

# Masachusetts Occupational Injuries and Illnesses Report 2008

### **NATURAL RESOURCES AND MINING**

The natural resources and mining (NRM) sector had the highest incidence rate of all industry sectors in 2008. Although it makes up the smallest percentage of the Massachusetts' private workforce, it, along with construction and manufacturing, can be considered among the most hazardous industries. This industry is comprised of the following two groups: (1) agriculture, forestry, fishing and hunting, and (2) mining. The following list includes examples of the types of occupations that comprise this industry: Forestry Workers, Agricultural Workers, Loggers, Dairy Farmers, Commercial Hunters and Trappers, Animal Breeders, Commercial Fishermen, Miners and Quarry Workers.

### Key Natural Resources and Mining Industry Findings

- This industry had a total recordable case (TRC) incidence rate of 8.1 incidents per 100 full-time equivalent employees (FTEs).
- The agriculture, forestry, fishing and hunting subsector had a TRC rate of 9.3; the mining subsector had a TRC rate of 2.4 incidents per 100 FTEs.
- The cases with days away or restricted/transferred duty (DART) rate was 4.2 cases per 100 FTEs; the cases with days away from work only (DAFW) rate was 2.4; the cases with job transfer or restriction (DJTR) rate was 1.8; and the other recordable cases (ORC) rate was 4.0.
- In 2008 the NRM industry employed approximately 0.2% of the private sector workforce and only 1.6% of the goods-producing sector.
- Agriculture, forestry, fishing and mining made up approximately 80% (5,500 workers) of the industry, while mining represents about 20% with 1,400 workers.
- A total of 500 recordable cases were reported by this industry; of that total agriculture, forestry, fishing and hunting accounted for approximately 80% (400 cases) of all cases.
- Of the 500 total recordable cases, approximately 40% (200 cases) were other recordable cases; approximately 20% (100 cases) required DAFW and 20% (100 cases) required job transfer or restriction.
- Injury-only cases accounted for approximately 400 cases or 80% of the total recordable cases.
- Illness-only cases accounted for approximately 100 cases, or 20% of the total recordable cases.

### Case and Demographic Findings

OCCUPATION: Farm workers and laborers, crop, nursery and green house workers made up 23.1% (30 cases); agricultural farmers and ranch managers and industrial machinery installation, repair and maintenance workers with 15.4% (20 cases).

GENDER: Men accounted for approximately 85% (110 cases) of all DAFW cases, while women accounted for the remaining 15% (20 cases) of the total.

AGE: Workers aged 35 to 44 made up 23% (30 cases) of all DAFW cases; workers aged 20 to 24, 45 to 54 and 55 to 64 all accounted for approximately 15% or 20 cases each.

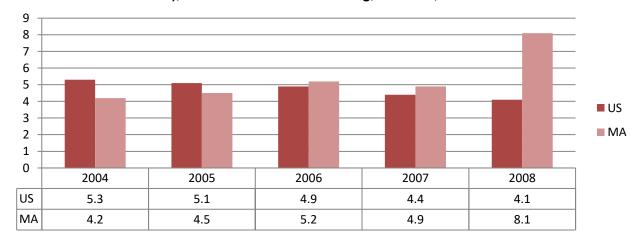
NATURE: Sprains, strains or tears made up 46% (60 cases) of all DAFW cases; open wounds accounted for 23% (30 cases); the remaining 31% or 40 cases are divided up into other categories and are too few to publish specific statistical data.

EVENT: Struck against object or equipment was the most frequent event causing missed work days in 2008, which made up approximately 31% (40 cases) of all cases. Bodily reaction and exertion accounted for 23% or 30 cases; Struck by object or equipment, falls to floor, walkway or other surface both accounted for 20 cases each or 15%.

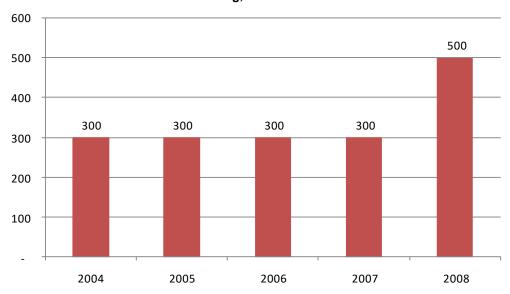
SOURCE: Persons, plants, animals and minerals accounted for 31% (40 cases); floors, walkways and ground surfaces made up 15% (20 cases); 23% (30 cases) were non classifiable.

PART OF BODY: 23% (30 cases) of all cases affected the trunk region (shoulder, chest and back); 23% affected the upper extremities (arms, wrist (s), hands (except fingers), and fingers; 31% (40 cases) affected the lower extremities (legs, ankles, foot (feet except toes), and toes, 23% were non classifiable.

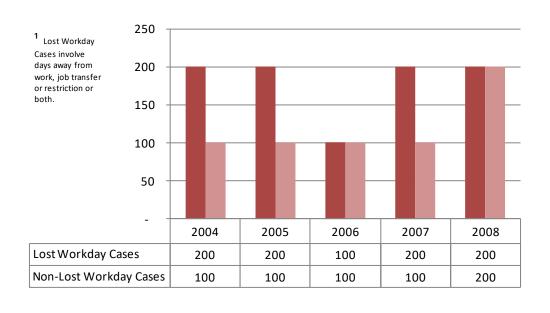
## Incidence rates<sup>1</sup> of nonfatal occupational injuries and illnesses (per 100 full time workers), natural resources and mining, MA & US, 2004 - 2008



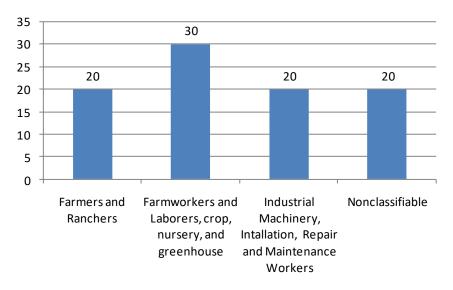
# Numbers of nonfatal injuries and illnesses, natural resources and mining, 2004 - 2008



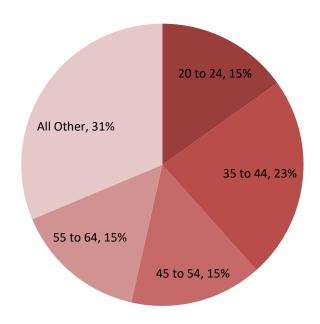
# Number of lost workday vs. non-lost workday cases of nonfatal injuries and illnesses, mining, 2004 - 2008



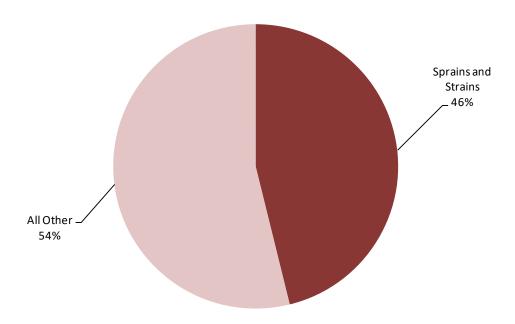
# Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days



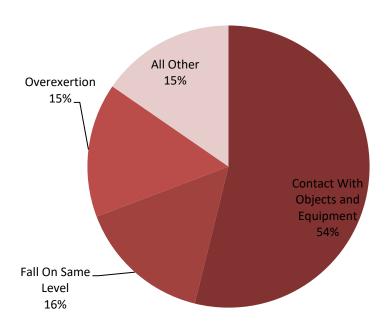
Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, natural resources and mining, 2008



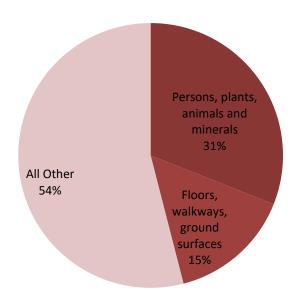
Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, natural resources and mining, 2008



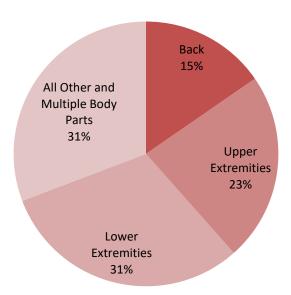
Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure; natural resources and mining, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by source, all private industries, natural resources and mining, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, all private industries, natural resources and mining, 2008



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### CONSTRUCTION

The construction industry has traditionally been the industry in Massachusetts with the highest incidence rate from year to year. However, 2008 data shows a significant decrease in the number of total recordable incidents, or, more specifically, the total number of recordable injuries-only cases. Common occupations in the construction industry include: construction laborers, carpenters, brick and stone masons, roofers, house painters, electricians, street and bridge workers, welders and cutters, and plumbers, pipefitters and steamfitters.

### Key Construction Industry Findings

- The total recordable case (TRC) incidence rate was 4.8 incidents per 100 full-time equivalent employees (FTEs); in 2007 the TRC rate was 6.1.
- The days away or restricted or transferred duty (DART) rate was 2.8 cases per 100 FTEs; the days away from work only rate (DAFW) was 2.6 cases; the days with job transfer or restriction only rate (DJTR) was 0.3; and the other recordable case rate (ORC) was 2.0 cases per 100 FTE's.
- The construction industry was responsible for a total of 6,100 recordable cases, which is 7.4% of the total number of injuries in the private sector and 37.2% of all goods-producing incidents.
- It employed roughly 138,400 employees or 4.9% of the private sector workforce, and 31.8% of the goods-producing industry.
- Of the 6,100 recordable cases: approximately 3,200 (53%) required DAFW, 400 (7%) required DJTR and 2,500 (41%) were ORC.
- Approximately 5,900 of all recordable cases were injury-only incidents.
- Approximately 200 cases were illness-only incidents.

### Case and Demographic Findings

OCCUPATION: The occupations with the highest number of DAFW cases were: construction laborers (590 cases); plumbers, pipefitters and steamfitters (490 cases); carpenters (250 cases); electricians (240 cases); and construction equipment operators (200 cases).

GENDER: Of the 3,200 DAFW cases, 96% (3,080 workers) were men; 3% (100 workers) were women.

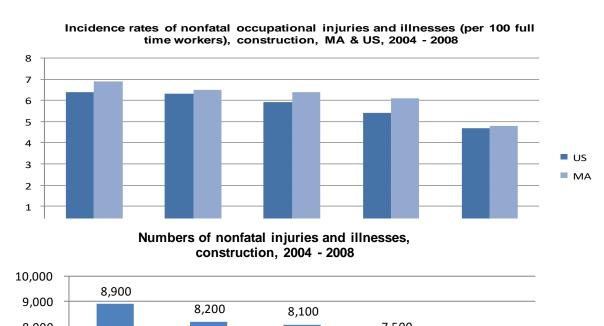
AGE: The 25 to 34 age group accounted for the highest number of DAFW cases with 1,210 cases (~38%); the 35 to 44 group accounted for 690 cases (22%); the 45 to 54 accounted for 650 cases (20%); the 55 to 64 accounted for 290 cases (9%); the 20 to 24 group accounted for 270 cases (8%); the 65 and over group accounted for 40 cases (1%); and the 16 to 19 group accounted for 20 cases (.6%).

NATURE: Sprains, strains and tears accounted for 1,350 cases (42%) of the total 3,200 DAFW cases; fractures accounted for 370 cases (12%); disorders of the eye, adnexa, vision (not elsewhere classified) accounted for 280 cases (8%); cuts and lacerations accounted for 220 cases (7%); heat burns accounted for 100 cases or 3%, and bruises and contusions accounted for 140 cases (4%).

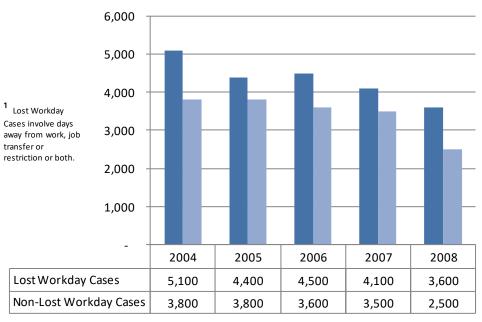
EVENT: Struck by flying object accounted for most DAFW cases with 390 cases (12%); overexertion in lifting accounted for 380 cases (~12%); bodily reaction accounted for 310 cases (10%); falls on same level accounted for 290 cases (9%); and struck against object or equipment accounted for 240 cases (8%).

SOURCE: Structures and surfaces was the most common source group that caused injury; it accounted for 630 DAFW cases (~20%); parts and materials accounted for 510 cases (16%); persons, plants, animals and minerals accounted for 470 cases (15%); other sources, mainly scrap, waste and debris, accounted for 450 cases (14%).

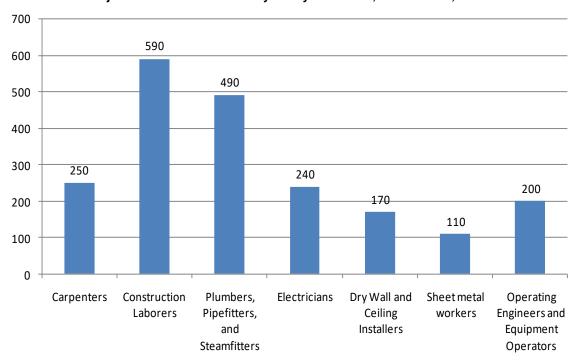
PART OF BODY: 1,180 cases (37%) affected the trunk region (shoulder, chest and back); 600 cases (19%) affected the upper extremities (arms, wrists, hands, fingers); 570 cases (18%) affected the lower extremities (legs, ankles, feet, toes); and 490 cases (15%) affected the head region (including the face).



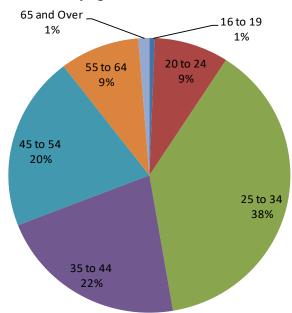
# Number of lost workday¹ vs. non-lost workday cases of nonfatal injuries and illnesses, construction, 2004 - 2008



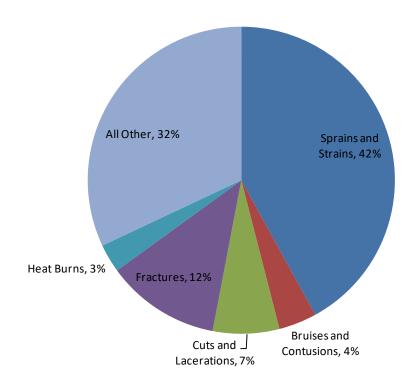
# Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, construction, 2008



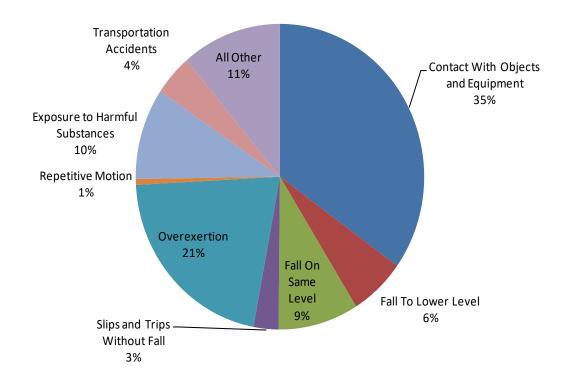
## Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, construction, 2008



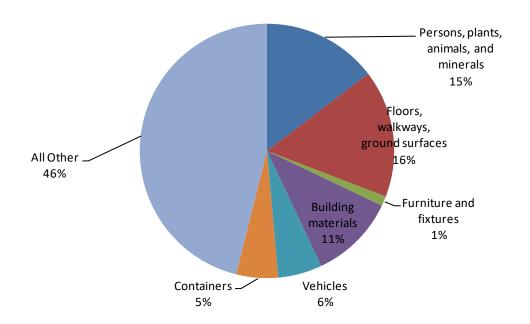
Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, construction, 2008



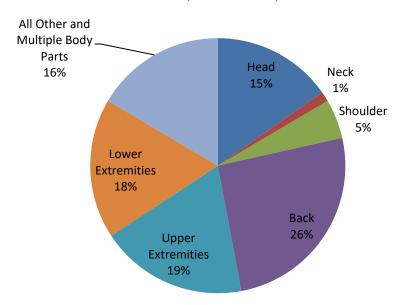
Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure, construction, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by source, all private industries, construction, 2008



# Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, all private industries, construction, 2008



# Masachusetts Occupational Injuries and Illnesses Report 2008

### **MANUFACTURING**

The manufacturing industry employed the largest percentage of workers in the goods-producing sector. In 2008, the industry had a significant decrease in its days away or restricted or transferred duty (DART) rate, caused mainly by a decrease in total days away from work only rate (DAFW) cases from 2007. The number of total recordable injury cases-only decreased significantly as well. Common examples of occupations in the manufacturing industry are as follows: machine operators, assemblers, lithographers, printing press operators, chemical technicians, laborers and material handlers, millwrights, machinists, and shipping and receiving clerks.

### Key Manufacturing Findings

- The manufacturing industry had a total recordable case (TRC) incidence rate of 3.5 incidents per 100 full-time equivalent employees (FTEs). This rate is relatively unchanged from 2007's 3.8 TRC rate.
- The cases with days away or restriction or transferred (DART) rate was 2.0 cases per 100 FTEs; the days away from work only (DAFW) rate was 1.2; the days of job transfer or restriction (DJTR) rate was 0.7; and the other recordable case (ORC) rate was 1.5.
- The industry reported 9,900 recordable cases, which is approximately 12% of the total private sector and 60% of the goods-producing sector.
- The industry employed approximately 289,600 employees which is approximately 10% of the private sector workforce and 67% of the goods-producing sector.
- DART cases represented 58%, or 5,700 of all cases; DAFW-only cases accounted for approximately 3,600 cases while DJTR-only cases accounted for the remaining 2,100; ORC cases accounted for 4,200 cases or 42% of the total.
- Approximately 9,000 incidents were injury-only cases, which is roughly 91.1% of the total.
- Approximately 800 incidents were illness-only cases, which is roughly 8%.

### Case and Demographic Findings

GENDER: Approximately 79.2% (2,820 cases) of the manufacturing industry's DAFW incidents affected men; 20.2% (720 cases) affected women.

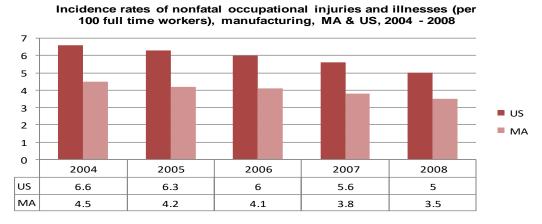
AGE: 27.8% (990 cases) of all DAFW cases affected workers in the age group of 45 to 54; 24.2% (860 cases) affected workers in the age group of 35 to 44; 18.3% (650) of the cases affected the 25 to 34 age group; 16.3% (580 cases) affected workers in age group 55 to 64; 7.0% affected workers in age group 20 to 24; the 65 and over group accounted for 2.5% (90 cases); and 2.0% (70 cases affected the 16 to 19 age range.

NATURE: The most common nature of injury in the manufacturing industry was sprains, strains and tears which accounted for 41.6% (1,480 cases) of all cases. Cuts and lacerations accounted for 12.6% (450 cases) of all cases; bruises and contusions accounted for 10.4% (370 cases); and fractures accounted for 7.0% (250 cases.

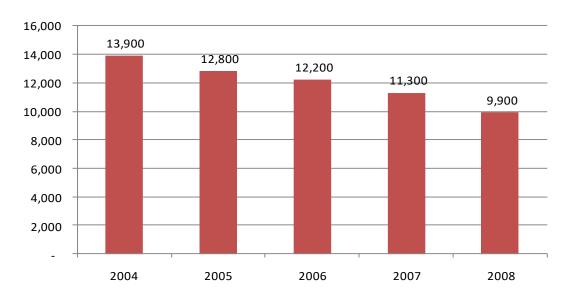
EVENT: The most frequent event resulting in DAFW cases was struck by object or equipment which resulted in 590 cases or 16.6% of all cases. It is followed by overexertion in lifting which accounted for 530 cases or 14.9% of the total. Falls on same level and bodily reaction both accounted for 410 cases each or 11.5% each of the total. Caught in or compressed by equipment or objects accounted for 350 cases or 9.8% of the total.

SOURCE: Bodily motion or position of injured, ill worker was the most frequent source of DAFW cases with 570 cases or approximately 16.0% of cases. Containers—non pressurized accounted for 330 cases or 9.3%; floors accounted for 250 DAFW cases or 7.0%; building materials—solid elements accounted for 190 cases or 5.3%; and reels, rolls accounted for 160 cases or 4.5% of the total.

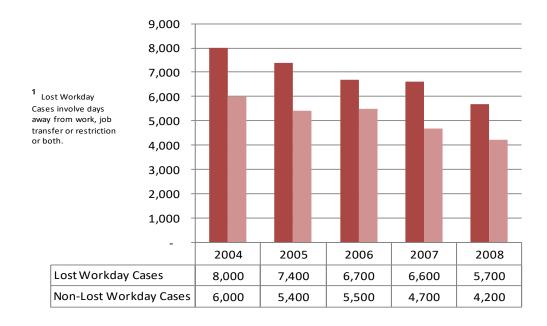
PART OF BODY: The part of body most affected in DAFW cases was the trunk region, where approximately 33% (1,200 cases) cases occurred. Another 32.9% (1,170 cases) affected the upper extremities (arms, wrists, hands, fingers) region. Approximately 18% (640 cases) of DAFW cases affected the lower extremities (legs, ankles, feet, toes); 13.8% (490 cases) affected the head region (including the face).



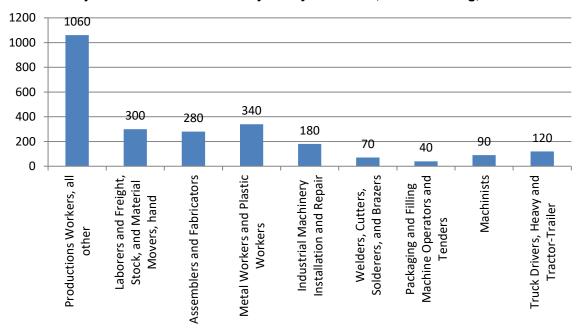
# Numbers of nonfatal injuries and illnesses, manufacturing, 2004 - 2008



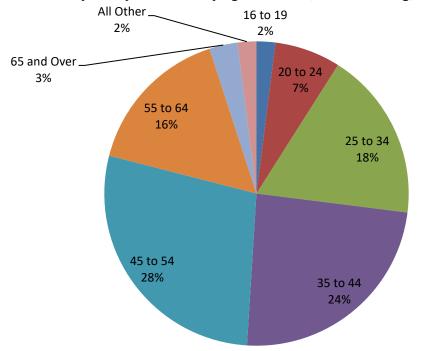
# Number of lost workday<sup>1</sup> vs. non-lost workday cases of nonfatal injuries and illnesses, manufacturing, 2004 - 2008



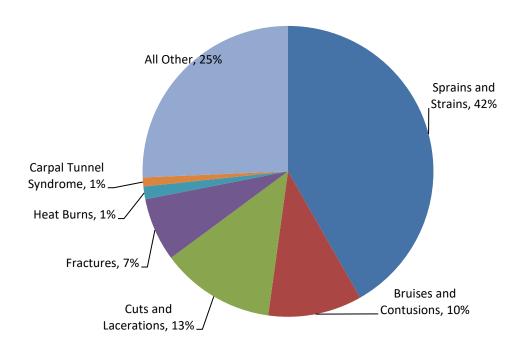
# Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, manufacturing, 2008



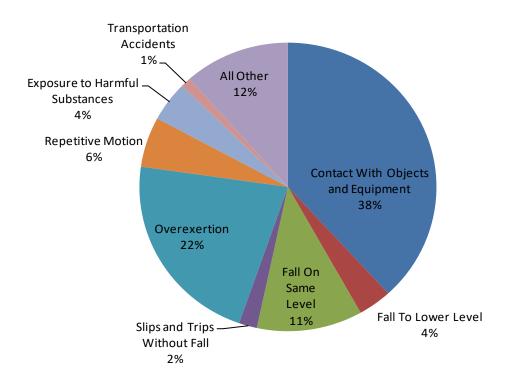
# Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, manufacturing, 2008



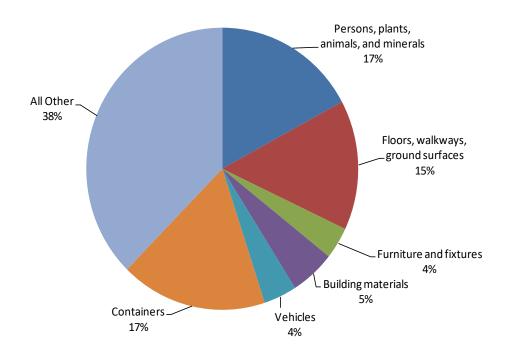
# Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, manufacturing, 2008



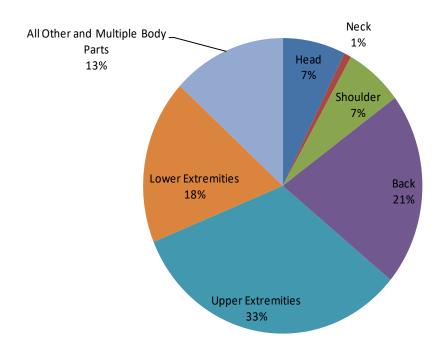
Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure, manufacturing, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by source, all private industries, manufacturing, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, all private industries, manufacturing, 2008



# Masachusetts Occupational Injuries and Illnesses Report 2008

## **Trade, Transportation and Utilities**

The trade, transportation and utilities (TTU) industry employed the second largest amount of Massachusetts' private sector workforce. The industry can be broken down into the following occupational categories: wholesale trade and retail trade, transportation and warehousing and utilities. This industry saw significant changes in their 2008 data from 2007: the number of total recordable incidents, other recordable cases, and total recordable injuriesonly, all decreased; and the total number of cases with job transfer or restriction, and hearing loss illnesses saw a significant increase from 2007. Common examples of occupations in this industry are: merchant wholesalers, automotive dealers, couriers, bus and taxi drivers, truck drivers (small delivery and tractor-trailer), retail salespersons, baggage handlers, refuse system operators, oil and gas distributers, and electrical power installers and repairers.

### Key Trade, Transportation & Utilities Industry Findings

- TTU had a total recordable case (TRC) incidence rate of 4.3 incidents per 100 full-time equivalent employees (FTEs).
- The TRC rate for the subsector wholesale trade was 3.2; retail trade had a 4.3 rate; transportation and warehousing had a 6.8 TRC rate; and utilities had 5.3 TRC rate.
- The cases with days away or restricted/transferred duty (DART) rate was 2.7; the cases with days away from work rate (DAFW) was 2.0; the cases with job transfer or restricted duty (DJTR) was 0.8; and the other recordable rate (ORC) was 1.6.
- TTU employed approximately 20% (573,200 workers) of the private-sector workforce, and 23.7% of the service-providing sector workforce.
- Approximately 24.3% (139,100 workers) of TTU's workforce was based in wholesale trade; 61.4%, or, 352,200 workers, were employed in retail trade; 12.5% or 71,900 workers were employed in warehousing and transportation; and 1.7% (10,000 workers) were employed in utilities.
- Of the 20,000 total recordable cases, 21.0% (4,200) occurred in the wholesale trade group; 55.5% occurred in the retail trade group; transportation and warehousing accounted for 21.0% (4,200 cases); and utilities accounted for 3.0% (600 cases) of the total recordable cases.
- Of the 20,000 recordable cases, cases requiring days away from work and/or job transfer or restriction accounted for 62.5% (12,500 cases) of the total; cases with days away from work-only (DAFW) accounted for approximately 45.0% (9,000 cases); cases with job transfer or restriction-only (DJTR) accounted for 17.5% (3,500 cases); while other recordable case (with no missed work or transfer/restriction) accounted for 37.5% (7,500 cases) of the total.
- Approximately 97.5% (19,500) of all incidents were injury-only incidents
- Approximately 600 cases were illness-only incidents.

### Case and Demographic Findings

GENDER: Males accounted for approximately 73.3% (6,630 cases) of all DAFW cases; females accounted for 25.6% (2,310 cases).

AGE: The 35 to 44 age group accounted for 26.3% (2,380) of all cases; the 45 to 54 age group accounted for 25.2% (2,280) cases; the 25 to 34 age group accounted for 19.4% (1,750) of cases; the 55 to 64 group accounted for 15% (1,360) of all cases; the 20 to 24 group accounted for 8.2% (740) of cases; and the 16 to 19 along with the 65 and over groups both accounted for approximately 2.7% (240) and 2.4% (220) respectively.

NATURE: The most common nature of incident in this industry was sprains, strains and tears, which accounted for 4,290 DAFW cases, which is 47.5% of the total number of cases; soreness, pain, hurt, except the back accounted for 1,030 cases, or, 11.4% of all DAFW cases; cuts and lacerations accounted for 860 cases, or, 9.5% of all cases; bruises and contusions accounted for 800 cases, or, 8.8%; and fractures accounted for 690 cases or, 7.6% of the total DAFW cases.

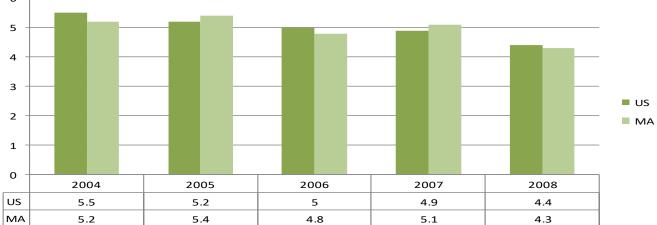
EVENT: Bodily reaction and exertion was the highest occurring nature of event for this industry with 4,010 cases or 44.4% of the total DAFW cases. Contact with objects and equipment accounted for 2,520 cases or 27.9%; falls accounted for 1,770 cases or 19.6%; and transportation accidents accounted for 400 cases 4.4% of the total number of DAFW cases in this industry.

SOURCE: Containers were the most common source of DAFW cases with 2,050 cases or 22.7% of the total. Structures and surfaces accounted for 1,970 cases or 21.8%; persons, plants, animals, and minerals accounted for 1,400 case or 15.5%; vehicles accounted for 1,190 cases or 13.2%; and parts and materials accounted for 600 cases or 6.6%; and tools, instruments, and equipment accounted for 590 cases or 6.5% of the total DAFW cases for this industry.

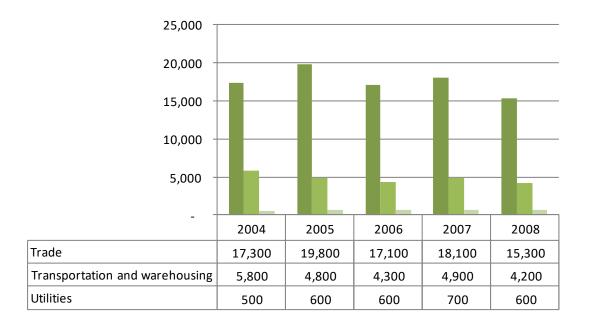
PART OF BODY: The part of body region most affected in DAFW cases was the trunk which accounted for 3,420 cases, or, 37.8% of the total cases; within the trunk region, the back, including spine, spinal cord accounted for 1,910; shoulders accounted for 950 cases. The lower extremities (legs, ankles, feet, toes) accounted for 2,090 cases, or, 23.1% of all DAFW cases; the upper extremities (arms, wrists, hands, fingers) region accounted for 1,910 cases, or, 21.1% of all cases; the head region (including the face) accounted for 630 cases, or approximately 7% of the total.

Incidence rates of nonfatal occupational injuries and illnesses (per 100 full time

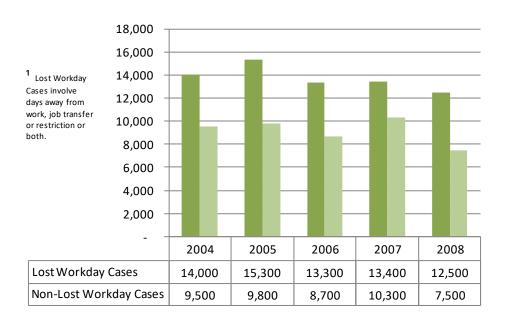
# workers), trade, transportation, and utilities, MA & US, 2004 - 2008 6



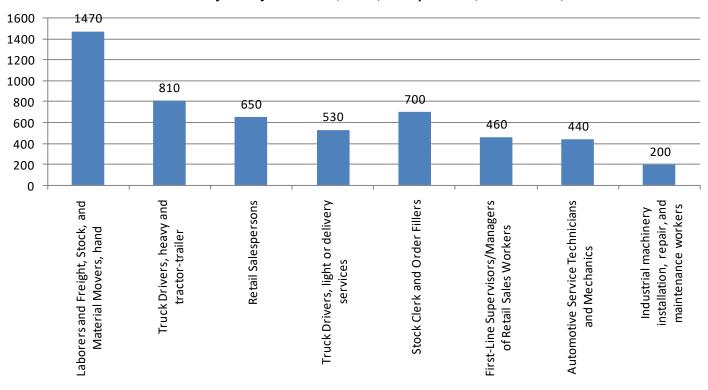
# Numbers of nonfatal injuries and illnesses, trade, transportation, and utilities, 2004 - 2008



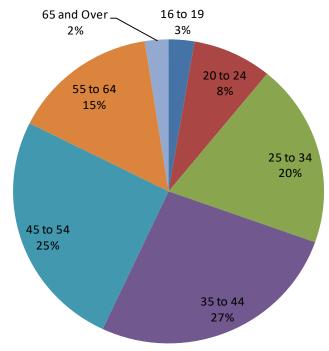
# Number of lost workday¹ vs. non-lost workday cases of nonfatal injuries and illnesses, trade, transportation, and utilities, 2004 - 2008



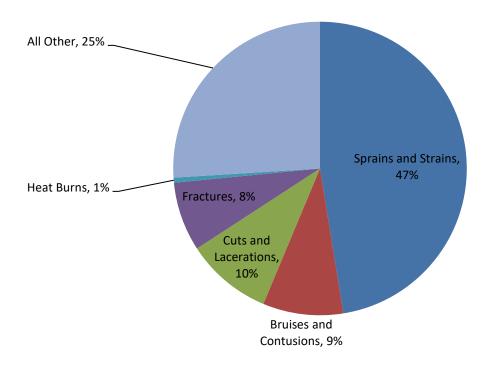
Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, trade, transportation, and utilities, 2008



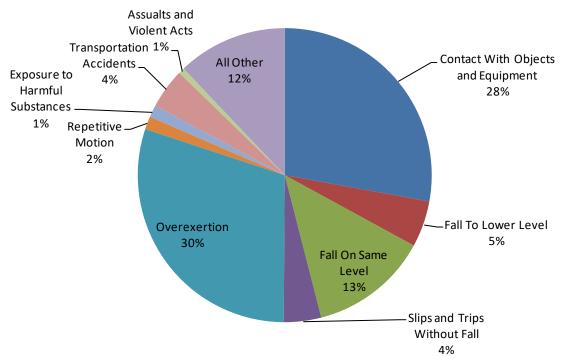
Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, trade, transportation, and utilities 2008



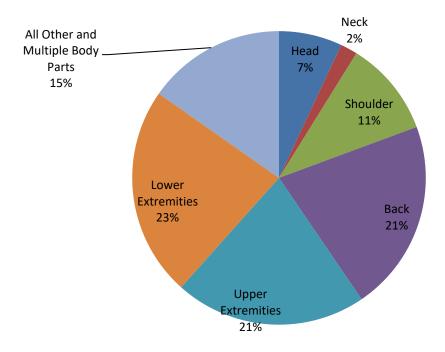
Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness; trade, transportation, and utilities 2008



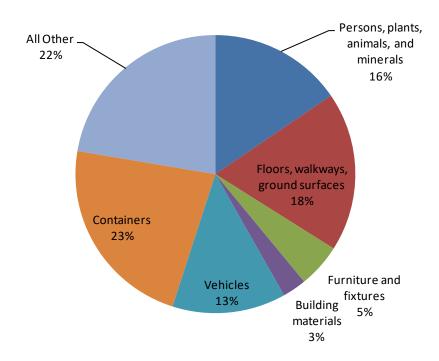
Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure; trade, transportation, and utilities, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, all private industries,; trade, tranportation, and utilities, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by source, all private industries; trade, tranportation, and utilities 2008



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### **INFORMATION**

Most of the information industry's data remained relatively unchanged from 2007 to 2008. In 2008, the industry had the third lowest incidence rate out of all industries and among those industries in the service-providing sector; it also had the second-lowest number of total recordable cases. Common examples of occupations in this field are: newspaper publishers, radio broadcasters, journalists, librarians, printers, software publishers, telecommunications repair and install workers, and cable and internet providers and technicians.

### **Key Information Industry Findings**

- The total case (TRC) incidence rate for the information sector was 2.2 incidents per 100 full-time equivalent employees (FTEs). This rate was 1.4 last year.
- The cases with days away or restricted/transferred duty rate (DART) was 1.5; the cases with days away from work only rate (DAFW) was 1.4; the cases with job transfer or restriction (DJTR) was 0.1; and the other recordable case rate (ORC) was 0.6 cases per 100 FTEs.
- Within the information industry, the publishing industries (except internet) group had a TRC rate of 1.1; while the telecommunications group had a rate of 5.8 incidents per 100 FTEs.
- The information industry employed approximately 86,900 workers, which was approximately 3.1% of the total private sector workforce and 3.6% of the service-providing sector.
- Of the 86,900 total workforce, the publishing industries group accounted for 42,100 employees, or, 48.4%; the telecommunications group accounted for 19,500 employees or, 22.4% of the total.
- There were approximately 1,700 recordable incidents in 2008. The publishing industries accounted for approximately 23.5% (400 cases) of those cases; the telecommunications group accounted for 65% or 1,100 cases.
- Of the 1,700 cases, approximately 70.6% (1,200 cases) required either days away from work (DAFW), job transfer or restriction (DJTR), or a combination of both (DART); approximately 65% (1,100) of all cases were DAFW-only cases; 5.9% (100 cases) of all cases were DJTR-only; and 29.4% (500 cases) were other recordable (ORC) cases that did not require DAFW or DJTR but were recordable.
- 1,500 (88.2%) injury-only cases were reported in 2008, and 100 illness-only cases were reported.

### Case and Demographic Findings

OCCUPATION: The occupation with the highest number of DAFW cases was telecommunications equipment installers and repairers (except line installers) with 530 cases or 50% of all DAFW cases; telecommunications line installers and repairs accounted for 220 cases, or, 20.8% of all cases; production occupations accounted for 50 cases collectively or, 4.7%; driver/sales workers and truck drivers also accounted for approximately 40 cases or 3.8% of the total.

GENDER: 83% (880 cases) of the 1,060 DAFW cases involved males, while 14.2% (150 cases) involved females.

AGE: 43.3% (460 cases) of DAFW cases involved the age group 35 to 44; 25.4% (270 cases) involved the 45 to 54 group; 13.2% (140 cases) involved the 25 to 34 group; 7.5% (80 cases) involved the 55 to 64 group; and 1.9% (20 cases) affected the 20 to 24 group. (No data was available for other age groups).

NATURE: The most common occurring nature of incident for this industry was sprains, strains and tears with approximately 490 (46.2%) DAFW cases; soreness, pain, hurt (except back) accounted for 230 cases or 21.7%; bruises and contusions accounted for 60 cases (5.7%); and fractures accounted for 50 cases (4.7%).

EVENT: The most common occurring event involving DAFW was falls with a total of 370 cases or 35% of the total; bodily reaction accounted for 290 cases or, 27.4%; contact with objects or equipment accounted for 23.6% (250 cases) of all DAFW cases; exposure to harmful substances or environments accounted for 5.7% (60 cases); and transportation accidents accounted for 2.8% or 30 cases.

SOURCE: Structures and surfaces accounted for 380 cases or 35.9% of the total DAFW cases; persons, plants, animals and minerals accounted for 270 cases or 25.5% of all cases; containers and parts and materials both accounted for 100 cases each or, 9.4% each. All other sources had fewer than 100 cases.

PART OF BODY: The trunk was the body region most affected in DAFW cases, there were 460 cases that affected the trunk region (back, chest and shoulder) or, 43.4% of all DAFW cases. Multiple body parts accounted for 220 cases, or, 20.8%; the lower extremities (legs, ankles, feet, toes) accounted for 160 cases, or, 15.1%; the upper extremities (arms, wrists, hands, fingers) accounted for 140 cases, or, 13.2%; the head region (including the face) accounted for 30 cases, or, 2.8%.

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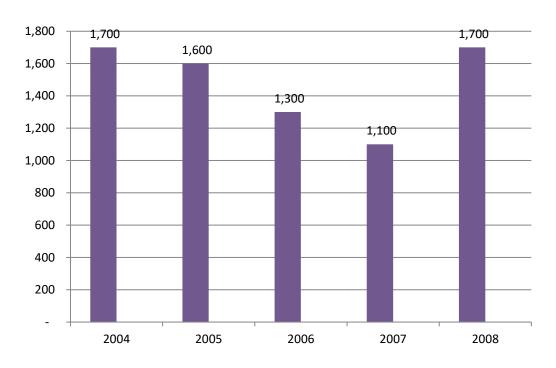
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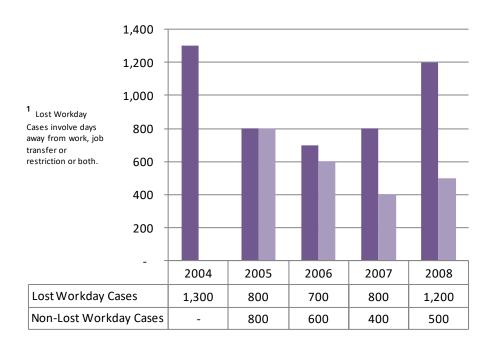
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Incidence rates of nonfatal occupational injuries and illnesses (per 100 full time

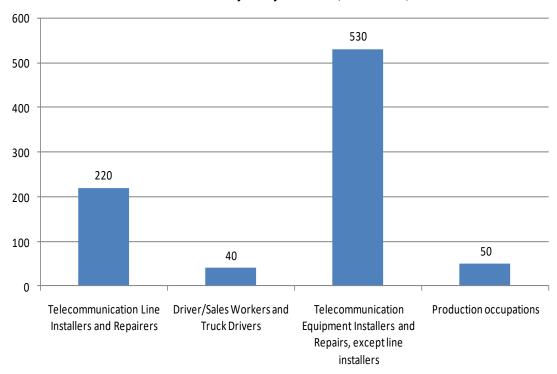
# Numbers of nonfatal injuries and illnesses, information, 2004 - 2008



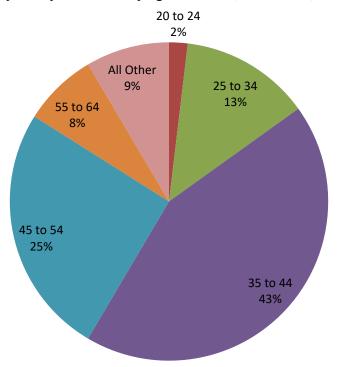
# Number of lost workday<sup>1</sup> vs. non-lost workday cases of nonfatal injuries and illnesses, information, 2004 - 2008



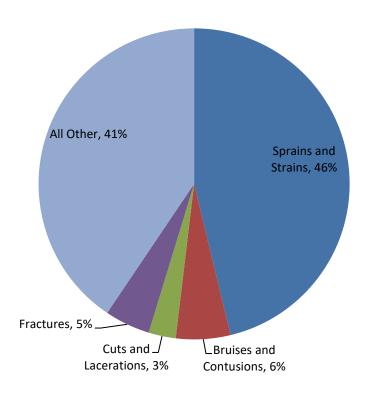
# Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, information, 2008



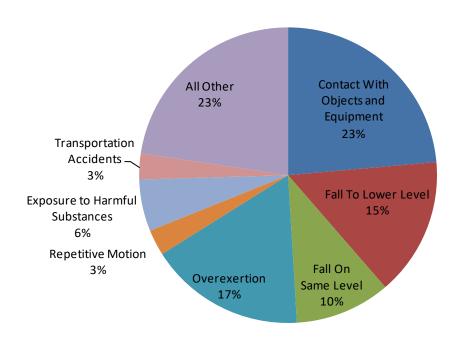
# Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, infomation, 2008



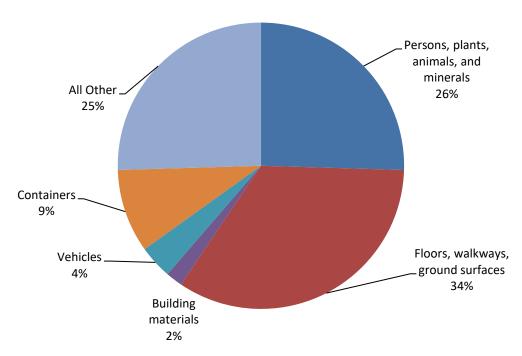
Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, Information, 2008



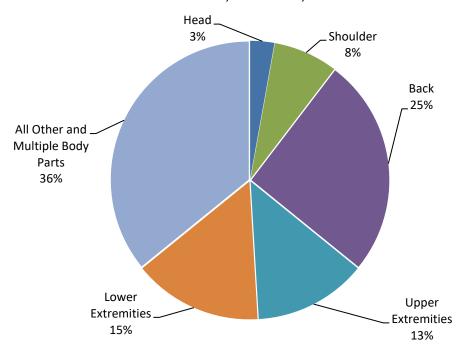
Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure, infomation, 2008



# Percent distribution of nonfatal injuries and illnesses involving days away from work by source, all private industries, infomation, 2008



# Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, all private industries, infomation, 2008



# Masachusetts Occupational Injuries and Illnesses Report 2008

### FINANCIAL ACTIVITIES

The financial activities industry had the lowest incidence rate of all industry groups. The only significant change in data in comparison with that of 2007 was the number of respiratory condition illness cases, which decreased in 2008; it had the third lowest number of total recordable cases in 2008. The remaining injury case types all remained relatively unchanged from 2007. Common examples of occupations in this industry include: bank tellers, credit analysts, loan brokers, stock brokers, investment advisors, and portfolio analysts.

### Key Financial Activities Industry Findings

- The financial activities industry had a total recordable case (TRC) rate of 0.9 incidents per 100 full-time equivalent employees (FTEs).
- Within the financial activities industry there are two industry groups: finance and insurance, which had a TRC rate of 0.4 incidents per 100 FTEs; and the real estate and rental and leasing group, which had a TRC rate of 3.6 incidents per 100 FTEs.
- The cases with days away or restricted/transferred duty (DART) rate was 0.5 cases per 100 FTEs; the cases with days away from work only (DAFW) rate was 0.5; the cases with job transfer or restriction only (DJTR) rate was 0.1; and the other recordable rate (ORC) was 0.4 cases per 100 FTEs.
- The financial activities industry employed approximately 221,700 employees in 2008, representing approximately 7.8% of the total private-sector workforce.
- The finance and insurance group employed roughly 81% (179,400 workers) of the total financial activities workforce; the real estate and rental and leasing group employed approximately 19.1% (42,300 workers) of the total financial activities workforce.
- There were a total of 1,900 total recordable cases industry—wide; the finance and insurance group accounted for 36.8% (700 cases) of all cases; the real estate and rental and leasing group accounted for 63.2% (1,200 cases) of the remainder of all cases.
- Cases with days away from work (DAFW), job transfer or restriction (DJTR) or a combination of both (DART) accounted for 57.9% (1,100 cases) of all cases; DAFW-only cases accounted for approximately 52.6% (1,000 cases) of all cases; DJTR-only cases accounted for 5.3% (100 cases) of the total; and other recordable (ORC) cases accounted for 42.1% (800 cases) of the total.
- There were a total of 1,800 injuries-only in 2008, which is 94.7% of the total cases.
- Illness-only cases accounted for 100 cases or 5.3% of all cases.

### Case and Demographic Findings

OCCUPATION: Occupations within the financial activities sector with the highest number of incidents include: installation, maintenance, and repair workers (160 cases), financial managers (120), laborers and freight, stock, and material movers (100), and counter and rental clerks, who accounted for 70 cases.

GENDER: Males accounted for 69.4% (680 cases) of all DAFW cases; Females accounted for 30.6% (300 cases) of all DAFW cases.

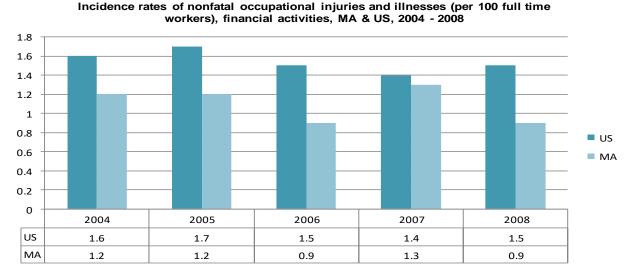
AGE: Approximately 43% (420 cases) of all DAFW cases affected workers aged 45 to 54; workers aged 35 to 44 accounted for 20.4% (200 cases) of all cases; workers aged 20 to 24 accounted for 15.3% (150 cases) of all cases; workers aged 25 to 34 accounted for 12.2% (120 cases) of all cases; workers aged 55 to 64 accounted for 6.1% (60 cases) of all cases. Workers in the 16 to 19, and 65 and over groups did not have enough data to produce results.

NATURE: The most frequent nature of incidents was sprains, strains and tears, which accounted for 450 cases or 46% of the total; fractures accounted for 14.3% (140 cases) of all DAFW cases; bruises and contusions accounted for 11.2% (110 cases) of all cases; soreness, pain, hurt (except back) accounted for 11.2% (110 cases) as well.

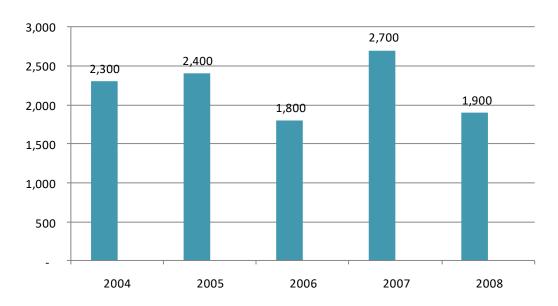
EVENT: Falls and bodily reaction and exertion were the two event categories with the highest number of DAFW incidents. Both events accounted for 320 cases each, which is 32.7% each among all cases. Contact with objects and equipment accounted for 200 cases, or, 20.4% of the total; transportation accidents accounted for 11.2% (110 cases) of all cases; and exposure to harmful substances or environments accounted for 3.1% (30 cases) of all DAFW cases.

SOURCE: Structures and surfaces were the source of approximately 360 DAFW cases or, 36.7% of all cases; furniture and fixtures were the source of approximately 210 cases or 21.4%; vehicles were the source of approximately 120 cases (12.2%); and other sources accounted for 60 cases or, 6.1%.

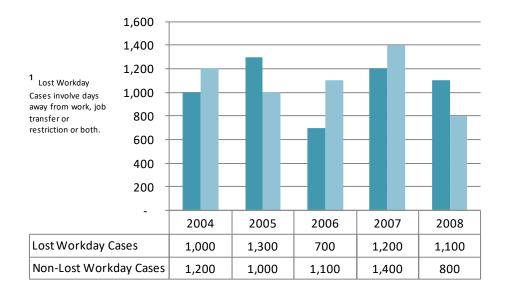
PART OF BODY: The lower extremities (legs, ankles, feet, toes) was the part of body region involved in the most DAFW cases; it accounted for 330 cases or, 33.7% of the total; the trunk (which is made up of the shoulders, back and chest) accounted for 310 cases or, 31.6% of all cases; upper extremities (arms, wrists, hands, fingers) accounted for 180 cases or, 18.4%; the head region (including the face) accounted for 80 cases or, 8.2%; and multiple body parts accounted for 60 cases 6.1°



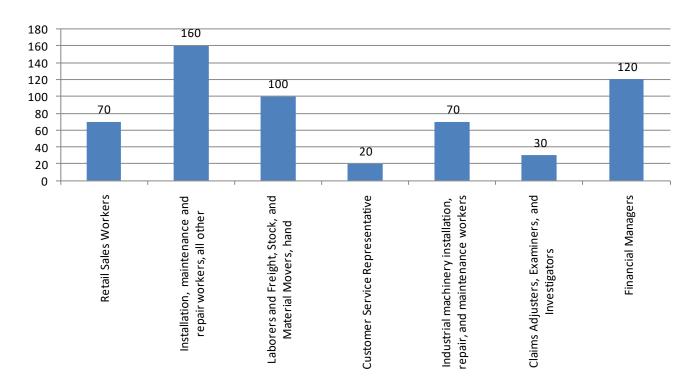
# Numbers of nonfatal injuries and illnesses, financial activities, 2004 - 2008



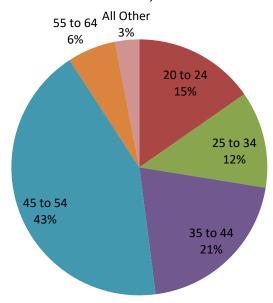
# Number of lost workday¹ vs. non-lost workday cases of nonfatal injuries and illnesses, financial activities, 2004 - 2008



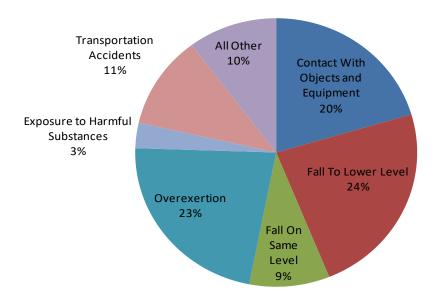
Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, financial activities, 2008



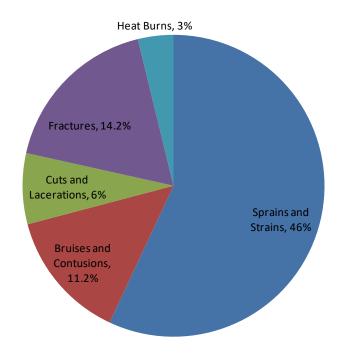
Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, financial activities, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure, financial activities, 2008

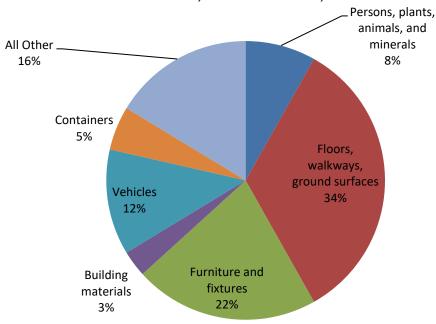


Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, financial activities, 2008

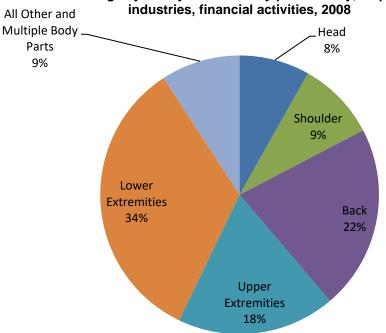


## **FINANCIAL ACTIVITIES**

## Percent distribution of nonfatal injuries and illnesses involving days away from work by source, all private industries, financial activities, 2008



## Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, all private industries financial activities 2008



# Masachusetts Occupational Injuries and Illnesses Report 2008

#### LEISURE AND HOSPITALITY SERVICES

The number of work-related incidents in the leisure and hospitality industry remained relatively unchanged this year. This industry maintains a higher incidence rate compared to other industries within the service-providing sector; it had the second-highest total recordable case incidence rate and the third-highest number of recordable incidents within the entire service-providing sector. Common examples of occupations in this industry include: professional athletes, actors, dancers, event promoters, caterers, waiters and waitresses, bartenders, chefs and cooks, bakers, hotel workers, janitors and cleaners, maids and housekeepers, amusement park workers, zookeepers and curators.

#### Key Leisure and Hospitality Services Industry Findings

- The total recordable case incidence rate was 5.1 incidents per 100 full-time equivalent workers (FTEs).
- The subsectors of this industry include: art, entertainment, and recreation which had a TRC rate of 4.8; and accommodation and food services which had a 5.2 TRC rate.
- This industry employed approximately 308,000 employees, representing 10.8% of the total private sector workforce and 12.8% of the service-providing workforce.
- Arts, entertainment, and recreation employed approximately 49,800 employees or 16.2% of the industry, while accommodation and food services accounted for 83.8% (258,200 workers) of the industry.
- The leisure and hospitality industry reported approximately 9,100 recordable cases. Of this total, arts, entertainment, and recreation accounted for 1,300 cases or 14.3%; accommodation and food services accounted for 7,800 cases or 85.7% of the total incidents.
- Cases involving days away from work, job transfer or restriction, or a combination of either of the two (DART) accounted for 36.3% of the total cases; cases involving days away from work only (DAFW) accounted for approximately 27.5% (2,500 cases); cases involving job transfer or restriction only (DJTR) accounted for 8.8% (800 cases); and cases that were other recordable but did not require missed, restricted, or transferred duty (ORC) accounted for 64.9% (5,900 cases).
- Approximately 8,700 or 95.6% cases were reported as injury-only cases.

#### Case and Demographic Findings

OCCUPATION: Cooks was the most commonly-affected occupation in the leisure and hospitality industry, with 340 DAFW cases in this occupational title; approximately 330 cases affected hosts, hostesses (restaurant, lounge, and coffee shop); 270 cases affected cashiers; 200 cases affected maids and housekeeping cleaners; 170 cases affected waiters and waitresses.

GENDER: Approximately 56.5% (1,420 cases) of all DAFW cases affected females; 43.0% (1,080 cases) of all DAFW cases affected males.

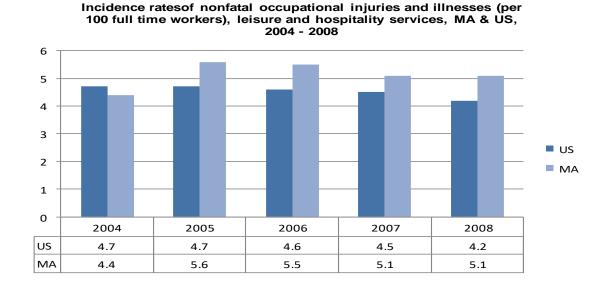
AGE: The 45 to 54 age group accounted for 510 DAFW cases or 20.3% of the total; the 16 to 19 age group accounted for 460 cases or 18.3%; the 25 to 34 group accounted for 450 cases or 17.9%; the 20 to 24 age group accounted for 240 cases or 9.6% of the total; the 55 to 64 age group accounted  $\cdot$  for 220 cases or 8.8% of the total; and the 65 and over group accounted for 40 cases or 1.6%.

NATURE: Sprains, strains, and tears were responsible for 680 DAFW cases or 27.1% of the total in 2008; cuts and lacerations accounted for 660 cases or 26.3%; heat burns and scalds accounted for 210 cases or 8.4%; bruises and contusions accounted for 170 cases or 6.8% of the total; fractures accounted for 150 cases or roughly 6.0%; and soreness and pain/hurt (except the back) accounted for 120 cases or 4.8%.

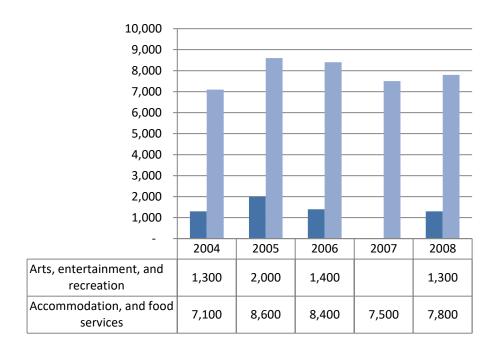
EVENT: Contact with objects or equipment accounted for 930 cases or 37.1% of the total DAFW cases; falls accounted for 680 cases or 27.1%; bodily reaction and exertion accounted for 500 cases or 19.9%; exposure to harmful substances or environments accounted for 250 cases or roughly 10.0%.; assaults and violent acts accounted for 100 cases or roughly 4.0% of the total.

SOURCE: Structures and surfaces accounted for 690 DAFW cases or 27.5% of all cases; other sources (mainly scrap, waste and debris) accounted for 520 cases or 20.7%; persons, plants, animals, and minerals accounted for 470 cases or 18.7%; both containers and furniture and fixtures accounted for 230 cases each or 9.2% each.

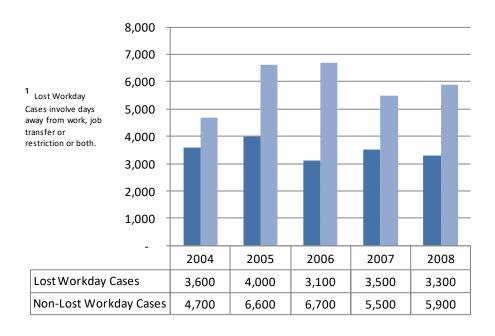
PART OF BODY: Lower extremities (legs, ankles, feet and toes) accounted for 860 cases or 34.3% with DAFW; the trunk (back, shoulders, chest) accounted for 700 DAFW cases or 27.9% of the total; the upper extremities (arms, wrists, hands, fingers) accounted for 520 cases or 20.7% of the total; the head region (including the face) accounted for 230 cases or 9.2% of the total.



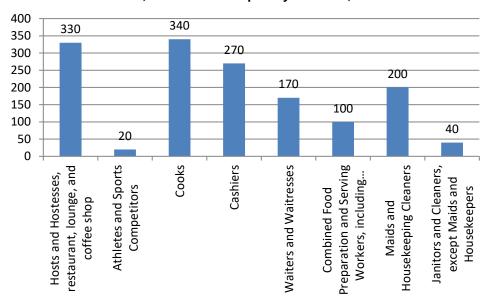
#### Numbers of nonfatal injuries and illnesses, leisure and hospitality services, 2004 - 2008



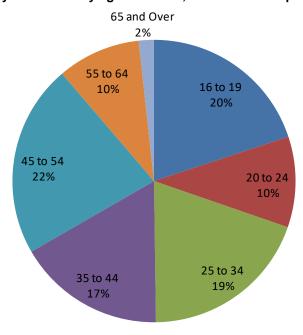
## Number of lost workday¹ vs. non-lost workday cases of nonfatal injuries and illnesses, leisure and hospitality services, 2004 - 2008



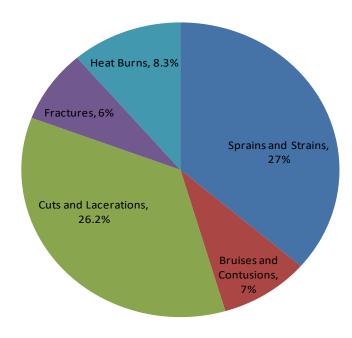
## Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, leisure and hospitality services, 2008



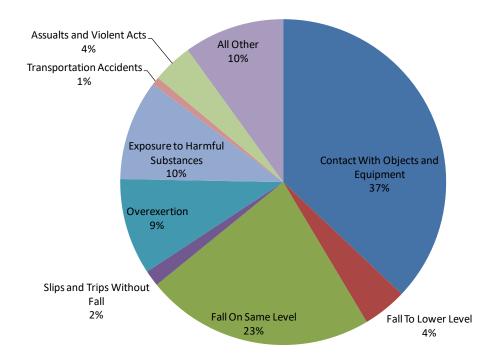
Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, leisure and hospitality, 2008



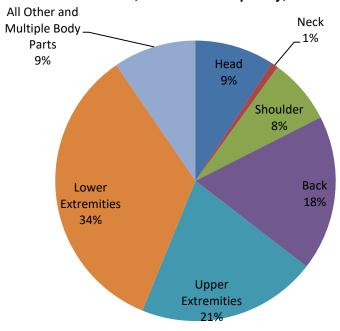
Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, leisure, 2008



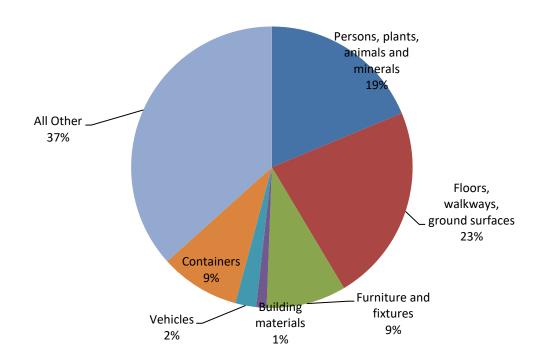
Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure, leisure and hospitality, 2008



## Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, all private industries, leisure and hospitality, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by source, all private industries, leisure and hospitality, 2008



# Masachusetts Occupational Injuries and Illnesses Report 2008

#### **EDUCATION AND HEALTH SERVICES**

The education and health services industry employed the largest number of employees in the Massachusetts private-sector workforce and had the highest number of total recordable (TRC) cases and cases with days away from work (DAFW). This industry is the only industry in Massachusetts that employs more female employees than males. The education and health services industry did not see significant changes in most of its case types from 2007, however, it increased in the total number of recordable illness-only cases. Common examples of occupations in this industry include: teachers and childcare workers, counselors, physicians, dentists, nurses, nursing aides and orderlies, medical laboratory technicians, personal and home care aides, paramedics, social workers, psychiatric aides and janitors and cleaners.

#### Key Education and Health Services Industry Findings

- The education and health services industry had a total recordable case (TRC) incidence rate of 5.6 incidents per 100 full time equivalent employees (FTEs). The DART rate was 2.9; the DAFW-only rate was 2.1; the DJTR-only rate was 0.8; and the ORC rate was 2.7 incidents per 100 FTEs.
- Educational services alone had a TRC rate of 3.8 incidents per 100 FTEs
- Health care and social assistance had a TRC of 6.0 incidents per 100 FTEs.
- The education and health services industry employed approximately 21.1% of the private-sector workforce and approximately 24.9% of the service-providing sector.
- Educational services employed roughly 20.9% (125,600 employees) of the industry's workforce; health care and social assistance consisted of 79.1% (474,600 employees).
- Overall, the industry reported 25,100 recordable cases in 2008; education services accounted for 13.5% or roughly 3,500 cases; the health care and social assistance sector accounted for 86.5% (21,700 cases).
- Approximately 52.2% (13,100) of all cases involved days away from work or job transfer or restriction (DART); 37.8% or approximately 9,500 cases involved days away from work only (DAFW); 14.3% (3,600) of cases involved job transfer or restriction-only (DJTR); and approximately 47.8% (12,000) of cases were recordable (ORC) but did not require missed, restricted or transferred work time.
- Injury-only cases represented approximately 23,000 cases, which is 91.6% of the total; illness-only cases represented approximately 2,100 cases or 8.4% of the total.

#### Case and Demographic Findings

OCCUPATION: Nursing aides, orderlies and attendants accounted for 19.8% (1,870 cases); registered nurses (RN) accounted for 13.7% (1,300) of all DAFW cases; healthcare support workers (all other) accounted for 6.0% (570 cases); emergency medical technicians and paramedics accounted for 290 cases or 3.1% of the total.; maids and housekeeping cleaners accounted for roughly 3.0% (280 cases); personal and home care workers and child care workers accounted for 240 and 230 cases or. 2.5% and 2.4%, respectively.

GENDER: Approximately 6,440 cases (68.1%) involved female employees; males accounted for 2,960 cases, or, 31.3% of the total.

AGE: The 35 to 44 age group had the highest number of DAFW cases with 2,560 cases, or, 27.1% of the total; the 45 to 54 age group accounted for 24.7% (2,340 cases) of all DAFW cases; the 25 to 34 age group accounted for 20.7% (1,960) of DAFW cases; the 55 to 64 age group accounted for 14.8% (1,400 cases); the 20 to 24 age group accounted for 7.6% (720 cases) of DAFW cases; the 65 and over age group accounted for 2.9% (270 cases); and the 16 to 19 age group accounted for 1.6% (150 cases).

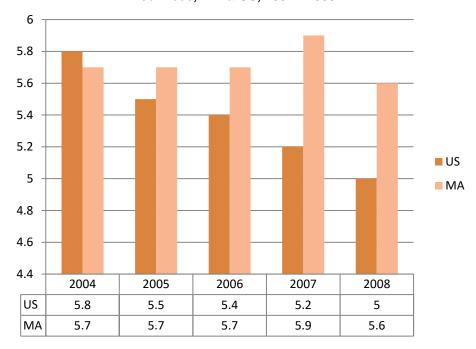
NATURE: The most frequent nature of injury in the education and health services industry during 2008 was sprains, strains and tears which accounted for 5,540 cases or, 58.6% of all cases. Bruises and contusions accounted for 1,040 cases, or roughly 11%; soreness and pain (except the back) accounted for 640 cases, or 6.8%; fractures accounted for 400 cases or 4.2%; and cuts and lacerations accounted for 360 cases (3.8%); concussions accounted for 170 cases or 1.8%.

EVENT: The most common event causing DAFW was bodily reaction and exertion which accounted for 4,590 cases or 48.5% of the total; contact with objects or equipment accounted for 1,370 incidents or 14.5% of the total; assaults and violent acts accounted for 620 incidents or 6.6% of the total (the highest incident rate of this event type among all of the major industries); exposure to harmful substances or environments accounted for 360 cases or ,3.8% of the total; and transportation accidents accounted for 270 cases or 2.9%.

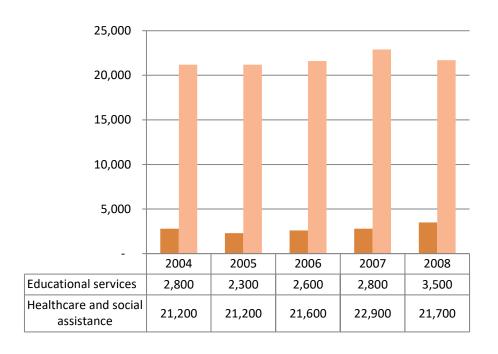
SOURCE: Persons, plants, animals or minerals was the most common source involving DAFW cases; it accounted for a total of 4,520 cases or 47.8%. Structures and surfaces accounted for 2,240 cases or 23.7% of all DAFW cases; containers accounted for 600 DAFW cases or 6.3% of the total; vehicles accounted for 490 cases or 5.2%; tools, instruments and equipment accounted for 370 cases or 3.9%; furniture and fixtures accounted for 350 cases or 3.7%; machinery accounted for 220 cases or 2.3%; and both parts and materials and chemical and chemical products accounted for 180 cases each or 1.9%.

PART OF BODY: The part of body (region) most affected in DAFW cases was the trunk with 3,680 cases or 38.9% of the total DAFW cases; lower extremities (legs, ankles, feet, toes) accounted for 2,210 cases or 23.4%; upper extremities (arms, wrists, hands, fingers) accounted for 1,620 cases or 17.1%; multiple body parts accounted for 890 cases or 9.4%; the head region (including the face) accounted for 620 cases or 6.6%; body systems accounted for 110 cases or 1.2%.

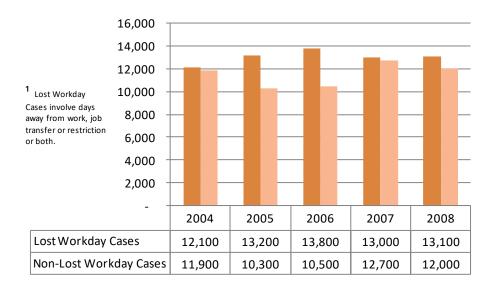
## Incidence rates¹ of nonfatal occupational injuries and illnesses (per 100 full time workers), education and health services, MA & US, 2004 - 2008



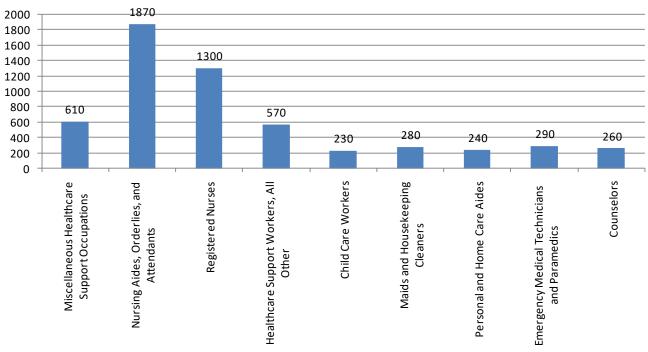
## Numbers of nonfatal injuries and illnesses, education and health services, 2004 - 2008



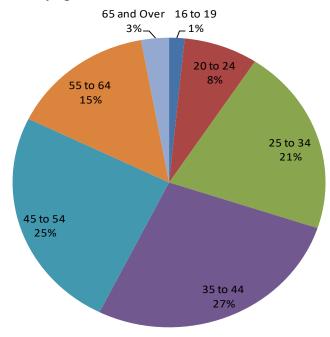
## Number of lost workday¹ vs. non-lost workday cases of nonfatal injuries and illnesses, education and health services, 2004 - 2008



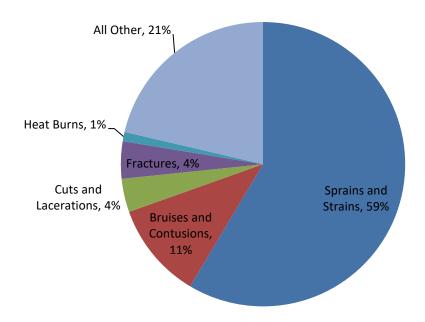
#### Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, education and health services, 2008



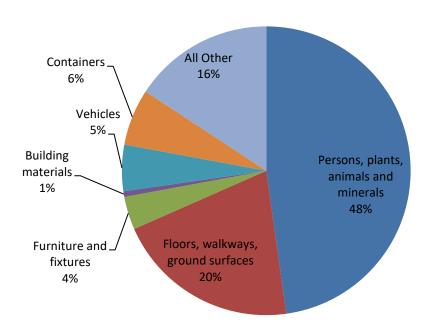
Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, education and health services, 2008



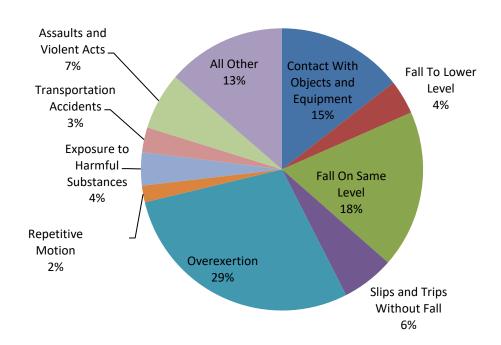
Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, education & health services, 2008



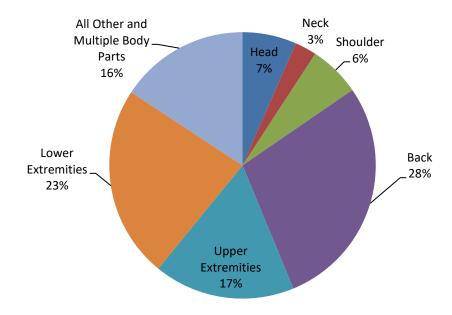
Percent distribution of nonfatal injuries and illnesses involving days away from work by source, all private industries, education and health services, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure, education and health services, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, all private industries, education, 2008



## Masachusetts Occupational Injuries and Illnesses Report 2008

#### PROFESSIONAL AND BUSINESS SERVICES

The professional and business services industry employed approximately 17.3% of the total private sector workforce in 2008. It is the second third largest industry within the goods-producing industries; it also has the second-lowest total recordable case (TRC) incidence rate of all private sector industries. This industry did not see any significant changes in the summary data from 2007 to 2008. Common examples of occupations in this industry include: lawyers, accountants, architects, civil engineers, tour guides, computer programmers, photographers, veterinarians, telemarketers, pest control workers, security guards, landscapers, garbage collectors and building cleaning workers.

#### Key Professional and Business Services Industry Findings

- The total recordable case incidence rate was 1.6 incidents per 100 full-time equivalent employees (FTEs); the DART rate was 0.8; the DAFW-only rate was 0.7; the DJTR-only rate was 0.1 and the ORC rate was 0.8.
- Within the industry, professional, scientific and technical services had a TRC rate of 0.6 per 100 FTEs; management of companies and enterprises had a TRC rate of 1.6 incidents per 100 FTE's; and administrative and support and waste management and remediation services had a TRC rate of 3.4 per 100 FTEs.
- The professional and business services industry employed approximately 494,000 employees, roughly 17.3% of the Massachusetts' private-sector workforce and approximately 20.5% of the total service-providing workforce.
- The professional, scientific and technical services subsector employed 52.7% (260,100 workers) of the industry's workforce; management of companies and enterprises accounted for 12.5% (61,800 workers); and administrative and support and waste management and remediation services accounted for 34.8% (172,100 workers).
- There were a total of 6,800 incidents reported in this industry; 1,300 cases were reported in the professional, scientific, and technical services sub-sector; management of companies and enterprises accounted for 900 cases; and administrative and support and waste management and remediation services accounted for 4,500 cases.
- Of the 6,800 recordable cases, 3,300 had days away from work, job transfer or restriction or a
  combination of both; approximately 2,800 had days away from work only (DAFW); 500 cases had
  job transfer or restriction only (DJTR); and 3,500 were recordable (ORC) but did not require DAFW
  or DJTR.
- Of the 6,800 recordable cases, 95.6% (6,500) of the cases were injury-only; the remaining 4.4% (300 cases) of the total number of cases were illness-only.

#### Case and Demographic Findings

OCCUPATION: The following occupations had the highest number of DAFW cases: truck drivers, heavy and tractor-trailer accounted for 370 cases (13.3%); landscaping and grounds keeping workers accounted for 350 cases (12.5% of the total); office and administrative support occupations accounted for 300 cases (10.8%); material moving workers accounted for 220 cases (7.9%); and janitors and cleaners (except maids and housekeeping workers) accounted for 190 cases (6.8%).

GENDER: Males accounted for 68.8% (1,920 cases) of the professional and business services industry; females accounted for 31.2% or 870 cases.

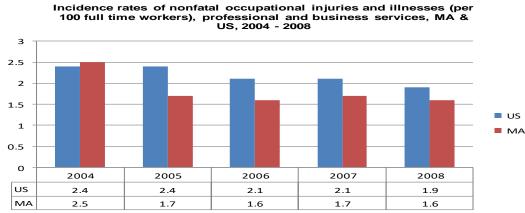
AGE: The 35-44 age group accounted for the most DAFW cases with 710 cases or 25.4%; the 25 to 34 age group accounted for 23.3% (650 cases); the 45 to 54 age group accounted for 22.6% of the total or 630 cases; the 55 to 64 age group accounted for 360 cases or 12.9% of the total; the 20 to 24 age group accounted for 11.8% (330 cases) of the total; and the 65 and over and 16 to 19 age groups accounted for 60 cases (2.2%) and 30 cases (1.1%) respectively.

NATURE: Sprains, strains and tears accounted for roughly 47% (1,310 cases) of the total number of DAFW cases; fractures accounted for 12.2% (340 cases) of the total; soreness, pain, hurt (except the back) accounted for 9.3% (260 cases) of the total; cuts and lacerations accounted for 8.2% (230 cases) of the total; and bruises and contusions accounted for 7.2% or 200 cases.

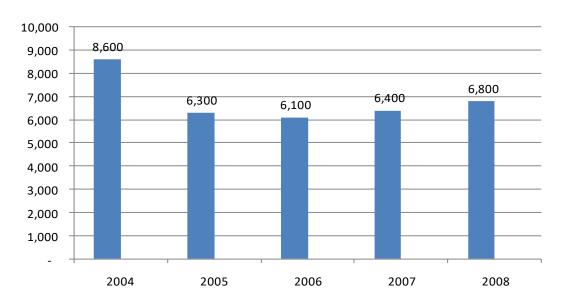
EVENT: Bodily reaction and exertion accounted for 1,100 (39.4%) of the total number of DAFW cases; falls accounted for 770 DAFW cases (27.6%); contact with objects and equipment accounted for 590 cases or 21.1%; transportation accidents accounted for 140 cases or 5.0% of the total; and 120 cases or 4.3% of all DAFW cases involved exposure to harmful substances or environments.

SOURCE: Structures and surfaces were the source of approximately 740 DAFW cases or 26.5% of the total; persons, plants, animals, and minerals were responsible for approximately 670 incidents or 24.0%; containers were responsible for 340 cases or 12.2%; vehicles accounted for approximately 320 cases or 11.5%; the remainder of source groups accounted for less than 200 cases.

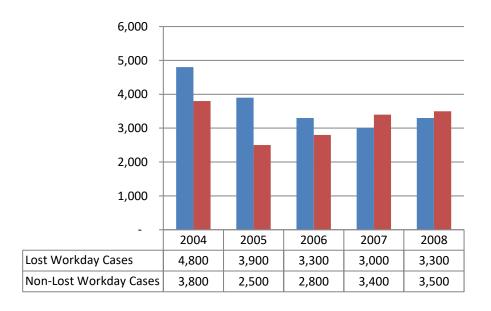
PART OF BODY: The trunk region (back, shoulders, chest) was the most affected part of body with 30.8% (860 cases) of all DAFW cases; the lower extremities (legs, ankles, feet, and toes) accounted for 25.8% (720 cases); the upper extremities (arms, wrists, hands, fingers) accounted for 22.2% (620 cases); multiple body parts accounted for 8.2% (230 cases); and the head region (including the face) accounted for 6.1% (170 cases).



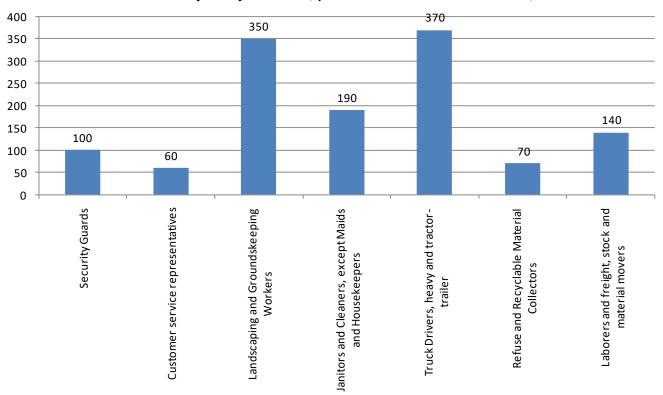
## Numbers of nonfatal injuries and illnesses, professional and business services, 2004 - 2008



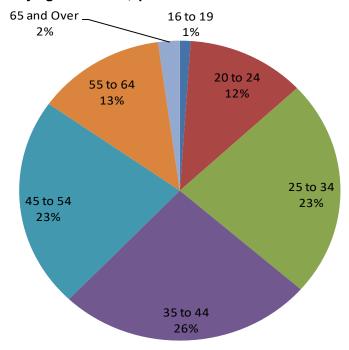
## Number of lost workday¹ vs. non-lost workday cases of nonfatal injuries and illnesses, professional and business services, 2004 - 2008



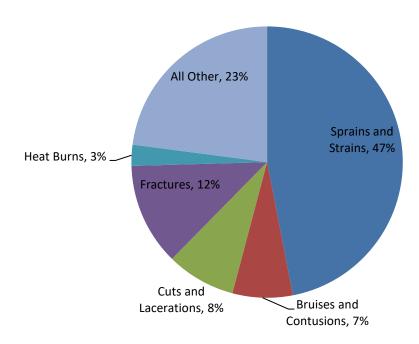
Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, professional and business services, 2008



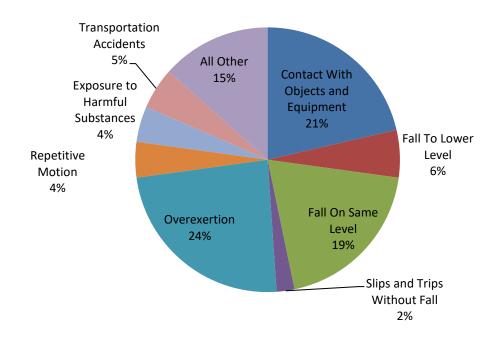
Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, professional and business services, 2008



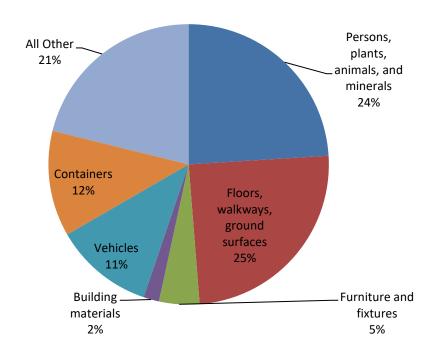
Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, professional and business services, 2008



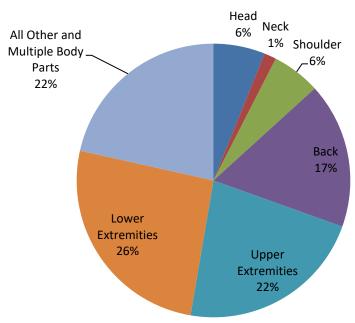
Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure, professional and business services, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by source, all private industries, professional and business services, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, all private industries, professional and business services, 2008



## Masachusetts Occupational Injuries and Illnesses Report 2008

#### **PUBLIC SECTOR**

STATE AND LOCAL GOVERNMENT

For the first time in Massachusetts, the Survey of Occupational Injuries and Illnesses was conducted among the public sector. The reporting of occupational injuries within local government is still not mandatory but the participation that we received was sufficient enough to publish some results. Non-fatal occupational injuries and illnesses occurred at a higher rate for state and local government workers (4.1 cases per 100 full-time equivalent employees [FTEs]), than it did for private sector workers (3.6 cases per 100 FTEs). Within state and local government there are industry sectors that include: education and health services, public administration. All other sectors did not have enough data to produce results. Therefore, when referencing case and demographic data, it is represented as state government only, or local government only, except where indicated otherwise.

#### Key Public Sector Findings

- The total recordable case incidence rate (TRC) for both state and local government was 4.1 incidents per 100 FTEs. The DART rate was 2.4; the DAFW rate was 1.9; the DJTR rate was 0.4 and the ORC rate was 1.8 cases per 100 FTEs.
- State government only had a TRC rate of 2.6 cases per 100 FTEs
- Local government only had a TRC rate of 4.9 cases per 100 FTEs.
- The public sector employed roughly 363,000 employees, which was roughly 11.3% of the total Massachusetts workforce.
- State government accounted for approximately 105,200 employees or 29% of the public sector workforce.
- Local government accounted for approximately 257,700 employees or 71% of the public sector workforce.
- Approximately 12,600 recordable cases were reported in the public sector in 2008; this represents roughly 13.2% of the total number of recordable cases in Massachusetts.
- State government accounted for 2,500 recordable cases or 19.8% of the public sector's recordable cases; local government accounted for roughly 10,000 cases or 79.4%.
- Of the 12,600 total recordable cases, approximately 11,400 or 90.5% were non-fatal occupational injury-only cases.
- 9.5% (1,200 cases) of the 12,600 recordable cases were non-fatal occupational illness-only cases.
- Skin disorders accounted for approximately 400 cases of the total reported; all other illnesses accounted for 600. There was not enough data to publish figures on the remaining illness-types.
- State government accounted for 600 total illness-only cases; local government accounted for 700 total illness-only cases

#### Case and Demographic Findings - State Government

OCCUPATION: Protective services occupations (specifically correctional officers and jailers, 200 cases) accounted for 230 DAFW cases or 10.0%; construction trades workers (specifically construction laborers, 110 cases) accounted for 150 cases or 6.6%; community and social services occupations (specifically mental health counselors, 110 cases) accounted for 120 cases or 5.2%; nursing aides orderlies and attendants accounted for 110 cases 4.8%.

GENDER: Males accounted for 30.6% (700 cases) of all DAFW cases; females accounted for 15.3% (350 cases); the gender for the remainder of the cases was not reported.

AGE: The 45 to 54 age group accounted for 11.4% (260 cases) of the total number of DAFW cases; the 55 to 64 age group accounted for 10.5% (240 cases) of the total; the 25 to 34 age group accounted for 10.0% (230 cases) of the total; the 35 to 44 age group accounted for 7.9% (180 cases) of the total; and the 20 to 24 age group accounted for 2.2% (50 cases). There was not enough data to produce statistics on the 16 to 19, or 65 and over age groups.

NATURE: Sprains, strains, and tears accounted for 480 DAFW cases or roughly 21% of the total number of DAFW cases; bruises and contusions accounted for 110 cases or 4.8% of the total; soreness, pain, and hurt (except back) accounted for 60 cases or 2.6%; fractures accounted for 50 cases or 2.2% of the total; and cuts and lacerations accounted for 40 cases or 1.7% of the total. Non-classifiable injuries and illnesses represented 1,260 cases or 55.0% of the total.

EVENT: Bodily reaction and exertion accounted for 350 DAFW cases or 15.3% of the total; falls accounted for 290 cases or 12.7% of the total; assaults and violent acts accounted for 170 cases or 7.4% of the total; contact with objects and equipment accounted for 140 cases or 6.1%; approximately 1,260 cases were non-classifiable.

SOURCE: Person, plants, animals, and minerals were the source for approximately 480 DAFW cases or roughly 21.0% of the total; structures and surfaces accounted for 280 cases or 12.2% of the total; containers accounted for 60 cases or 2.6% of the total; and vehicles accounted for 50 DAFW cases or 2.2% of the total; 1,240 cases were non-classifiable.

PART OF BODY: The trunk region (back, shoulders, chest) was the part of body most affected in DAFW cases, with approximately 380 cases or 16.6% of the total amount; lower extremities (legs, ankles, feet, toes) accounted for 250 cases or 10.9%; multiple body parts accounted for 170 cases or 7.4%; upper extremities (arms, hands, fingers) accounted for 160 cases or roughly 7.0%; and the head region (including face) accounted for 60 cases or 2.6% of the total; 1,240 cases were non-classifiable.

#### Case and Demographic Findings—Local Government

OCCUPATION: Firefighters accounted for 670 DAFW cases or 18.8% of the 3,570 cases total; police and sheriff's patrol officers accounted for 510 cases or 14.3% of the total; janitors and cleaners (except maids and housekeeping workers) accounted for 270 cases or 7.7% of the total; primary, secondary, and special education school teachers accounted for 260 cases or 7.3% of the total; and emergency medical technicians and paramedics accounted for 230 cases or 6.4%.

GENDER: Approximately 64.4% of all DAFW cases involved males; approximately 31.4% of all cases involved Females.

AGE: 1,270 cases (35.6%) involved the 35 to 44 age group; 780 cases (21.8%) involved the 45 to 54 age group; 760 cases (21.32%) involved the 25 to 34 age group; and 570 cases (16.0%) involved the 55 to 64 age group. There was not enough data to publish statistics on the 16 to 19, or 65 and over group.

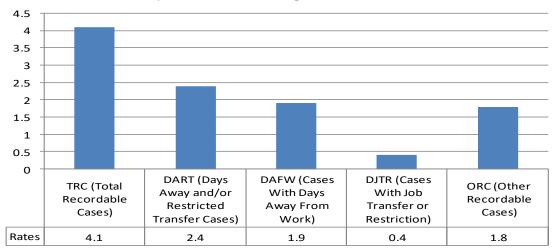
NATURE: Sprains, strains, and tears accounted for 1,440 DAFW cases, which is 40.3% of the total; soreness, pain, and hurt (except back) accounted for 520 cases or 14.6%; cuts and lacerations accounted for 270 cases or 7.6%; tendonitis accounted for 120 cases or 3.4%; bruises and contusions accounted for 110 cases or 3.1%; and fractures accounted for 90 cases or 2.5%.

EVENT: Bodily reaction and exertion accounted for 1,240 DAFW cases in 2008, this represents roughly 34.7% of the total; falls accounted for 880 cases or 24.6%; contact with objects and equipment accounted for 550 cases or 15.4%; exposure to harmful substances or environments accounted for 340 cases or 9.5%; transportation accidents accounted for 160 cases or 4.5%; and assaults and violent acts accounted for 100 cases or 2.8%. Approximately 300 cases were non-classifiable.

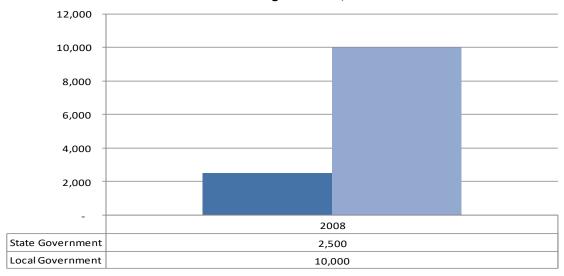
SOURCE: Persons, plants, animals, and minerals accounted for 1,140 cases or 31.9% of DAFW cases; structures and surfaces accounted for 990 cases or 27.7%; tools, instruments, and equipment accounted for 220 cases or 6.2%; vehicles accounted for 170 cases or 4.8%; and chemicals and chemical products accounted for 150 cases or 4.2%.

PART OF BODY: The trunk region (back, shoulders, chest) accounted for 830 cases or 23.2%; lower extremities accounted for 750 cases or 21.0%; multiple body parts accounted for 510 cases or 14.3%; upper extremities accounted for 660 cases or 18.5%; the head region (including face) accounted for 390 cases 10.9%; and body systems (major organs) accounted for 210 cases 5.9% of the total DAFW cases.

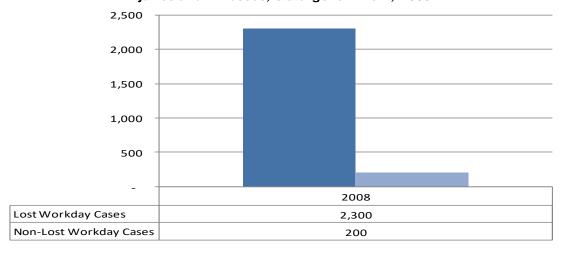
#### Incidence rates of nonfatal injuries and illnesses (per 100 full time workers), all state and local government, MA, 2008



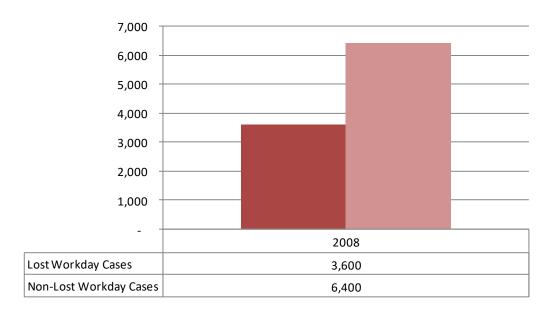
#### Numbers of nonfatal recordable injuries and illnesses, state and local government, 2008



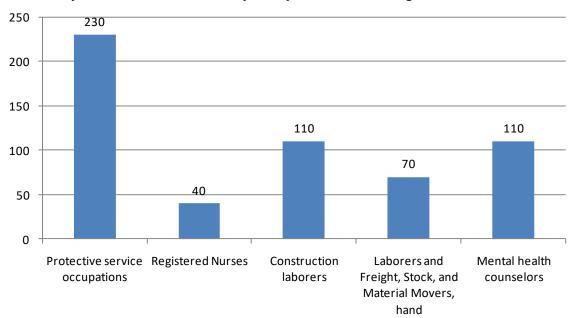
#### Number of lost workday vs. non-lost workday cases of nonfatal injuries and illnesses, state government, 2008



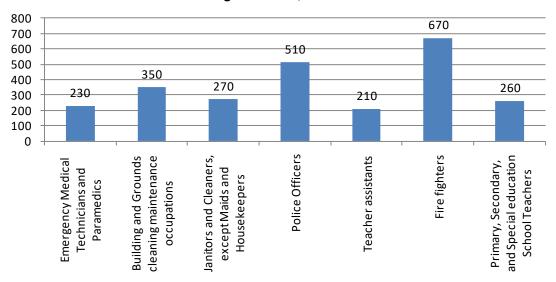
#### Number of lost workday vs. non-lost workday cases of nonfatal injuries and illnesses, local government, 2008



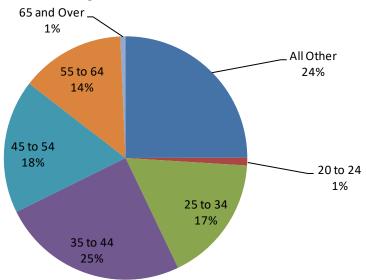
## Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, state government, 2008



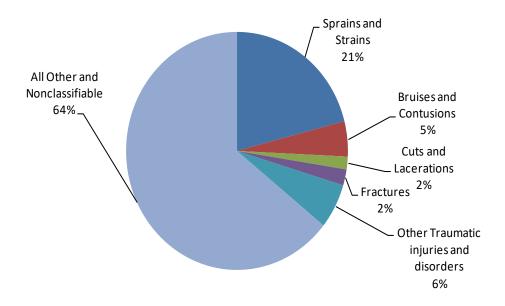
## Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, local government, 2008



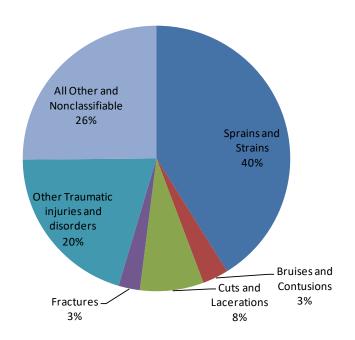
## Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, state and local government, 2008



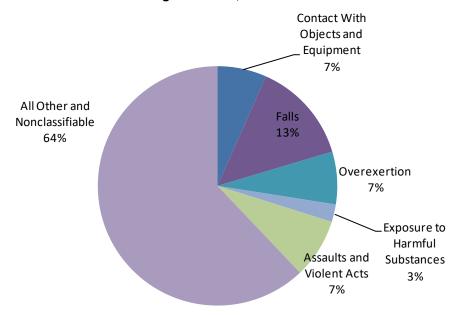
Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, state government, 2008



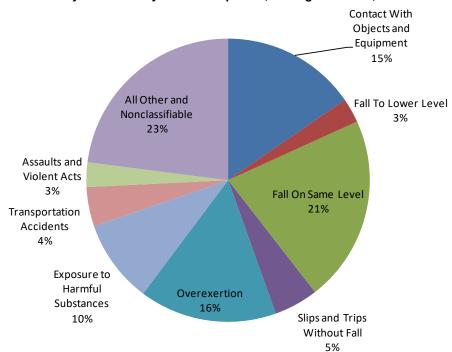
Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, local government, 2008



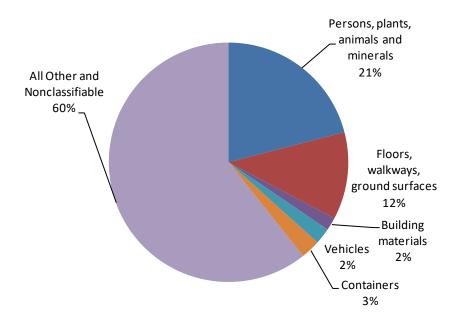
## Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure, state government, 2008



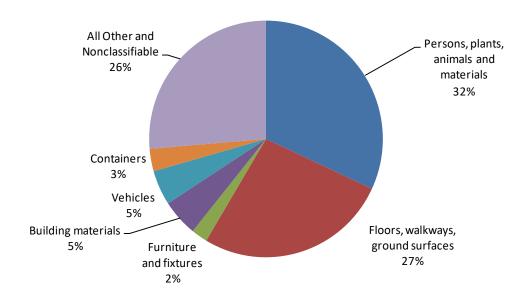
#### Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure, local government, 2008



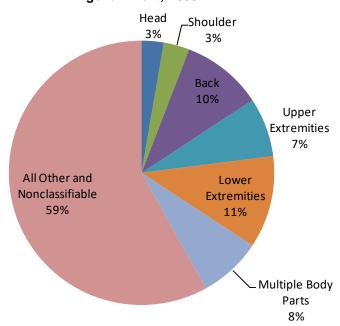
## Percent distribution of nonfatal injuries and illnesses involving days away from work by source, state government, 2008



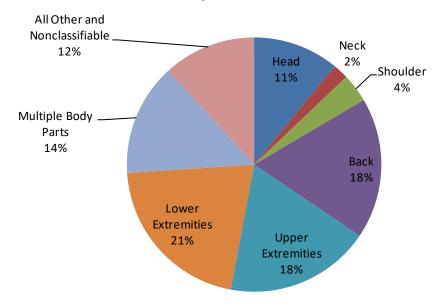
## Percent distribution of nonfatal injuries and illnesses involving days away from work by source, local government, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, state government, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, local government, 2008



# Masachusetts Occupational Injuries and Illnesses Report 2008

#### **OTHER SERVICES**

The other services industry's data remained relatively unchanged from 2007 to 2008. This industry traditionally employs a smaller amount of the total private-sector workforce and does not usually have a high incidence rate, or high number of non-fatal occupational incidents. This industry had the lowest number of total recordable incidents. Besides natural resources and mining, it had the lowest number of Days Away From Work cases (DAFW). Examples of occupations in this industry include: auto mechanics, hair stylists and barbers, funeral home directors, parking lot attendants, dry clean workers, human rights activists, pet groomers, conservationists, clergymen and women, and electronic and household repairers.

#### Key Other Services Industry Findings

- The total recordable case rate (TRC) was 2.0 incidents per 100 full-time equivalent employees (FTEs).
- This industry employed approximately 131,000 employs; this represents approximately 4.6% of the private sector workforce and 5.4% of the service-providing sector.
- This industry reported a total of 1,600 recordable cases in 2008.
- Of the 1,600 cases, approximately 800 involved days away from work, or job transfer or restriction or a combination of both; approximately 600 cases involved days away from work only; 200 cases involved job transfer or restriction only; and 800 were recordable but did not require missed work time, job transfer or restriction.
- There were a total of 1,500 occupational injury-only cases and a total of 100 occupational illness-only cases.

#### Case and Demographic Findings

OCCUPATION: Automotive service technicians and mechanics accounted for 110 DAFW cases which represents 18.6% of the total; maintenance and repair workers (general) accounted for 50 cases or 8.5% of the total; drivers/sales workers and truck drivers accounted for 40 cases or 6.8% of the total; laundry and dry cleaning workers accounted for 30 cases or 5.1% of the total.

GENDER: Approximately 460 or 78% of the DAFW cases involved male workers, while 140, or, 23.7% of the DAFW cases involved females.

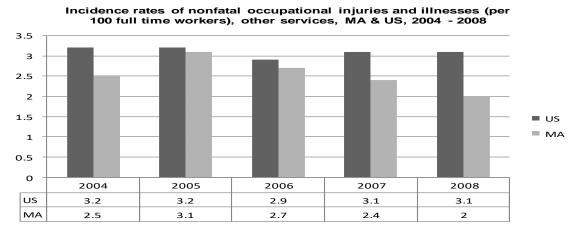
AGE: The 45 to 54 age group represented the highest number of DAFW cases with 220 cases or 37.3% of the total; the 35 to 44 age group had 130 cases or 22.0%; the 25 to 34 age group accounted for 100 cases or 16.9%; the 20 to 24 age group accounted for 70 cases or 11.9%; and the 55 to 64 age group accounted for 60 cases or 10.2%; the 65 and over group did not have enough data to publish.

NATURE: The most common nature of incident resulting in DAFW was sprains, strains and tears which accounted for 250 cases or 42.4%; cuts and lacerations accounted for 80 cases or 13.6%; fractures accounted for 50 cases or 8.5%; and bruises and contusions accounted for 40 cases or 6.8%.

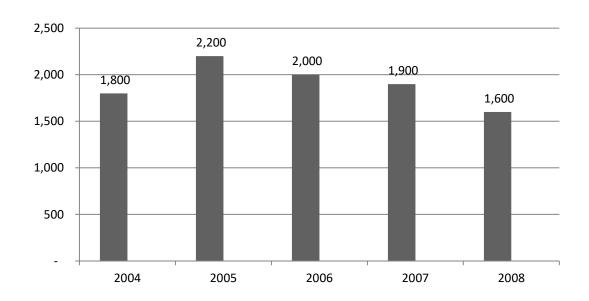
EVENT: Bodily reaction and exertion was the most common event described in DAFW cases, it accounted for 220 cases or 37.3% of the total; falls accounted for 150 cases or 25.4%; contact with objects and equipment accounted for 140 cases or 23.7%; exposures to harmful substances and environments accounted for 50 cases or 8.5%; and assaults and violent acts accounted for 20 cases or 3.4%. Transportation accidents did not have enough data to produce any results.

SOURCE: Structures and surfaces accounted for 150 cases or 25.4% of the total DAFW cases; persons, plants, animals, and minerals accounted for 140 DAFW cases or 23.7%; tools instruments and equipment accounted for 70 cases or 11.9%; containers accounted for 60 cases or 10.2%; and parts and materials accounted for 50 cases or 8.5%; all other source categories accounted for less than 50 cases, or did not have enough data to produce results.

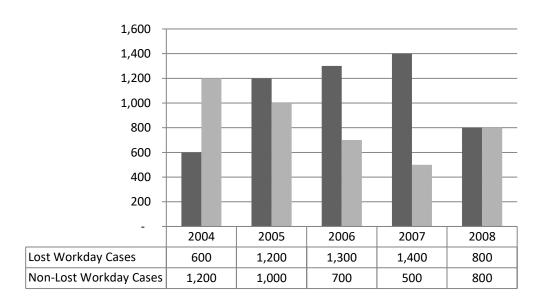
PART OF BODY: The trunk region (back, shoulders, chest) was the most commonly affected part of body in this industry accounting for 200 DAFW cases or 33.9%; the lower extremities (legs, ankles, feet, toes) accounted for 170 cases or 28.8%; the upper extremities accounted for 110 cases or 18.6%; the head (including the face) region accounted for 60 cases 10.2%; and multiple body parts accounted for 40 cases or 6.8%.



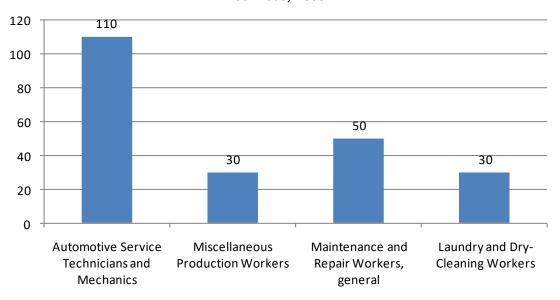
#### Numbers of nonfatal injuries and illnesses, other services, 2004 - 2008



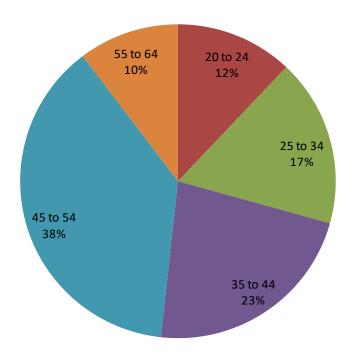
## Number of lost workday vs. non-lost workday cases of nonfatal injuries and illnesses, other services, 2004 - 2008



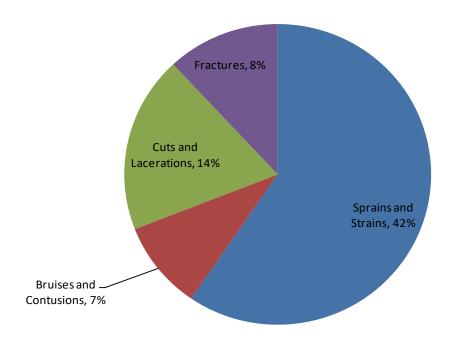
Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, other services, 2008



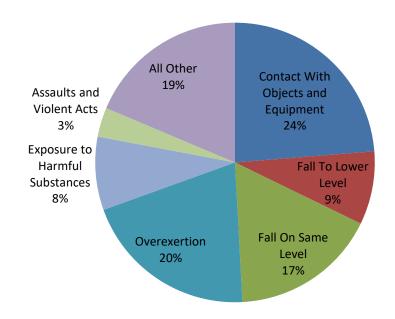
Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, other services, 2008



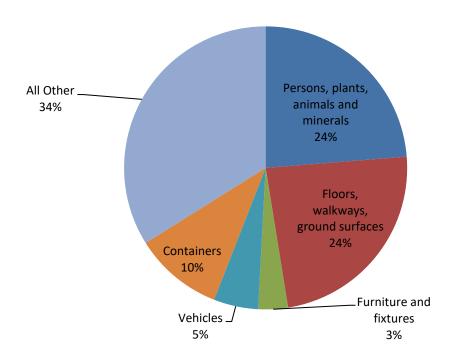
Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, other services, 2008



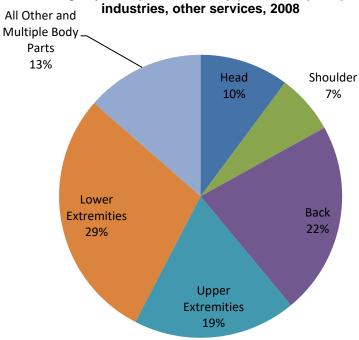
Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure, other services, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by source, all private industries, other services, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, all private industries other services 2009



#### Key Private Sector Data Findings

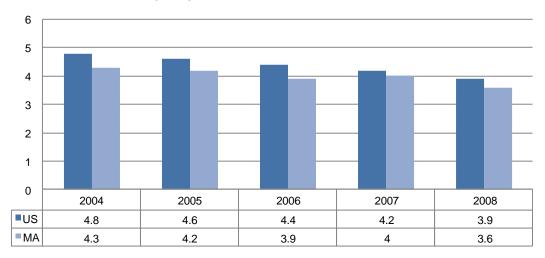
- The private sector accounted for 82,600 or 86.8% of the total; this is a decrease in the 89,600 recordable cases from 2007.
- Of the 82,600 recordable private sector cases, approximately 77,800 (94.2%) were non-fatal occupational injuries-only down significantly from 2007 (85,700 injuries-only).
- Non-fatal occupational illnesses accounted for 4,800 or 5.8% of the total.
- The private sector's total recordable case (TRC) incidence rate for Massachusetts decreased in 2008, from 4.0 in 2007 to 3.6 cases per 100 full-time equivalent employees (FTEs).
- The goods-producing industries, which include: natural resources and mining; construction and manufacturing employed roughly 15.3% (434,900) of the total private-sector workforce; they also reported approximately 19.9% of the TRC.
- The service-providing industries made up 84.7% (2,415,000) private sector workforce; the service-providing sector includes: trade, transportation and utilities; information; financial activities; professional and business services; education and health services; leisure and hospitality and other services. This sector accounted for approximately 66,200 recordable cases or 80% of the total.
- Roughly 40% (33,300) of all of the private sector's recordable cases required days away from work; 14% (11,300) resulted in job transfer or restriction; and 46% (37,900) were recordable but did not require days away from work or transfer/restriction.
- Of all of the industries, the Natural Resources and Mining industry employed the fewest amount of employees and yet had the highest total recordable case (TRC) incidence rate of 8.1 incidents per 100 FTEs.
- The Financial Activities industry had the lowest incidence rate with a 0.9 TRC rate per 100 FTEs.
- The days away from work or restricted or transferred duty (DART) incidence rate for cases with days away from work was 1.9 incidents per 100 FTEs; the cases with days away from work only incidence rate (DAFW) was 1.5 per 100 FTEs; the cases with job transfer or restricted duty (DJTR) rate was 0.5; and the other recordable case rate (ORC) was 1.7 incidents per 100 FTE.
- Overall, in 2008 there were significant decrease's from 2007 numbers in three of the six injury/illness case types which were: total recordable injury and illness cases (TRC), days away or restriction or transfer (DART), and the total recordable injury-only cases. The rest of the categories remain relatively the same as last year.

#### Key Public Sector Data Findings

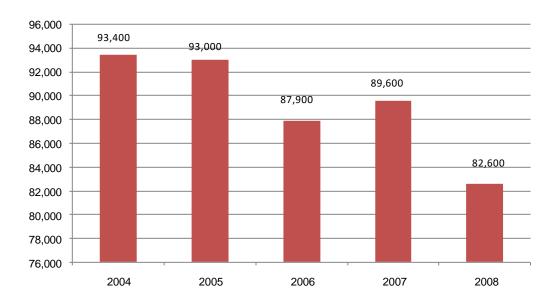
- The Public Sector, which includes state and local government, employed approximately 11.3% (363,000 employees) of the total Massachusetts workforce in 2008.
- State Government accounted for 29% (105,200) of the public sector work-force; local government made up the remaining 71% with approximately 257,700 employees.
- Approximately 12,600 work-related injuries and illnesses were reported in 2008, which is approximately 13% of the total.
- State government accounted for approximately 19.8% (2,500) of all public sector incidents.
- 90.5% (11,400) of all recordable cases in 2008 were non-fatal injuries-only.
- Illness-only cases accounted for 9.5% (1,200) of all cases.
- The following incidence rates represent the public sector collectively: TRC was 4.1 incidents per 100 FTEs, DART was 2.4, DAFW was 1.9, DJTR was 0.4, and ORC was 1.8.
- Roughly 57.1% (7,200) of all recordable cases had either lost work days (DAFW) or job transfer or restrictions (DJTR) or a combination of both.
- 46.8% or 5,900 cases involved just days away from work. 11.1% (1,400) of all cases required job transfer or restriction.
- 42.9% (5,400) of all cases were Other Recordable Cases (ORC), which means that they did not require DAFW or DJTR but were OSHA-Recordable.
- The service-providing sector of state government, which consists of: trade transportation and utilities, education and health services, and public administration accounted for 98.4% of state government's workforce; it also accounted for 98.4% (2,500) of the incidents.
- The industry sector with the highest incidence rate was local governments' public administration, which had a total recordable case rate of 6.6 incidents per 100 FTE's.
- The lowest incidence rate occurred in the public administration of state government, with a total case rate (TRC) of 1.1 incidents per 100 FTE's.

Including the private and public sectors, a total of approximately 95,200 recordable injuries and illnesses were reported.

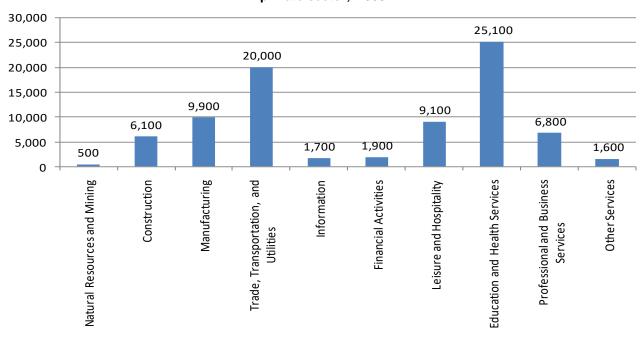
## Incidence rates of nonfatal injuries and illnesses (per 100 full time workers), all private industries, MA & US, 2004 - 2008



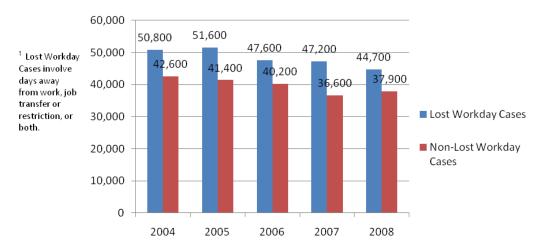
## Numbers of nonfatal injuries and illnesses, all private industries, 2004 - 2008



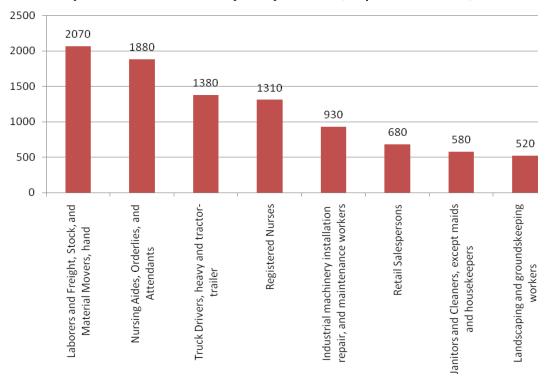
#### Number of nonfatal occupational injuries and illnesses by major industry, MA private sector, 2008



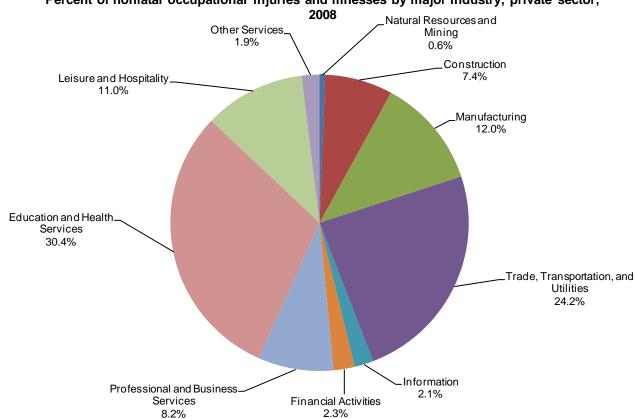
#### Number of lost workday¹ vs. non-lost workday cases of nonfatal injuries and illnesses, all private industries, 2004 - 2008



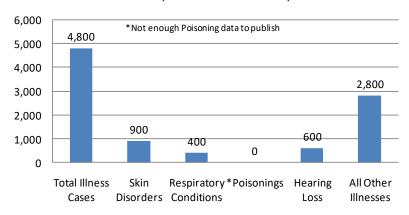
#### Selected occupations with the highest number of nonfatal occupational injuries and illnesses with days away from work, all private industries, 2008



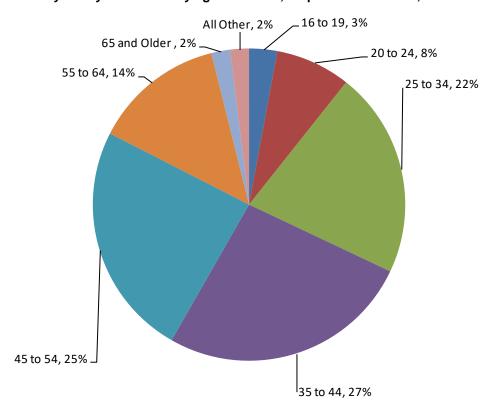
#### Percent of nonfatal occupational injuries and illnesses by major industry, private sector,



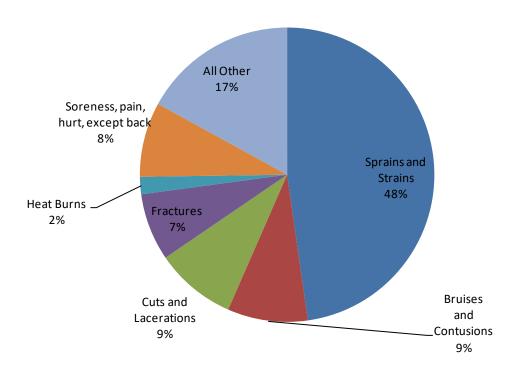
Numbers of nonfatal occupational illness only cases, All Private Industries, 2008



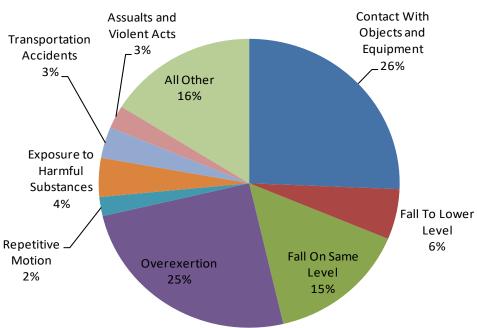
Percent distribution of nonfatal injuries and illnesses involving days away from work by age of worker, all private industries, 2008



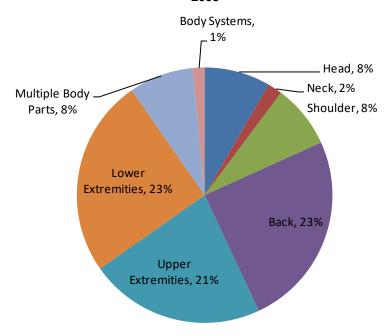
Percent distribution of nonfatal injuries and illnesses involving days away from work by nature of injury or illness, all private industries, 2008



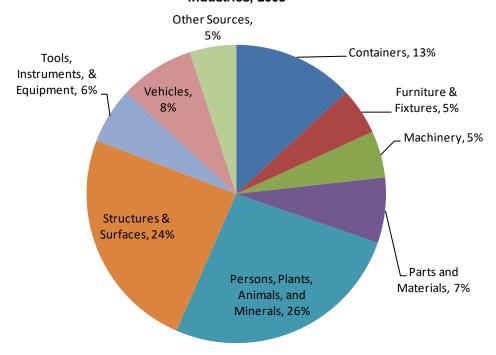
Percent distribution of nonfatal injuries and illnesses involving days away from work by event or exposure, all private industries, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by part of body, all private industries, 2008



Percent distribution of nonfatal injuries and illnesses involving days away from work by source, all private industries, 2008





## Massachusetts Survey of Occupational Injuries & Illnesses Report

2008

