

**2008 Census of Fatal Occupational Injuries
Fatal Work Injury Rates
Massachusetts**

	2008 Overall rate	Industry ¹ (2008)												
		Agriculture, forestry, fishing, and hunting	Mining	Construction	Manufacturing	Transportation and utilities	Information	Wholesale and retail trade	Financial activities	Professional and business services	Educational and health services	Leisure and hospitality	Other services, except public administration	Public administration
Fatality rate ²	2.2	–	–	9.7	2.0	10.1	–	2.5	–	–	–	–	–	4.6

¹ Classified according to the North American Industry Classification System (NAICS). Because there are substantial differences between NAICS and the Standard Industrial Classification system used from 1992 through 2002, comparisons of industry rates between prior years and 2003 to the present should not be made.

² Workers under the age of 16 years, volunteer workers, and members of the resident military are not included in rate calculations to maintain consistency with the CPS employment. The ownership category Government is not presented separately and may be included in any industry category.

NOTE: Dashes indicate that a fatality rate was not calculated because the data did not meet publication criteria or there were no data reported.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State and federal agencies, Census of Fatal Occupational Injuries.

Fatal injury rate computation

Fatal injury rates depict the risk of incurring a fatal occupational injury faced by all workers or a group of workers, such as workers in a certain industry, and can be used to compare risk among worker groups with varying employment levels. Since employment data are not collected by the Census of Fatal Occupational Injuries (CFOI), fatal injury rates in the past have been calculated using employment estimates from the Current Population Survey (CPS). Beginning in 2007, CFOI adopted hours worked estimates from CPS as the denominator of State fatal injury rates to measure fatal injury risk per standardized length of exposure, generally considered more accurate than employment-based rates. Hours-based rates use the average number of employees at work and the average hours each employee works per year.

Unlike at the national level, “at work” and “average hours” data are not available at the State level. State rates by industry can be imputed by using national-level “average hours” and “at work” information to calculate the average annual number of hours for each employee. The rate represents the number of fatal occupational injuries per 100,000 full-time equivalent workers and was calculated as:

$(N/EH) \times 200,000,000$ where

N = number of fatal work injuries

EH = total hours worked by all employees during the calendar year

200,000,000 = base for 100,000 equivalent full-time workers (working 40 hours per week, 50 weeks per year)

The imputation to calculate EH (total hours worked by all employees during the calendar year) for the state was calculated as:

$$EH_S = HW_N \times E_S$$

where E_S = State employment

HW_N = average annual number of hours for each employee at the national level

NOTE: There are also several CPS employment limitations regarding **State of residence versus State of incident, primary job versus job at the time of incident, and employment sampling errors**. State industry rates are not directly comparable to national industry rates. Because State rates include government workers in their respective industry sector and are not broken out separately, both the numerator and denominator include a different group of workers than that of the national rates. For more information on how State rates are calculated and employment data limitations please see Chapter 9 of the BLS Handbook of Methodology at: <http://www.bls.gov/opub/hom/pdf/homch9.pdf>.