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# Dying for the Job

## Traumatic Occupational Deaths in Massachusetts

*1988 Update*

January

					X	X
3	4	5	6	7	8	X
10	11	12	13	X	15	16
17	18	19	X	21	X	X
24	X	26	27	28	29	30
31						

X = Massachusetts worker fatally injured on the job.

**Bureau of Health Statistics, Research and Evaluation  
Massachusetts Department of Public Health**

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## **ACKNOWLEDGEMENTS**

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## BACKGROUND

Information about where and how workers are killed on-the-job is essential in order to target prevention efforts effectively. Last year the Massachusetts Department of Public Health released **Dying for the Job: Traumatic Occupational Deaths in Massachusetts**, a comprehensive report of work-related deaths which occurred in Massachusetts during 1987.<sup>1</sup> This update provides an overview of fatal occupational injuries which took place in Massachusetts during 1988. It includes updated information about compliance with regulations requiring employers to report work-related deaths to the Occupational Safety and Health Administration (OSHA) and the Massachusetts Department of Industrial Accidents (DIA). Information about OSHA penalties for safety violations in fatality cases has been added to this year's report.

## METHODS

Traumatic occupational deaths are defined as deaths resulting from traumatic injuries or other external causes which occurred while the people were at work, excluding suicides. This definition includes deaths traditionally associated with workplace factors such as those due to falls, electrocution, and acute over exposure to toxic chemicals. It also includes deaths due to homicides at work and motor vehicle crashes while traveling on-the-job.

Information about traumatic occupational deaths in 1988 was obtained from four major sources: Massachusetts deaths certificates, Massachusetts workers' compensation records (filed with the DIA), and workplace fatality reports maintained by OSHA and by the Massachusetts Department of Labor and Industries (DL&I).<sup>2</sup> A more detailed description of the methods used in preparing this update is contained in the report of 1987 deaths. Copies of that report, as well as detailed tables of the 1988 data, are available from the Massachusetts Department of Public Health, Bureau of Health Statistics, Research and Evaluation.

### MAN DIES IN SEPTIC TANK AT FISH PROCESSING PLANT

A 41 year old man, employed by a septic tank service company, was fatally poisoned by hydrogen sulfide fumes while emptying septic and fish wastes from a fish processing plant into a grave pit. According to an OSHA report, the victim climbed into the tank to wash down the inside, was overcome by the fumes and died. OSHA fined the employer \$1,000 for several safety violations including failure to provide respiratory protection and hazard communication training.

## OVERVIEW OF TRAUMATIC OCCUPATIONAL DEATHS IN 1988

- 74 men and 8 women died in Massachusetts as a result of traumatic occupational injuries, an average of 1.6 deaths per week.
- The annual traumatic occupational fatality rate was 2.7 deaths per 100,000 Massachusetts workers.
- The leading causes of death were:
  - on-the-road motor vehicle crashes (32 deaths, 39%),
  - falls (15 deaths, 18%),
  - homicides (9 deaths, 11%) and
  - electrocutions (5 deaths, 6%).
- The average age at death was 34 years.
- The traumatic occupational fatality rate was highest (4.1 per 100,000) for older workers, those 55-64 years of age.
- There were four deaths among working teenagers, 18 and 19 years old.

### REFUSE COLLECTOR CRUSHED TO DEATH BY TRUCK

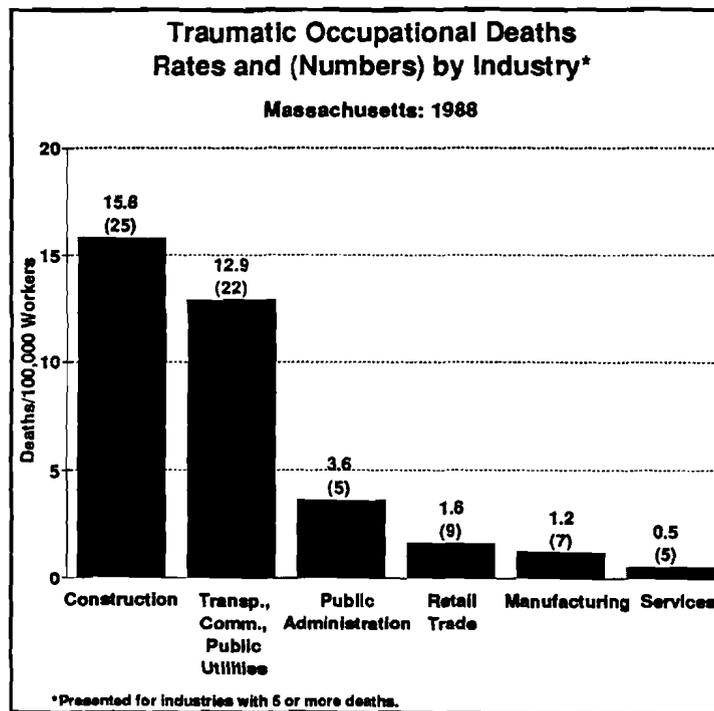
A 21-year old laborer was killed while riding the rear of a refuse-collection truck. He was crushed to death when the truck backed into a utility pole. According to an OSHA report, the truck's back-up alarm was not working and the workers had not received safety training. OSHA fined the employer \$1,080.

### APPRENTICE LINEMAN FALLS TO HIS DEATH

An apprentice lineman fell to his death while working on a utility pole that had been condemned. According to an OSHA report, the 24-year old victim was transferring conductors to a new pole when the condemned pole broke at the base. OSHA concluded that the incident was apparently caused by failure to determine the condition of the pole and to secure it against falling. OSHA fined the employer \$5,000.

## FATALITY RATE HIGHEST FOR CONSTRUCTION WORKERS

- For the second consecutive year, the highest number and rate of traumatic occupational deaths occurred among workers in the construction industry. In 1988, 25 construction workers died on-the-job, accounting for 30% of all traumatic occupational deaths.
- The fatality rate of 15.8 per 100,000 construction workers is almost six times the overall rate of 2.7 deaths per 100,000. The major causes of death in construction were falls (9), motor vehicle related deaths (6) and electrocutions (4).
- Workers in transportation, communications, and other public utilities industries had the second highest number (22 deaths) and rate (12.9 deaths per 100,000) of traumatic occupational fatalities. Thirteen of the 22 deaths in these industries involved motor vehicles.



### CONSTRUCTION WORKER FATALLY ELECTROCUTED

A construction worker was fatally electrocuted while replacing the roof of a church. According to an OSHA report, the 22-year old victim was working with other crew members to raise a 36-foot aluminum ladder when it struck a high-voltage utility line. The victim was killed and three other workers were hospitalized for electrical shock. OSHA fined the employer \$8,650 for a number of safety violations including the use of a metal ladder near electrical lines.



## **OSHA PENALTIES**

OSHA investigated 19 occupational fatalities in Massachusetts during 1988. Fines for violations of OSHA safety standards related to the fatality were issued against 14 employers. The average penalty assessed per penalized employer was \$5,200.<sup>6</sup>

## **CONCLUSIONS**

### ***Construction***

The high fatality rate in the construction industry for two consecutive years underscores the need for strong safety programs to prevent future construction worker deaths. This is especially relevant in Massachusetts, where several major public works construction projects--the Boston Harbor, the Central Artery Depression and the Third Harbor Tunnel--are just getting underway. Combined, these projects constitute the largest construction project in the country. It is an important and opportune time to develop model programs for the prevention of injuries and deaths among Massachusetts construction workers.

### ***Motor Vehicles***

The large proportion of work-related motor vehicle deaths is similar to that seen at the national level. Until recently, on-the-road motor vehicle deaths were not addressed by OSHA but were left to other agencies. Recent deaths among fast food deliverers have brought to light the role that company policies and practices can play in vehicle-related deaths. In July 1990, OSHA for the first time issued a proposed standard for the protection of employees in motor vehicles.<sup>7</sup> If approved, the standard will dictate that employers require employees to wear seat belts and employees who operate or are passengers on motorcycles to wear head protection. In addition, the employer would have to develop and implement an employee driver safety awareness program. The issues of vehicle safety inspections and maintenance and bicyclists will be considered in the final rule-making.

### ***Ongoing Surveillance***

The Massachusetts Department of Public Health, with federal funding, will continue surveillance of traumatic occupational deaths to identify industries and occupations where intervention and prevention programs are needed. The state is also working to develop a system to more rapidly identify work-related deaths so that prompt and thorough workplace investigations can be carried out. The Department of Labor and Industries has recently established a 24-hour Occupational Fatality Hotline. Police, firefighters, other emergency response personnel, medical examiners, and town clerks have been asked to report workplace deaths to the hotline immediately. Given poor compliance by employers with fatality reporting requirements, timely information from other sources is critical.

## NOTES

- <sup>1</sup> **Dying for the Job: Traumatic Occupational Deaths in Massachusetts.** Massachusetts Department of Public Health, Bureau of Health Statistics, Research and Evaluation, April 1989.
- <sup>2</sup> One additional workplace death was identified through information maintained by the United States Coast Guard.
- <sup>3</sup> There was not enough information about 10 deaths to determine whether they were reportable to OSHA.
- <sup>4</sup> On the basis of available information, fatality reports filed with OSHA by employers could not be distinguished from those filed by others such as police. The present figures on compliance with OSHA reporting requirements probably overestimate actual employer compliance.
- <sup>5</sup> Kinney JA: **FACES: The Toll of Workplace Deaths on American Families.** Chicago: National Safety Workplace Institute, 1989, pp. 21-22.
- <sup>6</sup> This figure refers to penalties assessed by OSHA after conferences with employers.
- <sup>7</sup> 55 FR 28726, July 12, 1990.



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