

Occupations Associated with High Levels of Non-fatal Occupational Injuries and Illnesses in Illinois, 1999

In June 2001, the Department of Public Health released *Workplace Nonfatal Injuries and Illnesses, 1999*. The report offers detailed incidence distribution of non-fatal occupational injuries and illnesses by industry and worker characteristics in the state. The report lists the top 15 occupations associated with the highest rates of injuries and illnesses involving days away from work. These occupations accounted for 32 percent of the total number of workplace injuries and illnesses in Illinois in 1999.

Table 1 shows the incidence rate for the top 15 occupations. The occupation with the highest risk of injury or illnesses in 1999 was the transportation ticket and reservation agents, which had an incidence rate of 10,311 per 10,000 full-time workers. The occupation with the lowest rate among the top fifteen occupations is industry, truck and tractor equipment operators, with an incidence rate of 393 per 10,000 full-time workers.

Table 1. Top 15 Occupations with High Levels of Incidence Rates for Injuries and Illnesses Involving Days Away from Work,¹ Illinois, 1999

Occupation	Incidence #	Incidence Rate per 10,000 full-time workers
Transportation ticket and reservation agents	730	10,311
Furnace, kiln, and oven operators, exc. food	611	8,618
Roofers	842	1,224
Construction laborers	1,637	1,159
Grinding, abrading, polishing machine operators	614	1,079
Public transportation attendants	631	879
Welders and cutters	1,372	725
Bus, truck, and stationary engine mechanics	743	638
Truck drivers	7,841	575
Plumbers, pipe fitters and steam fitters	860	485
Electricians	1,312	462
Nursing aides, orderlies and attendants	2,306	437
Laborers, non-construction	3,659	710
Carpenters	1,773	429
Industrial truck and tractor equipment operators	909	393

¹Incidence rates represent the number of injuries and illnesses per 10,000 full-time workers and were calculated as $(N/EH) \times 20,000,000$ where

N = number of injuries and illnesses

EH = total hours worked by all employees during 1999

20,000,000 = base for 10,000 equivalent full-time workers (working 40 hours per week, 50 weeks per year: Denominator numbers were obtained from Illinois Department of Employment Security).

Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, in cooperation with the Illinois Department of Public Health

Table 2. Injury or Illness Related Days Away from Work
by Occupation, Illinois, 1999

Occupation	Median days away from work
Welders and cutters	14
Truck drivers	11
Electricians	10
Public transportation attendants	9
Industrial truck and tractor equipment operators	8
Roofers	8
Bus, truck, and stationary engine mechanics	7
Carpenters	6
Transportation ticket and reservation agents	6
Furnace, kiln, and oven operators, exc. food	6
Grinding, abrading, polishing machine operators	5
Laborers, non-construction	5
Nursing aides, orderlies and attendants	5
Construction laborers	4
Plumbers, pipe-fitters and steam-fitters	3

Source: U.S. Department of Labor, Bureau of Labor Statistics,
Survey of Occupational Injuries and Illnesses, in cooperation with
the Illinois Department of Public Health

These occupations varied in the average number of days away from work (Table 2). The average absence from work for all industrial injuries was seven days. The number of days missed could be interpreted as indicative of the severity of the injuries or illnesses, presuming a person with a minor injury would miss fewer days than a person with a major injury. Thus, welders and cutters, truck drivers, and electricians tend to incur more severe injuries and illnesses, whereas construction laborers and plumbers, pipe-fitters and steam-fitters tend to incur less severe injuries and illnesses among the high-risk occupations.

The affected body part and nature of injuries also varied. The trunk sustained the most injuries and illnesses in eight of the occupations. Sprains and strains were the most frequently observed event with 14 occurrences among the 15 occupations (Table 3).

Table 3. Part of Body & Nature of Injuries and Illnesses by Occupation Involving Days Away from Work, Illinois, 1999

Occupation	Part of Body	Nature
Grinding, abrading, buffing and polishing machine operators	Upper extremities	Cuts and lacerations
Carpenters	Upper extremities	Sprains and strains
Electricians	Upper extremities	Sprains and strains
Plumbers, pipe-fitters and steam-fitters	Upper extremities	Sprains and strains
Roofers	Lower extremities	Sprains and strains
Transportation ticket and reservation agents	Lower extremities	Sprains and strains
Bus, truck, and stationary engine mechanics	Trunk	Sprains and strains
Furnace, kiln and oven operators excluding food	Trunk	Sprains and strains
Industrial truck and tractor equipment operators	Trunk	Sprains and strains
Laborers, non-construction	Trunk	Sprains and strains
Nursing aides, orderlies and attendants	Trunk	Sprains and strains
Public transportation attendants	Trunk	Sprains and strains
Truck drivers	Trunk	Sprains and strains
Welders and cutters	Trunk	Sprains and strains

Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, in cooperation with the Illinois Department of Public Health

Table 4. Event or Exposure and Source for Injuries and Illnesses Involving Days Away from Work, Illinois, 1999

Occupation	Event or Exposure	Source of Injury
Carpenters	Contact with object, equipment	Parts and materials
Construction laborers	Contact with object, equipment	Parts and materials
Electricians	Contact with object, equipment	Floor, ground surfaces
Furnace, kiln and oven operators, exc. food	Contact with object, equipment	Parts and materials
Grinding, abrading, polishing machine operators	Contact with object, equipment	Machinery
Industrial truck and tractor equipment operators	Contact with object, equipment	Worker motion or position
Plumbers, pipe-fitters and steam-fitters	Contact with object, equipment	Parts and materials
Transportation ticket and reservation agents	Contact with object, equipment	Worker motion or position
Welders and cutters	Contact with object, equipment	Worker motion or position
Public transportation attendants	Exposed to harmful substance	Vehicles
Bus, truck and stationary engine mechanics	Overexertion	Parts and materials
Laborers, non-construction	Overexertion	Containers
Nursing aides, orderlies and attendants	Overexertion	Health care patient
Roofers	Overexertion	Containers
Truck drivers	Overexertion	Containers

Source: U.S. Department of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, in cooperation with the Illinois Department of Public Health

The event that caused the most injuries and illnesses in several occupations was contact with an object or equipment (Table 4). For nine of the 15 occupations, the primary source of injuries involve objects that employees lifted or with which they came in contact. The healthcare patient was the most common source of injury for the nursing aides and health care attendants who care for them.

Workplace injuries and illnesses are preventable and reducing them is important for improving the public health. Companies also will benefit from improved safety as injuries and illnesses — especially those that involve lost work days — increase expenses and reduce productivity. Knowing the causes of these events and the major occupations that are at high risk helps target the improvement efforts.