

6th WORLD CONFERENCE

Injury Prevention
and Control

6^e CONFÉRENCE MONDIALE

Prévention et contrôle
des traumatismes

ABSTRACTS • RÉSUMÉS

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ABSTRACTS • RÉSUMÉS

INJURIES, SUICIDE AND VIOLENCE:

Building Knowledge, Policies

and Practices to Promote a Safer World

TRAUMATISMES, SUICIDE ET VIOLENCE :

Construire un savoir, des politiques

et des pratiques pour promouvoir

un monde en sécurité

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THE COST OF WORKPLACE HOMICIDES IN THE USA, 1980-1997

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PROBLEM UNDER STUDY: Over the past two decades, violence in the workplace has received growing attention among the safety and health community. The National Traumatic Occupational Fatalities (NTOF) surveillance system reported over 14,000 workers were victims of workplace homicides between 1980 and 1997. During this period, homicide was the second leading cause of workplace fatalities in the USA, averaging 800 fatalities per year. Establishing the number and rate of occupational homicides presents valuable information to assist in determining the focus for prevention and research efforts. These measures provide the basis for determining the cost of occupational injuries, which affords another decision making standard for policymakers. In a 1992 Leigh, et al. study, the cost of all occupational fatal injuries in a single year was estimated to be nearly \$4 billion—a substantial impact on the U.S. economy. However, little effort has been made to estimate the cost of workplace homicides to the economy.

OBJECTIVES: The objective of this study is to provide estimates of the societal cost of workplace homicide.

METHOD OR APPROACH: The cost of a workplace homicide to society was estimated using the cost-of-illness approach, which combines direct and indirect costs to yield an overall lifetime cost of an occupational fatal injury. The indirect lifetime cost is derived by calculating the present value of future earnings summed from the year of death until the decedent would have reached age 67, accounting for the probability of survival were it not for the premature death. For this study, only medical expenses were used to estimate the direct cost associated with the fatality. All costs were calculated in 1999 U.S. dollars. Data for occupational homicide deaths were extracted from NTOF for the years 1980 through 1997. This annual census, maintained by NIOSH, collects death certificates from the vital statistics reporting units in the 50 States, New York City, and the District of Columbia for decedents 16 years of age or older. Initial wage data were obtained from the Current Population Survey from the Department of Labour's Bureau of Labour Statistics (BLS). Medical expenses were obtained from workers' compensation records from the National Council on Compensation Insurance.

RESULTS: The total lifetime cost of the nearly 14,000 workplace homicides was estimated at nearly \$12 billion dollars, ranging from \$536 million in 1984 to \$791 million in 1993. Over

this time period, the mean cost of a single workplace homicide was estimated at \$804,035 compared to the overall average occupational fatality cost of \$801,421. The average cost of an occupational fatality resulting from other external causes of injury ranged from a high of \$1.25 million for air transportation incidents to a low of \$666,000 for fatalities associated with machines. The mean lifetime cost of a workplace homicide by occupation varied from a high of over \$1 million dollars to a low of just over \$500,000. Similar variation was found in the cost per fatality by industry, age, sex, and race.

CONCLUSION: Workplace homicides present a considerable burden on the U.S. economy—nearly \$12 billion over the 18-year study period. Although homicide was the second leading cause of death between 1980 and 1997, the mean lifetime cost of those fatalities ranked 12th of 19 external cause of death categories. The cost of these fatalities varied widely by the age of the decedent— with the highest cost being double that of the lowest. There is similar variation in the lifetime cost of homicide by occupation and industry. These findings suggest that increased attention to risk factor identification for selected subgroups of the population is warranted.

LIMITS: This model produces a conservative, if not lower bound, estimate of lifetime economic costs of occupational homicides. This is, in part, due to the specification of the model where direct costs include only medical expenses and limitations associated with the wage data, such as employing national rather than State wage rates.

CONTRIBUTION OF THE PROJECT TO THE FIELD: This is the first-ever presentation of the lifetime cost of workplace homicides to the U.S. economy. International comparisons could be made should the methods from this study be employed in other economies.