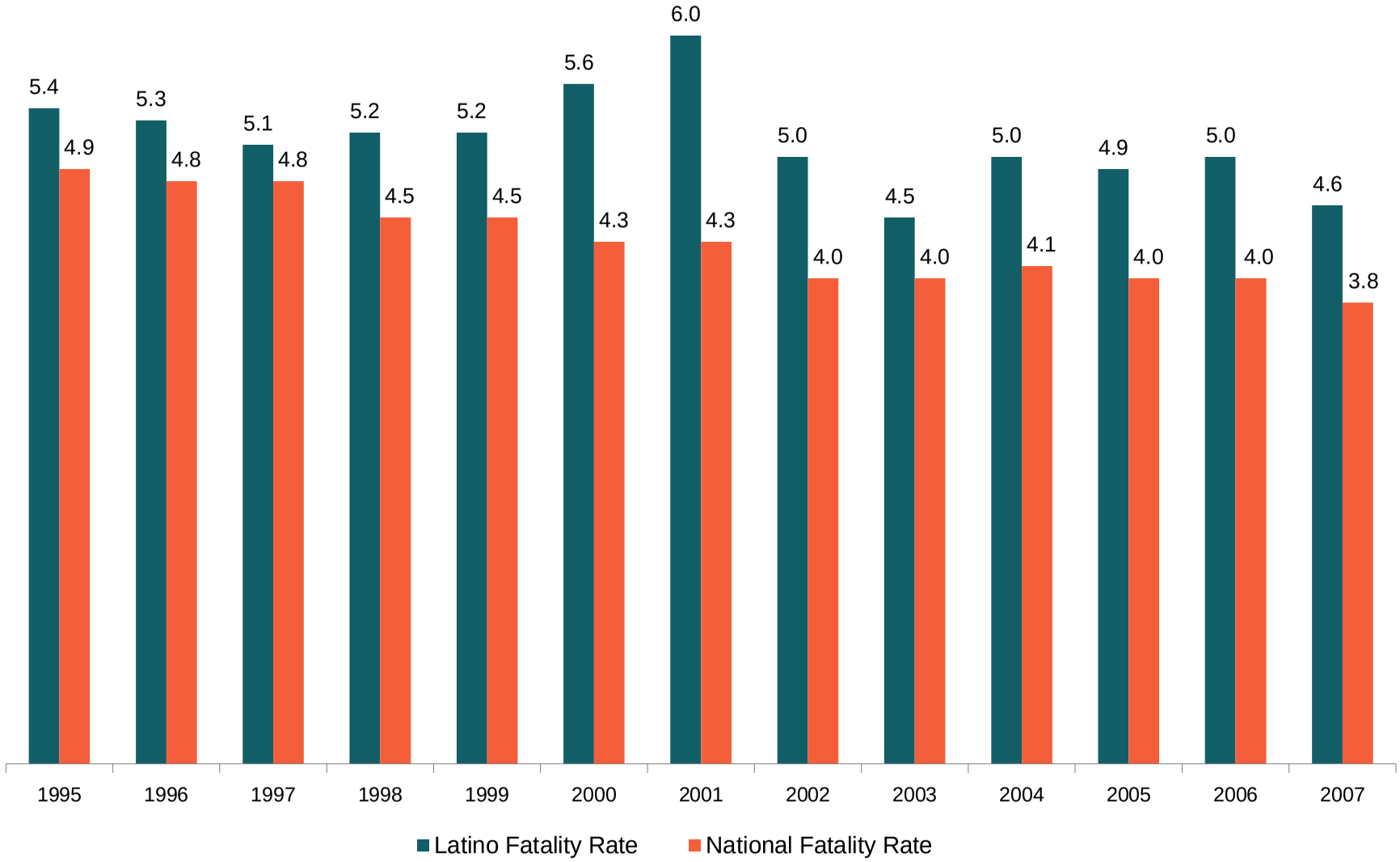
Workplace Fatality Rates by Race, 2006–2020
(Hours-Based Rates)



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

[1]Fatality rate is an hours-based calculation using total hours worked figures that are annual average estimates of total persons at work multipled by average hours for civilians, 16 years of age and older, from the Current Population Survey.

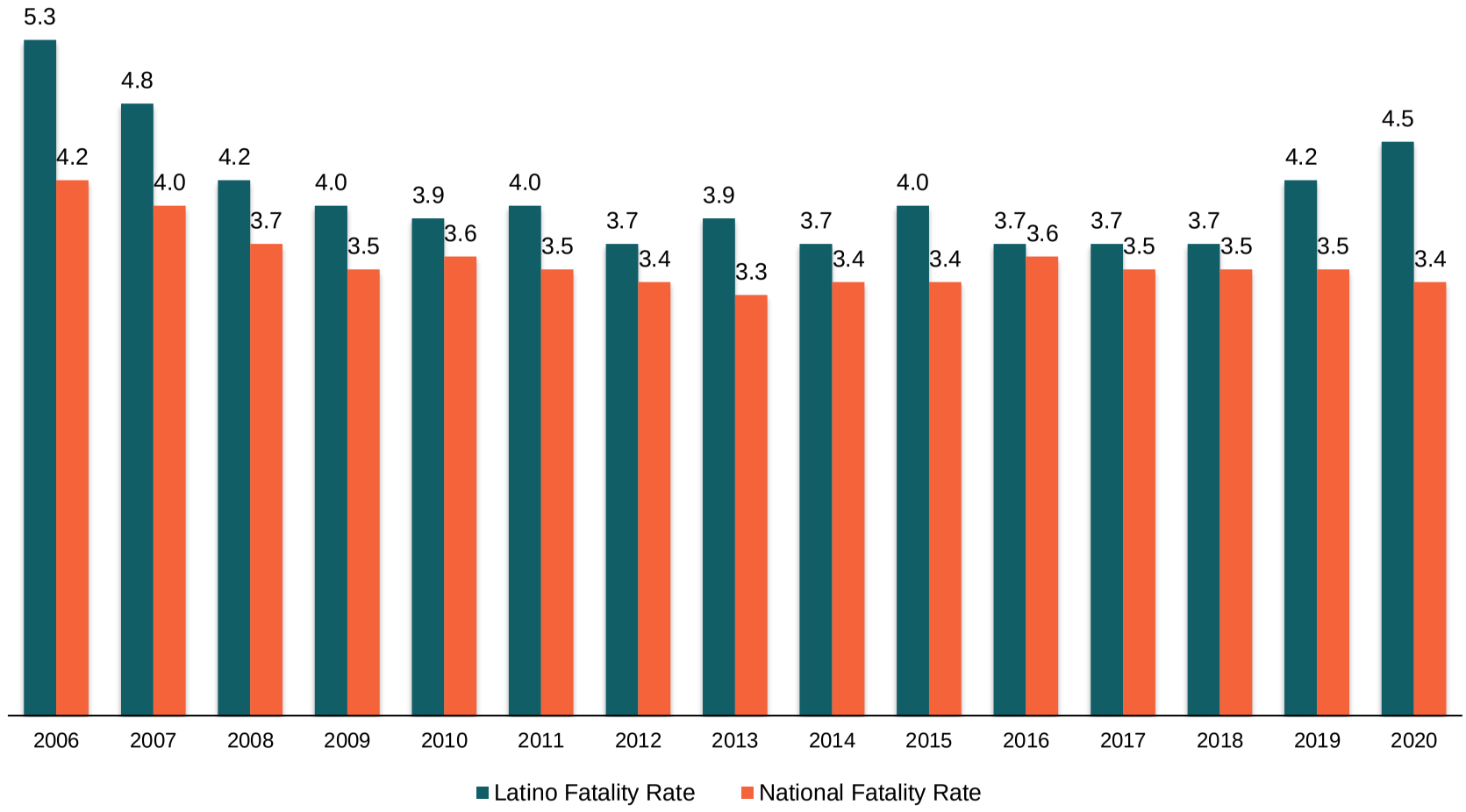
Rate of Fatal Occupational Injuries to Hispanic and Latino Workers, 1995–2007[1]
(Employment-Based Rates)



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

[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.

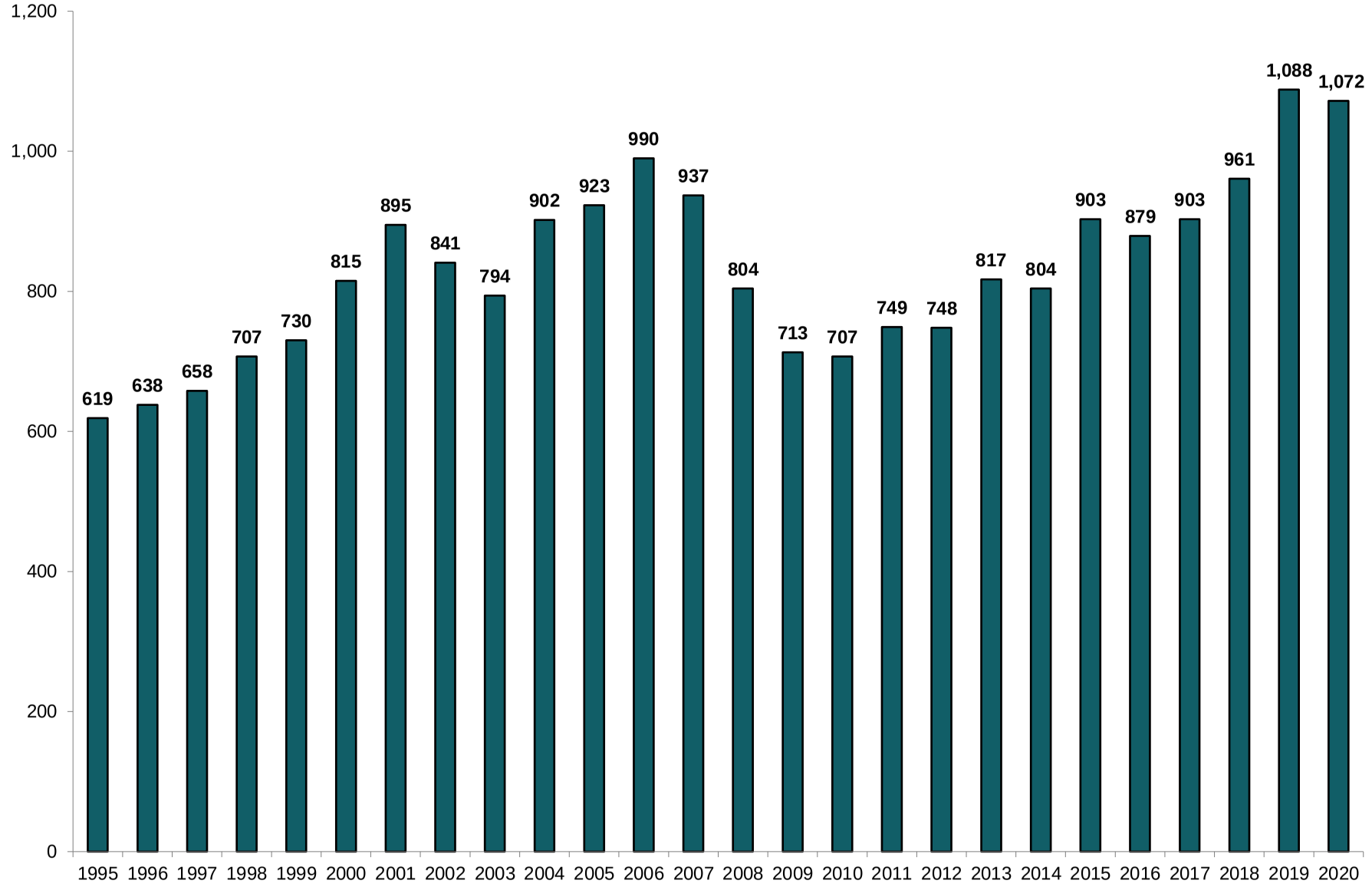
Rate of Fatal Occupational Injuries to Hispanic and Latino Workers, 2006–2020[1]
(Hours-Based Rates)



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

[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 persons at work multiplied by average hours for civilians, 16 years of age and older, from the Current Population Survey. 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.

Number of Fatal Occupational Injuries to Hispanic and Latino Workers, 1995–2020



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

Profile of Hispanic and Latino Worker Fatalities, 2020[1]

Characteristic	Subcharacteristics	Deaths
Total Fatalities		1,072
Country of Birth	Foreign-born[2]	692
	Native-born	380
Leading Birthplace Countries	Mexico	-
	United States	-
	El Salvador	-
Employee Status	Wage and salary workers	-
	Self employed	-
Gender	Men	-
	Women	-
Leading Occupations	Construction trades workers	306
	Motor vehicle operators[3]	167
	Grounds maintenance workers	92
	Agricultural workers	69
Leading Industries	Construction	382
	Transportation and warehousing[4]	149
	Administration and support and waste management and remediation services[5]	138
Leading Event or Exposure	Transportation incidents	324
	Fall, slip, trip	269
	Contact with object/equipment	176
	Exposure to harmful substances or environment	170

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

[1]In 2020, the Bureau of Labor Statistics updated its disclosure methodology, resulting in significantly fewer publishable data. See BLS.gov/iif/oshfaq1.htm#accessingourdata.

[2]In 2020, the Bureau of Labor Statistics updated its disclosure methodology, which has resulted in the agency no longer publishing certain data. See BLS.gov/iif/oshfaq1.htm#assessingourdata. For information on foreign-born fatalities in 2018 and prior, please see previous Death on the Job reports and BLS publications.

[3]Heavy and tractor-trailer truck drivers accounted for 140 of these deaths.

[4]Truck transportation accounted for 111 of these deaths.

[5]Landscaping services accounted for 89 of these deaths.

Hispanic and Latino Worker Fatalities by State, 2001–2020[1]

State	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Alabama	—	5	8	6	9	6	5	5	—	5	3	5	6	—	3	5	8	4	9	—
Alaska	—	—	—	—	3	5	—	—	—	—	5	5	3	—	—	—	—	—	—	—
Arizona	34	28	17	25	36	36	26	30	22	18	21	16	25	31	18	21	30	30	39	41
Arkansas	—	5	9	5	8	3	5	9	—	6	7	3	6	9	10	4	6	7	6	7
California	188	176	164	188	190	231	179	180	161	142	154	137	194	130	178	148	173	190	211	214
Colorado	25	16	25	25	19	18	30	21	17	19	22	21	14	18	20	23	29	19	24	26
Connecticut	9	7	—	10	5	7	4	7	4	5	7	6	5	3	8	4	4	14	5	4
Delaware	—	—	—	—	—	—	—	—	—	—	—	—	3	3	—	—	—	3	—	4
Florida	84	98	90	119	113	95	111	73	49	38	53	54	68	60	78	91	81	104	109	82
Georgia	36	16	26	29	25	35	28	26	10	16	14	10	14	21	26	16	24	24	37	43
Hawaii	—	—	—	—	—	—	4	—	—	—	—	1	—	4	3	—	—	—	—	—
Idaho	—	9	3	6	3	7	—	5	4	5	—	—	6	5	5	6	8	10	12	3
Illinois	30	27	22	29	23	30	27	25	16	25	25	19	26	16	19	27	17	27	17	18
Indiana	8	9	7	7	5	7	7	14	3	3	8	8	8	13	6	3	8	6	11	14
Iowa	—	—	—	7	—	—	4	6	8	5	3	4	—	3	—	4	—	5	6	13
Kansas	6	5	4	11	10	4	5	9	8	4	10	8	6	10	12	7	12	6	14	9
Kentucky	—	—	3	—	6	7	6	7	3	—	3	6	—	8	5	7	—	6	8	6
Louisiana	5	—	—	9	8	10	11	5	11	7	8	13	15	8	9	10	12	5	12	10
Maine	—	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Hispanic and Latino Worker Fatalities by State, 2001–2020[1]

Maryland	—	10	11	17	8	22	7	10	3	12	8	15	15	8	9	14	21	12	—	19
Massachusetts	6	5	6	9	6	7	11	10	5	7	11	3	3	2	4	10	14	14	7	10
Michigan	7	7	4	6	8	12	7	8	4	10	4	4	3	6	12	7	10	8	7	11
Minnesota	—	—	5	3	6	4	—	—	—	3	—	—	—	4	—	6	5	—	—	4
Mississippi	11	5	--	4	3	3	7	7	4	5	—	—	—	—	7	—	3	3	—	—
Missouri	8	—	6	4	—	4	7	4	6	3	4	—	5	5	7	5	4	4	5	—
Montana	5	—	—	—	4	3	3	—	3	3	—	—	—	—	—	—	—	—	—	—
Nebraska	—	9	3	4	—	—	4	5	—	3	3	5	3	9	4	--	4	7	—	—
Nevada	10	8	10	17	9	12	12	13	6	9	8	8	9	8	13	14	9	8	7	8
New Hampshire	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
New Jersey	25	33	24	34	30	28	23	25	25	20	26	15	20	31	22	26	11	22	23	20
New Mexico	27	21	9	12	19	30	21	10	16	17	23	22	20	22	13	16	11	19	19	18
New York	45	43	36	45	34	57	41	33	35	29	30	39	32	50	51	47	43	51	56	52
North Carolina	20	25	21	26	27	23	14	20	12	13	21	13	16	19	17	19	20	16	19	30
North Dakota	—	—	—	—	—	—	—	—	4	5	3	12	—	—	4	—	—	—	—	—
Ohio	6	—	15	5	5	8	6	4	4	8	1	8	2	3	11	10	15	11	9	9
Oklahoma	16	8	3	13	8	8	13	9	7	17	10	7	18	16	17	10	16	10	17	12
Oregon	5	—	7	4	6	11	6	—	8	6	6	—	9	8	5	12	5	8	11	13
Pennsylvania	10	12	10	6	11	14	16	11	10	13	14	13	4	13	17	7	9	10	13	11
Rhode Island	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—

Hispanic and Latino Worker Fatalities by State, 2001–2020[1]

South Carolina	9	7	18	13	10	10	7	8	10	10	10	4	7	6	10	9	9	9	15	—
South Dakota	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	3	—	—	—	—
Tennessee	5	7	8	9	5	14	8	9	8	8	9	9	9	6	10	11	8	6	16	23
Texas	170	147	163	150	200	174	211	148	185	165	171	201	192	206	220	211	219	198	241	221
Utah	8	6	11	5	4	6	10	6	8	4	3	6	5	7	4	10	6	11	11	—
Vermont	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
Virginia	12	15	13	13	24	13	18	16	7	9	14	15	22	9	9	20	12	30	17	18
Washington	13	15	5	14	7	7	10	8	7	14	5	12	4	8	14	13	9	16	13	24
West Virginia	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—
Wisconsin	8	—	3	—	9	3	5	—	5	4	4	7	7	5	7	4	7	7	11	12
Wyoming	5	8	—	3	—	—	8	—	—	—	—	3	—	3	4	4	3	4	3	4
Totals[2,3]	891	840	794	902	923	990	937	804	713	707	749	748	817	804	903	879	903	961	1,088	1,072

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

[1]Latino includes both foreign-born and native-born. The foreign-born are persons residing in the United States who were not U.S. citizens at birth. That is, they were born outside the United States or one of its outlying areas such as Puerto Rico or Guam, to parents neither of whom was a U.S. citizen. The foreign-born population includes legally admitted immigrants, refugees, temporary residents such as students and temporary workers, and undocumented immigrants. The survey data, however, do not separately identify the number of persons in these categories. In 2020, the Bureau of Labor Statistics updated its disclosure methodology, which has resulted in the agency no longer publishing certain data. See BLS.gov/iif/oshfaq1.htm#assessingourdata. For information on foreign-born fatalities in 2018 and prior, please see previous Death on the Job reports and BLS publications.

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

[3]States cannot always be assigned fatality cases. For example, some fatalities occur at sea outside of specific state jurisdictions, or the state is otherwise undetermined.

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

Number of Injury and Illness Cases in Private Industry with Days Away from Work Among Hispanic and Latino Workers, 1995–2020[1,2]

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[3]	180,419	12.6
2003	161,330	12.3
2004	164,390	13.1
2005	163,440	13.2
2006	159,440	13.5
2007	157,320	13.6
2008	145,870	13.5
2009	125,790	13.0
2010	122,970	13.2
2011	117,210	12.9
2012	118,940	13.1
2013	124,330	13.6
2014	124,280	13.6
2015	125,360	13.9
2016	127,490	14.3
2017	122,220	13.8
2018	123,390	13.7
2019	124,710	14.0
2020	161,890	13.8

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

[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]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. As a result, 30% to 40% of cases do not report race and ethnicity.

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

REGULATORY ACTION AND REFORM

Twice a year, the president publishes a regulatory agenda for each agency to set its regulatory priorities for the next six months. The most recent agenda was published by the Biden administration in Fall 2021. Pre-rulemaking priorities include workplace violence in health care and social assistance, heat illness prevention in indoor and outdoor work settings, and emergency response. Rulemaking priorities include powered industrial trucks, hazard communication updates, welding in construction confined spaces, infectious disease, tree care, updates to the lock-out tag-out standard, and communications towers.

The agency's long-term agenda includes the restoration of the column for employer recording of musculoskeletal disorders (MSDs) onto the OSHA injury and illness log, receiving little attention by the agency despite accounting for the largest (21%) of all serious nonfatal workplace injuries. The agency issued a proposed rule on this in 2010, but withdrew it in 2011. Initially, the 2001 final recordkeeping rule had included an MSD column, but OSHA later deleted that column before the provision became effective.

Thus far, this administration has completed a small business review for emergency response and issued proposed rules on powered industrial trucks and electronic injury reporting.

The issuance of a proposed rule on electronic injury reporting would restore requirements for large employers to submit detailed injury information to OSHA, which was revoked by the Trump administration in 2019. On March 30, 2022, the Biden administration proposed to reinstate these requirements.[28]

OSHA issued an electronic injury reporting rule in May 2016 that included provisions prohibiting retaliation against workers for reporting injuries, and making such actions a regulatory violation subject to citation and penalties (29 CFR 1904.35). The anti-retaliation provisions became effective in December 2016 and remain in effect. In January 2019, the Trump administration revoked the requirement for large employers to submit detailed injury information.

There are still many priorities on the regulatory agenda that have not yet seen progress publicly. One includes a proposed rule to protect communications tower workers. Communications tower climbers install, maintain and repair equipment at significant heights, in rural and urban areas, and in all weather conditions. The majority of these workers are contract workers employed in small contracting firms scattered throughout the nation. They face such hazards as falls, extreme weather, animal attacks, Lyme disease, mosquito-borne illnesses, radiofrequency radiation. Over the past five years, there have been at least 33 reported deaths at wireless tower sites. Of the fatalities investigated by OSHA over the most recent five years, the agency issued 44 violations for a total penalty of $367,500 against tower contractors.[29] As noted in the overview of fatalities, there is less transparency of contract worker deaths than there has been over the past decade due to a recent BLS disclosure policy.

[28] *See* FederalRegister.gov/documents/2022/03/30/2022-06546/improve-tracking-of-workplace-injuries-and-illnesses.
[29] *See* WirelessEstimator.com/content/fatalities.

Regulatory "reform" bills have been a problem over the years, introduced by conservatives. Despite the name, these bills would make it more difficult or impossible for agencies to issue needed safeguards in a timely manner. The most recent of these bills is the Setting Manageable Analysis Requirements in Text Act (S. 2801), creating unnecessary, redundant requirements that would shift resources away from the development and issuance of public protections, including important job safety and health standards. Similar bills over the years have had different titles but add new requirements for OSHA and other agencies to get protections out the door. Over the years, OSHA's standard-setting process has become unduly burdensome and lengthy. According to a congressional report, it takes OSHA between 4.3 and 11.5 years to issue a new standard—an average of eight years.[30] The most time OSHA has taken to complete the rulemaking process was 19 years each for the two most recent chemical standards—silica and beryllium.

[30] Congressional Research Service. "Occupational Safety and Health Administration (OSHA): COVID-19 Emergency Temporary Standards (ETS) on Health Care Employment and Vaccinations and Testing for Large Employers." Updated March 24, 2022. *Available at* CRSReports.congress.gov/product/pdf/R/R46288.

Biden Administration's OSHA Regulatory Agenda, Fall 2021[1]

Regulatory Actions	Regulatory Actions	Long-Term Actions
Update Blood Lead Level Removal—ANPRM 11/21	Procedures for Handling of Retaliation Complaints Under the Anti-Money Laundering Act—Interim Final 2/22	MSD Column
Personal Protective Equipment in Construction—NPRM 11/21	Procedures for Handling of Retaliation Complaints Under the Criminal Antitrust Anti-Retaliation Act—Interim Final 2/22	Powered Industrial Trucks—NPRM
Powered Industrial Trucks Design Standard Update—NPRM 11/21	Mechanical Power Press Update—Analyze RFI Comments 3/22	
Procedures for Handling of Retaliation Complaints Under the Taxpayer First Act—Interim Final 11/21	Welding in Construction Confined Spaces—NPRM 3/22	
COVID-19 Vaccination and Testing Emergency Temporary Standard Rulemaking—Interim Final 11/21	Silica—Addressing the Lack of Medical Removal Protections—NPRM 3/22	
Emergency Response—Finalize SBREFA 12/21	Infectious Disease—NPRM 4/22	
Workplace Violence in Health Care and Social Services—Initiate SBREFA 12/21	*Massachusetts State and Local Government Only State Plan—Initial State Plan Approval—NPRM 5/22*	
Improve Tracking of Workplace Injuries and Illnesses (restoring electronic 300/301)—NPRM 12/21	Amendments to the Cranes and Derricks in Construction Standard—NPRM 6/22	
Procedures for Handling of Retaliation Complaints Under the Whistleblower Protection Statutes—Interim Final 12/21	Tree Care Standard—NPRM 6/22	
Subpart U—Emergency Temporary Standard—COVID-19—Next Action Undetermined 12/21	Shipyards Subpart E—Scaffolds, Ladders and Other Working Surfaces—NPRM 7/22	
Heat Illness Prevention in Outdoor and Indoor Work Settings—ANPRM Comments Due 1/27/22	Silica—Update Table 1 (Construction)—NPRM 8/22	
Process Safety Management and Chemical Safety—Stakeholder Meeting 1/22	Lock-Out Tag-Out Update—NPRM 9/22	
Update to Hazard Communication—Analyze NPRM Comments 1/22	Communications Towers—NPRM 10/22	
Arizona State Plan for Occupational Safety and Health (revoke consideration)—Analyze NPRM Comments 1/22	Walking Working Surfaces (clarity)—Final 10/22	

Note: Items in italics are new additions to the regulatory agenda.

Source: Office of Information and Regulatory Affairs. Issued on Dec. 10, 2021.

[1]The dates on the regulatory agenda are projections set by the administration and may not have occurred by this date.

Biden Administration's MSHA Regulatory Agenda, Fall 2021[1]

Regulatory Actions	Long-Term Actions
Testing, Evaluation and Approval of Electric Motor-Driven Mine Equipment—Final 12/21	Notification, Investigation, Reports and Records of Accidents, Injuries, Illnesses, Employment and Coal Production in Mines—NPRM
Alternatives to Petitions for Modification: Non-Permissible Surveying Equipment—NPRM 1/22	
Respirable Crystaline Silica—NPRM 5/22	
Retrospective Review Coal Dust Standard—RFI Comments Due 7/9/22	
Written Safety Program for Surface Mobile Equipment, Powered Haulage Equipment—Final 10/22	

Source: Office of Information and Regulatory Affairs. Issued on December 10, 2021.

[1]The dates on the regulatory agenda are projections set by the administration and may not have occurred by this date.

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
39.	Occupational Exposure to COVID-19 for Health Care Emergency Temporary Standard[1]	2021
40.	COVID-19 Vaccination and Testing Emergency Temporary Standard (withdrawn after court injunction)	2021

Source: Code of Federal Regulations.

[1]The COVID-19 ETS for Health care was issued on June 21, 2021. On Dec. 27, 2021, OSHA announced it planned to withdraw the standard, but to date it has not been formally withdrawn. There has not been evidence of enforcement of the ETS since the December announcement. On March 23, 2022, OSHA published a notice for limited reopening of the record and an informal hearing on its interim final rule. The hearing is being held April 27, 2022. At the time of publication of this report, the status of the ETS also is pending litigation (*National Nurses United v. OSHA*).

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
COVID-19 in Health Care[5]	2021	—	19 months to date	1,552	2,457

[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 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 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 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). After a previous attempt to repeal the exposure monitoring, medical surveillance and other ancillary provisions of the beryllium standard for construction and maritime workers, on Aug. 31, 2020, the Trump adminstration issued a rule to revoke or otherwise alter the ancillary provisions for construction and maritime workers.

[5]On March 9, 2020, a petition for an Emergency Temporary Standard to protect all workers from COVID-19 was submitted to OSHA. In May 2020, OSHA denied the petition for the ETS. On June 21, 2021, OSHA issued a COVID-19 ETS for many health care settings. According to the preamble of the ETS, the COVID-19 protections prevented an estimated 776 deaths and 295,284 infections among health care workers per six months. On Dec. 27, 2021, OSHA announced it would be withdrawing the ETS and would no longer enforce the rule. The lives lost are the total lives lost from the date the petition was submitted (March 9, 2020) to the date the ETS was issued (June 21, 2021) plus from the date OSHA announced it would halt enforcement of the ETS (Dec. 27, 2021) to the date of publication of this report (April 26, 2022) for a total of approximately 19 months. Issuance and enforcement of the rule also could have prevented at least 935,065 infections among health care workers over those 19 months. This number is a severe underestimate, since many cases were not reported and the number determined by OSHA was calculated before the increased transmissibility of omicron variants; these estimates also do not include any of the tens of thousands of worker lives lost or infections in industries outside of health care.

OSHA ENFORCEMENT AND OVERSIGHT

Enforcement is a cornerstone of the Occupational Safety and Health Act and always has been a major part of the OSHA program. However, different administrations have placed different levels of emphasis on enforcement. In general, Democratic administrations have favored strong enforcement, supplemented by compliance assistance and voluntary programs, while Republican administrations have placed a greater emphasis on compliance assistance and lesser on enforcement. But all administrations face deficiencies and weaknesses in OSHA's statutory enforcement authority, and significant resource constraints that have greatly limited the agency's ability to meet its responsibilities.

For the entire four-year term of the Trump administration, OSHA did not have a confirmed head of the agency. Enforcement did not change significantly for the first two years; however, enforcement policy changes in 2019 shifted the focus of OSHA inspections to emphasize quantity rather than significant inspections. The number of onboard OSHA inspectors declined significantly due to President Trump's federal hiring freeze and the failure to fill vacant positions. As a result, the overall level of enforcement activity, particularly involving more complicated and time-intensive cases, declined.

Since taking office, the Biden administration's OSHA has responded to several major workplace safety incidents. In late January, a liquid nitrogen leak at a Georgia poultry plant killed at least six people, sent a dozen to the hospital and forced the plant to evacuate; many of these workers were Latino and immigrants.[31] In Florida, an investigation into a lead smelter is expected to be significant as the employer is allowing toxic occupational lead exposures; many of these workers are Black or immigrants.[32]

The OSH Act excluded many workers from coverage, including workers covered by other safety and health laws, and state and local public employees in states without a state OSHA plan. Over the years, there have been efforts to expand coverage. But today millions of workers—many state and local public employees—still lack OSHA coverage and are at much greater risk of being injured on the job.

OSHA Inspections

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 236 years under current staffing and inspection levels; however, OSHA did not conduct as many inspections across the board in 2021 and 2020, during the COVID-19 pandemic. In 2019, pre-pandemic, this figure was 162 years.

In FY 2021, federal OSHA conducted 24,355 inspections, and the state OSHA agencies combined conducted 31,063 inspections. This was a significant decrease from past years due to reduced enforcement activity during the COVID-19 pandemic; a 27% reduction for federal OSHA and a 26% reduction for state OSHA agencies compared with FY 2019.

[31] *See* NPR.org/2021/02/02/963093026/investigation-into-fatal-gas-leak-at-georgia-poultry-plant-could-take-years.
[32] *See* Projects.TampaBay.com/projects/2021/investigations/lead-factory/gopher-workers/.

For the first time, inspection data in federal agencies was requested and provided by federal OSHA. In FY 2021, federal OSHA conducted 604 inspections in federal agencies, including 160 inspections at the Department of Defense, 68 at the Department of Interior, 115 at the Veterans Administration and 60 at the Department of Agriculture.

There has been a decline in enforcement activity involving significant and complicated cases that began during the Trump administration and can be seen in the data from OSHA's Enforcement Weighting System (EWS)—a protocol implemented under the Obama administration that gives greater weight to more time-intensive inspections than to shorter duration routine inspections, and under the OSHA Weighting System (OWS)—a protocol initiated under the Trump administration that downgrades complex health inspections with significant importance and impact, and increases the weight of quick inspections related to four fatal safety hazards (falls, caught in, struck by and electrical hazards).[33]

Both systems assign different weights to different types of inspections performed by OSHA compliance safety and health officers. The change to the newer OWS system during the Trump administration masked the significant decrease in these inspections.

Under the EWS, in FY 2019, OSHA reported 42,825 enforcement units (EUs) for inspections and investigations, compared with 42,900 EUs in FY 2016, despite more inspections being conducted in FY 2019 (33,401 from 31,948). From FY 2016 to FY 2019, the number of inspections for significant cases declined from 131 to 100 (a 24% decline); the number of inspections for ergonomic hazards declined 55%, from 69 to 31; the number of inspections for workplace violence declined 29%, from 49 to 35; the number of inspections for process safety management declined 26%, from 234 to 172; and the number of inspections for combustible dust declined 24%, from 491 to 372.

In FY 2021, OSHA reported 48,271 EUs for inspections and investigations, compared with 43,217 EUs for inspections and investigations in FY 2020. These cannot be compared with the EWS EUs; however, a critical examination of the OWS EUs shows the difference is striking. Under the OWS, the majority of EUs result from inspections related to the fatal four safety hazards, 24,246 of 48,271 EUs in FY 2021. However, EUs resulting from inspections from ergonomics, heat, non-PEL overexposures and workplace violence combined only accounted for 82 of 48,271 EUs in FY 2021. This new system masks the number of health inspections completed and disincentivizes inspectors from completing time intensive and complex, yet significant, health inspections—the opposite intended effect of the original weighting system. The system has not changed under the Biden administration.

Unprogrammed Enforcement Activity

OSHA refers to enforcement activity that isn't due to an enforcement directive, nonprogrammed activity. This includes enforcement activity due to complaints, referrals, employer-required severe injury reports, and fatality and catastrophe investigations. This is the first year the AFL-CIO has requested this data.

[33] *See* OSHA.gov/sites/default/files/CTS_7132_Whitepaper_FINAL_v2019_9_30.pdf. Effective Sept. 30, 2019.

Individuals can file a complaint with OSHA that an employer is not providing a safe workplace. The agency considers a complaint as "formal" if it is made by a current employee or representative that asserts imminent danger or a violation of the OSH Act or a standard. Formal complaints must be written or use OSHA's complaint form, and must be signed. Other complaints that do not meet that criteria are considered "informal." In FY 2021, federal OSHA received 4,549 formal complaints and 21,197 informal complaints. Federal OSHA inspected the workplace in 44% of formal complaints and 16% of informal complaints. State plan OSHAs received 9,723 formal complaints, inspecting 50%, and 37,333 informal complaints, inspecting 10%. Complaints that did not receive an inspection results in the agency doing a "phone/fax investigation." When conducting a phone/fax investigation, the agency telephones the employer, describes the alleged hazards in the complaint and then follows up with a letter. The employer must respond within five days, identifying in writing any problems found and noting corrective actions taken or planned. If OSHA determines the response adequate, an on-site inspection is not conducted. Phone/fax investigations were formerly only conducted in response to an informal complaint, but this practice changed during the COVID-19 pandemic to allow inspectors to conduct phone/fax investigations for all types of unprogrammed activity.

In FY 2021, federal OSHA received 3,696 referrals and responded with an inspection for 64% after referral. State OSHA plans received 12,285 referrals and followed up by inspecting 47%. OSHA inspectors, other federal, state or local government agencies, discrimination or whistleblower complaints or the media can refer a case to OSHA.

In 2015, OSHA began requiring employers to report all severe work-related injuries, defined as an amputation, in-patient hospitalization or loss of an eye, to the agency. In response to these reports, the agency conducts either an inspection or rapid response investigation (RRI). An RRI does not involve an on-site inspection, and requires the employer to conduct its own investigation into the incident and share their findings with OSHA. In FY 2021, federal OSHA received 10,422 severe injury reports (SIRs) and conducted an inspection in 30% of cases, and state plan OSHAs received 3,365 SIRs and conducted an inspection in 47% of cases.
Federal OSHA received reports of 2,831 fatalities and catastrophes on the job in FY 2021 and investigated 55% of the cases. State OSHA received reports of 12,079 fatalities and catastrophes and investigated 37%.

OSHA Violations and Penalties

Penalties for OSHA violations have always been relatively low, due to statutory limitations and enforcement policies that prioritize the settlement of cases in order to achieve quicker abatement of hazards, rather than imposing the maximum fines.

In recent years, administrative and statutory changes have resulted in an increase in OSHA penalties. A revised penalty policy implemented during the Obama administration in 2010 resulted in a doubling of fines for serious violations. Passage of the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015, which extended the coverage of the Inflation Adjustment Act to OSHA, further increased penalties for OSHA violations. Under the 2015 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, and to regularly update penalties to account for future inflation.

This statutory increase in federal OSHA penalties took effect Aug. 1, 2016. The latest adjustment, effective Jan. 14, 2022, increased the maximum penalty for serious violations to $14,502, and for willful and repeat violations to $145,027.[34,35,36] State OSHA plans also are required to raise their statutory maximum penalties in order to be as effective as the federal OSHA program, but many states that cover private sector workers have not yet complied. As of April 15, 2022, only 12 of 24 states have adopted increased penalties: Alaska, California, Hawaii, Iowa, Nevada, New Mexico, Oregon, Utah, Virginia, Vermont, Washington and Wyoming. (Connecticut, Illinois, Maine, New Jersey and New York, which only cover public sector workers, are not required to.)[37]

In FY 2021, the average penalty for a serious violation under federal OSHA was $4,460, compared with an average penalty of $3,923 for serious violations in FY 2020. In FY 2021, the average penalty for a serious violation for state OSHA plans combined remained lower, at $2,421; in FY 2020, it was $2,137.

The number of willful violations cited by federal OSHA in FY 2021 was 360, a decrease from FY 2020. The average penalty per willful violation was $61,750 in FY 2021, compared with $70,797 in FY 2020 and $59,373 in FY 2019. The average penalty per repeat violation was $13,277 in FY 2021, compared with $15,340 in FY 2020. In states with state-run OSHA plans, in FY 2021, there were 518 willful violations issued, with an average penalty of $27,312 per violation, and 2,139 repeat violations issued, with an average penalty of $5,203 per violation.

In FY 2021, federal OSHA issued 636 violations to federal agencies, including one willful violation and 68 repeat violations. Federal OSHA does not issue monetary penalties as a result of violations to federal agencies.

For FY 2020, federal OSHA reported that the agency brought 65 "significant" enforcement cases.[38] This is fewer than FY 2020 (89) and more than the first year of the Trump administration, FY 2017 (53).[39] It is unclear how significant enforcement cases may have been impacted by the COVID-19 pandemic and reduction in enforcement activity.

The median current penalty issued per fatality investigation conducted in FY 2021 was $9,753 for federal OSHA and the median current penalty was $5,825 for the state OSHA plans combined, according to enforcement data provided by OSHA in March 2022. This compares with the respective penalties in FY 2020: $12,144 for federal OSHA and $6,899 for the state OSHA plans combined. These data include enforcement cases that still are under contest, and

[34] Prior to the passage of the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015, the maximum penalty for a serious violation was $7,000 and the maximum penalty for a willful or repeat violation was $70,000 per violation.
[35] *See* FederalRegister.gov/documents/2022/01/14/2022-00144/department-of-labor-federal-civil-penalties-inflation-adjustment-act-annual-adjustments-for-2022. Jan. 14, 2022.
[36] *See* OSHA.gov/memos/2022-01-13/2022-annual-adjustments-osha-civil-penalties. Jan. 13, 2022.
[37] Information compiled by the OSHA Directorate of Cooperative and State Programs, updated April 15, 2022. Utah adoption will be in effect May 4, 2022.
[38] OSHA defines a significant enforcement case as one where the investigation results in a total proposed penalty of greater than or equal to $180,000, or one that involves novel enforcement issues.
[39] For the first 10 months of FY 2016, the threshold for a significant case was $100,000; it increased to $180,000 on Aug. 1, 2016, when the increase in maximum penalties took effect.

some cases that still are open. Increased penalties in FY 2021 and FY 2020 may be attributed to a combination of Congress tying maximum penalties to inflation annually and the COVID-19 pandemic: in the COVID-19 pandemic, OSHA has continued to conduct fewer total inspections and issue fewer citations than OSHA typically issues in a fiscal year. The pandemic created a smaller pool of data in total and inspections were focused on COVID-19, rather than the many safety and other hazards OSHA typically cites throughout the year.

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 more accurate picture of the typical penalties in cases involving worker deaths. According to OSHA inspection data, the average total penalty in a fatality case in FY 2021 was just $11,626 for federal and state OSHA plans combined.

OSHA Enforcement Initiatives and Policies

Throughout the Trump administration, and in the four-year absence of a confirmed assistant secretary, there was only one major overhaul or reorientation of OSHA's enforcement program. A number of enforcement programs and initiatives implemented by the Obama administration continued. However, key policies and practices implemented by the Obama administration to enhance worker rights and improve transparency and disclosure were rolled back.

In response to calls from the business community, the Trump administration in April 2017 withdrew the Obama administration's policy that provided for nonunion workers to designate a walkaround representative to participate on their behalf in OSHA worksite inspections. The policy, set forth in a 2013 letter of interpretation, clarified that under OSHA regulations, a collective bargaining representative or another individual designated by the employees, if the inspector determined the individual would aid the inspection, could serve as the walkaround representative.[40] This provided for nonunion workers to designate a union or worker center as their representative for the purpose of participating in the OSHA inspection. Business groups strongly objected to and challenged this policy. In response, the Trump administration withdrew this letter of interpretation, stating it no longer represented OSHA policy.

The Trump administration also backtracked on Obama administration initiatives to use public disclosure of information to highlight serious safety and health problems. In 2010, OSHA started posting information on every fatality report it received on the home page of its website, to educate and inform the public about the high toll of work-related deaths and the need to prevent them. The information included the name of the worker, the circumstances surrounding the death and the employer. In August 2017, the Trump administration stopped posting these reports. OSHA reported only fatalities it investigated and, citing privacy concerns, would not release the name of the deceased worker. Worker fatality information no longer was posted on the home page of OSHA's website, which instead displayed initiatives OSHA was taking to cooperate with

[40] 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 (USW). Feb. 21, 2013. *Available at* OSHA.gov/laws-regs/standardinterpretations/2013-02-21.

employers. Families of workers killed on the job protested this change in policy, which diminished attention to these workplace deaths.

The Obama administration also expanded the use of press releases on significant enforcement cases to focus public attention on employers with serious, willful or repeated violations of the law. OSHA had always issued press releases on important enforcement cases, but under the Obama administration, it was OSHA policy to issue a press release on all enforcement cases with total proposed penalties of greater than $40,000, and for local OSHA officials to engage in active outreach to the press. A recent study found that one OSHA press release was the equivalent of 210 inspections, an essential compliance assistance tool given limited agency resources.[41] The business community strenuously objected to the issuance of these press releases, and when the Trump administration took office, the issuance of OSHA press releases on enforcement cases was suspended. Several months later, from public pressure, the agency again issued some press releases for some major enforcement cases, but there no longer was a policy or practice to issue press releases on all significant enforcement cases. Press releases have resumed under the Biden administration.

Other Obama administration programs and policies to address high-hazard employers and industries and to respond to changes in the workforce and employment relationships have continued. These include the Severe Violator Enforcement Program, launched in 2010, to focus on and provide enhanced oversight of the most persistent and egregious violators; the Temporary Worker Initiative (TWI) to help prevent injuries and illnesses among temporary workers by holding both staffing agencies and host employers jointly responsible; and the Severe Injury Reporting and Investigation Program.

According to OSHA, 68 new cases were added to the log of the Severe Violator Enforcement Program in FY 2020. As of the end of FY 2020, 702 employers remained in the severe violator program subject to OSHA enforcement.[42]

OSHA has continued to conduct the Temporary Worker Initiative to help prevent injuries and illnesses among temporary workers who are employed by staffing agencies but who work for different host employers. However, the number of inspections conducted under the TWI have declined significantly. Under OSHA's temporary worker policy, both host employers and staffing agencies may be held jointly responsible for complying with safety and health rules.

[41] Johnson, M.S. "Regulation by Shaming: Deterrence Effects of Publicizing Violations of Workplace Safety and Health Laws." *American Economic Review* 110 (6):1866–1904. June 2020. *Available at* 10.1257/aer.20180501.
[42] OSHA Inspection Data in Response to AFL-CIO Data Request, FY 2021.

The Biden administration issued several new enforcement directives and national emphasis programs to address the urgent issues of COVID-19 and heat to help protect workers from these hazards while the administration moves through the rulemaking process.[43,44,45,46]

State Plan Oversight

The OSH Act permits federal OSHA to grant approval to states that want to manage their own workplace safety and health program and cover public sector workers in their states. One stipulation for approval, however, is that the states' safety standards are "at least as effective" as federal standards. State standards can be stricter than federal OSHA's standards but not weaker. When states are clearly not fulfilling their duty to be at least as effective as federal OSHA, there are limited options for federal OSHA to step in.

Federal OSHA's main tool is to remove the state's OSHA state plan approval. The process to approve or revoke a state plan requires a lengthy rulemaking process, including public comment. This also has two significant side effects. If federal OSHA went through with revoking a state plan, federal OSHA would be in charge of all enforcement in the state, adding to its responsibilities while not gaining resources, and public employees would lose OSHA coverage provided to them through their state plan.

Two recent examples discussed elsewhere in this report of this malfeasance are not adopting updated penalty maximums and being slow or, in the case of Arizona, never adopting the COVID-19 ETS for health care, leaving many workers unprotected. In the latter case, federal OSHA sent "courtesy letters" to the state plans that were slow to adopt and placed a proposed rule to revoke approval of Arizona's state plan on its regulatory agenda. To date, no proposed rule has been issued.

Previously, OSHA has had some success in ensuring state plans adopt rules or run programs at least as effective as federal OSHA. During the Obama administration, federal OSHA threatened to withdraw South Carolina's state plan when the state announced it was going to eliminate its OSHA whistleblower program. The state finally relented, largely at the urging of South Carolina's business community.

OSHA Criminal Enforcement

Throughout OSHA's history, criminal enforcement under the Occupational Safety and Health Act has been rare and dependent on political will. According to information provided by the Department of Labor, since the passage of the act in 1970, only 115 cases have been referred for prosecution under the act. During this time, there were approximately 425,000 workplace

[43] OSHA. Updated Interim Enforcement Response Plan for Coronavirus Disease 2019 (COVID-19). July, 7, 2021. *Accessed at* OSHA.gov/laws-regs/standardinterpretations/2021-07-07.
[44] OSHA Directive: DIR 2021–03 (CPL 03). Revised National Emphasis Program – Coronavirus Disease 2019 (COVID-19). July 7, 2021. *Accessed at* OSHA.gov/sites/default/files/enforcement/directives/DIR_2021-03_CPL_03.pdf.
[45] COVID-19 Focused Inspection Initiative in Healthcare. March 2, 2022. *Accessed at* OSHA.gov/laws-regs/standardinterpretations/2022-03-02.
[46]OSHA Directive: CPL 03-00-024. National Emphasis Program – Outdoor and Indoor Heat-Related Hazards. April 8, 2022. *Accessed at* OSHA.gov/sites/default/files/enforcement/directives/CPL_03-00-024.pdf.

fatalities. In FY 2021, DOL referred nine cases for criminal prosecution, compared with seven cases in FY 2020, four cases in FY 2019, 11 cases in FY 2018 and 19 cases in FY 2017. [47, 48,49]

By comparison, the Environmental Protection Agency reported in FY 2021 that there were 123 criminal enforcement cases initiated under federal environmental laws—and in 88% of the criminal cases charged, an individual defendant was prosecuted, and those prosecutions generated a total 96% conviction rate.[50] 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 where 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, the Department of Justice (DOJ) prosecutes few cases under the statute. Instead, in some instances, DOJ will prosecute OSHA cases under other federal statutes with stronger criminal provisions if those laws also have been violated.

In response to the OSH Act's severe limitations, over the years there have been a number of initiatives to expand criminal enforcement for safety and health hazards by utilizing other statutes for prosecution. These include the DOJ Worker Endangerment Initiative, launched in 2005 and expanded in 2016, that 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.[51, 52, 53] Under this initiative, DOJ has significantly enhanced its criminal prosecutions for worker safety and health, successfully bringing cases that have

[47] "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 the Office of the Solicitor of Labor, updated April 11, 2022. The information for the early years of the statute is incomplete and may not include all cases prosecuted.
[48] 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.
[49] Information on criminal referrals provided by the U.S. Department of Labor, Office of the Solicitor of Labor.
[50] U.S. Environmental Protection Agency. Enforcement Annual Results for Fiscal Year 2021. *Available at* EPA.gov/enforcement/enforcement-annual-results-fiscal-year-2021#:~:text=In%20FY%202021%2C%20EPA's%20enforcement,communities%20with%20environmental%20justice%20concerns.
[51] Goldsmith, A.D. "Worker Endangerment Initiative." PowerPoint presentation, American Bar Association, Occupational Safety and Health Committee, Miami Beach, Florida. February 2009.
[52] Department of Justice, Office of Public Affairs. "The Departments of Justice and Labor Announce Expansion of Worker Endangerment Initiative to Address Environmental and Worker Safety Violations" (press release). Dec. 17, 2015. *Available at* Justice.gov/opa/pr/departments-justice-and-labor-announce-expansion-worker-endangerment-initiative-address.
[53] Memorandum of Understanding between the U.S. Departments of Labor and Justice on Criminal Prosecutions of Worker Safety Laws. Dec. 17, 2015. *Available at* Justice.gov/enrd/file/800526/download.

resulted in convictions and significant jail time for defendants.[54] During the Obama administration, the Department of Labor (DOL) 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.

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 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 cases, unions and local safety and health activists worked with prosecutors to provide assistance and to educate the community about the job safety crimes.

OSHA Coverage

OSHA law still does not cover 7.9 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 private sector counterparts.[55,56] 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. The Mine Safety and Health Administration (MSHA) covers many underground and surface mine workers under its own law, which is stronger than the OSH Act.

In 2013, OSHA coverage was extended to flight attendants when the Federal Aviation Administration rescinded a longstanding policy and ceded jurisdiction to OSHA on some key safety and health issues, in response to the FAA Modernization and Reform Act of 2012 (PL 112-95). This policy action was the culmination of decades of effort by the flight attendant unions to secure OSHA protections. Specifically, the FAA issued a policy that extended OSHA regulations and jurisdiction on hazard communication, bloodborne pathogens, hearing

[54] PBS. "Frontline: A Dangerous Business Revisited." March 2008. *Available at* PBS.org/wgbh/pages/frontline/mcwane/penalty/initiative.html.

[55] 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.

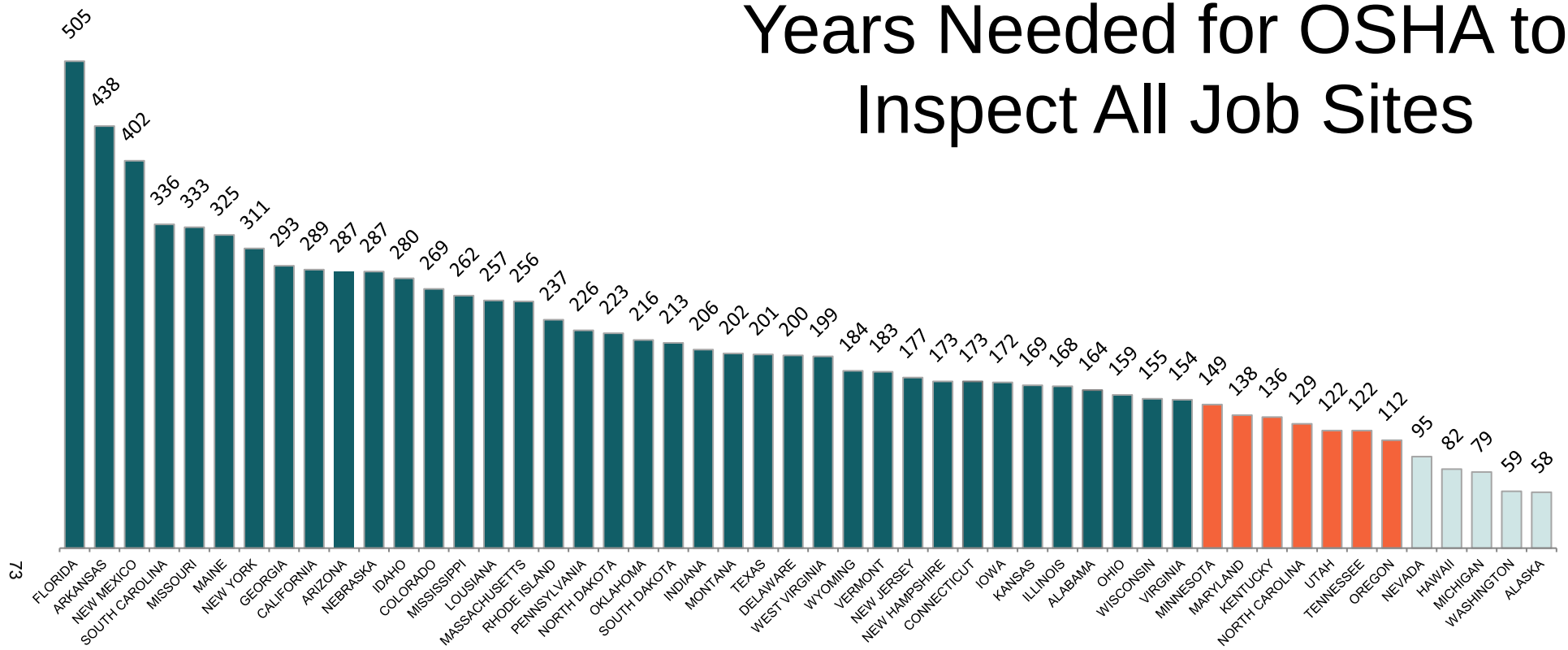
[56] Some states provide safety and health protection to public employees under state laws that are not OSHA-approved plans. In 2014, Massachusetts enacted legislation establishing legally binding safety and health protections for public employees, but this law has not been submitted for federal OSHA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

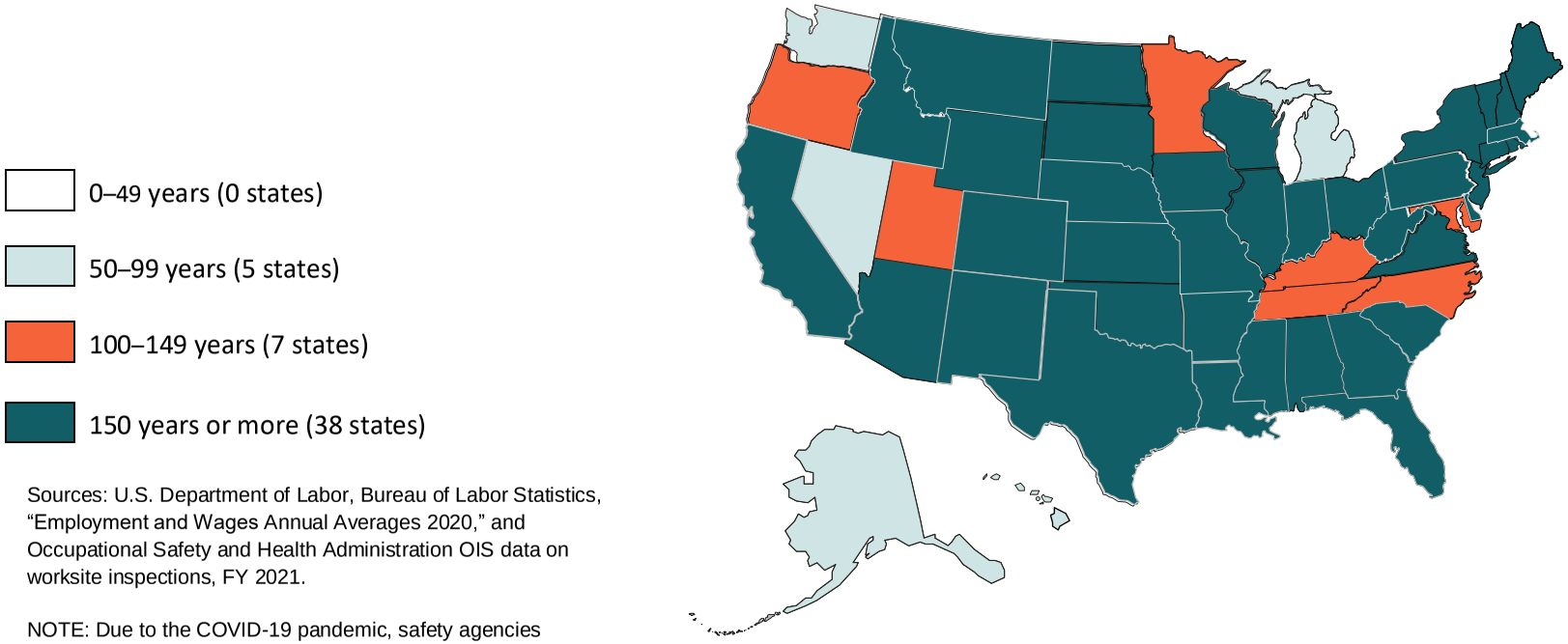
conservation, recordkeeping, and access to employee exposure and medical records for cabin crews.[57]

The COVID-19 pandemic continues to highlight the consequences of inadequate OSHA coverage in workplaces across the country. OSHA has not reached many workplaces to ensure workers are protected.

[57] Department of Transportation, Federal Aviation Administration. Occupational Safety and Health Standards for Cabin Crew Members. Aug. 27, 2013. *Available at* FederalRegister.gov/documents/2013/08/27/2013-20841/occupational-safety-and-health-standards-for-aircraft-cabin-crewmembers.

Years Needed for OSHA to Inspect All Job Sites

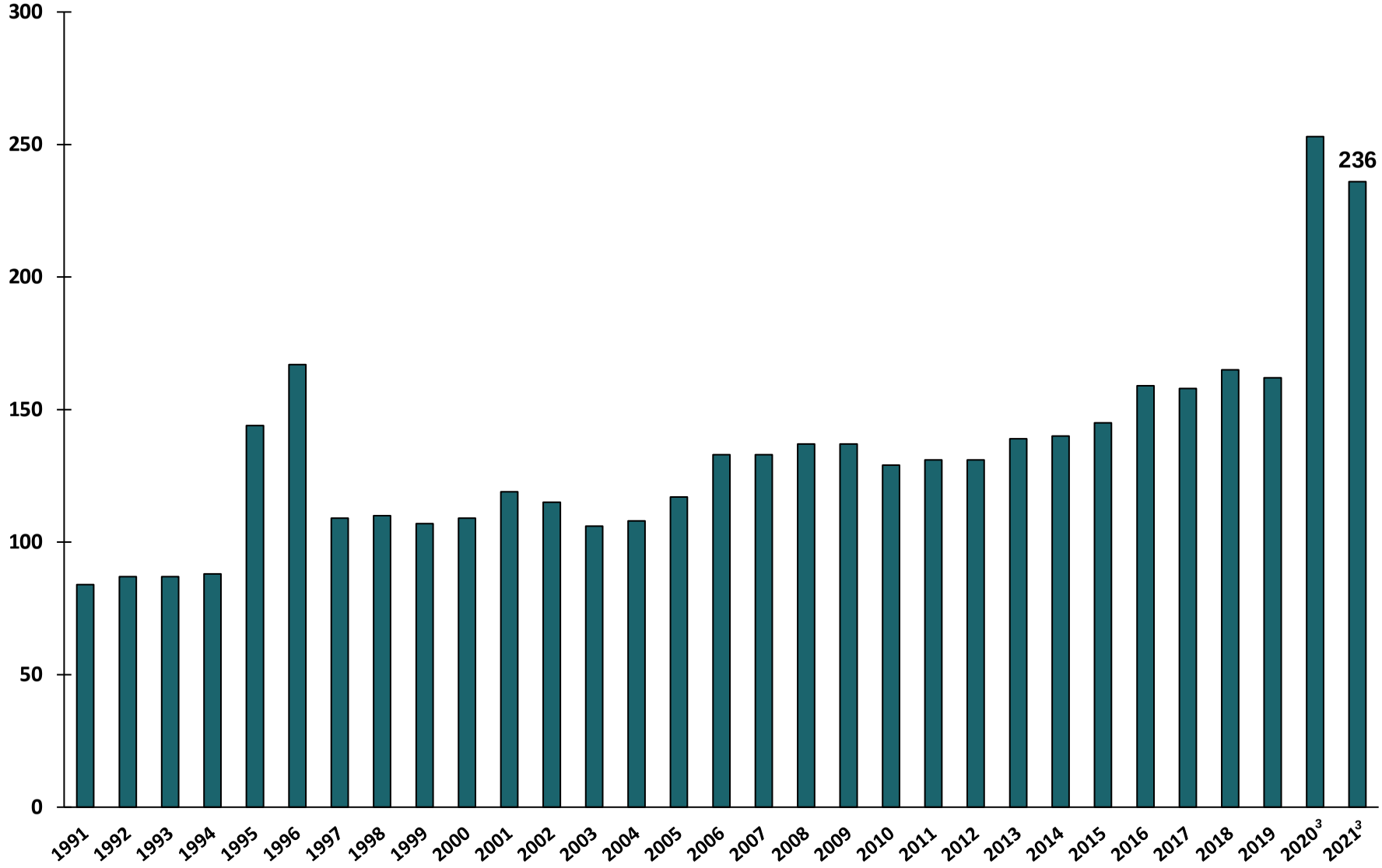




Sources: U.S. Department of Labor, Bureau of Labor Statistics, "Employment and Wages Annual Averages 2020," and Occupational Safety and Health Administration OIS data on worksite inspections, FY 2021.

NOTE: Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

Years for Federal OSHA to Inspect Each Workplace Once FY 1991–2021[1,2]



[1]Years to inspect is based on the number of establishments and the number of OSHA inspections for each fiscal year.
[2]FY 1995–1996 inspections declined significantly during the Clinton administration's "Reinventing Government" initiative.
[3]OSHA inspections declined significantly during the COVID-19 pandemic.

Federal OSHA Inspection/Enforcement Activity, FY 2012–2021

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020[1]	FY 2021[1]
Inspections	40,950	39,178	36,167	35,822	31,948	32,396	32,020	33,401	21,674	24,355
Safety	33,598	31,920	29,343	28,903	25,704	26,607	26,453	27,890	17,558	19,948
Health	7,352	7,258	6,824	6,917	6,244	5,789	5,567	5,511	4,116	4,407
Complaints	9,568	9,503	9,577	9,037	8,870	8,254	7,510	7,408	4,581	4,954
Programmed	23,082	22,170	19,207	16,527	12,731	14,396	13,980	14,910	8,726	10,598
Construction	22,507	20,430	18,223	17,549	15,610	16,921	16,729	17,500	11,069	12,566
Maritime	386	411	370	357	297	292	274	275	211	180
Manufacturing	8,399	7,945	7,602	8,051	7,450	7,043	6,863	7,046	4,367	4,612
Other	9,654	10,392	9,972	9,863	8,591	8,140	8,154	8,580	6,027	6,997
Average Case Hours/Inspections										
Safety	20.3	22.5	22.0	22.3	21.0	20.21	19.26	18.40	23.91	23.02
Health	34.6	40.1	45.2	39.7	33.4	33.58	32.00	29.34	44.86	38.28
Violations – Total	78,760	78,037	67,556	65,044	59,856	51,273	50,910	50,638	40,313	31,529
Willful	424	316	433	527	524	319	341	364	385	360
Repeat	3,031	3,119	2,954	3,088	3,146	2,771	2,593	2,471	2,155	1,790
Serious	57,155	58,234	49,416	47,934	42,984	36,802	36,645	36,447	28,757	23,065
Unclassified	1	-	1	1	1	-	1	1	0	1
Other	18,038	16,260	14,597	13,016	11,895	11,300	11,265	11,280	8,984	6,302
FTA	107	77	155	107	152	81	65	75	32	11
Penalties – Total ($)	168,842,092	149,994,488	143,535,247	156,525,585	162,872,470	196,837,526	196,598,571	207,960,691	186,187,094	150,982,223
Willful	15,053,400	12,484,996	17,474,793	21,581,025	21,794,276	20,808,006	21,108,034	21,611,925	27,256,828	22,229,957
Repeat	21,884,028	19,563,867	20,407,958	24,042,251	27,277,061	31,447,412	29,823,210	34,862,762	33,058,548	23,765,289
Serious	123,274,497	110,326,980	97,427,404	102,971,432	103,234,454	130,767,703	131,173,038	135,482,837	112,819,262	102,864,726
Unclassified	1,200	-	0	4,200	-	-	5,432	1,037	0	2,000
Other	7,829,960	6,855,744	6,500,117	7,222,074	8,537,920	12,183,280	12,926,576	14,876,315	12,248,709	11,116,993
FTA	797,507	762,901	1,724,976	704,143	2,028,758	1,631,125	1,561,970	1,125,815	775,011	343,120
Average Penalty/ Violation ($)	2,144	1,922	2,125	2,406	2,721	3,839	3,862	4,107	4,619	4,789
Willful	35,503	39,509	40,357	40,951	41,592	65,229	61,900	59,373	70,797	61,750
Repeat	7,220	6,272	6,909	7,786	8,670	11,349	11,501	14,109	15,340	13,277
Serious	2,157	1,895	1,972	2,148	2,402	3,553	3,580	3,717	3,923	4,460
Unclassified	1,200	-	0	4,200	-	-	5,432	1,037	-	2,000
Other	434	422	445	555	718	1,078	1,148	1,319	1,363	1,764
FTA	7,453	9,908	11,129	6,581	13,347	20,137	24,030	15,011	24,219	31,193
Percent Inspections with Citations Contested (%)	11.4%	6.0%	6.6%	7.4%	8.3%	8.5%	8.3%	8.0%	9.6%	8.7%

Sources: OSHA IMIS Inspection Reports, FY 2012–FY 2013, and OIS Federal Inspection Reports, FY 2012–FY 2021.

[1]Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

Federal OSHA and State Plan OSHA Inspection/Enforcement Activity, FY 2021[1]

	FEDERAL OSHA	STATE PLAN OSHA
Inspections	24,355	31,063
Safety	19,948	22,083
Health	4,407	8,980
Complaints	4,954	7,677
Programmed	10,598	11,315
Construction	12,566	11,721
Maritime	180	67
Manufacturing	4,612	4,760
Other	6,997	14,515
Average Case Hours/Inspection		
Safety	23.02	24.48
Health	38.28	31.85
Violations – Total	31,529	56,559
Willful	360	518
Repeat	1,790	2,139
Serious	23,065	29,566
Unclassified	1	12
Other	6,302	34,199
FTA	11	125
Penalties – Total ($)	150,982,223	104,819,207
Willful	22,229,957	14,147,864
Repeat	23,765,289	11,129,015
Serious	102,864,726	71,587,897
Unclassified	2,000	122,977
Other	11,116,993	10,208,084
FTA	343,120	2,805,203
Average Penalty/Violation ($)	4,789	1,853
Willful	61,750	27,312
Repeat	13,277	5,203
Serious	4,460	2,421
Unclassified	2,000	10,248
Other	1,764	298
FTA	31,193	22,442
Percent Inspections with Citations Contested	8.7%	18.2%

Source: Occupational Safety and Health Administration, OIS Federal Inspection Reports.

[1]Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

Federal OSHA and State Plan OSHA Nonprogrammed Enforcement Activity, FY 2021

	FEDERAL OSHA	STATE PLAN OSHA
Complaints[1]	**25,746**	**47,056**
Formal Complaints	4,549	9,723
Phone/Fax Investigation[2]	2,594	4,567
Percent Phone/Fax Investigation	57%	47%
Inspection	1,989	4,816
Percent Inspection	44%	50%
Unknown[3]	66	340
Percent Unknown	1%	3%
Informal Complaints	21,197	37,333
Phone/Fax Investigation	17,635	32,908
Percent Phone/Fax Investigation	83%	88%
Inspection	3,344	3,612
Percent Inspection	16%	10%
Unknown[3]	218	813
Percent Unknown	1%	2%
Referrals[4]	**3,696**	**12,285**
Phone/Fax Investigation	1,252	6,115
Percent Phone/Fax Investigation	34%	50%
Inspection	2,360	5,822
Percent Inspection	64%	47%
Unknown[3]	84	348
Percent Unknown	2%	3%
Severe Injury Reports[5]	**10,422**	**3,365**
Rapid Response Investigation[6]	7,159	1,712
Percent Rapid Response Investigation	69%	51%
Inspection	3,155	1,598
Percent Inspection	30%	47%
Unknown[3]	108	55
Percent Unknown	1%	2%
Fatalities and Catastrophes[7]	**2,831**	**12,079**
Inspection	1,551	4456
Percent Inspection	55%	37%
Unknown[3]	1,280	7623
Percent Unknown	45%	63%

Source: Occupational Safety and Health Administration. OIS Inspection Reports. Federal OSHA data provided March 9, 2022. State plan OSHA data provided March 14, 2022.

[1]A formal complaint is a complaint made by a current employee or representative of employees that asserts imminent danger, a violation of the OSH Act or a violation of an OSHA standard, is written or submitted on OSHA's complaint form, and is signed by at least one current employee or employee representative. An informal complaint is any complaint that does not meet the criteria of a formal complaint and does not come from a referral source.

[2]OSHA telephones the employer, describes the alleged hazards and then follows up with a letter. The employer must respond within five days, identifying in writing any problems found and noting corrective actions taken or planned. If the response is adequate, OSHA generally will not conduct an inspection. The employee who filed the original complaint will receive a copy of the employer's response. If still not satisfied, the complainant may then request an on-site inspection.

[3]Unprogrammed activity was lableled as unknown when there was no indication of an inspection or response by the agency. This does not mean no response occurred, but it had not been recorded by the date that was provided.

[4]Referrals include direct observation from an OSHA inspector or reports from other federal, state or local government agencies, discrimination or whistleblower complaints, or the media.

[5]As of Jan. 1, 2015, OSHA requires employers to report all severe work-related injuries, defined as an amputation, in-patient hospitalization or loss of an eye. This data excludes fatalities.

[6]A Rapid Response Investigation is conducted in response to an employer's severe injury report and generally does not involve an on-site inspection of the workplace. In lieu of an on-site inspection, an employer is expected to conduct its own investigation into the work-related incident and share its findings with OSHA.

[7]OSHA does not investigate every workplace fatality. OSHA requires reporting of deaths attributed to natural causes and workplace violence, and the area director determines whether it should be investigated. OSHA does not require reporting of fatalities due to motor vehicle incidents, unless it occurs in a construction work zone. Additionally, other agencies may perform a fatality investigation.

Inspections and Investigations Under OSHA's Enforcement Weighting System, FY 2016–2019[1]

		FY 2016	FY 2017	FY 2018	FY 2019	% Change FY 2016–2019
Total Inspections		31,948	32,396	32,020	33,401	5%
Total Enforcement Units		42,900	41,591	41,500	42,825	0%
With Inspections						
Significant Case	Number of Inspections	131	53	65	100	-24%
EU Value: 8	Number of EUs	1,048	424	520	800	-24%
Process Safety Management	Number of Inspections	234	140	232	172	-26%
EU Value: 7	Number of EUs	1,638	980	1,624	1,204	-26%
5a1 Ergonomics[2]	Number of Inspections	69	44	19	31	-55%
EU Value: 5	Number of EUs	345	220	95	155	-55%
5a1 Heat[2]	Number of Inspections	187	74	95	178	-5%
EU Value: 4	Number of EUs	748	296	380	712	-5%
Fatality/Catastrophe	Number of Inspections	866	825	910	885	2%
EU Value: 3	Number of EUs	2,598	2,475	2,730	2,655	2%
5a1 Non-PEL Overexposure[2]	Number of Inspections	20	5	14	11	-45%
EU Value: 3	Number of EUs	60	15	42	33	-45%
			.			
5a1 Workplace Violence[2]	Number of Inspections	49	40	41	35	-29%
EU Value: 3	Number of EUs	147	120	123	105	-29%
Federal Agencies	Number of Inspections	657	768	620	634	-4%
EU Value: 2	Number of EUs	1,314	1,536	1,240	1,268	-4%
Combustible Dust	Number of Inspections	491	419	397	372	-24%
EU Value: 2	Number of EUs	982	838	794	744	-24%
Personal Sampling	Number of Inspections	1,582	1,459	1,270	1,187	-25%
EU Value: 2	Number of EUs	3,164	2,918	2,540	2,374	-25%
All Other Inspections	Number of Inspections	27,662	28,569	28,357	29,794	8%
EU Value: 1	Number of EUs	27,662	28,569	28,357	29,794	8%
Without Inspections						
Phone/Fax	Number of Complaints	21,738	21,243	19,338	18,584	-15%
EU Value: 1/9	Number of EUs	2,410	2,355	2,144	2,060	-15%
Rapid Response	Number of Investigations	7,088	7,645	8,244	8,320	17%
EU Value: 1/9	Number of EUs	784	845	911	921	17%

Source: Occupational Safety and Health Administration, OIS Federal Inspection Reports.

[1]This data is based on OSHA's Updated Enforcement Weighting System (EWS), which was in effect Oct. 1, 2015, until Sept. 30, 2019. OSHA.gov/dep/enforcement/ews_memo_09302015.html. The OSHA Weighting System replaced the EWS and took effect beginning FY 2020 (Oct. 1, 2019); the OWS data are reflected in a separate table.

[2]These inspections resulted in either a 5(a)(1) citation or hazard alert letter (HAL). HALs do not result in a citation or penalty. The majority of inspections resulted in a HAL.

Inspections and Investigations Under the OSHA Weighting System, FY 2020–2021[1,2,3]

		FY 2020	FY 2021
Total Inspections		21,674	24,355
Total Enforcement Units		43,217	48,271
With Inspections			
Significant Case	Number of Inspections	1	48
EU Value: 7	Number of EUs	7	336
Process Safety Management	Number of Inspections	101	108
EU Value: 5	Number of EUs	505	540
Fatality/Catastrophe	Number of Inspections	1,508	1,411
EU Value: 5	Number of EUs	7,540	7,055
Falls, Caught in, Struck by, Electrical Hazards[4]	Number of Inspections	6,966	8,082
EU Value: 3	5(a)(1) Citation	334	169
	5(a)(1) HAL	116	59
	Emphasis Programs	6,516	7,854
	Number of EUs	20,898	24,246
National/Regional/Local Emphasis Program	Number of Inspections	707	622
EU Value: 2	Number of EUs	1,414	1,244
5(a)(1) Ergonomics[4]	Number of Inspections	13	14
EU Value: 2	5(a)(1) Citation	0	0
	HAL	13	14
	Number of EUs	26	28
5(a)(1) Heat[4]	Number of Inspections	29	12
EU Value: 2	5(a)(1) Citation	4	0
	HAL	25	12
	Number of EUs	58	24
5(a)(1) Non-PEL Overexposure[4]	Number of Inspections	2	1
EU Value: 2	5(a)(1) Citation	0	0
	HAL	2	1
	Number of EUs	4	2
5(a)(1) Workplace Violence[4]	Number of Inspections	15	14
EU Value: 2	5(a)(1) Citation	1	2
	HAL	14	12
	Number of EUs	30	28
Federal Agencies	Number of Inspections	164	177
EU Value: 2	Number of EUs	328	354
Personal Sampling	Number of Inspections	698	548
EU Value: 2	Number of EUs	1,396	1,096
All Other Inspections	Number of Inspections	11,744	13,318
EU Value: 1	Number of EUs	11,744	13,318

Source: Occupational Safety and Health Administration, OIS Federal Inspection Reports.

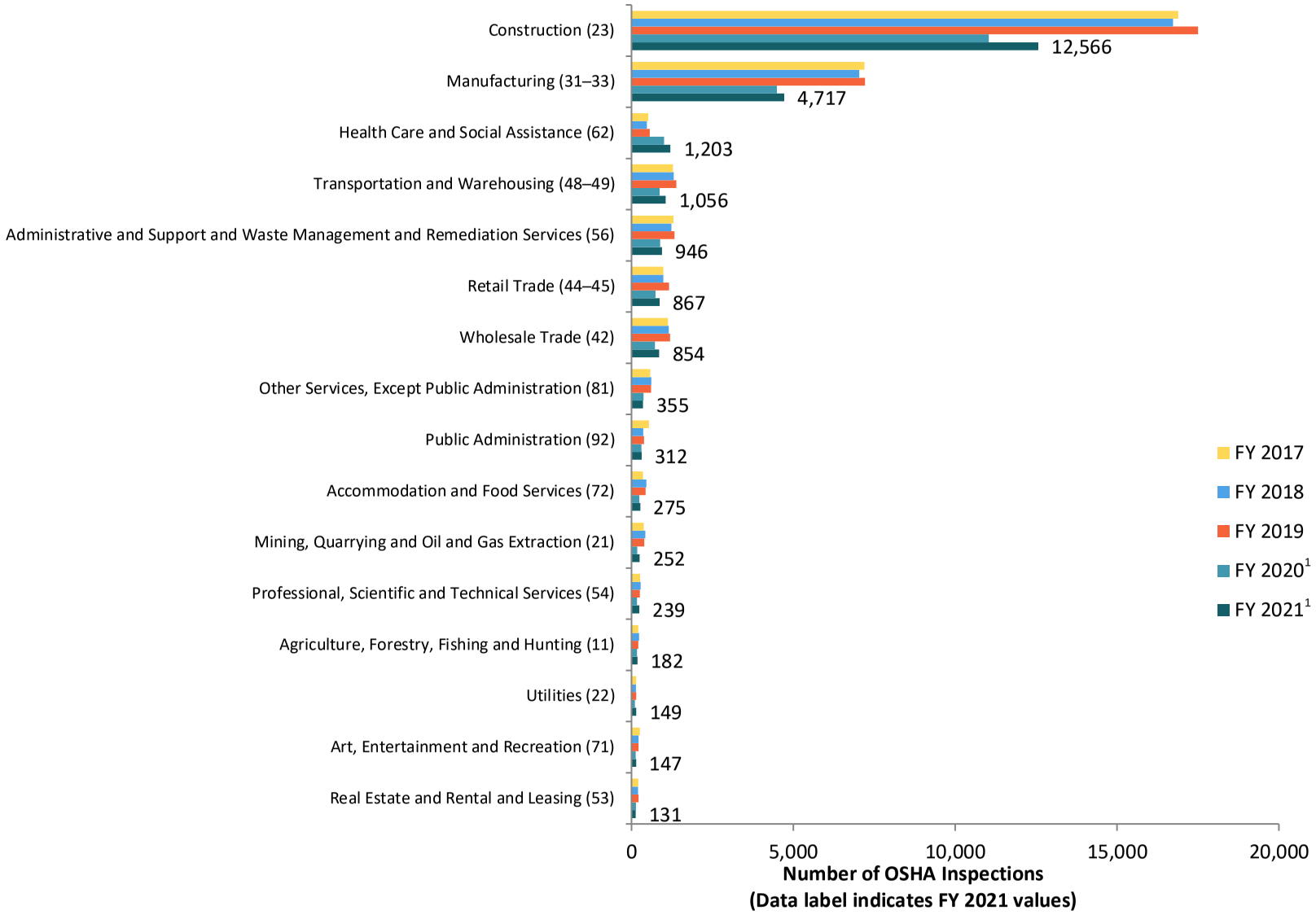
[1]OSHA replaced its Enforcement Weighting System (EWS) that was implemented in FY 2015 with the new OSHA Weighting System (OWS), which took effect beginning FY 2020 (Oct. 1, 2019). OSHA.gov/sites/default/files/CTS_7132_Whitepaper_FINAL_v2019_9_30.pdf. The OWS places less emphasis on significant inspections and health inspections.

[2]When OSHA revised its weighting system, unprogrammed activity such as phone/fax complaints and rapid response investigations were moved into a category called "essential enforcement support functions." As of March 1, 2022, this category is still being developed, so there are no data to present.

[3]Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

[4]Hazard alert letters (HALs) do not result in a citation or penalty.

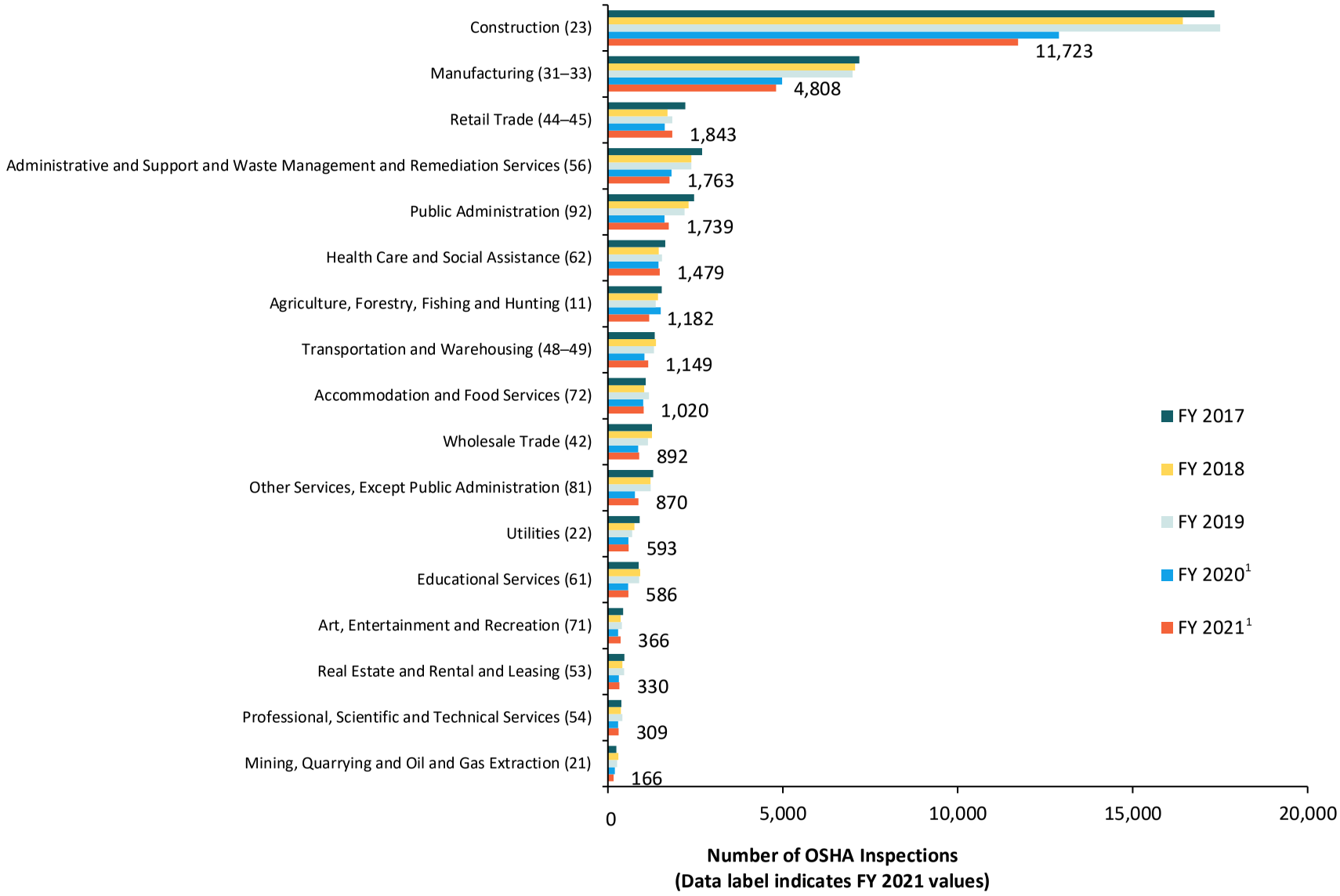
Number of Federal OSHA Inspections by Industry (Two-Digit NAICS Code), FY 2017–2021



Source: OSHA OIS inspection reports, FY2017–FY2021. Most recent data received Dec. 18, 2021.

[1]Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

Number of State Plan OSHA Inspections by Industry (Two-Digit NAICS Code), FY 2017–2021



Sources: OSHA OIS inspection reports, FY2017–FY2021. Most recent data received Dec. 17, 2021.

[1]Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

Federal OSHA Enforcement Activity Addressing Significant Hazards, FY 2021

	Ergonomics	Heat Illness	Workplace Violence
Inspections	20	48	33
Violations - Total[1]	0	17	3
Willful	—	1	—
Repeat	—	—	—
Serious	—	16	2
Unclassified	—	—	—
Other	—	—	1
FTA	—	—	—
Penalties - Total ($)	0	$203,827	$27,480
Willful	—	$81,919	—
Repeat	—	—	—
Serious	—	$121,908	$24,554
Unclassified	—	—	—
Other	—	—	$2,926
FTA	—	—	—
Average Penalty/Violation ($)	0	$11,990	$9,160
Willful	—	$81,919	—
Repeat	—	—	—
Serious	—	$7,619	$12,277
Unclassified	—	—	—
Other	—	—	$2,926
FTA	—	—	—
HALs[2]	20	31	30

Source: Occupational Safety and Health Administration, OIS Federal Inspection Reports.

[1]These hazards do not have comprehensive 6(b) standards and all citations are from 5(a)(1) violations or recordkeeping violations. In FY21, there was one recordkeeping violation for failure to report a fatality caused by workplace violence resulting in an other-than-serious violation.

[2]Hazard alert letters (HALs) do not result in a citation or penalty.

Federal OSHA Inspection/Enforcement Activity in Federal Agencies, FY 2020–2021[1,2]

	FY 2020	FY 2021
Inspections	502	604
Safety	293	325
Health	209	279
Complaints	128	135
Programmed	223	289
Public administration	309	281
Health care and social assistance	71	99
Transportation and warehousing	27	50
Other	123	177
Average Case Hours/Inspection		
Safety	29.70	28.65
Health	43.39	36.08
Violations – Total	847	636
Willful	4	1
Repeat	69	68
Serious	577	399
Unclassified	0	1
Other	197	167
FTA	0	0
Inspections by Agency		
DHS	52	51
CBP	32	24
TSA	18	10
Other DHS	2	17
DOT	24	22
FAA	17	19
Other DOT	7	3
DOC	12	19
NOAA	12	17
Other DOC	--	2
DOD	269	160
DOE	10	1
DOI	132	68
DOJ	37	18
HHS	10	12
SSA	13	4
Treasury	--	6
USDA	92	60
USPS	2	35
VA	107	115
Other	21	26
Percent Inspections with Citations Contested	1.5%	0.4%

Source: Occupational Safety and Health Administration, OIS Federal Inspection Reports.

[1]OSHA does not issue monetary penalities to federal agencies.

[2]Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

Average Total Penalty Per OSHA Fatality Inspection, FY 2014–2021

Fiscal Year	Number of Fatality Inspections Conducted	Total Current Penalties ($)	Average Total Penalty Per Inspection ($)
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	945	13,941,452	14,753
State Plan States	583	6,363,471	10,915
Nationwide	1,528	20,304,923	13,289
FY 2017			
Federal States	906	17,351,501	19,152
State Plan States	790	7,389,944	9,354
Nationwide	1,696	24,741,445	14,588
FY 2018			
Federal States	873	14,608,527	16,734
State Plan States	732	8,232,798	11,247
Nationwide	1,605	22,841,324	14,231
FY 2019			
Federal States	826	18,522,711	22,425
State Plan States	693	8,561,263	12,354
Nationwide	1,519	27,083,974	17,830
FY 2020			
Federal States	1,379	19,939,122	14,459
State Plan States	1,084	12,925,108	11,924
Nationwide	2,463	32,864,230	13,343
FY 2021			
Federal States	1,309	19,641,048	15,005
State Plan States	1,249	10,097,596	8,085
Nationwide	2,558	29,738,644	11,626

Sources: OSHA IMIS Fatality Inspection Reports, FY 2014–2015, and OSHA OIS Fatality Inspection Reports, FY 2014–2021.

State-by-State OSHA Fatality Investigations, FY 2021

State	Number of OSHA Fatality Investigations Conducted	Total Penalties ($)	Average Total Penalty Per Investigation ($)	Median Initial Penalty[1] ($)	Median Current Penalty[1] ($)	State or Federal Program[2]
Alabama	43	687,494	15,988	8,850	7,461	Federal
Alaska	6	39,184	6,531	14,096	19,592	State
Arizona	20	14,310	716	1,400	1,080	State
Arkansas	30	184,944	6,165	-	-	Federal
California	463	4,597,788	9,930	6,600	6,600	State
Colorado	46	494,103	10,741	-	-	Federal
Connecticut	21	257,528	12,263	6,339	3,484	Federal[2]
Delaware	8	46,421	5,803	-	-	Federal
Florida	104	1,410,284	13,560	4,126	3,865	Federal
Georgia	51	1,312,552	25,736	10,360	9,557	Federal
Hawaii	6	83,998	14,000	21,066	17,906	State
Idaho	12	75,982	6,332	3,511	4,231	Federal
Illinois	94	758,216	8,066	-	1,708	Federal[2]
Indiana	68	460,571	6,773	9,250	7,900	State
Iowa	21	168,218	8,010	8,096	7,000	State
Kansas	31	230,354	7,431	-	-	Federal
Kentucky	94	633,874	6,743	5,400	5,000	State
Louisiana	38	203,961	5,367	6,925	5,291	Federal
Maine	11	23,764	2,160	5,461	4,642	Federal[2]
Maryland	25	51,267	2,051	5,300	4,175	State
Massachusetts	33	498,794	15,115	6,632	5,000	Federal
Michigan	66	320,300	4,853	7,000	7,000	State

State-by-State OSHA Fatality Investigations, FY 2021

State	Number of OSHA Fatality Investigations Conducted	Total Penalties ($)	Average Total Penalty Per Investigation ($)	Median Initial Penalty[1] ($)	Median Current Penalty[1] ($)	State or Federal Program[2]
Minnesota	35	625,820	17,881	25,150	25,150	State
Mississippi	21	523,306	24,919	12,288	6,827	Federal
Missouri	41	611,483	14,914	9,557	5,969	Federal
Montana	8	2,892	362	1,244	933	Federal
Nebraska	18	72,545	4,030	4,779	3,300	Federal
Nevada	19	126,229	6,644	11,369	14,523	State
New Hampshire	7	57,253	8,179	-	-	Federal
New Jersey	77	1,714,786	22,270	2,146	1,951	Federal[2]
New Mexico	23	368,448	10,837	18,811	15,428	State
New York	151	2,252,168	14,915	8,137	5,033	Federal[2]
North Carolina	90	693,552	7,706	8,700	7,625	State
North Dakota	10	61,724	6,172	-	-	Federal
Ohio	64	1,856,518	29,008	9,655	6,587	Federal
Oklahoma	38	718,591	18,910	-	-	Federal
Oregon	56	60,320	1,077	2,150	2,150	State
Pennsylvania	61	929,421	15,236	10,534	9,557	Federal
Rhode Island	7	59,046	8,435	2,146	1,502	Federal
South Carolina	36	135,155	3,754	4,125	3,688	State
South Dakota	3	7,594	2,531	-	-	Federal
Tennessee	72	489,406	6,797	5,000	4,900	State
Texas	225	2,051,999	9,120	4,096	4,096	Federal
Utah	15	35,500	2,367	3,500	3,000	State

State-by-State OSHA Fatality Investigations, FY 2021

State	Number of OSHA Fatality Investigations Conducted	Total Penalties ($)	Average Total Penalty Per Investigation ($)	Median Initial Penalty[1] ($)	Median Current Penalty[1] ($)	State or Federal Program[2]
Vermont	3	20,479	6,826	24,576	10,240	State
Virginia	49	462,240	9,433	20,915	17,504	State
Washington	54	865,750	16,032	9,000	9,000	State
West Virginia	17	172,598	10,153	10,142	8,193	Federal
Wisconsin	39	1,078,878	27,664	5,852	9,557	Federal
Wyoming	6	122,750	20,458	61,375	61,375	State
National Median State Plan States				**6,288**	**5,825**	
National Median Federal States				**12,930**	**9,753**	
Total or National Average[3]	**2,558**	**29,738,645**	**11,626**			

Source: OSHA OIS Fatality Inspection Reports, issued March 7, 2022, and March 23, 2022.

[1]National median penalties include investigations conducted in American Samoa, District of Columbia, Guam, Northern Mariana Islands, Puerto Rico and the Virgin Islands.

[2]Under the OSH Act, states may operate their own OSHA programs. Connecticut, Illinois, Maine, New Jersey and New York have state programs covering state and local employees only; 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 $15,005 per fatality investigation; state plan OSHA average is $8,085 per fatality investigation. Total investigations, total penalties and national average penalty per investigation includes six investigations in the District of Columbia, 12 in Puerto Rico, two in Guam, one in the Virgin Islands and American Samoa and zero in the Northern Mariana Islands.

Significant OSHA Enforcement Cases Based on Total Penalty Issued, FY 2021[1]

Company Name	State	Inspection Number(s)	Date Citations Issued	Total Initial Penalty Issued	Current Penalty Issued
Gebbers Farms Operations LP[2]	WA	1484209	12/18/20	$2,038,200	$10,000
International Farmers Kitchen LLC dba Apple Bistro and Apple Bistro Inc.[2,3]	CA	1491600	10/30/20	$1,458,000	$1,458,000
General Aluminum Mfg. Company[4]	OH	1522608 1529075 1533816	11/2/21	$1,671,738	$1,671,738
Atlantic Coast Utilities, LLC/Advanced Utilities Inc. and its successors, including, but not limited to, Sterling Excavation LLC[4]	MA	1516067 1524460	—	$1,350,884	$1,350,884
Allways Roofing Inc.[2]	WA	1522052 1506857 1511296 1510160	5/21/21	$1,242,807	$1,242,807
Foundation Food Group Inc., Messer LLC dba Messer Gas LLC, Packers Sanitation Services Inc. Ltd. dba Packers Sanitation Services LLC, FS Group Inc. dba FSGroup[3]	GA	1512132 1512688 1513598 1515810	8/13/21	$979,131	$979,131
Didion Milling Inc.	WI	1505481	—	$676,808	$676,808
Duling Enterprises LLC[2]	WA	1512672 1514085 1509655	1/26/21 2/16/21 2/18/21	$594,000	$594,000
Clarke Products Inc.	TX	1501372 1501376	—	$558,821	$558,821
Above and Beyond Asbestos Removal LLC[2]	WA	1536988	9/27/21	$481,278	$481,278
Primetime Contractors LLC	NJ	1519454 1519373 1522141 1529802 1529805	—	$454,722	$454,722
Bentoli Inc.	TX	14182381	—	$448,303	$448,303
State of California, Department of Corrections & Rehabilitation[2]	CA	1480866	2/1/21	$421,880	$421,880
Janiec Roofing Inc.	NJ	1505570 1512726	—	$420,521	$420,521
Trinity Rail and Maintenance Services	OK	1488084	—	$419,347	$419,347

Source: Occupational Safety and Health Administration.

[1]On 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 2021, OSHA brought 65 federal and 18 state significant enforcement cases; there were no significant cases brought against federal agencies, although those carry no penalties.

[2]This significant case was issued under an OSHA state plan, which may have different criteria for a significant case, but this case exceeds the federal threshold for a significant case.

[3]dba stands for "doing business as."

[4]This significant case involved an egregious violation.

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	10/29/09	$81,340,000	$50,610,000 $14,567,000 $205,000 (Formal settlements)
BP Products North America	308314640 308314988	9/21/05	$21,361,500	
IMC Fertilizer/Angus Chemical	107607863 107607871	10/31/91	$11,550,000	$10,000,000
Imperial Suger	310988712 311522858	7/25/08	$8,777,500	$6,050,000 (Formal settlement)
O&G Industries Inc.	109179937 314295460	8/3/10	$8,347,000	$1,000,000 (Formal settlement)
Samsung Guam Inc.	107329740 106196801	9/21/95	$8,260,000	$1,829,000 (Formal settlement)
CITGO Petroleum	110416880	8/29/91	$8,155,000	$5,800,000
Dayton Tire	109061648	4/18/94	$7,490,000	$7,490,000
USX (aka U.S. Steel Corp.)	100504950 018252858 102873288	10/26/89 11/2/89	$7,275,300	$3,268,845 (Formal settlement)
Keystone Construction Maintenance	109179952 314295445	8/3/10	$6,623,000	$250,000* (Formal settlement)
Phillips 66/Fish Engineering	106612443 107365751	4/19/90	$6,395,200	$410,000 (Formal settlement)
Hercules Inc.	108662420 100490705	9/8/93	$6,328,000	$100,000 (ALJ decision)
Arcadian	102281292 102281128	1/27/93	$5,085,000	$5,085,000
E. Smalis Painting	108753690	6/31/94	$5,008,500	$1,092,750 (OSHRC decision)
John Morrell	101456325	10/28/88	$4,330,000	$990,000 (Formal settlement)
Bath Iron Works	101450336 101450294	11/4/87	$4,175,940	$650,000 (Formal settlement)
Fraser Paper	102749868 102750395	9/17/91	$3,982,500	$1,286,233 (Formal settlement)

Largest-Ever OSHA Enforcement Cases Based on Total Penalty Issued

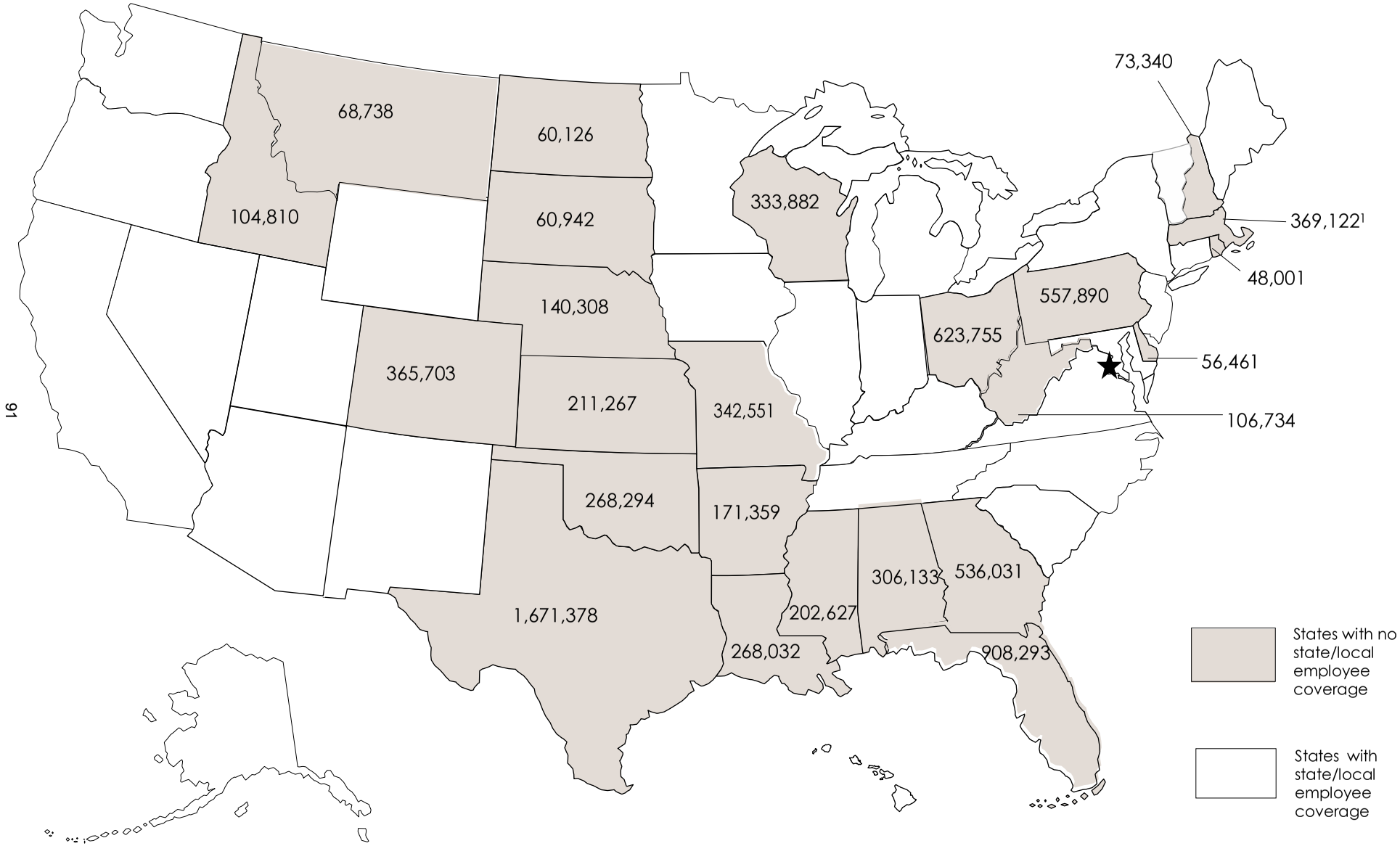
Company Name	Inspection Number(s)	Date Citations Issued	Total Penalty Issued	Penalty Amount Paid[1]
Decoster Egg Farms (aka Maine Contract Farming LLC)	122375512	7/12/96	$3,555,500	$1,887,500 (Formal settlement)
Arco Chemical Co.	110318540	1/3/99	$3,481,300	$3,481,300
Sunfield Inc.	1117773 1128049	6/29/16	$3,426,900	$2,497,200 (Formal settlement)
The Budd Company	18252510	12/12/89	$3,345,600	$1,528,000 (Formal settlement)
McCrory Stores	113919278	11/7/91	$3,188,000	$500,000 (ALJ decision)
IBP	100059591	5/11/98	$3,133,100	$532,030 (OSHRC decision)
BP North America Inc. and BP Husky Refining LLC	311611081	3/8/10	$3,042,000	$3,042,000
Shell Oil Chemical Co.	103342093	11/22/94	$3,017,000	$3,017,000
Union Carbide	110398310	9/12/91	$2,803,500	$1,496,500 (Formal settlement)
Ajin USA Alliance Total Solutions LLC Joynus Staffing Group	1156866 1165706 1165707	12/12/16	$2,565,621	Violations under contest
Dover Greens LLC (dba as Olivet Management LLC)	945519	3/31/14	$2,359,000	$700,000 (Formal settlement)
Republic Steel	942971 942968	3/31/14	$2,086,000	$240,614
Gebbers Farms Operations LP	148209	12/18/20	$2,038,200	$10,000 (Formal settlement)

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 Scienceblogs.com/thepumphandle/2012/03/26/federal-osha-penalties-101-a-l/ and from OSHA.gov/pls/imis/InspectionNr.html.

*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.

7.9 Million State and Local Employees Lacked OSHA Coverage in 2020



[1]Massachusetts passed a law providing OSHA coverage to the state's public employees (effective Sept. 1, 2018), but does not have a federal OSHA-approved state plan with enforcement resources.

★ In 2020, 37,023 public employees in the District of Columbia lacked OSHA coverage.

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

Prepared by the AFL-CIO

WHISTLEBLOWER PROTECTION

One of OSHA's key responsibilities is to enforce the anti-retaliation provisions under section 11(c) of the Occupational Safety and Health Act. In addition, OSHA has the responsibility to enforce the whistleblower provisions of 24 other statutes, ranging from the Federal Rail Safety Act to the Sarbanes-Oxley finance law.[58] Many of these statutes deal with safety and health matters, but others do not.

The total number of cases, under all statutes, received by OSHA's whistleblower program for FY 2021 decreased from FY 2020; the number of cases completed by the agency was similar to FY 2020. In FY 2021, OSHA received 2,556 cases and completed 3,099 cases. This compares with FY 2020, when the agency received 3,448 cases—a large increase in the first year of the COVID-19 pandemic—and completed 3,122 cases. Cases completed include cases from other fiscal years; not all cases received are completed in the same fiscal year. In FY 2021, 74% of the cases received (1,891 out of 2,556) were 11(c) complaints under the OSH Act. Workers also filed large numbers of whistleblower cases under the Federal Rail Safety Act (168), the Surface Transportation Assistance Act (202) and the Sarbanes-Oxley Act (69).[59]

The backlog in whistleblower cases has grown over the years and continues to be a serious problem. Adequate funding for OSHA's whistleblower program remains a serious concern.[60] The COVID-19 pandemic placed an even greater responsibility on an already starved program, limiting the agency's ability to respond to workers alleging retaliation for raising safety concerns on the job or for wearing their own PPE when their employer did not provide it. In February 2021, OSHA was assigned two new whistleblower statutes to enforce—the Criminal Antitrust Anti-Retaliation Act and the Anti-Money Laundering Act—but has not received increased funding to carry out this additional responsibility, or resources to rebuild the program to the levels it has needed for years.

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. 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.) To improve the timeliness and consistency of case handling, the agency updated and revised its investigators' manual and trained staff on policies and procedures.

The Obama administration also established a Whistleblower Protection Advisory Committee composed of representatives from labor, management and the public, charged with overseeing and providing advice and guidance to OSHA on its whistleblower protection program. The

[58] *See* Whistleblowers.gov/sites/wb/files/2021-06/Whistleblower_Statutes_Summary_Chart_FINAL_6-7-21.pdf.
[59] Occupational Safety and Health Administration. Whistleblower Investigation Data, Report Period: Oct. 1, 2020, to Sept. 30, 2021.
[60] Berkowitz, D., and S. Thompson. "OSHA Must Protect COVID Whistleblowers Who File Retaliation Complaints." National Employment Law Project. Oct. 8, 2020. *Available at* NELP.org/publication/osha-failed-protect-whistleblowers-filed-covid-retaliation-complaints/.

Trump administration terminated this advisory committee, eliminating oversight on this important program, and held annual, generic stakeholder listening sessions instead. The Biden administration has emphasized a prioritization of vulnerable workers, equity issues and worker empowerment. It has continued the annual public whistleblower stakeholder meeting and announced hazard-specific public whistleblower stakeholder meetings on COVID-19 and heat, but it remains to be seen whether the formal advisory committee will resume and whether there will be any structural changes to the program itself.

The Obama administration created a separate budget line item for the whistleblower program and sought increased funding and staffing for the program. In its budget requests, the Trump administration proposed to reorganize the whistleblower program, eliminating the supervisory personnel for the program in the regional offices, and centralizing management and supervision for the program at OSHA headquarters in Washington, D.C. There were serious concerns that such a centralization would make it harder for whistleblower investigators in the field, who already are stretched thin, to carry out their work.

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 these rights.

Even with improvements in the OSHA whistleblower program in recent years, problems and deficiencies remain. The biggest problems stem from deficiencies in the OSH Act itself. The anti-retaliation provisions of the law were adopted nearly 50 years ago, and are weak and outdated compared with more recently adopted statutes. The OSH Act provides only 30 days to file 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, he or she simply is out of luck, even though retaliation is not always clear in that short of a time frame, and more time often is needed to provide evidence of retaliation.

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 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 the Surface Transportation Assistance Act, the OSH Act does not allow a complainant the right to pursue the case on his or her 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 can only be remedied through legislative improvements in the OSH Act.

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, these employer programs and policies have grown 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.

To address the problems of retaliation related to injury reporting, in March 2012 OSHA issued a policy memorandum to provide guidance to the field.[61] 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. To date, the memo remains in effect.

In October 2018, OSHA issued an enforcement memo that limited the scope of anti-retaliation protections when employers report injuries, as they apply to workplace safety incentive programs and post-incident drug testing, placing the burden on workers to demonstrate actual retaliation in individual cases, rather than creating a presumption that certain types of programs were impermissible.[62] This policy interpretation greatly limits the utility of the anti-retaliation provisions in prohibiting policies and practices that discourage the reporting of injuries.

Employer groups filed legal challenges to the anti-retaliation provisions of the injury reporting rule, but the litigation was held in abeyance until the Trump administration reconsidered other aspects of the injury reporting regulation. On July 20, 2020, the U.S. District Court for the District of Columbia, under a settlement agreement, ordered OSHA to release all the worksite injury and illness reports that employers submitted on Form 300A for 2016 cases by Aug. 18, 2020.

[61] Richard E. Fairfax, Deputy Assistant Secretary Memorandum for Regional Administrators, Whistleblower Program Managers. "Employer Safety Incentive and Disincentive Policies and Practices." March 12, 2012. *Available at* OSHA.gov/laws-regs/standardinterpretations/2012-03-12-0.
[62] Kim Stille, Acting Director of Enforcement, Memorandum for Regional Administrators and State Designees. "Clarification of OSHA's Position on Workplace Safety Incentive Programs and Post-Incident Drug Testing Under 29 CFR 1904.35(b)(1)(iv)." Oct. 11, 2018. *Available at* OSHA.gov/laws-regs/standardinterpretations/2018-10-11.

Disposition of Federal OSHA 11(c) Whistleblower Complaints, FY 2006–2021

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
2017	1,932	1,876	538	15	303	220	877	502	1,917
2018	1,870	1,740	510	20	269	221	870	377	1,757
2019	2,084	2,001	559	14	272	273	1,067	392	2,018
2020	2,539	2,082	644	20	344	280	1,082	411	2,137
2021	1,891	2,225	619	21	286	312	1,240	404	2,263

Source: Occupational Safety and Health Administration, Directorate of Whistleblower Protection Programs.

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

Disposition of OSHA State Plan 11(c) Whistleblower Complaints, FY 2009–2021

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
2017	1,183	1,222	259	66	115	78	766	206	1,231
2018	1,347	1,376	244	47	91	106	841	261	1,346
2019	1,176	1,274	201	39	67	95	826	262	1,289
2020	1,712	1,228	242	38	82	122	747	241	1,230
2021	1,496	2,200	349	59	95	195	818	317	1,484

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

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

JOB SAFETY BUDGET AND RESOURCES

Appropriations

In March 2022, Congress passed omnibus legislation that appropriated OSHA a budget of $612 million for FY 2022, a 3.4% increase from the previous year, but lower than the rate of inflation. This included slight increases for all agency sections, except for the worker training grant program that has been flat-funded since FY 2020 and for executive administration that received a slight decrease in funding. In addition, through the American Relief Plan, Congress appropriated OSHA $100 million for pandemic-related worker protection activities that must be used by the end of FY 2023. Of these funds, $10 million must be used for training grants, and not less than $5 million for COVID-19 enforcement.

The Biden administration has requested a 14.6% increase in OSHA funding for FY 2023, including a 49% increase for standards development and $2 million more for the worker training grant program.

Congress appropriated $264.5 million for mine enforcement in FY 2022 and the Biden administration requested an 11% budget increase for mine enforcement in FY 2023. In FY 2020, the budget reorganized MSHA enforcement to combine the coal mine enforcement and metal and nonmetal enforcement into one program, allocating $258.9 million for total mine enforcement. MSHA had justified this reorganization in order to use resources more efficiently, and to direct more resources to metal and nonmetal mining, which is growing, while coal mine activity continues to decline. Consolidation has reduced the targeted expertise in each of the current mine safety enforcement programs, since many inspectors come from either coal or metal and nonmetal industries, specifically. In FY 2019, the agency received $254.5 million in total for mine enforcement programs.

The National Institute for Occupational Safety and Health (NIOSH), the occupational safety and health research agency created in tandem with OSHA under the OSH Act, was appropriated $351,800 million for FY 2022, a 2% increase from the previous year. The funding bill requires NIOSH to conduct a comprehensive surveillance study examining the industries and occupations of workers who have been infected and have died from COVID-19.

OSHA Compliance Staffing

There are currently a total of 1,719 federal and state OSHA inspectors responsible for enforcing the safety and health law at more than 10.4 million workplaces, compared with 1,798 in 2020 and 1,767 in 2019.[63]

The number of federal OSHA compliance inspectors declined significantly during the Trump administration, and reached its lowest level since the early 1970s, when the agency opened. As of December 2021, federal OSHA had 755 inspectors (excluding supervisors), down from 774 in 2020 and a slight increase from 746 in 2019—the lowest in the history of the agency. This reduction is the result of a combination of factors, including a federal hiring freeze imposed during the first year of the Trump administration, attrition and retirements, especially during the

[63] This reflects the number of federal inspectors plus the number of inspectors "on board" reflected in the FY 2022 state plan grant applications. It does not include compliance supervisors.

COVID-19 pandemic, and time required to hire new experienced inspectors.

State OSHA plans have 964 inspectors, a significant decrease from the 1,024 inspectors in 2020 and 1,021 in 2019.

The current level of federal and state OSHA inspectors provides one inspector for every 81,427 workers, compared with the benchmark of one labor inspector for every 10,000 workers recommended by the International Labor Organization for industrialized countries.[64] In 17 states, the ratio of inspectors to employees is greater than one per 100,000 workers, with Arizona having the highest ratio at one inspector per 201,697 workers. Under OSHA's current budget, the agency could spend $4.37 to protect each worker.

Since the passage of the OSH Act, the number of workplaces and number of workers under OSHA's jurisdiction has nearly doubled, but there are fewer numbers of OSHA staff and OSHA inspectors. In 1975, federal OSHA had a total of 2,435 staff (inspectors and all other OSHA staff) and 1,102 compliance staff (including supervisors) responsible for the safety and health of 67.8 million workers at more than 3.9 million establishments. In FY 2022, there are 1,853 federal OSHA staff responsible for the safety and health of 140 million workers at more than 10.4 million workplaces. The number of workers in FY 2021 was more than a 5% decline from the previous year due to the COVID-19 pandemic.

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. But now, there are only 886 federal OSHA inspectors (including supervisors), or 5.8 inspectors per 1 million workers.

OSHA Voluntary Programs

Voluntary programs have always been part of OSHA's compliance assistance model, but the emphasis placed on voluntary initiatives has varied under different administrations. Under the Obama administration, strong enforcement was the priority, with voluntary programs supplementing enforcement efforts. The Trump administration placed a greater emphasis on voluntary programs, while maintaining OSHA's enforcement program. It is still too early in the Biden administration to see the effects of OSHA's voluntary programs, but the agency has consistently spent more than 10 times the amount of money on employer compliance assistance than they have on worker training.

The major voluntary programs conducted by OSHA are the Voluntary Protection Program, a program that recognizes companies with a high level of safety and health performance, and the Alliance program, under which OSHA partners with trade associations, professional groups and others to carry out safety and health initiatives targeted at particular industries or hazards. Alliances can be made at the national, regional or state level, with more than 1,000 alliances having been created. Currently, OSHA has 239 alliances—36 national and 203 regional/area.[65] In the midst of the pandemic, where meatpacking employers were not instituting key measures to

[64] 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.
[65] *See* OSHA.gov/alliances.

keep workers safe and OSHA was not enforcing in this industry, on June 28, 2020, federal OSHA created an alliance with the North American Meat Institute, a meatpacking industry trade association.[66]

[66] *See* OSHA.gov/alliances/nami/nami.

Job Safety and Health Appropriations FY 2012–2023

CATEGORY	FY 2012	FY 2013[2]	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020[4]	FY 2021[5]	FY 2022[5]	*FY 2023[5] Requested*
OSHA (in thousands of dollars)												
TOTAL	**564,788**	**535,246**	**552,247**	**552,787**	**552,787**	**552,787**	**552,787**	**557,787**	**581,787**	**591,787**	**612,015**	***701,405***
Safety and Health Standards	19,962	18,918	20,000	20,000	20,000	18,000	18,000	18,000	18,000	18,000	19,500	*29,080*
Federal Enforcement	207,753	207,928	207,785	208,000	208,000	208,000	208,000	209,000	221,711	228,711	236,000	*277,898*
Whistleblower Protection	15,873	15,043	17,000	17,500	17,500	17,500	17,500	17,500	18,564	19,064	21,500	*25,790*
State Enforcement	104,196	98,746	100,000	100,850	100,850	100,850	100,850	102,350	108,575	110,075	113,000	*120,075*
Technical Support	25,820	24,344	24,344	24,469	24,469	24,469	24,469	24,469	24,469	24,469	25,675	*27,007*
Federal Compliance Assistance	76,355	61,444	69,433	68,433	68,433	70,981	70,981	73,981	74,481	75,231	77,262	*91,608*
State Compliance Assistance	57,890	54,862	57,775	57,775	57,775	59,500	59,500	59,500	61,500	61,500	63,160	*63,500*
Training Grants	10,709	10,149	10,687	10,537	10,537	10,537	10,537	10,537	11,537	11,787	11,787	*13,787*
Safety and Health Statistics	34,739	32,922	34,250	34,250	34,250	32,900	32,900	32,900	32,900	32,900	34,500	*42,180*
Executive Administration	11,491	10,890	10,973	10,973	10,973	10,050	10,050	10,050	10,050	10,050	9,631	*10,480*
MSHA (in thousands of dollars)												
TOTAL	**372,524**	**353,768**	**375,887**	**375,887**	**375,887**	**373,816**	**373,816**	**373,816**	**379,816**	**379,816**	**383,816**	***423,449***
Coal Enforcement	164,500	158,713	167,859	167,859	167,859	160,000	160,000	160,000	258,913	260,500	264,500	*294,236*
Metal/Nonmetal Enforcement	89,063	86,121	91,697	91,697	91,967	94,500	94,500	94,500				
Standards Development	4,765	4,547	5,416	5,416	5,416	4,500	4,500	4,500	5,382	4,500	4,500	*7,927*
Assessments	7,103	7,036	6,976	6,976	6,976	6,627	6,627	6,627	7,445	7,445	6,627	*7,746*
Education Policy and Development	38,325	31,898	36,320	36,320	36,320	39,320	39,320	39,320	38,559	39,320	39,320	*40,138*
Technical Support	33,613	32,050	33,791	33,791	33,791	35,041	35,041	35,041	34,079	35,041	35,041	*37,356*
Program Administration	16,998	15,974	15,838	15,838	15,838	15,838	15,838	15,838	16,355	16,355	15,838	*16,692*
Program Eval. and Info Resources	18,157	17,429	17,990	17,990	17,990	17,990	17,990	17,990	19,083	19,083	17,990	*19,309*
NIOSH (in thousands of dollars)												
TOTAL[1]	**292,588**	**292,588**	**332,363[3]**	**334,863**	**339,121**	**335,200**	**335,200**	**336,300**	**342,800**	**345,300**	**351,800**	***345,300***

Source: Budget of the U.S. Government, FY 2011–2012, and U.S. Department of Labor Congressional Budget Justification, FY 2011–2023.

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

[3]In FY 2014 and subsequent years, administrative costs previously allocated to the CDC budget were transferred to the NIOSH budget.

[4]Beginning in FY 2020, the MSHA Coal Enforcement and Metal/Nonmetal Enforcement programs were combined into one Mine Safety and Health Enforcement program.

[5]The funding levels do not include additionally appropriated COVID-19 funds to the Department of Labor for FY 2021 through FY 2023 through the American Relief Plan, passed on March 10, 2021. Additional funds included $200 million for pandemic-related worker protection activities, including $100 million for OSHA, of which $10 million must be used for training grants and not less than $5 million for COVID-19 enforcement.

Funding for OSHA Worker Safety Training Programs vs. Employer Compliance Assistance Programs, FY 2005–2023 ($ in thousands)

Fiscal Year	Worker Safety and Health Training	Employer Compliance Assistance (Federal and State)
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	$10,537	$132,558
FY 2017 Enacted	$10,537	$130,481
FY 2018 Request	$0	$130,016
FY 2018 Enacted	$10,537	$130,481
FY 2019 Request	$0	$134,715
FY 2019 Enacted	$10,537	$133,481
FY 2020 Request	$0	$133,414
FY 2020 Enacted	$11,537	$135,981
FY 2021 Request	$0	$136,910
FY 2021 Enacted[2]	$11,787	$136,731
FY 2022 Request[2]	$13,787	$149,675
FY 2022 Enacted[2]	$11,787	$136,731
FY 2023 Request[2]	$13,787	$155,108

Source: Department of Labor, Occupational Safety and Health Administration, Annual Congressional Budget Justification.

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

[2]The funding levels do not include additionally appropriated COVID-19 funds to the Department of Labor for FY 2021 through FY 2023 through the American Relief Plan, passed on March 10, 2021. Additional funds included $200 million for pandemic-related worker protection activities, including $100 million for OSHA, of which $10 million must be used for training grants and not less than $5 million for COVID-19 enforcement.

Federal OSHA Budget and Personnel
FY 1980–2022

Fiscal Year	Budget (in dollars – $)	Positions (Staff Full-Time Equivalent Employment)
1980	186,394,000	2,951
1985	219,652,000	2,239
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[1]	535,546,000	2,226
2014	552,247,000	2,238
2015	552,787,000	2,224
2016	552,787,000	2,173
2017	552,787,000	2,011
2018	552,787,000	1,953
2019	557,533,000	1,911
2020	581,787,000	1,884
2021	591,787,000	1,896
2022[2]	**612,015,000**	**1,853**

Source: Occupational Safety and Health Administration.

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

[2]FY 2022 reflects estimated staff full-time equivalent usage at the annualized level of the continuing resolution.

Federal OSHA Safety and Health Compliance Staffing, 1975–2021

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	952	151,436	6.3
2017	896	153,337	5.8
2018	875	155,761	5.6
2019	862	157,538	5.5
2020	901	147,795	6.1
2021	886	152,581	5.8

[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 2021 from OSHA Directorate of Enforcement Programs. Compliance officer totals include safety and industrial hygiene (health) officers and supervisory safety and industrial hygiene officers.

[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, 1974–2021[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.

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
Alabama	1,909,145	23	0	191	1/83,006
Alaska	297,429	2	7	30	1/33,048
Arizona	2,823,760	2	12	282	1/201,697
Arkansas	1,174,632	7	0	117	1/167,805
California	16,378,059	6	180	1,638	1/88,054
Colorado	2,602,371	25	0	260	1/104,095
Connecticut	1,545,338	15	4	155	1/81,334
Delaware	426,661	4	0	43	1/106,665
Florida	8,447,957	53	0	845	1/159,395
Georgia	4,307,139	43	0	431	1/100,166
Hawaii	560,156	5	12	56	1/32,950
Idaho	748,123	7	0	75	1/106,875
Illinois	5,570,198	56	11	557	1/83,137
Indiana	2,918,792	1	39	292	1/72,970
Iowa	1,475,704	0	25	148	1/59,028
Kansas	1,328,640	12	0	133	1/110,720
Kentucky	1,792,596	0	30	179	1/59,753
Louisiana	1,780,574	11	0	178	1/161,870
Maine	584,271	5	3	58	1/73,034
Maryland	2,512,624	5	44	251	1/51,278
Massachusetts	3,324,192	34	0	332	1/97,770

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		
Michigan	3,968,230	2	59	397	1/65,053
Minnesota	2,705,651	0	31	271	1/87,279
Mississippi	1,089,821	8	0	109	1/136,228
Missouri	2,675,116	22	0	268	1/121,596
Montana	456,631	7	0	46	1/65,233
Nebraska	948,137	10	0	95	1/94,814
Nevada	1,265,675	2	25	127	1/46,877
New Hampshire	624,550	8	0	62	1/78,069
New Jersey	3,751,355	38	12	375	1/75,027
New Mexico	781,771	0	7	78	1/111,682
New York	8,585,181	59	26	859	1/101,002
North Carolina	4,323,325	2	84	432	1/50,271
North Dakota	395,956	6	0	40	1/65,993
Ohio	5,123,767	50	0	512	1/102,475
Oklahoma	1,549,993	12	0	155	1/129,166
Oregon	1,836,208	2	72	184	1/24,814
Pennsylvania	5,488,591	50	0	549	1/109,772
Rhode Island	444,432	7	0	44	1/63,490
South Carolina	2,028,041	1	20	203	1/96,573
South Dakota	417,092	5	0	42	1/83,418
Tennessee	2,916,181	4	35	292	1/74,774
Texas	12,070,210	95	0	1,207	1/127,055

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
Utah	1,504,751	0	17	150	1/88,515
Vermont	283,506	0	6	28	1/47,251
Virginia	3,743,712	3	42	374	1/83,194
Washington	3,258,164	3	120	326	1/26,489
West Virginia	642,018	7	0	64	1/91,717
Wisconsin	2,730,289	32	0	273	1/85,322
Wyoming	260,977	0	7	26	1/37,282
Totals[5]	139,972,910	1,719[6]		13,997	1/81,427

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

[2]Includes only safety and industrial hygiene Compliance Safety and Health Officers 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 December 2021. State plan CSHOs provided by OSHA's Directorate of Cooperative and State Programs and includes "on board" safety and health CSHOs from the FY 2022 State Plan Grant Applications as of July 1, 2021. 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.

[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 only.

[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 755 federal OSHA inspectors and 964 state OSHA inspectors, including one inspector in the Virgin Islands and 37 in Puerto Rico.

Number of U.S. Establishments and Employees Covered Per OSHA Full-Time Equivalent (FTE) Staff, 1980–2020

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
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
2016	141,870,066	9,716,618	2,173	65,228	4,472
2017	143,859,855	9,835,104	2,011	71,536	4,891
2018	146,131,754	10,011,038	1,953	74,824	5,126
2019	147,329,051	10,167,267	1,911	77,095	5,320
2020	139,972,910	10,487,687	1,884	74,296	5,567

[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.

COVID-19 PANDEMIC AND WORKPLACE INFECTIOUS DISEASE EXPOSURES

The COVID-19 pandemic, caused by the SARS-CoV-2 virus, has wreaked havoc on workers. Two years into the pandemic, there have been more than 500 million cases and 6 million deaths, including more than 80 million cases and nearly 1 million deaths in the United States alone. This is the first pandemic of this magnitude since the pandemic flu of 1918, which killed more than 675,000 people in the United States and an estimated 50 million worldwide.[67]

Working-age adults have been hit the hardest—essential workers who have had to share air with their co-workers and the public, and who have been provided few or no protections by their employers—and weak workplace oversight from governments and elected leaders.

More SARS-CoV-2 variants have spread since the last edition of this report in May 2021. The Delta variant in the summer of 2021 and the Omicron variant in the winter of 2021–2022 have reminded us that the pandemic is far from over, and that our lines of defense against an airborne virus are weak. As of this publication date, a new Omicron subvariant—BA.2—is causing another uptick in cases and is expected to soon be responsible for another surge. This subvariant now accounts for the majority of the COVID-19 cases in the United States; it is more transmissible than the variant's original form, which also was more transmissible than the Delta variant. More variants are expected, which could be even more transmissible or deadly than those to date, especially given that effectiveness of vaccines wanes over time and there are no strong mitigation measures to protect against the airborne nature of the virus.

Each time there is a surge, some U.S. localities announce a scattered patchwork of some mitigation measures, but this approach has not been effective in protecting workers—whose employers have a duty to prevent exposures at work.

The first major workplace outbreaks largely affected front-line workers—health care, first responders and transit workers—those most likely to interact in close quarters with the public likely to be infected with the virus. In the Seattle area, one of the first workplace outbreaks was in a long-term care facility, where both residents and staff were infected and many died. As the virus continued to spread throughout the country, it was clear that any workplace with the following conditions was at especially high risk of COVID-19 exposures:

- Indoor environments
- Poorly ventilated spaces
- Crowded conditions
- Settings with individuals known to be infected (e.g., health care)

As the pandemic surged, the virus continued to disproportionately affect people at work without adequate protections and in public settings where they shared the same air with other people for long durations. Because it is difficult or impossible to control one's surroundings in the workplace, many occupational health experts and worker advocates early on called for strong standards and employer plans instituting the hierarchy of controls to prevent airborne exposures

[67] *See* CDC.gov/flu/pandemic-resources/1918-pandemic-h1n1.html.

to the virus. Workplaces remain hotbeds for COVID-19 exposures because workers are sharing the same air space as other people without adequate protections. It is also the setting that employers can be followed by law to institute mitigation measures to prevent these exposures, like they are with other safety and health hazards.

Workplace Data and Surveillance

There remains no comprehensive national surveillance system to collect case information by industry and occupation, and employer reporting of COVID-19 cases still is mandatory only in a few states with specific standards or orders. For the first few months of the pandemic, testing was extremely limited, so identifying confirmed cases in a timely manner was additionally complicated, but that no longer is the case. In the absence of a national system, unions stepped in early in the pandemic to gather information from members about their exposures, infections and employer responses.[68]

To minimize the role of the workplace and institute strong prevention measures, many employers have pushed a narrative through the media and policies that COVID-19 is only spread in the community, and does not spread in the workplace—but it is absolutely clear that workplace spread has played the major role in U.S. COVID-19 outbreaks throughout the pandemic. The evidence of workplace outbreak and worker infection has grown significantly since the start of the pandemic, and evidence shows the workplace is a major setting responsible for the spread of COVID-19.

The toll of COVID-19 deaths, hospitalizations and cases are a massive undercount of the true toll of workers affected by COVID-19 exposures. Except for in Centers for Medicare & Medicaid Services (CMS)-covered nursing homes over the past year (for residents and staff), there has been no mandatory reporting of COVID-19 infections and deaths throughout most of the pandemic.

In previous editions of this report, we have reviewed some counting of workers in certain industries, such as health care, meatpacking and transit, but many of those data systems have not been updated and are not accurate.

The Centers for Disease Control and Prevention (CDC) and many state and local health departments recently started moving away from counting infections and toward lagging indicators, counting only hospitalizations and deaths. Additionally, at-home rapid test kits have become available across the nation, and individuals are not reporting their results to local health authorities. These limitations make it impossible to know an accurate estimation of cases within a locality.

[68] Health Professionals and Allied Employees, American Federation of Teachers, "Exposed and At-Risk," July 2020, *available at* HPAE.org/wp-content/uploads/2020/07/HPAE-COVID-19-White-Paper_PRESS.pdf; National Nurses United, NNU COVID-19 Survey Results, July 27, 2020, *available at* NationalNursesUnited.org/covid-19-survey; and Amalgamated Transit Union, "WE DON'T COME TO WORK TO DIE": A Survey of Transit Unions on the Frontlines of COVID-19, May 2020, *available at* ATU.org/atu-pdfs/covid19/SafeServiceSurvey.pdf?link_id=1&can_id=9ae9113d0771f5150ce4fe11c4994541&source=email-atu-endorses-bipartisan-smart-fund&email_referrer=email_803882&email_subject=64-of-transit-agencies-unprepared-for-covid-19-transit-union-survey-finds.

The Occupational Safety and Health Administration (OSHA) has required employers in health care to report hospitalizations and deaths—and under the COVID-19 emergency temporary standard (ETS) for health care, required employers to keep a COVID-19 log of infections at the workplace. However, OSHA could, but has not, required employers to report infections, hospitalizations and deaths in real time in all industries. Labor has called on OSHA to require collection of this information since the first months of the pandemic. With this information, workplace outbreaks and high-risk industries and occupations could be more timely and accurately identified and targeted for interventions.

CMS is the only federal agency with requirements for employers to report infection information. Since May 2020, it has published information weekly on known and suspected infections and deaths among nursing home staff and residents. Between May 24, 2020, and March 27, 2022, at least 1,064,320 cases of COVID-19 among nursing home staff were confirmed, with 2,341 deaths and 50,450 reinfections. Throughout the pandemic, these nursing home data have been an early indicator of the trends about to take hold nationwide. The most recent spike in infections among nursing home workers occurred during the Omicron surge. In just a three-week period, infections among nursing home workers increased more than 500%—from 13,350 infections for the week ending Dec. 26, 2021, to nearly 69,000 weekly infections at the peak in mid-January. At this peak, more than 18% of all nursing home staff were confirmed with a COVID-19 infection, based upon weekly infection and employment data from the reporting facilities. Widespread infections led to major staff shortages and increased infections among patients, and caused many health care institutions to impose crisis standards of care, putting staff and patients at greater risk. This surge occurred despite a high vaccination rate among nursing home staff—82.8% to 88.4% of nursing home staff were fully vaccinated during the surge period, with 27.7% to 45.7% of those vaccinated having received a booster dose, according to the CDC.[69]

The CDC publishes limited information on infections of health care personnel and correctional staff, but all data are voluntarily provided by states and data appear to be a major undercount compared with other sources. Even though the CDC reported at least 1,076,505 health care personnel infected and 4,120 health care worker deaths as of April 17, 2022, an investigation by the Guardian and Kaiser Health News counted 3,607 health care worker deaths in the first year of the pandemic alone.[70] This also is a clear undercount when compared with the nursing home data above. Because of the nonmandatory reporting, only 15% of data collected through the CDC identified if the case was a health care worker.[71]

There have only been a few major studies that have examined infections and deaths among nonhealth care workers, and most examined data from 2020. A working paper by the National Bureau of Economic Research shows a 55% higher risk of infection among essential workers compared with nonessential workers, based on an in-depth analysis from a commercial insurance

[69] CDC COVID Data Tracker, Nursing Home COVID-19 Vaccination Data Dashboard, COVID-19 Vaccination Coverage and reporting among Staff in Nursing Homes by week —United States.
[70] *See* TheGuardian.com/us-news/ng-interactive/2020/aug/11/lost-on-the-frontline-covid-19-coronavirus-us-healthcare-workers-deaths-database.
[71] *See* CDC.gov/coronavirus/2019-ncov/downloads/pui-form.pdf.

carrier.[72] Even after excluding those in the health care and social assistance sectors, who are more likely to have intimate, prolonged contact with infected patients, the remaining essential workers were 21% more likely to become infected than nonessential workers. Another key finding of this work shows that dependents living with essential workers faced a 17% higher risk of infection than those living with nonessential workers, and that nonessential workers who live with essential workers have a 38% higher risk of testing positive. The researchers point out that their sample likely underestimates the risks faced by households of the many essential workers who have no insurance coverage, such as part-time grocery clerks, home health aides and others.

Results from the Massachusetts COVID-19 Community Impact Survey detail information on exposure risks and mitigation measures by industry, race, gender and other characteristics.[73] Washington's SHARP program details COVID-19 case rates, showing much higher rates of infection in certain industries. These data were most recently updated in November 2021.[74] These outbreaks continue; the majority of the new cases and ongoing outbreaks in Michigan are in workplaces, as well in states across the country.[75] These data tend to be better in states with standards and protections that require reporting.

Before the pandemic, as illustrated above, Latino and Black workers faced an increased risk of dying on the job. Latino, Black and immigrant workers have been and continue to be disproportionately impacted by the pandemic. Workers of color are disproportionately employed in occupations where large outbreaks have occurred, including meatpacking, food processing, agriculture and transit, and they are especially vulnerable when raising job safety concerns. Workplace outbreaks not only severely affect the workers on site, but increase the risk for their families and communities. At the peak of the recent Omicron surge, the COVID-19 death rate among working-age Black and Latino people was more than 1.5 times to 2.0 times the death rate among White people.[76]

Two 2021 studies document the disproportionate impact of COVID-19 hospitalizations and emergency room visits on racial and ethnic minorities. Both studies cite occupational factors in essential jobs as one of the major risk factors, underscoring the need for enhanced measures to protect these and other workers from the virus. The studies also underscore the need for enhanced data collection regarding occupation and industry for individuals infected with,

[72] National Bureau for Economic Research. "Measuring the Virus Risk of Essential Workers and Dependents." Issue No. 3, March 2021. *Available at* NBER.org/digest-2021-03; and National Bureau for Economic Research. "The Impact of the Non-essential Business Closure Policy on Covid-19 Infection Rates." Working Paper. January 2021. *Available at* NBER.org/papers/w28374.
[73] Hawkins D., L. Davis and D. Kreibel. "COVID-19 deaths by occupation, Massachusetts, March 1–July 31, 2020." *American Journal of Industrial Medicine*. Feb. 1, 2021. *Available at* 10.1002/ajim.23227.
[74] *See* DOH.WA.gov/sites/default/files/2022-02/IndustrySectorReport.pdf?uid=625caa4b841e8.
[75] *See* Michigan.gov/coronavirus/stats/outbreak-reporting.
[76] CDC COVID Data Tracker. COVID-19 Weekly Cases and Deaths per 100,000 Population by Age, Race/Ethnicity, and Sex. *Accessed* April 9, 2022. *Available at* COVID.CDC.gov/covid-data-tracker/#demographicsovertime.

hospitalized or dying from SARS-CoV-2, in order to better assess risk and target interventions for these high-risk occupations and industries.[77,78]

Early in the pandemic, a Morbidity and Mortality Weekly Report examining counties with COVID-19 outbreaks found that 96.2% of the counties had a disproportionate percentage of COVID-19 cases in one or more underrepresented racial/ethnic group. The largest number of people affected by population size were Hispanic/Latino persons, with 3.5 million persons living in the examined hotspot counties, followed by Black persons (2 million), American Indian/Alaska Native persons (61,000), Asian persons (36,000) and Native Hawaiian/other Pacific Islander persons (31,000).[79]

In The Guardian and Kaiser Health News investigation to count every health care worker death in the first year of the pandemic, "Lost on the frontline," two-thirds of deceased health care workers for whom the project has data identified as people of color.[80] Lower-paid workers who handled everyday patient care, including nurses, support staff and nursing home employees, were far more likely to die in the pandemic than physicians were.
Despite the massive toll of COVID-19 on working people and the critical role of workplace exposures, the Bureau of Labor Statistics (BLS) still has not issued a plan for counting and reporting workplace COVID-19 fatalities.[81]

Ongoing Failure to Recognize and Apply Aerosol Transmission of SARS-CoV-2

The failure of governments and the corporate infectious disease community to recognize that SARS-CoV-2 spreads not just through large droplets and small droplets, but primarily through tiny, aerosolized particles through the air, has played a significant role in the protections workers have not been provided throughout the pandemic.

The true recognition and application of airborne transmission is essential for protecting workers from exposures, as it requires stronger workplace protections, such as measures to ensure workers breathe in clean air: adequate ventilation; proper use of certified respirators that filter out tiny, aerosolized virus particles; providing paid leave so that infected workers are not spreading the virus at work; reducing the time people spend in the same spaces and the number of people in a setting so that people can be spaced farther apart; and reorganization of work, break times and schedules. Other modes of transmission require different control measures. Surface cleaning measures are useful to protect against contact transmission and some other

[77] Romano S.D., A.J. Blackstock, E.V. Taylor, et al. "Trends in Racial and Ethnic Disparities in COVID-19 Hospitalizations, by Region — United States, March–December 2020." CDC Morbidity and Mortality Weekly Report. April 16, 2021;70:560–565. *Available at* dx.doi.org/10.15585/mmwr.mm7015e2.
[78] Smith A.R., J. DeVies, E. Caruso, et al. "Emergency Department Visits for COVID-19 by Race and Ethnicity — 13 States, October–December 2020." CDC Morbidity and Mortality Weekly Report. April 16, 2021;70:566-569. *Available at* dx.doi.org/10.15585/mmwr.mm7015e3.
[79] Moore, J.T., J.N. Ricaldi, C.E. Rose, et al. "Disparities in Incidence of COVID-19 Among Underrepresented Racial/Ethnic Groups in Counties Identified as Hotspots During June 5–18, 2020 — 22 States, February–June 2020." CDC Morbidity and Mortality Weekly Report. Aug. 21, 2020; 69:1122–1126. *Available at* dx.doi.org/10.15585/mmwr.mm6933e1.
[80] *See* TheGuardian.com/us-news/ng-interactive/2020/aug/11/lost-on-the-frontline-covid-19-coronavirus-us-healthcare-workers-deaths-database.
[81] *See* BLS.gov/covid19/effects-of-covid-19-on-workplace-injuries-and-illnesses-compensation-and-occupational-requirements.htm.

personal protective equipment, like face shields, face coverings and gowns are useful to protect against larger "droplet" splashes.

The evidence of aerosol transmission causing COVID-19 disease is now overwhelming, with consensus in the scientific and public health communities.[82,83,84,85] It also has been recognized at the highest levels of our national government, with the White House's Office of Science and Technology Policy concluding the "…most common way COVID-19 is transmitted from one person to another is through tiny airborne particles of the virus…"[86]

Only very recently, the White House has started promoting measures to clean the air to combat COVID-19. On March 17, 2022, the White House launched the "Clean Air in Buildings Challenge" to help fight COVID-19, and on March 29, 2022, the White House hosted a webinar on improving ventilation for its "Let's Clear the Air on COVID-19" campaign.[87,88]

However, CDC and OSHA still do not fully apply what we know about COVID-19 transmission to its guidelines inside or outside the workplace; these agencies do not emphasize or educate the public, employers or workers on the importance, utility and use of airborne precautions, like ventilation in different industries, respiratory protection, and flexible and paid leave policies.

In the fall 2020, the CDC recognized, then subsequently removed, airborne transmission of SARS-CoV-2 from its website. On Sept. 18, 2020, the CDC posted the acknowledgment, stating, "Airborne viruses, including COVID-19, are among the most contagious and easily spread," and that it was "thought to be the main way the virus spreads." However, three days later, on Sept. 21, 2020, the CDC removed its recognition of airborne transmission, stating it was posted in error.

Early in the pandemic, the government guided hospitals and other businesses to operate under crisis policies issued by the CDC, the U.S. Food and Drug Administration (FDA) and OSHA that encouraged dangerous practices with disposable respirators (i.e., reuse, decontamination), and led to retaliation against workers bringing their own personal protective equipment (PPE) into the workplace to protect themselves. These policies have since been rescinded. Only during the winter of 2021–2022, during the first Omicron surge, did the government start encouraging the

[82] Jimenez, J., L. Marr, K. Randall, et al. "What Were the Historical Reasons for the Resistance to Recognizing Airborne Transmission during the COVID-19 Pandemic?" Aug. 11, 2021. *Available at* ssrn.com/abstract=3904176.
[83] Tang, J.W., R. Tellier and Y. Li. "Hypothesis: All respiratory viruses (including SARS-CoV-2) are aerosol transmitted." *Indoor Air*, January 2022. *Available at* https://pubmed.ncbi.nlm.nih.gov/35104003/.
[84] Wang, C.C., K.A. Prather, J. Sznitman, et al. "Airborne transmission of respiratory viruses." *Science* 373, Aug. 27, 2021. *Available at* https://www.science.org/doi/10.1126/science.abd9149.
[85] Peng, Z., A.L. Pineda Rojas, E. Kropff, et al. "Practical Indicators for Risk of Airborne Transmission in Shared Indoor Environments and Their Application to COVID-19 Outbreaks." Environmental Science & Technology, Jan. 5, 2022. *Available at* https://pubs.acs.org/doi/10.1021/acs.est.1c06531.
[86] Dr. Alondra Nelson. "Let's Clear The Air On COVID," Office of Science and Technology Policy blog, March 23, 2022. *Available at* WhiteHouse.gov/ostp/news-updates/2022/03/23/lets-clear-the-air-on-covid/
[87] *See* WhiteHouse.gov/briefing-room/statements-releases/2022/03/17/fact-sheet-biden-administration-launches-effort-to-improve-ventilation-and-reduce-the-spread-of-covid-19-in-buildings/.
[88] *See* WhiteHouse.gov/ostp/news-updates/2022/03/23/lets-clear-the-air-on-covid/.

use of N95s and KN95s to the public, but public education and messaging, and employer requirements on proper respiratory protection, have continued to be inadequate to protect people at work.

Throughout the pandemic, the Defense Production Act was never fully invoked to quickly increase the production and supply and improve allocation of PPE, testing supplies and other equipment; with the assistance of the resources under this law, U.S. manufacturers could have ramped up production of respirators and other critical PPE workers needed during the pandemic. Two years into the crisis, the supply of respirators and other PPE has increased, but the government has not issued appropriate standards and recommendations that also would increase supply. On Oct. 8, 2020, the AFL-CIO, eight unions and several environmental organizations filed a lawsuit to increase PPE supply and transparency from the federal government.[89] This case is still pending.

We have not learned from our past. A 2006 review by the SARS Commission, established by the government of Ontario, Canada, compared and contrasted Vancouver and Toronto hospitals with different infection control practices during the province's SARS outbreak, which lasted February through June 2003, infecting 375 people and killing 44. The Vancouver hospital sought to protect workers through infection control practices using the precautionary principle and N95 respirators (to protect against aerosolized exposures), and had one severe case. The Toronto hospital, however, did not take a precautionary approach and relied largely on surgical masks for droplet exposures. This decision led to a major outbreak "that brought Toronto to its knees," with 45% of the cases being health care workers who, in many cases, brought the illness and death home to their families. This review also illustrates the hospital industry pushback on the use of N95 respirators. The same problems persist in the United States and could have been directly applied to the COVID-19 initial outbreaks.

Federal Guidance

The U.S. government has relied heavily on issuing guidelines throughout the pandemic, primarily through the Centers for Disease Control and Prevention. Guidelines are voluntary and have no legal force.

Throughout the pandemic, the CDC has issued hundreds of various guideline documents based on topic and industry that change frequently with no public notification.[90] Instead of providing clear, evidence-based recommendations, the guidelines have been plagued with political interference and business demands. Throughout the pandemic, CDC guidelines have been vague and do not create requirements to ensure employers are maintaining safe workplaces.[91]

On Jan. 29, 2021, OSHA issued stronger COVID-19 guidance than it had until that point in the pandemic, which outlined critical measures for developing workplace exposure control plans to prevent COVID-19 exposures and eliminated arbitrary risk categories by industry. On March 10, 2021, MSHA released COVID-19 guidance for the first time in the pandemic. Both agency

[89] *See* BiologicalDiversity.org/w/news/press-releases/lawsuit-targets-feds-failure-to-protect-frontline-workers-from-covid-19-2020-10-08/.
[90] *See* CDC.gov/coronavirus/2019-ncov/communication/guidance-list.html?Sort=Date%3A%3Adesc.
[91] *See* OSHA.gov/Publications/OSHA3990.pdf; *See also* osha.gov/Publications/OSHA4045.pdf.

guidelines were centered around exposure control plans and included such important workplace practices as the use of the hierarchy of controls, training, isolation of cases, recording and reporting COVID-19 infections and deaths, screening and testing, and anti-retaliation measures.

On May 5, 2021, the CDC issued new guidance, rolling back recommended mitigation measures for vaccinated individuals, including no longer needing to distance or mask in indoor settings. The agency received major pushback for its decision to release this guidance and it put millions of people at greater risk. This guidance set the stage for major weakening across federal, state and local jurisdictions and in individual workplaces. Employers, elected leaders and the public were led to believe (falsely) that vaccination alone was sufficient to protect people from COVID-19 infection and spread.

After CDC released its May 5 guidance, OSHA weakened its own Protecting Workers: Guidance on Mitigating and Preventing the Spread of COVID-19 in the Workplace on June 10, 2021.[92] The weakened guidance—not based on the best available evidence—removed recommended protections to prevent exposures for vaccinated workers, while continuing to recommend mitigation measures for unvaccinated workers. This change caused division in workplaces as employers began outwardly identifying unvaccinated workers, and set a dangerous baseline for what was to come.

On July 27, 2021, CDC reversed some of these recommendations in light of the Delta variant surge, once again recommending some masking and testing for fully vaccinated individuals. OSHA followed suit and updated its Protecting Workers guidance once more on Aug. 13, 2021. However, the guidance continued recommending certain mitigation measures based on a worker's vaccination status instead of potential for exposure.

In December 2021, right before the Omicron variant surge, the CDC revised its Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2, creating conventional, contingency and crisis recommendations for returning infected and exposed health care workers back to work.[93] The guidance allows for health care workers who are infected with COVID-19 or exposed to COVID-19 to work without restrictions if an employer claims they have crisis staffing conditions. This has resulted in employers requiring health care workers to come in to work infected and sick without attempts to fill the shift with another worker.

Shortly after issuing the guidance specific to health care workers, the CDC revised its quarantine and isolation guidance for everyone, shortening the duration of time for vaccinated individuals. This has led to decreased time to recover and prevent the spread of the virus provided to workers outside of health care.

[92] OSHA. "Protecting Workers: Guidance on Mitigating and Preventing the Spread of COVID-19 in the Workplace." Aug. 13, 2021. *Accessed at* OSHA.gov/coronavirus/safework.
[93] Centers for Disease Control and Prevention. Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2. Updated Jan. 21, 2022. *Available at* CDC.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html. NOTE: The guidance was updated on Jan. 21, 2022, from the original December publication to include information about Omicron transmissibility, vaccine information and clarifications that those recovered from infection do not have work restrictions for 90 days. A link to the original publication is not available.

OSHA still will not go beyond CDC's recommendations in its own guidance or standard setting to protect workers, which has significantly harmed the workers it has an obligation to protect using disease and exposure information and other available evidence. It has not updated its guidance, the only guidance specifically for employers by the federal government, since Aug. 13, 2021.

Efforts to Win National Workplace Safety Standards

The labor movement responded very early in the pandemic and called for strong, comprehensive worker protections. On March 6, 2020, the AFL-CIO and affiliated unions petitioned Secretary of Labor Eugene Scalia for an emergency temporary standard for infectious diseases to address the rapidly growing COVID-19 crisis.[94] The petition went unanswered for months.

On May 18, 2020, the AFL-CIO filed an Emergency Petition for a Writ of Mandamus to require OSHA to issue an emergency temporary standard (ETS) for COVID-19 in the U.S. Court of Appeals for the District of Columbia Circuit. OSHA defended its inaction, saying it had all the necessary tools to ensure employers are maintaining workplaces safe from COVID-19. The appeals court's three-judge panel denied the AFL-CIO's writ of mandamus on June 11, 2020, in a one-paragraph decision. Subsequently, on June 18, 2020, the AFL-CIO filed a petition for rehearing *en banc*, i.e., by the full court. On July 28, 2020, this petition was denied in a one-line decision.

On March 24, 2020, the United Mine Workers of America (UMWA) petitioned Assistant Secretary for Mine Safety and Health David Zatezalo for an emergency standard. Zatezalo denied the petition, stating that miners did not experience grave danger from COVID-19.

On June 15, 2020, the UMWA and the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union (USW) filed an Emergency Petition for a Writ of Mandamus to require the Mine Safety and Health Administration (MSHA) to issue an emergency temporary standard for COVID-19 in the U.S. Court of Appeals for the District of Columbia Circuit. The court denied the union's writ of mandamus.

Legislation was introduced early in the pandemic to require OSHA to issue an ETS, after OSHA failed to act. The standalone bills (H.R. 6559, S. 3677) were incorporated into Democratic COVID-19 relief packages, including the Health and Economic Recovery Omnibus Emergency Solutions Act (HEROES Act), which passed the House on May 15, 2020. However, the ETS provisions did not make it into the final COVID-19 economic package that became law in December 2020.

On his second day in office, Jan. 21, 2021, President Biden signed an executive order on protecting worker health and safety. It directed OSHA to "consider whether any emergency temporary standards on COVID-19, including with respect to masks in the workplace, are necessary, and if such standards are determined to be necessary, issue them by March 15, 2021," and directed MSHA to "consider whether any emergency temporary standards on COVID-19

[94] AFL-CIO petition to the U.S. Department of Labor (DOL) with 24 national and international unions. *Available at* AFLCIO.org/statements/petition-secretary-scalia-osha-emergency-temporary-standard-infectious-disease. National Nurses United (NNU) also sent a similar petition to DOL on March 5, 2020.

applicable to coal and metal or nonmetal mines are necessary, and if such standards are determined to be necessary and consistent with applicable law, issue them as soon as practicable."[95] On March 10, 2021, the AFL-CIO Executive Council renewed its call for strong worker protections, including an ETS.[96]

On April 26, 2021, two emergency standards—one for health care and one for other industries—were sent to the White House Office of Management and Budget for formal review.[97] On June 21, 2021, OSHA issued an ETS, but only for health care settings.[98] This was a big victory for health care workers, ensuring many workers in health care settings would be covered by enforceable protections against COVID-19. However, many state OSHA plans were slow to adopt or simply refused to adopt the health care ETS, as they are required to do under the OSH Act. Even though federal OSHA gave state plans 30 days to adopt, five states took more than two months to adopt: Arizona, Maine, New York, South Carolina and Utah.[99] Arizona never adopted the emergency standard before federal OSHA announced a plan to withdraw the standard and federal OSHA initiated the process of removing its status as a state plan by placing a proposed rule on the regulatory agenda, but to date, no further action has been taken.[100] Other states that adopted the ETS may not have enforced it.

While the ETS covered many hospitals and nursing homes, it included an exemption that removed many health care employers from the scope—including doctors' offices, dentists, ambulatory care settings, home health care and other settings—if they used a simple screening questionnaire for members of the public. The standard also did not cover those outside of health care, even though OSHA originally submitted a separate ETS to the White House for review. On June 24, 2021, the AFL-CIO and United Food and Commercial Workers (UFCW) filed suit in the U.S. Court of Appeals for the District of Columbia Circuit, for redress on OSHA protections for meatpacking and other workers.[101] This case has been in abeyance since the fall of 2021, in light of other OSHA activity.

On Dec. 27, 2021, on the brink of the Omicron surge, OSHA announced it would be withdrawing this ETS without any plan for a permanent COVID-19 standard to protect workers.[102] Even though the agency has not formally withdrawn the rule, since December OSHA has been operating under a "non-enforcement policy" for the ETS so that it is essentially not in effect.[103] On March 2, 2022, OSHA issued a restrictive enforcement directive, announcing

[95] *See* WhiteHouse.gov/briefing-room/presidential-actions/2021/01/21/executive-order-protecting-worker-health-and-safety/.
[96] *See* AFLCIO.org/about/leadership/statements/protecting-workers-covid-19.
[97] *See* reginfo.gov/public/do/eoReviewSearch.
[98] *See* FederalRegister.gov/documents/2021/06/21/2021-12428/occupational-exposure-to-covid-19-emergency-temporary-standard.
[99] *See* OSHA.gov/stateplans/adoption/standards/2021-06-21.
[100] Safety and Health Magazine. "Fall 2021 regulatory agenda: OSHA considers revoking Arizona's State Plan status." Dec. 15, 2021. *Accessed at* safetyandhealthmagazine.com/articles/22063-fall-2021-regulatory-agenda-osha-considers-revoking-arizonas-state-plan-status.
[101] *United Food and Commercial Workers v. OSHA*, D.C. Cir., No. 21-01143, June 24, 2021.
[102] *See* OSHA.gov/coronavirus/ETS.
[103] Transcript from the Feb. 22, 2022, National Advisory Committee on Occupational Safety and Health (NACOSH) meeting. *Accessed at* Docket ID: OSHA-2022-0002-0013. Accessed at regulations.gov/document/OSHA-2022-0002-0013.

"investigations"—not necessarily inspections—only on health care facilities where there had been OSHA activity before (investigations or complaints) or where there are new complaints.[104]

On Jan. 5, 2022, National Nurses United (NNU), the AFL-CIO, American Federation of Teachers (AFT), AFSCME, the New York State Nurses Association (NYSNA) and Pennsylvania Association of Nurses and Allied Professionals (PASNAP) challenged OSHA in the U.S. Court of Appeals for the District of Columbia Circuit on two grounds: 1) that OSHA must issue a permanent COVID-19 rule to protect health care workers, and 2) that OSHA must keep the ETS in effect until a permanent rule is issued.[105] The court heard oral arguments on April 4, 2022, and as of the publication of this report, the court has not yet ruled.[106]

On Nov. 5, 2021, OSHA issued a separate COVID-19 ETS that applied to industries outside of health care, which focused only on employer vaccination and testing policies.[107] This rule was challenged by the National Federation of Independent Business and the state of Ohio to the Supreme Court of the United States, which, by a 5–4 vote, issued an injunction on the rule on Jan. 13, 2022.[108] The court stated, "Although Congress has indisputably given OSHA the power to regulate occupational dangers, it has not given that agency the power to regulate public health more broadly." OSHA withdrew the ETS as an interim final rule on Jan. 26, 2022, but did not withdraw the ETS as a proposed rule, leaving an option for something in the future.[109]

On Nov. 5, 2021, the U.S. Department of Health and Human Services also issued a rule that, in order to receive Medicare and Medicaid funding, participating facilities must ensure their staff—unless exempt for medical or religious reasons—is vaccinated against COVID-19.[110] On Jan. 13, 2022, the Supreme Court ruled to lift the injunction of this rule by a lower court so that the rule remains in effect.[111]

The health care and meatpacking industries, in particular, and many other big business associations have blocked efforts for laws that would require stronger prevention measures in workplaces, especially that prevent airborne transmission. In 2021, Public Citizen obtained documents from the U.S. Department of Agriculture in response to a request under the Freedom of Information Act that demonstrated how the meatpacking industry vehemently resisted the few attempts by the Trump administration to stop the spread of COVID-19 in meatpacking plants last spring.[112] The House of Representatives Select Subcommittee on the Coronavirus Crisis, chaired

[104] *See* OSHA.gov/laws-regs/standardinterpretations/2022-03-02.
[105] *See* NationalNursesUnited.org/sites/default/files/nnu/documents/Unions_Petition_for_Writ_of_Mandamus_22-1002_010522_Date_Stamped_ECF.pdf.
[106] *See* CADC.uscourts.gov/recordings/recordings2021.nsf/3A81A96E4ED3C5638525881A005166AC/$file/22-1002.mp3.
[107] *See* FederalRegister.gov/documents/2021/11/05/2021-23643/covid-19-vaccination-and-testing-emergency-temporary-standard.
[108] *National Federation of Independent Business v. U.S. DOL.* Nos 21A244 and 21A247. Supreme Court. Jan. 13, 2022. *Available at* SupremeCourt.gov/opinions/21pdf/21a244_hgci.pdf.
[109] *See* FederalRegister.gov/documents/2022/01/26/2022-01532/covid-19-vaccination-and-testing-emergency-temporary-standard.
[110] *See* FederalRegister.gov/documents/2021/11/05/2021-23831/medicare-and-medicaid-programs-omnibus-covid-19-health-care-staff-vaccination.
[111] *See* SupremeCourt.gov/opinions/21pdf/21a240_d18e.pdf.
[112] *See* Citizen.org/news/usda-meatpacking-industry-collaborated-to-undermine-covid-19-response-foia-docs-show/.

by Rep. James Clyburn (S.C.), launched a major investigation into the meatpacking industry, and on Oct. 27, 2021, held a hearing titled "How the Meatpacking Industry Failed the Workers Who Feed America."[113] The American Hospital Association has blocked efforts for an OSHA standard from the very beginning of the pandemic, and continues to do so.[114,115,116]

Due to worker and health advocate pressure through legal and other actions, and the agency's current nonenforcement status on COVID-19 in most workplaces, OSHA recently announced its intentions to issue a permanent COVID-19 standard in health care and will hold a hearing on April 27, 2022.[117]

Federal COVID-19 Enforcement Activity

Under the Trump administration, federal OSHA took the position that it had all the tools needed to ensure employers were maintaining safe working conditions during the pandemic. However, at a minimum the administration completely failed to act using those tools. Under President Trump, the agency investigated few complaints and issued fewer citations. As discussed above, in the first 100 days of office, the Biden administration issued an enforcement directive for COVID-19 and later issued emergency temporary protections for COVID-19 in health care. The Biden administration's OSHA issued a revised Interim Enforcement Directive and National Emphasis Program for COVID-19; both went into effect March 12, 2021.[118,119]

Throughout the pandemic (Jan. 1, 2020, to Feb. 28, 2022), federal OSHA received 2,513 formal complaints and 16,274 informal complaints. Formal complaints meet specific criteria including that it is a signed complaint made by a current employee or representative that asserts imminent danger or a violation of the OSH Act or an OSHA standard, and is written or uses OSHA's complaint form. Of these, the agency opened inspections for 19% of the formal complaints and 4% of informal complaints. The majority of complaints have been handled through an informal investigation process the agency calls phone/fax investigations—OSHA telephones the employer, describes the alleged hazards and then follows up with a letter. The employer must respond within five days, identifying in writing any problems found and noting corrective actions taken or planned. If the response is adequate, OSHA generally will not conduct an inspection. It also has opened 249 cases from referrals, 283 cases from employer-reported referrals, also known as severe injury reports, 529 programmed inspections and 1,275 fatality/catastrophe investigations, where a worker has died from COVID-19. Of the complaints, almost 4,000 were from health care workers and more than 2,000 were from retail workers.

[113] *See* Coronavirus.House.Gov/news/press-releases/select-subcommittee-hold-hearing-impact-coronavirus-meatpacking-workers.
[114] *See* AHA.org/action-alert/2020-03-12-action-alert-urge-house-leadership-withdraw-provision-coronavirus-funding.
[115] *See* AHA.org/fact-sheets/2020-11-09-fact-sheet-osha-emergency-temporary-standard-proposals.
[116] *See* downloads.regulations.gov/OSHA-2020-0004-1342/attachment_1.pdf.
[117] *See* FederalRegister.gov/documents/2022/03/23/2022-06080/occupational-exposure-to-covid-19-in-healthcare-settings.
[118] *See* OSHA.gov/memos/2021-03-12/updated-interim-enforcement-response-plan-coronavirus-disease-2019-covid-19.
[119] *See* OSHA.gov/enforcement/directives/dir-2021-01cpl-03.

As of Feb. 28, 2022, federal OSHA issued COVID-19-related citations to 2,507 employers, resulting in a total current penalty of $8,225,075 and a $3,281 average penalty per violation. Federal OSHA also issued 336 hazard alert letters (HALs), which do not result in a violation. The majority of serious violations were violations of the occupational exposure to COVID-19 ETS for health care (1910.502) or the respiratory protection standard (1910.134). The majority of other-than-serious violations were related to recordkeeping. OSHA issued five willful violations, including its highest penalty case in general industry to a tax preparation office where the employer refused to allow employees to wear masks or perform other safeguards to exposures to COVID-19.[120]

During this more than two-year time frame, federal OSHA has issued only 26 general duty clause citations. Four of the violations occurred in the health care industry, before the COVID-19 ETS for health care was issued. The other 22 violations were issued in general industry, including meatpacking, manufacturing, retail, grocery, transportation, warehousing, real estate, financial services and the Postal Service. These industries have not had a federal OSHA COVID-19 specific standard at any point in the pandemic. The total current penalties for the 5(a)(1) violations were $1,030,703. Of the citations, 13 of the inspections are still open and the violations or penalties could be modified or removed.

Employers contested 13 of these violations. Two contested general duty clause citations have been settled and OSHA has deleted the violations. Smithfield Packaged Meats Corp. was investigated in 2020 after four COVID-19 fatalities and more than 1,000 infections occurred among the workers. Federal OSHA issued 5(a)(1) and recordkeeping citations. After a settlement agreement in November 2021, the general duty clause citation was deleted with agreement from the company that it would implement a COVID-19 preparedness and response plan in cooperation with a team of third-party experts.[121] The recordkeeping violation was upheld. In the other contested case where a 5(a)(1) and recordkeeping violation was given to a bottle manufacturing company, both citations were deleted after formal settlement.

Enforcement of the Federal COVID-19 Health Care ETS

Federal OSHA issued an emergency temporary standard to protect those in the health care industry on June 21, 2021. It enforced the standard until it announced a plan to formally withdraw the standard on Dec. 27, 2021. During this time, federal OSHA issued 203 citations against health care employers. The majority were for violating the personal protective equipment provisions of the standard (71 citations), followed by the COVID-19 plan provisions (47 citations), and health screening and medical management provisions (18 citations).

After the announcement that the standard no longer was in effect, the agency continued opening COVID-19 investigations in the health care industry. Of those opened in the first two months of 2022, 29 have been closed without a citation or HAL. Of the remaining open cases, it has yet to

[120] U.S. Department of Labor, Occupational Safety and Health Administration, Region 1. "US Department of Labor cites Massachusetts tax preparation business for refusing to provide, practice coronavirus safeguards for employees." News release, April 13, 2020. *Available at* OSHA.gov/news/newsreleases/region1/04132021.
[121] U.S. Department of Labor, Occupational Safety and Health Administration, Region 8. "Largest US pork processor agrees to develop, implement infectious disease preparedness plan, health training for workers." News release, Nov. 15, 2021. *Available at* OSHA.gov/news/newsreleases/region8/11152021.

be determined how or whether the agency will issue citations if violations are found; as of Feb. 28, 2022, only two HALs had been issued.

State Regulatory, Legislative and Enforcement COVID-19 Activity

Under the Trump administration, there was no federal regulatory action by OSHA or MSHA, despite union petitions and legal actions filed by the AFL-CIO and affiliates. There was limited action in health care under the Biden administration. In the absence of federal action, some states stepped in to protect working people.

States' activity has varied widely throughout the pandemic and has been largely dependent on each state's political will. There has been limited federal OSHA oversight of state OSHA plans. Some states took more aggressive approaches than federal OSHA, and some were less than effective than federal OSHA. Some states without OSHA plans relied on other measures, but were left without a critical tool.

Washington adopted an emergency rule effective on May 26, 2020, and updated it most recently on Jan. 12, 2021. This emergency regulation is enforced by Washington OSHA and requires employers to implement COVID-19 safety plans and not operate in unsafe conditions.[122] Washington OSHA issued at least 501 COVID-19 related citations through Feb. 28, 2022.

In November 2020, California OSHA issued a COVID-19 ETS after a safety and health coalition group petitioned the state's Occupational Safety & Health Standards Board on May 20, 2020, and the board voted on the standard.[123] Its ETS covers all workers not already covered by the 2009 Aerosol Transmissible Disease (ATD) standard (8 CCR 5199), and it is the most protective workplace standard in the country, including requirements on using the hierarchy of controls to prevent airborne transmission of the virus, and testing and ensuring infected workers are not in the workplace. On April 6, 2022, California OSHA (Cal/OSHA) proposed a third readoption of its ETS and rejected a petition to rely only on its injury and illness prevention program standard rather than a COVID-19-specific standard.[124] Cal/OSHA issued 1,099 citations for violating the ATD standard from Jan. 1, 2020, to Feb. 28, 2022, and 657 citations for violating the COVID-19 ETS.

Oregon OSHA issued an ETS that went into effect Nov. 6, 2020, and finalized a permanent COVID-19 standard May 4, 2021, but weakened that standard multiple times in response to CDC guidance changes.[125,126] Oregon OSHA issued 205 citations for violating its COVID-19 standard.

Virginia was the first state to issue an emergency temporary standard (ETS) for COVID-19 after a legal aid group representing agriculture and meatpacking workers petitioned the governor, who then issued an executive order directing the Virginia Department of Labor and Industry to present a draft standard to its Safety and Health Codes for amendments and a vote. The standard

[122] *See* LNI.wa.gov/rulemaking-activity/AO21-02/2102CR103EAdoption.pdf; *See also* LNI.wa.gov/safety-health/safety-topics/topics/coronavirus - requirements-and-policies; *See also* LNI.wa.gov/agency/outreach/coronavirus/requirements-and-guidance-for-preventing-covid-19.
[123] *See* dir.ca.gov/oshsb/petition-583.html.
[124] See dir.ca.gov/oshsb/COVID-19-Prevention-Emergency.html.
[125] *See* OSHA.oregon.gov/rules/advisory/infectiousdisease/Pages/default.aspx.
[126] *See* OSHA.oregon.gov/covid19/Pages/covid-19-general.aspx.

went into effect July 27, 2020.[127] On Jan. 27, 2021, Virginia subsequently became the first state in the country to issue a permanent standard to protect workers from COVID-19.[128] Throughout the pandemic, the state issued 337 COVID-19 related citations, including 208 violations of its standard. On March 23, 2022, Virginia, under a new governor, became the first state OSHA plan to remove its permanent OSHA protections; there are no longer OSHA COVID-19 protections to be enforced in any industry, including health care.[129] The comprehensive standard was replaced by unenforceable guidance.[130]

Early in the pandemic, Michigan issued a strong and comprehensive executive order that required all employers to develop COVID-19 preparedness and response plans, similar to an OSHA standard.[131] On Oct. 2, 2020, the Michigan Supreme Court ruled the governor did not have the authority to issue the emergency declarations. Michigan's state OSHA plan then issued an ETS that became effective Oct. 14, 2020.[132] Michigan's OSHA plan was working on a permanent COVID-19 standard, but halted those efforts and revoked its ETS for all workplaces in June 2021 after CDC weakened its guidance in May 2021 and federal OSHA issued its ETS in health care.[133] While its ETS was in effect, Michigan issued 1,049 citations for violating the standard.

In early August 2020, the New Mexico Occupational Health and Safety Bureau filed an emergency amendment to its recordkeeping rule to require employers to disclose positive COVID-19 cases among their employees to the state within four hours of being notified of the test results.[134] This emergency rule was made permanent by the state on Jan. 13, 2021.[135]

Business groups have pushed some states to pass liability shield laws despite employers' responsibility under the law to ensure a safe workplace. Meanwhile, other states, like Washington, have initiated efforts to address future workplace pandemic planning, requiring the reporting and notification to employees of outbreaks, presumption of illness and anti-retaliation measures in the case of future public health disasters. This health emergency standard in Washington passed the legislature and was signed into law on May 11, 2021.[136]

In April 2021, New York state also moved toward workplace pandemic planning beyond COVID-19. The state legislature passed the NYS Health and Essential Rights (NY HERO) Act, which requires the state to offer model prevention plans for airborne infectious diseases that

[127] *See* DOLI.Virginia.gov/wp-content/uploads/2020/07/COVID-19-Emergency-Temporary-Standard-FOR-PUBLIC-DISTRIBUTION-FINAL-7.17.2020.pdf.
[128] *See* DOLI.Virginia.gov/proposed-permanent-standard-for-infectious-disease-prevention-for-covid-19/.
[129] *See* DOLI.Virginia.gov/virginia-standard-for-infectious-disease-prevention-of-covid-19/.
[130] *See* DOLI.Virginia.gov/wp-content/uploads/2022/03/DOLI-Guidance-for-Employers-to-Mitigate-the-Risk-of-COVID-19-to-Workers-03.01.2022_FINAL.pdf.
[131] *See* Michigan.gov/whitmer/0,9309,7-387-90499_90705-540600--,00.html.
[132] *See* Michigan.gov/documents/leo/Final_MIOSHA_Rules_705164_7.pdf.
[133] *See* Michigan.gov/-/media/Project/Websites/leo/MIOSHA_COVID_Emergency_Rules.pdf?rev=57cdbbe4aefb45bea49d15af27c0d15d.
[134] *See* env.nm.gov/wp-content/uploads/2020/03/Emergency-Amendment-to-11.5.1.16-final.pdf.
[135] *See* env.nm.gov/wp-content/uploads/2021/03/11.5.1.16-Amendment.pdf.
[136] *See* lawfilesext.leg.wa.gov/biennium/2021-22/Pdf/Bill%20Reports/Senate/5115-S.E%20SBR%20FBR%2021.pdf?q=20210415090654.

private sector employers must implement.[137] Employers who do not comply may face civil penalties and civil action by employees. A great success of the NY HERO Act is the requirement for employers to have health and safety committees that are co-chaired and co-staffed with nonsupervisory workers. Those workers have to be chosen by the workforce and their representatives, not by the employer. The committees have to meet within certain time periods and employers have to respond to committee concerns in writing. However, the plan requirement has to be triggered by the commissioner of health, which means the requirement might not always be in effect, and the enforcement mechanism within the state still remains unclear, since the state OSHA plan in New York only covers public sector workplaces, but the state must enforce this in private sector.

Iowa OSHA took a hands-off approach to protecting workers during the pandemic; on Nov. 13, 2020, eight organizations jointly filed a Complaint About State Program Administration (CASPA) against the state program to federal OSHA.[138] The state issued 41 COVID-19-related citations from Jan. 1, 2020, to Feb. 28, 2022, including two violations of the COVID-19 ETS for health care (1910.502).

North Carolina's Occupational Safety and Health Division also had organizations file a CASPA due to its inaction to protect workers from COVID-19. The state issued 104 COVID-19-related citations from Jan. 1, 2020, to Feb. 28, 2022, including 25 violations of the COVID-19 ETS.

Some states also provide their enforcement information publicly, including California.[139] This is important, as public releases can act as a deterrent for employers, improve compliance and is a strategic way to utilize OSHA's limited resources.[140] For example, Nevada issued an enforcement directive in July 2020.[141]

COVID-19 Vaccination

It is an incredible achievement that the nation has had access so quickly to safe and effective vaccines to a novel, highly contagious virus. Reaching herd immunity through vaccines is complicated and can take a long time, while the risk of more dangerous and vaccine resistant variants continues to grow, and waning effectiveness of vaccines continues to be a problem with each new variant surge. The keys to ending the pandemic are not only the continued effectiveness and uptake of vaccines, but mitigation measures that prevent exposures in high-risk and group settings, like workplaces.

[137] *See* DOL.NY.gov/ny-hero-act.
[138] ACLU. "Eight Iowa Organizations File Federal Complaint Against Iowa OSHA for Failing to Protect Workers From COVID-19." News release, Nov. 13, 2020. *Available at* ACLU.org/press-releases/eight-iowa-organizations-file-federal-complaint-against-iowa-osha-failing-protect.
[139] *See* dir.ca.gov/dosh/COVID19citations.html.
[140] Johnson, M.S. "Regulation by Shaming: Deterrence Effects of Publicizing Violations of Workplace Safety and Health Laws." *American Economic Review* 110 (6): 1866–1904. June 2020. *Available at* 10.1257/aer.20180501.
[141] *See* dir.nv.gov/uploadedFiles/dirnvgov/content/home/features/OSHA%20Enforcement%20Process%20Letter%2007-23-20.pdf.

As of April 17, 2022, 75.8% of U.S. working-age adults (ages 18 and older) has received the first set of vaccines doses (is fully vaccinated), and 48.9% has received the first booster dose. A second booster is now available for some adults.

Studies show that while the vaccines are a safe, effective tool to build population immunity against COVID-19, effectiveness wanes after time and the vaccines do not hold up the same against all variants.[142,143,144,145]

As vaccine rollout continues, employers have used this to further shift away from their responsibilities to institute exposure control measures that effectively reduce COVID-19 exposures and infections. Evidence of breakthrough infections continues to show the need for precautionary measures against COVID-19.

Previous Infectious Disease Outbreaks in the Workplace

Infectious diseases are known occupational hazards that have clear control measures to prevent exposures. There are many types of infectious diseases; each one can spread through a combination of transmission routes, but infectious disease exposures can be prevented and controlled following similar methods to control other workplaces hazards. Since OSHA's inception, the agency has had myriad experiences involving workplace infectious disease exposures, including tuberculosis, West Nile virus, Lyme disease, zoonotic influenza, Ebola and other coronaviruses, SARS-CoV-1 (SARS) and MERS-CoV (MERS). The experience of past infectious disease outbreaks informs the response to the COVID-19 pandemic.

H1N1 Influenza Pandemic

The 2009 H1N1 influenza pandemic provided another clear warning the United States was unprepared for a serious infectious disease outbreak. Despite years of planning, many health care facilities were not prepared for the pandemic flu outbreak. Many health care employers had not trained workers about potential risks and appropriate protective measures prior to the outbreak, and failed to do so after the pandemic emerged. In many facilities, there were inadequate supplies of respirators and other protective equipment, and the proper equipment was not provided. Infection control procedures failed to separate infected patients from those who were not infected, particularly during the earlier stages of the outbreak. In the wake of the pandemic, billions of federal dollars were spent to improve preparedness, particularly for health care facilities. Unfortunately, the subsequent experience with the Ebola outbreak indicates those efforts were not sufficient or lasting.

Despite mounting research and other evidence, refusal by the CDC and the corporate infectious disease community to recognize airborne transmission as the major route by which these viruses

[142] Andrews, N., E. Tessier, J. Stowe, et al. "Duration of Protection against Mild and Severe Disease by Covid-19 Vaccines." *New England Journal of Medicine* 386:340–350. Jan. 12, 2022. *Available at* DOI:10.1056/NEJMoa2115481.
[143] Arbel, R., A. Hammerman, R. Sergienko, et al. "BNT162b2 Vaccine Booster and Mortality Due to Covid-19." New England Journal of Medicine 385:2413–2420. Dec. 23, 2021. *Available at* DOI: 10.1056/NEJMoa2115624.
[144] Abu-Raddad, L.J., H. Chemaitelly, H.H. Ayoub, et al. "Effect of mRNA Vaccine Boosters against SARS-CoV-2 Omicron Infection in Qatar." NEJM.org. March 9, 2022. *Available at* DOI: 10.1056/NEJMoa2200797.
[145] Patalon, T., Y. Saciuk, A. Peretz, et al. "Waning Effectiveness of the Third Dose of the BNT162b2 mRNA COVID-19 Vaccine." medRxiv preprint. Feb. 26, 2022. *Available at* DOI:10.1101/2022.02.25.22271494.

spread has inhibited early intervention and the protective measures that would be most effective at preventing infection, symptoms, chronic disease and death. These measures include ensuring people do not share the same air space or inhale potentially contaminated air through distancing, occupancy, proper ventilation and the use of respirators rather than face coverings in crowded indoor spaces for long durations (i.e., the workplace).

Ebola

The 2014–2015 Ebola epidemic in West Africa was a grim reminder that infectious diseases pose a significant threat to the public and workers, and these outbreaks quickly can become global threats. This Ebola outbreak, thought to have begun with the infection of a small boy in Guinea in December 2013, was the largest recorded. Since this epidemic, other outbreaks have occurred in the Democratic Republic of Congo.[146]

Health care workers caring for Ebola victims at the center of the epidemic and in other countries also were affected. In the United States, two health care workers at Texas Health Presbyterian Hospital in Dallas—Nina Pham and Amber Vinson—were infected in September 2014 after caring for an Ebola-infected patient from Liberia who came to the hospital for emergency treatment. Those health care workers were treated at specialized Ebola treatment centers and survived. The Ebola-infected patient—Thomas Eric Duncan—died.

The investigation of the outbreak at Texas Health Presbyterian revealed the hospital was totally unprepared to care for patients infected with Ebola or other serious infectious diseases. There were no protocols in place; health care workers were not provided adequate protective equipment; and workers had not been trained. Following the outbreak in Texas, it became clear that the vast majority of health care facilities were unprepared to receive and care for patients with serious infectious diseases.

Subsequent to the Texas outbreak, the Centers for Disease Control and Prevention strengthened its recommended infection control measures for caring for Ebola patients, and issued guidance on protecting other workers who could be exposed to the Ebola virus in the course of their work (e.g., emergency medical technicians, waste workers and airline workers). But as the United States continues to experience during the COVID-19 pandemic, CDC guidelines are only voluntary, have no legal force and can be changed at any time in a way that is piecemeal; such guidelines can be harmful when comprehensive plans that focus on preventing exposures do not also exist. OSHA is the agency with the authority to set and enforce workplace protections against health and safety hazards—including infectious diseases. CDC guidelines are not enough to protect workers.

OSHA Rulemaking Efforts

The experience with two major infectious disease outbreaks in the last decade underscored the need for mandatory measures to protect health care workers and other workers at high risk from exposures to infectious diseases. Federal OSHA has some limited, existing standards to help protect workers from infectious disease exposures, including rules on bloodborne pathogens, personal protective equipment and respiratory protection. But there is no broad-based infectious disease standard to protect workers from airborne transmissible diseases such as tuberculosis,

[146] *See* WHO.int/health-topics/ebola/#tab=tab_1.

influenza and coronaviruses.[147,148] Previous efforts by OSHA to strengthen protections for health care workers, including a standard on tuberculosis, never reached fruition.

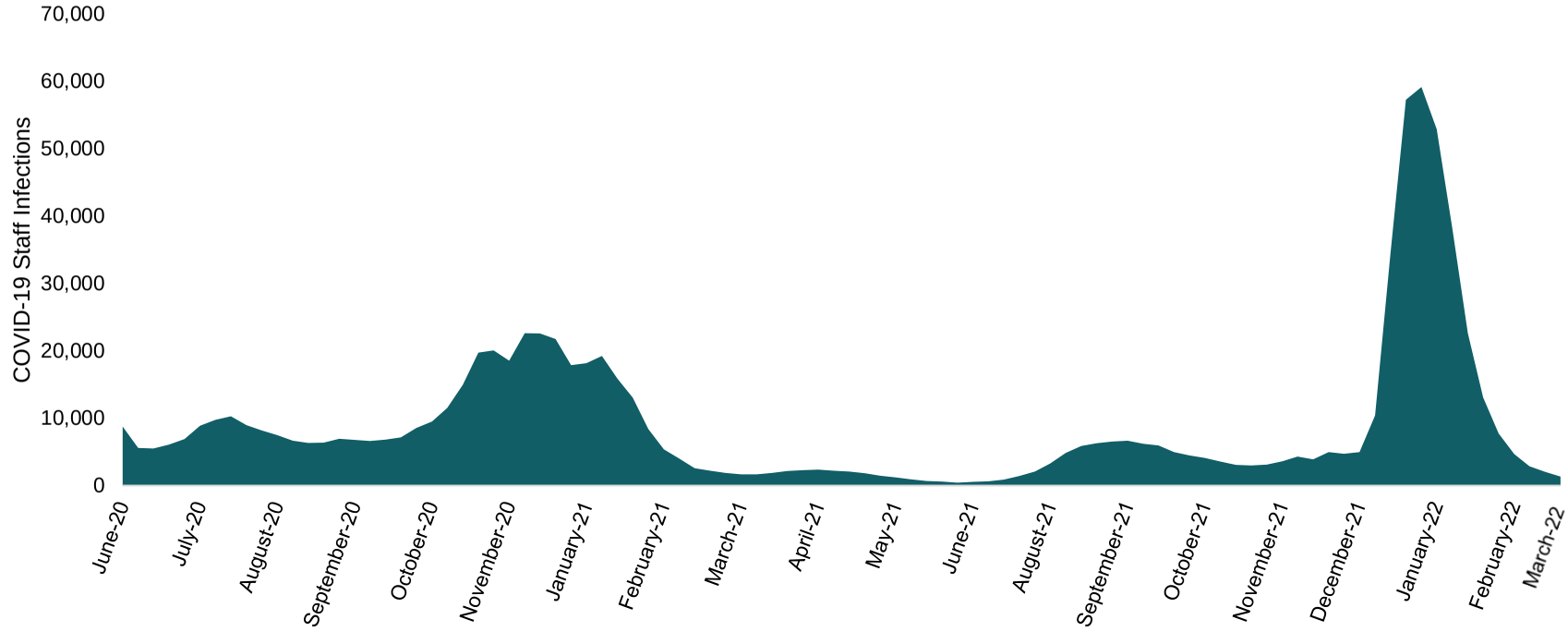
Following the H1N1 pandemic, OSHA began work on an infectious disease standard.[149] In May 2010, OSHA issued a request for information to seek input from the public on the rule. The draft proposed rule was reviewed by a small business panel, which issued a report to OSHA in January 2015, as required by the Small Business Regulatory Enforcement Fairness Act. OSHA continued preparing the proposed rule and the required analysis for publication until the standard was demoted on the regulatory agenda to a long-term action item by the Trump administration in 2017. The completion of this standard would have ensured employers were better prepared for the current coronavirus pandemic, and could provide the essential framework for an emergency temporary standard for COVID-19 and workplace prevention plans.

[147] In May 2009, the California Occupational Safety & Health Standards Board adopted a Cal/OSHA standard on airborne transmissible diseases. The standard covers all airborne transmissible infectious diseases. It requires covered health care employers to develop infection control plans, utilize engineering controls and appropriate personal protective equipment, provide training for workers, and develop and implement isolation plans for identified or suspected cases.

[148] In April 2021, the New York state legislature passed the NY HERO Act, which requires private sector employers to have airborne infectious disease exposure prevention plans, but only when the New York commissioner of health declares an emergency.

[149] *See* OSHA.gov/infectious-diseases/rulemaking.

Nursing Home Staff Confirmed COVID-19 Cases, June 2020–March 2022



Source: Centers for Medicare and Medicaid Services, Division of Nursing Homes/Quality, Safety, and Oversight Group/Center for Clinical Standards and Quality. Data collected June 7, 2020–March 20, 2021. (Accessed April 5, 2022.)

Federal OSHA Inspection/Enforcement Activity, COVID-19

Complaints[1]	**18,787**
Formal COVID-19 Complaints	2,513
Phone/Fax Investigation	1,977
Percent Phone/Fax Investigation	79%
Inspection	490
Percent Inspection	19%
Unknown	26
Percent Unknown	1%
Informal COVID-19 Complaints	16,274
Phone/Fax Investigation	15,489
Percent Phone/Fax Investigation	95%
Inspection	678
Percent Inspection	4%
Unknown	107
Percent Unknown	1%
COVID-19 Inspections Opened[1]	**3,706**
Citations	1,013
Hazard Alert Letters	336
Complaints	1,030
Fatality/Catastrophe	1,275
Referrals	249
Referral-Employer Reported	283
Programmed	529
Unprogrammed	191
Follow-Up	134
Monitoring	15

Complaints by Industry[2]	
Health Care	3,952
Retail Trade	2,284
Grocery Stores	313
Construction	549
General Warehousing and Storage	351
Restaurants and Other Eating Places	1,367
Automotive Repair	175

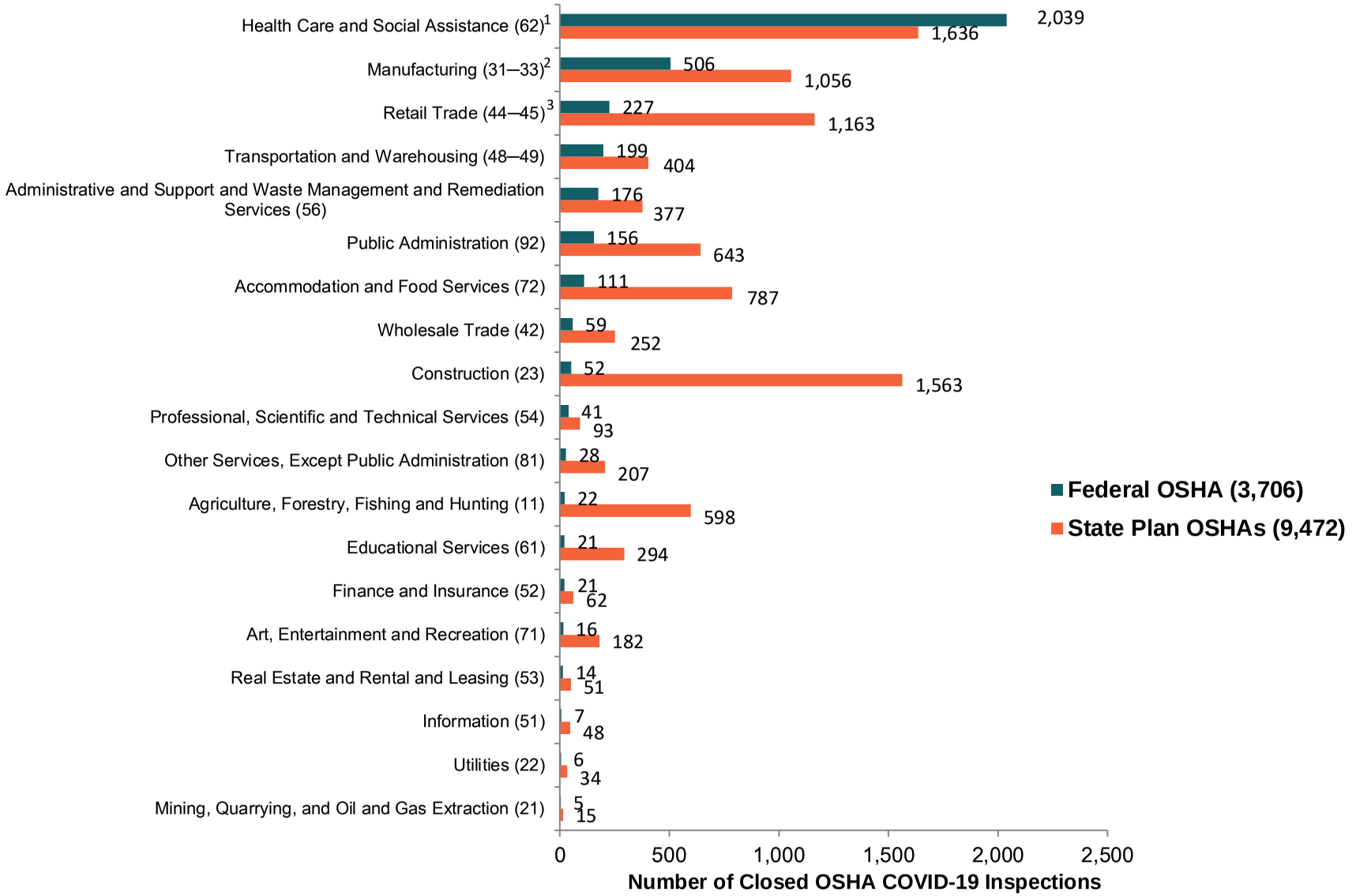
Violations - Total[1,3]	2,507
Willful	5
Repeat	18
Serious	1,706
Other	778
Penalties - Total ($)[1,3]	$8,225,075
Willful	$551,128
Repeat	$155,538
Serious	$5,685,210
Other	$1,833,199
Average Penalty/Violation ($)	$3,281
Willful	$110,226
Repeat	$8,641
Serious	$3,332
Other	$2,356

[1]Occupational Safety and Health Administration, OIS Federal Inspection Reports, Jan. 1, 2020, to Feb. 28, 2022.

[2]COVID Response Summary, Enforcement data Feb. 1, 2020–Feb. 27, 2022. Updated March 20, 2022, 3 p.m. E.T. (Accessed March 25, 2022, 4 p.m. E.T.) OSHA.gov/enforcement/covid-19-data. Complaints by industry data were not provided for state plan OSHA states.

[3]Violations and current penalties include citations issued during COVID-19 inspections of 1903.19, 1903.2, 1904 (recordkeeping), 1910.1020, 1910.132, 1910.133, 1910.134, 1910.502, 1910.503 and 5(a)(1). Violations and penalties were not included in the totals if clearly not related to COVID-19 from the violation description.

Number of Federal OSHA and State Plan OSHA COVID-19 Inspections by Industry (Two-Digit NAICS Code)



Source: Occupational Safety and Health Agency OIS Inspection Reports, Jan. 1, 2020, to Feb. 28, 2022.

[1]For federal OSHA, hospitals (NAICS: 622) accounted for 620 of these inspections, and nursing and residential care facilities (NAICS: 623) accounted for 954 inspections. For state plan OSHAs, hospitals accounted for 606 of these inspections, and nursing and residential care facilities accounted for 529 inspections.

[2]For federal OSHA, animal slaughtering and processing (NAICS: 3116) accounted for 154 of these inspections. For state plan OSHAs, animal slaughtering and processing accounted for 80 of these inspections.

[3]For federal OSHA, supermarkets and other grocery (NAICS: 445110) accounted for 121 of these inspections. For state plan OSHAs, supermarkets and other grocery accounted for 292 of these inspections.

5(a)(1) Citations Related to COVID-19, Federal OSHA

Company Name	State	Inspection Number	Open Conference Date	Date Citations Issued	Total Initial Penalty Issued	Current Penalty Issued
Health Care						
Ryan Health Center Inc./Morgan Health Center[1]	RI	1500637	11/4/20	3/8/21	$13,653	$9,557
North Providence Urgent Care Inc., North Providence Primary Care Associates Inc., Center of New England Urgent Care Inc. and Center of New England Primary Care Inc.[1,2]	RI	1511619	1/26/21	5/24/21	$136,532	$136,532
Presence Central and Suburban Hospitals Network/AMITA Health Mercy Medical Center Aurora	IL	1514199	2/10/21	7/26/21	$9,753	$9,753
LifeShare Blood Centers	LA	1535489	6/10/21	11/3/21	$13,653	$6,690
General Industry						
JBS Foods Inc./Swift Beef Company[1,2]	CO	1475131	5/11/20	9/11/20	$13,494	$13,494
JBS Green Bay Inc.[1,2]	WI	1472927	4/22/20	10/9/20	$13,494	$13,494
Elkhorn Valley Packing[1,2]	KS	1491192	9/3/20	2/11/21	$12,288	$12,288
Peterson Manufacturing/Maxi-Harness Systems	MO	1493792	9/22/20	2/16/21	$13,653	$10,922
The Broken iPhone LLC[1,2]	AL	1494982	9/10/20	3/8/21	$2,926	$2,926
Ariana Murrell-Rosario dba Liberty Tax Service[1,2]	MA	1520204	3/17/21	4/8/21	$136,532	$136,532
U.S. Postal Service[1,2]	MA	1505294	12/8/20	4/14/21	$13,653	$13,653
Midwest Warehouse and Distribution System Inc.[1,2]	IL	1501560	11/9/20	4/22/21	$12,288	$12,288
Silgan Dispensing Systems Thomaston Corporation[2,3]	CT	1505735	12/9/20	5/4/21	$13,653	N/A
Avantor Fluid Handling LLC[1,2]	NJ	1506282	12/10/20	5/14/21	$13,653	$13,653
Oaks Integrated Care	NJ	1517991	3/5/21	5/14/21	$13,653	$9,250
Blackburn's Physicians Pharmacy, Inc.	PA	1520881	3/22/21	7/30/21	$9,557	$9,557
The Greenberg Group Inc.	NY	1518709	3/8/21	8/3/21	$4,096	$2,500
Eramet Marietta Inc.	OH	1521107	3/23/21	8/9/21	$12,288	$7,373
AMA Health Holdings LLC[1]	NJ	1520938	3/23/21	8/20/21	$9,577	$5,000
UPS Freight Services Inc.[1,2]	NH	1523167	4/1/21	8/31/21	$13,653	$13,653
Buckman's Inc.	PA	1528699	5/3/21	10/12/21	$13,653	$9,557
Amston Supply Inc./Amston Trailer Sales[1,2]	WI	1531843	5/18/21	10/12/21	$9,557	$9,557
BAPU 108 LLC/Cogan Station Market[1]	PA	1532485	5/24/21	11/3/21	$5,461	$4,718
Johnnie McDade Grocery[1]	GA	1533330	5/27/21	11/22/21	$5,461	$4,096
Smithfield Packaged Meats Corp.[2,3]	SD	1472736	4/20/20	12/16/21	$13,494	N/A
Sanoh America	OH	1547175	8/12/21	1/14/22	$13,653	$9,557

Source: Occupational Safety and Health Administration. OIS Federal Inspection Reports. Jan. 1, 2020, to Feb. 28, 2022; OSHA Inspections with COVID-19 Related Violations, OSHA.gov/enforcement/covid-19-data/inspections-covid-related-citations, Accessed March 30, 2022.

[1]This inspection has not been indicated as closed and the violations and penalities may still be modified.

[2]This citation has been contested by the employer and may be modified during settlement.

[3]This citation was deleted after contest.

Federal OSHA Citations Issued Under the COVID-19 Health Care Emergency Temporary Standard (1910.502)

Standard Section	Provision	Number of Citations
1910.502		**203**
1910.502(c)	**COVID-19 plan**	**47**
(c)(1)	Develop and implement plan	9
(c)(2)	Plan must be in writing	5
(c)(3)	Designate a workplace COVID-19 safety coordinator	9
(c)(4)	Conduct a hazard assessment	14
(c)(5)	Involvement of employees and their representatives	5
(c)(6)	Monitor ongoing effectiveness	2
(c)(7)	Address identified hazards	3
1910.502(d)	**Patient screening and management**	**8**
1910.502(e)	**Standard and transmission-based precautions**	**1**
1910.502(f)	**Personal protective equipment**	**71**
f(1)	Facemasks	8
f(2)	Respirators and other PPE for exposure to people with suspected or confirmed COVID-19	61
f(3)	Respirators and other PPE during aerosol-generating procedures	1
f(5)	Respirators and other PPE based on standard and transmission-based precautions	1
1910.502(g)	**Aerosol-generating procedures on a person with suspected or confirmed COVID-19**	**0**
1910.502(h)	**Physical distancing**	**7**
1910.502(i)	**Physical barriers**	**9**
1910.502(j)	**Cleaning and disinfection**	**1**
1910.502(k)	**Ventilation**	**6**
1910.502(l)	**Health screening and medical management**	**18**
(l)(3)	Employer notification to employees of COVID-19 exposure in the workplace	7
(l)(4)	Medical removal from workplace	5
(l)(5)	Medical removal protection benefits	6
1910.502(m)	**Vaccination**	**0**
1910.502(n)	**Training**	**10**
1910.502(o)	**Anti-retaliation**	**1**
1910.502(p)	**Requirements implemented at no cost to employees**	**1**
1910.502(q)	**Recordkeeping**	**17**
1910.502(r)	**Reporting of COVID-19 fatalities and hospitalizations to OSHA**	**6**

Source: Occupational Safety and Health Administration, OIS Federal Inspection Reports, Jan. 1, 2020, to Feb. 28, 2022.

HEAT ILLNESS PREVENTION

Occupational heat exposure has been a significant issue for decades. Working in hot and humid conditions, outdoors and indoors, puts workers at risk of heat stress, heat exhaustion, cramps, heat rash and heat stroke, which can result in death. Each year, dozens of workers die and thousands more become ill from heat exposure. The risk from occupational heat exposures is increasing as the global temperature is rising, and without enforceable standards to protect workers.

Between 1992 and 2020, heat stress killed 963 workers and caused nearly 33,000 serious lost-time injuries and illnesses, according to BLS. In 2020, 56 workers died from exposure to environmental heat, a 30% increase from the previous year. More than half of occupational heat fatalities occur during a worker's first few days of working in hot conditions.[150] Workplace injuries and illnesses from heat exposures often are not reported, so the true toll is unknown. Hot working conditions contribute to other injuries due to slippery sweat, fogging personal protective equipment, dizziness, and hot tools and equipment.

Several states have issued enforceable standards to protect indoor and outdoor workers from heat illness in the absence of federal OSHA—including California, Colorado, Minnesota, Oregon and Washington—but the majority of workers across the country remain unprotected.[151] However, many state standards only cover outdoor or indoor workers and are not as comprehensive as what is needed to address the significant risk that exists for workers.

On Sept. 20, 2021, President Biden announced a national initiative to address heat exposures across vulnerable populations, including workers, to build resilience in local communities and to address disproportionate heat impacts.[152] To address occupational exposures under this initiative, the administration committed to OSHA: 1) issuing an advanced notice of proposed rulemaking within a month, 2) issuing a National Emphasis Program, and 3) establishing a new heat work group under the agency's formal advisory committee, the National Advisory Committee on Occupational Safety and Health. In FY 2021, federal OSHA conducted 48 heat illness inspections. OSHA issued 16 serious violations and one willful violation that resulted in an average penalty of $11,990 per violation.

On Oct. 27, 2021, OSHA issued an advance notice of proposed rulemaking on "Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings" for a public comment period that closed in January 2022. OSHA is working on the development of the proposed rule. The NACOSH heat work group consists of representatives from industry, labor and technical experts, and first convened on Feb. 25, 2022, focused on two charges for the group: 1) to examine and recommend improvements to OSHA's national heat campaign, and 2) to identify elements of a

[150] Occupational Safety and Health Administration. "Heat – Overview: Working in Outdoor and Indoor Heat Environments." *Available at* OSHA.gov/heat-exposure.
[151] Occupational Safety and Health Administration. "Heat – Standards." *Available at* OSHA.gov/heat-exposure/standards.
[152] *See* WhiteHouse.gov/briefing-room/statements-releases/2021/09/20/fact-sheet-biden-administration-mobilizes-to-protect-workers-and-communities-from-extreme-heat/.

potential standard on protecting outdoor and indoor workers from occupational heat exposure.[153,154] On April 12, 2022, OSHA released its National Emphasis Program.[155]

[153] *See* OSHA.gov/heat-exposure/heat-injury-and-illness-prevention-work-group.
[154] *See* OSHA.gov/heat-exposure/heat-injury-and-illness-prevention-work-group/membership.
[155] *See* OSHA.gov/sites/default/files/enforcement/directives/CPL_03-00-024.pdf.

WORKPLACE VIOLENCE

Workplace violence is a major problem that is getting worse in the United States. It is the fourth-leading cause of death on the job and the fifth-leading cause of nonfatal injury with days away from work in private industry. In 2020, more than one in every seven work-related deaths was attributed to workplace violence, for a total of 705—more than from exposure to harmful substances or environments or fires and explosions. This is a decrease from 841 in 2019, 828 in 2018 and 807 in 2017. However, fewer people were at work in 2020 due to the COVID-19 pandemic. In the last 15 years, the workplace violence injury rate in private hospitals and home health services has increased more than 100%.

While the overall number of fatal workplace violence injuries decreased, workplace violence has increased in the COVID-19 pandemic due to confrontations about pandemic safety recommendations and policies inside of workplaces. This is especially true in already-high-risk settings for violence: health care, transit, retail and other settings. The CDC issued guidance for retail and service businesses recognizing that threats and assaults had increased in this sector in 2020, but has since archived the guidance.[156] Workplace violence has increased largely because employers are requiring workers to implement COVID-19 prevention policies with customers and clients without proper support and training.

During the Obama administration, OSHA enhanced enforcement on workplace violence using the general duty clause of the OSH Act, updated guidance documents and committed to developing a workplace violence standard. But the Trump administration failed to act and OSHA did not meet any of its deadlines to move the workplace violence rulemaking forward. In April 2021, the House passed the Workplace Violence Prevention for Health Care and Social Service Workers Act (H.R. 1195) with bipartisan support, requiring federal OSHA to promulgate a standard to protect these workers at especially high risk of violence on the job, and the Senate must act. A court decision in recent years supports the need for an OSHA standard, recognizing workplace violence as a serious hazard that can be controlled, and that workers need protection from this growing threat.

Homicides and Suicides

Homicides account for the majority of workplace violence deaths: 392 in 2020, a decrease from 454 in 2019 and 453 in 2018. Sixty-four of these homicides were among women workers, more than 16% of all homicides in 2020. In 2020, workplace homicide was the second-leading cause of workplace death for women workers, accounting for 17% of their work-related fatalities (roadway incidents was first). Domestic violence in the workplace has become a worsening problem; women were more than 50% more likely to be killed by a relative or domestic partner at work than men.

White workers experienced 42% of workplace homicides and Hispanic or Latino workers experienced 18% of workplace homicides in 2020. Homicides among Black workers were disproportionate relative to overall employment: Black workers experienced 28% of workplace homicides, while representing only 12% of total employment. Overall, homicides were

[156] Archived guidance is no longer available. Previously found at Centers for Disease Control and Prevention. "Limiting Workplace Violence Related to COVID-19." Sept. 1, 2020.

responsible for 20% of deaths among Black workers (108 out of 541 deaths), 7% of deaths among Latino workers (71 out of 1,072 deaths) and 6% of deaths among white workers (163 out of 2,898 deaths). Data were not available for Asian workers in 2020.

Workplace homicides largely occur in retail trade (107 deaths), accommodations and food services (51 deaths), and transportation and warehousing (31 deaths). Primary sources of workplace homicides were not reported in 2020; in previous years they included firearms and knives.

In 2020, 259 workers committed suicide at work, a decrease from 307 suicides at work in 2019 and the largest number of work-related suicides since BLS began reporting this data—291 deaths in 1992. In 2020, the overall number of suicides decreased, and many people were not physically at the workplace due to the COVID-19 pandemic.[157] Other major increases in workplace suicides have occurred just as the recession hit in 2008, when workplace suicides increased by 33%, and in 2016, when workplace suicides increased by 27%. Hopelessness, uncertainty and toxic work environments that include increased work pressures, workplace bullying and lack of control of their work environment most likely have contributed to this growing problem. One study published by NIOSH examined U.S. workplace suicides from 2003 to 2010.[158] 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.

Nonfatal, Serious Injuries

The majority of nonfatal injuries from violence occur in health care, social assistance and educational services. The Bureau of Labor Statistics reported that in private industry, more than 27,000 workplace violence incidents led to injuries involving days away from work in 2020. These attacks are serious, underreported and often leave workers physically and emotionally scarred for life. Women workers experience seven of every 10 of these serious injuries.

Even as the reported overall U.S. injury and illness rate has steadily declined since 1992—by 70% overall—the injury rate for workplace violence decreased until the late 1990s, then increased to 4.0 per 10,000 workers. All of these numbers and rates only reflect injuries that led to days away from work, not all violence-related injuries reported or all that occur.

Health care workers are more than three times as likely to suffer a workplace violence injury as other occupations, and workers in psychiatric settings are at especially great risk, with a workplace violence injury rate of 164.7 per 10,000 workers. This is an increase since 2019 (152.4), and lower than the highest-ever-recorded injury rate for this industry of 181.1 in 2017. Work-related violence is significant in other areas, too. In 2020, transit and intercity bus drivers experienced serious violence injuries at rates of 13.1 per 10,000 workers. In 2020, the rates of workplace violence injuries dropped dramatically in all educational service industries due to

[157] Centers for Disease Control and Prevention. "NCHS Data Brief 433. Suicide Mortality in the United States, 2000–2020." March 2022. *Accessed* April 15, 2022. *Available at* CDC.gov/nchs/data/databriefs/db433.pdf.
[158] Tiesman, H.M., S. Konda, D. Hartley, et al. "Suicide in U.S. Workplaces, 2003–2010: A Comparison With Non-Workplace Suicides." *American Journal of Preventive Medicine* 48, Issue 6, 674–682. March 16, 2015. *Available at* AJPMonline.org/article/S0749-3797(14)00722-3/abstract.

remote education during the COVID-19 pandemic: 6.4 per 10,000 workers in the private sector, 1.0 in state government and 7.2 in local government. In 2019, the rate of workplace violence injuries increased again and, since 2008, it has increased 237% in private sector educational services, 250% in state government and 134% in local government.

Health Care and Social Assistance

Workers in the health care and social service industries are particularly affected. The nature of their front-line work—direct contact with patients and clients—makes these workers at great risk for job-related violence. The number of homicides among workers in health care and social assistance was not reported by BLS in 2020. In 2019, there were 32 homicides among workers in health care and social assistance, compared with 24 in 2018 and 31 in 2017.

In 2020, the health care and social assistance sector accounted for 76% of lost-time injuries from workplace violence (excluding violence from animals and insects). Workers in hospitals experienced the greatest number of injuries from violence, followed by those in nursing and residential care facilities, ambulatory health care services and social assistance. Nursing assistants, orderlies and psychiatric aides, home health and personal care aides, and registered nurses were the occupations at greatest risk of injuries from violence, and patients were responsible for 64% of reported injuries related to violence.

In 2020, the private sector rate of workplace violence in health care and social assistance was 15.0 per 10,000 workers, an increase of 70% over the last 15 years. During the same time period, workplace violence rates for hospitals increased 173%—specifically, 95% in psychiatric hospitals. Over the last 15 years, the rate of violence has increased 41% in nursing and residential care facilities, 113% in home health services, and 16% in social assistance. Home-based services such as home health, client management and social services have been playing a larger role in physical and mental care.

Public sector workers are at even greater risk from workplace violence. In 2020, state government health care and social service workers were *more than 10 times* more likely to be assaulted than private sector health care workers (161.0 vs. 15.0 per 10,000 workers). In state government, psychiatric aides experienced injuries caused by violence at a rate of 1,009.8 per 10,000 workers; home health and personal care aides at 490.5 per 10,000 workers; nursing assistants at 172.3 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.[159] 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.

This violence against health care and social service workers is foreseeable and preventable. With the expected job growth in the health care and social assistance sectors, workplace violence events will continue to rise without safeguards in place. Workplace controls are more necessary than ever to address this systemic and serious issue, and reduce the prevalence and severity of violence in the workplace.

[159] 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* MSPB.gov/studies/studies/Employee_Perceptions_of_Federal_Workplace_Violence_759001.pdf.

OSHA Guidelines and Enforcement

During the Obama administration, in the absence of a federal standard, OSHA enhanced its efforts to address the growing problem of workplace violence through guidelines and enforcement initiatives using the general duty clause (Section 5(a)(1) of the OSH Act).

In April 2015, OSHA updated its "Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers,"[160] a comprehensive document outlining the contents of violence prevention programs using hazard assessments and the hierarchy of controls. Earlier, OSHA 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."[161,162]

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, and conducting inspections in industries with a high risk of workplace violence, including health care and social service settings and late-night retail establishments.[163] In January 2017, the agency issued a new directive, "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; and provides more resources and guidance to OSHA inspectors.[164]

In 2016, federal OSHA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming) instituted a regional emphasis program in residential mental intellectual and developmental disability facilities (NAICS 623210), focused on workplace violence hazards.[165] This program has been renewed annually and now is effective through September 2024.

OSHA's enhanced enforcement efforts resulted in an increased number of workplace violence inspections conducted and citations for general duty clause violations during the Obama administration. The Trump administration continued these programs, but conducted fewer

[160] U.S. Department of Labor, Occupational Safety and Health Administration. "Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers." April 2015. *Available at* OSHA.gov/Publications/osha3148.pdf.
[161] U.S. Department of Labor, Occupational Safety and Health Administration. "Recommendations for Workplace Violence Prevention Programs in Late-Night Retail Establishments." OSHA 3153-12R, 2009. *Available at* OSHA.gov/Publications/osha3153.pdf.
[162] U.S. Department of Labor, National Institute for Occupational Safety and Health. "Taxi Drivers: How to Prevent Robbery and Violence." November 2019. *Available at* OSHA.gov/sites/default/files/publications/OSHA3976.pdf.
[163] U.S. Department of Labor, Occupational Safety and Health Administration. "Enforcement Procedures for Investigating or Inspecting Workplace Violence." CPL 02-01-052, Sept. 8, 2011. *Available at* OSHA.gov/sites/default/files/enforcement/directives/CPL_02-01-052.pdf.
[164] U.S. Department of Labor, Occupational Safety and Health Administration. "Enforcement Procedures and Scheduling for Occupational Exposure to Workplace Violence." CPL 02-01-058, Jan. 10, 2017. *Available at* OSHA.gov/sites/default/files/enforcement/directives/CPL_02-01-058.pdf.
[165] U.S. Department of Labor, Occupational Safety and Health Administration. "Regional Notice CPL 20-05 (04-01)." Oct. 1, 2019. *Available at* OSHA.gov/sites/default/files/enforcement/directives/CPL_20-05_04-01.pdf.

workplace violence inspections and issued fewer citations during the COVID-19 pandemic; inspections and citations still have not returned previous levels.

In FY 2021, OSHA conducted 33 workplace violence inspections. OSHA issued three serious violations that resulted in a current median penalty of $12,277. During the COVID-19 pandemic, on-site inspections and enforcement slowed significantly.

In FY 2020, OSHA conducted 43 workplace violence inspections. OSHA issued two serious violations that resulted in a current median penalty of $12,687, and one repeat violation that resulted in an initial penalty of $72,930. During the COVID-19 pandemic, on-site inspections and enforcement slowed significantly.

In FY 2019, OSHA conducted 76 workplace violence inspections—13 of these involved a fatality or catastrophe. OSHA issued four serious violations that resulted in a current median penalty of $11,082, and one repeat violation that resulted in an initial penalty of $72,930.

In FY 2018, OSHA conducted 78 workplace violence inspections—10 of these involved a fatality or catastrophe. OSHA issued two serious violations that each resulted in an initial penalty of $12,934, and two repeat violations that each resulted in an initial penalty of $71,137.

In FY 2017, OSHA conducted 85 workplace violence inspections—four of these involved a fatality or catastrophe. OSHA issued six serious violations that resulted in an initial median penalty of $11,525.

In FY 2016, OSHA conducted 124 workplace violence inspections—15 of these involved a fatality or catastrophe. OSHA issued nine serious violations that resulted in a current median penalty of $12,471, and two willful serious violations that resulted in a current median penalty of $42,000.

This compares with 33 inspections in FY 2015, 90 inspections in FY 2014 and 91 inspections in FY 2013.

Where there are workplace violence hazards, but OSHA may not issue a general duty clause citation, the agency can issue a Hazard Alert Letter—a voluntary measure that warns employers about the dangers of workplace violence and identifies corrective actions. OSHA issued HALs in 30 investigations in FY 2021, 40 in FY 2020, 65 in FY 2019, 60 in FY 2018, 64 in FY 2017, 71 in FY 2016, 18 in FY 2015, two in FY 2014 and five in FY 2013.

The need for enhanced efforts by OSHA to address workplace violence was underscored by a March 2016 report by the U.S. Government Accountability Office. The report, “Additional Efforts Needed to Help Protect Health Care Workers from Workplace Violence,” examined the magnitude of the problem, existing workplace violence prevention programs and policies, state and local ordinances 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 is preventable through violence prevention programs.[166] The GAO recommended that OSHA improve workplace violence citation training for its inspectors, follow up on Hazard Alert Letters, assess current efforts and determine if the agency should take regulatory action.

A decision by the Occupational Safety and Health Review Commission affirmed OSHA's authority to enforce against workplace violence hazards under the general duty clause. In March 2019, OSHRC issued a 3–0 decision in *Secretary of Labor v. Integra Health Management Inc.*, finding that workplace violence is a serious and recognized hazard that can feasibly be controlled and mitigated.[167] This case involved the death of a young woman caseworker stabbed by a home-based client in 2012. Following an investigation, OSHA cited Integra for a serious violation of Section 5(a)(1) of the Occupational Safety and Health Act, the general duty clause, for exposing employees to "the hazard of being physically assaulted by members with a history of violent behavior," and for failing to report the employee's death in a timely manner to OSHA. OSHA sought a total of $10,500 in penalties. In 2015, an administrative law judge upheld the citations, but the employer appealed the case to the full review commission, where it was pending since July 2015. The AFL-CIO and several unions filed briefs in support of OSHA's citations against Integra, citing OSHA's clear authority over enforcing violence prevention in the workplace and experience in workplace violence recognition and abatement measures, as well as industry recognition of the problem.[168]

While this ruling will assist OSHA in enforcing against workplace violence hazards, OSHA's authority to use the general duty clause is limited. Securing a general duty clause citation requires a higher burden than having an enforceable standard that outlines for the employer the requirements specific to workplace violence.

Federal Regulatory Action

In response to the growing threat from workplace violence, there have been increased efforts to secure workplace violence protections through mandatory regulations. In July 2016, a coalition of unions petitioned OSHA to develop a federal workplace violence standard for health care and social assistance workers.[169] Another union petition was filed seeking a standard in the health care sector. In response to the petitions, OSHA issued a request for information to seek input and information on a workplace violence standard, and in early January 2017 held a public meeting of interested stakeholders. At the meeting, the Obama administration announced that OSHA was accepting the petitions and would develop and promulgate a workplace violence standard for health care and social assistance, a critical first step in the process for federal OSHA to protect workers.

[166] U.S. Government Accountability Office. "Additional Efforts Needed to Help Protect Health Care Workers from Workplace Violence." March 2016. *Available at* GAO.gov/products/GAO-16-11.
[167] U.S. Occupational Safety and Health Review Commission. *Secretary of Labor v. Integra Health Management, Inc.* OSHRC Docket No. 13-1124. March 4, 2019. *Available at* OSHRC.gov/assets/1/18/Integra_Health_Management,_Inc._Docket_13-1124_Combined_post.pdf?8328.
[168] Brief of the American Federation of Labor and Congress of Industrial Organizations as *Amicus Curiae* in Support of Complainant, Secretary of Labor. OSHRC Docket No. 13-1124, Dec. 18, 2015. *Available at* OSHRC.gov/assets/1/6/Brief_Amicus_Curiae_Amended_of_AFLCIO_Redacted.pdf.
[169] "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* safetyandhealthmagazine.com/ext/resources/document-downloads/unions-petition.pdf.

However, the Trump administration failed to move forward on the development of the workplace violence standard. It was placed into "long term" status on the Trump administration's first regulatory agenda and moved back onto the agenda in Fall 2017; however, the standard never underwent small business review or advanced. The Biden administration placed the workplace violence standard back onto the regulatory agenda with a plan to initiate a small business review (SBREFA) of the standard by December 2021. At the time of publishing of this report, SBREFA has not yet occurred; it is anticipated it will be delayed while the agency works on COVID-19, infectious disease and heat illness prevention.

In February 2021, Rep. Joe Courtney (Conn.) introduced legislation—The Workplace Violence Prevention for Health Care and Social Service Workers Act (H.R. 1195)—to help protect these workers. Similar legislation had been passed by the House of Representatives in November 2019 with bipartisan support (251–158) as H.R. 1309. The bill requires OSHA to issue a federal workplace violence prevention standard, requiring employers in the health care and social service sectors to develop and implement a plan to identify and control workplace violence hazards. The bill ensures that front-line workers have input in the plan, helping employers identify commonsense measures like alarm devices, lighting, security, and surveillance and monitoring systems to reduce the risk of violent assaults and injuries. The legislation would ensure OSHA protections against violence for all covered workers in the scope of the bill, regardless of whether they otherwise have OSHA coverage in their state. The bill incorporates important elements from OSHA's current "Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers."

The bill passed April 16, 2021, with even more bipartisan support than in the previous Congress (254–166). The bill has been received in the Senate, where Sen. Tammy Baldwin (Wis.) had previously championed similar legislation, and it has been referred to the Committee on Health, Education, Labor and Pensions.

State Regulations and Legislation

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.[170] This comprehensive standard, issued in response to a legislative mandate, protects health care workers in the public and private sectors from workplace violence. It was 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, which currently is going through the state process to develop a workplace violence standard for all of general industry.

[170] California Department of Industrial Relations, Occupational Safety & Health Board. "Workplace Violence Prevention in Health Care," General Industry Safety Orders, New Section: 3342. Effective April 1, 2017. *Available at* dir.ca.gov/oshsb/Workplace-Violence-Prevention-in-Health-Care.html.

New York passed a comprehensive workplace violence standard in 2006, but it only covers the public sector.[171] 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 workers need a strong, comprehensive OSHA standard to address this growing national problem.

[171] New York State Department of Labor, Worker Protection Bureau, Division of Safety and Health. "Public Employer Workplace Violence Prevention Programs," 12 NYCRR PART 800.6. Effective June 7, 2006. *Available at* labor.ny.gov/workerprotection/safetyhealth/PDFs/PESH/WPV/Workplace%20Violence%20Prevention%20Regulations.pdf.

Profile of Workplace Homicides, 2020[1]

Characteristic	Subcharacteristics	Deaths
Total Homicides[2]		392
Gender	Men	328
	Women	64
Employee Status	Wage and salary workers	316
	Self employed	76
Race	White	163
	Black	108
	Hispanic or Latino	71
Leading Primary Source	Assailant, suspect	-
	Co-worker or work associate	-
	Other client or customer	-
	Relative or domestic partner of injured or ill worker	-
Leading Secondary Source	Firearm	-
	Knives	-
Leading Worker Activity	Tending a retail establishment	118
	Protective service activities	83
	Vehicular and transportation operations	-
Leading Location	Public building	179
	Private residence	-
	Street or highway	-
Leading Occupations	Motor vehicle operators	30
	Law enforcement workers	-
	Retail sales workers	-
Leading Industries	Retail trade	107
	Accommodations and food services	51
	Transportation and warehousing	31
	Public administration[3]	-

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

[1]In 2020, the Bureau of Labor Statistics updated its disclosure methodology, resulting in significantly fewer publishable data. See BLS.gov/iif/oshfaq1.htm#accessingourdata.

[2]This does not include 259 workplace suicides.

[3]Police protection was not reported in 2020. In 2018, the last recorded data, police protection accounted for 55 deaths in this industry.

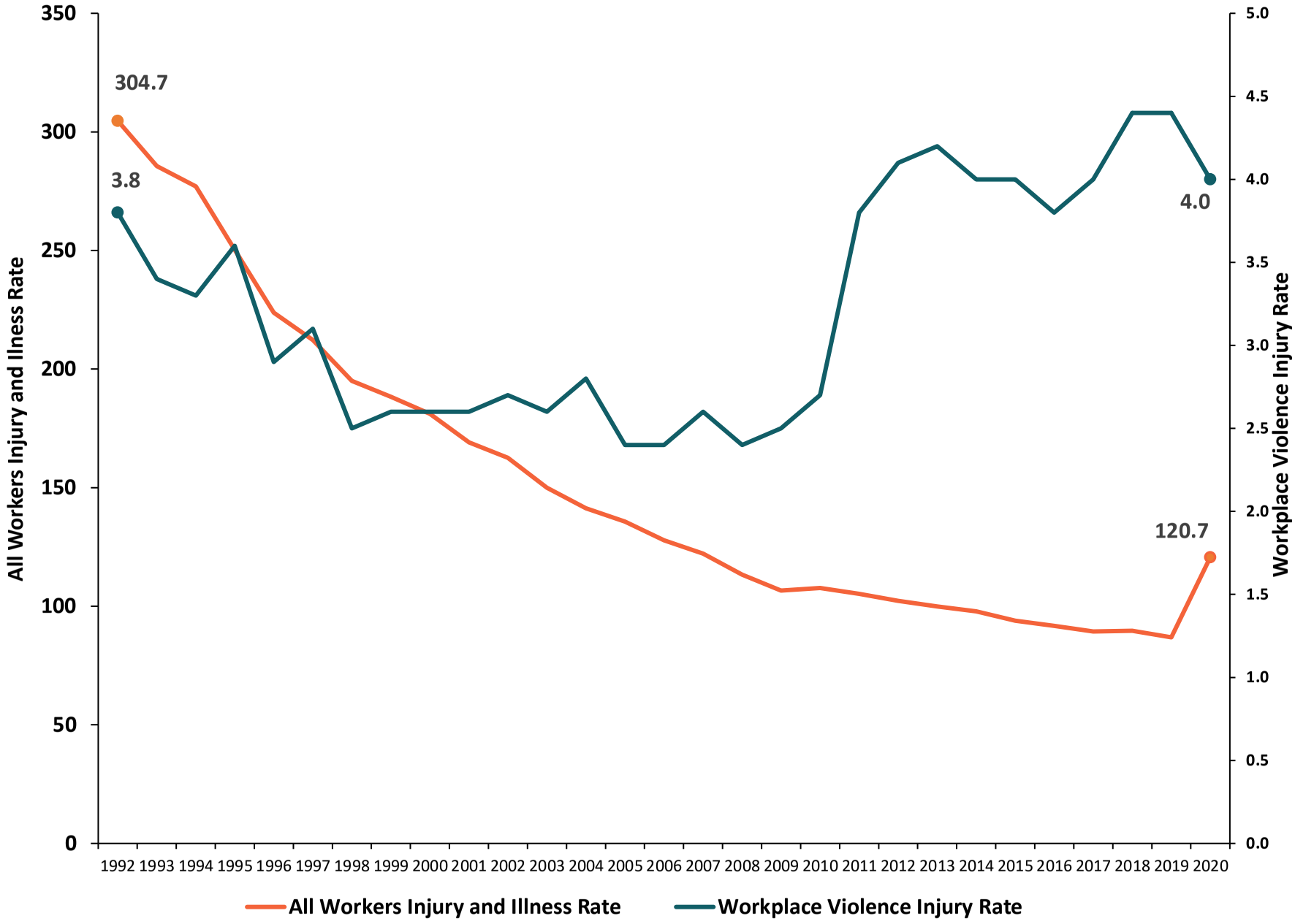
Number of Workplace Violence Events Leading to Injuries Involving Days Away from Work, Private Industry, 2020[1]

Characteristic	Subcharacteristics	Number
Total Events		27,670
Gender	Women	19,490
	Men	7,950
Race	White	7,510
	Black	4,430
	Hispanic or Latino	1,730
Leading Industries	Hospitals	9,080
	Nursing and residential care facilities	7,800
	Ambulatory health care services	2,160
	Social assistance	1,950
Leading Occupations	Nursing assistants, orderlies and psychiatric aides	5,240
	Home health and personal care aides	4,120
	Registered nurses	3,570
Leading Nature of Injury	Soreness, pain	7,300
	Sprains, strains, tears	6,850
	Bruises, contusions	4,970
Leading Source	Patient	17,750
	Other client or customer	3,900
	Assailant, suspect, inmate	1,850
Median Days Away from Work	Overall, all injuries and illnesses	12
	Intentional injury by person	5
	Injury by person—unintentional or intent unknown	10

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

[1]Violence events in private industry include intentional injury by person and injury by person—unintentional or intent unknown, and exclude animal- and insect-related incidents.

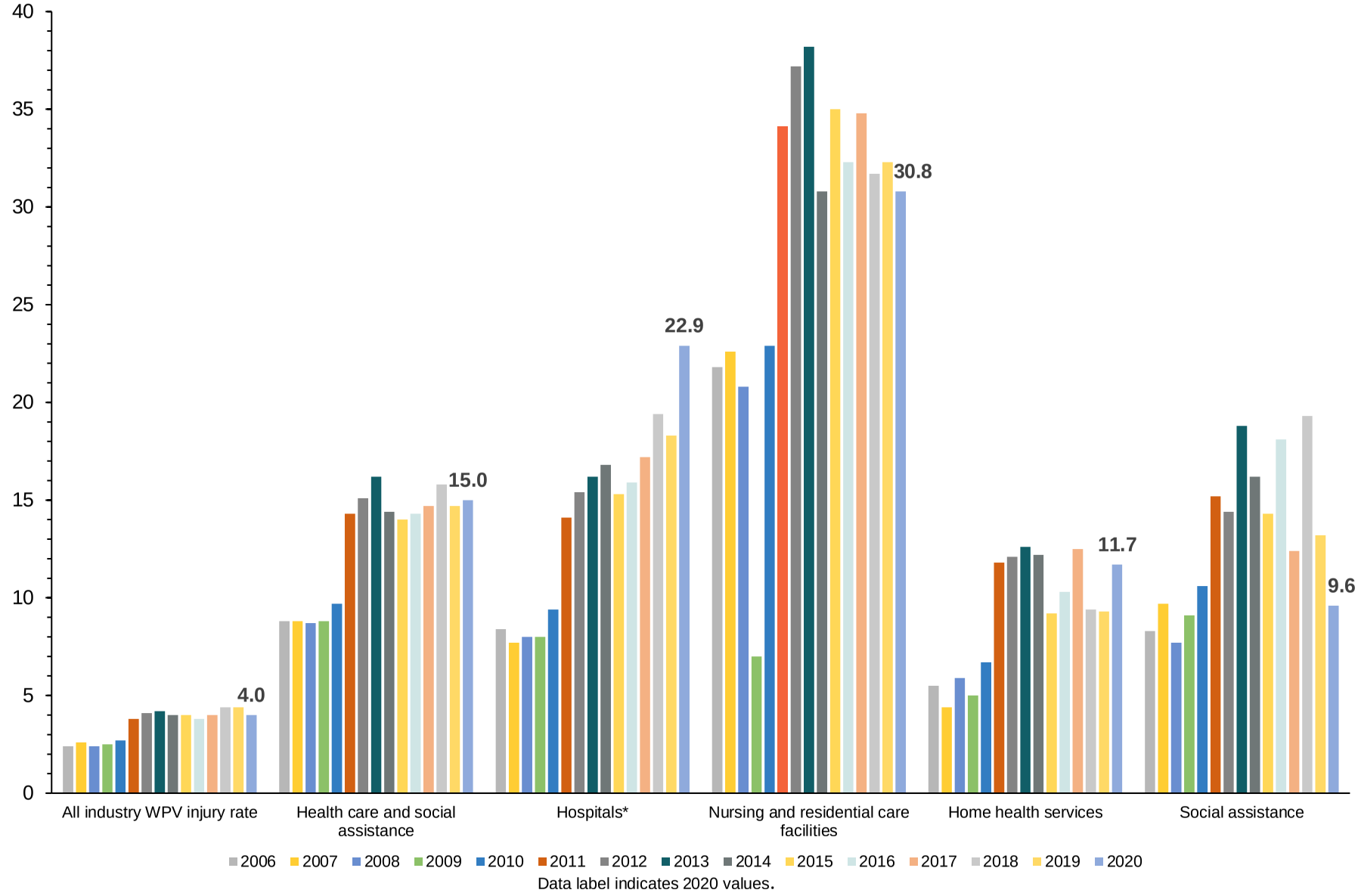
Total Injury and Illness Rates Compared with Workplace Violence Injury Rates, Private Industry, 1992–2020[1]



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

[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, 2006–2020[1]



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

[1]Rate per 10,000 workers.

*The subcategory "psychiatric and substance abuse hospitals" had a workplace violence injury rate of 164.7 per 10,000 workers in 2020; 152.4 in 2019; 175.0 in 2018; 181.1 in 2017; 123.6 in 2016; 133.4 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.

MUSCULOSKELETAL DISORDERS

Musculoskeletal disorders (MSDs) continue to account for the largest portion of work-related injuries and illnesses, accounting for 21% in private industry. Industries with the highest incidence rates in 2020 continued to be those in health care and social assistance, transportation, and warehousing and storage. It is important to recognize that the numbers and rates of MSDs reported by BLS represent only a portion of the total MSD problem. Other industries with significant MSD problems also have major retaliation problems, like food processing, which keeps certain industries from appearing in these data that are voluntarily reported by employers. Also, 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 or postal workers, nor do they reflect the underreporting of MSDs by employers.

In conjunction with these special emphasis programs under the Obama administration, 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. Under the Trump administration, enforcement on ergonomics hazards declined significantly. In FY 2020, OSHA issued 13 Hazard Alert Letters but no 5(a)(1) citations. This was a decline from the 31 HALs in FY 2019, although there also were no 5(a)(1) citations. In FY 2021, there were also no 5(a)(1) citations and the number of Hazard Alert Letters increased to 20. The numbers for FY 2020 and FY 2021 may have been impacted by the COVID-19 pandemic.

Estimated and Reported Cases of Musculoskeletal Disorders, Private Industry, 1998–2020[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
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%
2016	921,394	508,355	222,405	285,950	31.8%
2017	879,667	471,250	188,500	282,750	31.2%
2018	848,649	484,942	212,162	272,780	30.3%
2019	829,204	444,217	207,301	266,530	30.0%
2020[6]	552,383	342,859	95,239	247,620	21.1%

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

[6]During the COVID-19 pandemic, the nature of many workplaces and work tasks changed significantly, which likely resulted in fewer reported musculoskeletal disorders.

Highest Rates of Musculoskeletal Disorders by Occupation, 2020[1,2]

Occupation	Incidence Rate	Number of MSDs
Orderlies	285.8	940
Aircraft cargo handling supervisors	270.8	230
Dietetic technicians	227.2	480
First-line supervisors of firefighting and prevention workers	223.5	1,600
Refuse and recylable material collectors	189.8	1,850
Nursing assistants	181.0	18,430
Firefighters	169.4	5,620
Occupational therapy aides	155.9	60
Parking enforcement workers	155.6	90
Emergency medical technicians and paramedics	154.9	3,200

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 in private industry, state and local government.

[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.

Highest Incidence Rates of Musculoskeletal Disorders by Industry, 2020

Industry (NAICS Code)[1]		Incidence Rate[2]	Number of Total Cases
000	All Private Industry[3]	25.4	247,620
492	Couriers and messengers	116.9	8,530
481	Air transportation	106.4	4,300
493	Warehousing and storage	93.9	11,360
623	Nursing and residential care facilities	74.0	19,240
622	Hospitals	62.0	24,740
444	Building material and garden supply stores	55.1	6,030
484	Truck transportation	54.3	8,750
517	Telecommunications	46.8	3,090
424	Merchant wholesalers—nondurable goods	45.0	9,120
113	Forestry and logging	44.5	230
312	Beverage and tobacco product manufacturing	44.2	1,090
562	Waste management and remediation services	43.4	1,980
445	Food and beverage stores	42.2	8,900
316	Leather and allied product manufacturing	40.9	90
454	Nonstore retailers	40.5	2,040
311	Food manufacturing	39.5	6,340
321	Wood product manufacturing	39.1	1,540
485	Transit and ground passenger transportation	38.5	990
452	General merchandise stores	36.7	7,140
337	Furniture and related product manufacturing	34.2	1,190
711	Performing arts and spectator sports	33.3	830
238	Specialty trade contractors	32.5	13,900
326	Plastics and rubber products manufacturing	32.4	2,230
336	Transportation equipment manufacturing	32.1	4,950
482	Rail transportation	31.4	580
212	Mining (except oil and gas)	31.0	580
111	Crop production[4]	30.5	1,200
332	Fabricated metal product manufacturing	30.1	4,210
532	Rental and leasing services	30.0	1,380
442	Furniture and home furnishings stores	29.9	920

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.

[3]All private industry MSDs led to a median of 14 days away from work.

[4]Excludes farms with fewer than 11 employees.

Highest Numbers of Musculoskeletal Disorders by Industry, 2020

Industry (NAICS Code)[1]		Number of Total Cases	Incidence Rate[2]
000	All Private Industry[3]	247,620	25.4
622	Hospitals	24,740	62.0
623	Nursing and residential care facilities	19,240	74.0
238	Specialty trade contractors	13,900	32.5
621	Ambulatory health care services	12,020	20.8
493	Warehousing and storage	11,360	93.9
424	Merchant wholesalers—nondurable goods	9,120	45.0
445	Food and beverage stores	8,900	42.2
484	Truck transportation	8,750	54.3
492	Couriers and messengers	8,530	116.9
561	Administrative support services	7,230	15.4
452	General merchandise stores	7,140	36.7
423	Merchant wholesalers—durable goods	6,940	22.9
722	Food services and drinking places	6,670	10.8
311	Food manufacturing	6,340	39.5
444	Building material and garden equipment and supply dealers	6,030	55.1
336	Transportation equipment manufacturing	4,950	32.1
624	Social assistance	4,310	18.3
481	Air transportation	4,300	106.4
441	Motor vehicle and parts dealers	4,270	23.8
332	Fabricated metal product manufacturing	4,210	30.1
541	Professional and technical services	3,540	4.0
721	Accommodation	3,440	28.6
517	Telecommunications	3,090	46.8
236	Construction of buildings	2,670	17.9
531	Real estate	2,530	17.2
812	Personal and laundry care services	2,350	27.0
811	Repair and maintenance	2,320	19.1
326	Plastics and rubber products manufacturing	2,230	32.4
333	Machinery manufacturing	2,190	20.9
454	Nonstore retailers	2,040	40.5

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.

[3]All private industry MSDs led to a median of 14 days away from work.

CHEMICAL EXPOSURE LIMITS AND STANDARDS

Chemical Exposure Limits and Standards

Occupational exposure to toxic substances poses a significant and unreasonable risk to millions of workers and is a major cause of acute and chronic disease in the United States. Occupational diseases caused by chemical exposures are responsible for more than 50,000 deaths and 190,000 illnesses each year, including cancers and other lung, kidney, skin, heart, stomach, brain, nerve and reproductive diseases.[172,173] Many of these diseases are chronic, serious and disabling for millions of workers, and impair their professional and personal lives; this problem largely goes underreported, and its effects are understated. The costs of fatal and nonfatal occupational illnesses from chemical exposures create an enormous burden on the U.S. public health system.[174] Today there are between 7,700 and 84,000 chemicals in commerce, most of them unregulated.[175,176]

It is not inevitable that workers develop diseases because of their work with chemicals. Where proper controls are installed or safer alternatives are used, exposures can be controlled and diseases prevented so that workers are not made ill because of their jobs.

Workers face particularly high risks from chemical exposures. They manufacture chemicals or are otherwise exposed early in the chemical life cycle, often at the highest exposures, for long durations, when little to no hazard information is known; are a conduit for bringing chemicals home to their families via clothing, equipment, skin and hair; dispose of chemicals and sort through chemical-containing waste; are often unknowingly exposed to legacy uses of chemicals; and are provided little to no information about chemicals they work with or near.

OSHA has issued comprehensive standards on some major chemical hazards, including benzene, asbestos, lead, and silica that have significantly reduced exposures and disease. But relatively few chemical standards have been issued over time; most were issued during OSHA's first decade, and most chemical hazards remain unregulated or outdated as toxicity evidence grows.

A bipartisan law, updating the Toxic Substances Control Act (TSCA), passed in 2016 created a key opportunity through the Environmental Protection Agency (EPA) to improve the federal process for assessing chemical toxicity and strengthening worker protections from exposures at different stages of a chemical's lifecycle. However, the Trump administration and the chemical

[172] Wilson, M.P., D.A. Chia and B.C. Ehlers. "Green Chemistry in California: A Framework for Leadership in Chemicals Policy and Innovation." California Policy Research Center, University of California. 2006. *Available at* pdfs.semanticscholar.org/2a06/17c69e9855ab380e41488b63301f99110bd1.pdf.
[173] Takala, J., P. Hämäläinen, K.L. Saarela, et al. "Global Estimates of the Burden of Injury and Illness at Work in 2012." *Journal of Occupational and Environmental Hygiene* 11:5, 326–337. Nov. 12, 2013. *Available at* 10.1080/15459624.2013.863131.
[174] Leigh, J.P. "Economic Burden of Occupational Injury and Illness in the United States." *The Milbank Quarterly* 89, No. 4. December 2011. *Available at* 10.111/j.1468-0009.2011.00648.x.
[175] Roundtable on Environmental Health Sciences, Research, and Medicine, Board on Population Health and Public Health Practice, Institute of Medicine. "Identifying and Reducing Environmental Health Risks of Chemicals in Our Society: Workshop Summary." Washington, D.C.: The National Academies Press. Oct. 2, 2014. *Available at* nap.edu/catalog/18710/identifying-and-reducing-environmental-health-risks-of-chemicals-in-our-society.
[176] *See* blogs.edf.org/health/2015/07/13/we-dont-know-how-many-chemicals-are-in-use-today-we-should-know/.

corporations derailed EPA's efforts to fulfill its legislative mandate, and protect workers and the public from dangerous chemical exposures. The Biden administration has reset EPA on course to fulfilling its legal obligations under the new law on using science and evidence in TSCA implementation and to address many worker exposures. More action is needed to ensure people are protected from chemical exposures at work, as mandated by Congress.

History: OSHA and Chemicals

One of the Occupational Safety and Health Administration's primary responsibilities is to set standards to protect workers from toxic substances. OSHA's system for addressing toxic substances is broken. Its standard-setting process has become unduly burdensome and lengthy, and the agency is not under strict timelines to establish protections from chemicals. According to a congressional report, it takes OSHA between 4.3 and 11.5 years to issue a new standard—an average of eight years.[177] The most time OSHA has taken to complete the rulemaking process was 19 years each for the two most recent chemical standards—silica and beryllium. The result of all of this is that OSHA does not regulate many serious chemical hazards at all, or some chemicals are subject to weak and out-of-date requirements, and people remain unprotected from chemical hazards at work.

Since Congress enacted the Occupational Safety and Health Act in 1970, OSHA has issued comprehensive health standards (that include ancillary protections) for only 18 individual chemicals and one separate rule for 14 carcinogens. OSHA issued most of its chemical standards in its first two decades, and only after the chemical had been making workers sick for a long time. The most recent comprehensive standards issued were silica in 2016 and beryllium at the beginning of 2017.

The OSHA permissible exposure limits (PELs) in place under 29 CFR 1910.1000 that govern only exposure limits for approximately 400 toxic substances were adopted in 1971 and codified the American Conference of Government Industrial Hygienists (ACGIH) Threshold Limit Values from 1968.[178] Most of these limits were set by ACGIH in the 1940s and 1950s, based upon the scientific evidence available at the time. Many chemicals now recognized as hazardous were not covered by the 1968 limits, and many of the others with only PELs are woefully outdated. In 1989, OSHA attempted to update these limits, but the revised rule was overturned by the courts because the agency failed to make the risk and feasibility determinations as required by the OSH Act.

In the early 2000s, the American Industrial Hygiene Association, major industry groups and labor attempted to reach agreement on a new approach to update permissible exposure limits through a shorter process that would allow quick adoption of new limits that were agreed upon by consensus. Unfortunately, those efforts stalled when small business groups objected to an expedited process that would apply to a large number of chemicals, and the Bush administration refused to take a leadership role in developing and advancing an improved process for setting

[177] Congressional Research Service, "Occupational Safety and Health Administration (OSHA): COVID-19 Emergency Temporary Standards (ETS) on Health Care Employment and Vaccinations and Testing for Large Employers." Updated March 24, 2022. *Available at* CRSReports.congress.gov/product/pdf/R/R46288.
[178] Occupational Safety and Health Administration. "Permissible Exposure Limits—Annotated Tables." *Available at* OSHA.gov/dsg/annotated-pels/.

updated exposure limits. In 2019, ACGIH updated its position statement and white paper on PELs, focused on the critical role of PELs, OSHA's need to leverage resources to update PELs, and employer responsibilities to assess chemical risks to its workers and control their exposures to chemicals.[179]

In October 2013, OSHA made an annotated comparison list of the legal and recommended exposure limits for chemical substances as a tool to assist in the assessment and control of exposures. The agency tables compare OSHA PELs for general industry, the California Division of Occupational Safety and Health PELs, National Institute for Occupational Safety and Health-recommended exposure limits and American Conference of Governmental Industrial Hygienist threshold limit values.[180] At the same time, the agency unveiled a web-based toolkit to assist employers and workers to identify safer chemicals that can be used in place of more hazardous ones. However, this is only guidance information, and since it was posted, there have been no initiatives or signals for increased action on enforcement or application of this information by the agency. In October 2014, OSHA issued a Request for Information (RFI) requesting comments on approaches to improving the management of chemical exposures and updating permissible exposure limits.[181] The agency's intent of this RFI was never clear, and OSHA's work remains stalled on chemicals.

In the Trump administration's first unified regulatory agenda—issued on Dec. 14, 2017—all chemical regulatory activity for OSHA had been removed for the near future, including development of standards on styrene and 1-bromopropane, and updates in PELs. During his administration, the only OSHA chemical regulatory activity consisted of eliminating provisions from the beryllium standard for construction and shipyard workers that involved dermal and emergency exposures, and a Request for Information on expanding Table 1 of the silica standard for the construction industry.[182,183]

Even where OSHA has regulated chemicals, OSHA protections alone are not sufficient to protect workers from dangerous chemicals. Many workers in the United States are not covered by the OSH Act. Currently, 7.9 million public sector workers, including many firefighters and teachers; 10 million self-employed workers; 300,000 workers in the mining industry; and many agricultural workers on small farms are not afforded safety and health protections under the OSH Act. Even where OSHA has coverage, OSHA is staffed with so few resources that in 2021, it would have taken federal OSHA inspectors 236 years to visit every workplace in the country once—in 2019, when OSHA enforcement was not impacted by the pandemic, it would have taken federal OSHA 162 years. Unions have some ability to bring in OSHA to help investigate a chemical issue at work, but access to OSHA for unorganized workers, especially as it relates to

[179] *See* AIHA-assets.sfo2.digitaloceanspaces.com/AIHA/resources/Position-Statements/Permissible-Exposure-Limits-PELs-Position-Statement.pdf and AIHA-assets.sfo2.digitaloceanspaces.com/AIHA/resources/White-Papers/Permissible-Exposure-Limits-PELs-White-Paper.pdf.
[180] *See* OSHA.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=24990.
[181] *See* OSHA.gov/laws-regs/federalregister/2014-10-10.
[182] 85 Fed. Reg. 53910. *See* FederalRegister.gov/documents/2020/08/31/2020-18017/occupational-exposure-to-beryllium-and-beryllium-compounds-in-construction-and-shipyard-sectors.
[183] 84 Fed. Reg. 41667. "Occupational Exposure to Beryllium and Beryllium Compounds in Construction and Shipyard Sectors." Aug. 31, 2020. *Available at* GovInfo.gov/content/pkg/FR-2019-08-15/pdf/2019-17450.pdf.

chemical exposures, is much more difficult—and OSHA has not had a lot of success bringing forward enforcement cases on any unregulated chemical exposure in a union or nonunion setting.

Some states, including California and Washington, have done a better job updating exposure limits, and as a result, workers in those states have much better protection against exposure to toxic substances. Additionally, state OSHA plans could have chosen to adopt and enforce the 1989 PELs federal OSHA was required to vacate. For instance, Minnesota OSHA continues to enforce the 1989 PELs.[184] In 2016, California resumed activity on chemicals through its Health Effects Advisory Committee, prioritizing chemicals for which to establish PELs, but meetings have stalled since 2020 and the agency's plan on this work remains unclear.[185]

EPA: Opportunity for Progress

The Toxic Substances Control Act passed by Congress in 1976 aimed to protect the public from dangerous chemical exposures and prevent disease by giving the Environmental Protection Agency authority to regulate chemicals throughout the environment and chemicals being newly manufactured. Lawmakers intended the original law to be a gap-filling statute, giving EPA co-existing and compatible authority with other agencies over chemical exposures. But court decisions thwarted EPA's efforts to regulate even the most dangerous chemicals, including asbestos, and left TSCA toothless and ineffective in protecting people from exposure to chemicals.

In 2016, Congress passed the Frank R. Lautenberg Chemical Safety for the 21st Century Act (LSCA), a bipartisan effort to update and address the deficiencies of the original TSCA. This update assigned EPA a specific mandate to include workers as a potentially vulnerable subpopulation at particular risk to disease from chemicals, and gave authority to EPA to eliminate or reduce that risk, through risk management or bans over time, for chemicals that have been in use for decades and for chemicals new to the market. Further, the revised act gives EPA authority to prioritize and evaluate chemicals that pose a danger to human health or the environment where: 1) other agencies cannot or will not adequately regulate a substance, or 2) the substance is already regulated, albeit ineffectively, by another agency, such as OSHA. Importantly, the amended law requires EPA to prioritize and assess unregulated or inadequately regulated chemicals on a strict timeline in order to protect people and prevent disease.

Additional promising initial decisions by President Biden were to fill positions within the agency with people with a history of environmental justice, including Michal Ilana Freedhoff as the principal deputy assistant administrator for chemical safety and pollution prevention. Freedhoff was instrumental in the creation and passage of LSCA. This is a stark deviation from President Trump's appointees, who were closely tied to the chemical industry—at least one of whom actively worked for the chemical industry to derail LSCA implementation, including Nancy Beck, Alexandra Dunn and Michael Dourson. With pressure from environmental, labor and public health groups, Dourson was not confirmed.

[184] *See* dli.mn.gov/business/workplace-safety-and-health/mnosha-compliance-differences-between-minnesota-and-federal .
[185] *See* dir.ca.gov/dosh/DoshReg/5155Meetings.html.

The passage of the LSCA has been a key opportunity to protect workers and the public from acute and chronic chemical exposures. Despite four years of an administration closely tied with the chemical industry, unions, public health professionals and other advocates worked to hold EPA accountable to its legislative mandate and to enhance coordination between EPA and OSHA for effective chemical regulation. This has happened through active engagement in the rulemaking process and litigation focused on EPA's legislative mandate to assess and regulate toxic chemicals to protect workers as a vulnerable subpopulation. Biden's first months in office have brought a promise for LSCA to protect working people from dangerous chemicals and the enormous public health burden of work-related disease.

Before LSCA, EPA helped reduce chemical exposures in workplaces by requiring worker protections for new chemicals or new uses, including issuing some exposure limits and requiring engineering and work practice controls such as ventilation requirements and changing processes. Now under LSCA, EPA has authority that OSHA does not have, such as the ability to regulate, enforce or compel data from manufacturers; ban or phase out a chemical; and require substitution with a safer chemical or process.

Early Implementation of the Revised TSCA

Existing Chemicals

Soon after the law was passed, EPA was required to begin scoping, risk evaluation and risk management of 10 priority chemicals for expedited review through the risk evaluation and risk management processes, since the agency already had done extensive work on these chemicals throughout the years. In December 2017, EPA identified these as:

- 1,4-Dioxane
- 1-Bromopropane
- Asbestos
- Carbon Tetrachloride
- Cyclic Aliphatic Bromide Cluster (Hexabromocyclododecane or HBCD)
- Methylene Chloride
- N-Methylpyrrolidone (NMP)
- Pigment Violet 29 (Anthra[2,1,9-def:6,5,10-d'e'f]diisoquinoline-1,3,8,10(2H,9H)-tetrone)
- Tetrachloroethylene (PERC)
- Trichloroethylene (TCE)

In addition, on an ongoing basis as the priority chemicals move through the evaluation and regulation process, EPA must continue rounds of review of 20 additional high-priority and 20 low-priority chemicals—once finalized, the high-priority chemicals will be further assessed through risk evaluation and risk management under LSCA. EPA must consult with other agencies throughout the process regarding relevant exposures, controls and regulatory action.

Seven months after Congress passed LSCA, the Trump administration took office. While the Obama administration's EPA had been adhering to strict deadlines outlined in the law, the Trump administration delayed issuing chemical assessments, weakened the protections proposed by the previous administration and narrowed the scope of uses that for the agency to assess for the first 10 chemicals.

During the Trump administration's four years, EPA weakened the two major, final framework rules on the methods for prioritizing and assessing chemicals, compared with the proposals issued under the Obama administration. These framework rules have set the stage for all future implementation of the new chemical law. The agency's scoping efforts for its 10 priority chemicals totally ignored major occupational uses and scenarios, and shifted its responsibility to OSHA, despite EPA's responsibility under the law to address occupational exposures. For example, in its scoping document for asbestos, EPA removed legacy uses of asbestos from its regulatory scope, even though these uses are the major cause of occupational and public asbestos exposure in the United States today. In March 2019, EPA issued a ban on consumer uses of methylene chloride, but not industrial uses as proposed by the Obama administration.

In response to the final risk evaluations for the initial 10 priority chemicals, unions, environmental groups and allies have filed several legal challenges against the agency for ignoring major occupational uses. The United Steelworkers (USW) challenged the methylene chloride final risk evaluation, stating that the evaluation underestimated risks to workers by assuming personal protective equipment sufficiently protected workers and ignored other exposure scenarios.[186] The UAW challenged the final risk evaluations for HBCD, citing similar issues leading to an underestimate of risks to workers.[187] It is anticipated that the Biden administration will reverse course, better reflect science in evidence in its evaluations, and more appropriately examine and mitigate risks to workers ignored in the last four years.

According to a recent study, 85 people died due to methylene chloride exposure in 1980–2018, and 87% of these were workers.[188] Methylene chloride can overcome a person in minutes, and long-term exposures cause chronic health conditions, including cancer. Most of these deaths have been workers exposed to methylene chloride paint strippers. With the proposal to ignore risks to workers and only ban consumer uses, the Labor Council for Latin American Advancement (LCLAA) and Natural Resources Defense Council filed a legal challenge for the agency's failure to address risks caused by industrial uses.[189] North America's Building Trades Unions (NABTU) supported the petitioners through an *amicus* brief. The court determined that the case was premature and EPA had not yet completed its evaluation of commercial uses.[190] The court also upheld the ban on consumer uses after challenges by industry.

Legacy uses of asbestos decades ago are current exposures, not legacy exposures. In November 2019, the 9th U.S. Circuit Court of Appeal's decision in *Safer Chemicals Healthy Families v. EPA* disagreed with the EPA's approach and ruled that the exclusion of legacy and disposal uses by the EPA was unlawful.[191] The agency finalized its risk evaluation for asbestos in December

[186] *See* m.usw.org/news/media-center/articles/2020/august/USW-lawsuit-against-EPA.pdf.
[187] *See* EPA.gov/sites/production/files/2020-12/documents/hbcd_re_uaw_petition_1.pdf.
[188] Hoang A., K. Fagan, D.L. Cannon, et al. "Assessment of Methylene Chloride–Related Fatalities in the United States, 1980–2018." *JAMA Internal Medicine*181(6):797–805. April 19, 2021. *Available at* JAMANetwork.com/journals/jamainternalmedicine/fullarticle/2778965.
[189] *See* EPA.gov/sites/production/files/2019-02/documents/2019-02-19_methylene_chloride_rulemaking_litigation_-_nrdc_complaint.pdf.
[190] *Labor Council for Latin American Advancement v. U.S. EPA*, No. 19-1042(L); 19-1044; 19-2329 (2nd Cir. Sept. 1, 2021). *Available at* GovInfo.gov/content/pkg/USCOURTS-ca2-19-01042/pdf/USCOURTS-ca2-19-01042-0.pdf.
[191] *Safer Chemicals, Healthy Families v. U.S. EPA*, No. 17-72260 (9th Cir. Nov. 14, 2019). *Available at* GovInfo.gov/content/pkg/USCOURTS-ca9-17-72260/pdf/USCOURTS-ca9-17-72260-0.pdf.

2020 without addressing legacy and disposal uses.[192] Under the Biden administration, in December 2021, EPA issued a scoping document for legacy and disposal uses of asbestos, and in April 2022, issued a risk management proposal banning other forms of chrysotile asbestos.[193,194] In 2019, the U.S. House Committee on Energy and Commerce voted H.R. 1603—the Alan Reinstein Ban Asbestos Now Act—out of committee, 47–1, with bipartisan support.[195] The bill would have required: 1) banning imports and uses of asbestos, such as imports, manufacturing, processing and distribution, 2) risk examination of in-place, "legacy," asbestos for working people through a comprehensive agency study, and 3) establishing a "right to know" program that requires asbestos importers, processors and distributors to report and disclose asbestos used in commerce. The Senate introduced a similar bill (S. 717).

To date under LSCA, EPA has made progress on existing chemicals in a way OSHA would not be able to:

- Finalized risk evaluation rules and will move toward risk management for the following chemicals: Asbestos, part 1: chrysotile asbestos, 1-bromopropane, 1,4-dioxane, carbon tetrachloride, pigment violet-29 (revised risk determination), HBCD (revised risk determination), methylene chloride: commercial uses, NMP, perchloroethylene, trichloroethylene.[196]
- Issued a final rule to ban consumer uses of methylene chloride and proposed to create a training and certification program for commercial uses of methylene chloride.[197,198]
- Proposed to ban chrysotile asbestos, including a phase out for the choroalki industry.[199]
- Issued a draft scoping document to begin addressing legacy and disposal exposures to asbestos.[200]
- Announced its intent to propose new rules for five persistent, bioaccumulative and toxic (PBT) chemicals.[201]
- Issued scoping documents on its first set of 20 high-priority chemicals and is beginning risk evaluations.[202]
- Identified a set of 20 low-priority chemicals for evaluation.[203]

[192] Environmental Protection Agency. "Final Risk Evaluation for Asbestos, Part 1: Chrysotile Asbestos." *Accessed at* EPA.gov/assessing-and-managing-chemicals-under-tsca/final-risk-evaluation-asbestos-part-1-chrysotile.
[193] Environmental Protection Agency. "Risk Evaluation for Asbestos Part 2: Supplemental Evaluation Including Legacy Uses and Associated Disposals of Asbestos." *Accessed at* EPA.gov/assessing-and-managing-chemicals-under-tsca/risk-evaluation-asbestos-part-2-supplemental-evaluation.
[194] Environmental Protection Agency. "TSCA Section 6 Risk Management for Asbestos, Part 1: Chrysotile Asbestos." Docket ID: EPA-HQ-OPPT-2021-0057.
[195] *See* EnergyCommerce.House.gov/newsroom/press-releases/pallone-applauds-committee-passage-of-bill-banning-asbestos.
[196] *See* EPA.gov/assessing-and-managing-chemicals-under-tsca/risk-management-existing-chemicals-under-tsca.
[197] *See* EPA.gov/assessing-and-managing-chemicals-under-tsca/final-rule-regulation-methylene-chloride-paint-and.
[198] 84 FR 11466
[199] 87 FR 21706
[200] 87 FR 21706
[201] *See* EPA.gov/assessing-and-managing-chemicals-under-tsca/persistent-bioaccumulative-and-toxic-pbt-chemicals.
[202] *See* EPA.gov/assessing-and-managing-chemicals-under-tsca/final-scope-documents-high-priority-chemicals.
[203] *See* EPA.gov/assessing-and-managing-chemicals-under-tsca/low-priority-substances-under-tsca.

New Chemicals

The amended law gave EPA more authority to put in place more protections on new chemicals coming onto the market. Under the Trump administration, EPA emphasized the allowance of voluntary approaches by employers rather than using its enforcement authority to require employers to implement engineering controls as chemicals move through the supply and use chain. Specifically, EPA allowed employers to rely on warning statements in Safety Data Sheets that instruct workers to wear personal protective equipment, rather than issue enforceable orders to the company that require the use of more effective controls. In 2020, EPA allowed a new chemical onto the market with a risk of more than 25,000 times its acceptable risk level for workers, based solely on the warning statements about PPE in the Safety Data Sheets.[204] An effort by a coalition of chemical companies, called the TSCA New Chemicals Coalition, attempted to push EPA's longstanding authority on establishing workplace protections for new chemicals and new uses of chemicals onto OSHA, an agency with no ability to regulate chemicals not introduced yet to the market. Any claim that existing general OSHA standards will protect workers is maliciously inaccurate.

Since 2011, OSHA only has issued 28 general duty clause citations for airborne exposures of (existing, not new) chemicals—there is no OSHA PEL for 20 of these, and for the remaining eight there is only a PEL with no requirements for exposure monitoring or medical surveillance. In the rare case that general duty clause citations have been issued, four major conditions have been true:

- The cases involved clinical health effects experienced by workers at the cited facility, consistent with "serious physical harm."
- The majority of cases were symptoms with acute onset (minutes to hours) following inhalation that were anticipated to worsen with continued harmful exposure.
- The cases involved occupational exposures to a relatively well-studied chemical/chemical class at very high levels consistent with "recognized hazard."
- Violations were issued because evidence documented workers at the facility were physically harmed by a hazardous exposure to the chemical inhaled during workplace operations, and not because airborne exposure exceeded an occupational exposure limit.

OSHA does not have the ability to adequately regulate chemical exposures in the workplace, and essentially has no ability to regulate new chemicals—a major reason Congress gave EPA the authority and responsibility to do so under LSCA.

The Biden administration issued an executive order to evaluate all policies, guidelines, templates and regulations related to LSCA and has announced updates to the new chemicals program to reflect the full scope of chemical exposures, including worker exposures as identified in the law. On March 29, 2021, EPA announced several instances where the approach under the Trump administration made assumptions related to worker exposures that did not ensure protections for human health and the environment.[205] The agency has stopped issuing "not likely to present an unreasonable risk" findings based on a proposed Significant New Use Rule and will incorporate reasonably foreseen conditions of use when determining potential risks, including the absence of

[204] *See* Blogs.EDF.org/health/2020/08/27/under-the-trump-epa-no-risk-to-workers-is-too-high-to-impede-a-new-chemicals-unfettered-entry-into-the-market/. Aug. 27, 2020.
[205] *See* EPA.gov/chemicals-under-tsca/important-updates-epas-tsca-new-chemicals-program.

worker protections or the assumption that OSHA standards adequately protect workers. Additionally, EPA plans to use orders to mandate necessary worker protections as appropriate, and collect additional safety information if needed to make a risk assessment.

Recently, EPA has made progress on regulation of per- and polyfluoroalkyl substances (PFAS). In July 2020, the agency issued a final rule to require notice and EPA review before long-chain PFAS can be used, and to ban the import of certain PFAS chemicals without EPA review and approval.

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	0.1	-	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	25	35	ppm
Chlorobenzene	75	10	10	-	ppm
Chlorodiphenyl (54% chlorine) (PCB)[3]	0.5	0.5	0.5	0.001	mg/m^3
Cobalt metal, dust and fume	0.1	0.02	0.02	0.05	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[3,4]	0.75	0.75	0.1	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 (inhalable) 0.02 (respirable)	mg/m^3
Methylene bisphenyl isocyanate (MDI)	0.02 (c)	0.005	0.005	0.005	ppm
Styrene	100	50	10	50	ppm
Tetrachloroethylene (Perchloroethylene/PERC)[3,4,5]	100	25	25	-	ppm
Toluene[5]	200	10	20	100	ppm
Toluene-2,4-Diisocyanate (TDI)[3]	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 OSHA.gov/dsg/annotated-pels/, OSHA Permissible Exposure Limits – Annotated Tables.

[3]NIOSH denotes carcinogenicity of chemicals according to Appendix A: CDC.gov/niosh/npg/nengapdxa.html. NIOSH does not always assign an exposure limit for carcinogens and, instead, recommends reducing exposure to the lowest feasible level.

[4]Designated or proposed by EPA as a high-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.

5(a)(1) Citations for Airborne Chemical Exposures 2011–2020, Federal OSHA and State Plan Cases

Date Issued, Insp. #, State	Workplace Operation	Chemical (OSHA PEL)	Health Effects	Measured Exposure	Reference OEL
Feb. 14, 2011 313878563, FL	Spray painting in construction	VM&P Naptha (No PEL)	Lung, skin irritation, chemical pneumonia	5,900 mg/m^3 15 minutes	1,800 mg/m^3 (C) REL NIOSH
April 8, 2011 314468745, MO	Construction work in sewer manhole	Hydrogen sulfide (10 ppm, 8 hour)	Lung, eye irritation, central nervous system, dizziness, coma	235 ppm (assume direct read)	100 ppm IDLH NIOSH
July 7, 2011 315638304, NC	Home furniture manufacturing	1-Bromopropane (No PEL)	Liver damage, neurotoxicity, fetal	86 ppm 8 hours	25 ppm AEL EPA
Aug. 2, 2011 315447078, NC	Operating propane forklift	Carbon monoxide (50 ppm, 8 hour)	Nausea, dizziness, cyanosis	278 ppm (assume direct read)	No reference (200 ppm-C NIOSH REL)
Aug. 10, 2011 315685123, NC	Operating forklift	Carbon monoxide (50 ppm, 8 hour)	Nausea, dizziness, cyanosis	2,622 ppm (assume direct read)	200 ppm (C) REL NIOSH
Aug. 12, 2011 314677188, NJ	Applying adhesive in glass manufacturing	Ethyl cyanoacrylate (No PEL)	Respiratory illness, sensitization	0.5 ppm 8 hours	0.20 ppm TLV ACGIH
Aug. 25, 2011 313138430, WI	By furnace at steel foundry	Carbon monoxide (50 ppm, 8 hour)	Nausea, dizziness, cyanosis	492 ppm (assume direct read)	200 ppm (C) REL NIOSH
Sept. 7, 2011 29490, CO	Spray finishing auto body	HDIH[1] (No PEL)	Nausea, dizziness, cyanosis	2.34 mg/m^3 19 minutes	1 mg/m^3 STEL MSDS
Oct. 7, 2011 315121244, WI	Mixing and gluing ceramic fibers	Refractory ceramic fibers (No PEL)	Respiratory irritation, lung cancer, mesothelioma	0.87 fibers/cc 8 hours	0.5 f/cc REG HTIW
Nov. 7, 2011 62933, FL	Spray finishing auto body	HDIH[1] (No PEL)	Respiratory irritation, chemical asthma	1.23 mg/m^3 19 minutes	1mg/m^3 STEL MSDS
Feb. 28, 2012 315359471. FL	Roofer heating asphalt kettle	Asphalt fumes (No PEL)	Eye, upper respiratory irritation, cancer	0.93 mg/m^3 8 hours	5 mg/m^3 REL NIOSH
March 6, 2012 316337708, NC	Spraying glue	1-Bromopropane (No PEL)	Liver damage, neurotoxicity, fetal	90 ppm 8 hour TWA	25 ppm AEL EPA
March 16, 2012 316436021, NC	Operating forklift	Carbon monoxide (50 ppm, 8 hour)	Nausea, dizziness, cyanosis	600 ppm (assume direct read)	200 ppm (C) REL NIOSH
May 12, 2012 110849, WI	Handling molds in steel foundry	DMEA[2] (No PEL)	Headache, nausea, blurred vision, increased heart rate	17.7 ppm 8 hours	3 ppm MSDS
May 24, 2012 316528181, NC	Operating forklift	Carbon monoxide (50 ppm, 8 hour)	Nausea, dizziness, cyanosis	300 ppm (assume direct read)	200 ppm (C) REL NIOSH

5(a)(1) Citations for Airborne Chemical Exposures 2011–2020, Federal OSHA and State Plan Cases

Date Issued, Insp. #, State	Workplace Operation	Chemical (OSHA PEL)	Health Effects	Measured Exposure	Reference OEL
April 2, 2013 890719, NJ	Pouring food flavor chemical	Diacetyl (No PEL)	Lung damage, bronchiolitis obliterans	0.094 ppm 15 minutes	0.02 STEL ACGIH
April 19, 2013 702499, TX	Spraying powder coat on metal part	TGIC[3] (No PEL)	Respiratory illness, sensitization, male reproduction	0.22 mg/m^3 8 hours	0.05 mg/m^3 TLV ACGIH
June 18, 2013 315840883, NV	Animal surgery	Isoflurance (No PEL)	Reproductive, central nervous system, liver, kidney	2.3 ppm (assume 60 minutes)	2 ppm (C) REL NIOSH
Sept. 19, 2013 897143, WI	Manual work with fiberglass molds	Styrene (100 ppm PEL)	Respiratory, skin and eye irritation, central nervous system, liver	65.2 ppm 10 hours	50 ppm REL NIOSH
Sept. 30, 2013 899582, FL	Disinfecting endoscopy equipment	Glutaraldehyde (no PEL)	Respiratory illness, skin and eye irritation, sensitization, asthma	0.13 ppm (assume 15 minutes)	0.05 ppm (C) TLV ACGIH
Feb. 3, 2014 925263, TX	Foam lamination for car seats	2,6-TDI[4] (No PEL)	Respiratory illness, asthma, sensitizer	0.08 mg/m^3 8 hours	0.036 mg/m^3 TLV ACGIH
March 21, 2014 947716, NV	Destruction of old munitions	TNT[5] (1.5 mg/m3 8 hour)	Respiratory, liver, kidneys, central nervous system, eyes, skin	0.17 mg/m^3 8 hours	0.1 mg/m^3 TLV ACGIH
Oct. 24, 2014 317376770, NV	Animal Surgery	Isoflurance (No PEL)	Reproductive, central nervous system, liver, kidney	Above REL (not posted)	2ppm (C) REL NIOSH
Dec. 1, 2015 1068107, NJ	Fragrance manufacturing	Diacetyl (No PEL)	Lung damage, bronchiolitis obliterans	80.1 ppm 15 minutes	0.02 STEL ACGIH
April 13, 2015 1055558, NJ	Fragrance manufacturing	Diacetyl (No PEL)	Lung damage, bronchiolitis obliterans	5.8969 ppm 15 minutes	0.02 ppm STEL ACGIH
Jan. 17, 2017 1125064, PA	Travel trailer and camper manufacturing	TGIC[3] (No PEL)	Respiratory illness, sensitization, male reproduction	0.866 mg/m^3 8 hour TWA	0.05 mg/m^3 TLV ACGIH 0.025 mg/m^3 Mfg STEL
Feb. 26, 2018 1260141, PA	Degreasing	1-Bromopropane (No PEL)	Nervous system damage, cancer, eye and respiratory irritation	88.53 ppm 8 hour TWA	0.1ppm TLV ACGIH 5.0ppm PEL CAL/OSHA

5(a)(1) Citations for Airborne Chemical Exposures 2011–2020, Federal OSHA and State Plan Cases

Date Issued, Insp. #, State	Workplace Operation	Chemical (OSHA PEL)	Health Effects	Measured Exposure	Reference OEL
Feb. 26, 2019 1343291, WI	Aluminum manufacturing	Metalworking fluids	Respiratory illness, skin irritation, asthma	341 endotoxin units/m^3 8 hour TWA	90 endotoxin units/m^3 DECOS[6]

Source: Occupational Safety and Health Administration.

[1]HDIH is hexamethylene diisocyante homopolmer.

[2]DMEA is dimethylethylamine.

[3]TGIC is 1,3,5- triglycidyl isocyanurate, aka 1,3,5-triglycidyl-s-trizainetrione.

[4]2,6–TDI is toluene diisocyanate.

[5]TNT is 2,4,6–trinitrotoluene.

[6]Reference Occupational Exposure Limit from Dutch Expert Committee on Occupational Safety. Further information in this NIOSH Health Hazard Evaluation: CDC.gov/niosh/hhe/reports/pdfs/2010-0144-3164.pdf?id=10.26616/NIOSHHETA201001443164.

MINE SAFETY AND HEALTH

Data from MSHA for 2021 show 37 overall fatalities in mining, an increase in both coal and metal and nonmetal miner deaths at 10 and 27 fatalities, respectively. In the four years of the Trump administration, overall mining fatalities ranged between 27 and 29 deaths. The last year of the Obama administration was the safest on record for the mining industry, with record low fatalities and injuries reported.

In April 2010, the worst coal mine disaster in the United States in 40 years killed 29 miners at Upper Big Branch (UBB) in West Virginia. 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 Obama administration took aggressive action following the UBB explosion, criminally prosecuting both the company and individuals for violations that led to the deaths. Don Blankenship, the CEO of Massey Energy—the owner of the UBB mine—was found guilty of conspiracy to violate mine safety standards and was sentenced to and served one year in jail.[206]

Following the UBB explosion, MSHA launched a series of initiatives to strengthen enforcement programs and regulations that significantly improved safety and health conditions at the nation's mines. These included impact inspections to target mines with poor safety records, and an enforcement program to address mines with patterns of violations. New mine safety and health standards were issued, including rules on rock-dusting to prevent mine explosions, proximity detection systems on continuous mining machines in underground coal mines and pre-shift examination of mines. The most significant MSHA rule issued by the Obama administration was the coal dust rule in April 2014, which cut permissible exposure to coal dust to reduce the risk of black lung disease. The Miners' Voice initiative encouraged miners to exercise their rights under the Mine Act, educating miners about their rights and stepping up enforcement of anti-retaliation protections.

The Trump administration took a less aggressive approach to oversight of working conditions in the nation's mines. President Trump appointed a mining executive as MSHA assistant secretary. David Zatezalo, formerly CEO of Rhino Resource Partners, was confirmed by the Senate in November 2017 on a party-line vote. Rhino Resources has a long history with MSHA, and previously had received two pattern of violation notices from the agency for failure to correct repeat and ongoing violations. During the four years of the administration, MSHA largely maintained its enforcement programs, while expanding voluntary programs for mine employers.

At the urging of the mining industry, MSHA moved to roll back important regulations. Immediately upon taking office, the Trump administration took action to delay and weaken MSHA's rule that required mine examinations at metal and nonmetal mines. This rule, issued in January 2017, extended to metal and nonmetal mines requirements already in place in coal mines that mine operators conduct mine inspections and correct identified hazards before miners begin their shift. The administration delayed the effective date of the rule until June 2, 2018, and then

[206] Department of Justice, U.S. Attorney's Office, Southern District of West Virginia. "Blankenship sentenced to a year in Federal prison." April 6, 2016. *Available at* Justice.gov/usao-sdwv/pr/blankenship-sentenced-year-federal-prison.

weakened the rule, allowing mine operators to conduct inspections after miners begin work, and eliminating the requirement that hazards identified and immediately corrected be recorded. The changes, finalized on April 9, 2018, were challenged by the mining unions, and a court overturned the revised rule in June 2019, declaring it would make working conditions more dangerous than the rule it replaced.

The Trump administration suspended work on new MSHA rules on silica and proximity detection systems for mobile mining equipment. Both of these rules, which had been under development for years, were placed on the long-term regulatory agenda, with no clear plan for completion. Both of these hazards pose serious and growing risks to miners.

In 2018, the National Institute for Occupational Safety and Health reported the largest cluster of black lung disease (coal worker pneumoconiosis) among active coal miners that had been identified in years. More than 400 cases of advanced progressive massive fibrosis (PMF), the complicated form of CWP, were reported from just three clinics in Appalachia from 2013 to 2017.[207] In central Appalachia (Kentucky, Virginia and West Virginia), 20.6% of long-tenured miners have CWP; the national prevalence of CWP in miners with 25 years or more of tenure now exceeds 10%.[208] The current conjecture is that exposure to silica from mining coal seams containing high concentrations of quartz is a major factor in causing this increase in disabling lung disease. The MSHA silica standard still allows exposures of up to 100 µg/m^3. The standard was set to be lowered following the issuance of the new OSHA silica rule in 2016, which reduced permissible exposures to 50 µg/m^3 for industries under OSHA's jurisdiction. However, even under massive pressure, the Trump administration opted to issue only a request for information on silica in 2019 when the agency had plenty of information to issue a proposal or direct final rule, and refused to take further action even in the face of the alarming increase in CWP among miners.

Injuries and deaths from machinery and power haulage equipment that would be addressed by a standard on proximity detection also continue to be a serious problem. In the proposed standard on proximity detection for mobile mining equipment issued by MSHA in September 2015, the agency reported that from 1984 to 2014, there were 42 preventable fatalities and 179 injuries in coal hauling caused by machines and scoops (80 FR 53073). One of the primary causes of fatalities in 2021 involved powered haulage equipment resulting in 16 fatalities. So far in 2022, there have been nine fatalities and 185 injuries involving powered haulage equipment.[209]

In another area, the Trump administration initiated an examination of MSHA's 2014 coal dust rule to evaluate the effectiveness of the rule. Initially, this review was to include an assessment of whether the rule should be modified to be less burdensome on industry. But due to strong objections to any action to roll back the rule, the review and request for public comments was

[207] Blackley, D.J., L.E. Reynolds, C. Short, et al. "Progressive Massive Fibrosis in Coal Miners From 3 Clinics in Virginia." *Journal of the American Medical Association* 319(5):500–501. Feb. 6, 2018. *Available at* JAMANetwork.com/journals/jama/fullarticle/2671456.
[208] Blackley, D.J., C.N. Halldin and A.S. Laney. "Continued Increase in Prevalence of Coal Workers' Pneumoconiosis in the United States, 1970–2017." *American Journal of Public Health* 108, No. 9: 1220–1222. Sept. 1, 2018. *Available at* 10.2105/AJPH.2018.304517.
[209] Mine Safety and Health Administration. Fatality Reports. *Available at* MSHA.gov/data-reports/fatality-reports/search.

focused on the effectiveness of the rule in preventing adverse health effects and the most effective control measures for reducing exposures.[210] No changes to the coal dust rule were proposed.

Until the COVID-19 pandemic, MSHA largely maintained its enforcement programs and policies, as many enforcement requirements are outlined in MSHA's statute. In 2021, there were 29,722 coal mine citations issued, with 48,271 citations issued in metal and nonmetal mining. This was a reduction in citations compared with the last year before COVID-19: MSHA issued 43,593 coal mine citations and 55,751 metal and nonmetal mine citations in 2019.

Impact inspections, instituted as a 10-year initiative after UBB, began slowing in 2018 and ended after March 2020. The pattern of violations (POV) list has been a way to identify mining operators who have recurring significant and substantial violations. Since the POV initiative began in 2010 with 51 mines, the number of mines on the list has declined significantly. There have been no mines placed on the potential POV list since 2015 and there are currently no active mines on the list. With these enforcement initiatives ending or being underutilized, and the number of fatalities increasing, mine workers need a renewed focus on enforcement initiatives to hold employers accountable.

In 2021, MSHA filed 21 discrimination complaints on behalf of miners and sought 14 reinstatement cases. This was an increase of both complaints and reinstatements compared with 2020, when the COVID-19 pandemic may have played more of a role.

The Trump administration took concerning actions that limited miners' rights under the Mine Act. In July 2017, the administration launched a training assistance initiative in response to an increase in coal mine fatalities and injuries among less experienced miners. Under this initiative, MSHA inspectors visited mines to provide training and assistance to less-experienced miners. For a period of time, MSHA inspectors were instructed to leave their credentials at the office, leaving them with no authority to enforce mine safety violations they identified. Moreover, during these visits, miners' representatives were not permitted to walk around with the MSHA inspector as is provided under section 103(f) of the Mine Act. This practice did not last the entire administration, but put many lives in danger.

The Biden administration has taken action to move toward maintaining and improving strong safety and health protections for miners. Christopher Williamson was nominated as assistant secretary of labor for mine safety and health and is currently awaiting Senate confirmation. He previously served as a special assistant at MSHA in the Obama administration before serving as an attorney-adviser at the Federal Mine Safety and Health Review Commission. In the meantime, Jeannette Galanis was appointed as the acting assistant secretary of labor for mine safety and health. Galanis previously served as MSHA chief of staff in the Obama administration.

[210] Mine Safety and Health Administration. 30 CFR Parts 70, 71, 72, 75 and 90. "Retrospective Study of Respirable Coal Mine Dust Rule, Request for Information." 83 Fed. Reg. 31710. July 9, 2018. *Available at* FederalRegister.gov/documents/2018/07/09/2018-14536/retrospective-study-of-respirable-coal-mine-dust-rule.

The Biden administration has resumed work on standards and issued a proposed rule on powered haulage safety, and there is pressure for the agency to issue a proposed rule on respirable crystalline silica. In February 2022, the Biden administration recognized the number of preventable mining injuries and announced a campaign to reinforce the importance of training.[211]

[211] Mine Safety and Health Administration. "Take Time, Save Lives." February 2022. *Available at* MSHA.gov/take-time-save-lives.

Profiles of Mine Safety and Health
2013–2021

Coal Mines

	2013	2014[3]	2015[3]	2016[3]	2017[3]	2018[3]	2019[3]	2020[3,4]	2021[3,4]
Number of coal mines	1,704	1,633	1,459	1,287	1,216	1,192	1,137	1,016	965
Number of miners	123,446	116,318	102,871	81,880	82,932	82,857	81,483	63,762	61,307
Fatalities	20	16	12	8	15	12	12	5	10
Fatal injury rate[1]	0.0176	0.0149	0.0131	0.0115	0.0200	0.0155	0.0159	0.0091	0.0185
All injury rate[1]	3.15	3.15	2.93	2.91	3.19	2.88	2.93	2.69	2.79
States with coal mining	26	26	26	26	25	26	26	23	24
Coal production (millions of tons)	984	1,000	897	728	775	756	706	535	578
Citations and orders issued[2]	63,166	62,452	49,322	40,499	46,760	46,727	43,593	28,725	29,722

Metal and Nonmetal Mines

	2013	2014[3]	2015[3]	2016[3]	2017[3]	2018[3]	2019[3]	2020[3,4]	2021[3,4]
Number of metal/nonmetal mines	12,101	11,990	11,862	11,823	11,898	11,885	11,846	11,731	11,575
Number of miners	251,433	250,576	247,269	237,406	238,627	249,415	250,228	233,749	239,085
Fatalities	22	30	17	17	13	15	15	24	27
Fatal injury rate[1]	0.0108	0.0147	0.0084	0.0088	0.0066	0.0077	0.0072	0.0124	0.0136
All injury rate[1]	2.14	2.11	2.03	1.94	1.79	1.74	1.72	1.59	1.64
States with M/NM mining	50	50	50	50	50	50	50	50	50
Citations and orders issued[2]	54,952	58,599	58,374	56,525	57,843	50,765	55,751	49,171	48,271

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

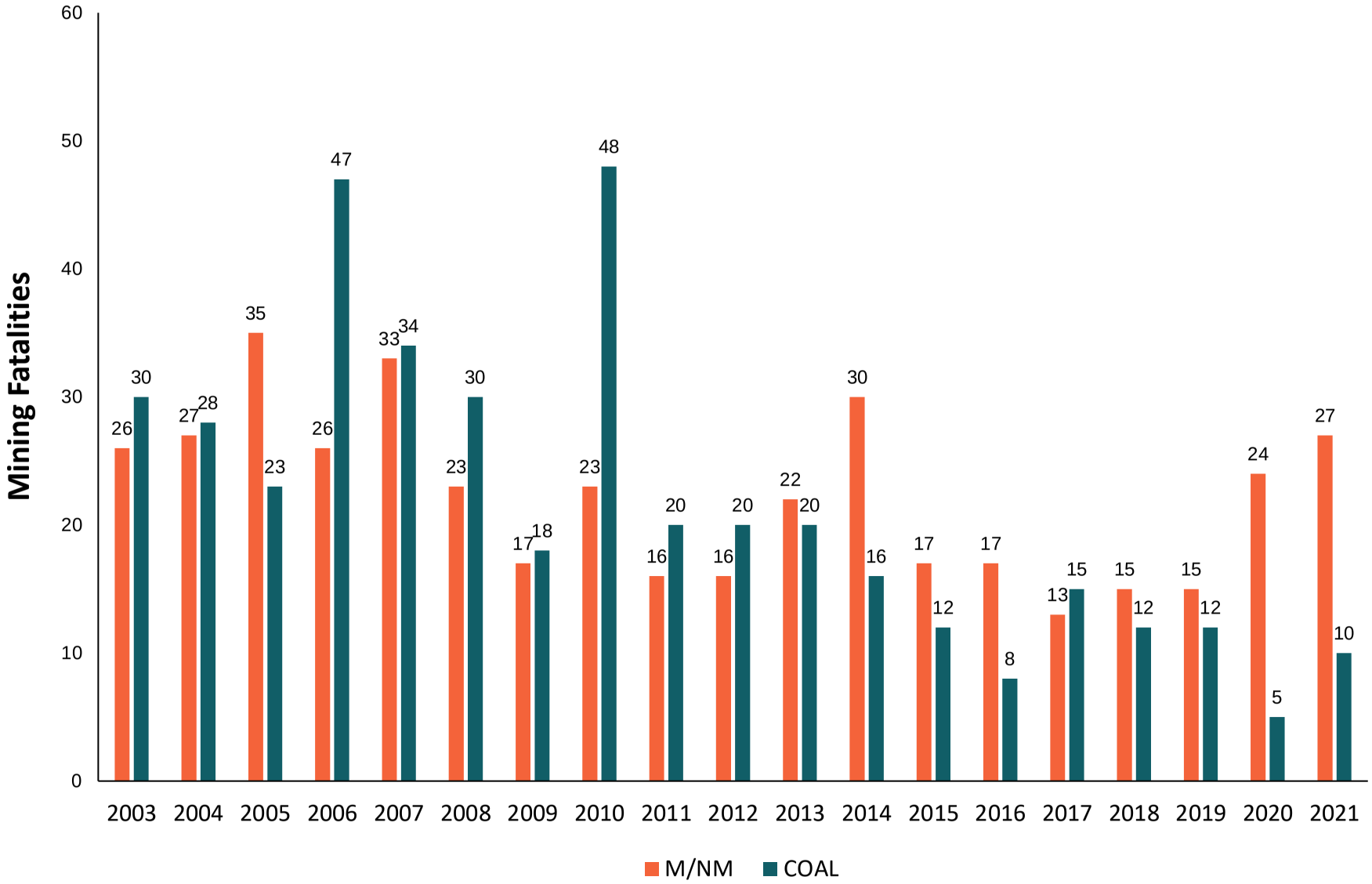
[1]All reported injuries per 200,000 employee hours.

[2]Citations and orders are those not vacated.

[3]Includes operator and contractor employees.

[4]Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

Coal and Metal/Nonmetal Mining Fatality Comparisons, 2003–2021



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

Coal Mining Fatalities by State, 2003–2021

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Alabama	1	2	4	2	3	2	3	2		3	1	1	1	1	1	1			
Alaska																			
Arizona				1					1										
Arkansas																			
California																			
Colorado					1				1	1					1				
Connecticut																			
Delaware																			
Florida																			
Georgia																			
Hawaii																			
Idaho																			
Illinois	3					1	2	2		1	4	1	3	1			1		
Indiana	1	1			3	1		1		1	1	1				2			
Iowa																			
Kansas																			
Kentucky	10	6	8	16	2	8	6	7	8	4	2	2	2	2	2	1	5	2	1
Louisiana							1												
Maine																			
Maryland				1	2														
Massachusetts																			
Michigan																			
Minnesota																			
Mississippi																			

Coal Mining Fatalities by State, 2003–2021

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Missouri																			
Montana				1				1				1			1				
Nebraska																			
Nevada																			
New Hampshire																			
New Jersey																			
New Mexico					1														
New York																			
North Carolina																			
North Dakota																			
Ohio			1						2	1	1								1
Oklahoma			1		1														
Oregon																			
Pennsylvania	1	1	4	1	1	5	1				2		3	1	1	3	2	1	1
Puerto Rico																			
Rhode Island																			
South Carolina																			
South Dakota																			
Tennessee		1					1			1									
Texas					1	1													
Utah		2		1	10						1	1							1
Vermont																			
Virginia	3	3		1		2	1		1	1		2	1						
Washington																1			

Coal Mining Fatalities by State, 2003–2021

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
West Virginia	9	12	4	23	9	9	3	35	6	7	6	5	2	3	8	4	4	2	5
Wisconsin																			
Wyoming	2		1			1			1		2	2			1				1
Total	30	28	23	47	34	30	18	48	20	20	20	16	12	8	15	12	12	5	10

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

Metal and Nonmetal Mining Fatalities by State, 2003–2021

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Alabama	2		1					1		1					1	1			
Alaska				2	3				2										1
Arizona			2	1	2	2	1	2		1	1	1		1	1			2	1
Arkansas	1				2		1							1					
California	2			2	3	2	1	2		1	2		1		1			2	
Colorado	1		2								2							1	
Connecticut																			
Delaware																			
Florida			2	1				1	1	2		1	1	1					2
Georgia	1	1				1	1	1			2		1	1	1		1	2	2
Hawaii																			
Idaho								1	2			1			1				1
Illinois	1											1			1			1	1
Indiana		2		1	1							1							
Iowa		1				2	1		1			1	1	1	1	1		2	
Kansas	1					1		2			1	1						1	
Kentucky	1		3	1		1	2			1	4	1		1				1	
Louisiana				1	1		1				1	1					1	3	
Maine																			
Maryland								1		1									
Massachusetts				1									1						
Michigan	1	2	1	3										1		1		1	
Minnesota			1	3	2			1	2								1		

Metal and Nonmetal Mining Fatalities by State, 2003–2021

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Mississippi			2											2			1		
Missouri		2	1		2	2	2				2	2	2					1	2
Montana			1		1				1	2		1				1			1
Nebraska			1		1					1			1						1
Nevada	2	4	3		2	3	1	2	1	1	2	2	3	1	2	2		1	1
New Hampshire	1				1								1						
New Jersey	1		1															1	
New Mexico	1	1	2			1	1				1				1	1	1		1
New York		1				1		1	1	3		2				1			1
North Carolina	1	1			1				1	1				1	1				
North Dakota													1			1			
Ohio	2		2		2				1			1	1					1	
Oklahoma		2						3		1							1		
Oregon	1	2	1	1	1										1				
Pennsylvania		2	1	2		2	1		1		1	2	1			1			1
Puerto Rico				1	1		1												
Rhode Island																			
South Carolina	2	1	1									2					1	1	
South Dakota																			
Tennessee	1	1	1	2	1		1	1			1			1			2		3
Texas	2	3	2	1	2	3	2	2			1	5	1	2	1	3	3	2	5
Utah				1		1		1	1			2		1		1			1
Vermont																	2		

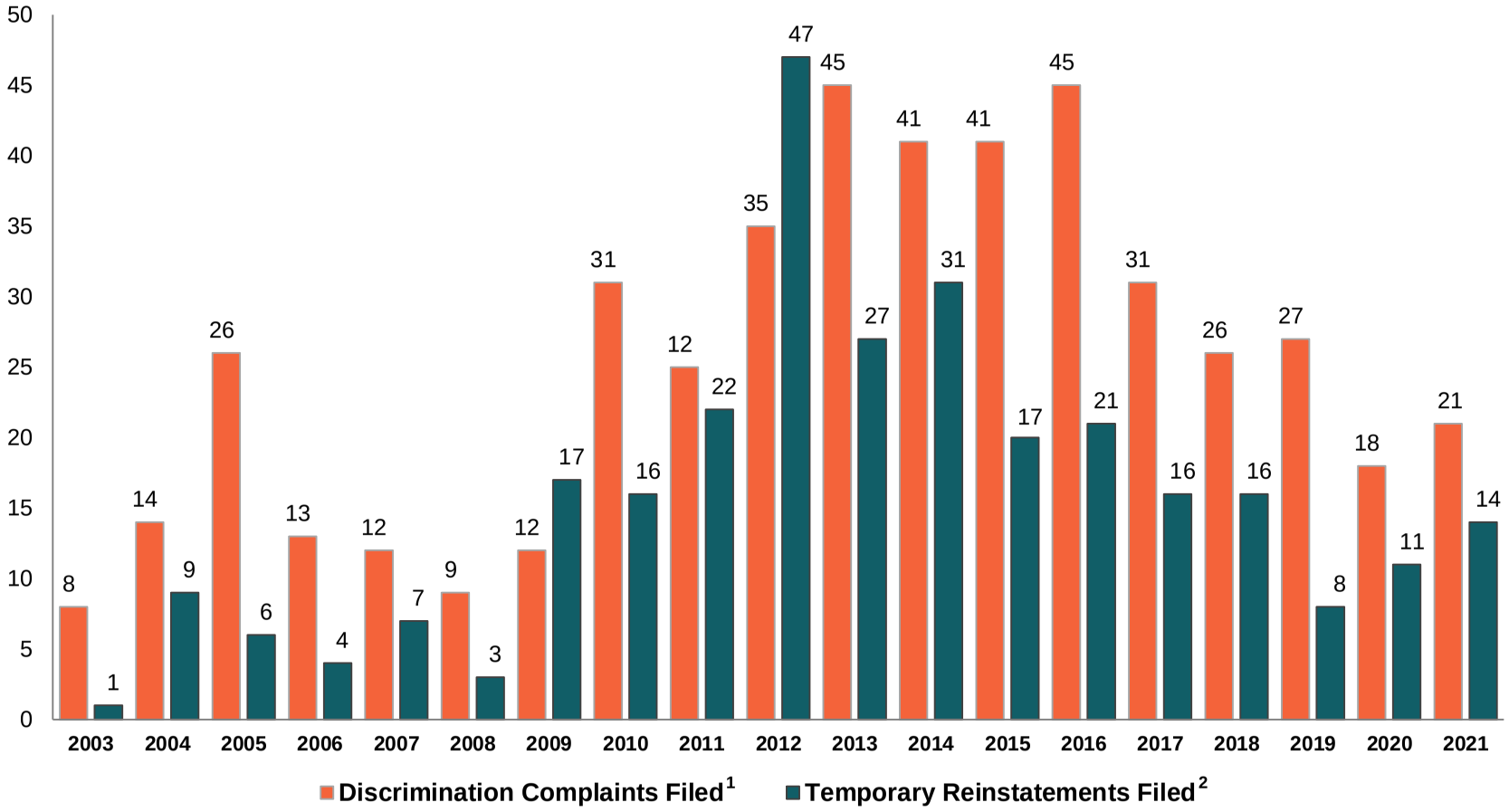
Metal and Nonmetal Mining Fatalities by State, 2003–2021

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Virginia			1	1	1							2	1	1		1			
Washington	1		1	1	1			1	1					1				1	
West Virginia					1														
Wisconsin			1			1													1
Wyoming		1	1		1												1		
Total	26	27	35	26	33	23	17	23	16	16	22	30	17	17	13	15	15	24	27[1]

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

[1]One fatality has not been classified to a state.

MSHA Discrimination Complaints and Temporary Reinstatements Filed by the Department of Labor on Behalf of Miners, 2003–2021



Source: U.S. Department of Labor, 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 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

Profile of Workplace Safety and Health in the United States

State	Fatalities 2020[1]			Injuries/Illnesses 2020[2]		Penalties FY 2021[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	85	4.2	31	33,800	2.6	4,614	13	23	0	164	Federal
Alaska	31	10.7	49	6,700	3.5	3,501	32	2	7	58	State
Arizona	97	3.1	20	59,800	3.0	1,029	48	2	12	287	State
Arkansas	64	5.4	41	25,100	2.8	6,568	2	7	0	438	Federal
California	463	2.9	14	355,200	3.2	9,569	1	6	180	289	State
Colorado	78	2.9	14	N/A	N/A	4,057	23	25	0	269	Federal
Connecticut	29	1.8	3	33,300	3.0	3,678	27	15	4	173	Federal[5]
Delaware	7	1.7	2	6,700	2.2	5,254	4	4	0	200	Federal
Florida	275	3.2	23	N/A	N/A	4,728	11	53	0	505	Federal
Georgia	193	4.3	34	N/A	N/A	5,070	8	43	0	293	Federal
Hawaii	16	2.9	14	10,900	3.0	2,974	37	5	12	82	State
Idaho	32	4.1	29	N/A	N/A	3,467	33	7	0	280	Federal
Illinois	135	2.6	11	106,900	2.7	3,897	24	56	11	168	Federal[5]
Indiana	158	5.4	41	64,300	3.1	1,282	46	1	39	206	State
Iowa	58	4.0	27	34,000	3.3	4,237	21	0	25	172	State
Kansas	55	4.2	31	26,800	2.9	3,442	34	12	0	169	Federal

Profile of Workplace Safety and Health in the United States

State	Fatalities 2020[1]			Injuries/Illnesses 2020[2]		Penalties FY 2021[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	92	5.4	41	40,000	3.2	3,888	25	0	30	136	State
Louisiana	103	5.9	44	22,900	1.8	3,854	26	11	0	257	Federal
Maine	20	3.1	20	16,700	4.3	5,243	5	5	3	325	Federal[5]
Maryland	59	2.2	4	42,400	2.5	862	49	5	44	138	State
Massachusetts	69	2.3	7	58,800	2.4	4,226	22	34	0	256	Federal
Michigan	131	3.1	20	88,800	3.1	1,217	47	2	59	79	State
Minnesota	67	2.4	8	66,900	3.4	1,330	45	0	31	149	State
Mississippi	44	4.2	31	N/A	N/A	4,594	14	8	0	262	Federal
Missouri	105	4.0	27	53,600	2.8	4,501	17	22	0	333	Federal
Montana	29	6.0	45	10,200	3.4	2,729	39	7	0	202	Federal
Nebraska	48	5.2	40	19,300	2.9	3,663	28	10	0	287	Federal
Nevada	37	3.0	18	29,800	3.2	4,670	12	2	25	95	State
New Hampshire	14	2.2	4	N/A	N/A	3,527	31	8	0	173	Federal
New Jersey	82	2.2	4	75,800	2.9	4,776	10	38	12	177	Federal[5]
New Mexico	37	4.6	36	13,200	2.6	5,180	6	0	7	402	State
New York	223	2.9	14	129,000	2.2	4,569	16	59	26	311	Federal[5]

Profile of Workplace Safety and Health in the United States

State	Fatalities 2020[1]			Injuries/Illnesses 2020[2]		Penalties FY 2021[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	189	4.4	35	64,900	2.1	1,892	41	2	84	129	State
North Dakota	26	7.4	47	N/A	N/A	6,089	3	6	0	223	Federal
Ohio	117	2.4	8	85,300	2.4	4,574	15	50	0	159	Federal
Oklahoma	75	4.6	36	29,100	2.7	4,836	9	12	0	216	Federal
Oregon	60	3.4	24	43,400	3.4	615	50	2	72	112	State
Pennsylvania	148	2.7	12	122,700	3.0	4,387	18	50	0	226	Federal
Rhode Island	5	1.1	1	N/A	N/A	4,246	20	7	0	237	Federal
South Carolina	102	4.8	38	29,100	2.1	1,586	43	1	20	336	State
South Dakota	32	7.8	48	N/A	N/A	2,908	38	5	0	213	Federal
Tennessee	142	5.1	39	57,500	2.7	2,083	40	4	35	122	State
Texas	469	3.9	26	178,600	2.0	3,387	35	95	0	201	Federal
Utah	48	3.4	24	26,300	2.6	1,496	44	0	17	122	State
Vermont	8	2.8	13	6,900	3.6	3,553	30	0	6	183	State
Virginia	118	3.0	18	52,600	2.1	3,258	36	3	42	154	State
Washington	83	2.5	10	78,200	3.5	1,723	42	3	120	59	State
West Virginia	47	6.6	46	12,900	2.9	5,109	7	7	0	199	Federal

Profile of Workplace Safety and Health in the United States

State	Fatalities 2020[1]			Injuries/Illnesses 2020[2]		Penalties FY 2021[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	108	4.1	29	59,900	3.1	4,358	19	32	0	155	Federal
Wyoming	35	13.0	50	5,000	3.0	3,562	29	0	7	184	State
Total or National Average:	**4,764**	**3.4**		**2.7 Million**	**2.7**	**3,315[9]**		**1,719[10]**		**188[11]**	

[1]The state fatality rates are calculated by BLS as deaths 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 include Guam, Puerto Rico and the Virgin Islands.

[3]U.S. Department of Labor, OSHA, OIS Inspection Reports, FY 2021. 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 December 2021. State plan CSHOs provided by OSHA's Directorate of Cooperative and State Programs and includes "on board" safety and health CSHOs from the FY 2022 State Plan Grant Applications as of July 1, 2021. 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 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.

[6]Years to inspect is based on the number of establishments in 2020 and the number of OSHA inspections in FY 2021. 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. During the COVID-19 pandemic, OSHA has conducted fewer field operations and less enforcement.

[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 the per citation average for federal OSHA serious penalties and state OSHA plan states' serious penalties combined. Federal serious penalties average $4,460 per citation; state plan OSHA states average $2,421 per citation.

[10]Total number of inspectors includes 755 federal OSHA inspectors and 964 state OSHA inspectors, including one inspector in the Virgin Islands and 37 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 236 years; inspection frequency of covered establishments for state OSHA plan states is once every 149 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. Federal, state and national average includes the District of Columbia, Puerto Rico and the Virgin Islands. Note: Due to the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.

Workplace Safety and Health Statistics by State, 2016–2020

	Fatality Rates[1]					Injury/Illness Rates[2]					Average Penalties($)[3]				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	FY17	FY18	FY19	FY20	FY21
Alabama	5.2	4.3	4.5	4.2	4.2	2.7	2.5	2.7	2.5	2.6	3,583	3,598	3,577	4,117	4,614
Alaska	10.6	10.2	9.9	14.1	10.7	3.6	3.8	3.6	3.5	3.5	1,288	1,676	3,591	5,113	3,501
Arizona	2.6	3.0	2.5	2.7	3.1	2.9	2.9	3.0	3.0	3.0	1,083	1,140	916	1,379	1,029
Arkansas	5.3	6.1	6.3	5.0	5.4	2.4	2.5	2.2	2.1	2.8	3,254	3,872	4,120	5,409	6,568
California	2.2	2.2	2.3	2.5	2.9	3.3	3.2	3.3	3.2	3.2	7,326	7,699	7,785	7,372	9,569
Colorado	3.0	2.8	2.6	2.9	2.9	N/A	N/A	N/A	N/A	N/A	2,725	2,775	2,882	3,422	4,057
Connecticut	1.6	1.9	2.8	1.4	1.8	3.3	3.2	3.2	3.1	3.0	2,824	3,108	3,211	3,107	3,678
Delaware	2.6	2.4	1.6	4.1	1.7	2.6	2.3	2.4	2.3	2.2	4,701	3,996	6,541	5,910	5,254
Florida	3.6	3.3	3.5	3.2	3.2	N/A	N/A	N/A	N/A	N/A	3,681	3,653	4,032	4,198	4,728
Georgia	3.9	4.1	3.8	4.3	4.3	2.7	2.6	2.5	2.5	N/A	3,805	3,571	3,862	4,094	5,070
Hawaii	2.4	2.2	3.4	4.1	2.9	3.5	3.8	3.3	3.2	3.0	2,129	3,069	3,964	3,498	2,974
Idaho	4.1	4.8	5.8	4.1	4.1	N/A	N/A	N/A	N/A	N/A	3,202	3,423	3,624	4,521	3,467
Illinois	2.9	2.8	3.1	2.7	2.6	2.7	2.6	2.7	2.5	2.7	3,571	3,615	3,554	3,910	3,897
Indiana	4.5	4.5	5.6	4.7	5.4	3.4	3.3	3.2	3.2	3.1	1,235	1,278	1,170	1,519	1,282
Iowa	4.8	4.7	4.9	4.7	4.0	3.7	3.5	3.3	3.2	3.3	1,362	2,646	3,785	3,892	4,237
Kansas	5.2	5.2	4.5	6.0	4.2	3.3	3.0	3.1	3.0	2.9	3,016	3,600	3,976	3,371	3,442
Kentucky	5.0	3.8	4.2	4.2	5.4	3.2	3.1	3.2	3.0	3.2	3,333	3,542	3,922	3,790	3,888
Louisiana	5.0	6.3	5.1	6.2	5.9	1.9	1.9	1.8	1.7	1.8	3,811	3,811	3,355	4,049	3,854
Maine	2.4	2.7	2.5	3.0	3.1	4.7	4.8	4.7	4.8	4.3	4,303	3,440	3,786	4,041	5,243
Maryland	3.2	3.0	3.4	2.6	2.2	2.8	2.6	2.8	2.6	2.5	640	681	692	754	862
Massachusetts	3.3	3.2	2.7	2.4	2.3	2.6	2.7	2.6	2.6	2.4	3,752	3,597	3,792	3,724	4,226
Michigan	3.5	3.4	3.4	3.6	3.1	3.3	3.1	3.0	2.8	3.1	1,131	1,179	1,336	1,292	1,217

Workplace Safety and Health Statistics by State, 2016–2020

Minnesota	3.4	3.5	2.7	2.6	2.4	3.3	3.2	3.2	3.1	3.4	993	987	950	1,114	1,330
Mississippi	6.3	6.2	6.7	5.2	4.2	N/A	N/A	N/A	N/A	N/A	3,306	3,246	4,624	4,206	4,594
Missouri	4.3	4.4	5.1	3.7	4.0	2.8	2.6	2.8	2.7	2.8	3,645	3,630	3,883	4,040	4,501
Montana	7.9	6.9	5.5	7.8	6.0	4.2	4.3	3.9	3.8	3.4	2,149	2,082	3,363	1,733	2,729
Nebraska	6.3	3.6	4.7	5.4	5.2	3.4	3.0	3.2	3.0	2.9	3,903	3,650	3,982	3,787	3,663
Nevada	4.2	2.4	2.8	2.8	3.0	3.7	3.7	3.5	3.5	3.2	1,133	1,980	2,115	3,696	4,670
New Hampshire	3.2	1.6	2.9	1.5	2.2	N/A	N/A	N/A	N/A	N/A	3,370	3,849	3,804	3,877	3,527
New Jersey	2.4	1.6	2.0	1.8	2.2	2.6	2.6	2.6	2.5	2.9	4,205	3,818	4,002	4,491	4,776
New Mexico	4.9	4.7	4.7	6.2	4.6	3.2	2.7	2.8	2.5	2.6	1,025	1,924	1,886	2,417	5,180
New York	3.1	3.5	3.1	3.1	2.9	2.3	2.2	2.2	2.2	2.2	3,707	3,723	3,557	4,231	4,569
North Carolina	3.7	3.9	3.8	4.0	4.4	2.5	2.3	2.4	2.3	2.1	1,594	1,772	1,703	1,854	1,892
North Dakota	7.0	10.1	9.6	9.7	7.4	N/A	N/A	N/A	N/A	N/A	3,582	3,683	4,258	4,971	6,089
Ohio	3.1	3.3	3.0	3.1	2.4	2.7	2.6	2.4	2.4	2.4	3,907	4,129	4,354	4,193	4,574
Oklahoma	5.6	5.5	5.2	4.2	4.6	N/A	N/A	N/A	N/A	2.7	3,299	3,070	3,905	3,537	4,836
Oregon	3.9	3.2	3.1	3.5	3.4	4.0	3.8	3.6	3.9	3.4	547	587	579	599	615
Pennsylvania	2.8	3.0	3.0	2.6	2.7	3.3	3.1	3.2	3.2	3.0	3,454	3,634	3,969	3,977	4,387
Rhode Island	1.8	1.6	1.8	1.8	1.1	N/A	N/A	N/A	N/A	N/A	3,215	3,008	3,494	3,236	4,246
South Carolina	4.4	4.2	4.6	4.8	4.8	2.5	2.5	2.4	2.4	2.1	1,042	1,217	1,131	1,510	1,586
South Dakota	7.5	7.3	6.9	4.7	7.8	N/A	N/A	N/A	N/A	N/A	4,176	2,958	2,586	3,524	2,908
Tennessee	4.3	4.4	4.1	4.0	5.1	2.9	2.9	2.8	2.7	2.7	1,510	1,472	1,628	1,672	2,083
Texas	4.4	4.3	3.8	4.7	3.9	2.2	2.2	2.0	2.1	2.0	3,481	3,423	3,600	3,724	3,387
Utah	3.2	2.9	3.4	3.5	3.4	2.9	3.0	2.8	2.9	2.6	1,315	1,315	1,250	1,337	1,496
Vermont	3.2	7.0	3.5	3.2	2.8	4.6	4.6	4.7	4.6	3.6	1,698	2,627	2,737	3,192	3,553
Virginia	4.0	2.9	3.5	4.3	3.0	2.5	2.4	2.5	2.3	2.1	1,871	2,357	2,395	2,573	3,258

Workplace Safety and Health Statistics by State, 2016–2020

Washington	2.4	2.5	2.4	2.3	2.5	4.3	4.0	4.0	3.8	3.5	1,866	1,940	1,725	1,592	1,723
West Virginia	6.6	7.4	7.9	6.4	6.6	3.2	2.9	3.0	2.8	2.9	3,102	3,640	4,004	4,257	5,109
Wisconsin	3.6	3.5	3.8	3.8	4.1	3.7	3.6	3.6	3.3	3.1	4,068	3,910	3,758	3,805	4,358
Wyoming	12.3	7.7	11.5	12.0	13.0	3.4	3.5	3.2	3.1	3.0	2,188	3,340	3,429	3,987	3,562
National Average[4]	3.6	3.5	3.5	3.5	3.4	2.9	2.8	2.8	2.8	2.7	$2,633	$2,729	$2,819	$2,973	$3,315

[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 OIS inspection reports for FY 2017 through FY 2021. Penalties shown are average 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—states that operate their own state plan for public employees only—averages are based only on federal data.

[4]National average is the per citation average for federal OSHA serious penalties and state OSHA plan states' serious penalties combined. Federal serious penalties average $4,460 per citation; state plan OSHA states average $2,421 per citation.

Comparison of Workplace Fatality and Injury Rates by State, 2020

State	Fatality Rate[1]	Injury and Illness Rates[2,3]	State	Fatality Rate[1]	Injury and Illness Rates[2,3]	State	Fatality Rate[1]	Injury and Illness Rates[2,3]	State	Fatality Rate[1]	Injury and Illness Rates[2,3]
Alabama	4.2	2.6	Indiana	5.4	3.1	Nebraska	5.2	2.9	South Carolina	4.8	2.1
Alaska	10.7	3.5	Iowa	4.0	3.3	Nevada	3.0	3.2	South Dakota[4]	7.8	N/A
Arizona	3.1	3.0	Kansas	4.2	2.9	New Hampshire[4]	2.2	N/A	Tennessee	5.1	2.7
Arkansas	5.4	2.8	Kentucky	5.4	3.2	New Jersey	2.2	2.9	Texas	3.9	2.0
California	2.9	3.2	Louisiana	5.9	1.8	New Mexico	4.6	2.6	Utah	3.4	2.6
Colorado[4]	2.9	N/A	Maine	3.1	4.3	New York	2.9	2.2	Vermont	2.8	3.6
Connecticut	1.8	3.0	Maryland	2.2	2.5	North Carolina	4.4	2.1	Virginia	3.0	2.1
Delaware	1.7	2.2	Massachusetts	2.3	2.4	North Dakota[4]	7.4	N/A	Washington	2.5	3.5
Florida[4]	3.2	N/A	Michigan	3.1	3.1	Ohio	2.4	2.4	West Virginia	6.6	2.9
Georgia[4]	4.3	N/A	Minnesota	2.4	3.4	Oklahoma	4.6	2.7	Wisconsin	4.1	3.1
Hawaii	2.9	3.0	Mississippi[4]	4.2	N/A	Oregon	3.4	3.4	Wyoming	13.0	3.0
Idaho[4]	4.1	N/A	Missouri	4.0	2.8	Pennsylvania	2.7	3	National Average	**3.4**	**2.7**
Illinois	2.6	2.7	Montana	6.0	3.4	Rhode Island[4]	1.1	N/A			

Orange: States with a fatality rate above the national average and reported injury and illness rate below or equal to the national average.

[1]The state fatality rates are calculated by the Bureau of Labor Statistics deaths 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 the total includes Guam, Puerto Rico and the Virgin Islands.

[3] A detailed comparison of the 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 underreporting 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.

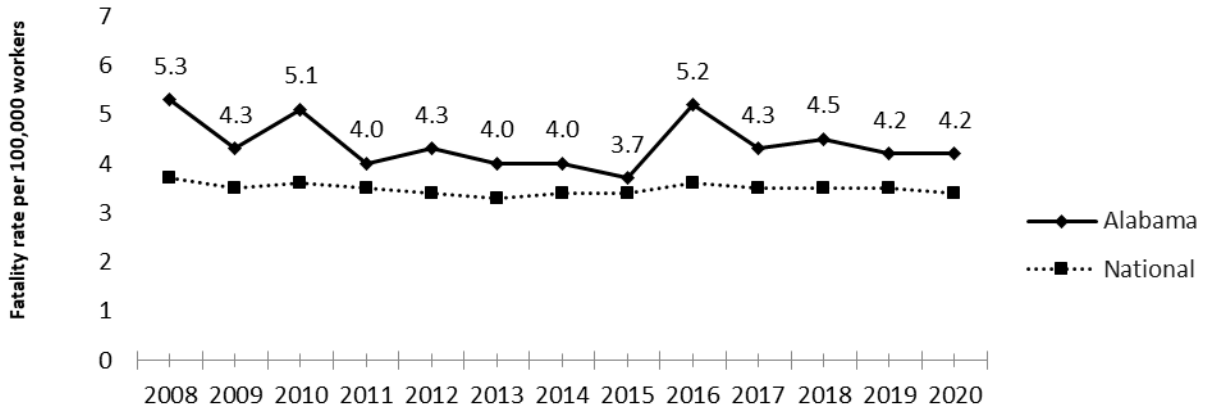
[4] Not all states participate in the Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses. Participation is voluntary, even in states where the fatality rate may be high.

STATE PROFILES

ALABAMA

Worker Safety and Health

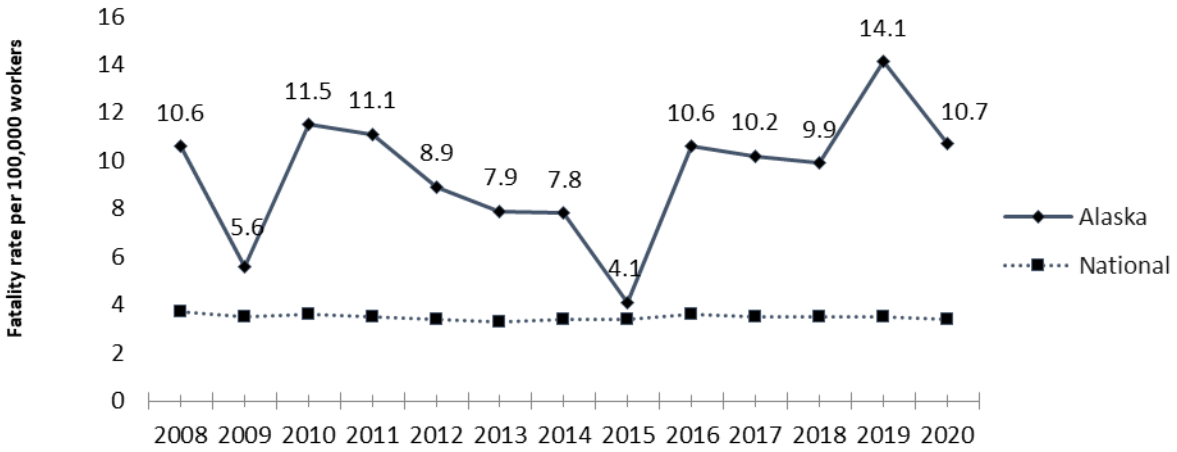
Number of employees:[1]	1,909,145
Number of establishments:[1]	132,126
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	306,133
Number of workplace fatalities, 2020:[3]	85
Rate per 100,000 workers:[4]	4.2
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	31
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	33,800
Rate per 100 workers:	2.6
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	21,300
Rate per 100 workers:	1.6
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	23
Years it would take for OSHA to inspect each workplace once: [9]	164
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	774
Construction:	293
Nonconstruction:	481
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,614
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$15,988
National average:	$11,626



ALASKA

Worker Safety and Health

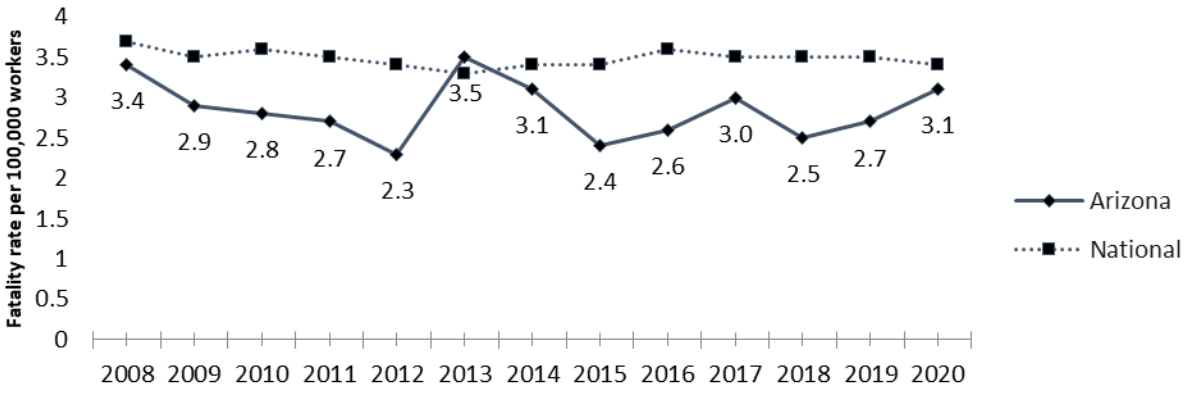
Number of employees:[1]	297,429
Number of establishments:[1]	22,594
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	31
Rate per 100,000 workers:[4]	10.7
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	49
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	6,700
Rate per 100 workers:	3.5
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	4,000
Rate per 100 workers:	2.1
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	9
Years it would take for OSHA to inspect each workplace once:[9]	58
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	390
Construction:	124
Nonconstruction:	266
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,501
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$6,531
National average:	$11,626



ARIZONA

Worker Safety and Health

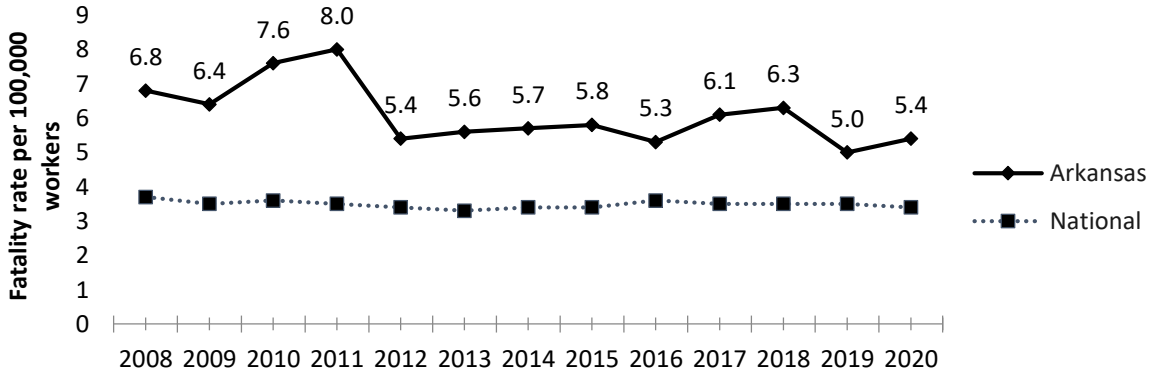
Number of employees:[1]	2,823,760
Number of establishments:[1]	169,862
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	97
Rate per 100,000 workers:[4]	3.1
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	20
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	59,800
Rate per 100 workers:	3.0
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	36,600
Rate per 100 workers:	1.9
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	14
Years it would take for OSHA to inspect each workplace once:[9]	287
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	592
Construction:	329
Nonconstruction:	263
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$1,029
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$716
National average:	$11,626



ARKANSAS

Worker Safety and Health

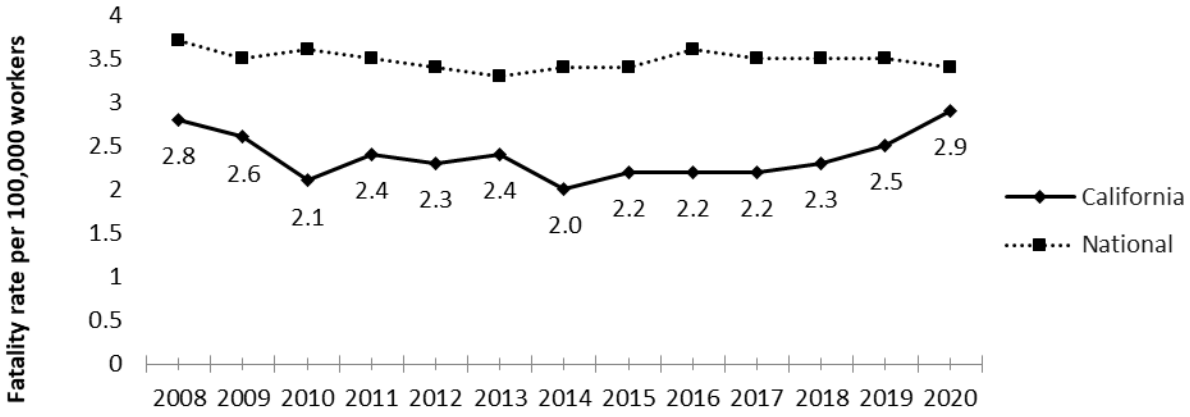
Number of employees:[1]	1,174,632
Number of establishments:[1]	93,392
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	171,359
Number of workplace fatalities, 2020:[3]	64
Rate per 100,000 workers:[4]	5.4
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	41
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	25,100
Rate per 100 workers:	2.8
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	16,700
Rate per 100 workers:	1.9
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	7
Years it would take for OSHA to inspect each workplace once:[9]	438
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	206
Construction:	81
Nonconstruction:	125
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$6,568
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$6,165
National average:	$11,626



CALIFORNIA

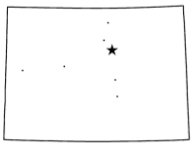
Worker Safety and Health

Number of employees:[1]	16,378,059
Number of establishments:[1]	1,621,590
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	463
Rate per 100,000 workers:[4]	2.9
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	14
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	355,200
Rate per 100 workers:	3.2
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	245,500
Rate per 100 workers:	2.2
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	186
Years it would take for OSHA to inspect each workplace once:[9]	289
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	5,605
Construction:	1,526
Nonconstruction:	4,079
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$9,569
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$9,930
National average:	$11,626

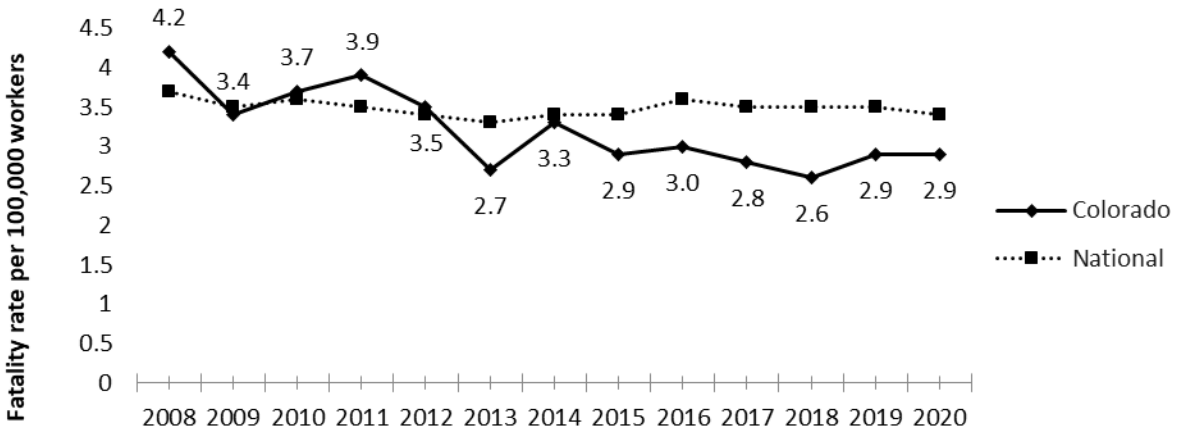


COLORADO

Worker Safety and Health



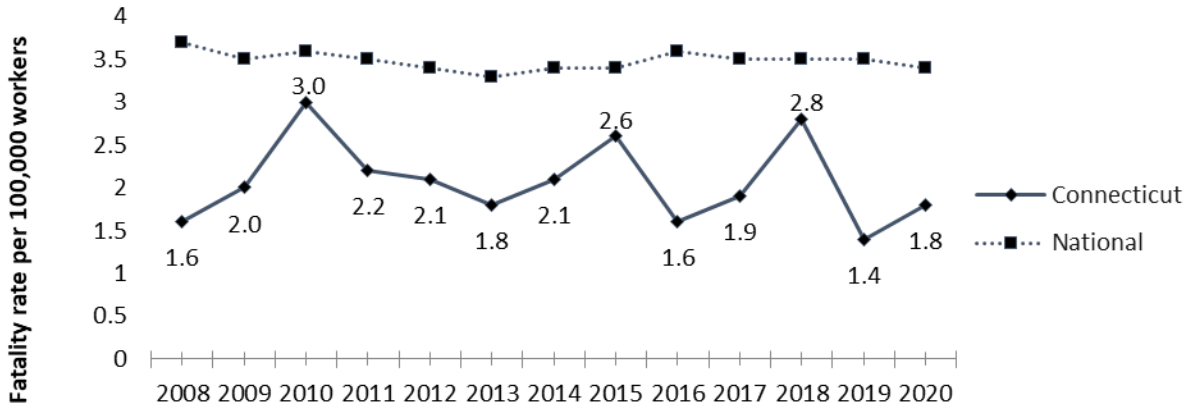
Number of employees:[1]	2,602,371
Number of establishments:[1]	218,502
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	365,703
Number of workplace fatalities, 2020:[3]	78
Rate per 100,000 workers:[4]	2.9
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	14
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	N/A
Rate per 100 workers:	N/A
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	25
Years it would take for OSHA to inspect each workplace once:[9]	269
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	804
Construction:	460
Nonconstruction:	344
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,057
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$10,741
National average:	$11,626



CONNECTICUT

Worker Safety and Health

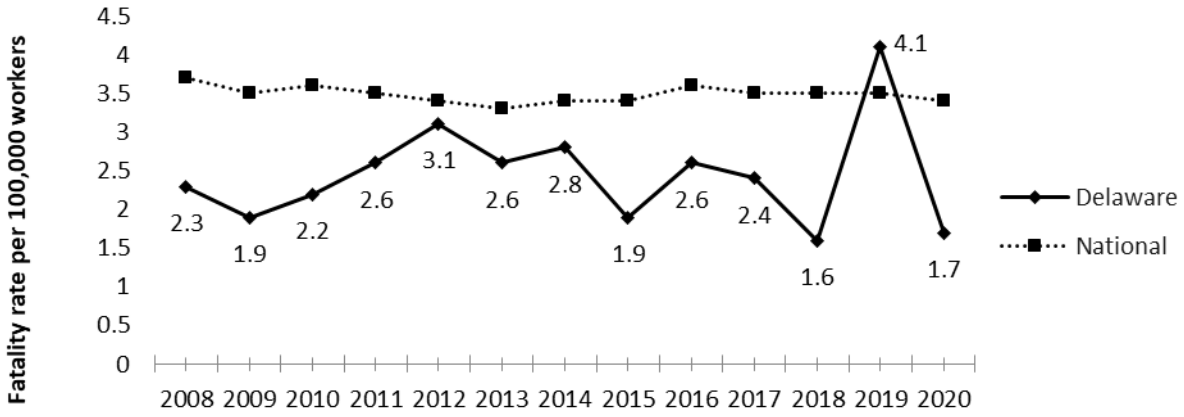
Number of employees:[1]	1,545,338
Number of establishments:[1]	124,952
State or federal OSHA program:[2]	Federal
Number of workplace fatalities, 2020:[3]	29
Rate per 100,000 workers:[4]	1.8
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	3
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	33,300
Rate per 100 workers:	3.0
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	22,800
Rate per 100 workers:	2.1
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	19
Years it would take for OSHA to inspect each workplace once:[9]	173
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	723
Construction:	273
Nonconstruction:	450
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,678
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$12,263
National average:	$11,626



DELAWARE

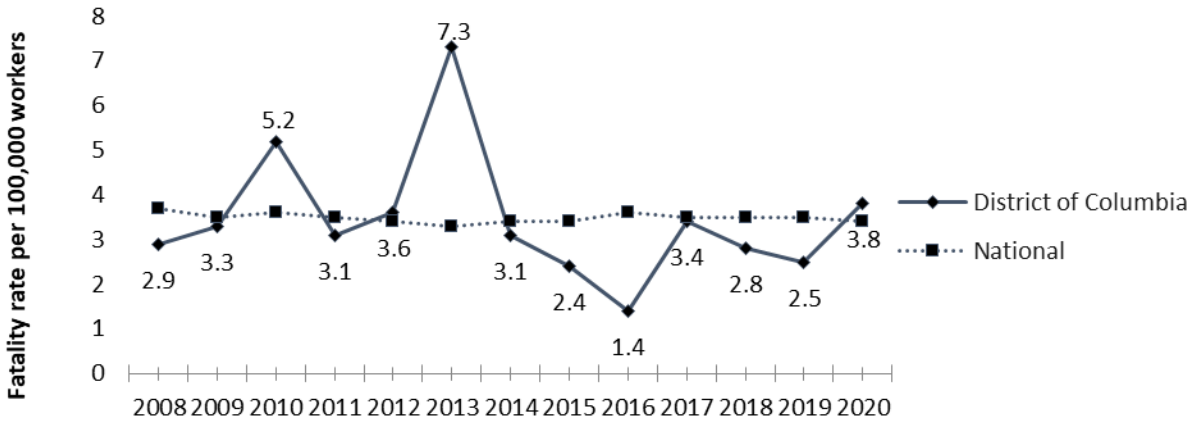
Worker Safety and Health

Number of employees:[1]	426,661
Number of establishments:[1]	35,242
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	56,461
Number of workplace fatalities, 2020:[3]	7
Rate per 100,000 workers:[4]	1.7
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	2
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	6,700
Rate per 100 workers:	2.2
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	4,500
Rate per 100 workers:	1.4
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	4
Years it would take for OSHA to inspect each workplace once:[9]	200
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	174
Construction:	131
Nonconstruction:	43
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$5,254
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$5,803
National average:	$11,626



DISTRICT OF COLUMBIA
Worker Safety and Health

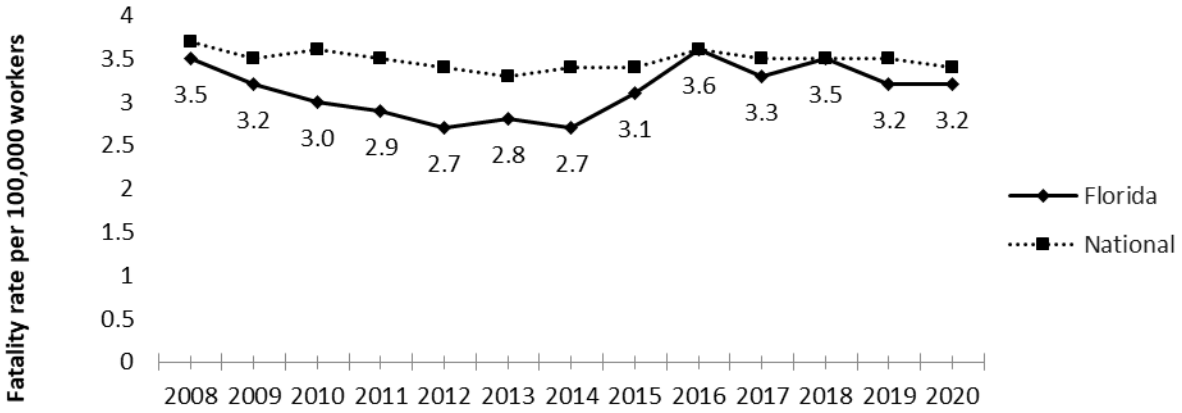
Number of employees:[1]	726,083
Number of establishments:[1]	42,535
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	37,023
Number of workplace fatalities, 2020:[3]	13
Rate per 100,000 workers:[4]	3.8
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	N/A
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	4,800
Rate per 100 workers:	1.1
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	3,200
Rate per 100 workers:	0.8
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	N/A
Years it would take for OSHA to inspect each workplace once:[9]	447
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	95
Construction:	71
Nonconstruction:	24
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$7,218
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$8,587
National average:	$11,626



FLORIDA

Worker Safety and Health

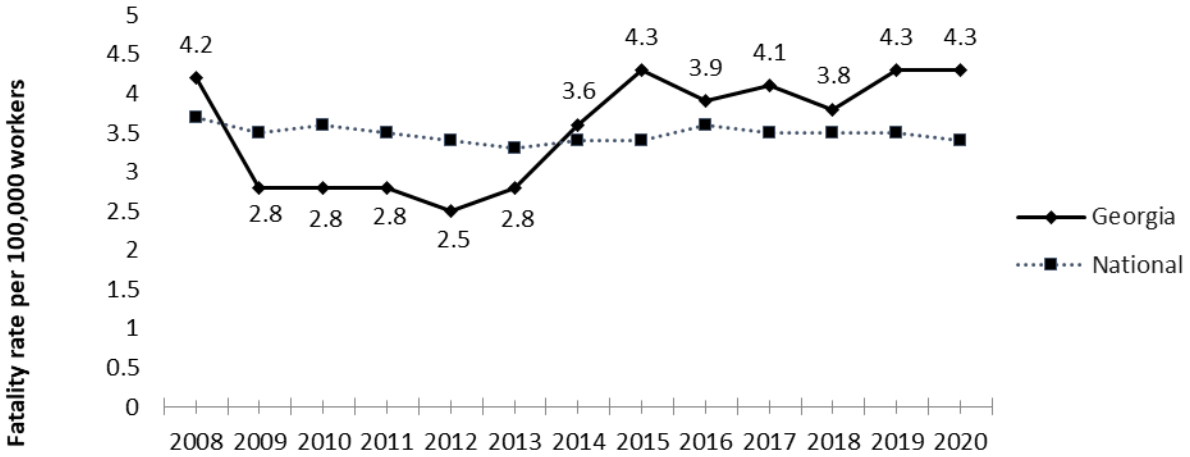
Number of employees:[1]	8,447,957
Number of establishments:[1]	746,409
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	908,293
Number of workplace fatalities, 2020:[3]	275
Rate per 100,000 workers:[4]	3.2
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	23
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	N/A
Rate per 100 workers:	N/A
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	53
Years it would take for OSHA to inspect each workplace once:[9]	505
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,469
Construction:	701
Nonconstruction:	768
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,728
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$13,560
National average:	$11,626



GEORGIA

Worker Safety and Health

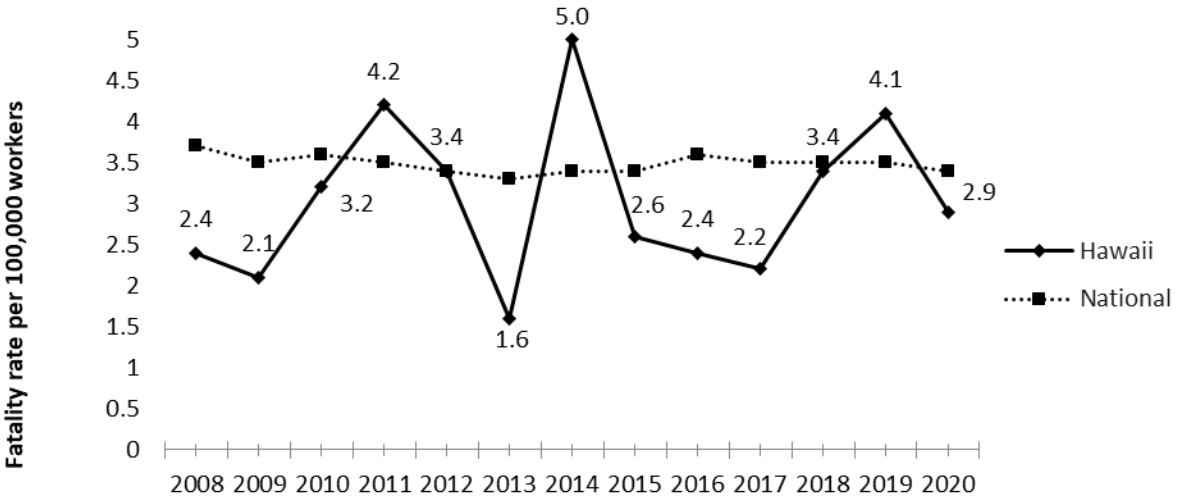
Number of employees:[1]	4,307,139
Number of establishments:[1]	309,584
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	536,031
Number of workplace fatalities, 2020:[3]	193
Rate per 100,000 workers:[4]	4.3
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	34
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	N/A
Rate per 100 workers:	N/A
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	43
Years it would take for OSHA to inspect each workplace once:[9]	293
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,033
Construction:	405
Nonconstruction:	628
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$5,070
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$25,736
National average:	$11,626



HAWAII

Worker Safety and Health

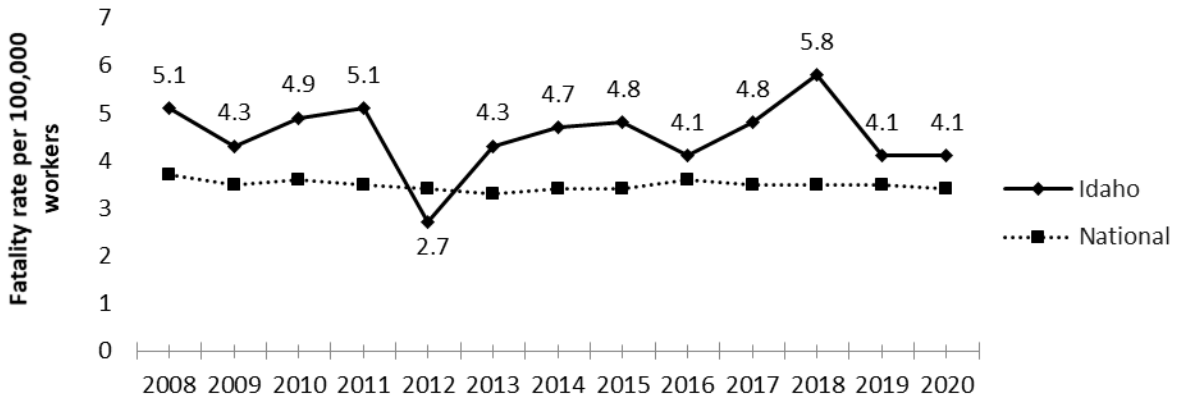
Number of employees:[1]	560,156
Number of establishments:[1]	45,799
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	16
Rate per 100,000 workers:[4]	2.9
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	14
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	10,900
Rate per 100 workers:	3.0
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	7,500
Rate per 100 workers:	2.1
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	17
Years it would take for OSHA to inspect each workplace once:[9]	82
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	559
Construction:	284
Nonconstruction:	275
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$2,974
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$14,000
National average:	$11,626



IDAHO

Worker Safety and Health

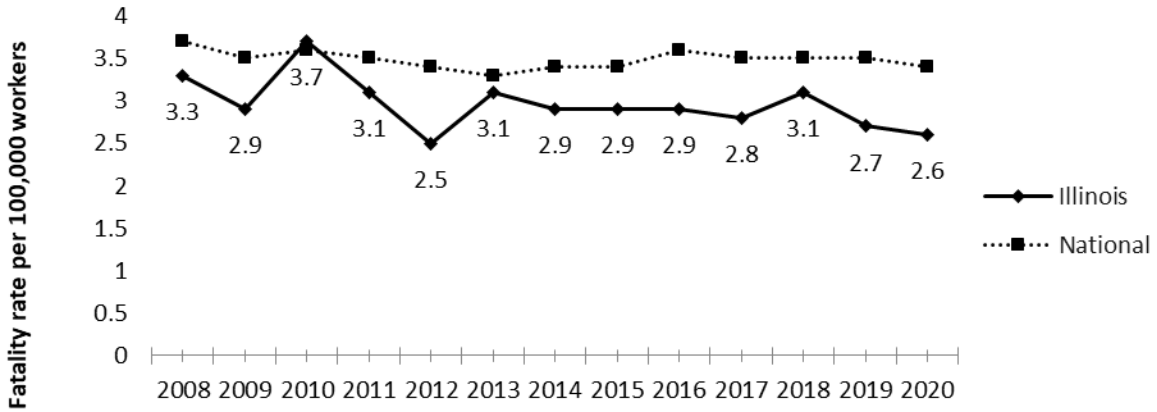
Number of employees:[1]	748,123
Number of establishments:[1]	69,408
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	104,810
Number of workplace fatalities, 2020:[3]	32
Rate per 100,000 workers:[4]	4.1
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	29
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	N/A
Rate per 100 workers:	N/A
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	7
Years it would take for OSHA to inspect each workplace once:[9]	280
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	240
Construction:	172
Nonconstruction:	68
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,467
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$6,332
National average:	$11,626



ILLINOIS

Worker Safety and Health

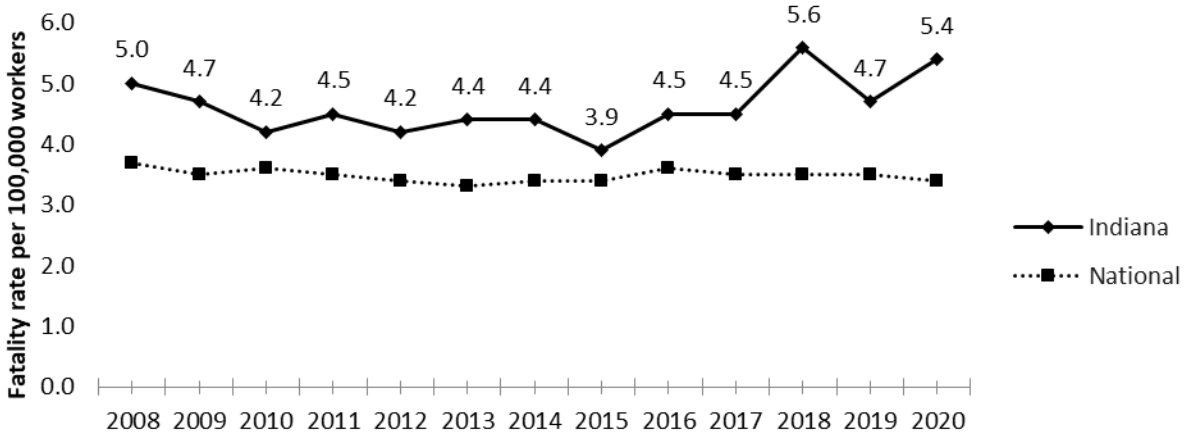
Number of employees:[1]	5,570,198
Number of establishments:[1]	376,773
State or federal OSHA program:[2]	Federal
Number of workplace fatalities, 2020:[3]	135
Rate per 100,000 workers:[4]	2.6
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	11
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	106,900
Rate per 100 workers:	2.7
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	74,100
Rate per 100 workers:	1.9
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	67
Years it would take for OSHA to inspect each workplace once:[9]	168
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	2,240
Construction:	974
Nonconstruction:	1,266
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,897
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$8,066
National average:	$11,626



INDIANA

Worker Safety and Health

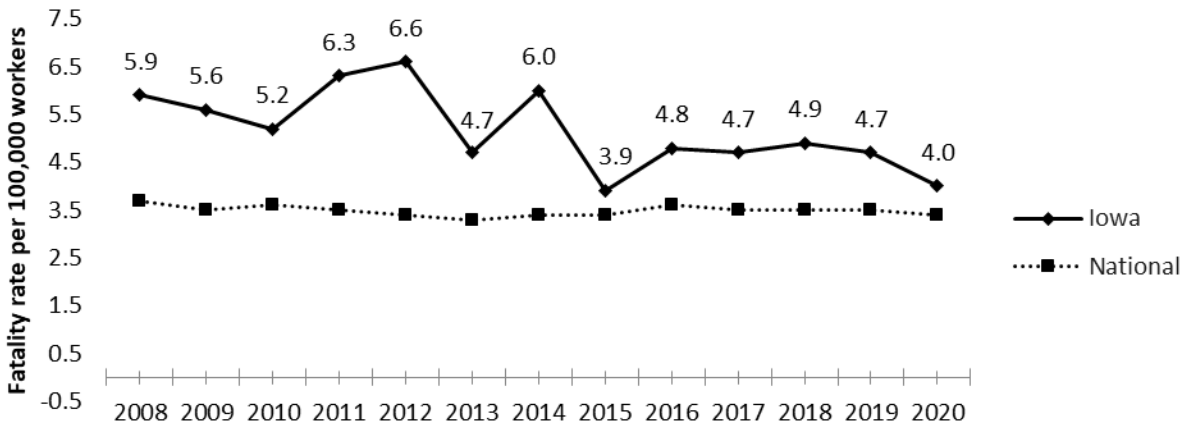
Number of employees:[1]	2,918,792
Number of establishments:[1]	172,647
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	158
Rate per 100,000 workers:[4]	5.4
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	41
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	64,300
Rate per 100 workers:	3.1
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	39,300
Rate per 100 workers:	1.9
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	40
Years it would take for OSHA to inspect each workplace once:[9]	206
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	838
Construction:	349
Nonconstruction:	489
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$1,282
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$6,773
National average:	$11,626



IOWA

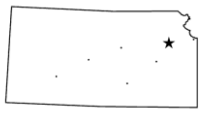
Worker Safety and Health

Number of employees:[1]	1,475,704
Number of establishments:[1]	105,097
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	58
Rate per 100,000 workers:[4]	4.0
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	27
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	34,000
Rate per 100 workers:	3.3
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	21,600
Rate per 100 workers:	2.1
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	25
Years it would take for OSHA to inspect each workplace once:[9]	172
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	611
Construction:	171
Nonconstruction:	440
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,237
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$8,010
National average:	$11,626

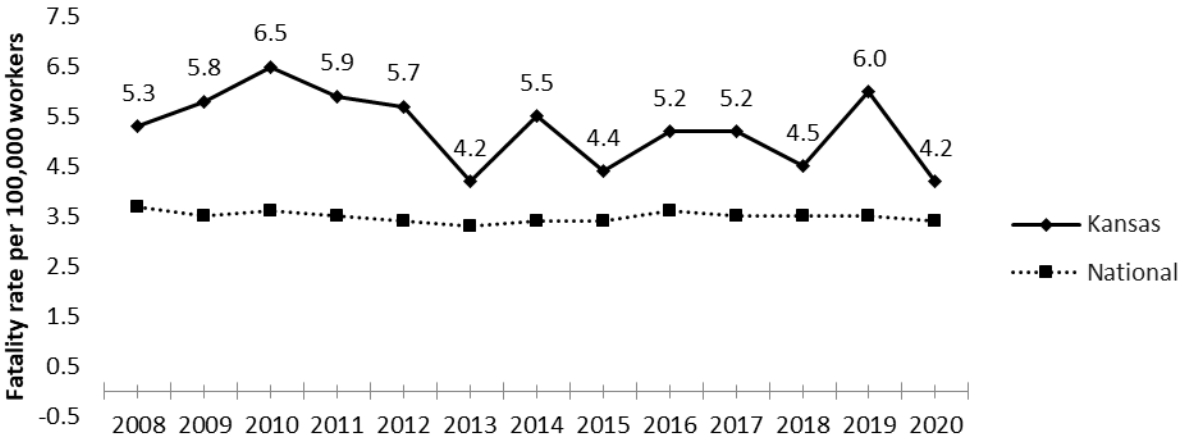


KANSAS

Worker Safety and Health



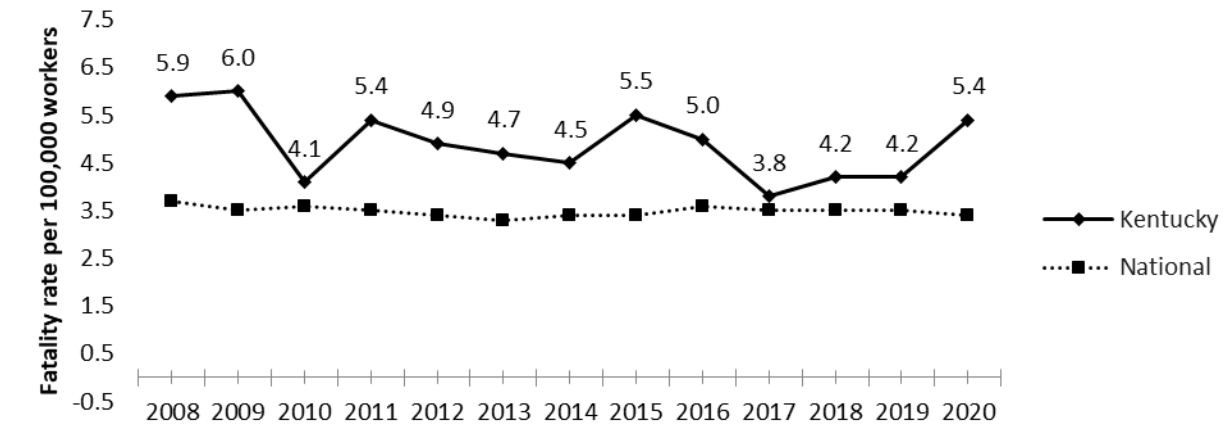
Number of employees:[1]	1,328,640
Number of establishments:[1]	87,594
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	211,267
Number of workplace fatalities, 2020:[3]	55
Rate per 100,000 workers:[4]	4.2
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	31
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	26,800
Rate per 100 workers:	2.9
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	16,500
Rate per 100 workers:	1.8
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	12
Years it would take for OSHA to inspect each workplace once:[9]	169
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	497
Construction:	234
Nonconstruction:	263
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,442
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$7,431
National average:	$11,626



KENTUCKY

Worker Safety and Health

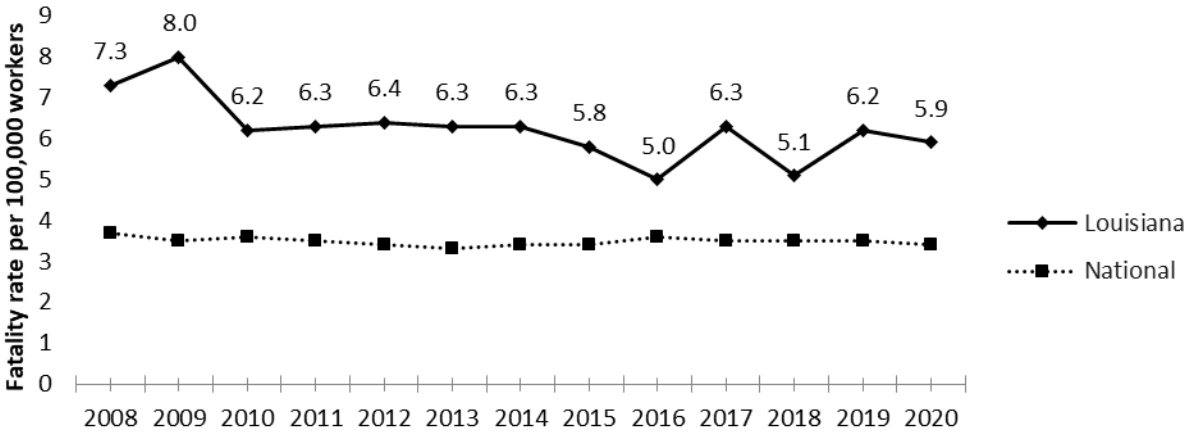
Number of employees:[1]	1,792,596
Number of establishments:[1]	127,482
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	92
Rate per 100,000 workers:[4]	5.4
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	41
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	40,000
Rate per 100 workers:	3.2
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	25,500
Rate per 100 workers:	2.0
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	30
Years it would take for OSHA to inspect each workplace once:[9]	136
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	933
Construction:	219
Nonconstruction:	714
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,888
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$6,743
National average:	$11,626



LOUISIANA

Worker Safety and Health

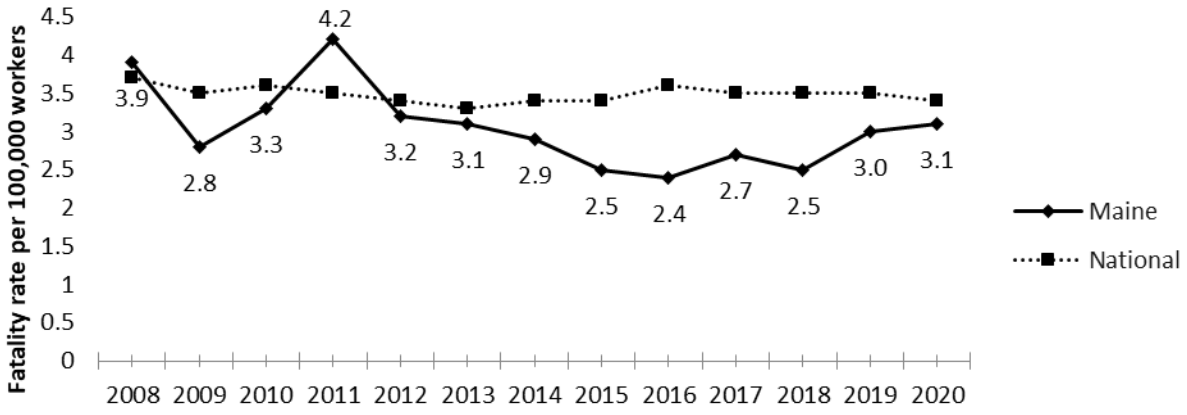
Number of employees:[1]	1,780,574
Number of establishments:[1]	138,317
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	268,032
Number of workplace fatalities, 2020:[3]	103
Rate per 100,000 workers:[4]	5.9
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	44
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	22,900
Rate per 100 workers:	1.8
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	13,400
Rate per 100 workers:	1.0
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	11
Years it would take for OSHA to inspect each workplace once:[9]	257
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	520
Construction:	292
Nonconstruction:	228
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,854
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$5,367
National average:	$11,626



MAINE

Worker Safety and Health

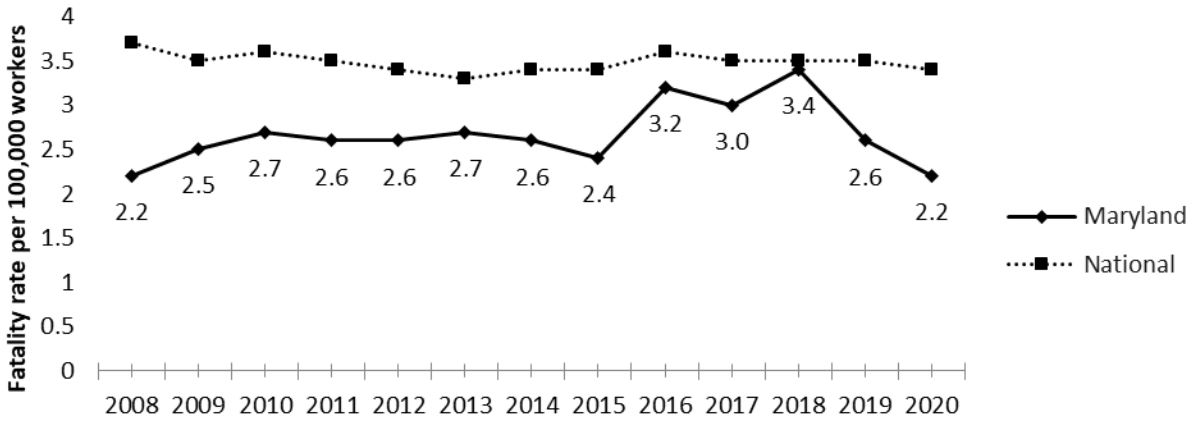
Number of employees:[1]	584,271
Number of establishments:[1]	54,303
State or federal OSHA program:[2]	Federal
Number of workplace fatalities, 2020:[3]	20
Rate per 100,000 workers:[4]	3.1
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	20
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	16,700
Rate per 100 workers:	4.3
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	10,100
Rate per 100 workers:	2.6
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	8
Years it would take for OSHA to inspect each workplace once:[9]	325
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	167
Construction:	59
Nonconstruction:	108
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$5,243
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$2,160
National average:	$11,626



MARYLAND

Worker Safety and Health

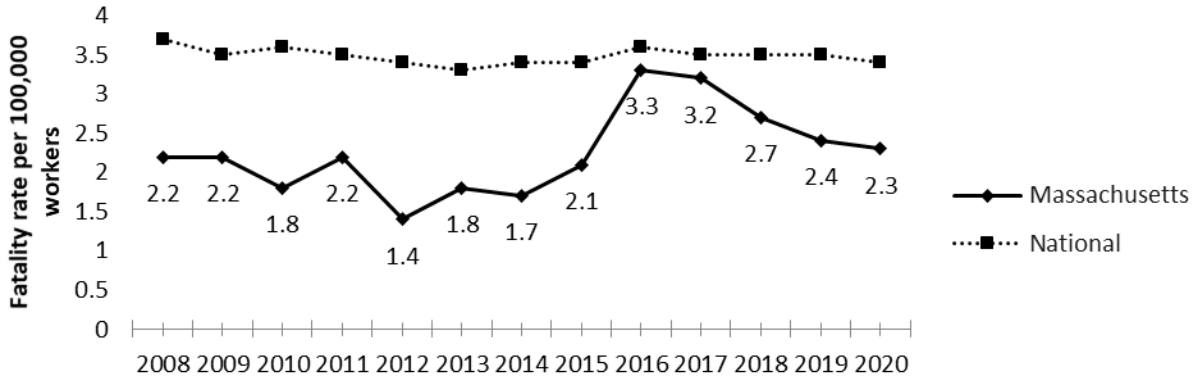
Number of employees:[1]	2,512,624
Number of establishments:[1]	174,807
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	59
Rate per 100,000 workers:[4]	2.2
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	4
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	42,400
Rate per 100 workers:	2.5
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	27,500
Rate per 100 workers:	1.6
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	49
Years it would take for OSHA to inspect each workplace once:[9]	138
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,267
Construction:	837
Nonconstruction:	430
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$862
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$2,051
National average:	$11,626



MASSACHUSETTS

Worker Safety and Health

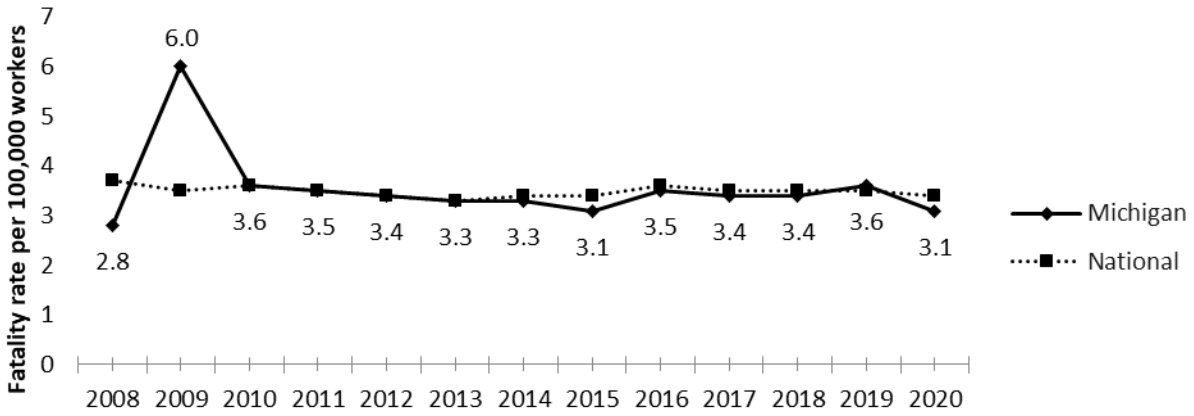
Number of employees:[1]	3,324,192
Number of establishments:[1]	262,946
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	369,122
Number of workplace fatalities, 2020:[3]	69
Rate per 100,000 workers:[4]	2.3
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	7
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	58,800
Rate per 100 workers:	2.4
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	40,200
Rate per 100 workers:	1.7
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	34
Years it would take for OSHA to inspect each workplace once:[9]	232
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,003
Construction:	604
Nonconstruction:	399
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,226
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$15,115
National average:	$11,626



MICHIGAN

Worker Safety and Health

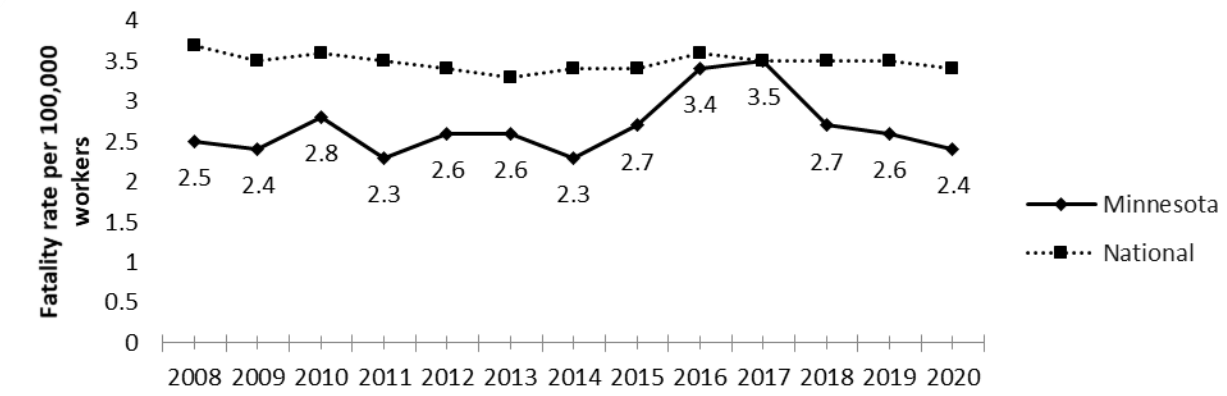
Number of employees:[1]	3,968,230
Number of establishments:[1]	267,166
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	131
Rate per 100,000 workers:[4]	3.1
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	20
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	88,800
Rate per 100 workers:	3.1
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	58,200
Rate per 100 workers:	2.0
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	61
Years it would take for OSHA to inspect each workplace once:[9]	79
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	3,394
Construction:	1,668
Nonconstruction:	1,726
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$1,217
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$4,853
National average:	$11,626



MINNESOTA

Worker Safety and Health

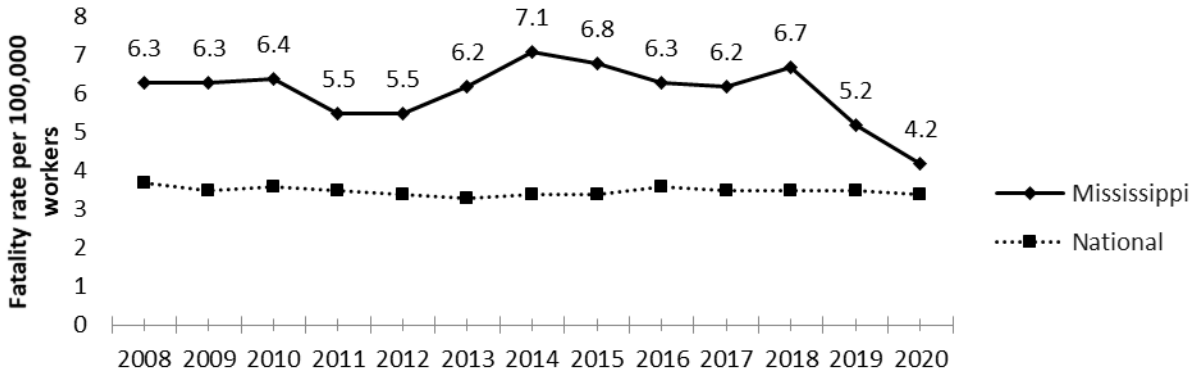
Number of employees:[1]	2,705,651
Number of establishments:[1]	181,960
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	67
Rate per 100,000 workers:[4]	2.4
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	8
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	66,900
Rate per 100 workers:	3.4
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	40,500
Rate per 100 workers:	2.1
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	31
Years it would take for OSHA to inspect each workplace once:[9]	149
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,222
Construction:	640
Nonconstruction:	582
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$1,330
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$17,881
National average:	$11,626



MISSISSIPPI

Worker Safety and Health

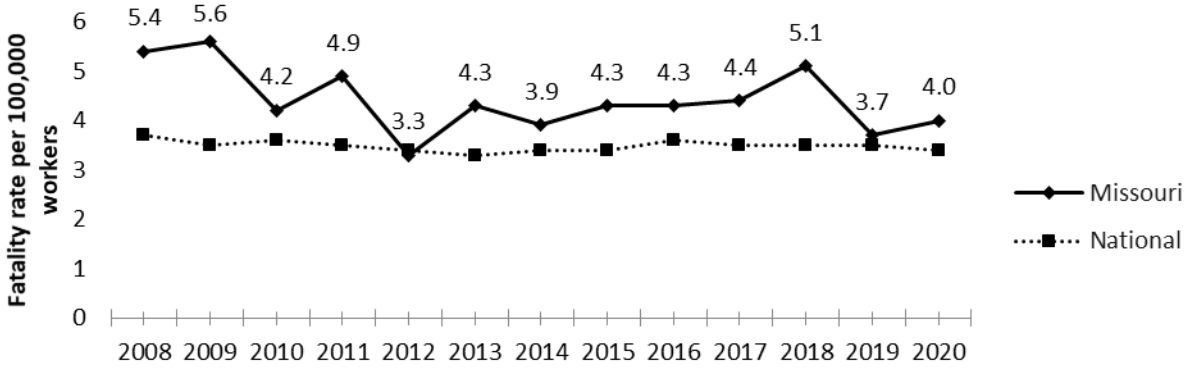
Number of employees:[1]	1,089,821
Number of establishments:[1]	74,436
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	202,627
Number of workplace fatalities, 2020:[3]	44
Rate per 100,000 workers:[4]	4.2
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	31
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	N/A
Rate per 100 workers:	N/A
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	8
Years it would take for OSHA to inspect each workplace once:[9]	262
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	273
Construction:	125
Nonconstruction:	148
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,594
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$24,919
National average:	$11,626



MISSOURI

Worker Safety and Health

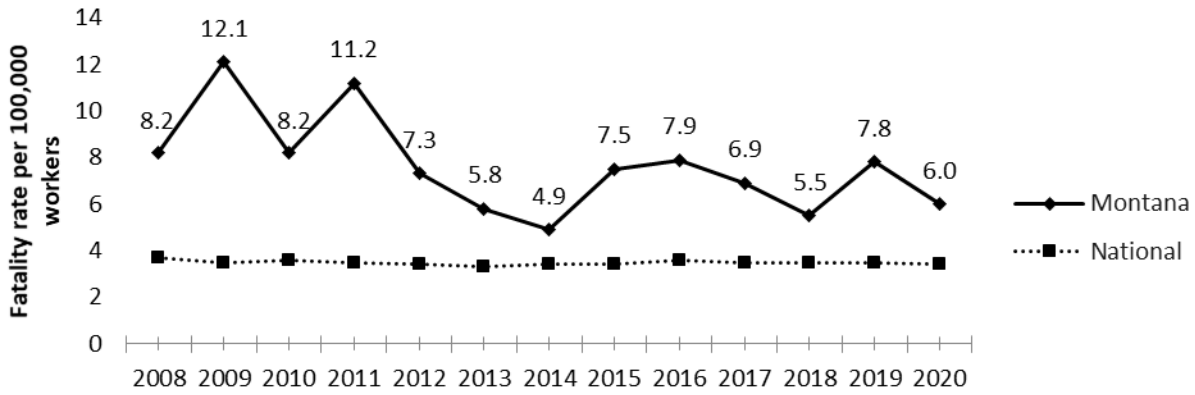
Number of employees:[1]	2,675,116
Number of establishments:[1]	217,324
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	342,551
Number of workplace fatalities, 2020:[3]	105
Rate per 100,000 workers:[4]	4.0
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	27
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	53,600
Rate per 100 workers:	2.8
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	34,500
Rate per 100 workers:	1.8
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	22
Years it would take for OSHA to inspect each workplace once:[9]	333
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	629
Construction:	309
Nonconstruction:	320
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,501
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$14,914
National average:	$11,626



MONTANA

Worker Safety and Health

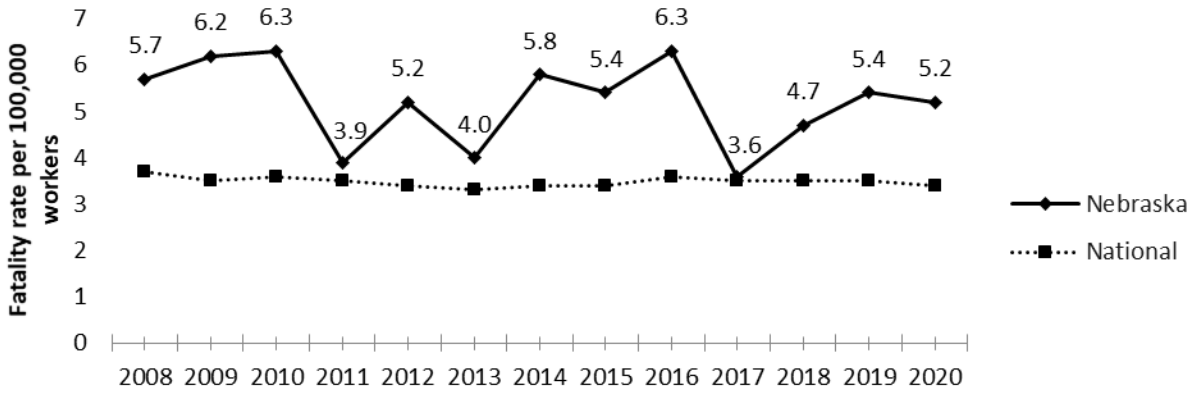
Number of employees:[1]	456,631
Number of establishments:[1]	52,600
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	68,738
Number of workplace fatalities, 2020:[3]	29
Rate per 100,000 workers:[4]	6.0
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	45
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	10,200
Rate per 100 workers:	3.4
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	5,100
Rate per 100 workers:	1.7
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	7
Years it would take for OSHA to inspect each workplace once:[9]	202
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	253
Construction:	126
Nonconstruction:	127
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$2,729
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$362
National average:	$11,626



NEBRASKA

Worker Safety and Health

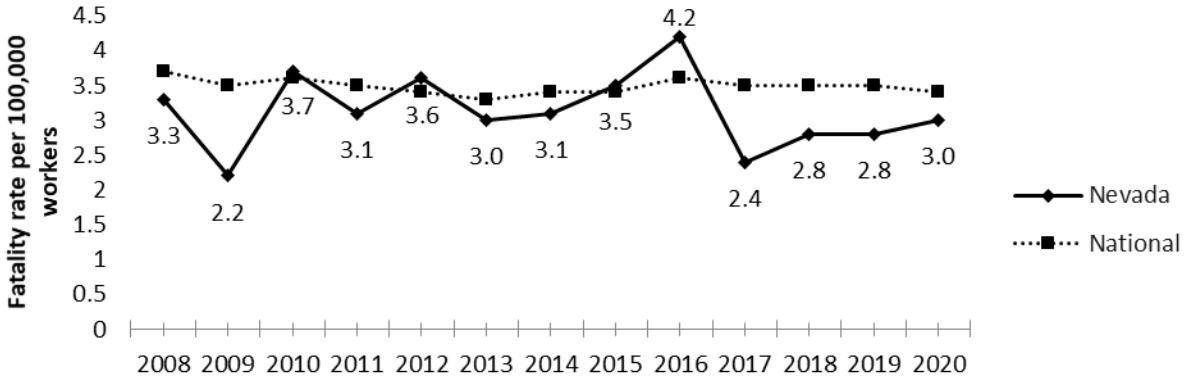
Number of employees:[1]	948,137
Number of establishments:[1]	70,438
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	140,308
Number of workplace fatalities, 2020:[3]	48
Rate per 100,000 workers:[4]	5.2
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	40
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	19,300
Rate per 100 workers:	2.9
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	11,600
Rate per 100 workers:	1.8
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	10
Years it would take for OSHA to inspect each workplace once:[9]	287
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	236
Construction:	122
Nonconstruction:	114
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,663
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$4,030
National average:	$11,626



NEVADA

Worker Safety and Health

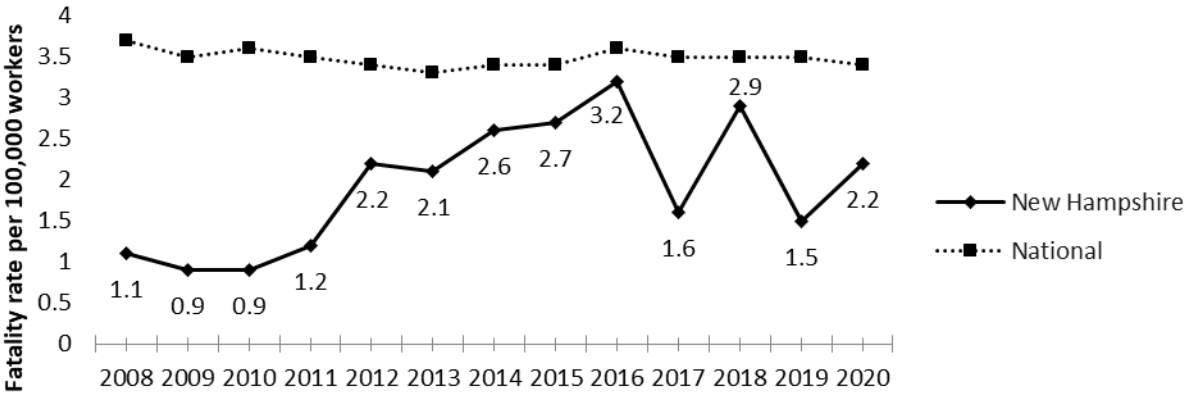
Number of employees:[1]	1,265,675
Number of establishments:[1]	86,819
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	37
Rate per 100,000 workers:[4]	3.0
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	18
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	29,800
Rate per 100 workers:	3.2
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	18,500
Rate per 100 workers:	2.0
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	27
Years it would take for OSHA to inspect each workplace once:[9]	95
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	910
Construction:	285
Nonconstruction:	625
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,670
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$6,644
National average:	$11,626



NEW HAMPSHIRE

Worker Safety and Health

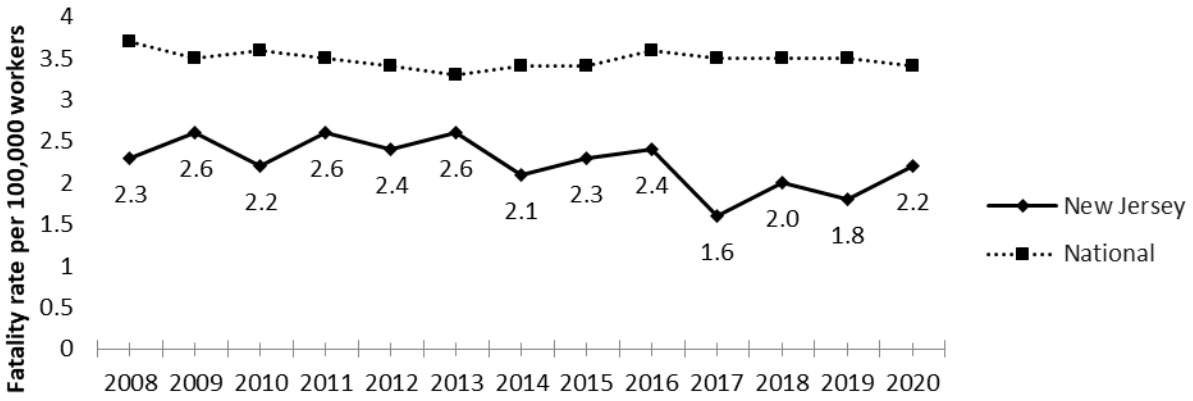
Number of employees:[1]	624,550
Number of establishments:[1]	55,285
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	73,340
Number of workplace fatalities, 2020:[3]	14
Rate per 100,000 workers:[4]	2.2
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	4
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	N/A
Rate per 100 workers:	N/A
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	8
Years it would take for OSHA to inspect each workplace once:[9]	173
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	307
Construction:	190
Nonconstruction:	117
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,527
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$8,179
National average:	$11,626



NEW JERSEY

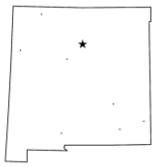
Worker Safety and Health

Number of employees:[1]	3,751,355
Number of establishments:[1]	283,231
State or federal OSHA program:[2]	Federal
Number of workplace fatalities, 2020:[3]	82
Rate per 100,000 workers:[4]	2.2
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	4
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	75,800
Rate per 100 workers:	2.9
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	54,200
Rate per 100 workers:	2.1
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	50
Years it would take for OSHA to inspect each workplace once:[9]	177
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,604
Construction:	723
Nonconstruction:	881
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,776
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$22,270
National average:	$11,626

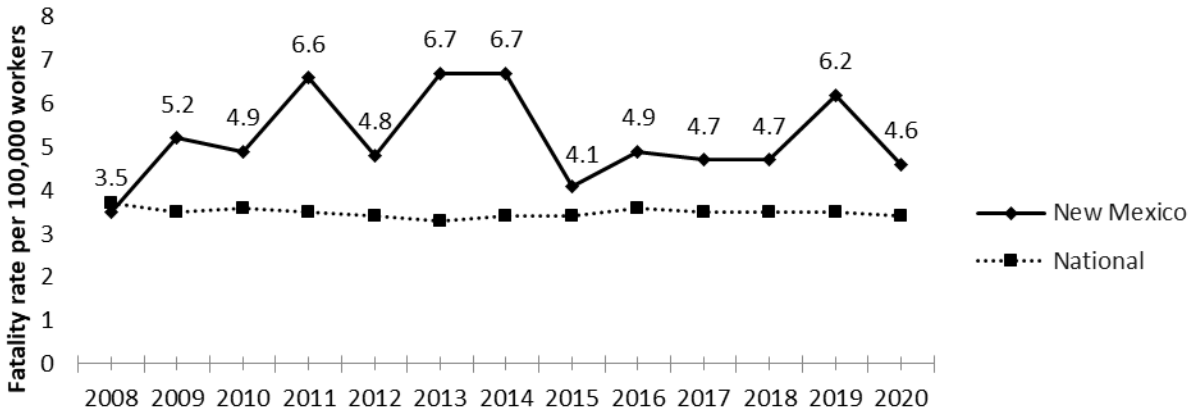


NEW MEXICO

Worker Safety and Health



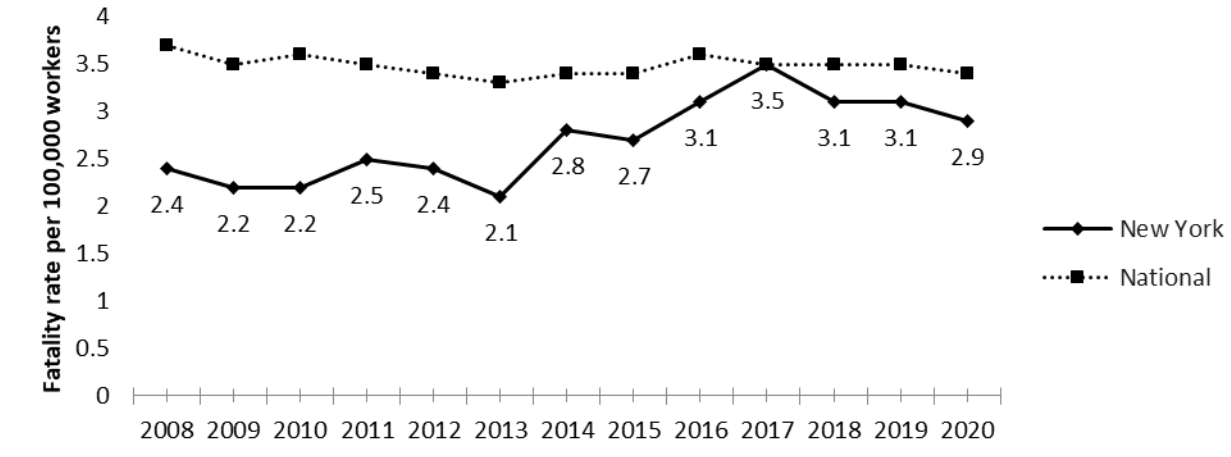
Number of employees:[1]	781,771
Number of establishments:[1]	63,576
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	37
Rate per 100,000 workers:[4]	4.6
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	36
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	13,200
Rate per 100 workers:	2.6
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	8,000
Rate per 100 workers:	1.6
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	7
Years it would take for OSHA to inspect each workplace once:[9]	402
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	158
Construction:	43
Nonconstruction:	115
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$5,180
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$10,837
National average:	$11,626



NEW YORK

Worker Safety and Health

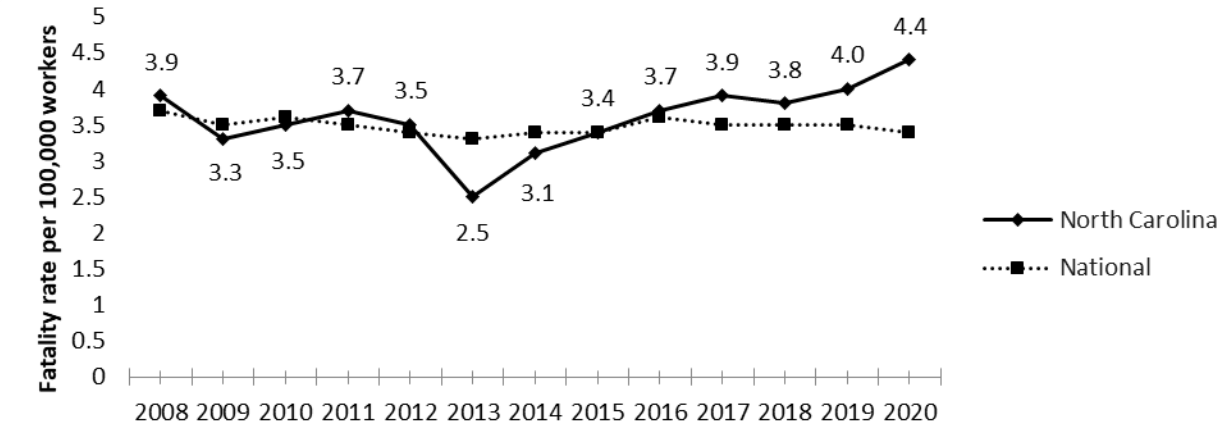
Number of employees:[1]	8,585,181
Number of establishments:[1]	651,911
State or federal OSHA program:[2]	Federal
Number of workplace fatalities, 2020:[3]	223
Rate per 100,000 workers:[4]	2.9
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	14
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	129,000
Rate per 100 workers:	2.2
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	90,100
Rate per 100 workers:	1.5
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	85
Years it would take for OSHA to inspect each workplace once:[9]	311
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	2,098
Construction:	955
Nonconstruction:	1,143
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,569
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$14,915
National average:	$11,626



NORTH CAROLINA

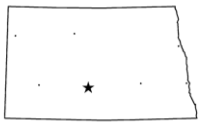
Worker Safety and Health

Number of employees:[1]	4,323,325
Number of establishments:[1]	298,506
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	189
Rate per 100,000 workers:[4]	4.4
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	35
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	64,900
Rate per 100 workers:	2.1
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	38,300
Rate per 100 workers:	1.3
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	86
Years it would take for OSHA to inspect each workplace once:[9]	129
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	2,306
Construction:	1,213
Nonconstruction:	1,093
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$1,892
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$7,706
National average:	$11,626

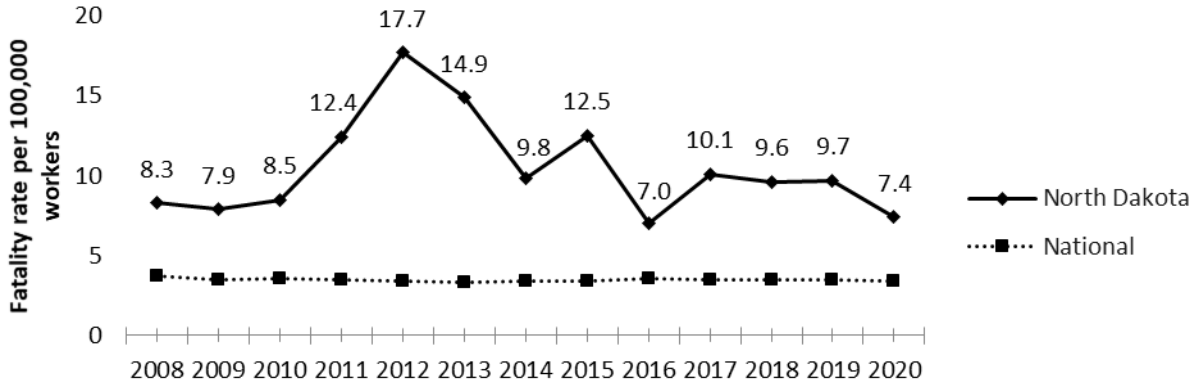


NORTH DAKOTA

Worker Safety and Health



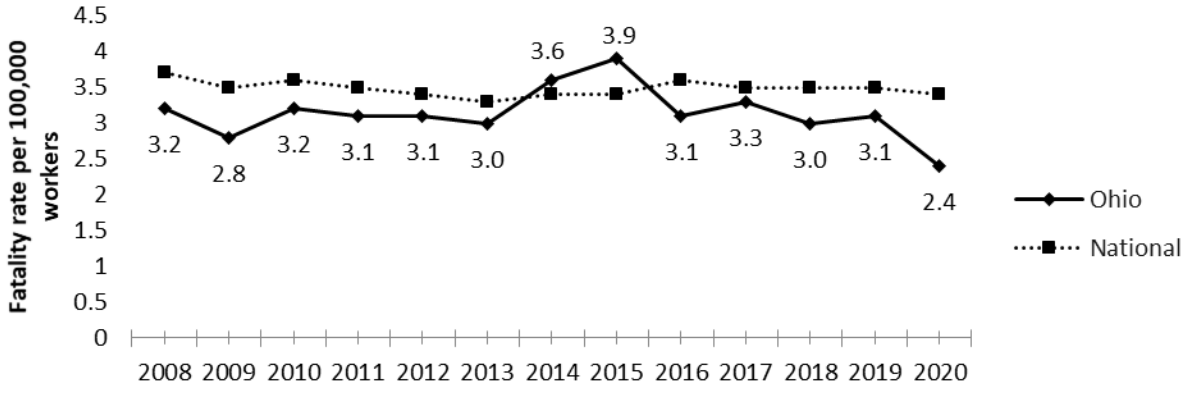
Number of employees:[1]	395,956
Number of establishments:[1]	32,401
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	60,126
Number of workplace fatalities, 2020:[3]	26
Rate per 100,000 workers:[4]	7.4
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	47
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	N/A
Rate per 100 workers:	N/A
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	6
Years it would take for OSHA to inspect each workplace once:[9]	223
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	139
Construction:	95
Nonconstruction:	44
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$6,089
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$6,172
National average:	$11,626



OHIO

Worker Safety and Health

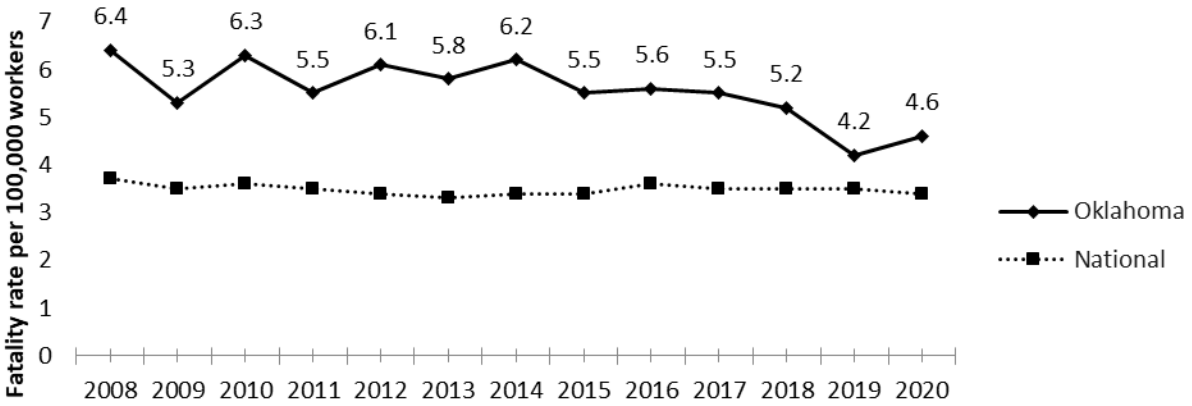
Number of employees:[1]	5,123,767
Number of establishments:[1]	305,255
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	623,755
Number of workplace fatalities, 2020:[3]	117
Rate per 100,000 workers:[4]	2.4
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	8
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	85,300
Rate per 100 workers:	2.4
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	49,700
Rate per 100 workers:	1.4
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	50
Years it would take for OSHA to inspect each workplace once:[9]	159
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,837
Construction:	867
Nonconstruction:	970
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,574
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$29,008
National average:	$11,626



OKLAHOMA

Worker Safety and Health

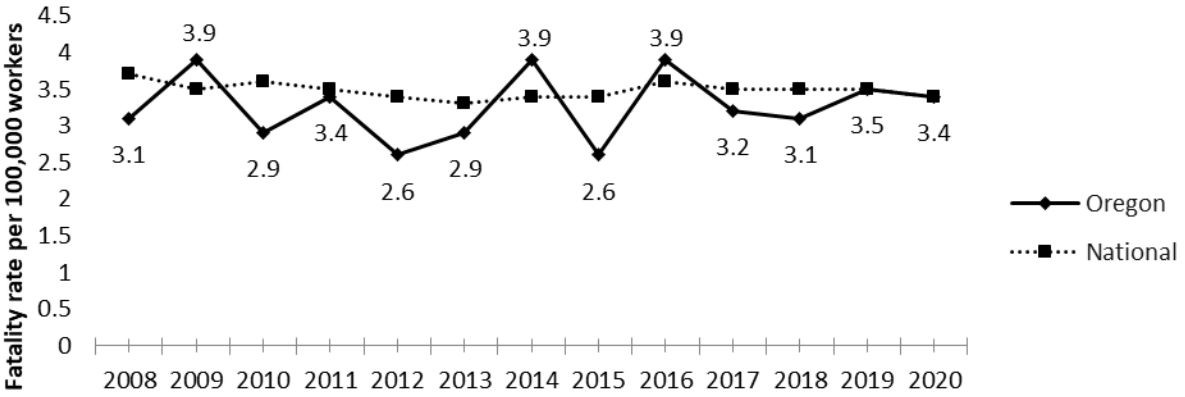
Number of employees:[1]	1,549,993
Number of establishments:[1]	112,637
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	268,294
Number of workplace fatalities, 2020:[3]	75
Rate per 100,000 workers:[4]	4.6
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	36
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	29,100
Rate per 100 workers:	2.7
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	18,900
Rate per 100 workers:	1.7
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	12
Years it would take for OSHA to inspect each workplace once:[9]	216
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	500
Construction:	338
Nonconstruction:	162
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,836
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$18,910
National average:	$11,626



OREGON

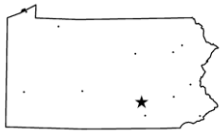
Worker Safety and Health

Number of employees:[1]	1,836,208
Number of establishments:[1]	162,751
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	60
Rate per 100,000 workers:[4]	3.4
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	24
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	43,400
Rate per 100 workers:	3.4
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	27,900
Rate per 100 workers:	2.2
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	74
Years it would take for OSHA to inspect each workplace once:[9]	112
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,451
Construction:	485
Nonconstruction:	966
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$615
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$1,077
National average:	$11,626

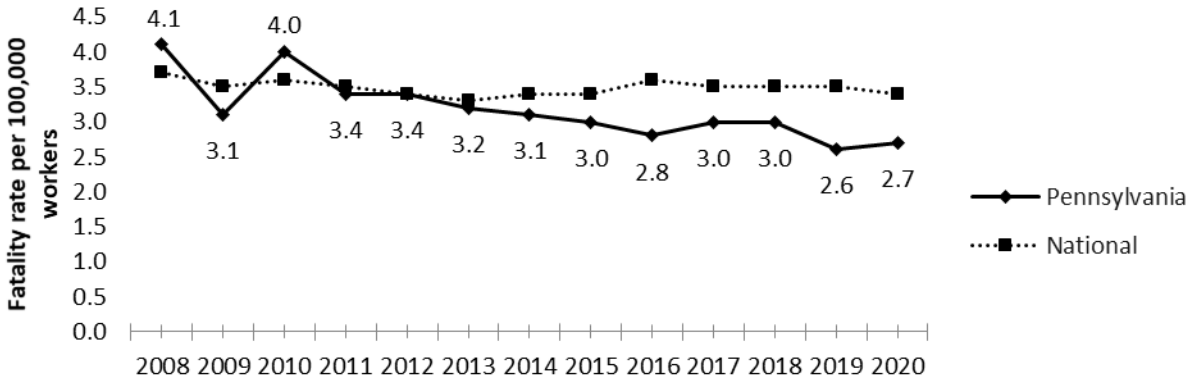


PENNSYLVANIA

Worker Safety and Health



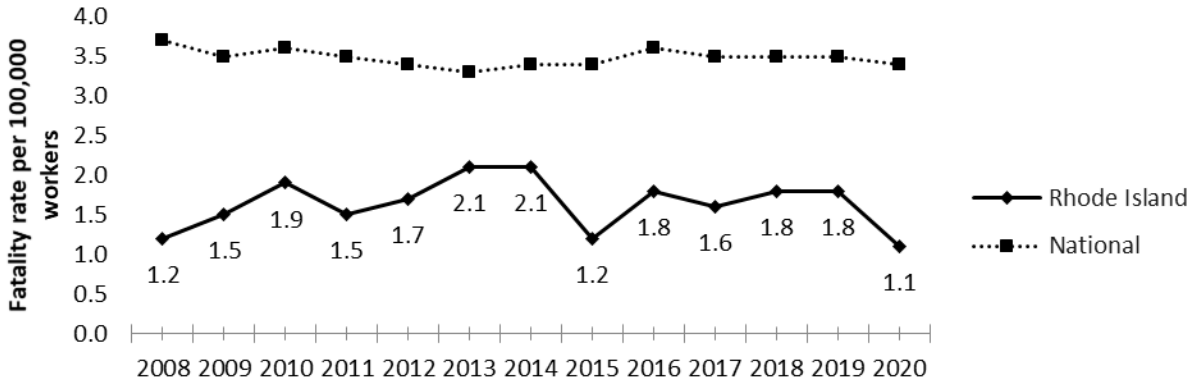
Number of employees:[1]	5,488,591
Number of establishments:[1]	361,303
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	557,890
Number of workplace fatalities, 2020:[3]	148
Rate per 100,000 workers:[4]	2.7
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	12
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	122,700
Rate per 100 workers:	3
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	77,100
Rate per 100 workers:	1.9
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	50
Years it would take for OSHA to inspect each workplace once:[9]	226
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,549
Construction:	732
Nonconstruction:	817
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,387
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$15,236
National average:	$11,626



RHODE ISLAND

Worker Safety and Health

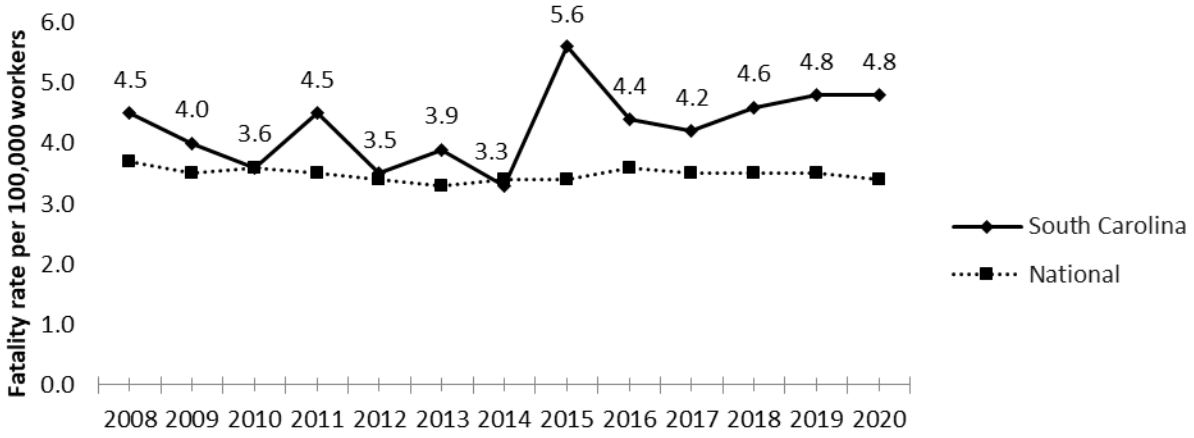
Number of employees:[1]	444,432
Number of establishments:[1]	39,966
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	48,001
Number of workplace fatalities, 2020:[3]	5
Rate per 100,000 workers:[4]	1.1
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	1
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	N/A
Rate per 100 workers:	N/A
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	7
Years it would take for OSHA to inspect each workplace once:[9]	237
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	166
Construction:	81
Nonconstruction:	85
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,246
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$8,435
National average:	$11,626



SOUTH CAROLINA

Worker Safety and Health

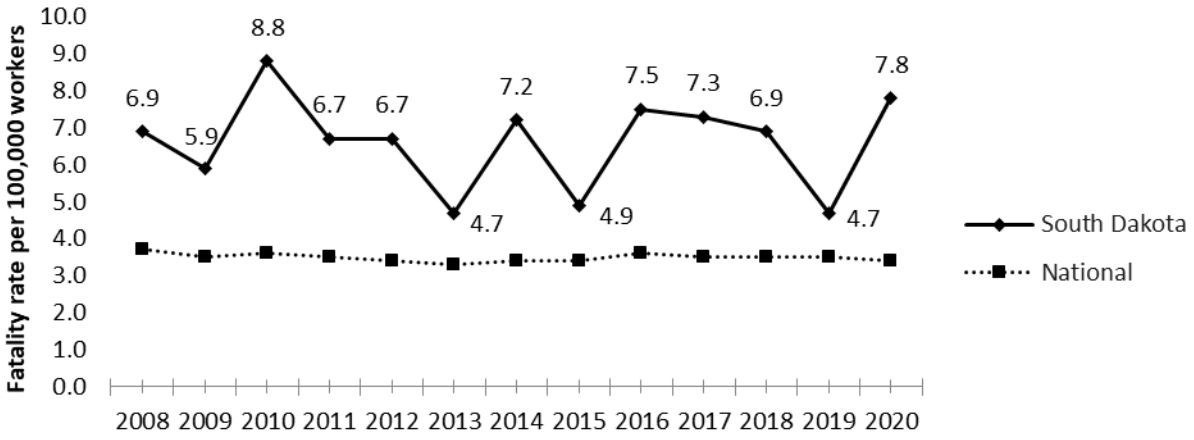
Number of employees:[1]	2,028,041
Number of establishments:[1]	145,770
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	102
Rate per 100,000 workers:[4]	4.8
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	38
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	29,100
Rate per 100 workers:	2.1
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	19,400
Rate per 100 workers:	1.4
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	21
Years it would take for OSHA to inspect each workplace once:[9]	336
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	434
Construction:	205
Nonconstruction:	229
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$1,586
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$3,754
National average:	$11,626



SOUTH DAKOTA

Worker Safety and Health

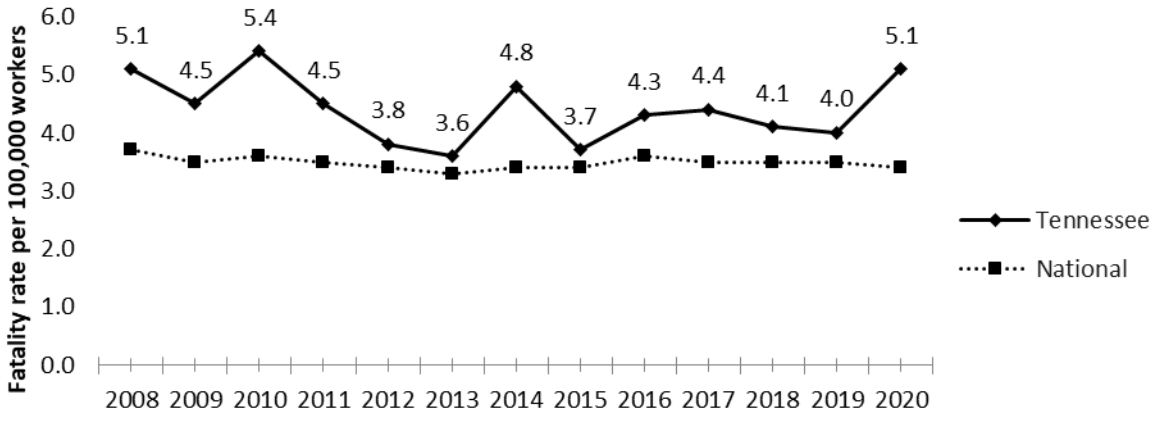
Number of employees:[1]	417,092
Number of establishments:[1]	35,005
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	60,942
Number of workplace fatalities, 2020:[3]	32
Rate per 100,000 workers:[4]	7.8
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	48
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	N/A
Rate per 100 workers:	N/A
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	N/A
Rate per 100 workers:	N/A
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	5
Years it would take for OSHA to inspect each workplace once:[9]	213
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	156
Construction:	111
Nonconstruction:	45
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$2,908
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$2,531
National average:	$11,626



TENNESSEE

Worker Safety and Health

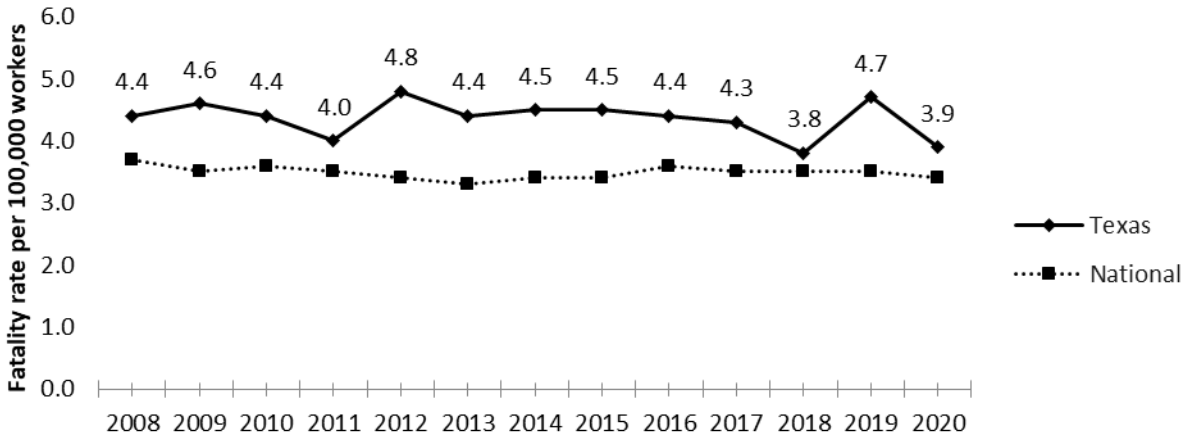
Number of employees:[1]	2,916,181
Number of establishments:[1]	172,474
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	142
Rate per 100,000 workers:[4]	5.1
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	39
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	57,500
Rate per 100 workers:	2.7
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	35,500
Rate per 100 workers:	1.7
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	39
Years it would take for OSHA to inspect each workplace once:[9]	122
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,416
Construction:	258
Nonconstruction:	1,158
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$2,083
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$6,797
National average:	$11,626



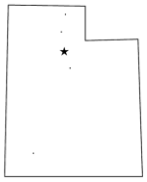
TEXAS

Worker Safety and Health

Number of employees:[1]	12,070,210
Number of establishments:[1]	737,064
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	1,671,378
Number of workplace fatalities, 2020:[3]	469
Rate per 100,000 workers:[4]	3.9
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	26
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	178,600
Rate per 100 workers:	2.0
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	178,600
Rate per 100 workers:	1.3
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	95
Years it would take for OSHA to inspect each workplace once:[9]	201
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	3,599
Construction:	2,275
Nonconstruction:	1,324
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,387
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$9,120
National average:	$11,626

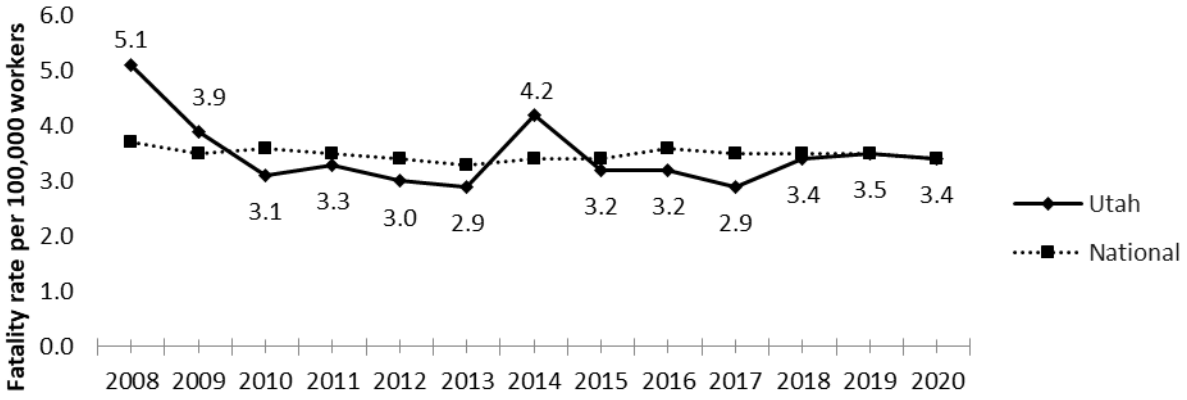


UTAH



Worker Safety and Health

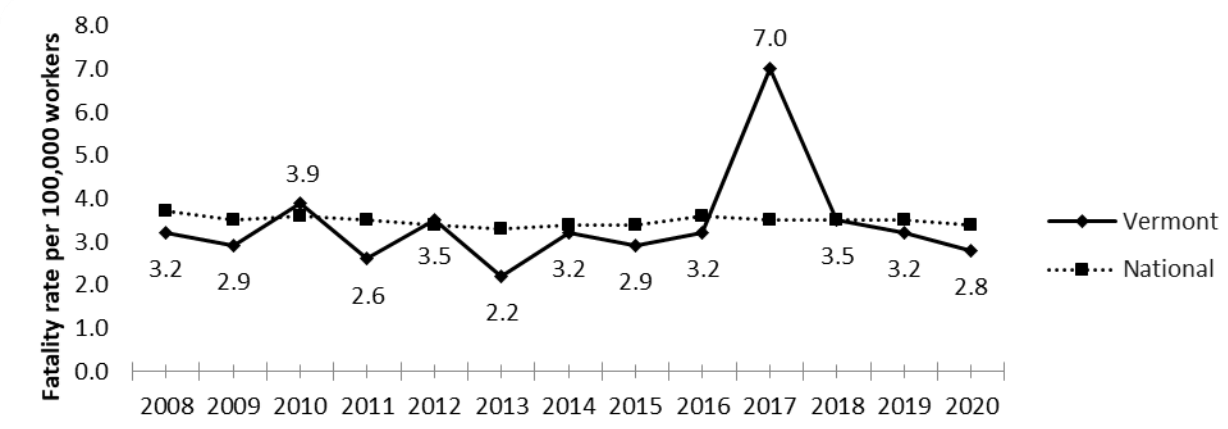
Number of employees:[1]	1,504,751
Number of establishments:[1]	112,985
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	48
Rate per 100,000 workers:[4]	3.4
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	24
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	26,300
Rate per 100 workers:	2.6
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	12,800
Rate per 100 workers:	1.2
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	17
Years it would take for OSHA to inspect each workplace once:[9]	122
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	922
Construction:	286
Nonconstruction:	636
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$1,496
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$2,367
National average:	$11,626



VERMONT

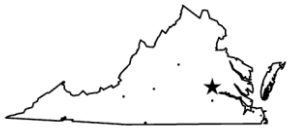
Worker Safety and Health

Number of employees:[1]	283,506
Number of establishments:[1]	26,324
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	8
Rate per 100,000 workers:[4]	2.8
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	13
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	6,900
Rate per 100 workers:	3.6
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	3,700
Rate per 100 workers:	1.9
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	6
Years it would take for OSHA to inspect each workplace once:[9]	183
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	144
Construction:	61
Nonconstruction:	83
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,553
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$6,826
National average:	$11,626

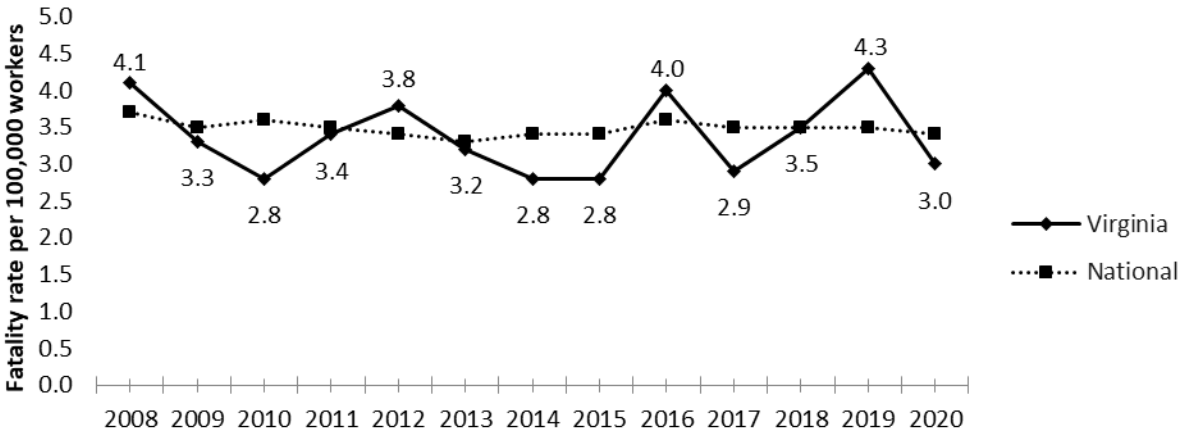


VIRGINIA

Worker Safety and Health



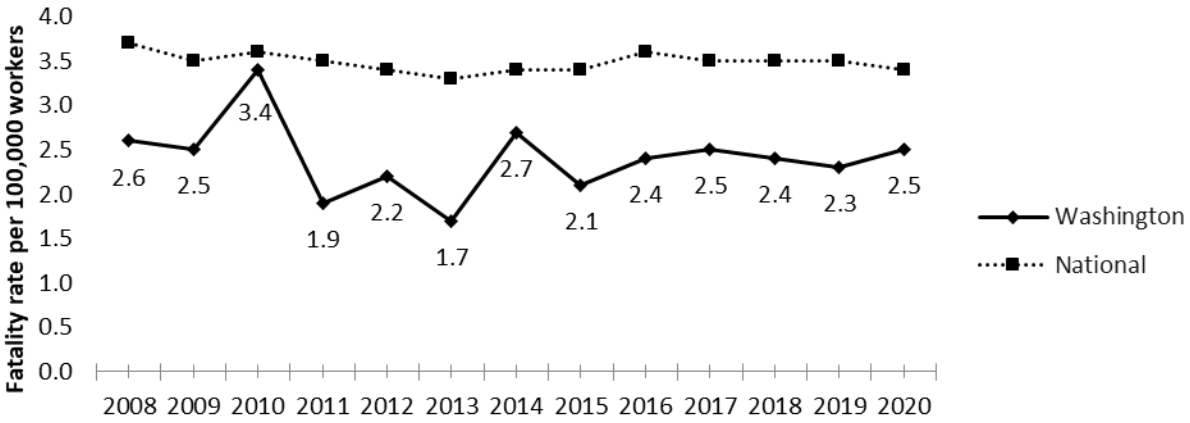
Number of employees:[1]	3,743,712
Number of establishments:[1]	282,884
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	118
Rate per 100,000 workers:[4]	3.0
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	18
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	52,600
Rate per 100 workers:	2.1
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	32,300
Rate per 100 workers:	1.3
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	45
Years it would take for OSHA to inspect each workplace once:[9]	154
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,832
Construction:	884
Nonconstruction:	948
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,258
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$9,433
National average:	$11,626



WASHINGTON

Worker Safety and Health

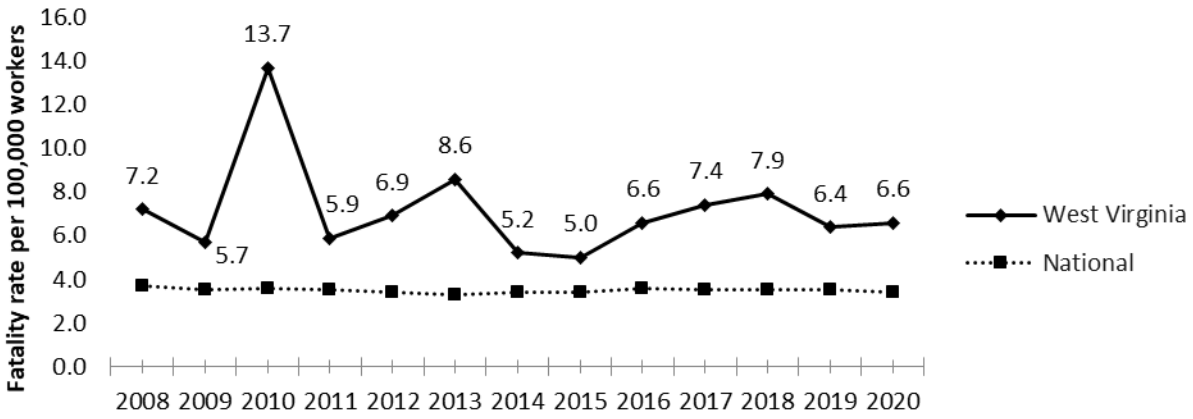
Number of employees:[1]	3,258,164
Number of establishments:[1]	268,793
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	83
Rate per 100,000 workers:[4]	2.5
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	10
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	78,200
Rate per 100 workers:	3.5
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	50,600
Rate per 100 workers:	2.3
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	123
Years it would take for OSHA to inspect each workplace once:[9]	59
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	4,557
Construction:	1,780
Nonconstruction:	2,777
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$1,723
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$16,032
National average:	$11,626



WEST VIRGINIA

Worker Safety and Health

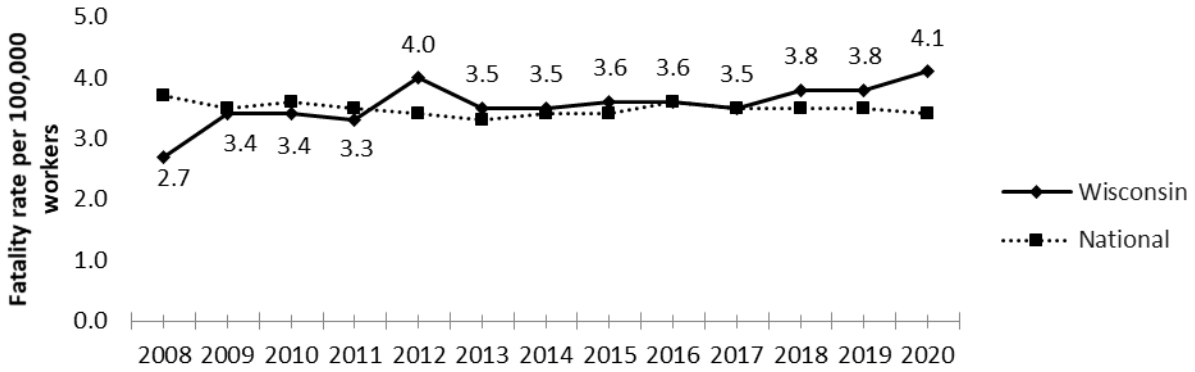
Number of employees:[1]	642,018
Number of establishments:[1]	51,432
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	106,734
Number of workplace fatalities, 2020:[3]	47
Rate per 100,000 workers:[4]	6.6
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	46
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	12,900
Rate per 100 workers:	2.9
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	8,000
Rate per 100 workers:	1.8
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	7
Years it would take for OSHA to inspect each workplace once:[9]	199
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	242
Construction:	92
Nonconstruction:	150
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$5,109
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$10,153
National average:	$11,626



WISCONSIN

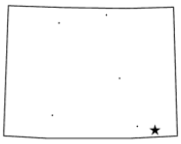
Worker Safety and Health

Number of employees:[1]	2,730,289
Number of establishments:[1]	178,133
State or federal OSHA program:[2]	Federal
Number of state and local public employees not covered by the OSH Act:	333,882
Number of workplace fatalities, 2020:[3]	108
Rate per 100,000 workers:[4]	4.1
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	29
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	59,900
Rate per 100 workers:	3.1
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	33,000
Rate per 100 workers:	1.7
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	32
Years it would take for OSHA to inspect each workplace once:[9]	155
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	1,009
Construction:	409
Nonconstruction:	600
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$4,358
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$27,664
National average:	$11,626

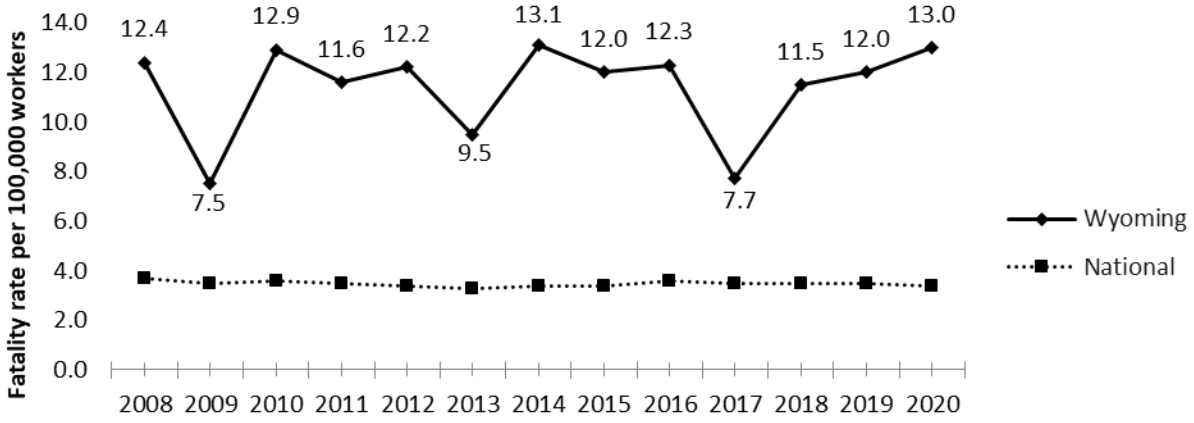


WYOMING

Worker Safety and Health



Number of employees:[1]	260,977
Number of establishments:[1]	27,302
State or federal OSHA program:[2]	State
Number of workplace fatalities, 2020:[3]	35
Rate per 100,000 workers:[4]	13.0
National rate:	3.4
Ranking of state fatality rate, 2020:[5]	50
Total cases of workplace injuries and illnesses, private industry, 2020:[6]	5,000
Rate per 100 workers:	3.0
National rate:	2.7
Total injury and illness cases with days away from work, job transfer or restriction, private industry, 2020:[7]	3,000
Rate per 100 workers:	1.8
National rate:	1.7
Number of workplace safety and health inspectors, FY 2021:[8]	7
Years it would take for OSHA to inspect each workplace once:[9]	184
Number of workplace safety and health inspections conducted, FY 2021:[9,10]	148
Construction:	107
Nonconstruction:	41
Avg. penalty assessed for serious violations of the OSH Act, FY 2021:[10]	$3,562
National average:	$3,315
Avg. total penalty per fatality investigation, FY 2021:[11]	$20,458
National average:	$11,626



STATE PROFILES
FOOTNOTES

[1]U.S. Department of Labor, Bureau of Labor Statistics, Employment and Wages: Annual Averages, 2020.
[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.
[3]U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2020, released Dec. 16, 2021.
[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, 2020 private sector only, released Nov. 3, 2021.
[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, 2020 private sector only, released Nov. 3, 2021.
[8]U.S. Department of Labor, OSHA, Federal Compliance Safety and Health Officer Totals by State, as of December 2021; data received Jan. 26, 2022. State plan state Compliance Safety and Health Officers “on board” from FY 2021 State Plan Grant Applications, as of July 1, 2021; data received Jan. 19, 2022.
[9]During the COVID-19 pandemic, safety agencies conducted fewer field operations and less enforcement.
[10]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).
[11]U.S. Department of Labor, OSHA, FY 2021. 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.

SOURCES AND METHODOLOGY

Federal and State Plan OSHA COVID-19 Enforcement Data: The formal and nonformal complaints and inspection information comes from the OSHA Information System (OIS). OSHA provided federal and state COVID-19 complaint and inspection information for January 2020 to Feb. 28, 2022. Data on average penalties comes from the above-referenced OIS reports. We present the average penalty data as individual state penalties, federal OSHA state penalties, state plan OSHA state penalties and a national average of penalties. We calculate the average penalty numbers by dividing the total cost for serious penalties by the total number of serious violations. The national average includes penalty data from the District of Columbia and U.S. territories and protectorates: American Samoa, Guam, the Marshall Islands, Puerto Rico and the Virgin Islands.

The complaints by industry information comes from the federal OSHA COVID-19 Summary Response webpage that is updated daily (federal business days). Percentage of complaints with inspections open were calculated using the number of investigations open divided by the total number of reported cases for both complaints and combined referrals.

Employment and Establishment Data: Employment and Wages, Annual Averages, 2020, 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. The OSH Act does not cover public employees in the 24 states and Washington, D.C., that do not run their own OSHA programs. Statistics on the number of state and local employees are from Employment and Wages, Annual Averages, 2020, Bureau of Labor Statistics, U.S. Department of Labor.

Workplace Fatality Information: Census of Fatal Occupational Injuries, 2020, 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, 2020, Bureau of Labor Statistics, U.S. Department of Labor. Rates reflect 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, we include the number of inspectors for the state in which the area office is located. Inspector data for state plan states come from OSHA's Directorate of Cooperative and State Programs, and reflects the number of "on board" inspectors included in the states' FY 2022 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 OSHA Information System (OIS). OSHA provided federal and state inspection information for FY 2021.

Penalty Information: Data on average penalties comes from the above-referenced OIS

reports. We present the average penalty data as individual state penalties, federal OSHA state penalties, state plan OSHA state penalties and a national average of penalties. We calculate the average penalty numbers by dividing the total cost for serious penalties by the total number of serious violations. The national average includes penalty data from the District of Columbia and U.S. territories and protectorates: American Samoa, 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. We obtain establishment data from Employment and Wages, Annual Averages, 2020, at BLS.gov/cew/publications/employment-and-wages-annual-averages/.

For individual federal OSHA states, we divide the total number of private-industry (except mines) plus federal establishments 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, we divide the total number of private-industry (except mines) plus federal, state and local establishments 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. We include these inspections and establishments in the state profiles.) 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, we add the total number of establishments for individual federal or state plan states together and then divide by the total number of federal or state inspections, respectively. For this calculation, we consider Connecticut, Illinois, Maine, New Jersey and New York as federal states.

For the national average for one-time inspections, we divide the total number of establishments for both federal states and state plan states 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 exempt from recordkeeping; employers no longer are 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 for industries and the Standard Occupation Classification system for occupations. Prior to 2003, the surveys used the Standard Industrial Classification 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.

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