



**COMMONWEALTH
OF MASSACHUSETTS**

Deval L. Patrick, Governor

**Timothy P. Murray,
Lieutenant Governor**

**Joanne F. Goldstein, Secretary
Executive Office of Labor and
Workforce Development**

2011 Occupational Injuries and Illnesses Annual Report



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Work-Related Nonfatal Injuries and Illnesses in 2011

Injuries: In 2011, there were approximately 70,500 nonfatal work-related injuries and illnesses reported among the estimated 2.7 million employees in the private sector workforce. This translated into a 3.2 incidence rate per 100 equivalent full-time workers (FTEs). The rate, along with the numbers of incidents, remains relatively unchanged compared to the 2010 data. Massachusetts' private sector incidence rate has remained the lowest throughout the New England states that have reported data, and on par or lower than the national rate, which was 3.5 incidents per 100 FTEs.

Among the state's public sector workforce, state government had an estimated total of 6,000 recordable cases in 2011, in 2010 there was a total of 3,100 cases. This translates to a total recordable case (TRC) incidence rate of 6.6 cases per 100 FTEs. For the purpose of this data collection, state government is divided into two sub-industries: Education and Health Services and Public Administration. The majority of recordable cases, 3,600, occurred among employees in Public Administration at a rate of 7.4 TRC per 100 FTEs. The Education and Health Services industry reported approximately 1,300 TRCs, translating to an incidence rate of 4.0 TRC per 100 FTEs. Due to a low response rate from selected local government agencies, municipal data is not available to be published.

Illnesses: In 2011, private industry workplaces in Massachusetts incurred an estimated total of 3,000 cases of nonfatal occupational illnesses. This resulted in an incidence rate of 13.6 cases per 10,000 FTEs within all private industries. Illnesses can be broken down into subcategories: skin disorders, respiratory conditions, poisonings, hearing loss, and all other illnesses. Within all Massachusetts private sector industries, the incidence rates and total number of illnesses were as follows:

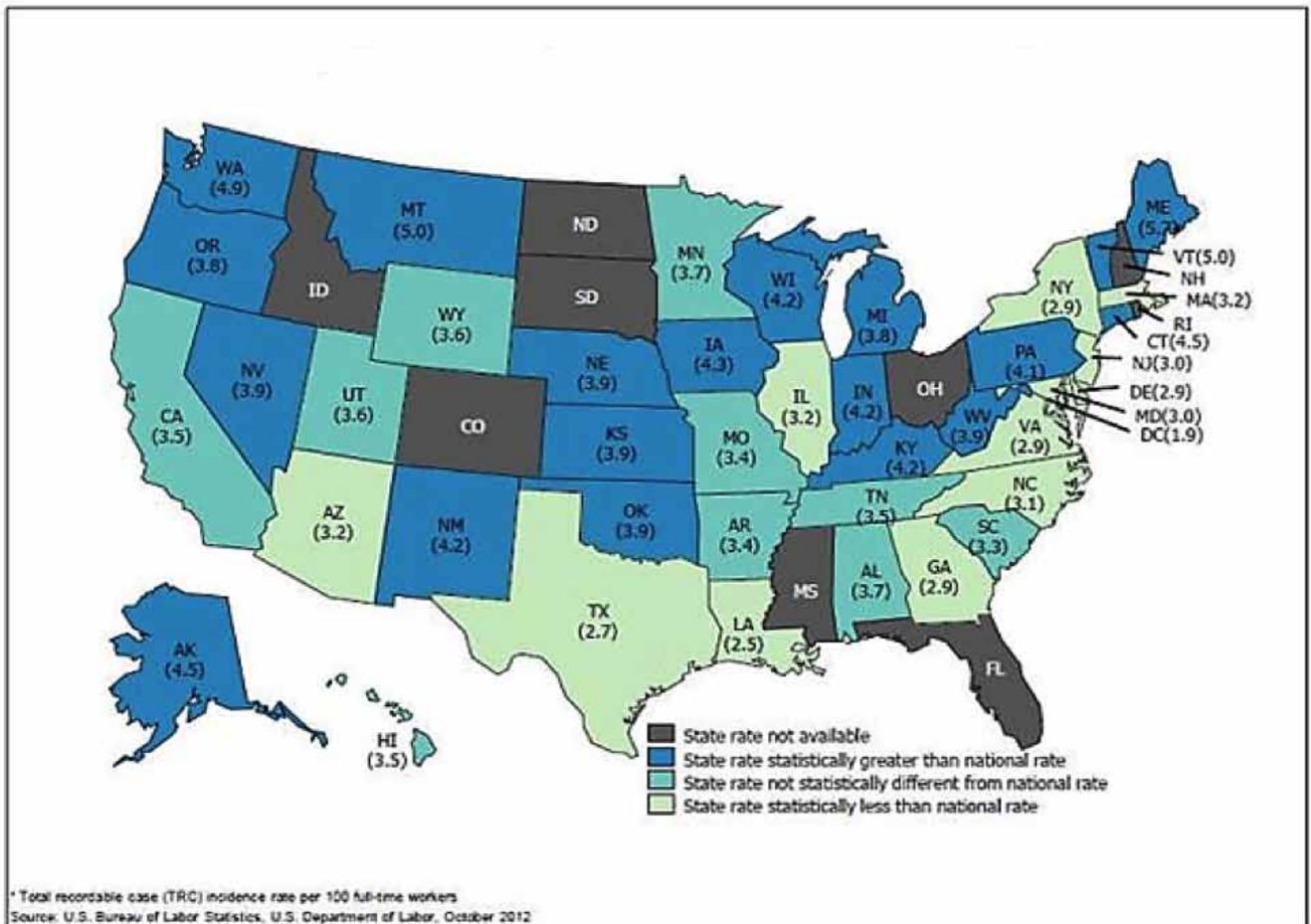
	Incidence rate (per 10,000 FTE)	Number of illnesses
Skin disorders	1.6	300
Respiratory conditions	1.2	300
Poisonings	0.4	100
Hearing loss	2.0	500
All other illnesses	8.3	1,800

Education and Health Services had a high incidence of work-related illness with a rate of 25.6 cases per 10,000 FTEs. Within this industry, the sub-category of health care and social assistance had the highest incidence of work-related illness with a rate of 30.3 cases per 10,000 FTEs. Manufacturing also had a high incidence of illnesses at 23.1 cases per 10,000 FTEs. Education and Health Services similarly had the highest total number of illness of the major industries, with 1,200 cases of illness in 2011.

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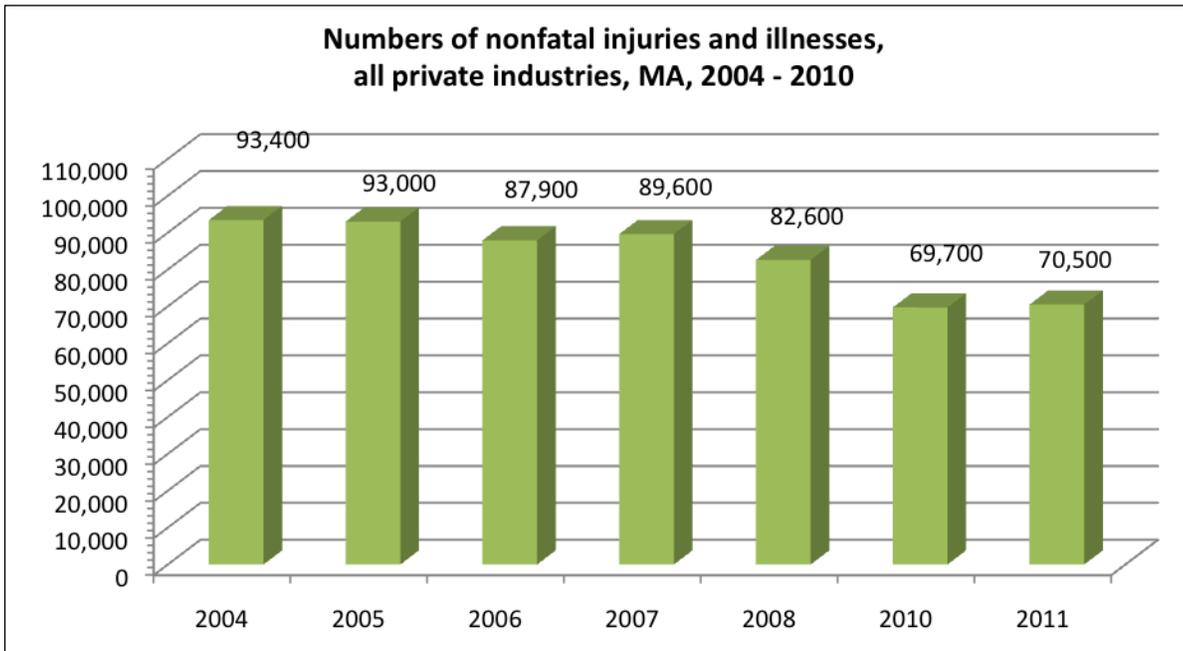
State Government employees experienced a total of 1,300 nonfatal occupational illnesses in 2011. This resulted in an incidence rate of 144.9 cases per 10,000 FTEs. Approximately one hundred of these illnesses were classified as skin disorders; the remaining approximately 1,200 cases were classified as all other illnesses or in categories too small to meet publication guidelines. Six hundred cases occurred within the state's Education and Health Services industry. Five hundred illness cases occurred in the state's Public Administration industry.

State nonfatal occupational injury and illness incident rates* compared to the national rate, private industry, 2011



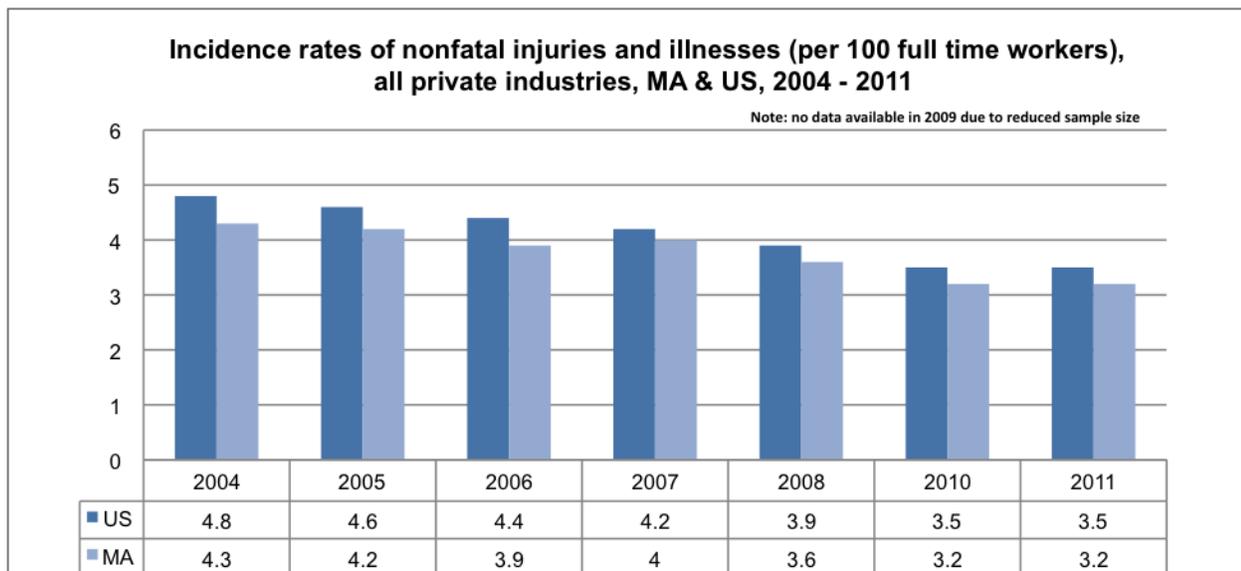
The map above captures the national landscape by including each state's incident rate and statistical significance. According to the Bureau of Labor Statistics, Massachusetts has the lowest incident rate in New England (3.2) and is statistically lower than the national rate of 3.5 cases per 100 FTEs.

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* TRC incident rate per 100 full-time workers

Source: U.S. Bureau of Labor Statistics, U.S. Department of Labor, October 2012

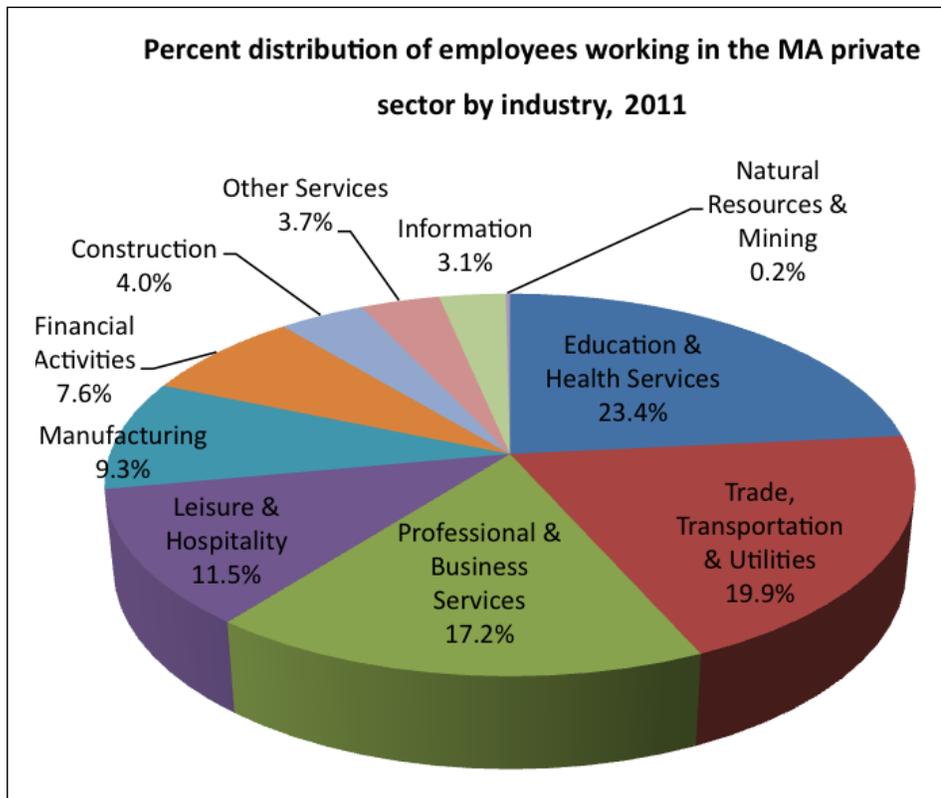


The charts above show time comparisons of numbers and rates of nonfatal injuries and illnesses from 2004-2011 among all Massachusetts private industries. The data show a downward trend over time in the total numbers and rates of nonfatal injuries and illnesses. Note that no data is available for 2009 due to a reduced sample size.

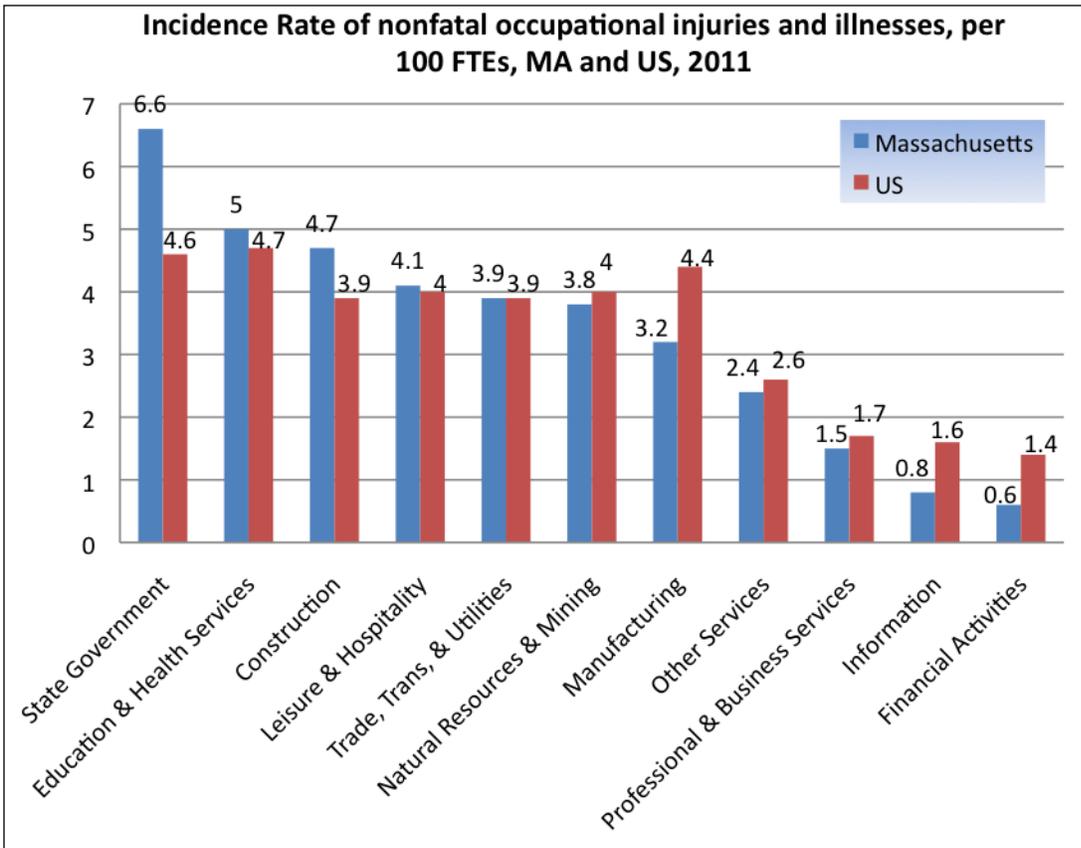
Industry Information

Based on estimates from the Bureau of Labor Statistics, there are approximately 2.73 million employees working in the private sector in Massachusetts. The chart below shows the percent distribution of employees working in each industry during 2011.

The largest industry sector in Massachusetts, the Education and Health Services industry, had the highest numbers of nonfatal occupational injuries and illnesses; it had an incidence rate of 5.0 cases per 100 FTEs in the private sector. In 2011, the Natural Resources and Mining industry had a low number of nonfatal occupational injuries and illnesses, with 200 cases. The Financial Activities sector had one of these lower rates with 0.6 cases per 100 FTEs.



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Injury and Illness Case Types

Work-related injuries and illnesses are recorded as three individual case types by employers:

1. **Cases with days away from work**, commonly identified in this report as **DAFW**.
2. **Cases with job transfer or restricted duty**, commonly identified as **DJTR**.
3. **Other Recordable Cases**, commonly identified as **ORC**.

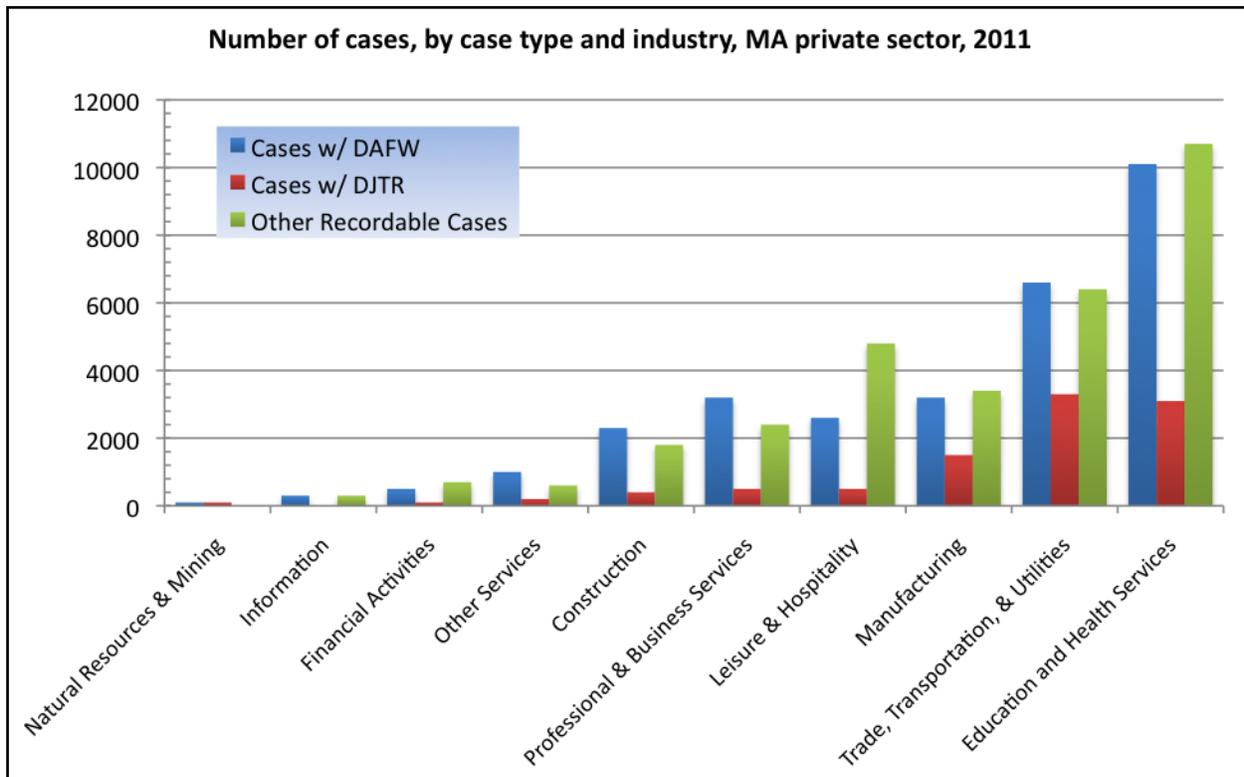
In order for a case to be considered recordable by an employer, there are two criteria about the incident that have to be met. First, the injury or illness has to be determined to be work-related or caused by the work environment. Second, the incident needs to involve loss of consciousness, require days away from work, job transfer or restricted duty, medical treatment beyond first aid (i.e. stitches, prescribed medication from a doctor, surgery, etc.), involve a significant work-related injury or illness diagnosed by a physical or licensed healthcare professional or meet other recordability criteria as specified under 29 CFR 1904.7. If both of these criteria are met, the incident is recordable.

DAFW cases are considered the most serious due to the fact that the employee could not perform any function of his/her job because of the injury or illness.

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DJTR cases are deemed as such when a work-related injury or illness prohibits an employee from performing one or more of the main functions of that employee's job duties.

Cases that require more than first aid treatment or meet other recordability criteria, but where there is no lost work time or have transferred/restricted duty are considered Other Recordable Cases (ORC). The following chart shows the breakdown of each type of case by major industry group:



TRC and DART Incidence Rates

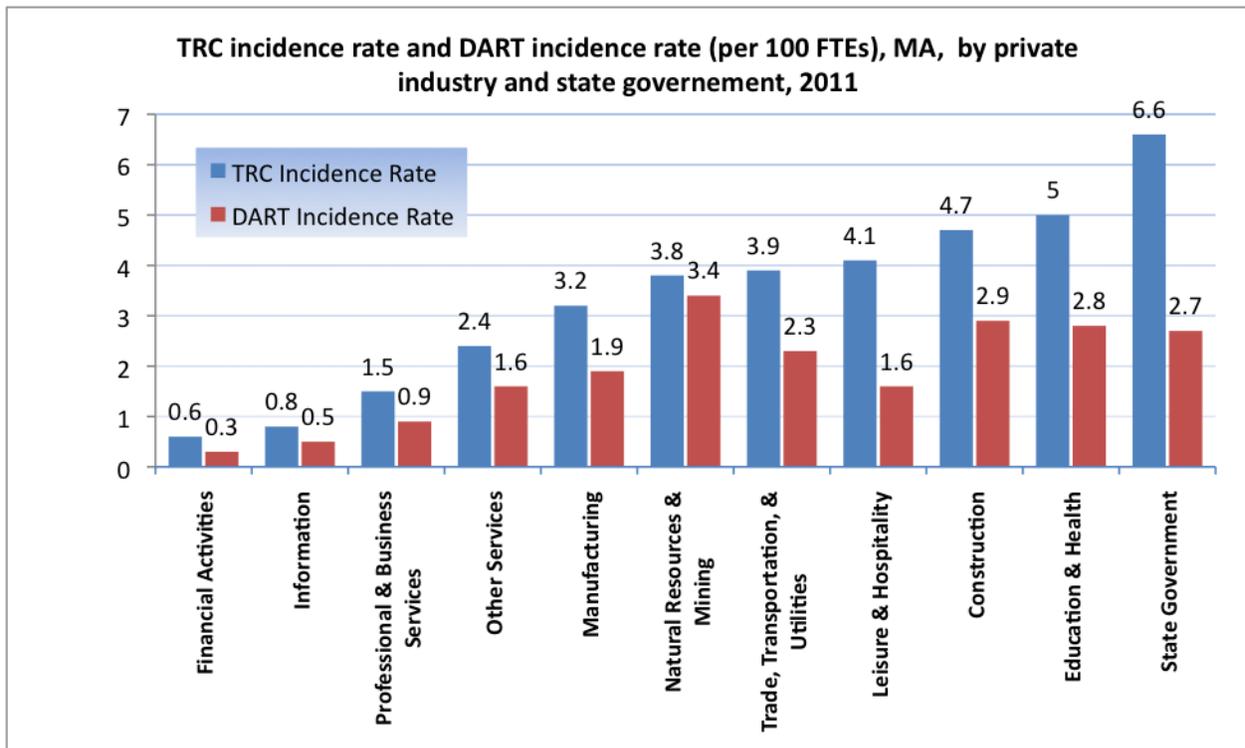
The chart below represents a comparison of the TRC incidence rates and Days Away, Restricted, or Transferred (DART) rates for private industries in addition to state government. The DART rate includes those cases involving days away from work, restricted work activity, and transfers to another job.

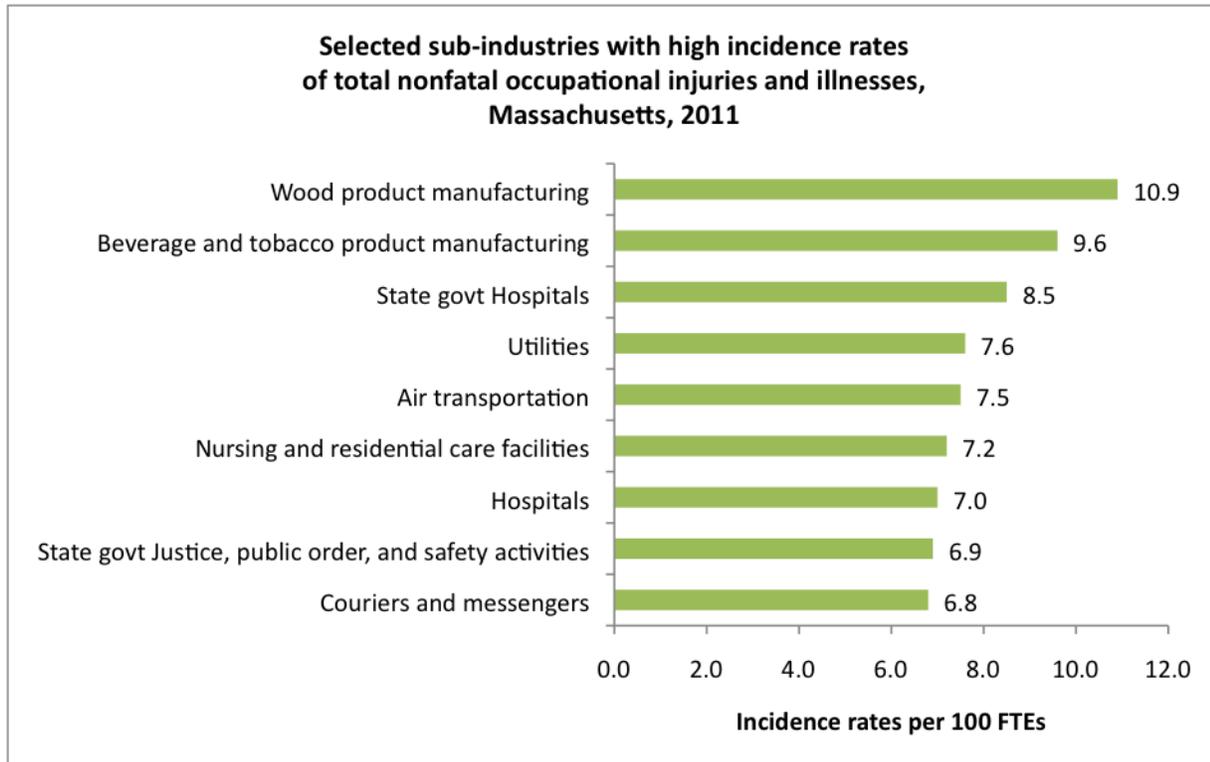
Hazardous industries with a smaller number of workers can show higher incidence rates than their counterparts with larger number of employees. Likewise, a larger industry such as Professional and Business Services which employs more than 15% of the private sector workforce, has a relatively low incidence rate and a higher volume of recordable incidents.

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Sector-level industry data, from the 2010 survey to the 2011 survey stayed relatively unchanged; however there were some changes which should be highlighted:

- In 2010, the Information industry had approximately 600 cases, while in 2011 there was an estimated 1,000 cases. The incidence rate changed from 1.3 cases per 100 FTEs in 2010 to 0.8 cases per 100 FTEs in 2011.
- The Financial Activities industry had a TRC incidence rate of 1.1 cases per 100 FTEs in 2010, and the rate changed to 0.6 in 2011.
- State Government experienced a total of 3,100 cases in 2010, compared to 2011's total of 6,000 cases. However, the TRC incidence rate remained relatively unchanged.





The chart above shows selected sub-industries with high TRC incident rates in Massachusetts. Wood product manufacturing had a high TRC incident rate of 10.9 incidents per 100 FTEs. In 2010, wood product manufacturing also reported a high incident rate with 13.0 incidents per 100 FTEs. Beverage and tobacco product manufacturing had a high rate with 9.6 incidents per 100 FTEs. State Government Hospitals had a rate of 8.5 incidents per 100 FTE, while in 2010 they had a rate of 7.8 cases per 100 FTEs.

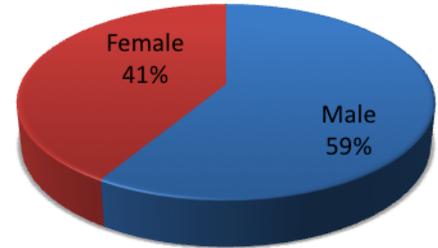
Case and Demographic Findings

Case and demographic findings for this survey are purely based on DAFW cases or in some instances, DJTR cases. The reason for this is that for the purposes of this survey, employers are only required to submit information about the injured or ill employee when the case involves missed work days. Some basic information is asked about the employee, such as name, job title, age or date of birth, date of hire, or length of service, race or ethnic background, work shift start time, and time of injury or illness. It is with that data that we compile and publish demographic information about the incidences of injuries and illnesses. In addition to demographic information, specific injury or illness information that describes the nature, event, source, secondary source, and part of body affected, is also collected.

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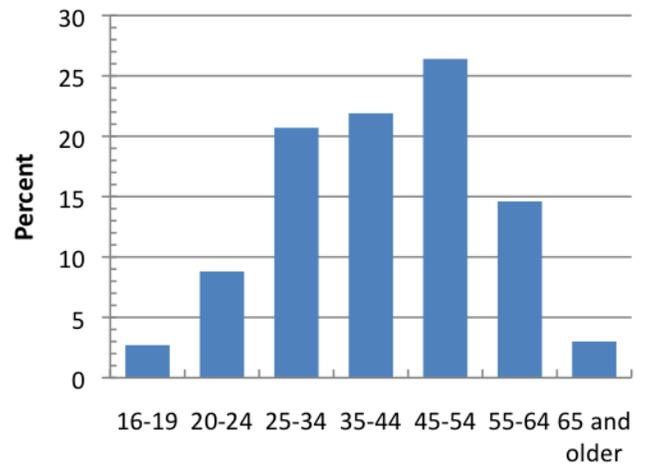
Gender: Men had a higher percentage of total DAFW injuries in 2011 than women. Of all the people who suffered DAFW injuries in 2011, 41% were female and 59% were male. It is important to note that approximately 100 cases did not report gender and are not included in these calculations.

Percent distribution of nonfatal occupational injuries and illnesses by gender, MA, private sector, 2011



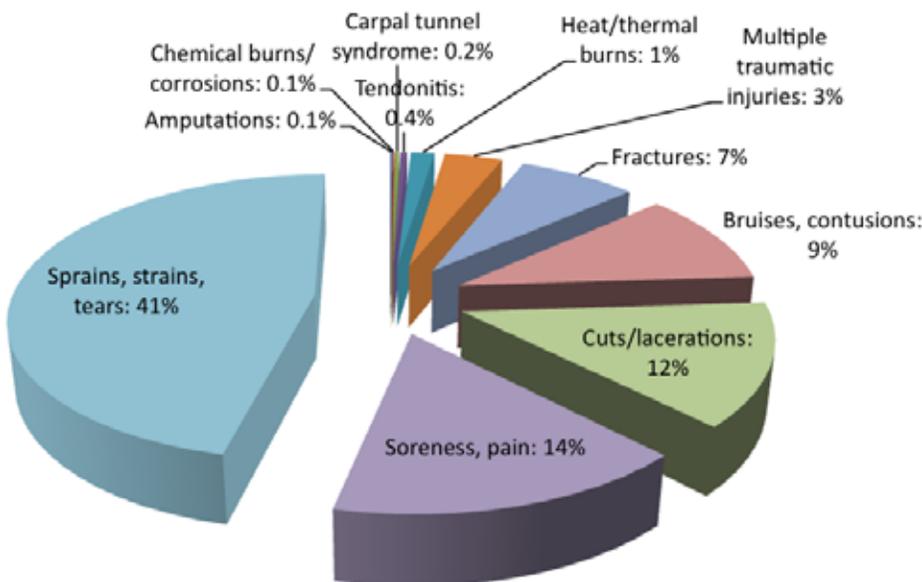
Age: Workers in the 45-54 year-old age category had a high number of cases with DAFW. Workers in this age group made up 26.4% of the total injuries. Another age group with a high percentage of DAFW cases is the 35-44 age group with 21.9% of total injuries. The 16-19 and 65 and older age groups reported the lowest numbers of recordable injuries with 2.7% and 3.0%, respectively.

Percent distribution of nonfatal injuries and illnesses by age, MA, private sector, 2011



Nature of Injury: Sprains, strains, and tears made up 41.0% of all DAFW injuries in 2011. Soreness and pain made up 14.1% of the reported nature of injuries, and cuts, lacerations, and punctures accounted for 12.0% of the injuries.

Nature of the injury/illness with DAFW, MA, private sector, 2011

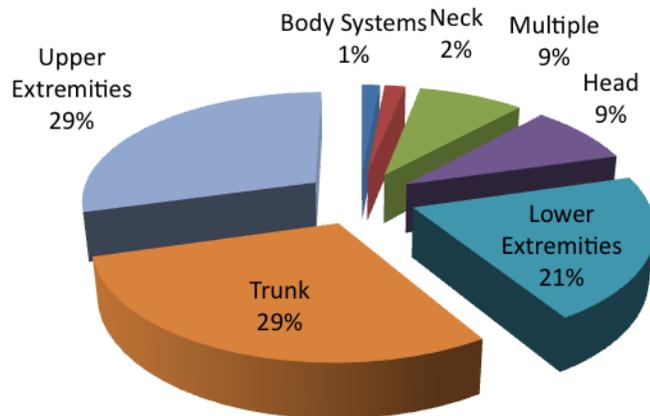


Age (in years)

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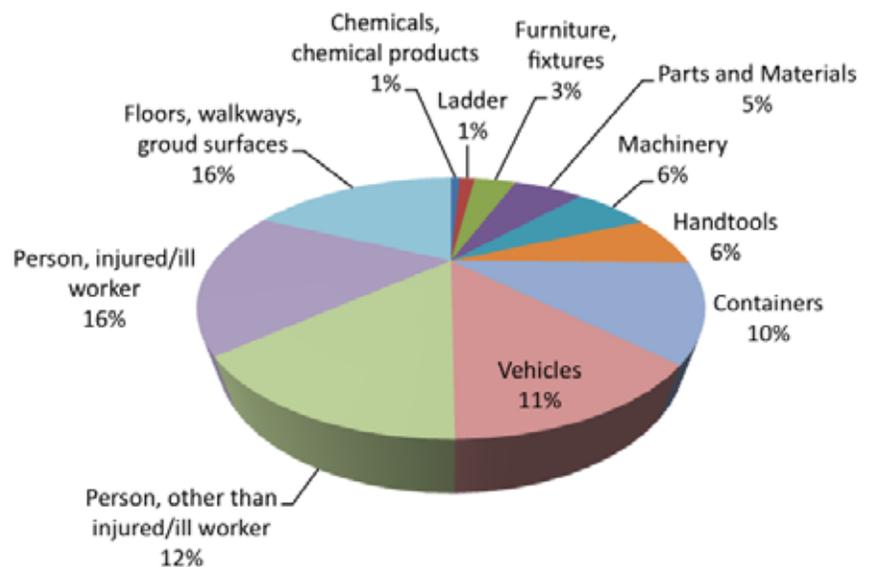
Part of Body: The trunk region is defined by the Occupational Injury and Illness Classification System (OIICS) manual as the “main part of the body, where the head and limbs are attached.” Typically, the region of the trunk most affected is the back. There were 6,990 DAFW cases that involved the back; however, the entire trunk region experienced 29% (8,780 cases) of the total DAFW cases in 2011. The upper extremities range from the upper arm to the fingertips, and was identified as the affected part of body in 29% (8,790 cases) of DAFW cases in 2011.

Percent part of body of the injury/illness with DAFW, MA private sector, 2011



The lower extremities, which range from the upper leg and thigh to the toes, was identified as the affected part of body in 21% (6,200 cases) of the DAFW cases. The Head, including the face, along with multiple body parts, was the affected part of body in 9% (2,610 cases) of the DAFW cases.

Source of Injury or Illness, private sector, MA, 2011



The neck was the affected part of body in 2% (510 cases) of the DAFW cases in 2011. Lastly, the body systems (i.e. circulatory, gastrointestinal system, respiratory system, etc.) was the affected part of body in 1% (440 cases) of all DAFW cases.

Source of injury or illness in the private sector: One of the two most common sources involving DAFW were floors, walkways, or ground surfaces, resulting in 4,720 cases (16%). The employee who was the injured or ill person is the other most common source of injury with 4,660 cases, also 16% of the total. Of the 4,660 cases where the source of injury is the injured or ill employee, 4,510 were due to the workers’ motion or position. Persons other than the injured/ill worker were the source listed in 12 percent, or 3,630 of all the DAFW cases.

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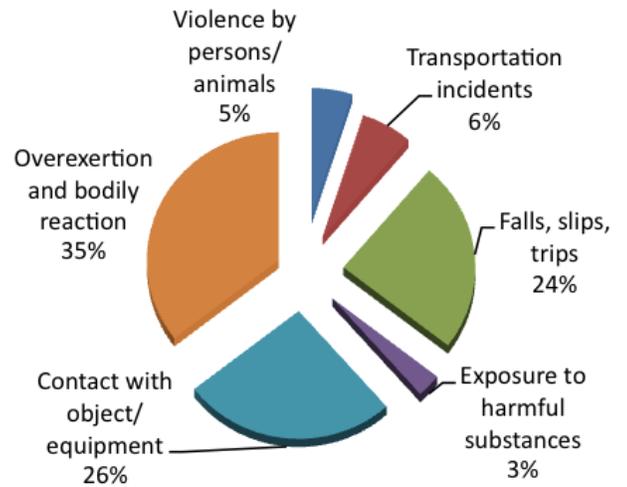
Event causing the injury or illness in the private sector:

Of the 29,940 total cases reported in 2011, 10,590 involved overexertion (35%). 7,800, or 26% of the DAFW cases involved contact with object or equipment. Falls, trips, and slips were the events specified in 7,220

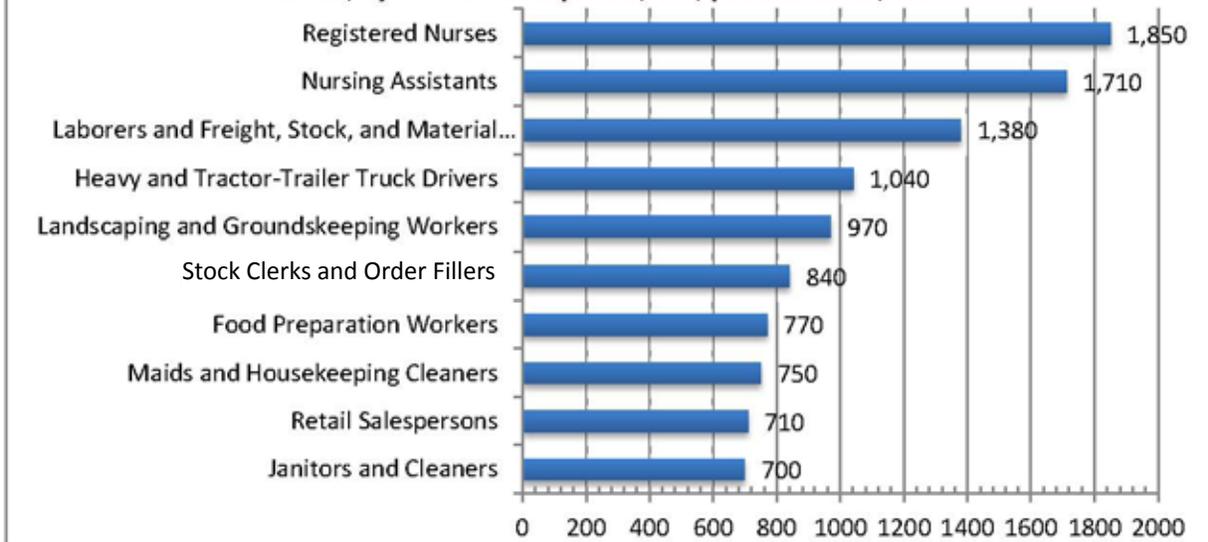
DAFW cases or 24% of the total. Six percent or 1,880 cases were caused by transportation incidents. Violence and other injuries by persons or animals was the event of incident in 5%, or 1,490 cases. Lastly, exposure to harmful substances was the event named in 3% (890 cases) of the total cases with DAFW.

Occupations: Registered Nurses and Nursing Assistants were among the occupations that experienced the highest numbers of nonfatal injuries and illnesses in 2011. Dating back to 2005, excluding the years in which data was not publishable, those occupations rank high among the occupations with the highest number of nonfatal injuries and illnesses with DAFW. It is important to note that these cases excludes state hospital registered nurses and nursing assistants.

Event causing the injury/illness with DAFW, MA, private sector, 2011



Highest numbers of nonfatal occupational injuries and illnesses, involving DAFW, by selected occupation, MA, private sector, 2011



Data Source for this Report

The data source for this report is the Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses (SOII), in cooperation with participating state agencies. Survey data for the SOII is derived from mandatory logs kept by private industry employers and participating public sector employers during the calendar year. All survey responses are confidential and are used for statistical purposes only. The SOII is a federal-state government partnership between the U.S. Department of Labor's Bureau of Labor Statistics (BLS) and the Massachusetts Department of Labor Standards (DLS).

About the Department of Labor Standards

The mission of the Massachusetts Department of Labor Standards (DLS) is to promote and protect workers' safety and health, wages and working conditions, and to support employers and workers in the utilization of apprenticeship as a workforce development tool. In collaboration with public and private entities, DLS protects workers by means of education and training, workplace safety and health consultation and assessment, occupational injury and illness data collection and analysis, and consistent and responsible administration and enforcement of its statutes and regulations. DLS carries out its objectives in a manner that supports employers and strengthens the Commonwealth's communities and economy.

The Occupational Safety and Health Statistics Program within DLS administers the SOII for all private sector and public sector industries, trades, and occupations. The Program collects thousands of surveys annually from a randomly selected sample of establishments within the private and public sectors. Employers record cases that result in days away from work due to injury or illness. SOII contains multiple case characteristics that capture invaluable information about the nature of the industry, the injury, and the demographics of the injured employee. The Program uses this data to produce an annual occupational injury and illness report, which summarizes overall and industry-specific data on occupational safety. Reports from prior years can be found on the DLS website at <http://www.mass.gov/lwd/labor-standards/occupational-safety-and-health-statistics-program/>. The mission of the Occupational Safety and Health Statistics Program is to support continued improvement of workplace environments by compiling and presenting data to employers, employees, researchers, industry professionals, and policy-makers, so that these data can be used to devise strategies to reduce occupational injuries and illnesses.

DLS administers eight programs (including the Occupational Safety and Health Statistics Program) that interact with the public on a range of occupational health and safety issues.

State Government Resources for Occupational Health and Safety

On-Site Consultation Program

This program, administered by DLS, offers a free consultation service designed to help employers recognize and control potential safety and health hazards at their worksites, improve their safety and health program, assist in training employees, and possibly qualify for a one-year exemption from routine OSHA inspections. This service targets smaller businesses (less than 250 employees per establishment or 500 employees nationwide) in high hazard industries; such as manufacturing, healthcare, and construction. It is a confidential service in which your firm's name, and any other information you provide and any unsafe or unhealthy working conditions found, will not be reported routinely to the OSHA inspection staff. Visit www.mass.gov/dols/consult for more information.

Workplace Safety and Health Program

The Workplace Safety and Health Program within DLS, provides technical assistance and performs investigations of workplace health and safety hazards within public sector workplaces in Massachusetts. Visit <http://www.mass.gov/dols/wshp> for more information.

Department of Public Health's Occupational Health Surveillance Program

The Occupational Health Surveillance Program within the Department of Public Health, generates reports, fact sheets, and safety alerts regarding fatal occupational injuries. For more materials on this subject, please contact the Massachusetts Department of Public Health, Occupational Health Surveillance Program, 250 Washington Street, 6th Floor, Boston, MA 02108. To speak with a representative directly, please call 1-800-338-5223. Reports are available on the program's website: <http://www.mass.gov/eohhs/gov/departments/dph/programs/health-stats/ohsp/fatal-injury/>

Department of Industrial Accidents Safety Grant Program

The Department of Industrial Accidents (DIA), through the Office of Safety, annually awards hundreds of thousands of dollars in safety training grants to various organizations. In each fiscal year, thousands of persons receive workplace training through programs funded by these DIA grants. This highly successful program provides monies for workplace safety training aimed at workers throughout the Commonwealth. For more information explore the following link:

<http://www.mass.gov/lwd/workers-compensation/safety/grant-program/safety-grant-program.html>

Material Request Information

For more information about this 2011 report, please contact the Massachusetts Department of Labor Standards, Occupational Safety and Health Statistics Program, 19 Staniford Street, 2nd Floor, Boston, MA 02114; 617-626-6945.

Information can also be found on our website at:

<http://www.mass.gov/lwd/labor-standards/occupational-safety-and-health-statistics-program/>

Detailed statistical information can also be obtained from the Bureau of Labor Statistics at:

<http://www.bls.gov/bls/safety.htm>

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