On guard against workplace hazards

Security guards face a variety of workplace hazards that can lead to injury, illness, or death

William J. Wiatrowski

any of us interact with security guards every day-at work, at the mall, or even when we attend our favorite sporting event. Most of the time, security guards are part of the nearly invisible infrastructure of our lives; they check our identification or scan our bags as we pass them with nonchalance or politeness or annoyance. Security guard safety is perhaps far from our thoughts until a high-profile tragedy makes the news. One such incident took place in June 2009 at the United States Holocaust Memorial Museum, Washington, DC, when a security guard was shot and killed while at his post at the main entrance of the museum. The incident highlighted the safety risks security guards face on a daily basis.1

In 2009, security guards suffered 63 fatal work injuries and an estimated 8,920 nonfatal workplace injuries or illnesses that required at least one day away from work. The Bureau of Labor Statistics (BLS) tracks these data through two parallel programs, the Census of Fatal Occupational Injuries (CFOI) and the Survey of Occupational Injuries and Illnesses (SOII).² The CFOI program reports a complete count of all fatal workplace injuries, including details about worker demographics and the events leading to the fatality. The SOII is a sample survey that tracks workplace injuries and illnesses that employers are required to report under Occupational Safety and Health Administration (OSHA) recordkeeping rules;3 characteristics of the workers involved and details of the incident are captured for the most severe cases, those that require at least 1 day away from work.

After providing some background about the occupation of security guard, this article takes a detailed look at the occupation's prevalence of workplace safety and health incidents, characteristics of the workers involved (including age, race, and gender), and details of the incident (such as the event leading to the incident and the time of day it occurred). Among the key findings are the following:

- The rate of fatal workplace injuries to security guards was more than twice that of workers in general.
- Nonfatal workplace injuries and illnesses requiring time away from work occurred at roughly the same rate for security guards as for all other occupations.
- Security guard fatal injuries were often the result of assaults, while nonfatal injuries were frequently due to falls or assaults.
- Although safety incidents among security guards can occur at all hours, they frequently occurred in the evening and overnight.

Security guards and guard services

BLS identifies occupations using the 2000 Standard Occupational Classification (SOC) system, a hierarchical system that groups like jobs by the type of work performed. According

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to the SOC occupational definition, the work of a security guard includes guarding, patrolling, or monitoring premises to prevent theft, violence, or infractions of rules. The BLS 2010–2011 Occupational Outlook Handbook expands upon this definition as follows: "Security guards, also called security officers, patrol and inspect property to protect against fire, theft, vandalism, terrorism, and illegal activity." In addition, security guards "protect their employer's property, enforce laws on the property, [and] deter criminal activity."4 Security guards work at a wide variety of worksites, including schools, warehouses, residential facilities, and retail establishments.

The BLS Occupational Employment Statistics (OES) program estimates that there were approximately 1 million security guards in 2009.5 Slightly more than half of these guards were employed in the investigation, guard, and armored car services industry, which supplies security guards to a wide variety of other businesses. Often, the security guard that greets you each morning as you enter your employer's facility is not employed by your employer but by one of these contract organizations. The remaining guards were employed by a wide variety of private and government organizations.

While many workplace incidents among people whose occupation is security guard involved those who were working for guard services, some of the guards involved were employed by other industries, including retail trade, eating and drinking places, schools, and hospitals.

In contrast, the guard services industry recorded 29 fatal work injuries and an estimated 4,200 nonfatal workplace injuries and illnesses that required at least 1 day away from work in 2009. (The total number of nonfatal injuries and illnesses among people employed by the guard services industry was 10,500.6) Table 1 provides a matrix showing the relationship between the security guard occupation and the guard services industry. While many workplace injuries, illnesses, and fatalities in the guard services industry happen to guards, such incidents also happen to guards working in other industries.

The fact that half of the workers in the security guard occupation were employed by contracting agencies, which send workers to any number of job locations in varying industries, adds to the complexity of capturing and classifying safety and health data. Special rules developed by OSHA indicate that workplace injuries and illnesses among contract workers (security guards as well as workers in many other occupations) are to be recorded at the location where they are supervised on a day-to-day basis. This can vary from one situation to the next, as supervision may be provided by the guard services firm or directly by the firm that has contracted for the guard services. A further complication is the BLS data collection mechanisms, which focus on the "employer"—that is, the contracting company rather than the specific location where the incident occurred.⁷

Some occupations, such as corrections officers and gaming surveillance officers, include some work responsibilities similar to those of security guards. Police officers, for example, perform some of the same duties as security guards, but have

Ta	able 1.	Employment, fatal w	ork injuries, and nonfatal	occupational injuries a	and illnesses in the guar	d services industry
		and security guard o	ccupation, 2009			

Industry or occupation	Employment	Fatal work injuries	Nonfatal injuries and illnesses	Nonfatal injuries and illnesses involving at least 1 day away from work
Investigation, guard, and armored car services industry (NAICS code 561610)	¹684,420	33	12,500	4,700
Security guards and patrol services industry (NAICS code 561612)	(²)	29	10,500	4,200
Security guard occupation (SOC code 33–9032)	³1,028,830	63	(4)	8,900

¹ Nearly 87 percent (593,370) of these workers were security guards; the remaining 13 percent worked in other occupations.

NOTE: Industry codes are from the 2009 North American Industry Classification System (NAICS). The occupation code is from the 2000 Standard Occupational Classification (SOC) system.

SOURCE: U.S. Bureau of Labor Statistics.

² Employment data consistent with that shown for the investigation, guard, and armored car services industry are not available; other sources of employment data indicate that the security guards and patrol services industry composes nearly 90 percent of the broader industry.

Nearly 58 percent (593,370) of these workers were employed by the investigation, guard, and armored car services industry; the remaining 42 percent were employed by other industries.

⁴ While the total number of nonfatal injury and illness cases is not available by occupation, the ratio of days-away-from-work cases to all cases from the security guards and patrol services industry indicates that all cases were about 2.5 times the number of days-away-from-work cases.

added duties, more extensive training, and greater authority. While this article concentrates on security guards, the data provided in table 2 are available to compare the extent of workplace safety incidents across these occupations.

Work environment

The employment of security guards is projected to grow by 18.8 percent between 2010 and 2020, faster than the average 14.3-percent growth for all occupations.8 Information on the work, training requirements, employment, earnings, and job outlook for security guards, as well as for all occupations in the U.S. economy, is available through the BLS Occupational Outlook Handbook.9 The Handbook describes the various workplaces and responsibilities of security guards (also referred to by various employers as bouncers, doormen, body guards, and patrol officers) as follows:

- In department stores, protecting people, records, merchandise, money, and equipment
- In shopping centers and theaters, patrolling parking lots and deterring assaults, car thefts, and robberies
- In office buildings, banks, and hospitals, maintaining order and protecting customers, staff, and property
- At air, sea, and rail terminals and other transportation facilities, screening passengers and protecting people, freight, property, and equipment
- In museums and similar public buildings, watching people and inspecting packages
- In factories, laboratories, government buildings, and military bases, checking credentials and protecting

- information, projects, computer codes, and defense
- At universities, parks, and sporting events, performing crowd control and supervising parking and seat-
- At bars and nightclubs, preventing access by minors, collecting cover charges, and maintaining order among patrons

Training for security guards can include such topics as protection, public relations, report writing, crisis deterrence, first aid, and specialized training relevant to their assignment. Armed guards may have more specialized training and more detailed background checks. The Handbook further indicates that some security guards work part time, including those for whom the work is a second job, such as police officers and similarly trained workers.

Workplace safety and health incidents

The number of work injuries found in 2009 is consistent with data on security guard incidents over the past several years.¹⁰ From 2003 to 2009, fatal work injuries averaged about 70 per year, with a low of 60 in 2005 and a high of 84 in 2007. Data on injuries and illnesses requiring time away from work through 2007 are limited to workers in private industry; these data indicate an average of around 8,000 incidents per year over the past several years. The 2009 total of 8,920 includes 1,620 incidents in state and local government.

Because of the low numbers of fatal work injuries and the fact that the count is a complete census and not an estimate from a sample, data for several years easily can be combined to provide greater detail about the workers and the circum-

Table 2. Number of fatal work injuries and nonfatal occupational injuries and illnesses involving at least 1 day away from work, selected occupations									
Occupation	Occupation code	Employment Fatal work injuries			Nonfatal occupational injuries and illnesses, 2009				
•		2009	2009	Total 2003-2009	Yearly average 2003–2009	Total	Private	State government	Local government
Security guard	33-9032	1,028,830	63	488	69.7	8,920	7,300	420	1,200
Corrections officers and jailers	33–3012	455,350	8	71	10.1	18,440	1,010	12,390	5,040
Gaming surveillance officers and gaming investigators	33–9031	7,670	-	3	.4	160	160	-	-
Police and sheriff's patrol officers	33–3051	641,590	96	838	119.7	35,590	120	4,170	31,300
NOTE: Occupation codes are from the 2000 Standard Occupational SOURCE: U.S. Bureau of Labor Statistics.									

Classification (SOC) system.

stances surrounding the fatalities. Thus, for many of the details presented below, fatal work-injury statistics represent combined totals from 2003 through 2009. Data on nonfatal injuries and illnesses are typically from the 2009 survey.

The number of workplace fatalities or injuries by itself can be rather abstract and difficult to assess: is 70 fatalities or 8,000 injuries a large or small number, and how does it relate to all workers or to other occupations? One way to make such an assessment is to construct a rate that compares the number of incidents to a worker's exposure to potential hazards. The BLS Occupational Safety and Health Statistics program presents injury, illness, and fatality rates that compare the number of incidents to the number of hours worked.¹¹ Among all workers in 2009,

- the rate of workplace injuries and illnesses was 3.9 per 100 full-time equivalent workers,
- there were 117.2 injury and illness cases involving days away from work per 10,000 full-time equivalent workers, and
- the rate of fatal work injuries among all workers was 3.5 per 100,000 full-time equivalent workers.

These measures use three different scales because the magnitude of worker injuries and illnesses is vastly greater than worker fatalities—nationwide among all workers, there were approximately 4 million injuries and illnesses versus 4,500 fatalities. The following comparison clarifies this difference in magnitude. In 2009 there were

- 3,900 workplace injuries and illnesses per 100,000 workers,
- 1,172 workplace injuries and illnesses requiring days away from work per 100,000 workers, and
- 3.5 fatal work injuries per 100,000 workers.

In 2009, the rate of fatal work injuries among security guards and related workers was 7.4 per 100,000 full-time equivalent workers, more than double the 3.5 rate for all workers. ¹² In contrast, there were 108.7 workplace injuries and illnesses involving days away from work per 10,000 full-time equivalent security guards, which is not that different from the rate of 117.2 for all workers.

Ideally, these data could be combined to construct a continuum of severity of injuries and illnesses affecting security guards (or workers in any occupation) that shows the proportion of workplace incidents by outcome. Unfortunately, such complete data are not currently available and the mix of data sources, inclusion of different worker groups, and lack

of available information on long latent illnesses make it difficult to construct a true continuum of severity. But existing BLS injury, illness, and fatality data, used with a few well-caveated liberties, can help to estimate a range from medical treatment to instantaneous fatal injury.

Looking at data for 2009, about half of all security guard workplace injuries and illnesses required only medical treatment (beyond first aid); in these instances, no time from work was lost beyond the day of incident and there was no need to restrict the employee's duties. To be recorded at all, such cases required some medical treatment (specifically defined by OSHA as including such things as sutures or rabies vaccine).¹³ At the other extreme, one-quarter of 1 percent of workplace injuries among security guards resulted in an immediate fatality (defined here as death on the same day that the incident occurred). Between these extremes are 12 percent of cases requiring restricted duties and 40 percent requiring some time away from work, ranging from one day to several weeks or more.¹⁴ Finally, a small number of cases resulted in death some days after the day of injury, often the result of an infection or other medical complication. This continuum of severity is enumerated in table 3, which includes details on how the data sources have been combined.

Table 3.	Percent distribution of fatal work injuries and
	nonfatal occupational injuries and illnesses by
	degree of severity for security guards, 2009

Outcome	Percent of total cases
Total	100.0
Medical treatment beyond first aid; no lost work time	47.5
1 or more days of job transfer or restriction; no days away from work	12.4
1 day away from work	5.0
2 days away from work	5.4
3–5 days away from work	8.0
6–10 days away from work.	4.6
11–20 days away from work	4.7
21–30 days away from work	2.5
31 or more days away from work	9.9
Fatality occurring more than one day after incident	.1
Fatality occurring immediately	.2

NOTE: Data on medical treatment and days of job transfer or restriction represent workers in the guard services industry; other data represent workers in the security guard occupation. Calculation assumes that the proportion of cases by severity is the same for workers in the guard services industry and the security guard occupation.

SOURCE: U.S. Bureau of Labor Statistics.

Demographics of the workers affected

BLS data indicate that over the past several years, 30 percent of fatal work injuries to security guards occurred among African Americans and 17 percent occurred among Hispanics. These proportions are consistent with employment data for security guards: according to 2009 data from the BLS Current Population Survey, 29 percent of all individuals employed as security guards and gaming surveillance officers were African American and 16 percent were Hispanic.¹⁵ Among all fatally-injured workers, 9 percent were African American and 16 percent were Hispanic.

For security guard injuries and illnesses requiring at least 1 day away from work where race was reported, 24 percent occurred among African Americans and 14 percent among Hispanics. Again, these proportions are consistent with employment by race and ethnicity for security guards, suggesting that workplace hazards for this occupation are not disproportionately affecting any one race. There were a large number of nonfatal injury and illness cases among security guards where race was not reported, as was also the case for all occupations. 16 Given this limitation, these data should be used with caution.

Workplace injuries, illnesses, and fatalities among security guards were fairly evenly split across age groups, as was employment, as shown here:

	security guard employment		Percent of work injuries involving day away from work 2009
Ages 16–19	1.7	1.8	1.1
Ages 20–24	15.6	7.4	10.5
Ages 25-34	21.4	24.4	20.9
Ages 35-44	18.5	18.4	22.8
Ages 45-54	19.2	14.5	21.5
Ages 55-64	15.8	20.5	14.7
Ages 65 and o	lder. 7.5	12.9	7.3

However, there appears to be some relationship between age and the type of event that precipitated a workplace injury or fatality among security guards. For example, assaults and violent acts generally occurred among younger security guards: two-thirds of both fatal and nonfatal assaults happened to workers younger than age 45. In contrast, just over 60 percent of nonfatal falls on the same level (rather than to a lower level) occurred among workers ages 45 and older.¹⁷ And while the number of security guard fatalities resulting from falls was small, the vast majority occurred among those at least 55 years old and especially among those ages 65 and older.

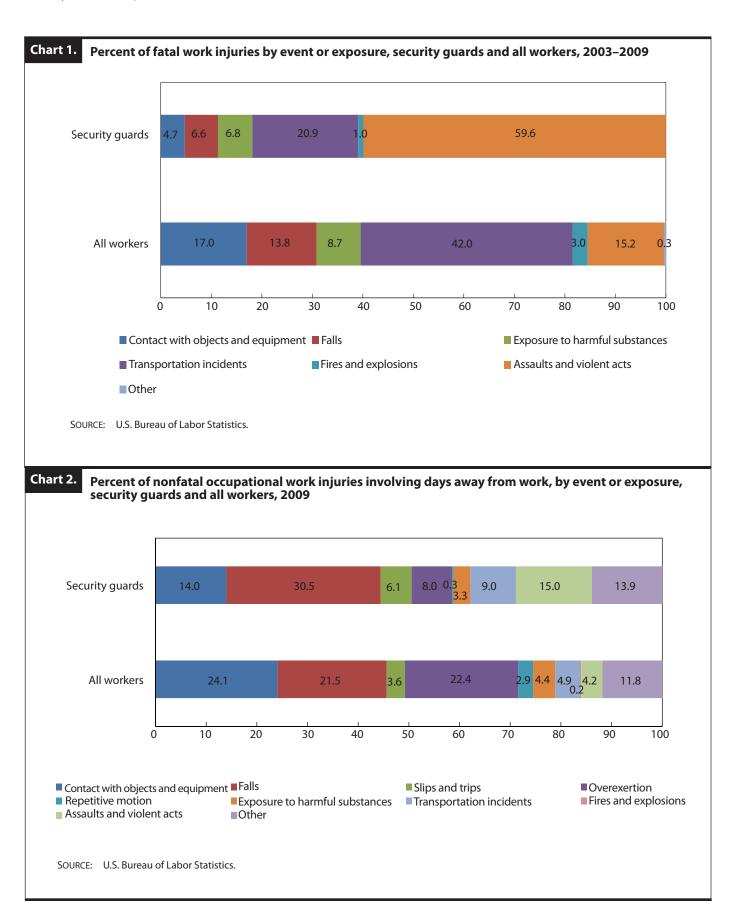
Fatal and nonfatal events

While all worker injuries were considered together in the continuum of severity described earlier, a review of the events that precipitated injuries shows some divergence between fatal and nonfatal injuries. Among all workers, fatal injuries most often resulted from transportation incidents, assaults, contact with objects and equipment, and falls, while nonfatal injuries and illnesses most often resulted from contact with objects and equipment, overexertion, and falls. Among security guards, nearly two-thirds of fatal work injuries were the result of assaults or other violent acts, while transportation incidents were a distant second. Among nonfatal injuries, the most prevalent events affecting security guards were falls (on the same level and to a lower level); the next most prevalent events were assaults and contacts with objects and equipment. (See charts 1 and 2 for comparisons between security guards and all workers of the events leading to fatal and nonfatal injuries.)

The descriptive information that accompanies BLS data on fatal assaults to security guards sheds light on the circumstances surrounding each incident. The following are typical of descriptions of fatal assaults to security guards, with specific details redacted to protect confidentiality:¹⁸

- Shot in parking lot by belligerent customer who had previously been escorted out of the bar
- Bouncer confronted suspect who was disturbing patron; suspect stabbed bouncer
- Shot multiple times during robbery
- Beaten by robbers in parking lot
- Guard attempted to stop shoplifter; knocked down by car and dragged
- Suspect stole guard's gun and shot him

As these examples suggest, the perpetrator involved in fatal assaults to security guards was typically a customer, client, or individual intent on robbing the establishment—during the 2003-2009 period, 93 percent of security guard homicides were committed by someone in these groups. Among all workplace homicides, 82 percent were committed by customers, clients, or robbers, with the remainder committed by coworkers, relatives, or other personal acquaintances. There were also a number of se-



curity guard suicides; these most often took place when the worker was alone, was at a remote location, or at night when few other workers were nearby.

Information on nonfatal assaults to security guards includes incidents similar to those resulting in fatalities, but also includes some very different incidents. Among nonfatal assaults resulting in days away from work, 1 in 3 was committed by a healthcare patient who may have become violent in the course of routine activities such as transport, resulting in such injuries as strains, sprains, lacerations, or fractures. Nearly two-thirds of assaults among security guards employed by state governments involved healthcare patients, perhaps in part because of the greater proportion of psychiatric facilities operated by state governments. In addition, the fatal injuries survey estimated that there were 1,840 falls on the same level (to the floor or ground) among security guards in 2009. These falls often resulted in sprains, fractures, or bruises and required the employee to be off work for a median of 9 days. Falls to a lower level happened less frequently—an estimated 880 cases in 2009—and resulted in a median of 5 days away from work.19

Some facilities require guard service around the clock, including times when no other work is being performed. It follows that security guards may be subject to hazards at any hour. Information on the time of event for both fatal and nonfatal injuries confirms the presence of hazards 24 hours a day. For example, for nonfatal assaults where time of incident was recorded, about 40 percent occurred between 8 p.m. and 4 a.m.²⁰ Even more dramatically, two-thirds of fatal assaults where time was recorded took place between 8 p.m. and 4 a.m., and nearly half the fatal assaults occurred between midnight and 4 a.m. The time of incident varies depending on the event, with assaults more often occurring at night. Table 4 provides details on the time of all fatal work injuries and nonfatal injuries and illnesses among security guards and all workers.

The manner in which the injuries are inflicted on security guards and the physical characteristics of the injuries suggest that the work activities of security guards can vary widely, and guards may be likely to take on supplemental duties beyond their core functions. For example, a number of fatal injuries to security guards involved loading and unloading trucks as well as working around trucks and other heavy equipment. Nonfatal injuries included cases where the guard was lifting or transporting a patient. While these duties may be part of the individual employee's job description and workers may have been hired and paid for such duties, the duties bring with them hazards that the public may not generally associate with the work of a security guard.²¹

These are additional facts about workplace safety and health of security guards:

- Ninety-four percent of fatally injured security guards were male and about 80 percent of all security guards were male.
- Among nonfatal injuries and illnesses, 70 percent occurred to males, including 89 percent of security guard nonfatal assaults.
- Among fatally injured workers, 15 percent of victims were foreign born; the most frequent country of birth was Mexico.
- Where race was reported, 57 percent of nonfatal injuries and illnesses requiring days away from work occurred among Whites, but Whites accounted for 65 percent of falls to a lower level.
- Among days-away-from-work cases where race was

Time of event	Fatal work inju	ries, 2003–2009	Nonfatal injuries and illnesses, 2009		
Time of event	All workers	Security guards	All workers	Security guards	
12:01 a.m.–4 a.m.	5.9	26.4	3.1	10.5	
4:01 a.m8 a.m.	10.7	17.6	9.9	11.6	
8:01 a.m.–12 noon	27.0	9.0	29.7	16.5	
12:01 p.m.–4 p.m.	26.7	9.8	22.4	17.9	
4:01 p.m.–8 p.m.	14.9	9.4	10.6	15.0	
8:01 p.m12 midnight	8.1	21.3	5.7	15.9	
Not reported	6.8	6.4	18.6	12.5	

Table 5.	Percent of fatal work injuries and nonfatal
	occupational injuries and illnesses involving
	at least 1 day away from work by selected
	characteristics for security quards

Characteristic	Fatal work injuries, 2003–2009	Nonfatal work injuries and illnesses, 2009
Gender		
Male	94.1	70.3
Female	5.9	29.7
Age		
16 to 19	1.8	1.1
20 to 24	7.4	10.5
25 to 34	24.4	20.9
35 to 44	18.4	22.8
45 to 54	14.5	21.5
55 to 64	20.5	14.7
65 and older	12.9	7.3
Race or ethnic origin		
White	47.7	31.6
Black or African American	29.5	13.5
Hispanic or Latino	17.2	7.7
Asian	2.9	1.0
Native Hawaiian or other Pacific Islander	1.2	.8
American Indian or Alaska Native	.6	.9
Multi-race	_	.2
Other/not reported	-	44.2

NOTE: Persons identified as Hispanic or Latino may be of any race. The race categories shown exclude Hispanic and Latino workers. SOURCE: U.S. Bureau of Labor Statistics.

reported, 14 percent of all nonfatal events occurred among Hispanics while 24 percent of assaults were made on Hispanics.

- Events were spread throughout the week, not just on weekdays.
- Among all security guard nonfatal injuries requiring days away from work, median days away from work were 7 days. Looking at specific events, median days away from work were 9 days for falls to the same level and 16 days for transportation incidents.

Table 5 provides additional details on fatal work injuries that occurred during 2003 through 2009 and nonfatal incidents in 2009 involving security guards.

SECURITY GUARDS, A FIXTURE OF OUR EVERY-DAY LIVES, face many workplace hazards, particularly assaults. Data show patterns between worker age and injury or illness event, as well as a considerable number of incidents happening at night. The information presented here illustrates the indepth nature of the available security guard data from the BLS Occupational Safety and Health Statistics program, which serves as the nation's premiere surveillance system for workplace injuries, illnesses, and fatalities; similar details can be extracted for other occupations as well as for such characteristics as industry, age group, gender, and event. The specific details that can be identified through these data can help decisionmakers identify ways to improve workplace safety and health. \square

Notes

- ¹ Details about the United States Holocaust Memorial Museum shooting, which occurred on June 10, 2009, are available through a variety of media reports. For example, see "Guard killed during shooting at Holocaust museum," CNN.com, http://edition.cnn.com/2009/ CRIME/06/10/museum.shooting/index.html.
- ² Details about the BLS Occupational Safety and Health Statistics program are available at http://www.bls.gov/iif/. There are a number of differences between the fatality census and the injury-and-illness survey, including differences in the scope of workers covered. The census includes some categories of workers that are not in the survey, including self-employed, federal government, and resident military. The number of fatal work injuries to security guards classified as selfinsured, federal government, or resident military in recent years is very small. Thus, the fact that these categories of workers are not included in the injury-and-illness survey likely has very little effect on the total number of nonfatal injuries and illnesses to security guards. Complete information on program methodology is available in chapter 9, "Occupational Safety and Health Statistics," of the BLS Handbook of Methods, http://www.bls.gov/opub/hom/homch9.htm.
- ³ Employer requirements to maintain records of workplace injuries and illnesses are established and maintained by the Occupational Safety and Health Administration. Details on recordkeeping requirements are available from OSHA at http://www.osha.gov/recordkeeping/index.html.
- Security guards are identified as occupation 33-9032 in the 2000 Standard Occupational Classification (SOC) system. Details on the SOC system are available on the BLS website at http://www.bls.gov/ soc/home.htm. The expanded definition is from the BLS Occupational Outlook Handbook, available at http://www.bls.gov/oco/.
- ⁵ It is important to understand the distinction between occupation and industry. Occupation, such as security guards, indicates the similarity of duties performed regardless of who is employing the individual. Conversely, industry, which is classified using the 2007 North American Industry Classification System (NAICS), indicates the product or service produced by the employer (such as NAICS 561612 - Security Guard and Patrol Services), not the job that produces the output. Details on industry classification are available on the BLS website at http://www.bls.gov/bls/naics.htm. Data on employment

by occupation are from the BLS Occupational Employment Statistics (OES) program. Details on the OES program are available at http:// www.bls.gov/oes/.

- ⁶ Occupational injury and illness data by occupation are only available for cases with days away from work. Data by industry are available for all cases.
- ⁷ OSHA recordkeeping rules state that, in addition to recording injuries and illnesses of their payroll employees, employers "... also must record the recordable injuries and illnesses that occur to employees who are not on your payroll if you supervise these employees on a day-today basis." See OSHA recordkeeping rules at http://www.osha.gov/ recordkeeping/handbook/index.html#1904.4_1. The BLS Survey of Occupational Injuries and Illnesses samples employers; this includes contracting agencies as well as employers who contract with such agencies. For survey sampling purposes, contract guards are included with the employment of the contracting agency, although workplace injuries and illnesses may be recorded by either the contracting agency or the employer contracting for the services, on the basis of OSHA rules. The BLS Census of Fatal Occupational Injuries (CFOI) records the industry in which the fatally injured worker was employed, which, for contract guards, would be the contract services industry (and not the industry where the incident occurred). CFOI is currently in the process of expanding data collection to identify both the industry that directly employs the worker and the industry of the firm that is contracting for the worker.
- 8 Projections of employment growth are from the BLS employment projections program. Details are available at http://www.bls. gov/emp/.
- ⁹ The BLS Occupational Outlook Handbook is available at http:// www.bls.gov/oco/.
- 10 Changes to OSHA recordkeeping definitions were incorporated into the BLS Survey of Occupational Injuries and Illnesses starting in 2002. Changes to industry and occupation classification systems were incorporated in 2003 into the data for both fatal and nonfatal injuries. Since 2003, all data have used consistent definitions and classification systems.
- 11 Fatal work-injury rates in previous years were expressed as fatalities compared to number of workers, regardless of hours worked. New hours-based rates were introduced in 2009 and are now considered the official fatal injury rates. Details on the change in methodology for computing fatal work-injury rates may be found in Joyce Northwood, "Change to Hours-Based Fatality Rates in the Census of Fatal Occupational Injuries," Compensation and Working Conditions Online, January 25, 2010 (revised January 29, 2010), http://www.bls.gov/opub/ cwc/sh20100121ar01p1.htm.
- ¹² The fatal injury rate of 7.4 per 100,000 full-time equivalent workers is for the occupation grouping of security guards and gaming surveillance officers, which includes more than just the security guard occupation. Employment data are not available to construct a denominator to restrict the rate to just security guards.
- OSHA provides considerable detail on what injuries and illnesses must be recorded and how they are to be classified. Details on record-

keeping requirements are available at the OSHA website, http://www. osha.gov/recordkeeping/index.html.

- ¹⁴ Included in the data captured on workplace injury and illness cases that involve days away from work is the number of days the individual is away from work. These data are used to construct distributions of the number of days away from work as well as a median. In 2009, the median number of days away from work for all workers was 8 days, and the median for security guards was 7 days.
- 15 Employment data by occupation and race/ethnicity are from the BLS Current Population Survey. More information is available at the BLS website, http://www.bls.gov/cps/.
- ¹⁶ Information on the race and ethnicity of injured and ill workers is a voluntary data element and is not reported in many cases. Among security guards, 44 percent of cases did not provide information on race and ethnicity. The percentages of injured or ill workers by race and ethnicity shown in this article are based on those for which data were provided. No attempt was made to impute or adjust the data for missing values.
- ¹⁷ The BLS Occupational Injury and Illness Classification System identifies various characteristics of workplace safety and health cases. In this system, falls are defined as "events in which the injury was produced by impact between the injured person and the source of injury when the motion producing contact was generated by gravity." Falls are further categorized as those to a lower level (such as from a roof or scaffold) or those on the same level (such as to the floor). In a fall on the same level, the motion of the person was generated by gravity following the loss of equilibrium (the person was unable to maintain an upright position) and the point of contact with the source of injury was at the same level or above the surface supporting the person at the inception of the fall. The classification system was recently revised to provide even greater detail about falls, although the data presented here do not use the revised coding. Details about the classification system are available on the BLS website at http://www.bls.gov/iif/oshoiics.
- ¹⁸ While fatal work injuries often receive media attention, the CFOI program collects detailed information on these incidents from a variety of sources, some of which are provided to BLS in confidence. BLS presents only aggregate data and redacts any data that would identify individual cases.
 - ¹⁹ Data on median days away from work are for private industry only.
- 20 In about 13 percent of nonfatal assault cases, the time that the incident took place was not reported. Percentages presented in the article are based on those for which data were provided. No attempt was made to impute or adjust the data for missing values.
- ²¹ While a job may entail a variety of duties, classification within the Standard Occupational Classification system is based on certain principles. The principle regarding multiple work duties states that when workers can be classified in more than one occupation, they should be classified in the occupation that requires the higher skill level. When there is no perceptible difference in skill level, the worker should be classified in the occupation that describes their primary activity.