

# Differences in Workplace Homicides by Sex, 1993

*Although there are differences, most victims, male and female, were shot while working in a retail establishment*

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Violence emerged as a major public health issue in the 1990s and is a contributing factor to fatal injuries occurring in the workplace. And, although more fatal assaults occurred among male workers, the proportion of homicides to all fatal work injuries was much higher among female workers.<sup>1</sup>

Most homicides, regardless of sex of the victim, were caused by shooting; no age or race differences were found. However, male victims were more likely than female ones to have been Hispanic. Male victims also were more likely than their female counterparts to have been born outside the United States. Nevertheless, no sex differences were found among the foreign-born victims. (See table 1.)

Fatal assaults among men were significantly more likely to occur in urban counties; those among female workers were significantly more likely to occur in rural ones. Although most fatal assaults occurred in the southern part of the U.S., male workers in the Northeast were more likely to die at work from an assault than women.

Female victims of workplace homicide were more likely than their male counterparts to have been wage and salary workers; men were more likely to be self-employed. (See table 2.) About a third of both male and female victims worked in sales occupations, but men were more likely than women to have worked in a protective service occupation, such as police officer or guard, or in a transportation-related occupation. Women were more likely to work in administrative support or service occupations. Similar patterns are evident when looking at the industry of the victim's employer. Half of victims, both men and women, worked

<sup>1</sup> The terms, fatal assaults and homicides, are used interchangeably. Non-fatal assaults and violent acts, suicides, and assaults by animals are excluded from the analysis. See the technical notes.

For a discussion of fatalities occurring in 1993, also see Guy Toscano and Janice Windau, "The Changing Character of Fatal Work Injuries," *Monthly Labor Review*, October 1994, pp. 17-28.

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in retail trade. However, male workers were more often employed in the public administration or transportation industries, while female workers were more often employed in the service industries.

The occurrence of fatal assaults varied by characteristics of the work setting, as shown in table 3. No sex differences were found by the size of the workforce nor whether by the setting was in the private or public sector. Men experiencing an assault at work were more likely to be involved in a protective service occupation, while females were more likely to be engaged in office work or the social services. More assaults on males occurred on the street, while female victims were more frequently in a public building.

No sex differences in the month or day of occurrence were found, as shown in table 4. However, more assaults occurred among men between 6 p.m. and midnight, while women were more likely to be assaulted between the hours of 6 a.m. and noon.

Regardless of sex, most victims of fatal assaults died of a gunshot wound. (See table 5.) Most male homicide victims were fatally wounded in the torso; most women, in the head. The source of the assault also significantly differed by sex. The source of assaults for women was more likely to have been a tool than it was for men. The secondary source of the injury also differed, with females being more likely to have been assaulted by a relative or co-worker.

## Conclusion

While conventional wisdom might presume that hours of darkness create the greatest vulnerability for assaults, this was not true for women who were most often victims of fatal assaults in the morning. Female victims were also more likely to be working for pay in rural counties employed in office work or the social services, and assaulted in a public building. Male victims were more likely to be Hispanic, foreign-born, and to work in urban counties, or in the Northeast. They also were more likely to be self-employed, working in protective services or transportation, and killed on the street.

In October 1993, the Bureau of Labor Statistics directed all CFOI programs to identify the motive for workplace

homicides and the Illinois program did so retroactively, identifying the motive for 31 of 37 workplace homicides on the 1993 census. Among both men and women, robbery was the most frequent motive, accounting for 50 percent of the female homicides and 63 percent of the male homicides. No sex differences were noted. Albeit, when combining the motives into the broadest categories of robbery and all others combined, the numbers of cases within each category were small. Within the other category, motives in Illinois for female homicide victims included witnesses to crimes and crimes of passion. Other motives for male victims included gangs, drugs, race, general disputes, and crimes of passion. If the data had been readily available for all fatal assaults in 1993, differences in motive due to sex may have been more clearer, since the numbers of events were sufficiently large to test for such associations.

It is important to describe fatal assaults and violent acts by persons in the workplace by sex and to provide sex-specific data so that the unique characteristics of female victims becomes apparent.

### **Technical Notes**

All fatal occupational assaults and violent acts by a person (that is, homicides) occurring in 1993 in the United States were identified through the Bureau of Labor Statistics (BLS) research data set. All 50 states and the District of Columbia participate in the CFOI program in conjunction with the Federal Government. Two or more source documents are used to identify and verify the reported fatality as work related. Source documents include death cer-

tificates, medical examiner reports, workers' compensation claims, and police reports, among others.

### **Case definition**

A work relationship must be established for all fatalities, and is defined as an event or exposure resulting in a fatal injury or illness to a person on an employer's premises when the person was there to work; off the employer's premises when the person was there to work; or off the premises and the event or exposure was related to the person's work or status as an employee. Volunteer workers exposed to the same work hazards and performing the same duties or functions as paid employees also are included in the case definition. Fatal injuries or illnesses occurring to institutionalized persons employed off the premises of their institutions (e.g., homes for the aged, mentally impaired, or needy), suicides, homicides, fatal heart attacks, or stroke are all included within the case definition if the work relationship criterion is met.

All fatalities that were coded as an assault or violent act by a person other than the injured (BLS Occupational Injury and Illness Classification System event or exposure codes 6000-6190) were selected for the study.

### **Analysis**

All assaults were classified by sex. Contingency table analysis was performed using Epi Info to identify differences between them by occupation, work setting and activity, and demographic characteristics. Differences were considered statistically significant at the  $p < .05$  level for a two-tail test.

**Table 1. Sex differences among victims of workplace homicides by demographic characteristics and injury type, 1993**

Characteristics	Males		Females	
	Number	Percent	Number	Percent
<b>Total</b> .....	875	100	188	100
<b>Type of assault or violent act</b>				
Beating .....	27	3	8	4
Shooting .....	729	83	145	77
Squeezing .....	10	1	2	1
Stabbing .....	73	8	22	12
Other, unspecified .....	36	4	11	6
<b>Age</b>				
19 or younger .....	23	3	10	5
20-24 .....	74	9	15	8
25-34 .....	236	27	55	29
35-44 .....	241	28	51	27
45-54 .....	160	18	31	17
55-64 .....	88	10	19	10
65 or older .....	53	6	7	4
<b>Race</b>				
White .....	558	65	136	73
Black .....	144	17	25	13
Asian .....	102	12	18	10
Native American .....	4	<1	2	1
Other .....	55	6	5	3
Unknown .....	12	-	2	-
<b>Hispanic ethnicity<sup>1</sup></b>				
Yes .....	152	20	17	11
No .....	607	80	140	89
Unknown .....	116	-	31	-
<b>Place of birth<sup>2</sup></b>				
U.S. ....	665	76	167	89
Foreign born .....	210	24	21	11
Africa .....	15	7	0	0
Asia .....	79	38	13	62
South/Central America .....	35	17	2	10
Eur/Mideast .....	37	18	1	5
Unknown .....	44	21	5	24
<b>Place of assault<sup>3</sup></b>				
Urban co. ....	781	89	150	80
Rural co. ....	93	11	37	20
Unknown .....	1	-	1	-
<b>Region<sup>4</sup></b>				
Northeast .....	222	25	29	15
South .....	331	38	84	45
Midwest .....	105	12	28	15
West .....	217	25	47	25

<sup>1</sup>X<sup>2</sup> test, p < .01

<sup>2</sup>X<sup>2</sup> test, US cf. Foreign, p < .0001; NS among foreign born.

Percentages for areas listed under foreign born indicate the area's share of foreign-born victims of workplace homicide.

<sup>3</sup>X<sup>2</sup> test, p < .001

<sup>4</sup>X<sup>2</sup> test, p < .05

SOURCE: Census of Fatal Occupational Injuries 1993 public data set, released December 1994.

NOTE: Percentages were calculated only on known values and may not add to totals due to rounding.

**Table 2. Sex differences among victims of workplace homicides by employer type, occupation, and industry, 1993**

Characteristics	Males		Females	
	Number	Percent	Number	Percent
<b>Total</b> .....	875	100	188	100
<b>Employer</b> <sup>1</sup>				
Self .....	235	27	31	17
Family business .....	14	2	2	1
Work for compensation, other .....	622	71	155	82
Armed Forces .....	3	<1	0	0
Volunteer .....	1	<1	0	0
<b>Occupation</b> <sup>2</sup>				
Administrative, executive, managerial .....	93	11	29	16
Administrative support .....	16	2	26	14
Construction .....	11	1	0	0
Farm, forestry, fishing .....	12	1	0	0
Labor, handler, equipment cleaner .....	53	6	4	2
Mechanics, repairer .....	29	3	0	0
Precision production .....	20	2	3	2
Professional specialty .....	24	3	13	7
Protective service .....	116	13	6	3
Sales .....	295	34	58	31
Service, excluding protection .....	52	6	32	17
Transportation .....	128	15	4	2
All others .....	20	2	10	5
Unknown .....	6	—	3	—
<b>Industries</b> <sup>2</sup>				
Construction .....	19	2	1	1
Farm, forestry, fishing .....	13	2	1	1
Finance, insurance, realty .....	27	3	8	4
Manufacturing .....	33	4	12	6
Mining .....	2	<1	1	1
Public administration .....	76	9	10	6
Retail .....	428	49	92	49
Service .....	120	14	52	28
Transportation .....	133	15	8	4
Wholesale .....	21	2	3	2
Unknown .....	3	—	0	—

<sup>1</sup>X<sup>2</sup> test, p < .05  
<sup>2</sup>X<sup>2</sup> test, p < .001

SOURCE: Census of Fatal Occupational Injuries 1993 public data set, released December 1994.

NOTE: Percentages were calculated only on known values and may not add to totals due to rounding.

**Table 3. Sex differences among victims of workplace homicides by work setting, 1993**

Characteristics	Males		Females	
	Number	Percent	Number	Percent
<b>Total</b> .....	875	100	188	100
<b>Sector</b>				
Private .....	773	88	167	89
Public .....	102	12	21	11
<b>Size of workforce</b>				
1-10 .....	171	48	46	47
11-19 .....	33	9	8	8
20-49 .....	29	8	8	8
50-99 .....	30	8	7	7
100 or more .....	98	27	29	30
Unknown .....	514	—	90	—
<b>Work activity<sup>1</sup></b>				
Build, repair, clean .....	26	4	2	2
Legal service .....	5	1	0	0
Material handling .....	7	1	2	2
Office work .....	19	3	20	16
Protective service .....	103	16	5	4
Retail .....	358	56	82	66
Social service .....	3	<1	8	6
Teaching .....	1	<1	1	1
Transporting .....	119	19	5	4
Unspecified, other .....	234	—	63	—
<b>Work location<sup>1</sup></b>				
Home .....	45	5	8	4
Industry .....	57	7	12	6
Institution .....	6	1	7	4
Public building .....	486	57	138	73
Street .....	135	16	9	5
Other .....	129	15	14	7
Unknown .....	12	—	0	—

<sup>1</sup>X<sup>2</sup> test, p < .0001

SOURCE: Census of Fatal Occupational Injuries 1993 public data set, released December 1994.

NOTE: Percentages were calculated only on known values and may not add to totals due to rounding.

**Table 4. Sex differences in among victims of workplace homicides by time of occurrence, 1993**

Characteristics	Males		Females	
	Number	Percent	Number	Percent
<b>Total</b> .....	875	100	188	100
<b>Month of injury</b>				
January .....	85	10	25	13
February .....	80	9	11	6
March .....	78	9	16	9
April .....	71	8	14	7
May .....	84	10	12	6
June .....	57	7	18	10
July .....	79	9	17	9
August .....	63	7	15	8
September .....	65	7	16	9
October .....	77	9	12	6
November .....	67	8	16	9
December .....	69	8	16	9
<b>Day of injury</b>				
Sunday .....	136	16	18	10
Monday .....	131	15	32	17
Tuesday .....	109	13	20	11
Wednesday .....	129	15	36	19
Thursday .....	115	13	32	17
Friday .....	127	15	27	14
Saturday .....	128	15	23	12
<b>Time of injury <sup>1</sup></b>				
12 am - 6 am .....	151	19	28	16
6 am - noon .....	157	20	55	32
noon - 6 pm .....	192	25	47	28
6 pm - 12 am .....	281	36	41	24
Unknown .....	94	—	17	—

<sup>1</sup>X<sup>2</sup> test, p < .01

SOURCE: Census of Fatal Occupational Injuries 1993 public data set, released December 1994.

NOTE: Percentages were calculated only on known values and may not add to totals due to rounding.

**Table 5. Sex differences among victims of workplace homicides by type of injury, 1993**

Characteristics	Males		Females	
	Number	Percent	Number	Percent
<b>Total</b> .....	875	100	188	100
<b>Nature of injury</b>				
Burn .....	3	<1	1	1
Gunshot .....	729	83	145	77
Head injury .....	31	4	8	4
Internal .....	12	1	1	1
Multiple .....	21	2	4	2
Open wound .....	17	2	8	4
Puncture .....	41	6	10	5
Strangulation .....	8	1	7	4
Other .....	13	1	4	2
<b>Body part</b>				
Body system .....	8	1	8	4
Head .....	271	32	76	41
Lower body .....	3	<1	0	0
Multiple .....	224	26	52	28
Neck .....	36	4	6	3
Trunk .....	315	37	44	24
Upper body .....	2	<1	0	0
Unknown, n.e.c. ....	16	-	2	-
<b>Source of injury <sup>1</sup></b>				
Bomb .....	6	<1	1	1
Bullet .....	723	85	141	78
Parts/Materials .....	7	1	3	2
Person .....	19	2	7	4
Pellets/Shot .....	7	1	4	2
Tools .....	69	8	21	12
Vehicle .....	4	<1	1	1
All other .....	17	3	2	1
Unknown .....	23	-	8	-
<b>Secondary source <sup>2</sup></b>				
Co-worker .....	40	5	17	10
Person, unspec .....	294	35	54	31
Relative .....	3	<1	17	10
Person, other .....	503	60	88	50
All other .....	3	<1	0	0
Unknown .....	32	-	12	-

<sup>1</sup>X<sup>2</sup> test, p < .05

<sup>2</sup>X<sup>2</sup> test, p < .001

SOURCE: Census of Fatal Occupational Injuries 1993 public data set, released December 1994.

NOTE: Percentages were calculated only on known values and may not add to totals due to rounding.