



**COMMONWEALTH  
OF MASSACHUSETTS**

**Charles. D. Baker, Governor**

**Ronald L. Walker, II, Secretary  
Executive Office of Labor and  
Workforce Development**

# 2014 Occupational Injuries and Illnesses Annual Report



## **Compiled by:**

Executive Office of Labor and  
Workforce Development's

Department of Labor Standards  
Occupational Safety and Health  
Statistics Program

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## Table of Contents

Work-Related Nonfatal Injuries and Illnesses in 2013 .....	3
Industry Information .....	7
Injury and Illness Case Types .....	8
TRC and DART incidence rates .....	10
Case & Demographic Findings .....	12
Data Source for this Report.....	16
About the Department of Labor Standards.....	16
Occupational Health and Safety Resources in Massachusetts.....	17

# Work-Related Nonfatal Injuries and Illnesses in 2014

**Total Number of Cases and Incidence Rates:** In 2014, there were an estimated 85,400 work-related injuries or illnesses. This resulted in a total recordable incidence rate of 3.3 cases per 100 FTEs. Of the total count of incidents, 62,100 nonfatal work-related injuries and illnesses were reported throughout the industries that comprise the Massachusetts private sector workforce. The total number of recordable cases (TRC) translated into an incidence rate of 2.7 cases per 100 equivalent full-time workers (FTEs). In the private sector, there were 27,900 cases with days away from work, 6,200 cases that resulted in job transfer and/or restriction, and 27,900 other recordable cases. More information regarding specific case types can be found on pages 9 and 10 of this report.

### Public Sector Workforce - State Government

The major industries within state government with publishable data for 2014 were *Educational Services* and *Health Care and Social Assistance*. Educational Services reported a total of 600 cases, and a TRC incidence rate of 1.8 cases per 100 FTEs. Health Care and Social Assistance had a total of 700 cases and a TRC rate of 6.0 cases per 100 FTEs.

### Public Sector Workforce – Local Government

Due to a low response rate from selected local government agencies, municipal data is not available to be published.

### Year-to-year changes:

Although most of the data remained relatively unchanged from the 2013 results, there were some statistically significant<sup>1</sup> changes that should be highlighted:

- The Private Industry had a decrease in both the total number of recordable cases and the TRC incidence rate from the 2013 to 2014 survey year. The total number of recordable incidents decreased from an estimated 66,500 incidents in 2013, to 62,100 in 2014. The TRC incidence rate had an estimated decrease from 2.9 cases to 2.7 cases per 100 FTEs.
- The Educational Services industry had an increase in both the total number of recordable cases and the TRC incidence rate from the 2013 to 2014 survey year. The total number of recordable incidents increased from an estimated 2,000 incidents in 2013, to 2,400 in 2014. The TRC rate increase from 2.1 cases to an estimated 2.6 cases in 2014.

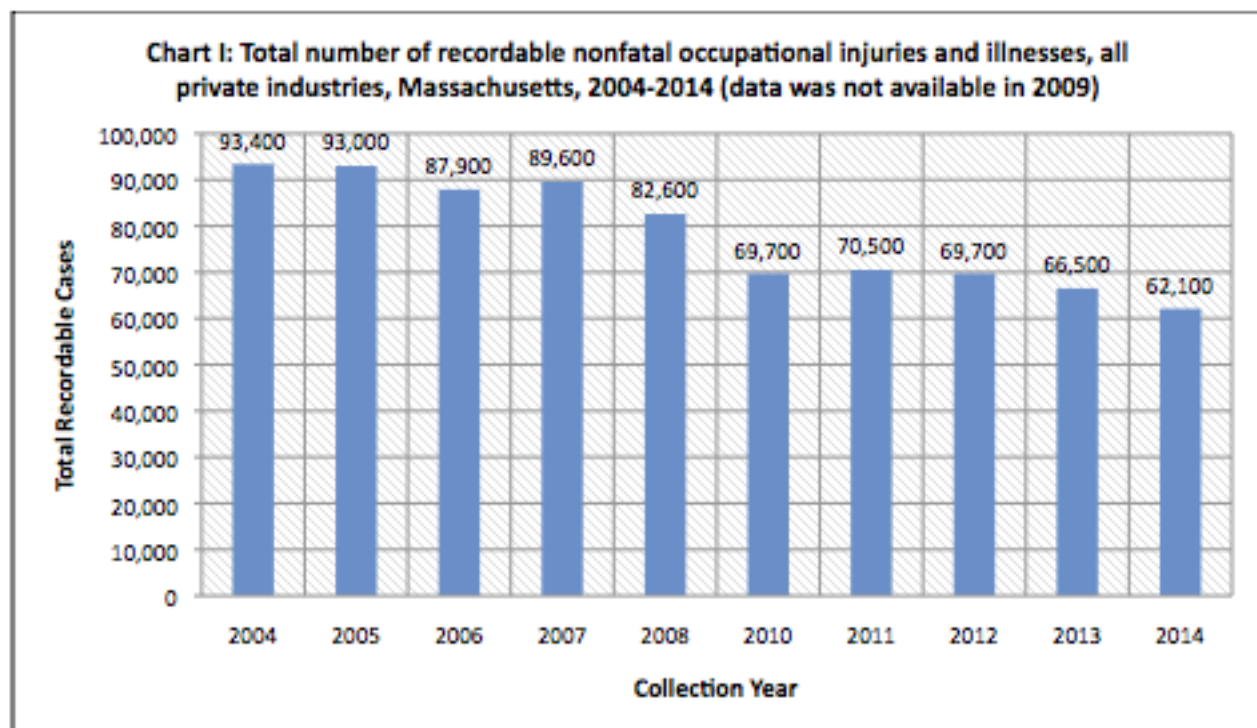
<sup>1</sup> Statistical significance was measured using a traditional statistical significance test at the 95% confidence interval.

# Massachusetts Occupational Injuries and Illnesses Report 2014

- Within the Public Sector the Educational and Health services industry had a decrease in both the total number of recordable cases and the TRC incidence rate from the 2013 to 2014 survey year. The total number of recordable incidents decreased from an estimated 1,500 incidents in 2013, to 1,200 in 2014. The TRC rate had an estimated decrease from 3.9 cases to 2.9 cases.

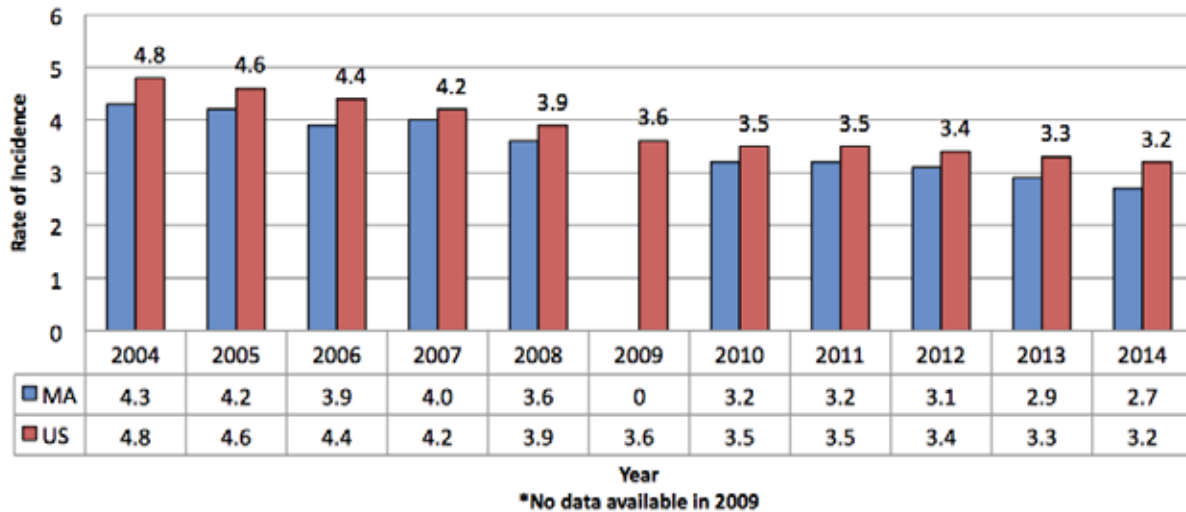
Charts I and II below show time comparisons of numbers and rates of nonfatal injuries and illnesses from 2004-2014 among all Massachusetts private industries. The incidence rate chart includes U.S. private sector data as well. The data shows a downward trend over time in the total numbers and rates of nonfatal injuries and illnesses.

**Injuries:** There were 59,500 injury-only cases that occurred in the private sector in 2014. This translates to an incidence rate of 2.6 cases per 100 FTEs. Due to a low response rate from the government agencies, data is not available to be published for the Massachusetts State Government. Chart III below shows a comparison of the total number of injury-only cases to the total number of recordable incidents in the private sector over a four-year period.



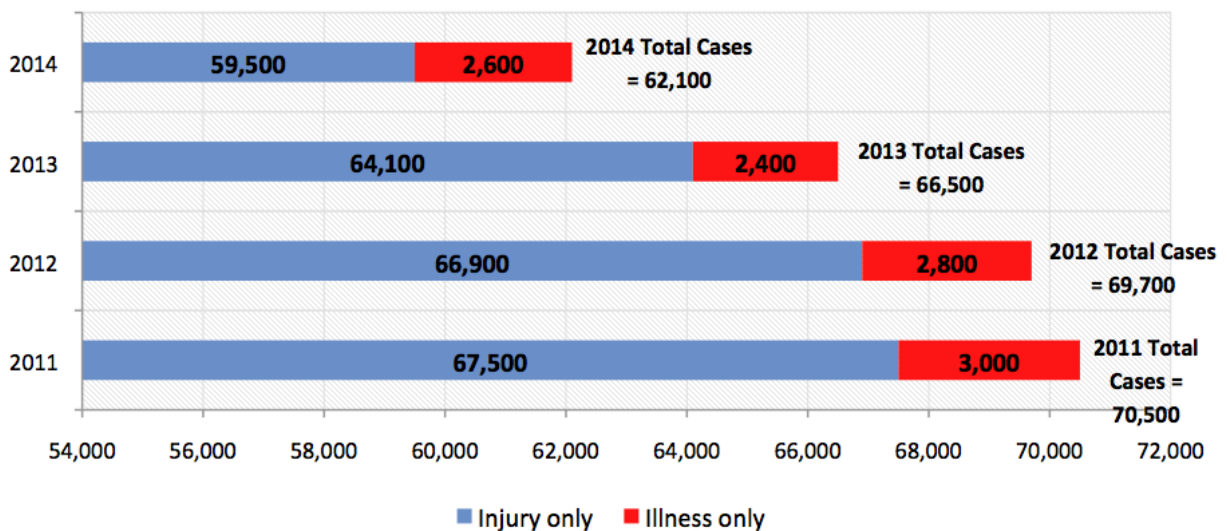
# Massachusetts Occupational Injuries and Illnesses Report 2014

**Chart II: Incidence rate of nonfatal injuries and illnesses (per 100 FTEs), all private industries, Massachusetts and United States, 2004-2014\***



**Illnesses:** In 2014, private industry workplaces in Massachusetts incurred an estimated total of 2,600 cases of nonfatal occupational illnesses. This resulted in an incidence rate of 11.1 cases per 10,000 FTEs within all private industries. Due to a low response rate from the government agencies, data is not available to be published for the Massachusetts State Government.

**Chart III: Number of nonfatal occupational injury-only, illness-only and total recordable cases, 2011-2014, private sector, Massachusetts**



# Massachusetts Occupational Injuries and Illnesses Report 2014

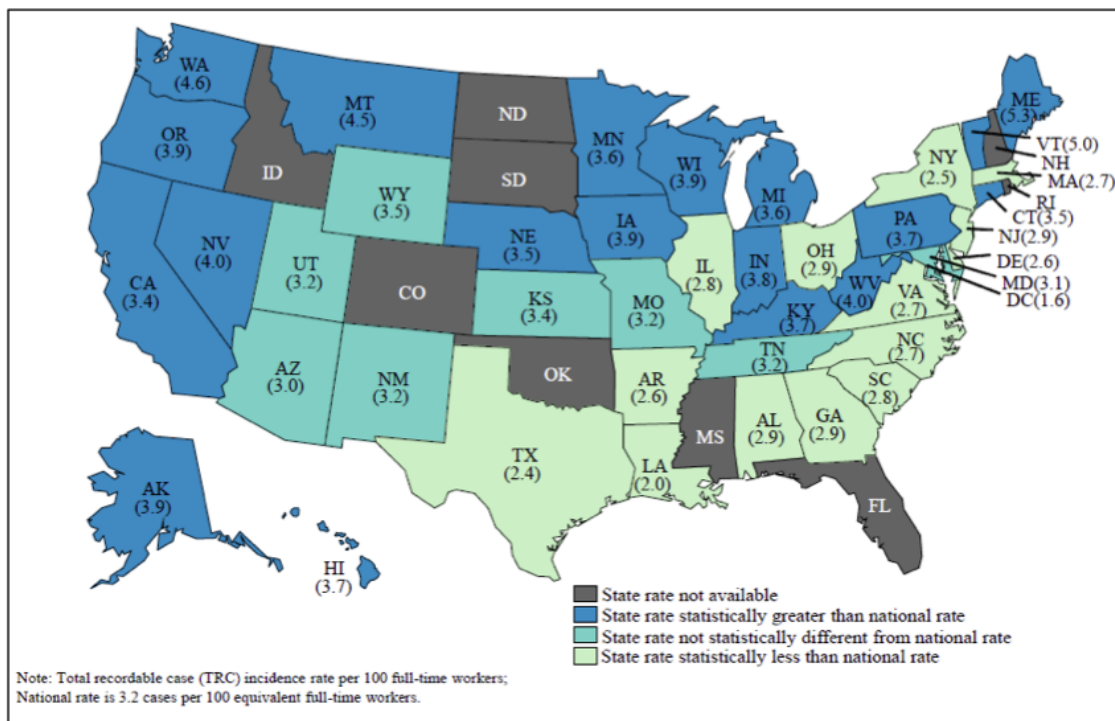
Illnesses can be broken down into the following subcategories: skin disorders diseases or disorders, respiratory conditions, hearing loss, all other illnesses, and poisonings (data for poisonings was unpublishable this year). Within all Massachusetts private sector industries, the incidence rates and total number of illnesses were as follows:

Table 1: Incidence rate and number of illness-only cases, private sector, 2014		
Type of Illness	Incidence rate (per 10,000 FTE)	Number of illnesses
Skin diseases or disorders	1.7	400
Respiratory conditions	0.7	200
Hearing loss	1.8	400
All other illnesses	6.9	1,600

## Industry Information

The table below compares the 2014 total recordable rate (TRC) incidence rates by major industry sector between Massachusetts and the United States.

**Chart IV: State nonfatal occupational injury and illness incidence rates, private industry, 2014**  
(Source: BLS Summary News Release)



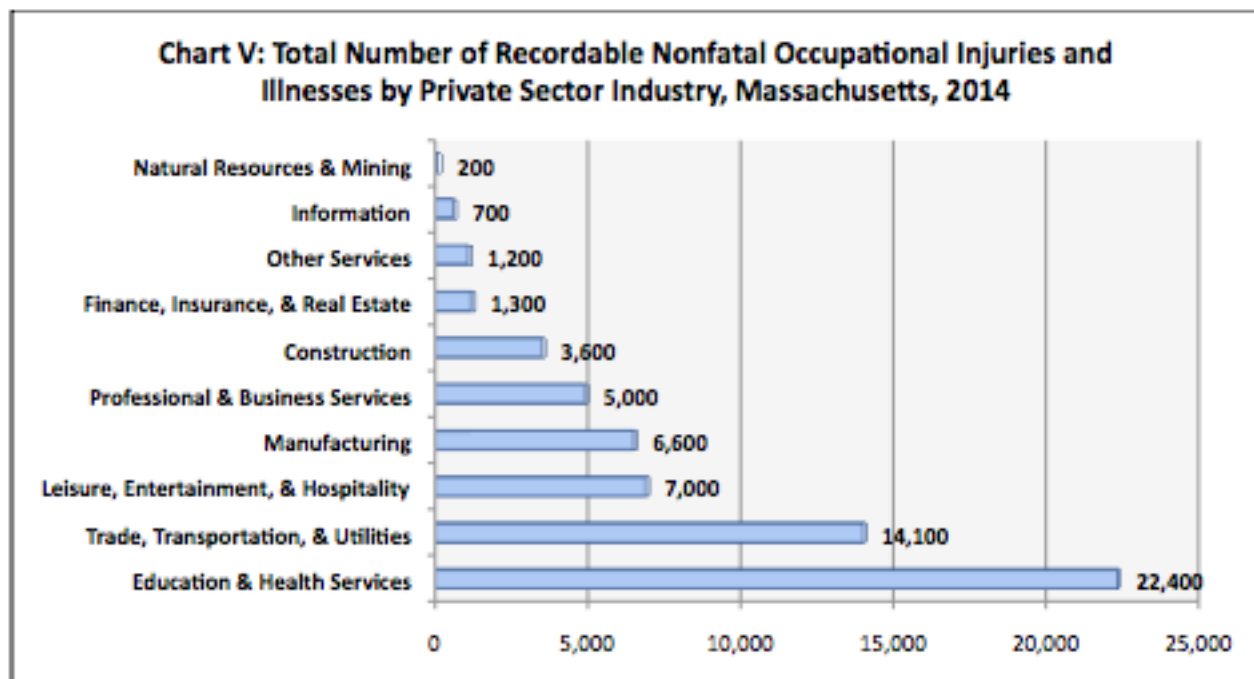
# Massachusetts Occupational Injuries and Illnesses Report 2014

**Table 2: Incidence rate of nonfatal occupational injuries and illnesses per 100 FTEs, by major industry sector, Massachusetts and United States, 2014**

Industry	Massachusetts	United States
All Private Industry	2.7	3.2
Goods-producing industry	2.9	3.8
Natural Resources and Mining	4.4	3.8
Construction	3.3	3.6
Manufacturing	2.7	4.0
Service-providing industry	2.7	3.0
Trade, Transportation, and Utilities	3.4	3.6
Information	0.8	1.4
Finance, Insurance, and Real Estate	0.7	1.2
Professional and Business Services	1.1	1.5
Educational and Health Services	4.3	4.2
Leisure, Entertainment, and Hospitality	3.6	3.6
Other Services (except public administration)	1.5	2.5

## Injury and Illness Case Types

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





# Massachusetts Occupational Injuries and Illnesses Report 2014

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 recordkeeping criteria as specified under the Occupational Safety and Health Administration's regulation 29 CFR 1904. If both of these criteria are met, the incident is recordable.

DAFW cases are considered the most serious type of case due to the fact that the employee was not able to perform one or more of the main functions of his/her job because of the injury or illness.

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 recordkeeping 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 in 2014:

In 2014, there were a total of 48,900 cases with DAFW and/or DJTR (also known as DART cases) across all ownerships. There were 41,800 cases with DAFW only and 7,100 cases with DJTR only. There were also 36,500 other recordable cases (ORC) that are not classified under DAFW or DJTR cases. There were some statistically significant year-to-year changes regarding this data. The total number of Cases with days away from work increased from last years estimated 34,200 cases. Also, the private sector Education and Health Services industry saw a decrease in the number of DAFW cases from last year's estimated 10,300 cases.



# Massachusetts Occupational Injuries and Illnesses Report 2013

**Table 3: Total Number of cases by major industry and case type, private sector and state government, Massachusetts, 2014**

	Cases with DAFW	Cases with DJTR	Other Recordable Cases
Education and Health Services	9,300	2,300	10,700
Trade, Transportation, and Utilities	7,200	1,800	5,100
Construction	2,000	200	1,400
Manufacturing	2,800	1,200	2,600
Leisure, Entertainment, and Hospitality	2,800	300	3,900
State Government	*	*	*
Professional and Business Services	2,100	300	3,900
Finance, Insurance, and Real Estate	700	*	600
Other Services	500	*	700
Information	300	*	300
Natural Resources and Mining	100	*	100

\*Indicates data is unavailable or unpublishable

## TRC and DART incidence rates

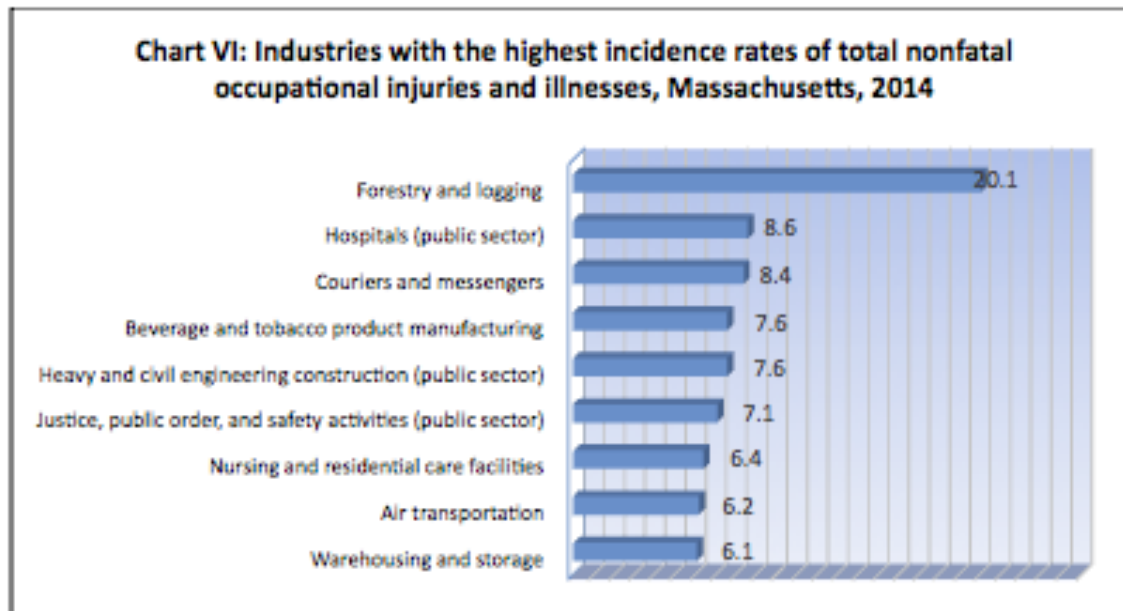
The table below shows the makeup of the TRC incidence rates and Days Away, Restricted, or Transferred (DART) rates for private industries in addition to state government. The DART rate includes cases involving either days away from work, or job transfer or restricted work duties, or both.

**Table 4: Total recordable incidence rate per 100 FTEs, by major industry and case type, private sector, Massachusetts, 2014**

	ORC Rate	DAFW Rate	DJTR Rate	DART Rate =DAFW+DJTR	TRC Rate =ORC+DART
Education and Health Services	2.1	1.8	0.4	2.3	4.3
Trade, Transportation, and Utilities	1.2	1.7	0.4	2.1	3.4
Construction	1.2	1.8	0.2	2.0	3.3
Manufacturing	1.0	1.1	0.5	1.6	2.7
Leisure, Entertainment, and Hospitality	2.0	1.5	0.1	1.6	3.6
State Government	*	*	•	•	*
Professional and Business Services	0.5	0.5	0.1	0.5	1.1
Finance, Insurance, and Real Estate	0.3	0.3	*	0.3	0.7
Other Services	0.8	0.7	*	0.7	1.5
Information	0.4	0.4	*	0.4	0.8
Natural Resources and Mining	1.7	1.7	1.0	2.7	4.4

\*Indicates data is unavailable or unpublishable

# Massachusetts Occupational Injuries and Illnesses Report 2014



The chart above shows selected sub-industries with high TRC incident rates in Massachusetts. Forestry and logging had the highest rate of 20.1 incidents per 100 FTEs. Public hospitals had the second highest rate with 8.6 incidents per 100 FTEs. Couriers and messengers experienced a rate of incidence of 7.4 cases per 100 FTEs. Lastly, Nursing and residential care facilities had a rate of 6.4 incidents per 100 FTE, while in 2013 they had a rate of 7.2 cases per 100 FTEs.

## Case and Demographic Findings

Case and demographic findings for this survey are purely based on DAFW cases. The reason for this is that the survey is intended to obtain more detailed information about the more severe cases involving missed work days. In 2014 there were a total of 27,890 cases with days away from work in the Massachusetts private sector. Some basic information is asked about the employee, such as 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 this data that we compile and publish specific demographic information about the incidences of injuries and illnesses. In addition to demographic information, specific case information that describes the nature, event, source, secondary source, and part of body affected, is also collected.

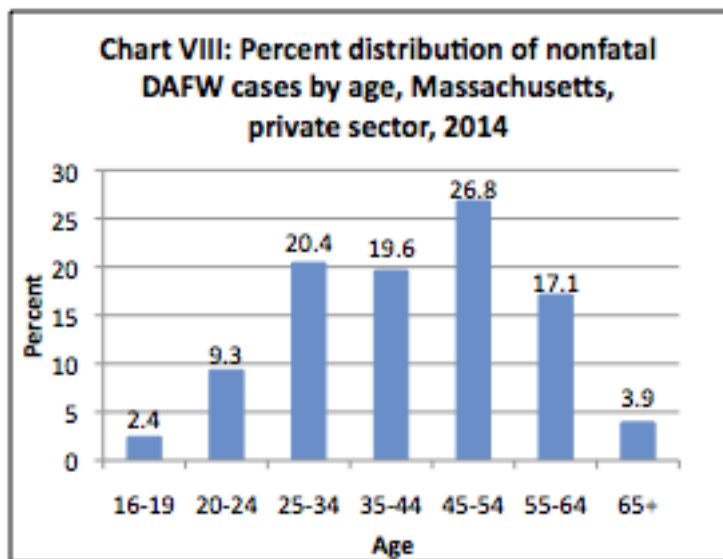
**Gender:** Incidents involving men accounted for a higher percentage of total DAFW injuries in 2014 than incidents involving women. Of all the people who suffered DAFW injuries in 2014, 55.4% were male and 44.3% were female. It is important to know that approximately 100 cases did not report gender and are not included in these calculations. The following table examines the number of injuries and illnesses by selected major occupation and gender within the private sector industry.

# Massachusetts Occupational Injuries and Illnesses Report 2014

**Table 5: Number of injuries and illnesses by major occupation and gender, private industry, Massachusetts, 2014**

Category	Men	Women
Management, business, and financial	740	460
Computer, engineering, and science	110	110
Education, legal, community service, arts, and media	180	950
Healthcare practitioners	360	2,430
Service	3,030	5,510
Sales and related	580	720
Office and administration support	1,210	1,070
Installation, maintenance, and repair	1,820	50
Production	1,590	480
Transportation and material moving	3,970	480

\*Indicates data is unavailable or unpubishable

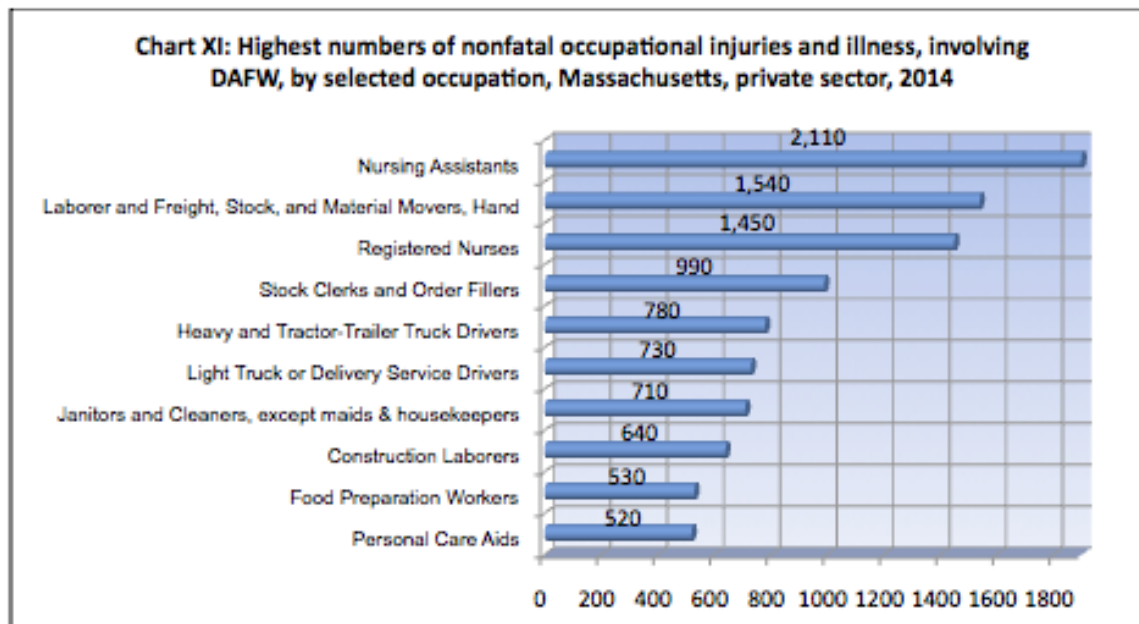


**Age:** The 45 to 54 age group had a high count of 7,480 cases with days away from work in 2014. Workers in the 25-34 age group accounted for 5,690 of the cases with DAFW. Workers in the 35-44 age group accounted for 5,470 cases. The 55-64 age group accounted for 4,760 cases. Additionally, the 20-24 age group sustained 2,600 cases; the 65 and over group sustained 1,080 cases; lastly the 16-19 age group sustained an estimated 680 cases resulting in DAFW.

**Race:** Reporting of race or ethnic background is an optional field on the Survey of Occupational Injuries and Illnesses. Of the 27,890 cases with days away from work, 10,810 cases did not report race or ethnic background. The following chart summarizes the number of injuries and illnesses to White, Black, and Hispanic or Latino workers by selected occupational category in 2014.

# Massachusetts Occupational Injuries and Illnesses Report 2014

**Table 6: Number of injuries and illnesses to White, Black, and Hispanic or Latino workers, private industry, Massachusetts, 2014**



**Nature of Injury:** The chart 7 below summarizes the total number of DAFW cases and the percent distribution of those cases by the nature of the incident.

Table 7: Total number of cases and percent distribution of DAFW cases by nature, Massachusetts, Private Industry, 2014 [Total Cases = 27,890]		
Nature of Injury of Illness	Count	Percentage
Sprains, Strains, Tears	11,620	41.7
Soreness, Pain	4,360	15.6
All Other	3,810	13.7
Bruise, Contusions	2,670	9.6
Cuts, Lacerations, Punctures	2,500	9.0
Fractures	1,920	6.9
Heat (Thermal) Burns	440	1.6
Multiple Traumatic Injuries	150	.5
Carpal Tunnel Syndrome	130	.5
Amputations	130	.5
Chemical Burns and Corrosions	80	.3
Tendonitis	80	.3

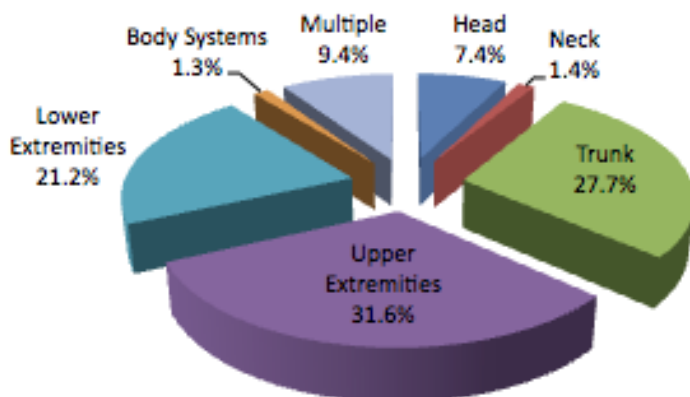
## Massachusetts Occupational Injuries and Illnesses Report 2014

**Part of Body:** According to the 2014 survey findings, it is estimated that 31.6% (8,810 cases) of DAFW cases involved injuries to the upper extremities. There were 6,130 DAFW cases that specified the back as the affected part of body; however, injuries affecting the entire trunk region (which the back is a part of) accounted for 7,730 of the total DAFW cases in 2014. 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.” The back accounted for 79.3% of the total cases affecting the trunk.

The lower extremities, which range from the upper leg and thigh to the toes, were identified as the affected part of body in 21.2% (5,910 cases) of the DAFW cases. The head, including the face, was the affected part of body in 7.4% (2,050 cases). Multiple body parts were involved in 9.4% (2,610) of all DAFW cases.

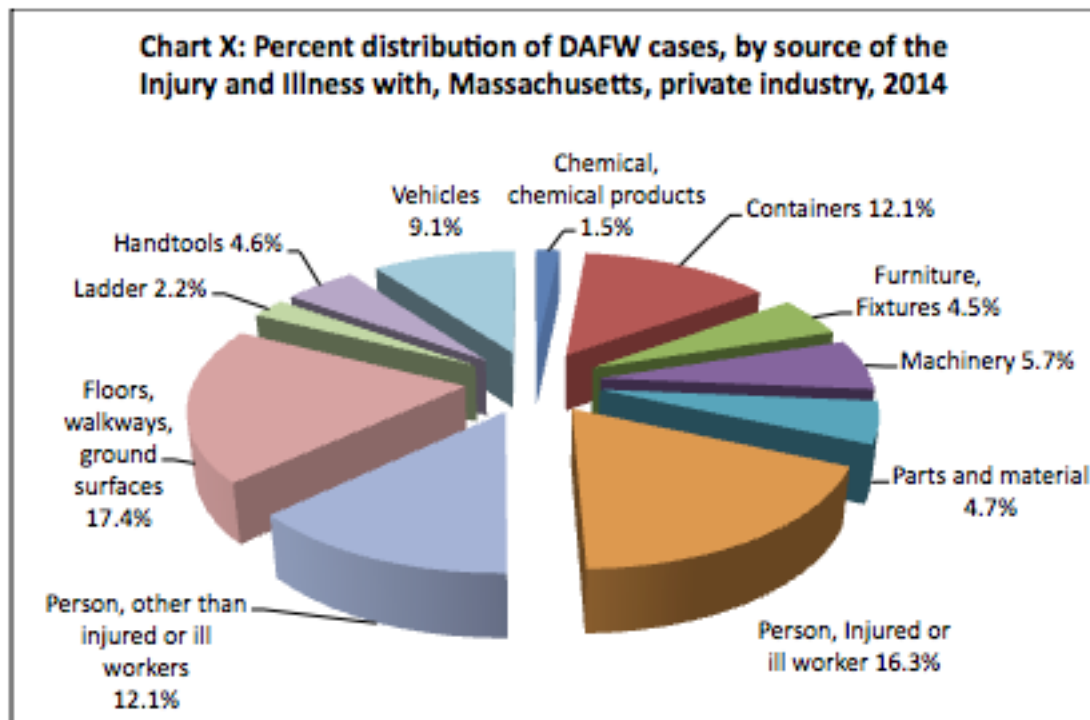
The neck was the specified as the affected part of the body in 400 cases. Lastly, the body systems (i.e. circulatory, gastrointestinal system, respiratory system, etc.) accounted for 350 DAFW cases in 2014.

**Chart IX: Percent Distribution of DAFW cases, by part of body affected, Massachusetts, private sector, 2014**



## Massachusetts Occupational Injuries and Illnesses Report 2014

**Source of injury or illness in the private sector:** One source of injury involving DAFW with a large number of incidents was floors, walkways, or ground surfaces, resulting in 4,860 cases. The “injured or ill person” themselves, was the cause of injury involving 4,550 cases. Of the 4,550 cases where the source of injury was an injured or ill employee, 4,440 were due to the workers’ motion or position. Injury caused by a person other than the injured or ill worker was the source listed in 3,370 cases of the total count of DAFW cases; of those 3,370 cases, 80.4% (2,710 cases) were caused by a health care patient.



**Event causing the injury or illness in the private sector:** Of the 27,890 DAFW cases in 2014, 10,010 (35.9%) involved overexertion. 7,380 (26.5%) of the DAFW cases involved falls, trips, and slips. Contact with object or equipment was the event specified in 6,430 (23.1%) of the total cases. Violence and other injuries by persons or animals was the event of incident in 1,590 (5.7%) total cases. Transportation incidents were the event named in 1,280 (4.6%) total cases with DAFW. Lastly, 1,130 (4.1%) cases involved exposure to harmful substances or environments.

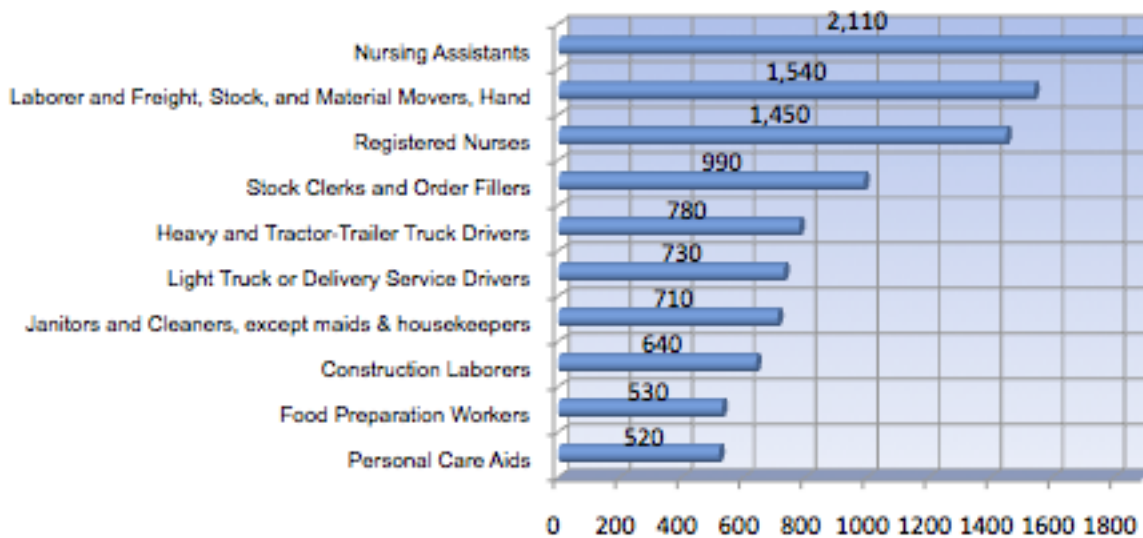
# Massachusetts Occupational Injuries and Illnesses Report 2014

**Table 8: Number of cases and percent distribution<sup>2</sup> of DAFW cases by event, Massachusetts, private industry, 2014 [Total Cases = 27,890]**

Fires and Explosions	*	*
Overexertion and bodily reaction	10,010	35.9%
Falls, Slips, Trips	7,380	26.5%
Contact with Object, Equipment	6,430	23.1%
Violence and Other Injuries by Person or Animal	1,590	5.7%
Exposure to Harmful Substances or Environments	1,130	4.1%
Transportation Incidents	1,280	4.6%
All Other	70	0.3%

**Occupation:** Nursing assistants, registered nurses, laborers, and material movers were among the occupations that experienced a large number of nonfatal injuries and illnesses in 2014. Nursing assistants and registered nurses had 2,110 and 1,450 injuries and illnesses, respectively. Laborers and freight, stock, and material movers incurred 1,540 injuries and illnesses. The rest of the occupations with high numbers of incidents are indicated in the chart below.

**Chart XI: Highest numbers of nonfatal occupational injuries and illness, involving DAFW, by selected occupation, Massachusetts, private sector, 2014**





# 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 approximately 5,800 surveys in Massachusetts 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 [mass.gov/lwd/labor-standards/occupational-safety-and-health-statistics-program/](http://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.

# Occupational Health and Safety Resources in Massachusetts

### 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 work sites, 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 (fewer than 250 employees per establishment or 500 employees nationwide) in high-hazard industries such as manufacturing, health care, 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](http://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 [mass.gov/lwd/labor-standards/massachusetts-workplace-safety-and-health-program/](http://mass.gov/lwd/labor-standards/massachusetts-workplace-safety-and-health-program/) 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: [mass.gov/eohhs/gov/departments/dph/programs/health-stats/ohsp/fatal-injury/](http://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: [mass.gov/lwd/workers-compensation/safety/grant-program/safety-grant-program.html](http://mass.gov/lwd/workers-compensation/safety/grant-program/safety-grant-program.html)

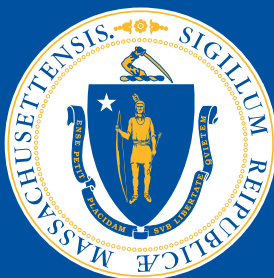
### Material Request Information

For more information about this 2013 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: [mass.gov/lwd/labor-standards/occupational-safety-and-health-statistics-program/](http://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: [bls.gov/bls/safety.htm](http://bls.gov/bls/safety.htm)

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