U.S. Correctional Officers Killed or Injured on the Job

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Authors' Note: *The findings and conclusions in this report are those of the authors and do not necessarily represent the views of the National Institute for Occupational Safety and Health.*

In the U.S., approximately half a million correctional officers are responsible for supervising more than two million inmates. Correctional officers are exposed to unique workplace hazards within a controlled prison environment. Of all U.S. workers, correctional officers have one of the highest rates of nonfatal, work-related injuries.[1] In 2011, correctional officers experienced 544 work-related injuries or illnesses per 10,000 full-time employees (FTEs), which were serious enough to require that they missed a day of work. This was more than four times greater than the rate for all workers who missed a day of work (117 cases per 10,000 FTEs).[2] Also in 2011, correctional officers experienced 254 work-related injuries per 10,000 FTEs due to assaults and violent acts. This is considerably higher than the rate of injuries from assault and violent acts for all workers (seven per 10,000 FTEs).[3]

Despite these high injury rates among correctional officers, injury prevention research has lagged. As an important first step in the development of evidence-based workplace safety programs for correctional officers, a complete picture of work-related injuries is needed. Here, the authors describe 113 work-related fatalities and an estimated 125,200 emergency department (ED) treated, nonfatal work-related injuries among U.S. correctional officers from 1999 through 2008.

Table 1. Fatal and Nonfatal Work-Related Injuries to U.S. Correctional Officers from 1999 Through 2008 by Demographic Characteristics and Year

Characteristics	Number of Fatalities	Percent	Number of Nonfatal Injuries (± CI)	Percent
Sex				
Male	100	89	91,700 (± 55,800)	73
Female	13	11	33,500 (± 15,200)	27
Age group (in years)				
18-24	10	9	10,100 (± 5,300)	8
25-29	9	8	21,900 (± 13,500)	18
30-34	10	9	24,900 (± 15,900)	20
35-39	18	16	20,300 (± 11,700)	16
40-44	16	14	19,900 (± 10,900)	16
45 and older	50	44	27,900 (± 16,300)	22
Year				
1999	10	9	10,200 (± 6,500)	8
2000	12	11	13,000 (± 7,000)	10
2001	7	6	12,800 (± 7,800)	10
2002	16	14	15,400 (± 9,900)	12
2003	13	12	14,100 (± 9,400)	11
2004	5	4	8,600 (± 5,400)	7
2005	6	5	11,000 (± 6,200)	9
2006	11	10	17,300 (± 11,400)	14
2007	14	12	12,100 (± 7,000)	10
2008	19	17	10,700 (± 7,000)	9
Total	**113**	**100**	**125,200 (± 70,100)**	**100**

Note: Fatal injury numbers were generated by the authors with restricted access to CFOI microdata.

Data and Methodology

Information on work-related fatalities was obtained from the Census of Fatal Occupational Injuries (CFOI).[4] This database captures work-related fatalities from all 50 states and the District of Columbia. Nonfatal injury data were obtained from the occupational supplement to the National Electronic Injury Surveillance System (NEISS-Work). It collects data on nonfatal, occupational ED-treated injuries from a national stratified probability sample of 67 hospitals.[5]

Work-related fatalities among correctional officers from the CFOI database were identified using standardized numeric occupational codes. As NEISS-Work does not contain standardized numeric occupational codes, nonfatal injuries were identified by searching and reviewing the employment text fields for keywords related to the correctional industry; the correctional officer occupation; and unique injury incidents related to correctional officers' work activities (e.g., supervising or restraining inmates, altercations with inmates, on-the-job correctional training, contraband searches, opening and closing of cell doors and transporting inmates).

Table 2. Fatal Work-Related Injuries to U.S. Correctional Officers From 1999 Through 2008 by Event

Event	Number of Fatalities	Percent
Assaults and violent acts	45	40
Homicides	28	25
Suicides	17	15
Transportation-related	45	40
Falls	16	14
Other	7	6
Total	**113 (100)**	**100**

Note: Fatal injury numbers were generated by the authors with restricted access to CFOI microdata.

Table 3. Nonfatal Work-Related Injuries to U.S. Correctional Officers From 1999 Through 2008 by Selected Events and Injured Body Parts

Characteristics	Number of Nonfatal Injuries (± CI)	Percent
Event		
Assaults and violent acts	47,500 (± 24,500)	38
Contact with objects and equipment	21,900 (± 16,800)	18
Overexertion	25,400 (± 12,500)	20
Injured body part		
Upper limb	37,500 (± 19,500)	30
Hand and finger	23,500 (± 12,200)	19
Trunk, neck and shoulder	30,200 (± 16,900)	24
Lower limb	26,200 (± 16,200)	21
Head and face: including eye, ear and mouth	21,700 (± 11,800)	17
Total	**125,200 (± 70,100)**	**100**

Frequencies and percentages were calculated for different characteristics. Also, national fatal and nonfatal work-related injury rates were calculated using labor force data from the Current Population Survey (CPS). Numbers and rates from survey data are presented with 95 percent confidence intervals (CI), which specify a range of values describing the uncertainty of an estimate. The CPS is a national monthly household survey of approximately 50,000 noninstitutionalized residents ages 15 years and older.[6]

Findings

Work-related fatalities:

- There were 113 correctional officer fatalities reported — the fatality rate was 2.7 per 100,000 FTEs (CI = ± 0.8);
- On average, 11 work-related fatalities were reported per year;
- Male correctional officers incurred the majority of fatalities and more than two-thirds occurred to officers ages 45 and older;
- Assaults, violent acts and transportation-related fatalities accounted for 80 percent of all fatalities;
- Among fatal assaults and violent acts, 62 percent were due to homicides and 38 percent were due to suicides by self-inflicted gunshot wounds; and
- Of the homicides, 65 percent were committed by inmates and the remaining were committed by coworkers, strangers or personal relations of the correctional officer.

Nonfatal work-related injuries:

- An estimated 125,200 (CI = ± 70,100) nonfatal work-related injuries were treated in EDs for a rate of 3.0 (CI = ± 1.9) per 100 FTEs;
- The majority of nonfatal injuries occurred to male correctional officers;
- Half of the nonfatal injuries were among officers ages 35 years and older;
- The majority of injuries were due to assaults and violent acts, followed by overexertion, and contact with dangerous objects and equipment;
- Of the nonfatal assaults and violent act injuries, more than one-third (37 percent) occurred while restraining an inmate or interacting with an inmate during an altercation;
- Nonfatal injuries primarily affected the upper limb, with approximately two-thirds affecting the hand and fingers; and
- The most common types of work-related nonfatal injuries were sprains and strains (30 percent), followed by contusions and abrasions (28 percent).

Discussion

Developing a correctional officers' assault and injury database. In this study, the authors found that the leading events for both fatal and nonfatal work-related injuries were assaults and violent acts. To implement effective workplace prevention efforts, it is essential to collect details on the circumstances of these events on a national level. While CFOI and NEISS-Work have a narrative text field describing injury circumstances, information is limited. Conversely, the national report by the Federal Bureau of Investigation's *Law Enforcement Officers Killed and Assaulted* provides details on information surrounding assaults on police officers, and safety training can be developed and delivered based on data in that

report. There is no comparable database currently maintained for correctional officers at a national level. The ongoing collection and analysis of such data could lead to the development and enhancement of workplace violence prevention efforts. Other researchers have made recommendations that correctional facilities should conduct centralized or agency-level surveillance to identify emerging problems related to violent injuries to correctional officers. This would include identifying the type of weapons used in an assault or confiscated during regular search for contraband.[7] Research on effective training, teamwork and use of appropriate protective equipment has also been recommended to prevent assault and violent acts.[8]

Transportation. Transportation-related events were also a leading cause of work-related fatalities among correctional officers. This is not surprising given that motor vehicle-related events are the leading cause of work-related fatalities among all U.S workers.[9] Also, driving is a common task for correctional officers, as they often transport inmates to hospitals and court appearances. The National Institute for Occupational Safety and Health (NIOSH) recommends that employers develop and enforce driver safety policies, mandate seatbelt use, ensure regularly scheduled vehicle inspection and maintenance, and prohibit driving practices such as texting or cellphone use.[10]

Self-inflicted gunshot wounds and suicide risk. In this study, the authors found that 17 correctional officers died from self-inflicted gunshot wounds in the workplace during the 10-year period. It is known that correctional officers experience constant stress because of fear of inmate attacks, mandatory overtime, rotating shifts, sleep disturbances and supervisory demands.[11] Job stress issues are linked to psychological disorders that may result in an elevated suicide risk.[12] A 2011 survey of corrections personnel revealed that about half of the study participants experienced some signs of post-traumatic stress disorder (PTSD) and confirmed there is an elevated suicide risk due to PTSD.[13] In another study, researchers found that about one-third of corrections personnel were clinically depressed.[14] Unfortunately, the data in this study does not offer information on the motives behind these suicides. Additional research should be conducted to examine the association between job stress and suicide risk among correctional officers, and then take steps to alleviate job stressors.

Correctional officers are at risk for work-related injuries due to both fatal and nonfatal assaults and violent acts, transportation-related fatalities and overexertion.

The National Institute of Justice has developed a publication and provided a wide variety of approaches to relieve stress among correctional officers.[15] This report includes case studies of well-established and replicable stress reduction programs which include professional counseling, peer support, referrals to clinicians or employee assistance programs, and staff training. It recommends correctional agencies choose a model and structure a stress reduction program by combining services according to department needs and resources.[16] Also, NIOSH is developing a customized job stress tool specifically aimed at examining correctional officers' perceptions of the causes of stress, its effects on their health and the most useful resources to reduce job stress.[17]

Overexertion. Finally, the authors found that correctional officers were also at risk for nonfatal injury due to overexertion. Their job duties include a variety of activities that increase their risk for strained muscles, sprains and other musculoskeletal injuries due to the use of excessive physical effort, awkward body postures and/or static postures. Such activities include restraining inmates or breaking up fights, moving heavy furniture or equipment during contraband searches and standing for a prolonged time to supervise inmates. Research among police officers — an occupation with similar physical demands — has shown that higher levels of physical activity and fitness are associated with a lower frequency of musculoskeletal injuries.[18] Also, job hazard analyses could be performed to identify contributing factors and potential areas for overexertion safety improvements.

Conclusion

Correctional officers are at risk for work-related injuries due to both fatal and nonfatal assaults and violent acts, transportation-related fatalities and overexertion. While there are some prevention efforts currently in place to reduce inmate assaults, efforts to reduce other work-related injuries are rare.[19] However, the National Institute of Corrections has recommended that the overall safety of a correctional facility can be improved if facilities address staffing shortage issues; follow good operational procedures; and provide adequate facilities — such as basic medical and mental health care needs, qualified health care staff, personal protective equipment and safety training programs.[20] In addition, future research should identify risk factors unique to each event type so that appropriate prevention efforts can be developed and implemented to reduce these injuries.

ENDNOTES

[1] Bureau of Labor Statistics. 2011. *Nonfatal occupational injuries and illnesses requiring days away from work.* Retrieved from http://www.bls.gov/news.release/osh2.nr0.htm.

[2] Ibid.

[3] Bureau of Labor Statistics. 2011. Table 16: Incidence rates for nonfatal occupational injuries and illnesses involving days away from work per 10,000 full-time workers by selected worker occupation and

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NIC Update

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Next Steps

NIC will continue to provide updates on topics mentioned in the hearing. For more information, stay directly connected with NIC through its regular newsletters, updates and announcements by visiting www.nicic.gov/go/newsletter.

ENDNOTES

[1] For more information about the NIC cost containment framework, visit www.nicic.gov/CCFramework.

[2] To view the online resource, visit www.nicic.gov/costcontainment.

[3] To view the annotated bibliography series on cost containment developed by staff at the NIC Information Center, visit www.nicic.gov/Library/026208.

[4] For a live recap of daily events, visit www.nicic.gov/go/hearing_2012.

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