

4 NONFATAL INJURY

Three surveillance systems provide information about the characteristics of nonfatal occupational injuries: the Survey of Occupational Injuries and Illnesses (SOII), the National Electronic Injury Surveillance System (NEISS), and the National Hospital Ambulatory Medical Care Survey (NHAMCS). SOII is based on employer-generated workplace incident logs, and NEISS and NHAMCS are based on visits to emergency departments in hospitals. NEISS and NHAMCS both collect data on occupational injuries, but they use different methods.

Nonfatal occupational injuries constitute more than 90% of the events recorded by SOII. In 1997, more than 5.7 million nonfatal occupational injuries were estimated to have occurred in the United States, resulting in a rate of 6.6 cases per 100 full-time, private-sector workers. Among industry divisions, incidence rates for the total number of nonfatal injuries ranged from a low of 2.0 cases per 100 full-time workers in finance, insurance, and real estate to a high of 9.3 cases per 100 full-time workers in construction (Figure 4-1). Rates for four of the eight industry divisions are above the average for all industries.

Injuries treated in emergency departments* are usually more urgent or severe than those treated in physicians' offices or walk-in clinics. NEISS estimates that approximately 3.6 million nonfatal occupational injuries were treated in U.S. hospital emergency departments in 1998. The average rate for all nonfatal occupational injuries treated in emergency departments that year was 2.8 per 100 full-time workers. The rate for men (3.4 per 100 full-time workers) was nearly twice the rate for women (2 per 100 full-time workers) (Figure 4-2). Rates were higher in younger workers (aged 16 to 19), with steady declines in both male and female workers aged 20 and older (Figure 4-2). Hands and fingers were the most commonly injured parts of the body, accounting for 30% of the total (Figure 4-3). Lacerations and punctures (26%), sprains and strains (25%), and contusions, abrasions, and hematomas (19%) were the most frequent types of injuries recorded in NEISS in 1998.

*The term *emergency departments* is used in this chapter to refer to hospital emergency rooms (NEISS data) as well as to hospital outpatient departments and hospital emergency departments (NHAMCS data).

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Figures 4–4 and 4–5 present the average annual rates of emergency department visits related to nonfatal occupational injuries recorded in NHAMCS for 1995–1997. Male workers aged 16–17 had the highest rate (nearly 10 per 100 full-time workers). The rate for black male workers was higher than the average rate for all workers. Overall, the rate for men exceeded the rate for women.

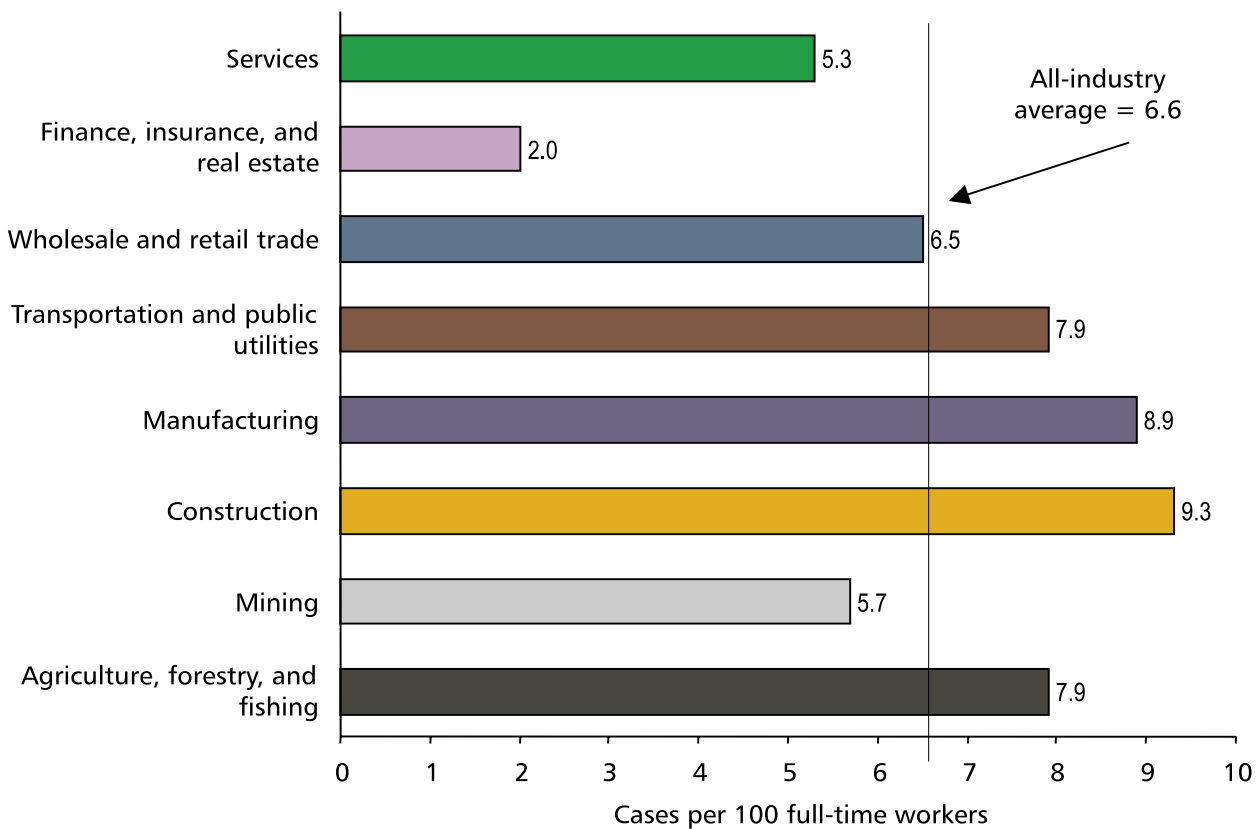


Figure 4–1. Incidence rates for nonfatal occupational injuries in private industry by major industry division, 1997. (Source: SOII [1999].)

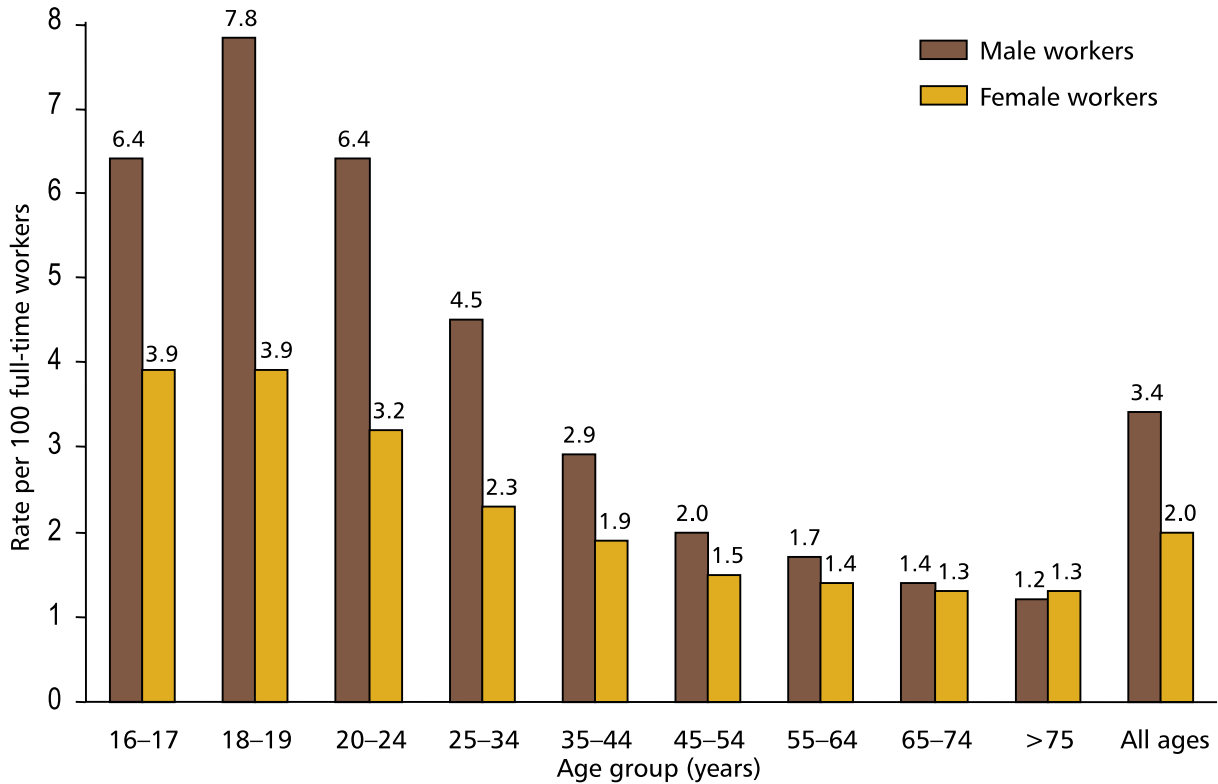


Figure 4-2. Rate of nonfatal occupational injuries treated in emergency departments, by age and sex, 1998. (Source: NEISS [1999].)

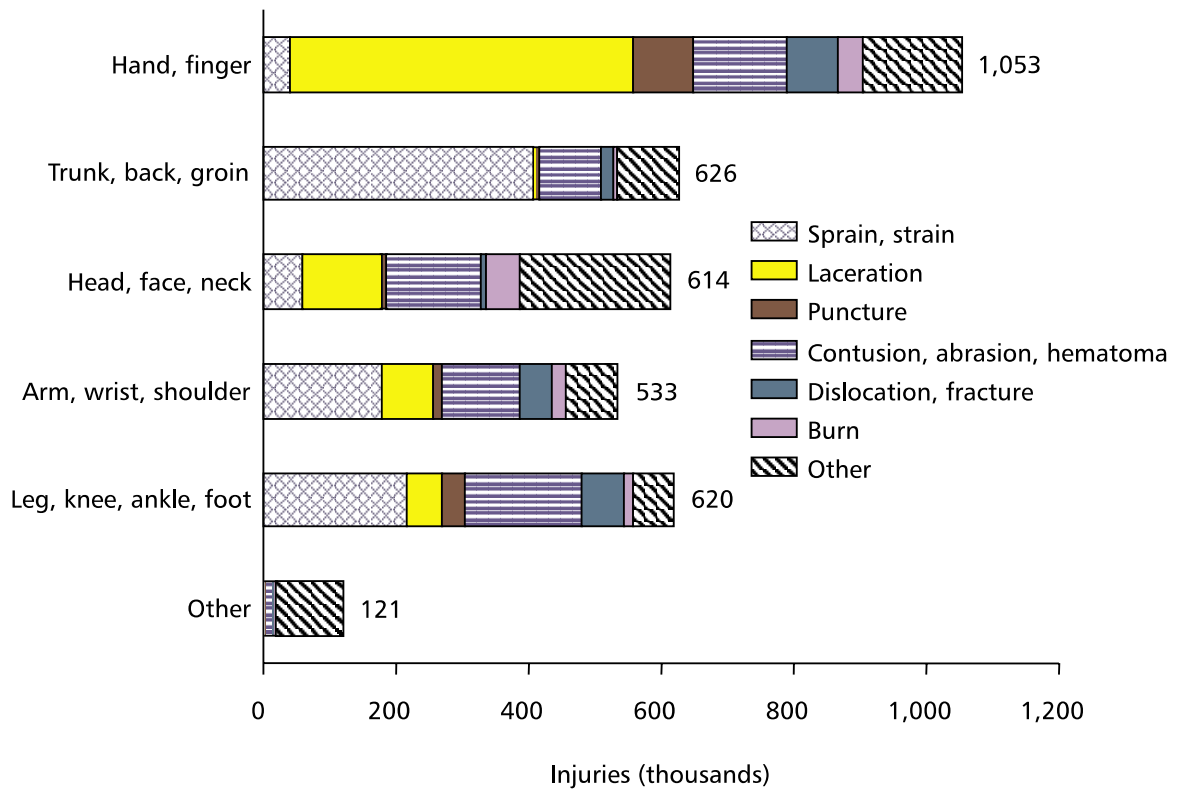


Figure 4-3. Number of nonfatal occupational injuries treated in emergency departments, by anatomic site and type of injury, 1998. (Source: NEISS [1999].)

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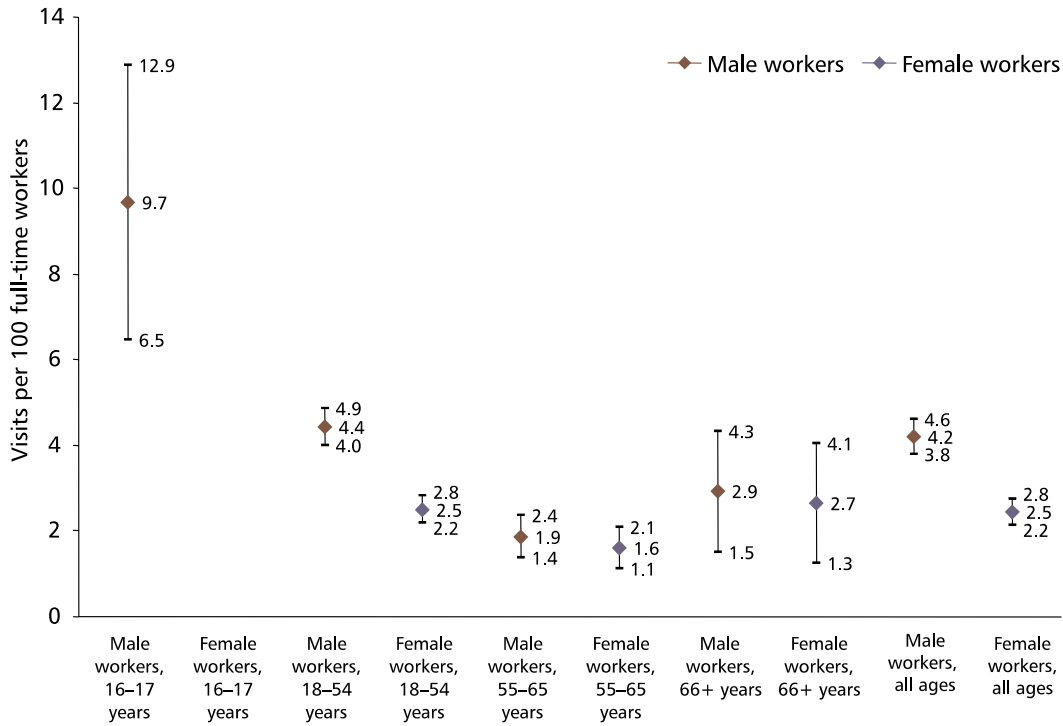


Figure 4–4. Annual rates (and 95% CIs) of emergency department visits related to nonfatal occupational injuries in male and female workers aged 16 and older, by age group—averaged for 1995–1997. (The rate for female workers aged 16–17 does not meet the standards of reliability or precision.) (Source: NHAMCS [1999].)

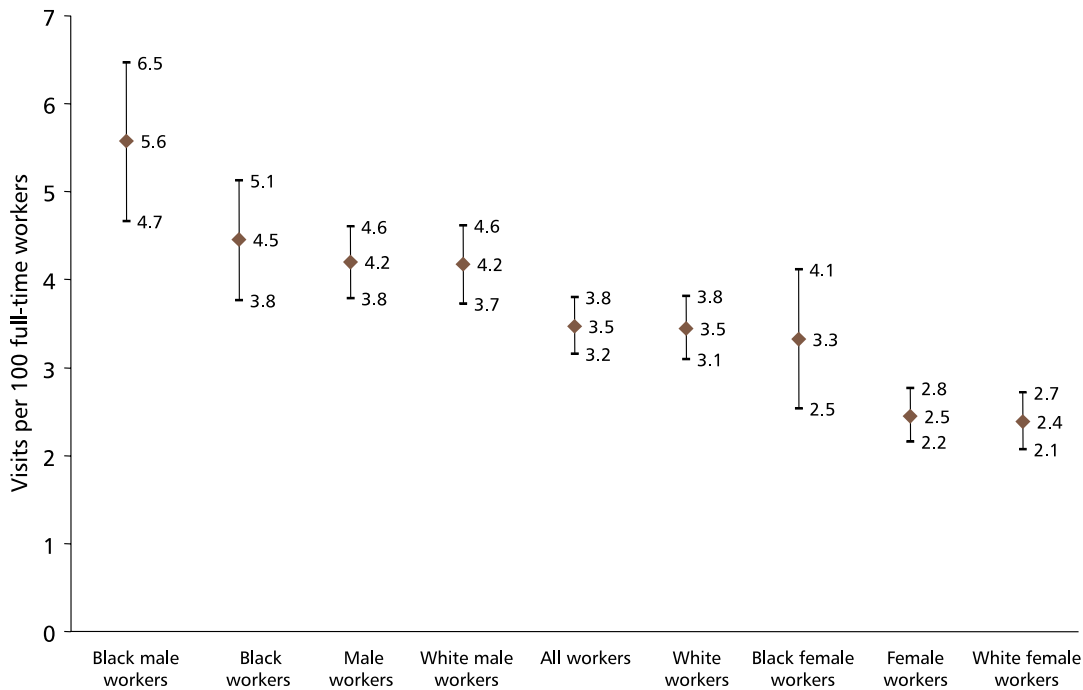


Figure 4–5. Annual rates (and 95% CIs) of emergency department visits related to nonfatal occupational injuries in black and white male and female workers aged 16 and older—averaged for 1995–1997. (Source: NHAMCS [1999].)

Nonfatal Occupational Injuries by Industry and Cases with Lost Workdays

The total number of nonfatal occupational injuries recorded by the Bureau of Labor Statistics (BLS) in SOII has fluctuated between 4.7 and 6.4 million per year over the last two decades. Many of these cases involved lost workdays.[†] The number of cases with days away from work fluctuated during that period; however, there was a 10-fold increase in cases with restricted work activity only (Figure 4–6). By 1997, 53% of cases involved no time away from work, 31% required at least 1 day away from work, and 16% involved restricted work activity only.

The incidence rate for total nonfatal occupational injuries over the past two decades ranged from a high of 9.2 cases per 100 full-time workers in 1978–1979 to a low of 6.6 cases per 100 full-time workers in 1997 (Figure 4–7). The incidence rate for cases with days away from work declined steadily from 1988 to 1997, and the incidence rate rose 120% for cases involving restricted work activity only.

Incidence rates for lost-workday cases of nonfatal occupational injury are shown for 1992–1997 by industry division in Figure 4–8. For all private industry during this period, the incidence rate declined 14% to 3.1 cases per 100 full-time workers. Finance, insurance, and real estate had the largest relative decline (27%), and construction had the largest absolute decline (1.3 cases per 100 full-time workers). Transportation and public utilities showed the least decline, both relatively (4%) and absolutely (0.2 cases per 100 full-time workers). Injury cases with and without lost workdays in 1997 (including days away from work and days of restricted activity only) are shown by industry division in Figure 4–9. The number of injuries ranged from a low of 46,000 in mining to a high of 1.7 million in manufacturing. The percentage of injury cases involving lost workdays ranged from a low of 38% in finance, insurance, and real estate to a high of 73% in mining.

The increasing incidence rate for cases involving restricted work activity only (Figure 4–7) is presented by industry division in Figure 4–10 for 1992–1997. The percentage of cases with restricted work activity only is shown for each industry division in Figure 4–11 for 1992 and 1997. In both years, manufacturing had the largest percentage of lost-workday cases with restricted activity only (32% and 48%, respectively).

[†]Lost-workday cases include cases with days away from work and cases with restricted work activity only (i.e., cases in which workers report to their jobs for limited duty).

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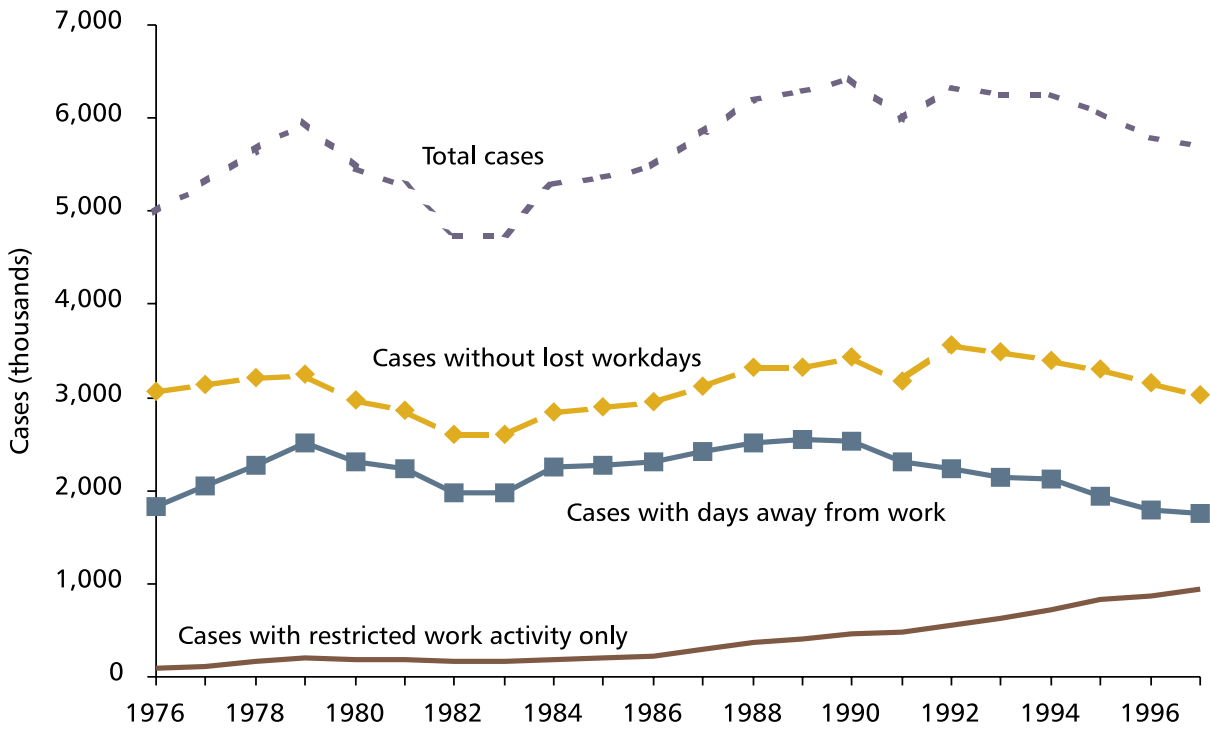


Figure 4-6. Number of nonfatal occupational injury cases in private industry by type of case, 1976-1997. (Source: SOII [1999].)

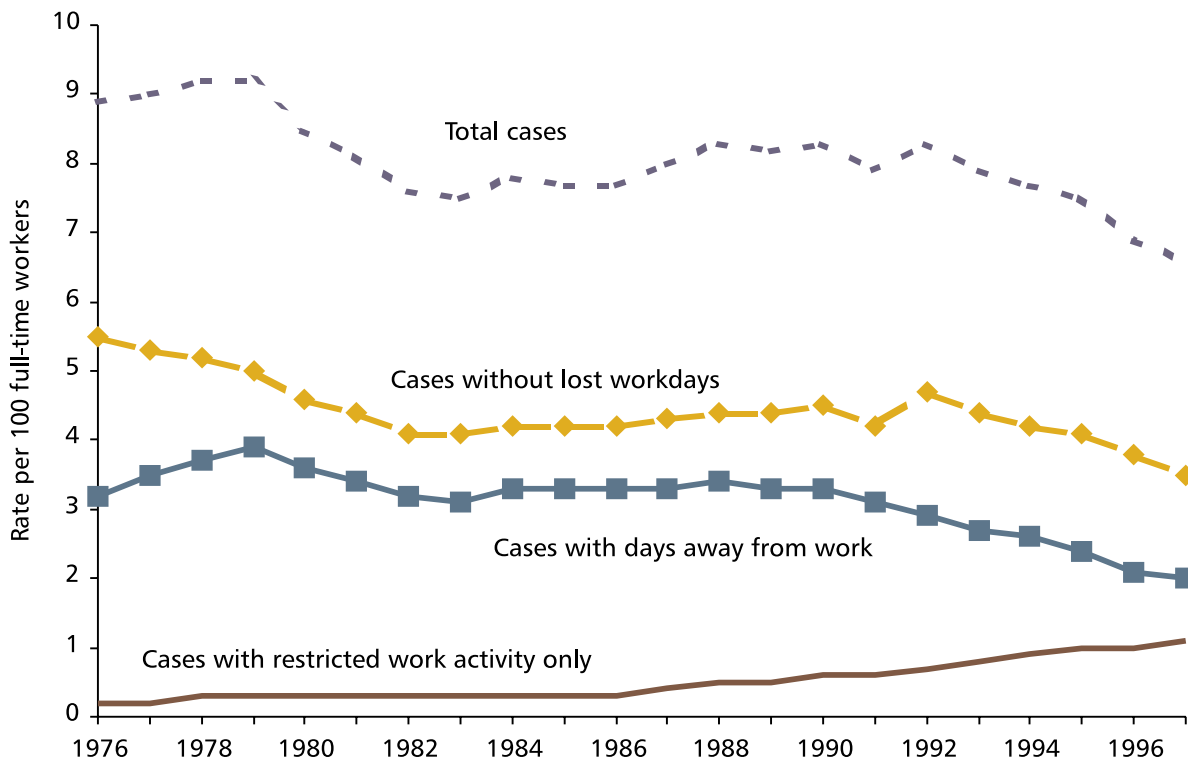


Figure 4-7. Incidence rate of nonfatal occupational injury cases in private industry by type of case, 1976-1997. (Source: SOII [1999].)

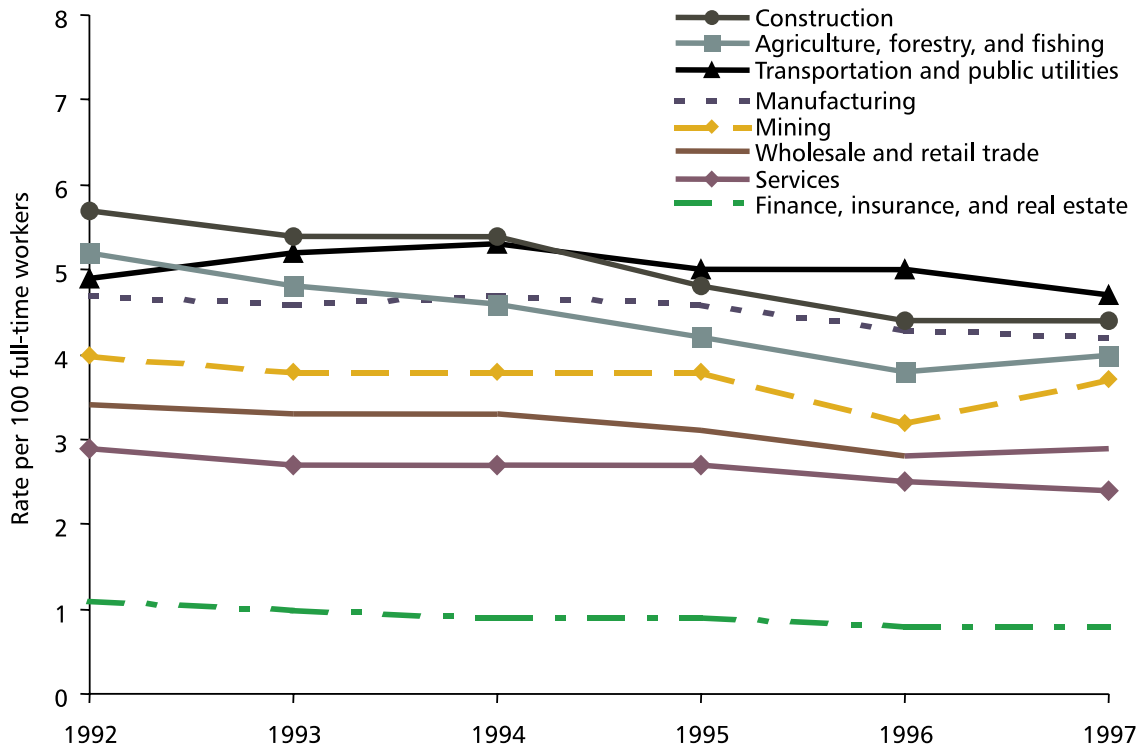


Figure 4-8. Incidence rates for lost-workday cases of nonfatal occupational injury in private industry by industry division, 1992-1997. (Source: SOII [1999].)

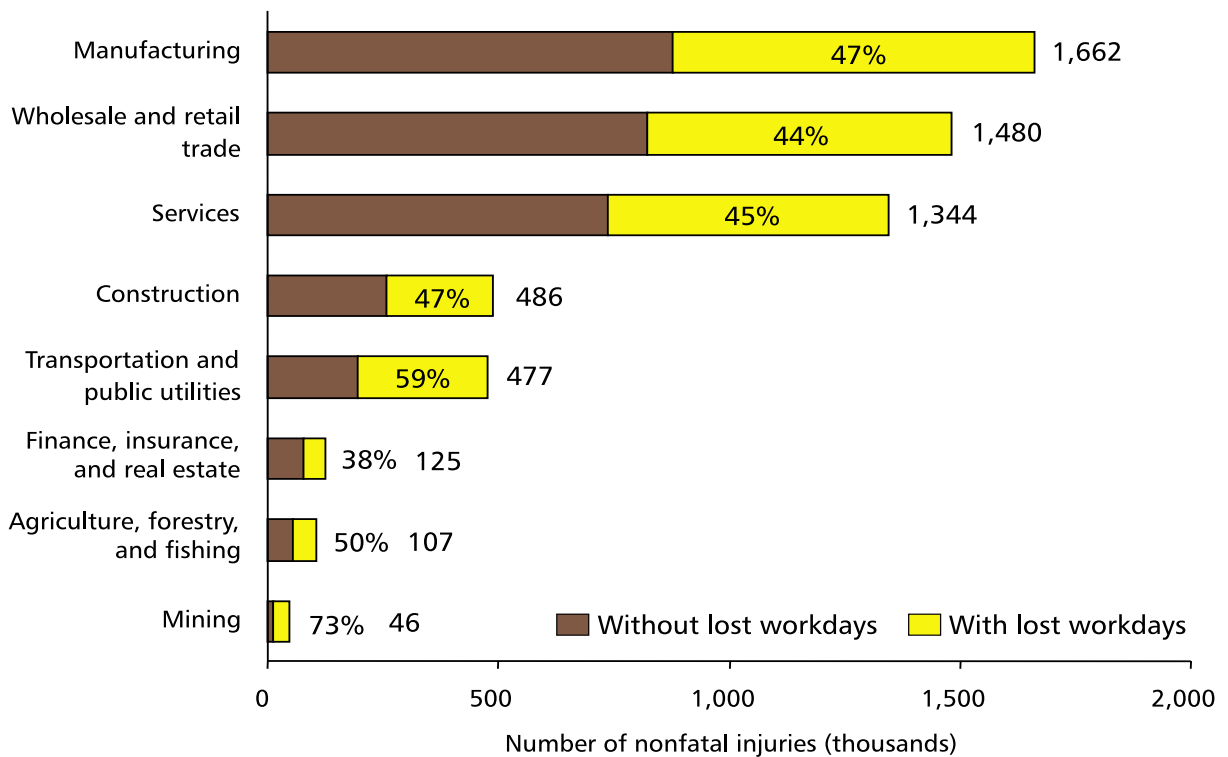


Figure 4-9. Number of nonfatal occupational injury cases in private industry without and with lost workdays by industry division, 1997. Percentage of cases with lost workdays also is shown. (Source: SOII [1999].)

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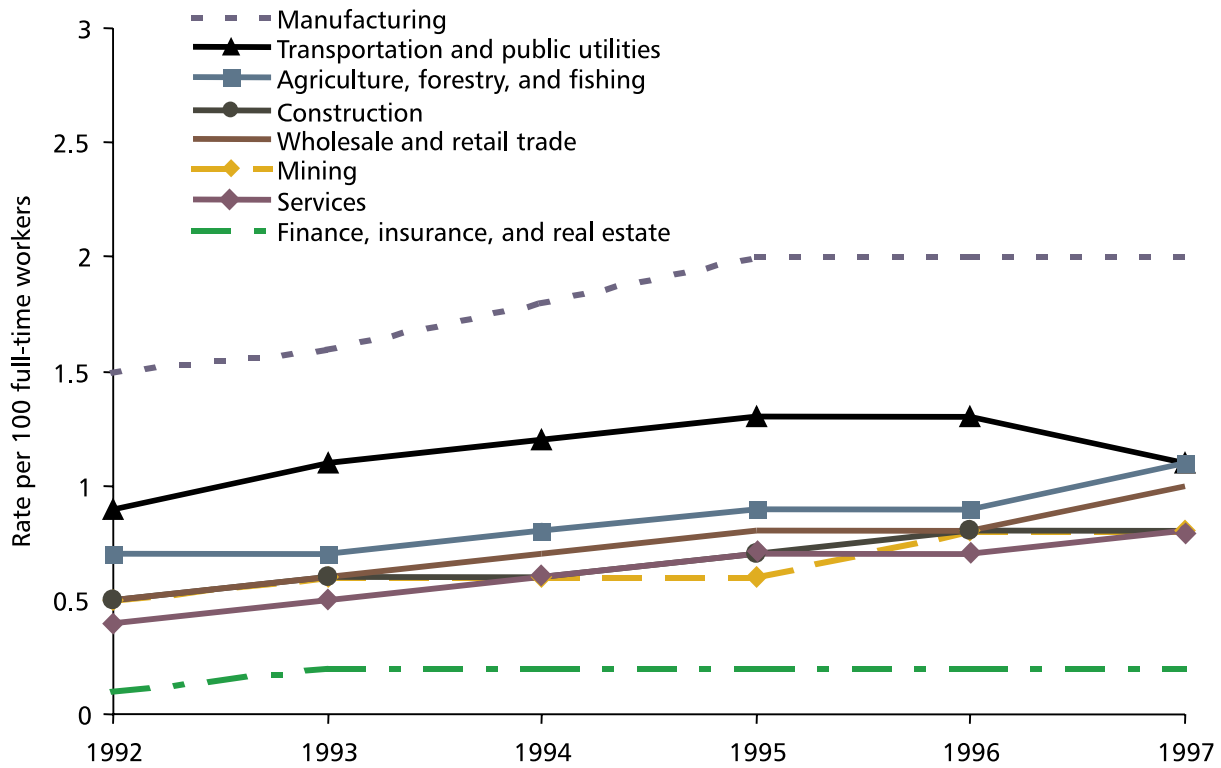


Figure 4-10. Incidence rates in private industry for nonfatal occupational injury cases involving days of restricted work activity only, by industry division, 1992–1997. (Source: SOII [1999].)

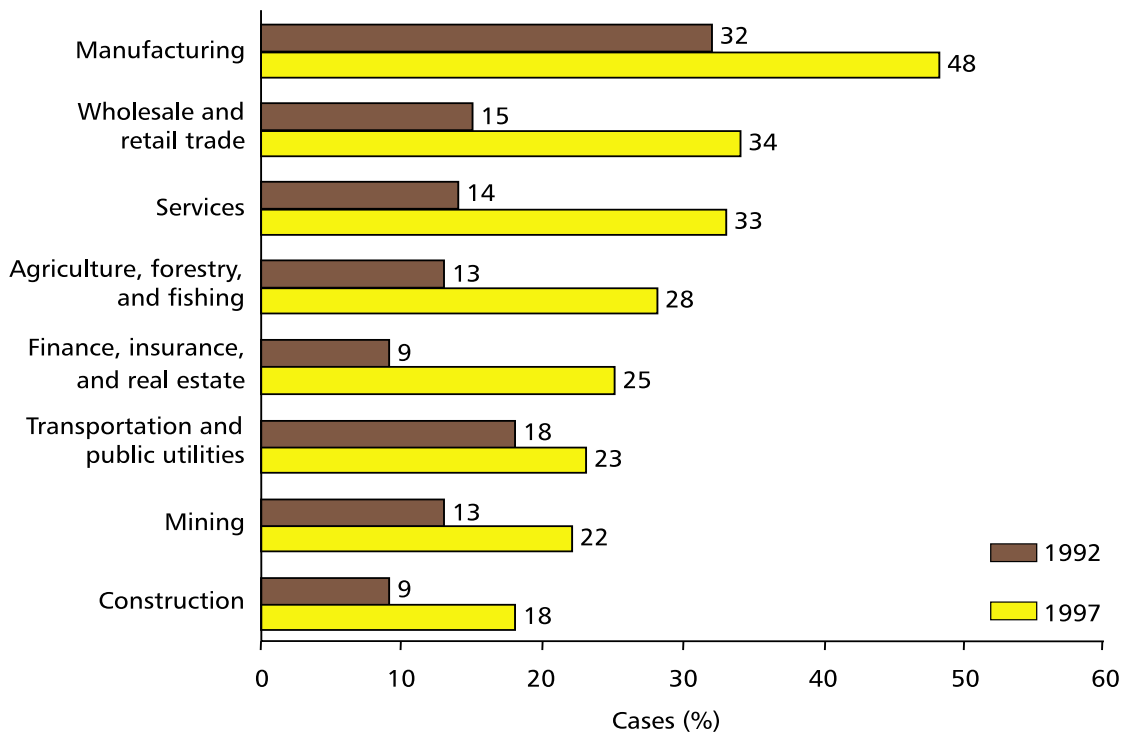


Figure 4-11. Percentage of nonfatal occupational injury cases with lost workdays involving restricted work activity only, by industry division, 1992 and 1997. (Source: SOII [1999].)