NCCI Holdings, Inc.

NCCI RESEARCH BRIEF

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Violence in the Workplace

The reality of workplace violence is markedly different from popular opinion. Workplace homicides "are not crimes of passion committed by disgruntled coworkers and spouses, but rather result from robberies."[1] The majority of workplace assaults are committed by healthcare patients. This report examines the many aspects of work-related homicides and injuries due to assaults, and extends a series of studies published by NCCI on workplace violence with three years of additional data through 2009.[2,3] For the most part, previously observed patterns and key findings are largely unchanged. The section immediately below describes the most notable highlights.

KEY FINDINGS

Work-related homicides and injuries due to workplace assaults[4] remain well below levels observed in the mid-1990s. This is consistent with the patterns of declines in rates of homicide and aggravated assaults reported for the country as a whole, although workplace homicides have declined more than the homicide rate generally, while workplace assaults have fallen in line with declines in aggravated assaults overall.

Homicides account for 11% of workplace fatalities. Nonfatal assaults by persons make up less than 2% of total nonfatal lost work-time (LWT) injuries and illnesses, but that share has been increasing.

Homicides due to robberies and similar criminal acts fell markedly over the late 1990s (but still make up 69% of all homicides), due largely to the decline in the homicide incidence rate for taxi drivers. The work-related homicide rates for these workers are now comparable to those for high-risk retail workers such as service station attendants and barbers.

In contrast, homicides committed by work associates (a Bureau of Labor Statistics [BLS] category made up of both coworkers and customers) have increased to about 21%. Interestingly, this reflects an increase in violent acts by customers to 9%. Despite the headlines, the share of workplace homicides due to coworkers has remained steady at about 12%, and the actual number of such homicides has been in the 50 to 60 range in recent years.

The decline in the rate of workplace assaults has lagged the steady decline in the rate for all lost work-time injuries and illnesses. This reflects a notable change in the composition of the US workforce and, in particular, the ongoing increase in the share of healthcare workers, who experience remarkably high rates of injuries due to assaults by patients. This is especially common in nursing homes and other long-term care facilities. In fact, 61% of all workplace assaults are committed by healthcare patients. For assaults, coworkers make up just 7%, and someone other than a healthcare patient or coworker comprises 23%. The remainder is unspecified.

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[1] Eric F. Signatur and Guy A. Toscano, "Work-Related Homicides: The Facts," *Compensation and Working Conditions*, Spring 2000, p. 3.

[2] The previous papers include:

Martin Wolf, "Violence in the Workplace—An Updated Analysis," NCCI Research Brief, Summer 2008.

Martin Wolf, "Violence in the Workplace—An Updated Analysis," NCCI Research Brief, September 2006.

Martin Wolf, "An Analysis of Violence in the Workplace," *The Journal of Workers Compensation*, Vol. 12, No. 3, Spring 2003, pp. 79–90.

Martin Wolf, Dan Corro, and Chun Shyong, "Workplace Violence and Its Implications for Workers Compensation: Frequency, Cost and Other Claim Characteristics," NCCI, November 1999.

[3] Subsequent to the completion of this analysis but before publication, preliminary data was released for 2010. While that data has not been analyzed in detail, it does seem to be in line with 2009.

[4] The technical term used by the Bureau of Labor Statistics is "assaults by persons"; in this paper, this typically is shortened to "assaults."

Based on NCCI data, injuries resulting from a crime are more severe than injuries resulting from other causes and more likely to involve a fatality. In contrast, severity for injuries resulting from being struck by a fellow worker or patient is below average.

Risk factors linked to an increased likelihood of workplace violence published by the National Institute for Occupational Safety and Health (NIOSH) in 1996 are still consistent with the types of occupations and industries at highest risk for workplace violence today.

Workplace assaults account for less than 2% of all injuries.

CONTENTS

Primarily using Bureau of Labor Statistics data,[5] this paper begins with a section that shows the decline in workplace violence rates overall. Two sections follow that provide a more detailed view of the various characteristics for workplace homicides and workplace assaults. The next section focuses on workplace violence claims and severity using workers compensation data from NCCI. The section that follows includes risk factors and prevention strategies for workplace violence from the National Institute for Occupational Safety and Health. The final section contains conclusions and future research.

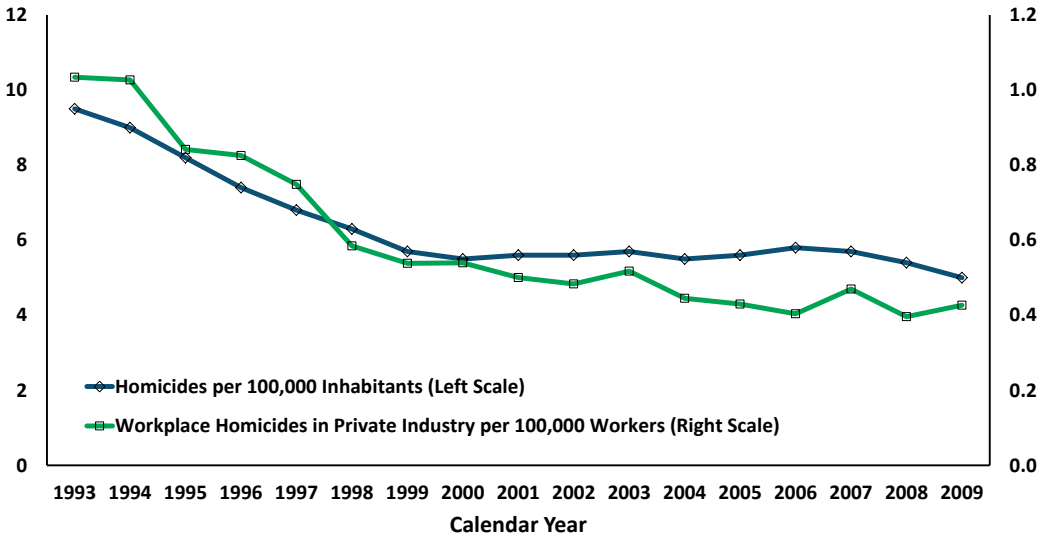
[5] When reporting BLS data, all categories (i.e., industry, occupation, assailant, etc.) are those used by the BLS.

A. Workplace Violence Rates Overall

The rates of workplace violence, in terms of both homicides and assaults, have been trending lower. Exhibit 1 shows that homicide rates both for the private sector workplace[6] and for the nation as a whole trended lower from 1993 to 2009, with the workplace rate falling more. From 1993 to 2009, the rate of workplace homicides fell 59% while the overall rate of homicides fell 47%. However, the decline has slowed for both since 2000. From 2000 to 2009, workplace homicide rates fell 21% while homicide rates overall fell only 9%.

Exhibit 1

The Decline In Both The Workplace and Overall Homicide Rates Has Slowed Since 2000



Source: U.S. Bureau of Labor Statistics, U.S. Department of Justice.

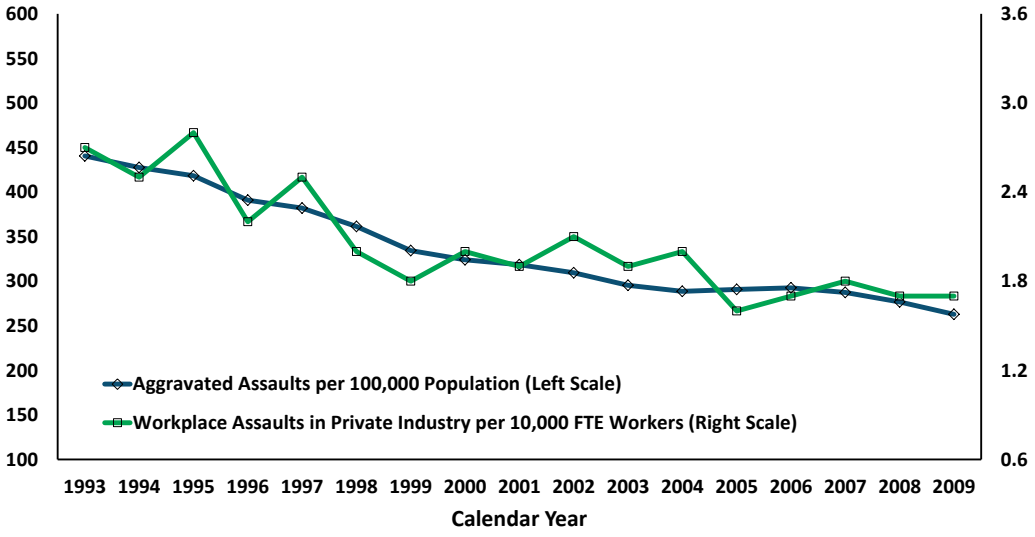
Exhibit 2 shows that both workplace assaults by persons[7] for the private industry and aggravated assaults nationwide have also trended lower. From 1993 to 2009, both measures declined by similar percentages (37% for workplace assaults and 40% for national aggravated assaults), but the workplace assault rate has been much more volatile than the national aggravated assault rate.

[6] The BLS adjusted the workplace homicide and fatality data to exclude deaths related to the September 11, 2001 terrorist attacks.

[7] Data from the BLS for workplace assaults is broken down to assaults by persons and assaults by animals. This paper focuses on assaults by persons. The data includes both criminal assaults and noncriminal acts by coworkers and other persons, especially patients.

Exhibit 2

Incident Rate for Workplace Assaults By Persons Has Trended Lower, Roughly In Line With the Decline in the National Rate



Source: U.S. Bureau of Labor Statistics, U.S. Department of Justice. FTE is Full-Time Equivalent

B. Workplace Homicides—Detailed View

KEY FINDINGS

Workplace homicides account for about 11% of fatalities in private industry. And that share has fallen since 1992.

The occupations with the highest homicide incidence rates, primarily due to robberies, in 2009 were service station attendants, barbers, taxi drivers, security guards, and lodging managers. The homicide incident rate for taxi drivers and chauffeurs has fallen by more than 50%, from 16.4 per 100,000 private sector workers in 2003 to 6.8 in 2009.

Given the occupations at highest risk for homicides, it is not surprising that the industries with the highest homicide rates are retail trade; leisure and hospitality; transportation, warehousing, and utilities; and other services.

In terms of cause, the highest share of workplace homicides is still due to the category robbers and other perpetrators, but that share has fallen from 85% to 69% from 1997 to 2009. Over that same time period, the share due to work associates has grown from 9% to 21%. The share of homicides due to work associates consists of the share due to coworkers, which has remained steady, and the share due to customers, which has increased. Increases in the share of homicides by customers have occurred at drinking places and as a result of apprehending customers and breaking up fights.

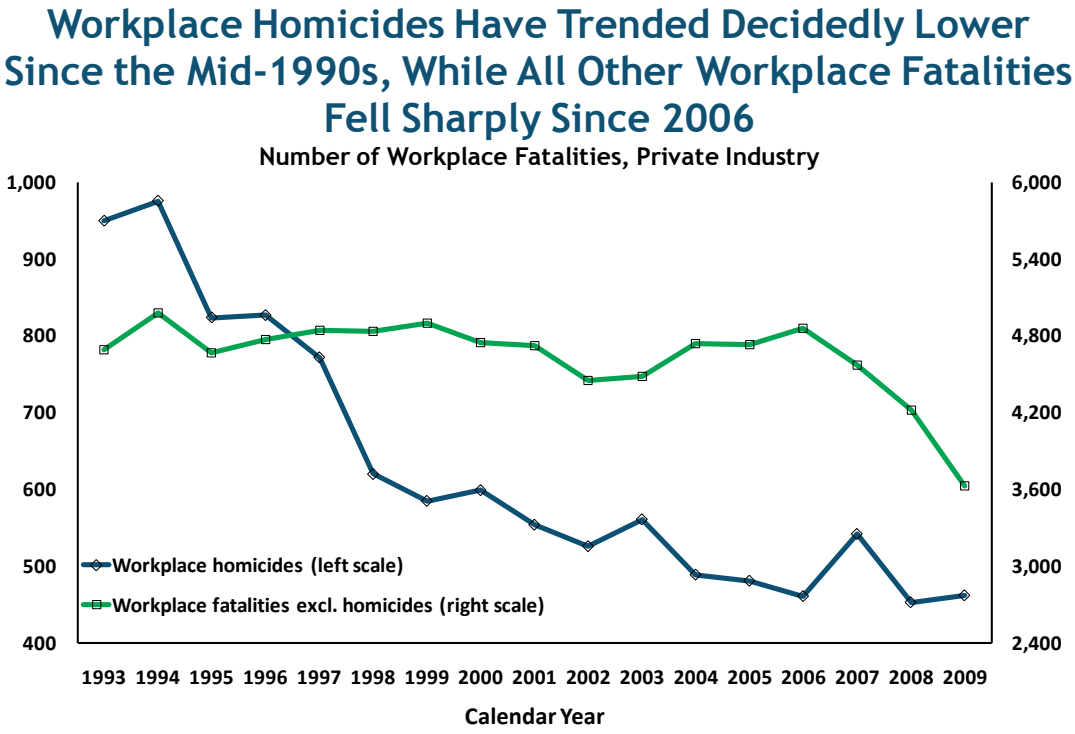
Men and older workers have a disproportionately high share of workplace homicides since they are more likely to be employed in the occupations at highest risk of homicides.

Although not the focus of this paper, it was observed that non-assault-related workplace fatalities dropped precipitously from 2007 to 2009, most likely reflecting the impact of the recession.

The Homicide Share of Total Workplace Fatalities has Fallen

Exhibit 3 shows that the number of homicides has trended decidedly lower since the mid-1990s, falling by over half, from 950 in 1993 to 462 in 2009. Over this same time period, all other workplace fatalities have also fallen, from 4,693 to 3,628, or by just over a fifth.[8] However, virtually this entire decline occurred during the most recent recession from 2007 to 2009 with all non-assault-related categories showing large declines during those years.

Exhibit 3



Source: U.S. Bureau of Labor Statistics

As seen in Exhibit 4, homicides account for 11% of total fatalities in private industry and ranks fourth behind transportation incidents,[9] contact with objects and equipment, and falls. Since the number of homicides has fallen by more than the number of all other fatalities, the share of homicides has also fallen. With two notable exceptions, the pattern in Exhibit 4 was relatively stable over the last two decades. As seen in Exhibit 5, the homicide share of all workplace fatalities fell from a 17% share in 1992 to a low of 9% in 2006, before increasing to 11% in 2009. This was offset by an increase in the share of falls. The shares of all other categories have remained fairly steady.[10]

[8] The BLS adjusted the workplace homicide and fatality data to exclude deaths related to the September 11, 2001 terrorist attacks.

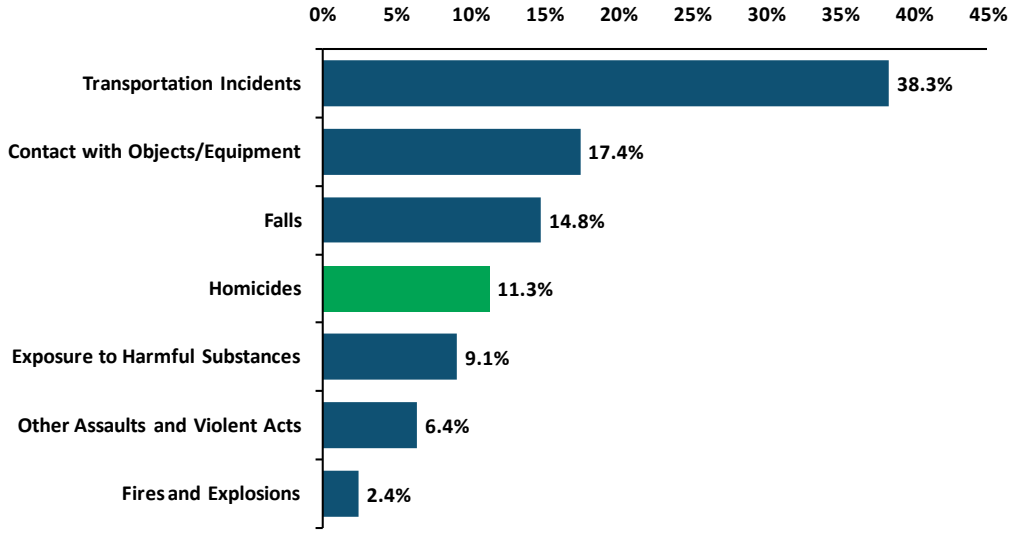
[9] Traffic accidents are a leading cause of the most severe workers compensation claims. See the NCCI study "Traffic Accidents—A Growing Contributor to Workers Compensation Losses," published in December 2006 on **ncci.com**.

[10] Other assaults and violent acts in Exhibits 4 and 5 include assaults by animals, self-inflicted violent injury, and unspecified assaults. Two categories with very small numbers are excluded from the graphs. They are bodily reaction, and exertion, and other events and exposures.

Exhibit 4

Homicides Account for 11% of Total Fatalities in the Private Industry

Percent of Fatal Occupational Injuries, 2009

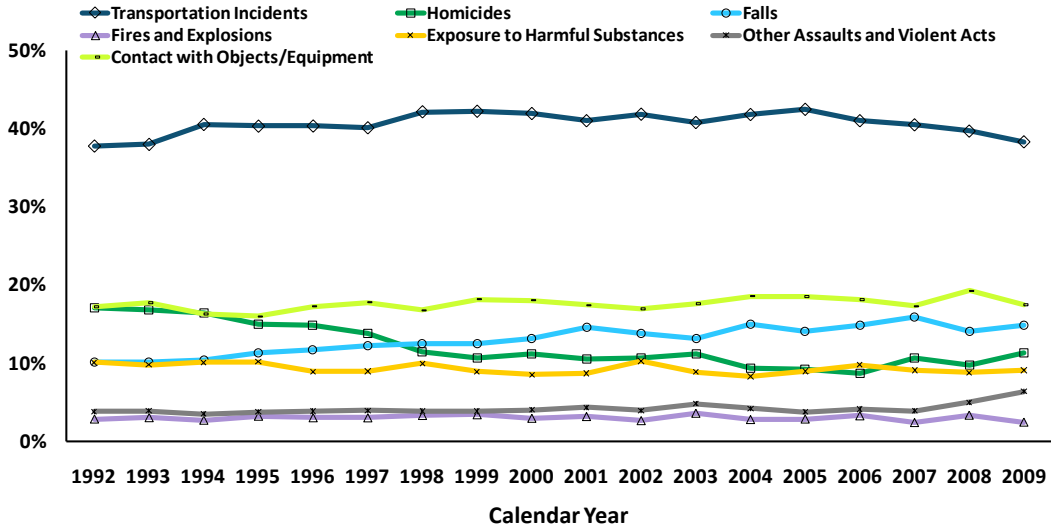


Source: U.S. Bureau of Labor Statistics. Other assaults and violent acts include assaults by animals, self-inflicted violent injury, and unspecified assaults.

Exhibit 5

The Share of Homicides has Fallen

Private Industry



Source: U.S. Bureau of Labor Statistics. Other assaults and violent acts include assaults by animals, self-inflicted violent injury, and unspecified assaults.

Homicide Rates by Occupation—Taxi Drivers Safer

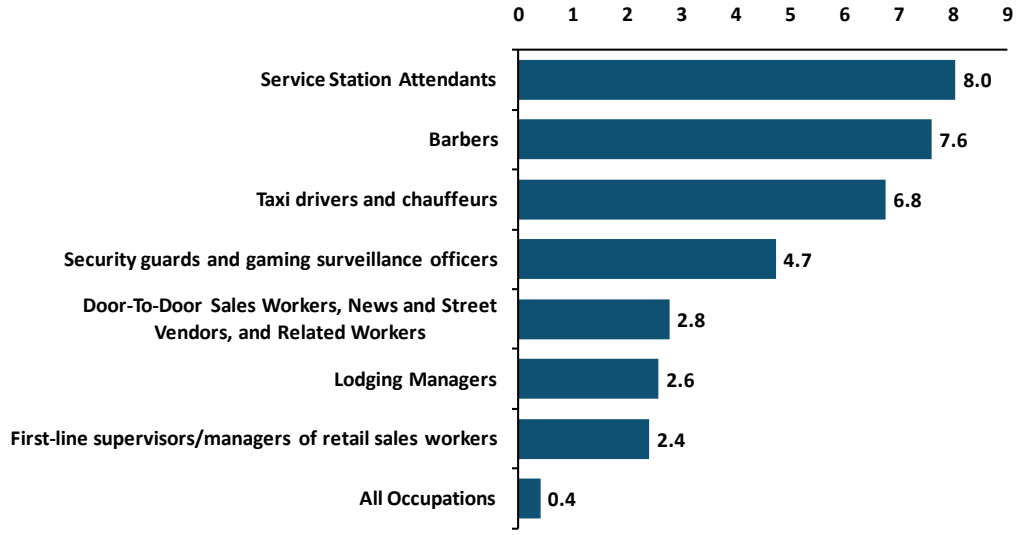
Exhibit 6 shows that homicide rates[11] are especially high for service station attendants and barbers. Taxi drivers and chauffeurs previously held the highest rate, but declined to third in 2009. The homicide rate for taxi drivers and chauffeurs has declined significantly, falling from 16.4 in 2003 to 6.8 in 2009 (Exhibit 7).[12] The rate for service station attendants increased in 2009 to 8.0 after holding steady at about 5 since 2003. Barbers have held steady in the 7 to 8 range since 2005, primarily due to robberies. Overall, the homicide rate for all occupations was 0.4 homicides per 100,000 private sector workers in 2009.

In addition to service station attendants, barbers, and taxi drivers and chauffeurs, other occupations with high homicide incidence rates include security guards, door-to-door sales workers and street vendors, lodging managers, and supervisors of retail sales workers.

Exhibit 6

Homicide Rates Are Especially High for Service Station Attendants, Barbers, and Taxi Drivers

Homicides per 100,000 Private-Sector Workers*, 2009



Source: U.S. Bureau of Labor Statistics and NCCI *Includes Self-Employed Persons

[11] Homicide incidence rates by occupation are calculated by NCCI and defined as the number of homicides divided by private and self-employed employment by occupation.

[12] When data is missing for certain years and occupations in Exhibit 7, it means the data did not meet BLS publication standards. This can occur when there are small numbers, and at this level of detail, the number of homicides can be small. For example, the incidence rates for service station attendants and barbers in 2009 are based on seven homicides in each occupation.

Exhibit 7

Homicide Rates Are Still High for Taxi Drivers But the Incidence Rate has Declined Significantly

Source: U.S. Bureau of Labor Statistics and NCCI *Includes Self-Employed Persons

Homicide Rates by Industry—Retail Trade; Transportation, Warehousing, and Utilities; and Leisure & Hospitality Have the Most Homicides per Worker

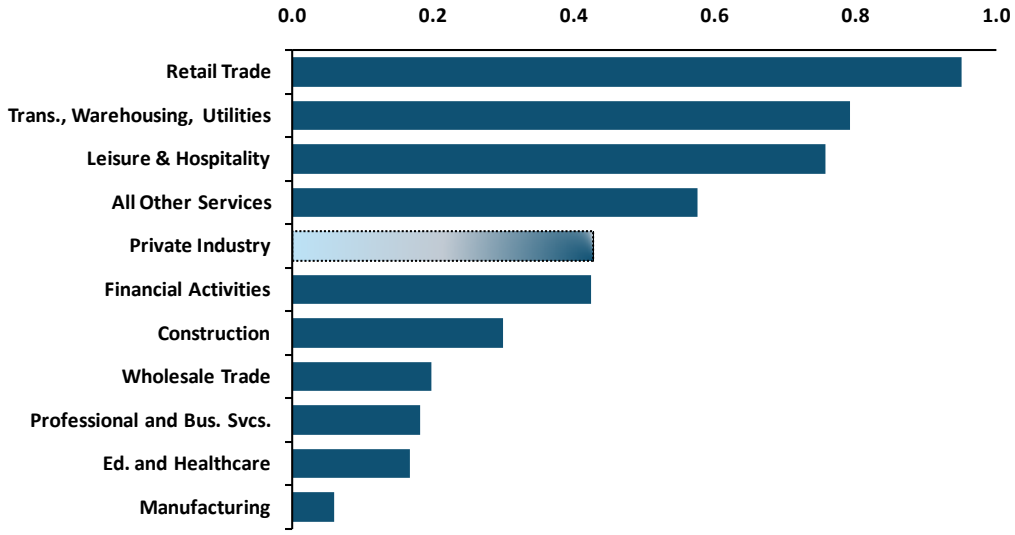
Exhibit 8 shows that the homicide incidence rate for the total private industry in 2009 is 0.43 per 100,000 workers.[13] The rate for 1) retail trade is more than double that at 0.95; other industries with significantly above-average rates are 2) transportation, warehousing, and utilities, and 3) leisure and hospitality. Since 2003, these three industries have been the top three in terms of the highest homicide incidence rates, but the order has changed. Retail trade has had the highest homicide incidence rate for four of the years since 2003, while transportation, warehousing, and utilities has had the highest for three of the years (Exhibit 9).

[13] Homicide incidence rates by industry are calculated by NCCI and defined as the number of homicides divided by private employment by industry. Unlike the occupation incidence rates, the industry incidence rates do not include the self-employed in the denominator since the data is not available, although both calculations include the self-employed in the numerator.

Exhibit 8

Homicide Incidence Rates Are Highest in the Retail Trade, Transportation, and Leisure & Hospitality Industries

Homicides per 100,000 Workers, 2009

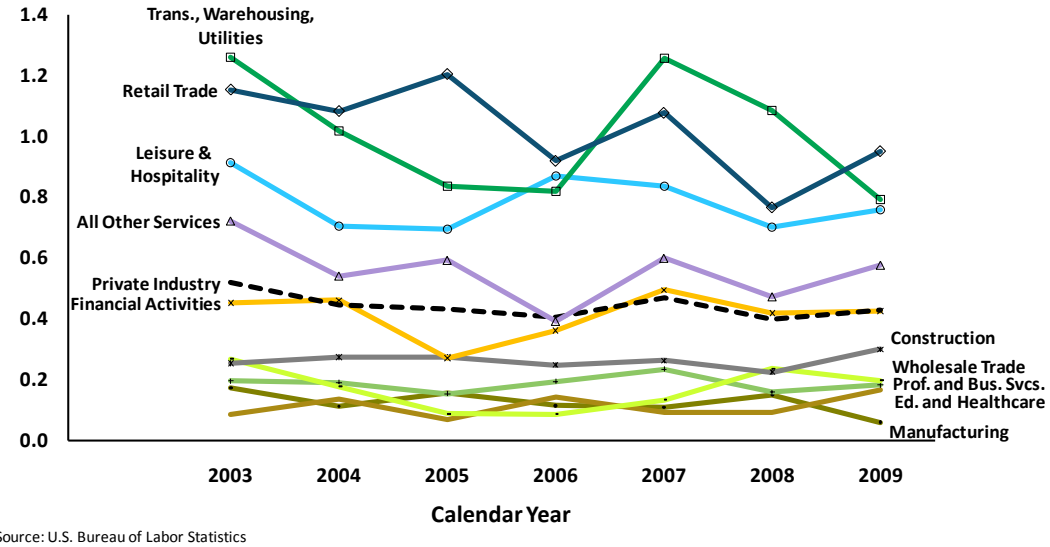


Source: U.S. Bureau of Labor Statistics

Exhibit 9

Homicide Incidence Rates Are Highest in the Retail Trade, Transportation, and Leisure & Hospitality Industries

Homicides per 100,000 Workers



Source: U.S. Bureau of Labor Statistics

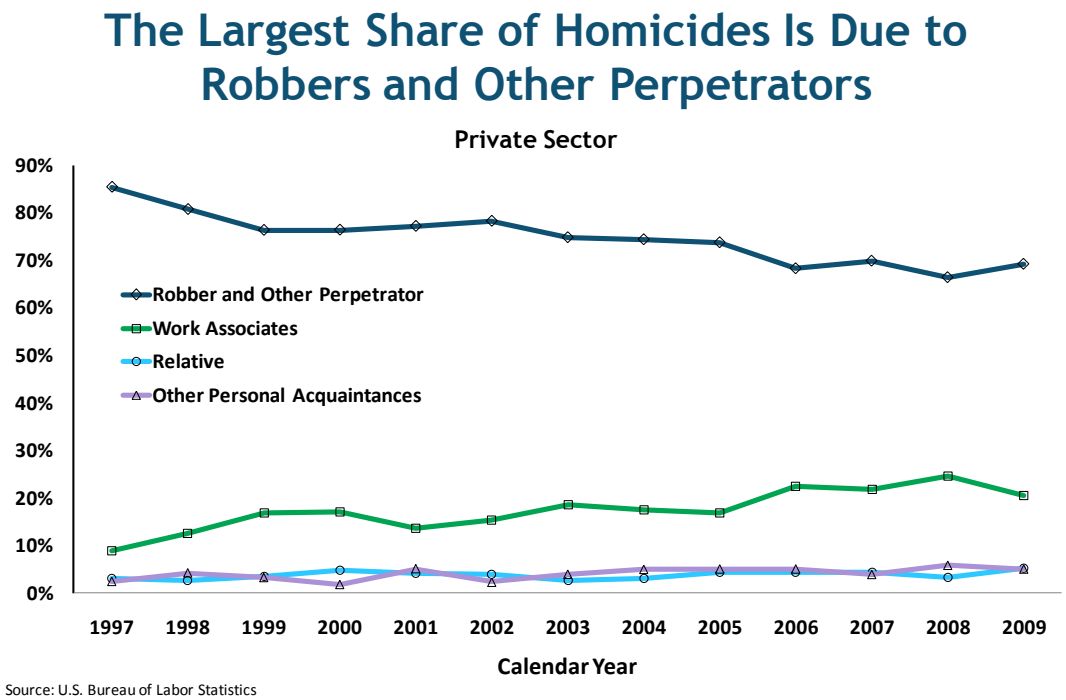
Robberies Are the Leading Cause of Workplace Homicides

Exhibit 10 contains the share of homicides by the source of the homicide. As stated in the Spring 2000 issue of *Compensation and Working Conditions*, "contrary to popular belief, the majority of these incidents are not crimes of passion committed by disgruntled coworkers and spouses, but rather result from robberies."[14] That is still the case, although the share of homicides involving robbers and other perpetrators has come down from 85% to 69% from 1997 to 2009, while those involving work associates have more than doubled from 9% to 21%.

The category work associates includes both coworkers and customers; the shares of each can be seen in Exhibit 11. While workplace homicides by coworkers make headlines, from 2003 to 2009 the share of homicides by coworkers has seen little change, bouncing between 10% to 14%, while the share due to interactions with customers increased from 5% to 12% and then fell back to 9%. Increases in the share of homicides by customers have occurred at drinking places and as a result of apprehending customers and breaking up fights. The shares of homicides committed by relatives and other personal acquaintances are both small, at about 5%, and have held steady over time.

The share of homicides by shooting is by far the largest category and has held steady over time at near 80%. Stabbings was second at 10%, while hitting, kicking, and beating, and assaults, and violent acts by persons–not elsewhere classified each made up about 5%.

Exhibit 10

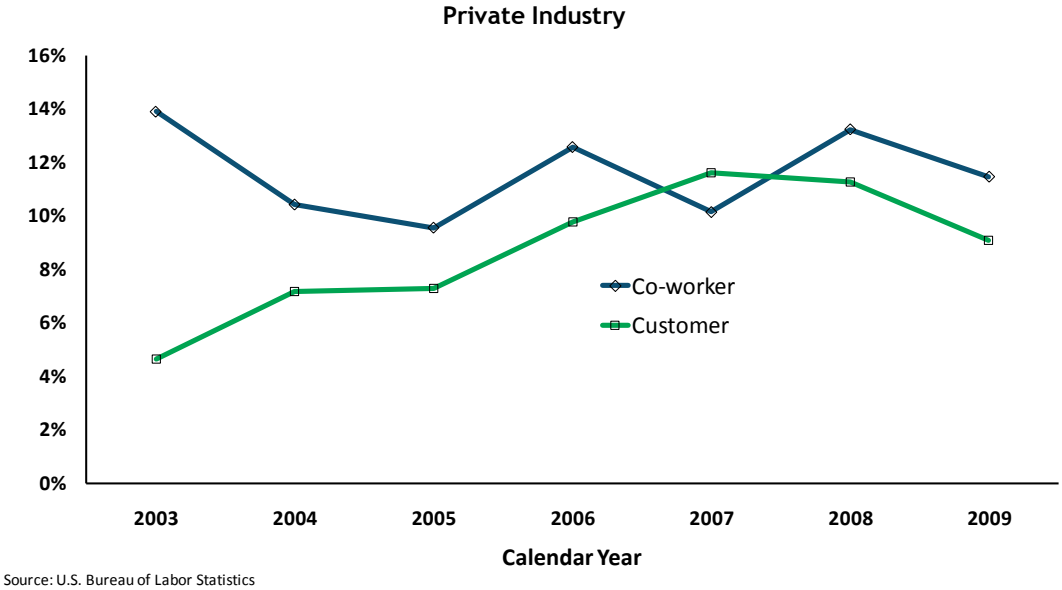


Source: U.S. Bureau of Labor Statistics

[14] Eric F. Signatur and Guy A. Toscano, "Work-Related Homicides: The Facts," *Compensation and Working Conditions*, Spring 2000, p. 3.

Exhibit 11

The Share of Homicides Due to Customers Has Grown While the Share Due to Co-workers Has Held Steady



Source: U.S. Bureau of Labor Statistics

Men and Older Workers Have Disproportionately Higher Shares of Workplace Homicides

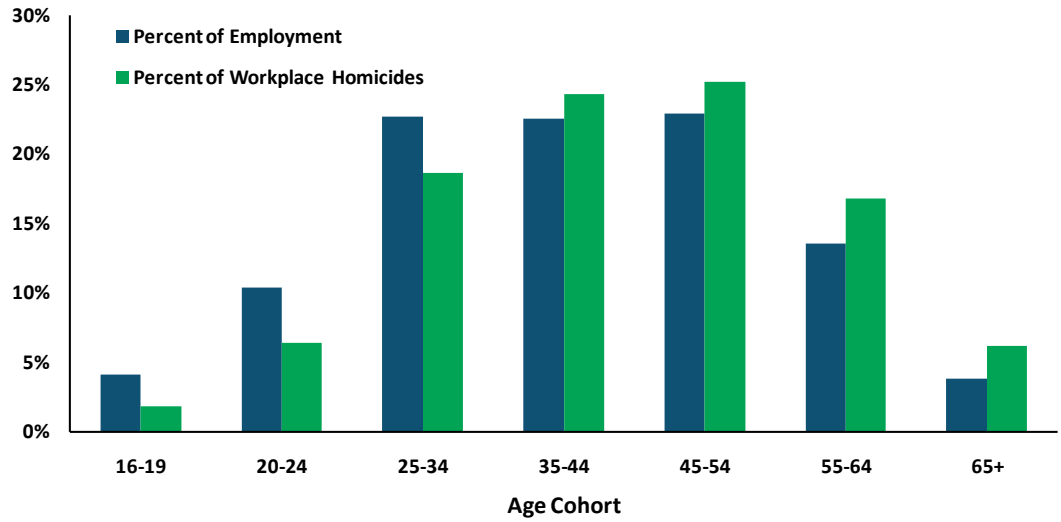
Exhibit 12 shows that relative to their share of employment, older workers have a disproportionately high share of workplace homicides due to their higher share of employment in occupations with high homicide rates. For example, workers 55 and over made up 19% of total employment in 2009, but 32% of barbers, 32% of taxi drivers, and 23% of security guards. However, they made up only 9% of service station attendants.

For the same reason, men make up a higher share of homicide victims than women. Men accounted for 85% of workplace homicides, far higher than their 53% share of employment in 2009. In general, men are more likely to be employed in the occupations that have the highest homicide rates. For example, men account for 87% of service station attendants, 81% of barbers, 85% of taxi drivers, and 78% of security guards.

Exhibit 12

Older Workers Have a Disproportionately High Share of Workplace Homicides

Private Sector, 2009 (Preliminary Data)



Source: U.S. Bureau of Labor Statistics

C. Workplace Assaults—Detailed View

KEY FINDINGS

Assaults account for fewer than 2% of total workplace injuries, although the share has increased. Service occupations experience the largest share of workplace assaults, with increases in healthcare support services and personal care services.

Workplace assaults primarily occur in the female-intensive healthcare industry.

While the incidence rate for assaults at nursing care facilities is high, there are other industries within the healthcare and social services industry with even higher incidence rates. These include psychiatric and substance abuse hospitals, mental health and substance abuse facilities, and other residential care facilities including things such as group homes for children and youth.

Other industry subcategories that have assault incidence rates that are above the average for private industry include cattle ranching, gasoline stations and convenience stores, elementary and secondary schools, urban transit systems, taxi service, bus transportation, facilities support services (includes correctional facilities), security guards, and spectator sports.

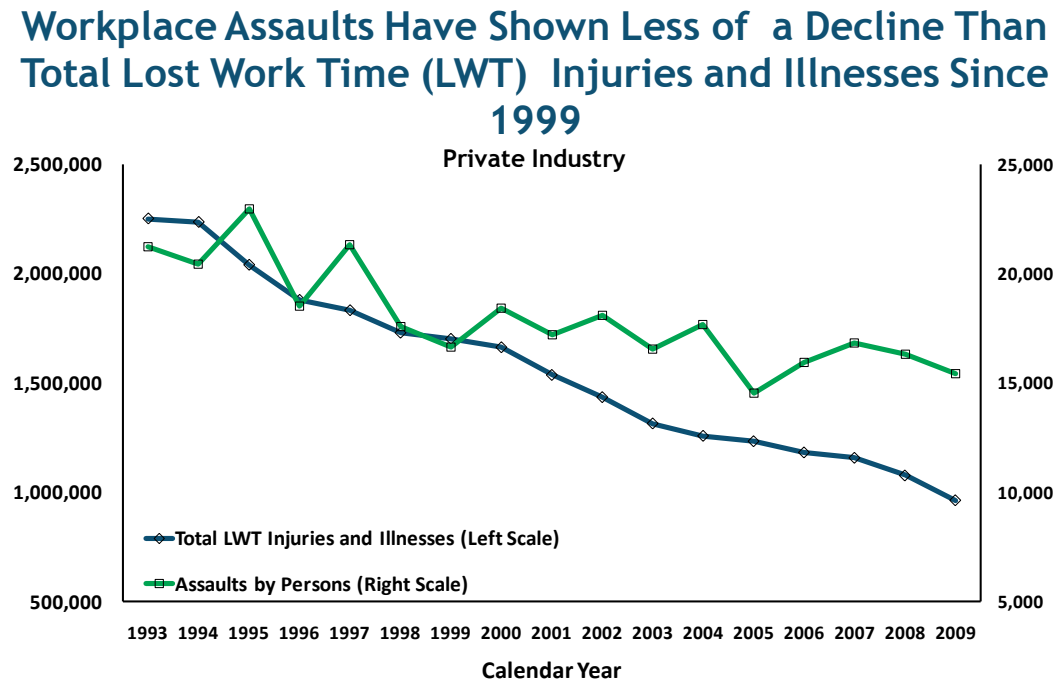
The largest share of workplace assaults are by healthcare patients or residents of a healthcare facility (61%). Coworkers make up only 7%, and someone other than healthcare patients or coworkers make up 23%. The remainder is unspecified.

Relative to their share of employment, younger workers (ages 20 to 34) have a higher share of workplace assaults.

Assaults by Persons Make Up a Very Small but Increasing Share of Workplace Injuries

Since 1993, total lost work-time injuries have declined by 57%, significantly more than the decline in injuries due to assaults by persons of 27% (Exhibit 13). The departure began in 1999. From 1993 to 1999, both declined by just over 20%. However, from 1999 to 2009, total lost work-time injuries fell by 43%, while assaults by persons declined by only 7%. As a result, the share of assaults has increased from 0.9% to 1.6% from 1993 to 2009 (Exhibit 14). Both healthcare support occupations and personal care and service occupations such as personal and home care aides have contributed to this increase. For industries, the relative contribution of the nursing and residential care facilities industry has increased. However, assaults still make up a very small share of workplace injuries.

Exhibit 13

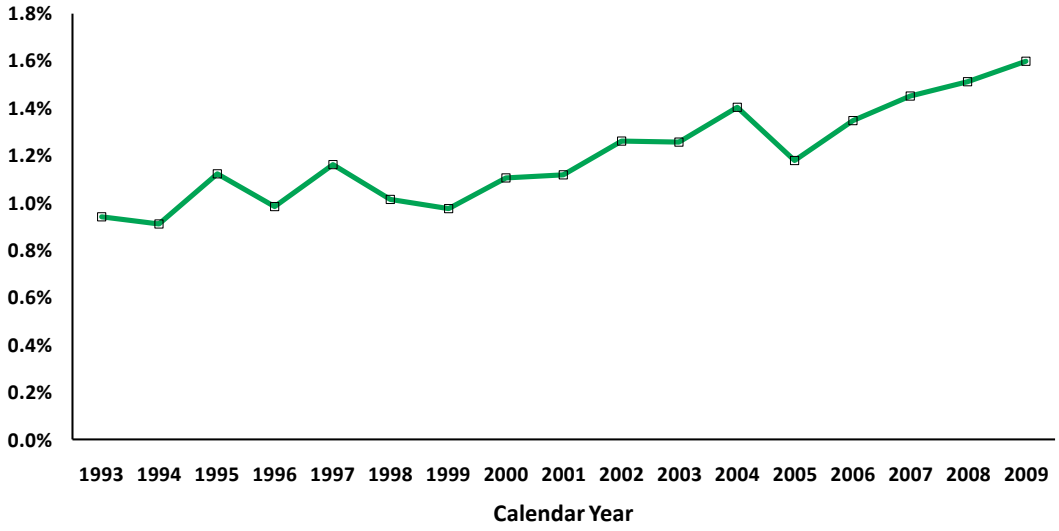


Source: U.S. Bureau of Labor Statistics

Exhibit 14

The Share of Assaults by Persons Is Small but Has Been Increasing

Ratio of Assaults by Persons to LWT Injuries and Illnesses, Private Industry



Source: U.S. Bureau of Labor Statistics

Most Assaults Occur in Female-Dominated Occupations and Industries

Exhibits 15 and 16 report on the share of workplace assaults by major occupation (Exhibit 15) and by major industry division (Exhibit 16). For each occupation and industry, the charts show the share of assaults by gender. The largest shares of workplace assaults are in female-intensive occupations including healthcare and personal care.

Exhibit 16 shows that workplace assaults primarily occur in the female-intensive health services industry. Within the healthcare sector, most assaults occur in nursing and residential care (Exhibit 17). This industry subsector is composed of nursing care facilities; residential intellectual disability,[15] mental health, and substance abuse facilities; community care facilities for the elderly; and other residential care facilities.[16]

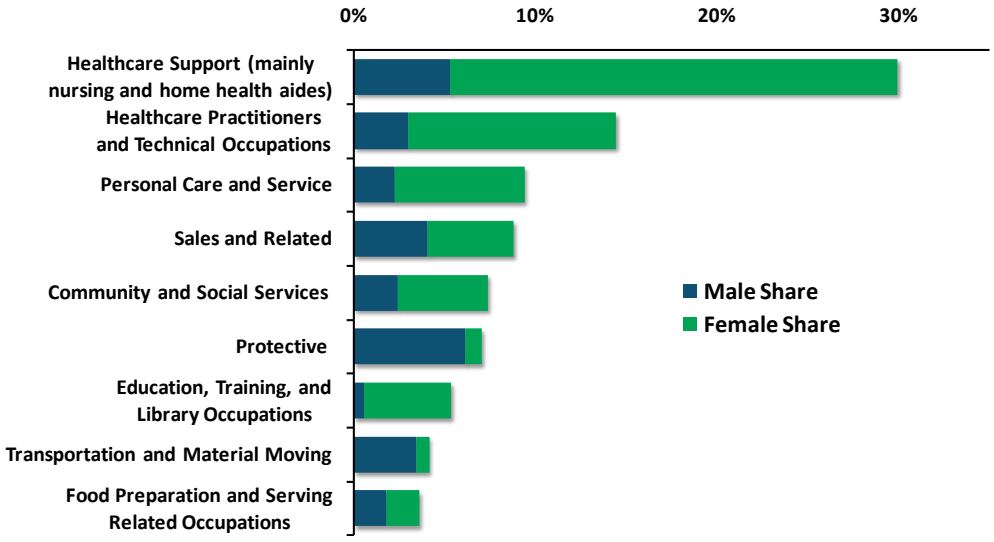
[15] A term in this document has been updated in accordance with Rosa's Law (2010), which replaced "mental retardation" with "intellectual disability" in federal usage.

[16] These are industry categories used by the BLS and based on the North American Industry Classification System (NAICS).

Exhibit 15

Health/Personal Care/Social Service Occupations (Which are Female Intensive) Contribute the Largest Share of Workplace Assaults

Percent of LWT Assaults by Persons by Major Occupation
Private Industry, 2009

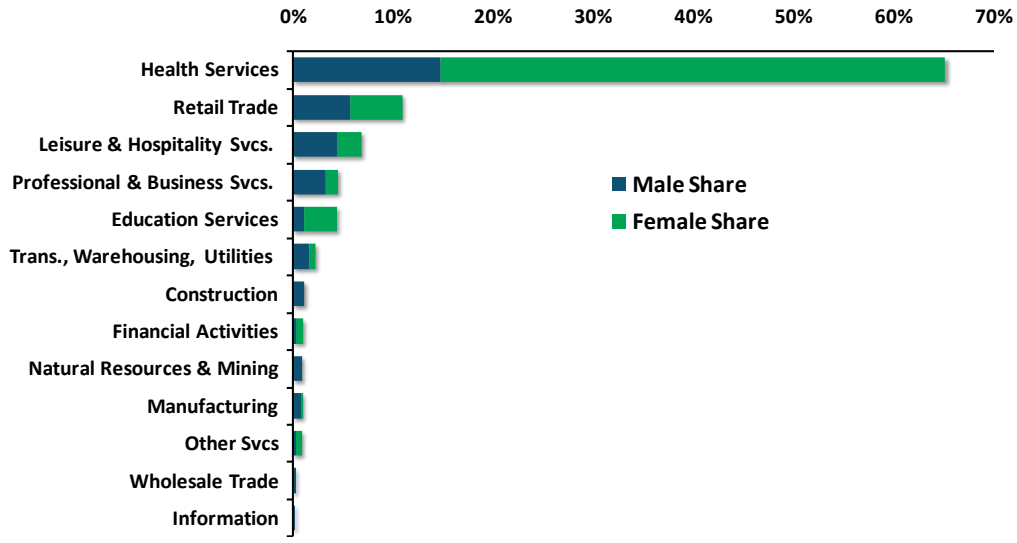


Source: U.S. Bureau of Labor Statistics

Exhibit 16

Most Workplace Assaults Occur in the Female-Intensive Health Services Industry

Percent of LWT Assaults by Persons by Major Industry Division
Private Industry, 2009

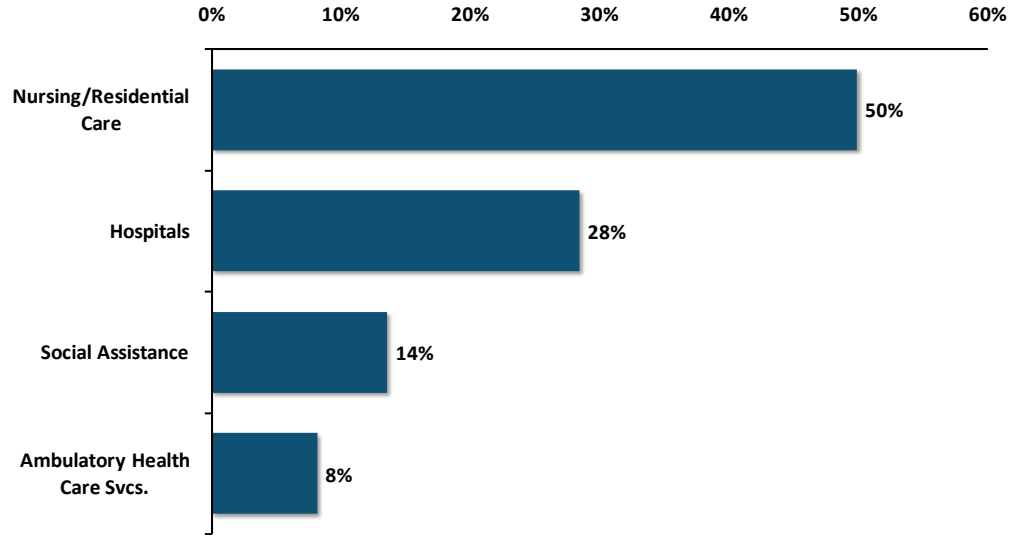


Source: U.S. Bureau of Labor Statistics

Exhibit 17

Within the Healthcare Sector, Most Assaults Occur in Nursing-Related Facilities

Share of Healthcare-related LWT Assaults by Persons, 2009



Source: U.S. Bureau of Labor Statistics

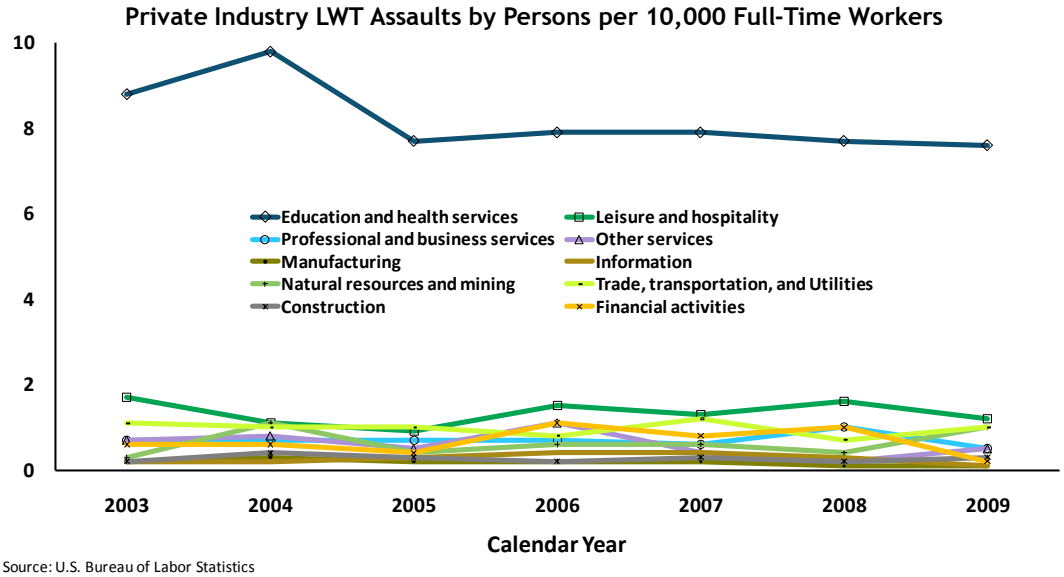
The Health Services Industry has the Highest Incidence Rates of Assaults by Persons

Exhibit 18 contains incidence rates of lost work-time assaults by person for the major industry sectors over time. Incidence rates for assaults by persons for the education and health services industry are more than six times greater than for the next highest industry, leisure and hospitality. The assault by person incidence rate for education and health services has held steady at just under 8 per 10,000 full-time workers since 2005. The rates for all other major industry sectors are less than 2 per 10,000 full-time workers.

Separating education and health services into its two major subcategories shows that both “health services and social assistance” and “educational services” have incidence rates that are above the private industry average of 1.7 (Exhibit 19). In 2009, the rate for health services and social assistance was more than four times the average, while the rate for educational services was more than double the average.

Exhibit 18

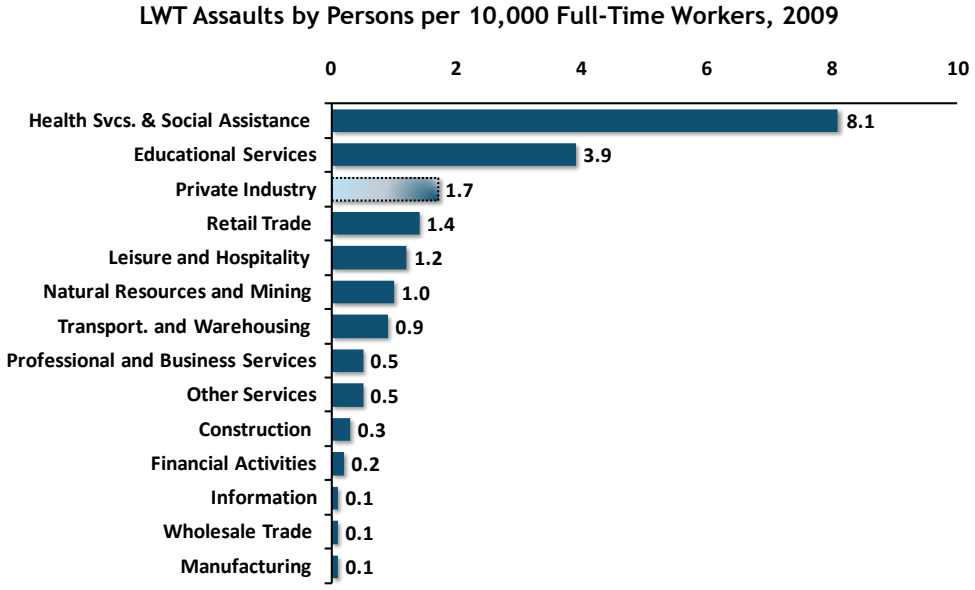
The Education and Health Services Industry Has the Highest Incidence Rate of Assaults by Persons



Source: U.S. Bureau of Labor Statistics

Exhibit 19

Assault-Related Incidence Rates Are Highest for Health Services and Social Assistance



Source: U.S. Bureau of Labor Statistics

Most subcategories within healthcare and social assistance have above-average incidence rates for assaults by persons. This can be seen in Exhibit 20,[17] which contains the detailed industry categories. The numbers at the beginning of each row indicate the level of detail for that industry category. Observations with significantly above-average incidence rates are highlighted.

Industries with the highest incidence rates are psychiatric and substance abuse hospitals with 75.0 assaults per 10,000 workers in 2009, other residential care facilities (including things such as group homes for children and youth) with 44.2, and residential intellectual disability,[18] mental health and substance abuse facilities with 38.5. Nursing care facilities and community care facilities for the elderly also have incidence rates for assaults by persons that are quite high at 15.7 and 13.1, respectively. These industries have consistently been above average.

In addition to healthcare and social assistance, other industry categories also exhibited above-average assault incidence rates. Significantly high observations are highlighted in Exhibit 21 at industries including cattle ranching, convenience stores, gasoline stations, elementary and secondary schools, urban transit systems including taxi service and bus transportation, facilities support services (includes correctional facilities), investigation and security services such as armored car services and security guards, and spectator sports.

[17] The numbers at the beginning of each row indicate the level of detail for that industry category.

[18] A term in this document has been updated in accordance with Rosa's Law (2010), which replaced "mental retardation" with "intellectual disability" in federal usage.

Exhibit 20

Incidence Rates for LWT Assaults by Persons per 10,000 Full-Time Workers for Subcategories Within Healthcare and Social Assistance

Industry	2003	2004	2005	2006	2007	2008	2009
Private Industry, Total	1.9	2.0	1.6	1.7	1.8	1.7	1.7
Healthcare and social assistance group:							
[1]Healthcare and Social Assistance	9.0	10.7	8.4	8.3	8.3	8.2	8.1
[2]Ambulatory health care services	1.8	2.0	1.8	1.8	1.5	2.4	1.8
[3]Offices of physicians	0.7	0.5	0.5	0.8	0.3	0.6	0.7
[4]Offices of physicians	N/A	N/A	N/A	0.8	0.3	0.6	0.7
[5]Offices of physicians, mental health specialists	N/A	N/A	N/A	9.0	—	—	12.1
[3]Offices of dentists	—	N/A	—	—	—	N/A	—
[3]Offices of other health practitioners	N/A	—	—	2.9	—	N/A	3.1
[3]Outpatient care centers	N/A	6.8	9.5	3.1	6.7	4.7	4.6
[3]Medical and diagnostic laboratories	—	—	—	1.3	—	—	—
[3]Home health care services	3.0	6.4	3.7	3.8	2.3	3.5	3.3
[3]Other ambulatory health care services	8.1	4.0	2.3	5.2	7.7	2.2	4.4
[4]Ambulance services	N/A	N/A	N/A	7.0	1.9	3.7	6.4
[2]Hospitals	8.3	9.4	7.7	8.2	7.5	7.8	7.7
[3]General medical and surgical hospitals	N/A	N/A	N/A	6.5	6.4	6.5	6.2
[3]Psychiatric and substance abuse hospitals	N/A	N/A	N/A	82.8	59.3	69.6	75.0
[3]Specialty (except psychiatric and substance abuse) hospitals	N/A	N/A	N/A	6.8	4.4	5.9	6.8
[2]Nursing and residential care	22.0	30.1	20.1	20.9	22.0	20.4	20.9
[3]Nursing care facilities	N/A	N/A	N/A	15.2	15.6	13.0	15.7
[3]Residential intellectual disability,[19] mental health and substance abuse facilities	N/A	N/A	N/A	34.5	47.2	45.6	38.5
[3]Community care facilities for the elderly	N/A	N/A	N/A	10.0	9.0	6.9	13.1
[3]Other residential care facilities	N/A	N/A	N/A	69.8	46.4	59.0	44.2
[2]Social assistance	9.7	7.3	9.7	8.0	8.8	7.1	7.6
[3]Individual and family services	N/A	N/A	N/A	12.2	11.3	8.5	11.0
[3]Community food and housing, and emergency and other relief services	N/A	N/A	N/A	7.0	8.4	4.2	5.3
[3]Vocational rehabilitation services	N/A	N/A	N/A	10.8	13.7	19.7	9.7
[3]Child day care services	N/A	N/A	N/A	1.8	3.8	—	2.5

"N/A" means no such category; "—" means data does not meet BLS publication standards.

[19]A term in this document has been updated in accordance with Rosa's Law (2010), which replaced "mental retardation" with "intellectual disability" in federal usage.

Exhibit 21

Incidence Rates for LWT Assaults by Persons per 10,000 Full-Time Workers for Selected Industry Subcategories

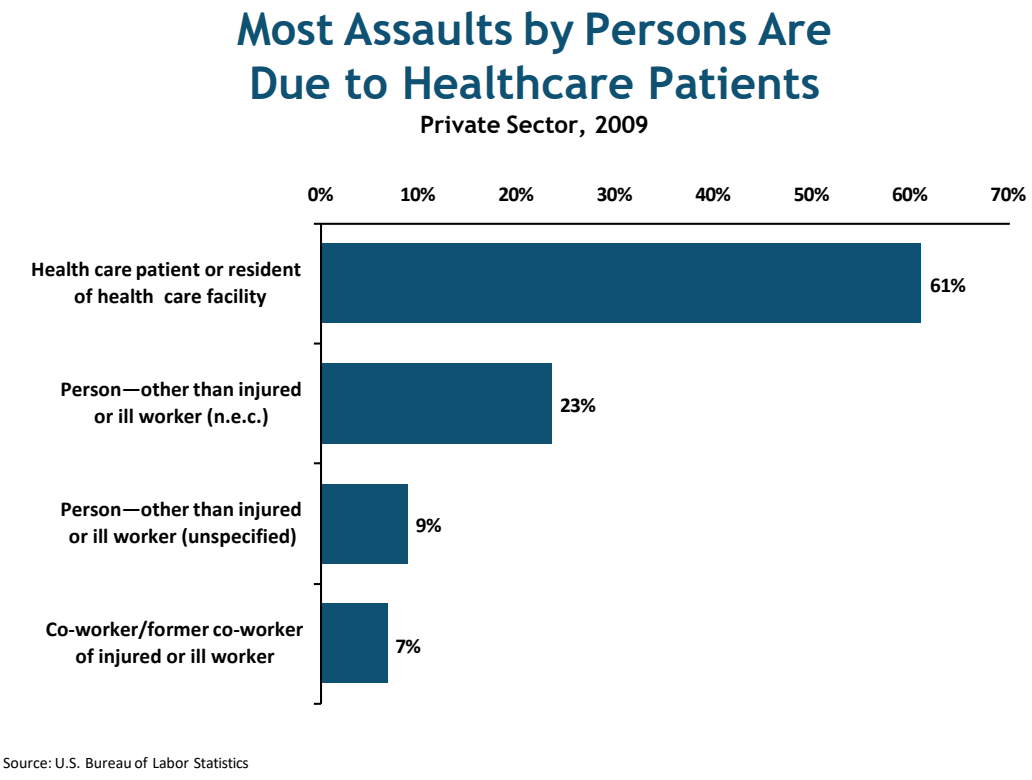
Industry	2003	2004	2005	2006	2007	2008	2009
Private Industry, Total	1.9	2.0	1.6	1.7	1.8	1.7	1.7
Other high incidence rate groups:							
[1]Agriculture, forestry, fishing and hunting	0.6	1.6	0.7	1.1	1.1	0.7	1.8
[2]Animal production	—	—	2.4	2.4	4.1	2.1	4.8
[3]Cattle ranching and farming	—	—	—	4.1	5.1	1.7	5.5
[4]Dairy cattle and milk production	—	—	—	5.6	6.7	—	6.8
[2]Support activities for agriculture and forestry	—	3.2	—	1.5	—	0.9	2.1
[3]Support activities for animal production	—	20.0	—	13.3	—	8.0	16.2
[1]Retail trade	1.5	1.2	1.2	0.8	1.7	0.8	1.4
[2]Food and beverage stores	2.1	1.2	1.8	1.4	2.9	1.1	4.1
[3]Grocery stores	2.4	1.4	2.0	1.6	3.3	1.2	4.6
[4]Convenience Stores	—	N/A	N/A	10.3	20.2	—	N/A
[2]Gasoline stations	5.2	3.5	4.1	2.3	5.3	2.4	3.6
[3]Gasoline stations	5.2	3.5	4.1	2.3	5.3	2.4	3.6
[4]Gasoline stations with convenience stores	6.2	4.0	4.1	2.7	6.0	2.8	4.0
[2]Clothing and clothing accessories stores	1.1	0.5	0.6	0.3	4.5	1.4	1.1
[3]Clothing stores	0.6	0.7	0.7	0.4	4.9	1.9	1.5
[4]Children's and infants' clothing stores	—	N/A	N/A	N/A	—	—	18.9
[1]Educational services	7.7	3.0	2.2	4.9	4.9	3.7	3.9
[2]Educational services	7.7	3.0	2.2	4.9	4.9	3.7	3.9
[3]Elementary and secondary schools	23.0	8.7	6.4	14.8	14.1	11.3	10.7
[3]Technical and trade schools	—	—	—	—	3.2	—	5.6
[1]Transportation and warehousing	1.5	1.5	1.0	1.1	1.2	1.1	0.9
[2]Transit and ground passenger transportation	9.6	9.0	4.2	7.0	6.4	5.0	7.2
[3]Urban transit systems	36.1	43.1	14.0	16.1	21.4	6.8	24.7
[3]Taxi and limousine service	6.8	—	4.0	12.8	5.2	4.9	5.0
[4]Taxi service	14.0	—	6.3	27.8	8.4	10.2	8.5
[3]School and employee bus transportation	5.4	—	1.4	3.9	3.9	5.8	5.5
[3]Charter bus industry	—	—	—	—	—	—	5.8
[1]Administrative and support and waste management and remediation services	1.5	1.0	1.5	1.3	1.3	2.5	1.3
[2]Administrative and support services	1.7	1.1	1.5	1.4	1.4	2.7	1.4
[3]Facilities support services	N/A	N/A	12.3	9.3	8.6	14.1	11.1
[3]Investigation and security services	4.4	5.3	6.4	4.3	6.3	13.5	4.9
[4]Investigation, guard, and armored car services	N/A	N/A	N/A	5.1	7.4	16.0	5.7
[5]Security guards and patrol services	N/A	N/A	N/A	5.6	7.8	18.3	6.3
[1]Arts, entertainment, and recreation	1.5	1.8	0.7	1.5	1.2	1.3	1.2
[2]Performing arts, spectator sports, and related industries	3.5	0.7	—	1.1	1.2	1.6	2.5
[3]Spectator sports	7.4	—	N/A	2.0	—	3.1	6.9

"N/A" means no such category; "—" means data does not meet BLS publication standards.

Workplace Assaults Are Primarily Due to Healthcare Patients

It is not surprising that most workplace assaults are at the hands of a healthcare patient or resident of a healthcare facility, given that most assaults occur in the healthcare industry. Exhibit 22 shows that share was 61% in 2009. As with homicides, coworkers or former coworkers make up a small share of assaults, at 7%. The category "person–other than the injured or ill worker–n.e.c.,"[20] which means the assailant was someone other than a healthcare patient or a coworker, makes up 23%. The remainder was unspecified.

Exhibit 22



Source: U.S. Bureau of Labor Statistics

Younger Workers Have a Higher Share of Workplace Assaults

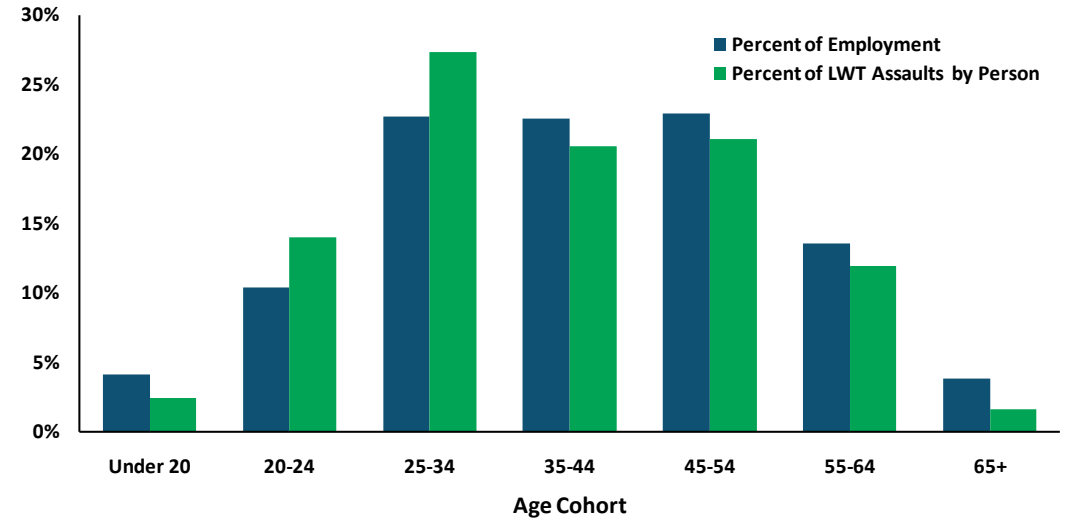
In contrast to what was found for homicides, Exhibit 23 shows that relative to their share of employment, younger workers (ages 20 to 34) have a somewhat higher share of workplace assaults due to their higher share of employment in occupations with high assaults. In 2009, for example, workers 20 to 34 made up 31% of total employment, but 66% of healthcare support occupations.

[20] The abbreviation *n.e.c.* stands for not elsewhere classified.

Exhibit 23

Younger Workers Aged 20 to 34 Have a Disproportionately High Share of LWT Assaults by Persons

Private Sector, 2009



Source: U.S. Bureau of Labor Statistics

D. Workers Compensation Workplace Violence Data—NCCI

This section is based on workers compensation data from NCCI's Integrated Database (IDB).[21] That database includes information on the cause of injury, injury type, and payments made for indemnity and medical benefits. The specific data used was from the second report[22] for Injury Years 2006 through 2008 and includes only claims involving lost work-time (amounts have not been developed to ultimate).

KEY FINDINGS

Workers compensation data related to violence in the workplace is categorized as either "struck or injured by fellow worker or patient" or "in act of crime." Neither of these categories makes up a material share of total workers compensation claims.

Injuries resulting from "in act of crime" are more severe than injuries resulting from other causes. For both indemnity and medical, severity for in act of crime is second highest behind motor vehicle injuries. Crime-related injuries are also 10 times more likely to involve a fatality than injuries due to other causes.

Severity for injuries resulting from being struck or injured by fellow worker or patient is below average.

[21] This analysis includes data for AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, NC, OK, OR, RI, SC, SD, TN, UT, VT, and VA. It does not include CA, DE, MA, MI, MN, NJ, NY, ND, OH, PA, TX, WA, WV, WI, and WY.

[22] Second report is data reported 30 months after the policy effective date.

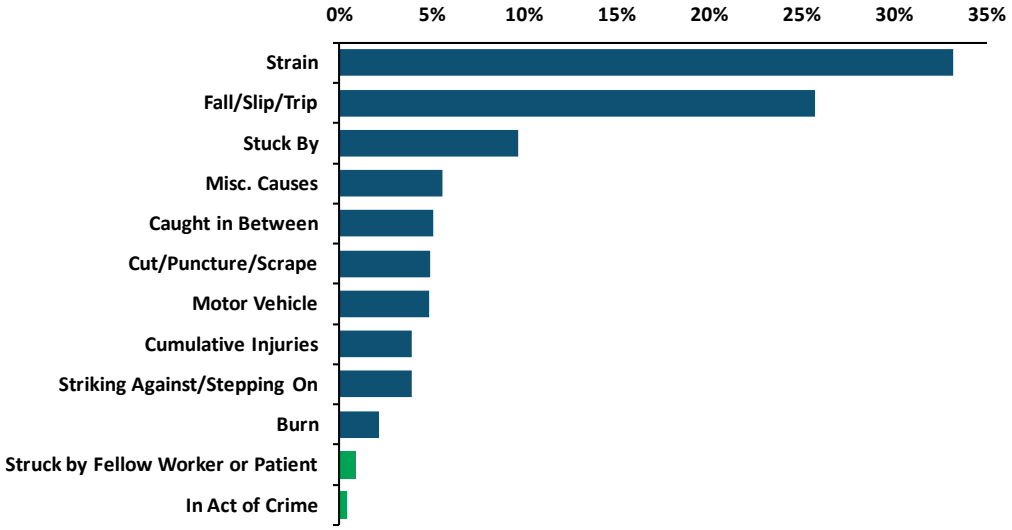
Workplace Violence Claims Are a Very Small Share of Total Claims

The two NCCI workers compensation cause of injury categories relating to workplace violence are "in act of crime" and "struck by fellow worker or patient." Exhibit 24 shows that those categories accounted for a very small share of all lost time claims—0.3% and 0.8%, respectively—from 2006 through 2008. Together they comprise 1.1% of lost-time claims, roughly in line with the 1.5% of fatalities and lost work-time injuries attributable to homicides and assaults by persons in the BLS data on average from 2006 to 2008.[23]

Exhibit 24

Workplace Violence-Related Claims Are A Very Small Percentage of Total Claims

Percentage of Total Claims 2006-2008(Data as of Second Report)



Source: NCCI, IDB Database

Claims Resulting From a Crime Are More Severe Than Average

Exhibit 25 shows the distribution by injury type for the two workplace violence categories and all other causes of injury. Claims resulting from an act of crime are 10 times more likely to result in a fatality than all other causes of injury. Both types of workplace violence claims are slightly less likely to be permanent partial. The distribution for claims resulting from struck by a fellow worker or patient and all other claims are fairly similar, but struck or injured by fellow worker or patient injuries result in slightly more temporary total claims.

Exhibits 26 and 27 contain indemnity and medical severity data, respectively, by cause of injury.[24] Severity for claims resulting from a crime is second highest, behind motor vehicle accidents, for both indemnity and medical. Claims due to struck or injured by a fellow worker or patient have below-average severity.

[23] The higher BLS percentage may reflect the BLS including in its count of lost-time cases all injuries with one day or more absent from work. In contrast, NCCI data is reflective of statutory waiting periods (that vary by state) before an injury is counted as a lost-time workers compensation claim.

[24] The dollar amounts are based on constant (2006) dollars as of the second report and are not developed to ultimate.

Exhibit 25

Injuries Resulting From "In Act of Crime" Are More Likely to Be a Fatality Than Injuries Resulting From Other Causes

Percentage of Claims by Injury Group
2006-2008 Average (Data as of Second Report)

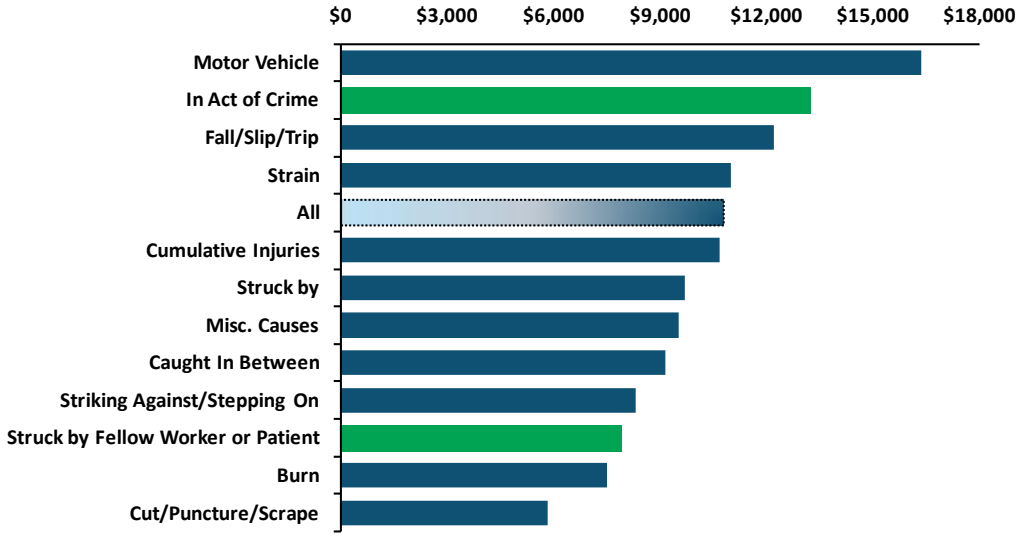
Injury Type	In Act of Crime	Struck by Fellow Worker or Patient	All Other
Fatality	3.2%	0.2%	0.3%
Perm. Total	0.4%	0.1%	0.2%
Perm Partial	31.7%	31.0%	34.5%
Temp. Total	64.7%	68.7%	65.0%

Source: NCCI, IDB Database

Exhibit 26

Crime-Related Injuries Have The Second Highest Average Indemnity Severity While Severity for Struck by Fellow Worker or Patient is Below Average

Average Indemnity Payments per Claim, 2006-2008 Average In Constant (Year 2006) Dollars, Data as of Second Report

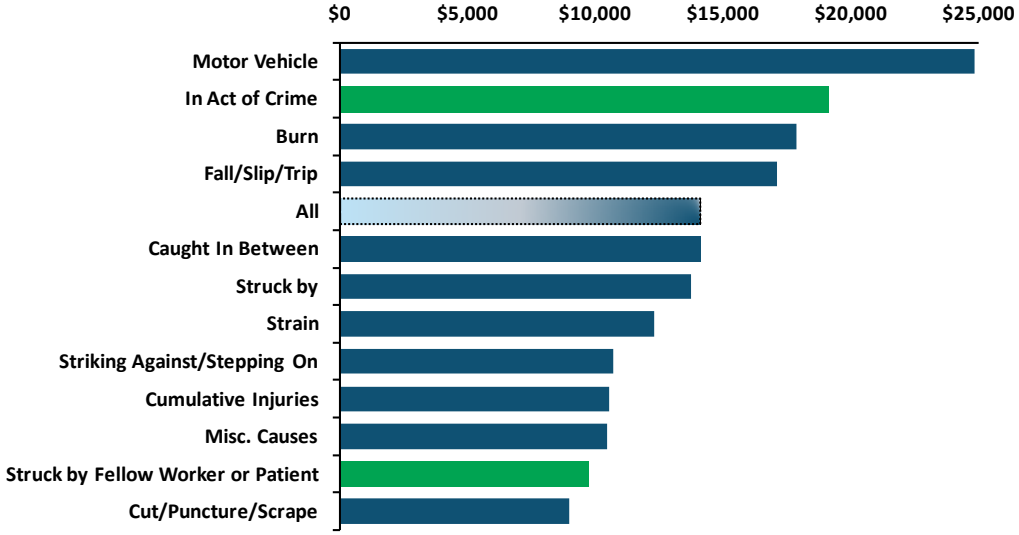


Source: NCCI, IDB Database

Exhibit 27

Crime-Related Injuries Have The Second Highest Average Medical Severity While Severity for Struck by Fellow Worker or Patient is Below Average

Average Medical Payments per Claim, 2006-2008 Average In Constant (Year 2006) Dollars, Data as of Second Report



Source: NCCI, IDB Database

E. Actions to Mitigate Exposure to Workplace Homicides and Assaults—NIOSH Risk Factors and Prevention Strategies

A publication from the National Institute for Occupational Safety and Health (NIOSH) in 1996 is a useful guide to identifying and addressing exposures to workplace violence.[25] The study identifies several factors that increase the likelihood of workplace violence including:

- Working with persons in healthcare or social services who may tend to be mentally unstable or violent
- Having contact with the public, especially involving the exchange of money
- Having a mobile workplace, such as a taxicab or delivery truck
- Guarding property or possessions
- Working alone or in small numbers, especially in high-crime areas or late at night

The NIOSH research also suggested a number of prevention strategies. They include:

- Environmental designs to reduce cash handling, increase physical separation (through bullet-proof barriers), improve lighting, and make use of silent alarms and surveillance cameras and, where appropriate, body armor
- Administrative controls, such as increasing the number of staff on duty, reviewing cash handling procedures, improving policies for reporting threats, increasing education and training in dealing with workplace violence, and improving medical support after an incident has occurred
- Behavioral strategies to improve both conflict resolution and awareness of the risks of workplace violence

[25] NIOSH, "Violence in the Workplace—Risk Factors and Prevention Strategies," July 16, 1996. For a listing of NIOSH publications, research, and related links, visit the NIOSH Web site at www.cdc.gov/niosh/homepage.html.

Indeed, implementation of one of the "environmental designs" suggestions above likely accounts for the marked decline in robbery-related murders of taxi drivers. The topic "behavioral strategies" is directly related, for example, to mitigating homicides due to conflict with customers.

F. Conclusions and Future Research

Although the NIOSH risk factors were published in 1996, they are strikingly consistent with the findings in this study regarding the types of occupations and industries at highest risk for homicides (service station attendants, barbers, taxi drivers, and security guards) and assaults (healthcare and personal care workers), as well as with the finding that most homicides are due to robberies, and most assaults are due to healthcare patients.

Since 1996, several of the NIOSH prevention strategies have been widely implemented. For example, cashless transactions have become much more common in taxicabs and may have contributed to the decline in the incidence of homicides for that occupation. Surveillance cameras have also become commonplace and could have helped with the decline in the overall rates of workplace violence.

However, there is still room for more improvement. Homicides make up 11% of workplace fatalities, and while assaults by persons comprise less than 2% of all lost time workplace injuries and illnesses, that share has been increasing. Further work could be done to address the continued large shares of homicides due to robberies and of assaults by healthcare patients.

One development in the long-term care industry that may favorably impact the incidence of assaults by healthcare patients is the adoption of safe lifting policies and the purchase of safe lift equipment. NCCI studied the impact of safe lifting programs on back injuries sustained by healthcare personnel due to lifting.[26] An area for further research would be to see if these safe lifting programs also reduce the incidence of injuries due to being struck or injured by a healthcare patient.

Acknowledgements: The authors would like to thank Eric Anderson, Nathan Beaven, Helen Huang, and Chun Shyong of NCCI's Actuarial & Economic Services Division for their contributions to this research study.

[26] See "Safe Lifting Programs at Long-Term Care Facilities and Their Impact on Workers Compensation Costs," published on **ncci.com** in March 2011.