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2018-2019 MASSACHUSETTS FATAL INJURIES AT WORK



Massachusetts Department of Public Health

Report by:
Occupational Health Surveillance Program
Census of Fatal Occupational Injuries
Fatality Assessment and Control Evaluation

Find this report at: <https://www.mass.gov/lists/fatal-work-related-injury-reports-and-publications>

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Massachusetts Fatal Injuries at Work, 2018-2019

Foreword

This update provides an overview of fatal injuries at work that occurred in Massachusetts in 2018–2019, before the COVID–19 pandemic profoundly impacted work, and life outside of work, worldwide.

During COVID–19, work did not change in the same way for all. For some, work slowed or halted as businesses responded to the virus and to policies implemented to protect the public health. Many workers lost their jobs. For others, work increased or changed, whether they were involved in directly caring for patients with the virus, or performing other work that was deemed essential, from worksites, or remotely from home.

In Massachusetts, the systems that we use to identify, and document traumatic workplace deaths remained active. Surveillance of 2020 workplace trauma deaths continues, and while the official data is expected to be released, on schedule, in late 2021, we know that throughout the pandemic, workers continued to be killed by hazards and in industries that are familiar to us. Our preliminary analysis of the unofficial 2020 data indicates that while some new trends emerged, many of the same hazards that we saw pre-pandemic continued, despite the unique circumstances of 2020. The 2018–2019 fatality data reflect what was normal before the pandemic: some trends that have been seen for years, hazards that we know how to prevent, yet which still need attention, and hazards that continued through the pandemic. We believe that many of the lessons learned from trends in workplace fatalities in the pre-pandemic period remain critical for understanding and preventing fatal injuries during the pandemic, as well as once it is over.

The Occupational Health Surveillance Program's (OHSP) Workplace Fatality Program acknowledges the interest and importance of understanding how COVID–19 continues to affect workers in Massachusetts. In the forthcoming 2020 report, OHSP will share information about work and changing work in 2020, which workforces experienced increased risk in fatal injury throughout the year and describe the industries and occupations of Massachusetts residents who died at work.

Executive summary

Fatal injuries at work are preventable. Information about where and how they occur is essential to develop effective prevention programs. This update provides an overview of fatal injuries at work that occurred in Massachusetts in 2018-2019 and includes details collected by both the Fatality Assessment and Control Evaluation (FACE) and the Census of Fatal Occupational Injuries (CFOI) projects. Included are deaths traditionally linked to the work environment such as falls, electrocutions, and exposure to toxic chemicals. Also included are workplace opioid overdoses, homicides and suicides, and motor vehicle-related fatalities that occurred during travel on the job. Deaths from occupational illnesses and heart attacks at work are excluded.

When reporting statistics about fatal occupational injuries, it is important to acknowledge the individuals that these numbers represent. Continued efforts are needed to reduce both the human and economic tolls of preventable deaths at work in the Commonwealth. The surveillance findings presented here are intended to guide government, industry, labor, and community organizations in developing and implementing strategies to prevent similar tragedies in the future.

PREVENTION IN MASSACHUSETTS

- Similar to recent years, unintentional overdose at work was the single leading cause of fatal injury at work in 2018-2019, resulting in one fifth of all deaths (n=37). The Occupational Health Surveillance Program (OHSP) is currently working with workplace health and safety stakeholders and substance addiction service providers to provide opioid awareness peer training for high-risk worker groups and to identify additional opportunities to implement worker-oriented opioid overdose prevention strategies. In addition, OHSP is building on a report released in 2018 that analyzed opioid overdoses by industry and occupation from 2011 to 2015, which found that certain groups (notably, workers in construction and fishing) were at higher risk for overdose (<https://www.mass.gov/lists/occupational-health-special-topics#opioids-and-work->). This is in the process of being updated to include more recent years of data.

DATA HIGHLIGHTS

184 people died from workplace injuries in Massachusetts in 2018 and 2019.

The leading causes of fatal workplace injuries were:

- Workplace overdose (n=37)
- Fall to a lower level (n=32)
- Roadway crash (n=24)
- Workplace suicide (n=16)
- Struck by falling object or equipment (n=11)
- Workplace homicide (n=11)

Based on the rate of injury, the following workers had the highest risk of fatal injury:

- Fishers and agricultural: 49.7/100,000
- Landscaping: 28.6/100,000
- Construction: 11.0/100,000
- Transportation and material moving: 9.8/100,000

- Falls to a lower level continue to be a leading cause of workplace death in Massachusetts. Each year, OHSP supports the national Campaign to Prevent Falls in Construction by providing local outreach to relevant groups in Massachusetts. New safety handouts, videos, and materials for toolbox talks are available from this site: www.stopconstructionfalls.com.
- OHSP conducts in-depth investigations on select workplace fatalities through the FACE program. These investigations lead to detailed reports documenting the contributing factors of the event, and providing recommendations that aim to prevent similar occurrences from happening in the future. A few of these investigations are highlighted in the report below. More can be found at: <https://www.mass.gov/resource/fatality-case-reports>.

Massachusetts Fatal Injuries at Work, 2018-2019

Overview of Findings

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When reporting statistics about fatal occupational injuries, it is important to acknowledge the individuals that these numbers represent. Continued efforts are needed to reduce both the human and economic tolls of preventable deaths at work in the Commonwealth. The surveillance findings presented here are intended to guide government, industry, labor, and community organizations in developing and implementing strategies to prevent similar tragedies in the future.

184

workers died from injuries in 2018-2019



What were the leading causes?

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- Fall to a lower level (n=32)
- Roadway crash (n=24)
- Workplace suicide (n=16)
- Struck by falling object or equipment (n=11)
- Workplace homicide (n=11)

Who was at highest risk?

(ordered by rate of injury)

- Fishing and agricultural: 49.7/100,000 workers
- Landscaping: 28.6/100,000 workers
- Construction: 11.0/100,000 workers
- Transportation and material moving: 9.8/100,000 workers

Workplace Overdose

Similar to recent years, unintentional overdose at work was the single leading cause of fatal injury at work in 2018-2019, resulting in one fifth of all deaths (n=37). These deaths occurred across most industry sectors, with the leading sectors being Construction (n=9), Administrative and Support and Waste Management and Remediation Services (n=6) and Fishing (n=5). The average age of workplace overdose victims was 39.

OHSP continues to analyze how work may contribute to overdoses, both inside and outside of the workplace. Building on our 2018 report "Opioid-related Overdose Deaths in Massachusetts by Industry and Occupation, 2011-2015," we are in the process of adding and analyzing additional years of data in order to examine occupations by race and ethnicity.¹

Massachusetts Fatal Injuries at Work, 2018-2019

Workplace Overdose (continued)

These findings continue to underscore the need for educational and policy interventions targeting worker populations to prevent opioid-related overdose deaths. Interventions should address workplace hazards that cause injuries for which opioids are prescribed, as well as appropriate pain management following injury, including safer opioid prescribing, access to evidence-based treatment for opioid use disorders, and overdose prevention education.

In Massachusetts, workplace health and safety stakeholders are working with substance addiction service providers and policy makers to provide opioid awareness peer training for high-risk worker groups and to identify additional opportunities to implement worker-oriented opioid overdose prevention strategies.



Landscaping Industry

The landscaping services industry had a fatality rate of 28.6 deaths per 100,000 workers (14 deaths); this is ten times the statewide occupational fatality rate. Thirteen of these fourteen workers worked for tree companies or were performing tree work. Six died in falls and four died from workplace overdose. OSHA and the tree care industry are working together to improve awareness of standards that apply to tree care operations:

<https://www.osha.gov/tree-care>.²

Falls

Falls to a lower level at work claimed 32 lives in 2018-2019. Falls in construction continue to be a priority for prevention in Massachusetts and nationwide. The national Campaign to Prevent Falls in Construction is now in its eighth year. New safety handouts, videos, and materials for toolbox talks are available from this site:

www.stopconstructionfalls.com.



Motor Vehicle Crashes

Work-related motor vehicle crashes were the third leading cause of death of workers in Massachusetts in 2018-2019. Many workers need to drive as a core function of their job, whether they work in a transportation industry or perform work for clients. A new hands-free law took effect in Massachusetts in early 2020, with a goal of improving roadway safety for everyone.³ Additional resources on motor vehicle safety for workers can be found at:

<https://www.cdc.gov/niosh/motorvehicle>.



Massachusetts Fatal Injuries at Work, 2018-2019

The workers: Demographics

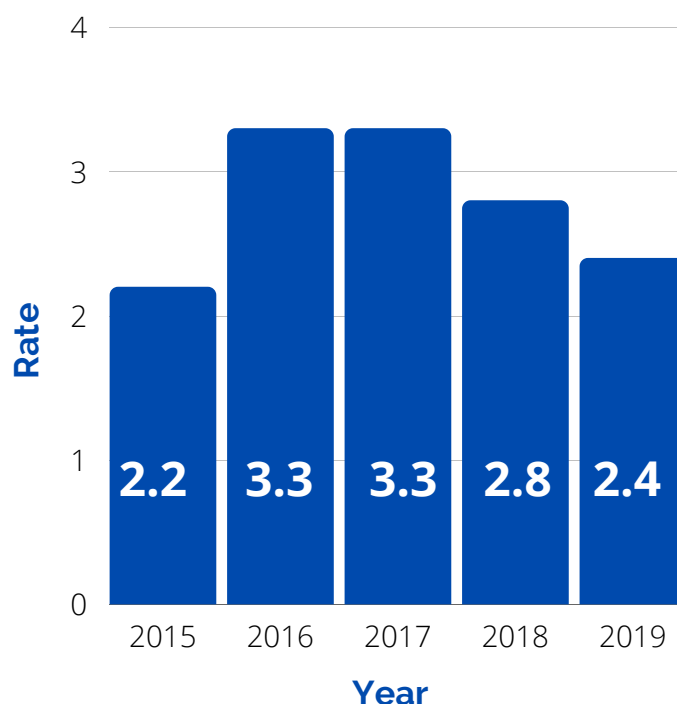
In Massachusetts, 98 individuals were fatally injured at work in 2018 and 86 were fatally injured in 2019.

- This included 174 men and 10 women. The fatal occupational injury rate for this period was 2.6 deaths per 100,000 full-time workers. This rate is lower than the prior two years (2016-2017).⁴ This is due partly to a decrease in motor vehicle deaths (67 to 46) and workplace overdoses (54 to 37).
- These workers ranged in age from 14 to 91 years, with a mean age of 48 and a median age of 49. The fatalities resulted in a total of 5,084 potential life years lost (difference between the worker's age and 75 years), an average of 28 potential life years lost per victim.
- A total of 146 (79%) of the workers were White non-Hispanic; 21 were Hispanic; nine were Black or African American non-Hispanic; and eight were other races. The fatality rate (deaths per 100,000 full-time workers) for each of these demographic groups was:

Hispanic: 3.0 White non-Hispanic: 2.8 Black non-Hispanic: 1.7

- Hispanic workers disproportionately work in more dangerous jobs and suffer more workplace injuries and deaths.⁵ Factors contributing to the increased risk of work-related injury and illness include: lack of training or supervision; language, literacy and cultural barriers in the workplace; fear of discrimination in and outside of the workplace; and economic pressures that deter workers from speaking up about workplace hazards. In high-risk industries such as construction, Hispanic workers are more likely to be placed in positions where the hazards are less likely to be controlled. OHSP continues to work to reduce these disparities by providing detailed data to stakeholders and performing outreach activities to Hispanic workforces.
- Twenty-nine workers (12%) were born outside of the U.S. and worked in a range of industries. Among these workers, the leading sector for employment was construction (n=10), and the leading country of birth was Brazil (n=5). The rate of fatal injury among foreign-born workers was 1.8 per 100,000 and the rate among U.S.-born workers was 2.8 per 100,000 workers.
- Thirty-three workers were self-employed.⁶ The fatal injury rate among self-employed workers was 9.0 per 100,000 workers, more than four times the rate of 2.2 among wage/salary earners. While the self-employed are often not subject to OSHA enforcement, OHSP plays an important role in ensuring that these workers' deaths are counted and continuing to promote and support workplace policies that will help protect these workers.
- The largest number of fatal injuries occurred in Middlesex County, followed by Hampden, Essex, Bristol and Norfolk Counties. Hampden County, which has the largest proportion of Hispanic residents, had eight Hispanic worker deaths.

Figure 1. Rate of Fatal Occupational Injury by Year
Deaths per 100,00 full-time workers



Massachusetts Fatal Injuries at Work, 2018-2019

Deaths by County of Injury, 2018-2019

Middlesex	30	Barnstable	12
Hampden	28	Plymouth	12
Essex	21	Dukes	5
Bristol	18	Berkshire	2
Norfolk	18	Franklin	2
Suffolk	16	Hampshire	2
Worcester	15	Nantucket	2

- Nationwide, 5,250 workers died from fatal occupational injuries in 2018 and 5,333 died in 2019. This translates to a rate of 3.5 per 100,000 workers for the period, which is higher than the Massachusetts rate of 2.6. Compared to the nation as a whole, Massachusetts differs in three important ways. First, Massachusetts has proportionately fewer workers in high-risk industries, such as mining or heavy manufacturing, than the U.S. generally. Second, the proportion of work-related deaths from roadway transportation incidents and workplace homicides was much lower in Massachusetts. These were leading fatal events nationwide, representing 36% of all work-related fatal injuries, while in Massachusetts crashes made up just 19% of the burden. Third, workplace overdoses made up 20% of worker deaths in Massachusetts and compared to only 6% nationwide.

- Unintentional overdose at work was the single leading cause of fatal injury at work in 2018-2019, resulting in 37 deaths. These deaths occurred across industry sectors, with the leading sectors being Construction (n=9), Administrative and Support and Waste Management and Remediation Services (n=6) and Agriculture, Forestry, Fishing, and Hunting (n=5). The average age of workplace overdose victims was 39.
- Falls to a lower level resulted in 32 worker deaths. Twenty (63%) of these were in the construction industry sector. Nineteen of the falls to a lower level were from heights of 20 feet or less; the overall range was three to 90 feet. Six workers died in falls while performing tree work.
- Roadway motor vehicle collisions and rollovers contributed to the fatal injuries of 24 workers. Eleven additional deaths involved a worker struck by a vehicle (e.g. worker struck while working in roadways, work zones, parking lots, or other work locations).
- Workplace suicide accounted for 16 deaths. Eight of these workers were self-employed or were owners/operators of small firms. OHSP continues to work with OSHA, NIOSH, and the DPH Suicide Prevention Program to identify workforces that are at greater risk of suicide in Massachusetts in order to help create effective prevention programs.

Types of Events Causing Worker Deaths

Table 1. Number and Percent of Fatal Injuries at Work by Event/Exposure, Massachusetts, 2018-2019, N=184

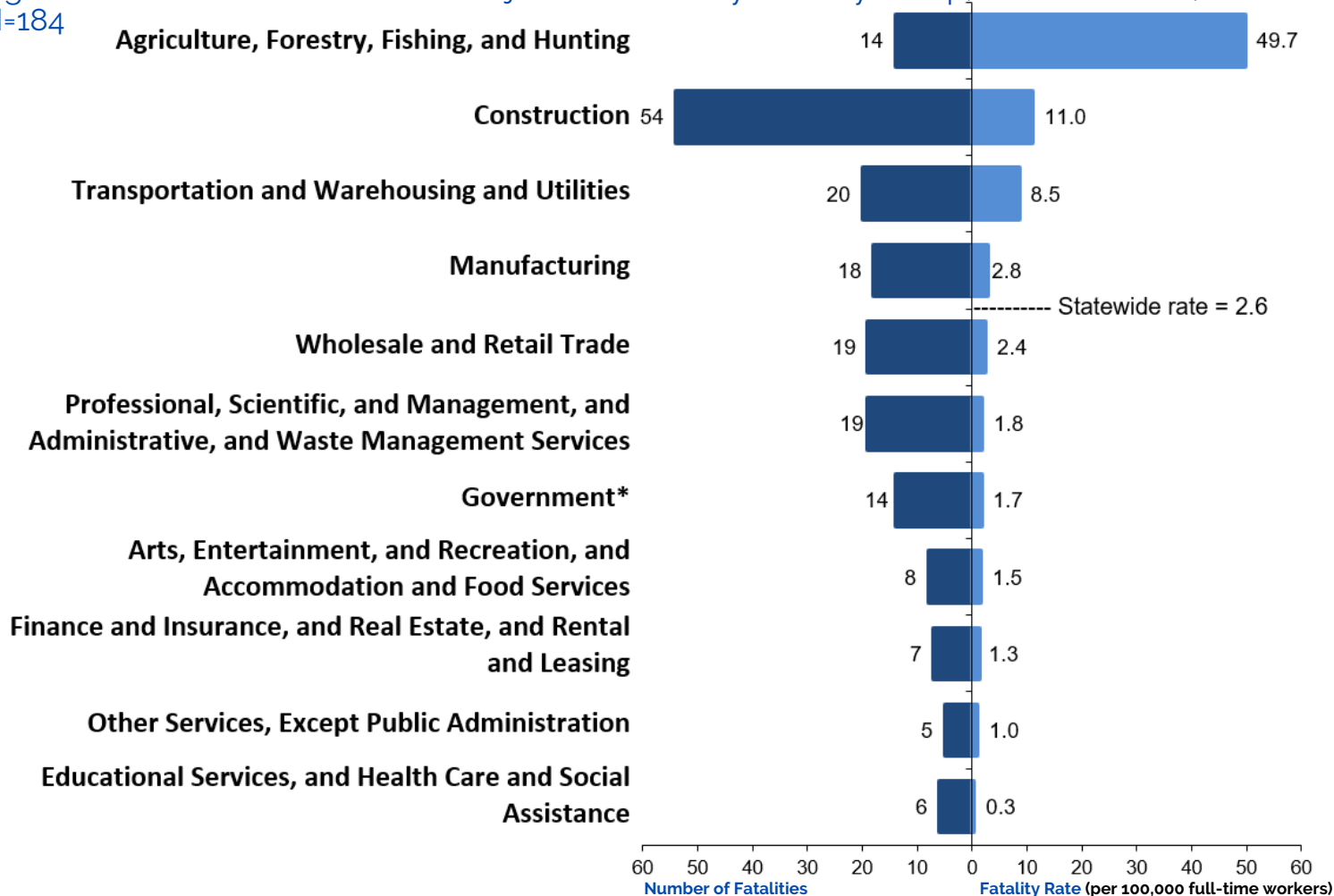
Event/Exposure	Number of Fatalities	Percent
Exposure to harmful substance or environment	47	26%
Unintentional overdose, drugs or alcohol	37	20%
Inhalation of harmful substance	4	2%
Transportation incident	44	24%
Roadway collision or noncollision (rollover)	24	13%
Worker struck by vehicle	11	6%
Water vehicle incident	3	2%
Fall, slip, or trip	37	20%
Fall to a lower level	32	17%
Fall on same level	5	3%
Violence and other injury by person or animal	32	17%
Suicide or self-inflicted injury	16	9%
Homicide	11	6%
Contact with object or equipment	20	11%
Struck by falling object or equipment, other than vehicle	11	6%
Struck by powered vehicle, non-transit (e.g. excavator boom or door struck worker)	4	2%
Caught in running equipment or machinery	3	2%
Fires and explosions	4	2%
Total	184	100%

- NOTE: Event/exposure categories and sub-categories with < 3 fatalities are not shown. Sub-categories may not add up to the bolded category totals. Percentages may not add to 100% due to rounding.
- Source: Occupational Health Surveillance Program, Massachusetts FACE and CFOI, 2018-2019.

Massachusetts Fatal Injuries at Work, 2018-2019

Fatal Injuries at Work by Industry

Figure 2. Number and Rate of Fatal Injuries at Work by Industry Group, Massachusetts, 2018-2019, N=184



Note: Data not presented for two industry groups with fewer than three fatalities (N = 1 death).

*The Government category includes fatalities sustained by public sector workers regardless of industry.

Source: Occupational Health Surveillance Program, Massachusetts FACE and CFOI, 2018-2019.

- The Agriculture, Forestry, Fishing and Hunting industry group had the highest occupational fatality rate in 2018-2019 (n=14; 49.7 per 100,000 full-time workers). Eleven of these 14 were workers on commercial fishing vessels. OHSP works closely with NIOSH, the Northeast Center for Occupational Health and Safety in Agriculture, Forestry, and Fishing, and local fishing industry support organizations to ensure these deaths inform policy and prevention.⁷
- Construction continued to be a high-risk industry, with the second highest fatality rate (11.0 per 100,000 workers) and the highest number of deaths (n=54). Twenty died from a fall to a lower level and nine died from workplace overdose.
- The Transportation and Warehousing and Utilities industry group had 20 deaths and the third-highest workplace fatality rate of 8.5 deaths per 100,000 full-time workers. Seventeen of these workers were drivers and drove heavy trucks, light delivery vehicles, or taxis. Of the 20, 18 were killed in or near their work vehicles and 14 were killed while operating their vehicles. The Transportation and Warehousing industry sector, a component of this group, had a fatality rate of 9.8 deaths per 100,000 workers.
- The Manufacturing industry group had 18 deaths, a fatality rate of 2.8, and also has a workplace fatality rate above the statewide average of 2.6. Five of these workers were injured from contact with objects or equipment.
- While the Professional, Scientific, and Management and Administrative and Waste Management Services group had an overall rate below the statewide average, within this group there were 14 deaths in the Landscaping Services industry, which had a fatality rate of 28.6 deaths per 100,000 workers. Twelve of these workers were tree trimmers or arborists or were otherwise performing tree work.

Landscape construction laborer compressed between compact excavator and steel beam at residential site - Massachusetts 2018MA001

On January 18, 2018, a 27-year-old laborer was killed while operating a compact excavator. He was using the equipment to excavate the existing crawlspace underneath a home to make space for a poured concrete foundation and a full basement. While operating the compact excavator alone, he became pinned between the excavator and an overhead beam. The victim was eventually discovered by the company owner. The company owner flagged down a passing motorist and a call was placed for emergency medical services (EMS). The victim was pronounced at the scene.

Massachusetts FACE Program concluded that, to help prevent similar occurrences, employers should:

- Ensure that only workers with required training and license are permitted to operate compact excavators and other regulated equipment.
- Ensure that ride-on equipment without a protective cab are not operated in the vicinity of overhead obstructions.
- Develop, implement, and enforce a policy that prevents employees from working alone in certain situations.
- Ensure that a job hazard analysis is performed prior to the start of each project and is updated if there is a major change in the scope of the project.
- Develop and implement a comprehensive safety and health program that addresses hazard recognition, avoidance of unsafe conditions, and proper use of equipment.

In addition, equipment manufacturers should:

- Adopt and implement the concept of Prevention through Design (PtD) to identify potential hazards associated with equipment and eliminate these hazards through design changes.
- Develop a pictograph of the overhead crushing hazard and set a minimum height clearance for operating the excavator.

Find the entire report at: <https://www.mass.gov/info-details/landscape-construction-laborer-compressed-between-compact-excavator-and-steel-beam-at>

Municipal public works foreman dies after falling from a dump truck - Massachusetts 2018MA050

On September 11, 2018, a 59-year-old male municipal foreman died after falling from a dump truck bed. At the time of the incident, the foreman and a co-worker were unloading a sod cutter that was located on the truck's bed. Wood planks were being used as a ramp to help with this task. The victim climbed the wood planks and as he was stepping onto the dump truck's bed, one of the wood planks slipped out and fell to the ground. The victim also fell, striking his head on the ground. The co-worker, who witnessed the incident, placed a call for emergency medical services (EMS) and assisted the victim. EMS arrived quickly and the victim was transported to the hospital.

Massachusetts FACE Program concluded that, to help prevent similar occurrences, employers should:

- Ensure the appropriate equipment is available and used for each assigned task.
- Ensure that a job safety analysis is performed prior to the start of each project.
- Develop and implement a comprehensive safety and health program that addresses hazard recognition and avoidance of unsafe conditions.
- Work towards creating a positive safety culture and safety climate in the workplace.
- Ensure that all workers assigned to tasks where they will spend time along roadways wear high visibility, reflective clothing.

Find the entire report at: <https://www.mass.gov/info-details/municipal-public-works-foreman-dies-after-falling-from-a-dump-truck-massachusetts>

Massachusetts Fatal Injuries at Work, 2018-2019

State and Federal Roles in Occupational Health and Safety

As there is no agency that has sole jurisdiction over all workplaces and workers in Massachusetts, OHSP plays an important role in connecting workers and employers with the various agencies that support workplaces.

The Occupational Safety and Health Administration (OSHA) is the main federal agency that is responsible for creating workplace health and safety standards, providing compliance assistance, and enforcing these standards. OSHA standards apply to private sector employers and employees. In Massachusetts, the Department of Labor Standards uses OSHA standards to protect state and local public sector workers. Self-employed workers or independent contractors are not covered by OSHA, nor are workers on family farms that employ only immediate family members.

OSHA investigated 66 (39%) of the fatal work-related injuries identified by the Massachusetts FACE and CFOI projects that occurred in 2018 and 2019.⁸ Of the remaining incidents, 47 involved workers who fall outside of OSHA jurisdiction, such as public sector employees, sole proprietors or the self-employed, and commercial fishers. Sixty-six additional deaths were events not routinely addressed by OSHA, such as overdoses, suicides, homicides, or roadway motor vehicle collisions. Thus, OHSP fills an important gap through the information it collects, analyzes, and disseminates.

OSHA levied fines for violations of health and safety standards against at least 42 of the employers they investigated in response to these fatal incidents. The lowest fine assessed was \$3,880 and the highest at \$311,330.

Celebrating 50 years of health and safety!

2021 marks 50 years since the Occupational Safety and Health Act of 1970 (An act to assure safe and healthful working conditions for working men and women) was enacted. This led to the creation of two federal agencies that today provide protection to workers across the country. The Occupational Safety and Health Administration (OSHA) in the U.S. Department of Labor and the National Institute for Occupational Safety and Health (NIOSH) in the Centers for Disease Control and Prevention work together to research worker health and safety, develop and enforce standards, and provide training and consultation for workers. For more information, please visit: <https://www.osha.gov/osha50/>



State and Federal Roles in Occupational Health and Safety

The work-related fatalities in 2018-2019 described in this report were identified by the Massachusetts FACE and CFOI projects. These data may not match data published by the U.S. Bureau of Labor Statistics (BLS).

The OHSP in the Massachusetts Department of Public Health (MDPH) collects information on all fatal occupational injuries as part of the national Census of Fatal Occupational Injuries (CFOI), conducted in cooperation with the U.S. Bureau of Labor Statistics (BLS). Death certificates, records from the Occupational Safety and Health Administration (OSHA), news stories, police reports and other data sources are used to identify these deaths. These source documents are primarily collected by the Fatality Assessment and Control Evaluation (FACE) project, which conducts in-depth investigations of select fatal occupational injuries with support from the National Institute for Occupational Safety and Health (NIOSH). The purpose of the FACE project is to develop a detailed understanding of how fatal injuries occur and to develop recommendations to prevent similar incidents in the future. These recommendations are disseminated to relevant industries, labor organizations, equipment manufacturers, and others in positions to take action to prevent work-related injuries.

Massachusetts Fatal Injuries at Work, 2018-2019

Health and Safety Resources in Massachusetts

For detailed tables of fatal occupational injuries and previous fatality update reports as well as educational materials, please contact the Massachusetts Department of Public Health, Occupational Health Surveillance Program, 250 Washington Street, 4th Floor, Boston, MA 02108-4619. Reports are available online at <http://www.mass.gov/dph/face> or by calling 1-800-338-5223. Please report work-related fatalities immediately to the MDPH Toll-Free Occupational Fatality Hotline (1-800-338-5223), or to MA.FACE@mass.gov.

Massachusetts Department of Labor Standards – Offers free consultation services to help private sector employers improve their safety and health programs and train employees. <http://www.mass.gov/lwd/labor-standards/on-site-consultation-program>

DLS also has jurisdiction over state and local public sector workforces. Sample safety and health programs and many other resources are available at <https://www.mass.gov/workplace-safety-and-health-program-wshp> and <https://www.mass.gov/service-details/masssafetyworks-resources>

Massachusetts Department of Industrial Accidents – Has grants available for providing workplace health and safety training to employers and/or employees in companies covered by the Massachusetts Workers' Compensation Insurance Law. <http://www.mass.gov/the-dias-workplace-safety-training-grant>

ACKNOWLEDGEMENTS

The Occupational Health Surveillance Program would like to thank all agencies and people that contribute to our efforts to prevent work-related deaths by reporting fatalities and providing information during our fatality investigations. This project is a joint effort of several state and federal agencies. For their assistance in providing data and advice, we thank: OSHA Region I and area office staff; staff of the Registry of Vital Records and Statistics; local and state police departments; and clerks of cities and towns. We also appreciate the contributions of the Department of Labor Standards and the Department of Industrial Accidents in the Executive Office of Labor and Workforce Development; the Office of the Chief Medical Examiner; the U.S. Coast Guard; the National Transportation Safety Board (NTSB); the Boston Regional Office of the U.S. Bureau of Labor Statistics; and the National Institute for Occupational Safety and Health (NIOSH).

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References

1. <https://www.mass.gov/lists/occupational-health-special-topics#opioids-and-work->
2. <https://www.osha.gov/dsg/tcsbrefa/index.html> and <https://www.osha.gov/SLTC/treecare/index.html>
3. <https://www.mass.gov/service-details/hands-free-law>
4. All rates in this report are computed using full-time equivalent workers (FTE) in the denominator, which take into account the number of hours worked. This employment data comes from the Current Population Survey conducted by the Census Bureau for BLS. One FTE = 2,000 hours worked annually. All of the rates described in this report, aside from the overall state and national rates, are based on small numbers of deaths and should be interpreted with caution. Rates generated for this report are not directly comparable to rates published by BLS.
5. Bahn K, Cumming CS. Factsheet: U.S. occupational segregation by race, ethnicity, and gender. Washington Center for Equitable Growth. <https://equitablegrowth.org/factsheet-u-s-occupational-segregation-by-race-ethnicity-and-gender/>. Published July 1, 2020.
6. Self-employed workers include persons who own/operate unincorporated businesses and paid and unpaid family workers.
7. <https://www.necenter.org/fishing/> and <https://www.cdc.gov/niosh/topics/fishing/default.html>
8. This 28 includes five investigations that were initiated and then halted once it was determined the worker was the company owner or self-employed.