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# Fatal Occupational Injuries from Falls in Illinois, 1992-1997

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Occupational injuries from falls are the third leading cause of work-related deaths in Illinois. Recent national statistics indicated unchanged rates of fatal occupational injuries from falls despite changing industrial profiles in the United States. The purpose of this study was to describe the rate of fatal occupational injuries from falls in Illinois from 1992 through 1997 and to determine how it compares with the U.S. rate.

## Methods

Death data for the study were obtained from the Census of Fatal Occupational Injuries (CFOI). CFOI is a federal-state cooperative program that was developed by the U.S. Bureau of Labor Statistics (BLS) and has been implemented in all 50 states since 1992. The census uses multiple sources, such as death certificates, workers' compensation report claims, medical examiner reports, newspapers, and various federal and state administrative records, to identify, verify and profile fatal worker injuries. Mortality rates were calculated using denominators from estimations of nonfarm industry employees as denominators. Crude rates per 1 million workers were calculated as the number of deaths from falls among civilian workers in Illinois for each year divided by the number of employed civilians for each year. To understand year-to-year variations in mortality, percentages of fatality attributed to certain industry and events were examined. Mortality trends were compared and tested using Poisson regression models with log linear specifications.

## Results

From 1992 through 1997, a total of 226 civilian workers died in Illinois from falls in the workplace, an average of three per month. The annual number of fatal falls ranged from 34 to 44, with the peak occurring in 1995. The annual death rate from falls ranged from 5.8 per million workers to 7.6 per million workers, with the highest rate also in 1995. The Illinois rate was consistently higher than the national average. However, the difference was statistically significant only in 1995 (rate ratio 1.46, 95%CI = 1.07, 1.98) (Figure 1). Neither the Illinois rate nor the U.S. rate showed any significant trend during 1992-1997.

Falls from ladders constituted an average of 16 percent of total fatal falls. The construction industry

contributed about 43 percent of the total deaths during the six-year period. The annual percentage of falls from ladders and from the construction industry varied greatly, but both reached their highest level in 1995 (30 percent for ladder falls and 64 percent in the construction industry) (Figure 2). This pattern indicated that the jump of mortality rates of fatal falls in 1995 in Illinois was, at least partially, related to changes in construction activities or activities involving ladders, or both, in that year.

## Discussion

The findings in this study indicate a relatively stabilized trend in occupational injury deaths associated with falls in Illinois. The Illinois annual rate of fatal falls seemed to be higher than the national rate, but the differences were not statistically significant except in 1995. Many factors in the workplace may have contributed to the difference between Illinois and U.S. rates and the mortality variation in Illinois from year to year. Among these are work environment, distribution of workforce, regulations, hazard awareness, economic features and industry mix. The correspondence between the peak mortality rate and contributions from those fatal falls from ladders and those in the construction industry certainly illustrated the importance of industry-specific activities. Similar to the situation in the U.S., the largest number of Illinois deaths associated with falls occur in the construction industry. Two-thirds of the fatal deaths from ladders in Illinois occurred among construction employees in 1996.

Nearly all falls are preventable and many effective measures are available to prevent work-related injuries and fatalities from falls. The occurrence of fatal falls indicates a failure in preventive practices. Effective prevention programs for raising employer and worker awareness of health hazards associated with falls in the workplace and for reinforcing safety measures are available. The information can be obtained by contacting Illinois CFOI (217-557-5663) or the U.S. Occupational Safety and Health Administration (OSHA) through the federal Department of Labor's Website <http://www.osha.gov>.

Figure 1. Rate of workplace fatal falls in Illinois and U.S., 1992-1997

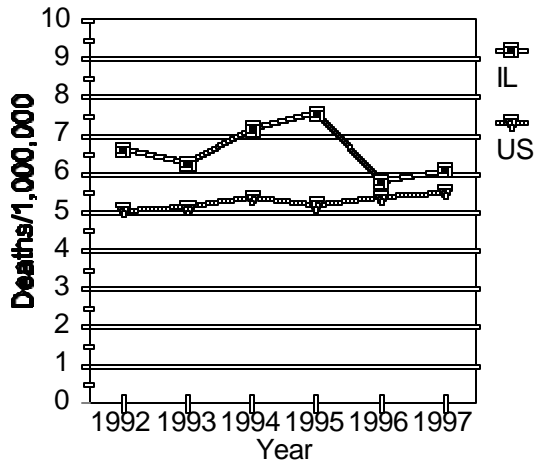


Figure 2. Percent of fatal falls from ladders and from construction industry in Illinois

