

Preventing Homicide in the Workplace

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WARNING! Workers in certain industries and occupations are at increased risk of homicide.

The National Institute for Occupational Safety and Health (NIOSH) requests assistance in preventing homicide in the workplace. From 1980 to 1989, homicide was the third leading cause of death from injury in the workplace, according to data from the National Traumatic Occupational Fatalities (NTOF) Surveillance System [NIOSH 1993]. Occupational homicides accounted for approximately 7,600 deaths during this period—or 12% of all deaths from injury in the workplace. Only motor vehicles and machines accounted for more occupational deaths from injury.



The purposes of this Alert are to:

- identify high-risk occupations and workplaces,
- inform employers and workers about their risk,
- encourage employers and workers to evaluate risk factors in their workplaces and implement protective measures, and
- encourage researchers to gather more detailed information about occupational homicide and to develop and evaluate protective measures.

NIOSH requests that the information in this Alert be brought to the attention of workers and employers by the following: editors of appropriate trade journals, safety and health officials, labor organizations, members of the academic and public health communities, law enforcement agencies, advocacy groups, and insurance companies.

Number and Characteristics of Victims

Number of Victims

During the period 1980-89, nearly 7,600 U.S. workers were victims of homicide in the workplace. Homicide was the leading cause of occupational death from injury for women, and the third leading cause for all workers. The actual number of occupational homicides is higher than reported in this Alert because methods for collecting and reporting death certificate data tend to underestimate the total number of deaths [NIOSH 1993]. NTOF data indicate that for the period 1980-89, the average annual rate of occupational homicide was 0.7/100,000 workers [Castillo and Jenkins 1993]. (See Jenkins et al. [1992] for an overview of work-related homicides based on NTOF data for the years 1980-88.)

Although data are not available to quantify nonfatal assaults in the United States, such intentional injuries to workers occur much more frequently than occupational homicides. Efforts to prevent occupational homicide may also reduce the number of nonfatal assaults.

Sex of Victims

Of the 7,600 homicide victims during the period 1980-89, 80% were male. The homicide rate for male workers was three times that for female workers (1.0/100,000 compared with 0.3/100,000). Nonetheless, homicide was the leading cause of death from occupational injury among women, causing 41% of all such deaths among women compared with 10% among men. (See Bell [1991] for an analysis of NTOF data on occupational homicides among women.)

Age of Victims

Nearly half of the occupational homicides occurred among workers aged 25 to 44, but workers aged 65 and older had the highest rate of occupational homicide (2.0/100,000).

Race of Victims

During the period 1980-89, 75% of occupational homicide victims were white, 19% were black, and 6% were other races. However, the rate of occupational homicide among black workers (1.4/100,000) and other races (1.6/100,000) was more than twice the rate for white workers (0.6/100,000).

Weapons Used

Guns were used in 75% of all occupational homicides from 1980 to 1989. Knives and other types of cutting and piercing instruments accounted for only 14% of these deaths during this period.

High-Risk Workplaces and Occupations

Among workplaces, retail trades had the highest number of occupational homicides (2,787) during the period 1980-89, and services had the second highest number (1,275). These two workplaces accounted for 54% of all occupational homicides during this period. Three workplaces had homicide rates that were at least double the average annual rate (0.7/100,000) for the United States: retail trades, public administration, and transportation/communication/public utilities.

Workplaces with the highest rates of occupational homicide were taxicab establishments, liquor stores, gas stations, detective/protective services, justice/public order establishments (including courts, police protection establishments, legal counsel and prosecution establishments, correctional institutions, and fire protection establishments), grocery stores, jewelry stores, hotels/motels, and eating/drinking places (see Table 1). Taxicab establishments had the highest rate of occupational homicide—nearly 40 times the national average and more than three times the rate of liquor stores, which had the next highest rate.

Table 1. Workplaces with the highest rates of occupational homicide, 1980-89

Workplaces and SIC* codes	Number of Homicides	Rate†
Taxicab establishments (412)	287	26.9
Liquor stores (592)	115	8.0
Gas stations (554)	304	5.6
Detective/protective services (7381, 7382)	152	5.0
Justice/public order establishments (92)	640	3.4
Grocery stores (541)	806	3.2
Jewelry stores (5944)	56	3.2
Hotels/motels (701)	153	1.5
Eating/drinking places (58)	734	1.5

*Standard Industrial Classification. Workplaces were classified according to the *Standard Industrial Classification Manual*, 1987 [OMB 1987]. †Number per 100,000 workers per year.

The occupation with the highest rate of occupational homicide was taxicab driver/chauffeur, with a rate 21 times the national average. Other high-risk occupations were law enforcement officers (police officers/sheriffs), hotel clerks, gas station workers, security guards, stock handlers/baggers, store owners/managers, and bartenders (see Table 2).

Table 2. Occupations with the highest rates of occupational homicide, 1980-89

Occupations and BOC* codes	Number of Homicides	Rate†
Taxicab drivers/chauffeurs (809)	289	15.1
Law enforcement officers (police officers/sheriffs) (418, 423)	520	9.3
Hotel clerks (317)	40	5.1
Gas station workers (885)	164	4.5
Security guards (426)	253	3.6
Stock handlers/baggers (877)	260	3.1
Store owners/managers (243)	1065	2.8
Bartenders (434)	84	2.1

*Bureau of Census. Occupations were classified according to the 1980 Census of the Population: Alphabetic Index of Industries and Occupations [U.S. Department of Commerce 1982]. †Number per 100,000 workers per year.

Circumstances of Homicide in the Workplace

Information on death certificates does not allow identification of the circumstances of homicide in the workplace. However, the types of high-risk workplaces and occupations identified suggest that robbery is a predominant motive. In addition, some homicides are caused by disgruntled workers and clients or by domestic violence that spills into the workplace.

Current OSHA Regulations

The Occupational Safety and Health Administration (OSHA) has no specific regulations for preventing occupational homicide. However, the OSHA General Duty Clause [29 USC 1900 5(a)(1)] requires employers to provide a safe and healthful working environment for all workers covered by the Occupational Safety and Health Act of 1970.

Possible Risk Factors and Preventive Measures

Risk Factors

Researchers have suggested a number of factors that may increase the risk of homicide in the workplace [Kraus 1987; Davis 1987; Davis et al. 1987; Castillo and Jenkins 1993]. The following are examples of these factors:

- Exchange of money with the public
- Working alone or in small numbers
- Working late night or early morning hours
- Working in high-crime areas
- Guarding valuable property or possessions
- Working in community settings (e.g., taxicab drivers and police)

Preventive Measures

Immediate preventive measures are needed to reduce the large number of occupational homicides each year. Although the preventive measures presented in this Alert have not been widely tested, they may provide some protection to workers until research studies can be conducted to evaluate their effectiveness.

A number of environmental and behavioral measures have been proposed for reducing occupational homicides in high-risk establishments and occupations [Chapman 1986; Crow and Erickson 1989; NYCPD 1990; State of Florida 1991]. These measures include the following:

- Make high-risk areas visible to more people.
- Install good external lighting.
- Use drop safes to minimize cash on hand.
- Carry small amounts of cash.
- Post signs stating that limited cash is on hand.
- Install silent alarms.
- Install surveillance cameras.
- Increase the number of staff on duty.
- Provide training in conflict resolution and nonviolent response.
- Avoid resistance during a robbery.
- Provide bullet-proof barriers or enclosures.
- Have police check on workers routinely.
- Close establishments during high-risk hours (late at night and early in the morning).

Conclusions

Occupational homicide is a serious public health problem, but many employers and workers may be unaware of the risk. No current OSHA regulations apply specifically to occupational homicide, but a great need exists for worker protection from intentional injury in the workplace.

High-risk workplaces include taxicab establishments, liquor stores, gas stations, detective/protective services, justice/public order establishments, grocery stores, jewelry stores, hotels/motels, and eating/drinking places. High-risk occupations are taxicab drivers/chauffeurs, law enforcement officers (police officers/sheriffs), hotel clerks, gas station workers, security guards, stock handlers/baggers, store owners/managers, and bartenders. Employers in these high-risk establishments and occupations need to be aware of the risk for homicide and take steps to ensure a safe workplace.

Recommendations

NIOSH recommends that the following steps be taken to prevent occupational homicides:

1. Employers and workers should immediately develop and implement prevention strategies on the basis of available information. They should

- evaluate the factors or situations in the workplace that might place workers at risk, and
- carefully consider intervention efforts that might minimize or remove the risk.

Employers and workers may be able to apply some of the preventive measures described in this Alert; they may also identify other preventive measures specific to their workplaces.

2. Researchers should thoroughly evaluate existing or proposed prevention strategies. Few in-depth studies have been conducted to evaluate preventive measures, but such evaluation is critical to homicide prevention efforts [NIOSH 1992].

3. Researchers should further investigate occupational homicide. Research should be conducted on the specific factors associated with occupational homicides. Such research is essential for the development of prevention strategies.

4. Researchers should address the role of guns in occupational homicides. Because of the frequent use of guns in occupational homicides, research should be conducted to:

- investigate the circumstances surrounding the use of guns in homicides,
- evaluate the effectiveness of methods for protecting workers from assaults involving guns, and
- evaluate the impact that existing and proposed gun-control regulations might have on protecting workers from occupational homicide.

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We greatly appreciate your assistance in protecting the lives of U.S. workers.

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