

# Characteristics of Older Workers' Injuries

*Older workers face a lower risk of serious, nonfatal injury than do younger workers, but are at higher risk of fatal injury on the job*

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Until recently, Bureau of Labor Statistics (BLS) researchers lacked reliable national data to analyze the experiences of older workers sustaining serious, nonfatal injuries on the job.<sup>1</sup> They could only speculate how frequently older workers sustained serious injuries and illnesses in the workplace, what the nature of their disabling conditions was, how the injuries occurred, how much work time was lost, and how the safety and health risks of older workers compared with workers of all ages.

The National Academy of Sciences and others pointed out the need to fill information gaps such as these. Specifically, the Academy recommended that the BLS annual survey "be modified to permit collection of detailed data on severe occupational injuries."<sup>2</sup>

In response to such recommendations, BLS asked employers in its 1992 annual survey to describe the circumstances surrounding each reported case that resulted in lost workdays. Case descriptions included selected personal attributes, such as the age, sex, and occupation of the worker. The characteristics of each case were also defined, including the event and source producing the disabling condition. In addition, each case description included a limited measure of case severity, namely, the number of days away from work (not including the day of injury or onset of illness). The result was the first nationwide injury and illness study of its kind that identified both work-related hazards and workers most at risk.

This article uses initial results from the 1992 annual survey to profile the injury and illness experiences of workers, 55 years and older. The analysis shows, for example, that older workers face a somewhat lower risk of sustaining a

serious, nonfatal work disability than do younger workers. But older workers disabled on the job lose more worktime per case than their younger counterparts do.

Older workers are also more likely to die of work-related injuries, than their counterparts under age 55, according to the Census of Fatal Occupational Injuries. In addition, the rates of fatal work injury rise with age, peaking at 15 deaths per 100,000 workers aged 65 years and older. In contrast, workers, 25 to 34 years had a fatality rate of 5 per 100,000 in 1993.<sup>3</sup>

## Older workers at a glance

The Current Population Survey (CPS), conducted for the Bureau of Labor Statistics by the Bureau of the Census, is the source of employment data shown here for older wage and salary workers in private industry. This subset of CPS data excludes government, the self employed<sup>4</sup>, and private household workers, three classes of workers not covered by the nonfatal injury and illness study.

In 1992, about 8.8 million of private industry's 85 million wage and salaried employees were aged 55 years and older, according to CPS data. Nearly 2 million of these older workers were 65 years and older.

Of the 8.8 million older workers, 54 percent were men and 46 percent were women. Coincidentally, these were roughly the same shares of the total private wage and salary work force held by men and women.

The staffing pattern among broad occupational groupings was essentially the same for older workers as it was for those aged 20-54 years. The leading job grouping for both was "technical, sales, and administrative support," accounting for a third of the respective totals. The next largest categories were "managerial and professional specialty" and

<sup>1</sup> The category of "serious, nonfatal injuries" also includes a relatively small percentage of illnesses, such as skin diseases and repetitive motion disorders. It excludes, however, most long-term latent illnesses, such as cancers, which are difficult to relate to the workplace and are believed to be underreported in survey data.

<sup>2</sup> National Research Council, *Counting Injuries and Illnesses in the Workplace: Proposals for a Better System*, 1987, p. 103.

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<sup>3</sup> See also Scott Richardson and Andrew Schulman, "Texas Study Finds Older Workers at Relatively High Risk of Fatal Occupational Injury," in *Fatal Workplace Injuries in 1992: A Collection of Data and Analysis*, Bureau of Labor Statistics, Report 870, 1994, pp. 22-29.

<sup>4</sup> The "incorporated self employed," a group included with "other wage and salary workers" in regular CPS tabulations, was excluded, along with the "unincorporated self employed," from the analysis of serious nonfatal injuries. The nonfatal injury and illness data exclude all self employed, regardless of corporate status.

“operator, fabricator, and laborer,” each about a fifth of the totals for older and prime age workers. Most of the remaining fourth for each age group was split about evenly between “service” and “precision production, craft, and repair.”

Within these broad occupational groupings were four categories each employing one million older workers or more: (1) Executive, administrative, and managerial jobs; (2) sales occupations; (3) administrative support jobs, including clerical; and (4) service occupations, other than protective services. Additionally, four occupations employed at least a quarter million older workers: Sales workers in retail and personal services, secretaries, janitors and cleaners, and truck drivers. Many of these jobs and job categories also appear in table 1 as occupations commonly cited when older workers sustained serious, nonfatal injuries and illnesses.

### **Injuries to older workers**

About 168,700 injuries and illnesses to workers aged 55 years and over were serious enough to require some time away from work, beyond the day of injury or onset of illness. Seven-eighths of these cases involved workers aged 55 to 64 years and the balance, 65 years and over.

The risk of serious, nonfatal injury and illness was lower for older workers than their share of the total work force would suggest. Workers, aged 55 years and over accounted for 7 percent of the 2.3 million cases with days away from work. However, these workers accounted for about 10 percent of all private wage and salary workers. The relative risk was lowest for the oldest of the old, those 65 years and over; they comprised 1 percent of the injury and illness total and 2 percent of all workers.

Although men make up a clear majority of injuries to workers, aged 55 years and over, women have a somewhat larger share (39 percent) of that total than their share of the national case total (33 percent). As suggested earlier, both groups of women, those under age 55 and those over age 54, comprised about 46 percent of the work forces in their respective age groups. Therefore, the difference in the risk of injury and illness for older men and older women was small relative to the corresponding difference for workers of all ages.

Given their age, it is not surprising that an overwhelming majority of older workers had been with their employer at least a year at the time of their injury or illness. The proportion (nearly three-fifths) with over five years, however, far exceeds the corresponding nationwide figure (one-fourth) for those injured with the lengthiest tenures.

Older workers sustained injuries and illnesses in a wide variety of jobs and job groupings, no one of which made up more than a tenth of the total. (See table 1.) Machine operators, mechanics, and truck drivers together accounted for slightly more than a fourth of the injury total for older workers. Older workers faced a relatively high safety risk working in these jobs, which accounted for about one-eighth

of the older work force. Sales occupations, by contrast, were relatively safe for older workers, making up 6 percent of their injury total but 14 percent of their work force total.

### **Injury and illness characteristics**

Survey data reflect four different aspects of each case with days away from work: (1) Physical condition, or nature of injury or illness; (2) part of body affected by the condition; (3) source of injury or illness—the object, substance, environmental exposure, or bodily motion that directly produced or inflicted the condition; and (4) the type of event or exposure associated with the injury or illness—that is, how the condition was inflicted or produced. These features help determine the “what and how” of disabling incidents in the workplace.

Among the categories comprising *nature of injury or illness*, sprains and strains occurred most frequently, accounting for slightly more than one-third of the 168,700 cases reported for workers aged 55 years and over. (See table 1.) Fractures, bruises, and cuts each accounted for about one-tenth of the total. Older workers cited “fractured bone” as the disabling condition about twice as often as did workers under 55 years of age.

The most commonly cited *part of the body affected* was the back and, to a lesser extent, other portions of the trunk (shoulder and chest, for example), accounting for nearly two-fifths of the total for older workers. The upper and the lower extremities each comprised another one-fifth of the total. Cases affecting more than one major body part, such as an arm and a leg, made up another tenth.

“Floor and ground surface” was the leading *source of injury or illness*. This classification, often cited when an injury resulted from a fall, made up nearly a fourth of all cases for older workers. Other common sources mentioned included containers; machines and tools; parts and materials; and the free movement of the body or its parts, with no impact involved. (See table 1.)

The leading *event or exposure* associated with injuries and illnesses to older workers was overexertion, typically in trying to lift heavy or unwieldy objects. This classification was cited in nearly a fourth of the cases. A close second was falls on the same level; its nearly one-fifth share of older worker cases was well above that category’s 10-percent share of the national case total. Older workers also were relatively more prone to injuries or illnesses resulting from slipping, tripping, climbing, twisting, and similar incidents of free bodily motion without falling.

### **Duration of injury or illness**

Although older workers are less likely to sustain a serious, nonfatal injury and illness, their cases are more likely to result in relatively lengthy absences from work. The median days away from work was 10 days per case for older workers compared to 6 days per case for all workers.

At least two factors contribute to longer recuperation periods for older workers. First, they take longer to return

to work than do younger workers, regardless of disabling condition. And second, they sustain conditions requiring relatively lengthy recuperation, such as broken bones and multiple injuries, more often than do younger workers. Fractures, for example, made up 16 percent of all disabling conditions reported for workers 65 years and over, 10 percent of cases for 55-64 year olds, and 6 percent for workers younger than 55 years. Further research is required to more fully explain why the injuries and illnesses of older workers tend to be so severe.

### Profile of fatal injuries

The Bureau's Census of Fatal Occupational Injuries (CFOI) was developed, in part, because of recommendations from the National Academy of Sciences. The fatality census uses multiple data sources (such as death certificates, workers' compensation reports, Occupational Safety and Health Administration fatality reports, and news articles) to compile the most complete count of fatal work injuries available.

Unlike the survey of nonfatal occupational injuries and illnesses, the fatality census includes fatalities to government workers and the self-employed, as well as private sector wage and salary workers. The census also includes workers on farms employing 10 or fewer employees, worksites which are excluded from the survey of nonfatal injuries. Because of the latency period of many occupational illnesses and the resulting difficulty in linking these illnesses to workplace exposures, it is difficult to compile a complete count of all fatal illnesses in a given year. Thus, information on illness-related deaths is excluded from this article. The fatality data provided in this article cover deaths that occurred in 1993.<sup>5</sup>

Table 2 shows selected characteristics of the 1,315 injury fatalities to workers aged 55 and over that occurred in 1993. Workers in this age group accounted for one-fifth of all fatal work injuries that year, but for only one-tenth of the employed population. Overall this group was fatally injured at a rate of 9 per 100,000 workers. The rate rises to 15 per 100,000 for those 65 and older.<sup>6</sup> Men accounted for 94 percent of the fatally injured workers aged 55 and over, similar to their 92 percent share of all worker fatalities.

Older workers who were fatally injured were more likely to be self-employed than younger ones. Forty percent of the older workers who were fatally injured were self-em-

<sup>5</sup> The nonfatal data in this article cover 1992, because at the time of this report the 1993 case and demographic information was not available. Selected characteristics for nonfatal occupational injuries and illnesses that occurred in 1993 will be released in April 1995.

<sup>6</sup> See Guy Toscano and Janice Windau, "The Changing Character of Fatal Work Injuries," *Monthly Labor Review*, October 1994, pp. 17-28.

ployed<sup>7</sup> compared with 15 percent of workers younger than 55 years.

One-fourth of the fatally injured workers aged 55 or over were working in a farming or related occupation, such as farm operator, manager, worker, or groundskeeper, at the time of the incident. Sales occupations, truckdriving, and executive, administrative, and managerial jobs each accounted for about 10 percent of the fatalities.<sup>8</sup>

The agriculture, forestry, and fishing industries accounted for about one-fourth of the older worker fatalities, but only about one-seventh of all worker fatalities. Five other industry divisions in the private sector each accounted for about one-tenth of the fatality total for older workers: Construction, manufacturing, transportation and public utilities, retail trade, and services. Eight percent of the older workers who were fatally injured were employed by a Federal, State, or local governmental agency.

Highway fatalities topped the list of ways in which both older and younger workers died at work, accounting for about a fifth of each group's total. Although homicides were the second leading cause of death for workers younger than 55, the following events were about equally cited for older workers: Homicides, nonhighway transportation-related incidents, being struck by objects, and falls to lower levels.

Transportation-related incidents that occurred on farms and other nonroadway locations played a larger role in fatalities among older workers than among their younger counterparts. These incidents, such as tractor rollovers and falls from tractors and other nonhighway vehicles, accounted for 12 percent of the fatal injuries to older workers, but for only 5 percent of the fatal injuries to younger workers.

Vehicles were identified as the source of injury in over two-fifths of the fatalities to older workers. Over half of these were highway vehicles; most of the other vehicles were farm tractors. Ammunition is the source for homicides due to shooting, and floor and ground surfaces are typically reported for falls to lower level. Agricultural and construction machinery, parts and materials, and trees were some other noteworthy sources of fatal injury to workers 55 and over.

<sup>7</sup> The total for self-employed includes paid and unpaid family workers as well as the unincorporated self-employed. It may also include some owners of incorporated businesses and members of partnerships.

<sup>8</sup> While *occupation* provides information on the type of job the worker performed, *industry* provides information on the type of business the employer was engaged in. For example, truck drivers are employed by any number of industries: Trucking and warehousing, construction, retail trade, and manufacturing to name just a few. Thus, the percentages for seemingly similar activities, such as the occupation "truck driver" and the industry "trucking and warehousing," may differ slightly in table 2.

**Table 1. Older workers sustaining lost worktime injuries and illnesses, selected characteristics, 1992**

Characteristic	Lost work time cases (percent)	Characteristic	Lost work time cases (percent)
Workers 55 years and over: Number of cases .....	168,700	Workers 55 years and over: Number of cases .....	168,700
Percent .....	100	Percent .....	100
<b>Personal traits</b>		<b>Disabling condition</b>	
55 to 64 years .....	88	Sprain, strain .....	37
65 years and over .....	12	Fracture .....	11
Men .....	61	Bruise, contusion .....	11
Women .....	39	Cut, laceration .....	8
		Multiple injury .....	5
		Hernia .....	3
		All other conditions .....	25
<b>Tenure with employer</b>		<b>Disabling event</b>	
Under 3 months of employer service .....	4	Overexertion .....	23
3 to 11 months .....	7	Fall on same level .....	18
1 to 5 years .....	24	Struck by object .....	11
Over 5 years .....	57	Personal movement, e.g. climbing, tripping .....	11
Data not reported .....	9	Struck against object .....	7
		Fall to lower level .....	7
		Caught in object, equipment .....	4
		All other events .....	19
<b>Occupation</b>		<b>Disabling source</b>	
Sales worker .....	6	Floor, ground surface .....	23
Food preparation, service job .....	5	Floor of building .....	10
Health service job .....	5	Container .....	13
Nursing aide .....	4	Box, crate, carton .....	5
Cleaning, building service job .....	7	Worker motion or position .....	13
Janitor, cleaner .....	4	Part and material .....	10
Mechanic, repairer .....	8	Building material .....	4
Construction trade .....	5	Vehicle .....	7
Machine operator .....	11	Highway vehicle .....	4
Truckdriver .....	8	Plant or industrial .....	3
Freight, stock, and material handler .....	3	Machinery .....	7
Laborer, nonconstruction .....	4	Tool, instrument, or equipment .....	5
Assembler .....	2	Furniture, fixture .....	4
All other jobs .....	36	Health care patient .....	3
		All other sources .....	15

NOTE: Because of rounding and nonclassifiable responses, data may not sum to totals.

SOURCE: Occupational Injury and Illness Survey, U.S. Department of Labor, Bureau of Labor Statistics, 1992.

**Table 2. Older workers fatally injured, selected characteristics, 1993**

Characteristic	Fatalities (percent)	Characteristic	Fatalities (percent)
Workers 55 years and over:		Workers 55 years and over:	
Number of cases .....	1,315	Number of cases .....	1,315
Percent .....	100	Percent .....	100
<b>Personal traits</b>		<b>Fatal event</b>	
55 to 64 years .....	61	Highway incident .....	18
65 years and over .....	39	Homicide .....	13
Men .....	94	Nonhighway (farm, industrial premise) .....	12
Women .....	6	Struck by object .....	10
<b>Class of worker</b>		Fall to lower level .....	10
Self-employed .....	40	Struck by vehicle .....	6
Wage and salary .....	60	Caught in object, equipment .....	6
<b>Occupation</b>		Other transport .....	5
Farming and related .....	25	Self-inflicted .....	4
Sales occupation .....	11	All other events .....	16
Truck driver .....	10	<b>Industry</b>	
Executive, administrative, and managerial .....	9	Private sector .....	92
Construction trade .....	8	Agriculture, forestry, and fishing .....	26
Other transportation, material moving .....	6	Mining .....	1
Laborer (all) .....	4	Construction .....	11
Mechanic, repairer .....	4	Special trades .....	6
Professional specialty .....	4	Manufacturing .....	11
Protective service .....	3	Lumber and wood .....	3
Other service occupation .....	3	Transportation, public utilities .....	11
Forestry, logging, fishing, hunting .....	3	Trucking, warehousing .....	7
All other jobs .....	10	Wholesale trade .....	4
<b>Source</b>		Retail trade .....	12
Vehicle .....	43	Food stores .....	3
Highway .....	24	Auto dealers, service stations .....	3
Tractor .....	13	Eating, drinking .....	3
Ammunition .....	12	Finance, insurance, and real estate .....	3
Floor, ground surface .....	11	Services .....	11
		Government .....	8
		<b>Source—Continued</b>	
		Machinery .....	10
		Agricultural .....	4
		Construction .....	4
		Part, material .....	5
		Tree .....	4
		All other sources .....	15

NOTE: Because of rounding and nonclassifiable responses, data may not sum to totals.

SOURCE: BLS Census of Fatal Occupational Injuries, 1992 and 1993, and Current Population Survey, 1992.