

# Restricted work due to workplace injuries: a historical perspective

*In anticipation of upcoming data on worker characteristics and on case circumstances surrounding workplace injuries that result in job transfer or restricted work, new tabulations look at trends in the outcome of workplace injuries over the past several decades*

John W. Ruser  
and  
William J. Wiatrowski

The proportion of all nonfatal workplace injuries and illnesses in the United States that resulted in job transfer (the injured worker continues to be at work but performs a different set of duties) or restricted work (the injured worker performs less strenuous duties) has grown steadily over the past several decades, especially during the 1990s. Today, close to 60 percent of the most severe cases in private industry include at least some days of job transfer or restricted work, with the remainder resulting exclusively in days away from work. In contrast, when such data were first reported in the early 1970s, soon after the passage of the Occupational Safety and Health Act, cases involving only job transfer accounted for less than 5 percent of all severe cases. This article uses available data to investigate the growth of cases resulting in job transfer or restricted work (or, simply, restricted-work cases). The discussion sets the stage for the expansion of data to include detailed information on the circumstances and worker characteristics of restricted-work cases. Such information is scheduled to be released for the first time in 2013.<sup>1</sup>

Employers selected to participate in the Survey of Occupational Injuries and Illnesses (SOII), conducted by the Bureau of Labor Statistics (BLS, the Bureau), must

maintain a record of their workplace injuries and illnesses that is based on definitions developed by the Occupational Safety and Health Administration (OSHA). Recordable workplace injuries and illnesses are those which result in any of the following outcomes:

- Death
- Loss of consciousness
- Days away from work beyond the day of the incident
- Restricted work or job transfer
- Medical treatment (beyond first aid)

In addition, any significant diagnosed work-related injury or illness is recordable, as are certain special cases, such as needlesticks.

### Identifying cases of injury or illness

Fatal work injuries, while recordable under OSHA rules, are tabulated separately by the Bureau through the annual Census of Fatal Occupational Injuries. In the case of nonfatal injuries and illnesses, recordable cases are classified into three broad categories for data collection and publication:

- Cases with days away from work
- Cases with only job transfer or restricted work

John W. Ruser is Associate Commissioner, Office of Productivity and Technology, and William J. Wiatrowski is Associate Commissioner, Office of Compensation and Working Conditions, both at the Bureau of Labor Statistics. Email: ruser.john@bls.gov or wiatrowski.william@bls.gov.

- Other cases (those with neither days away from work nor days of job transfer or restricted work).

The first two categories combined represent the most severe cases; together, these cases are referred to as “cases with days away, restriction, or (job) transfer,” or, acronymically, DART cases. Cases are classified as cases with days away from work if the worker is away from work for at least 1 day; such cases also may have days of job transfer or restricted work. Cases are classified as cases with job transfer or restricted work if the worker incurs at least 1 day of job transfer or restricted work and no days away from work.

In 2002, changes to the rules for employer recordkeeping led to changes in both terminology and concepts. Previously, the broad category of DART cases was known as cases with lost workdays, or simply lost-workday cases. Also, cases with only job transfer or restricted work were known as cases with restricted work activity, or restricted-work cases. Conceptual changes included (1) identifying certain types of injury cases for inclusion in or exclusion from recordkeeping, (2) handling recurring cases, and (3) counting days away from work on the basis of calendar days rather than workdays.<sup>2</sup>

Data presented in this article generally include an indication of where any breaks in series occur, such as the vertical line at 2002 appearing in most of the charts. (See, e.g., chart 1, which shows the historical trends in types of cases of occupational injuries and illnesses from 1975 to 2009.) Although the data are not strictly comparable, there are some trends that continue across the breaks. The discussion that follows will focus on cases of days away from work, cases of restricted work, and the number of days associated with each of those categories. Looked at together, these cases will be referred to as lost-workday cases, to avoid switching terms when referring to data for different years.

Chart 2 displays the number of cases with days away from work and the number of restricted-work cases from 1985 until 2009, showing the trend toward a greater proportion of restricted-work cases, especially prior to the recordkeeping change in 2002. Chart 3 shows that, as a proportion of all lost-workday cases, restricted-work cases rose from 8.6 percent in 1985 to 39.9 percent in 2001. Since then, as all case counts have declined, the proportion has held steady at about the 42 percent of all lost-workday cases seen in 2009.

In addition to the increase in restricted-work cases, there is a trend toward including days with restricted work in cases with days away from work. Chart 4 shows a steady increase in this phenomenon from 1992 through 2001, a period during which the proportion of cases with

days away from work that also included restricted work nearly doubled, from 16.8 percent to 30.5 percent. With the change in OSHA recordkeeping rules in 2002, the proportion dropped substantially, to 26.4 percent that year, and it has remained largely steady since then.

An alternative way of looking at these data is to consider the total lost-workday cases as consisting of three separate categories: cases with days away from work only, cases with days away from work and restricted work, and cases with restricted work only. Chart 5 displays the data in this way, again showing the trend toward an increase in restricted-work cases prior to 2001. Looking at the chart reveals little overall change since the late 1990s, predating the recordkeeping change.

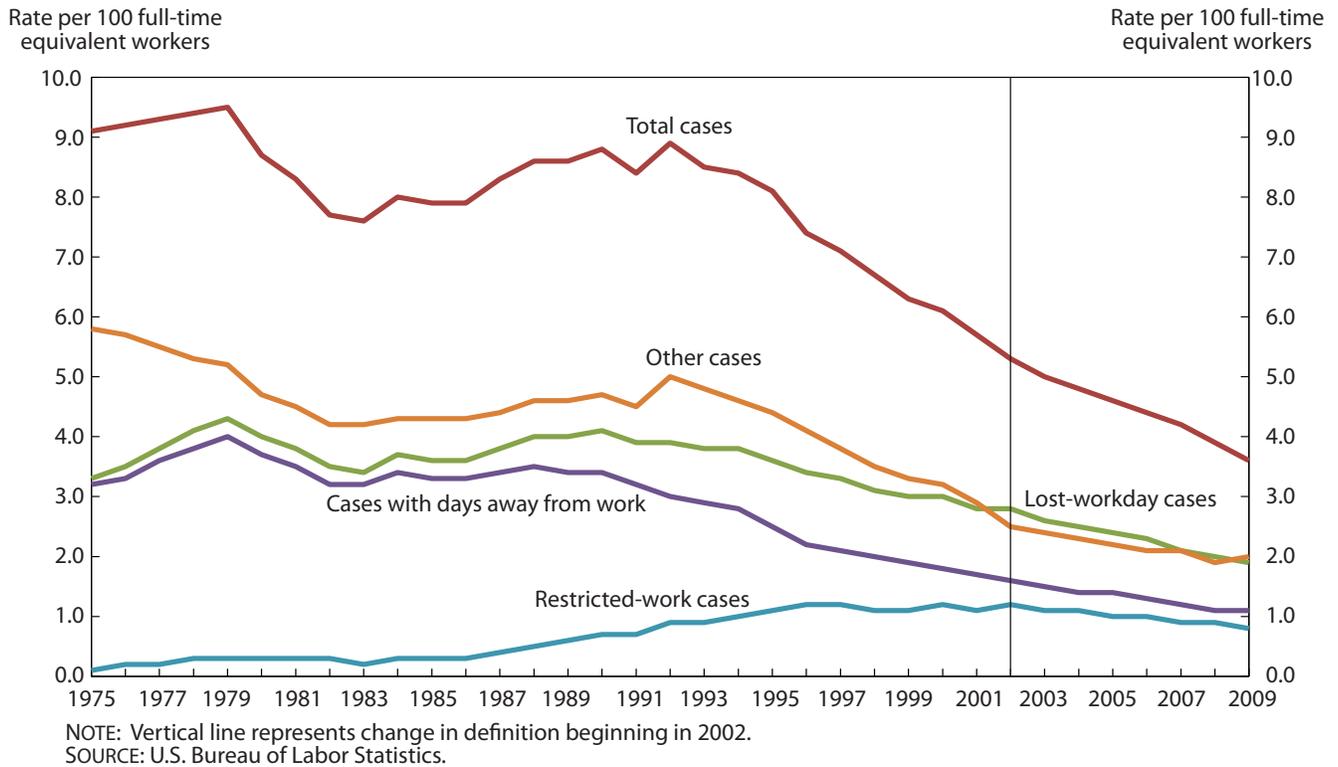
Although the SOII does not capture information from employers on the reasons that cases are treated either as those with days away from work or as restricted-work cases, among the possible reasons for the trend toward the latter are changes in workers' compensation laws and changes in employer attitudes and policies. The influence of workers' compensation may include increased costs from the late 1980s into the early 1990s, deregulation that led to changes in pricing that have rewarded safety and lower claims, return-to-work incentives, and a shift in choice of doctor from the worker to the employer. Among the changes in employer attitudes and policies are increased awareness of safety, tight labor markets and the growth of skilled labor in the 1990s, and the implementation of the Americans with Disabilities Act in 1990.<sup>3</sup>

### Variation by industry and establishment size

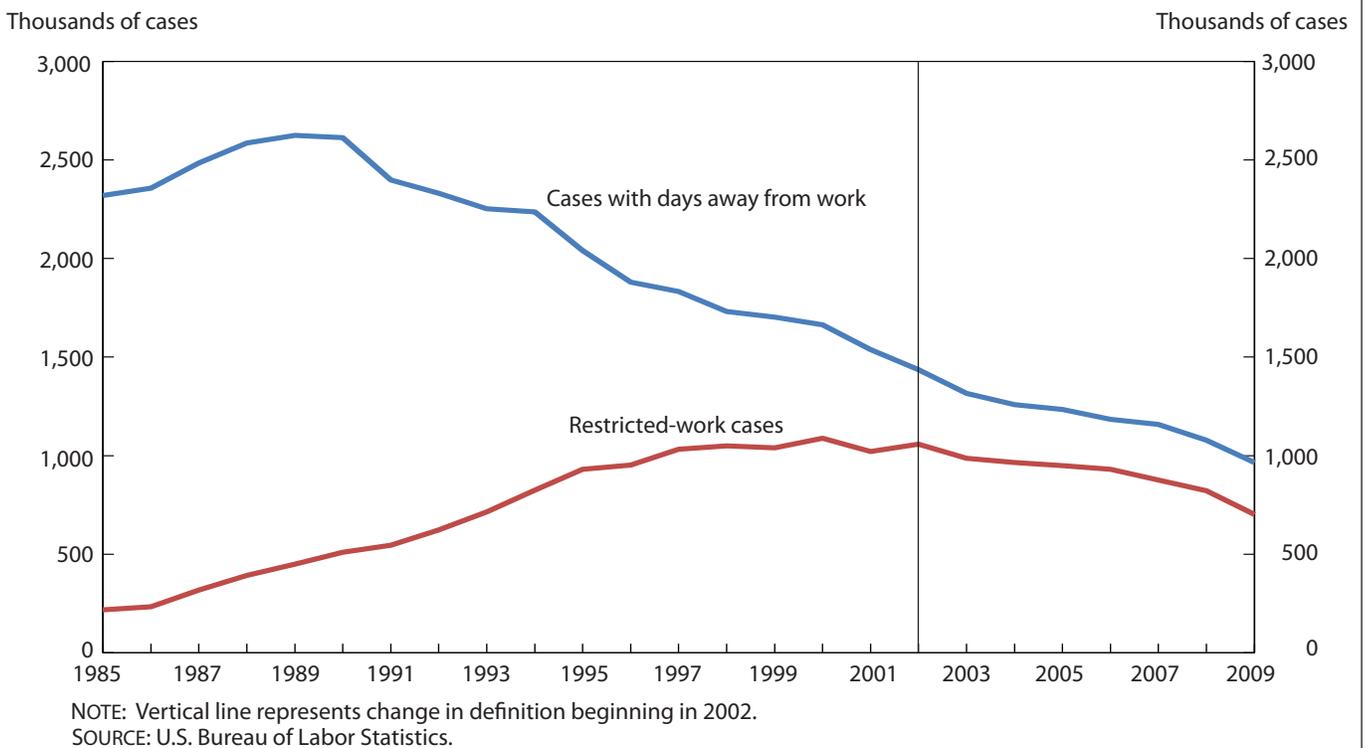
The proportion of lost-workday cases that involve only restricted work has varied by industry since 1985, although the proportion was small for all industries that year. Durable manufacturing and nondurable manufacturing had the greatest proportions of such cases, about 14 percent and 12 percent, respectively. The share grew among all industries by 2001. The rate of growth was greatest among those industries with the lowest proportions in 1985; for example, the proportion of construction industry cases grew more than fivefold, from 4.1 percent to 22.9 percent. But the industries with the greatest proportions of restricted-work cases continued to be durable manufacturing and nondurable manufacturing. (See chart 6.)

The change in industry classification that was introduced into the SOII in 2003 makes it difficult to compare the earlier shares of restricted-work cases with more recent ones. Nonetheless, the industries with greater proportions of restricted-work cases in 2009 are largely the same as

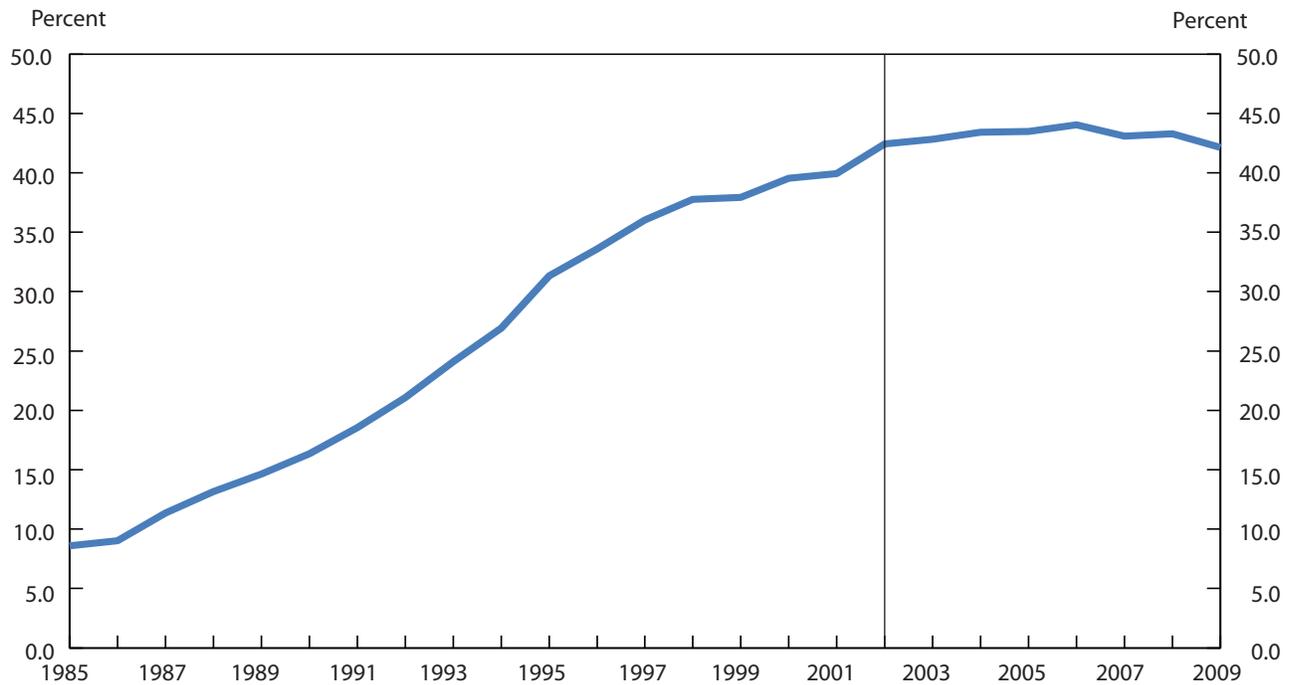
**Chart 1. Rate of occupational injuries and illnesses, by type of case, private industry, 1975–2009**



**Chart 2. Number of occupational injuries and illnesses with days away from work and with restricted work, private industry, 1985–2009**

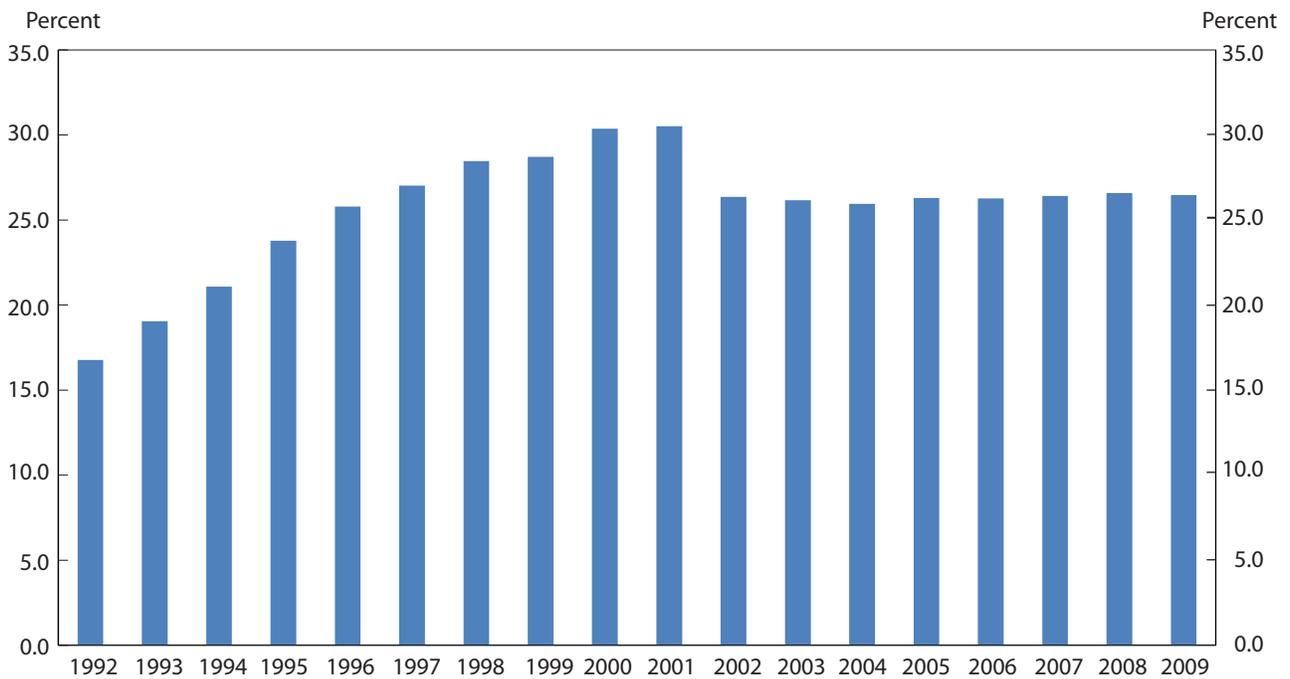


**Chart 3. Restricted-work cases as a percentage of lost-workday cases, private industry, 1985–2009**



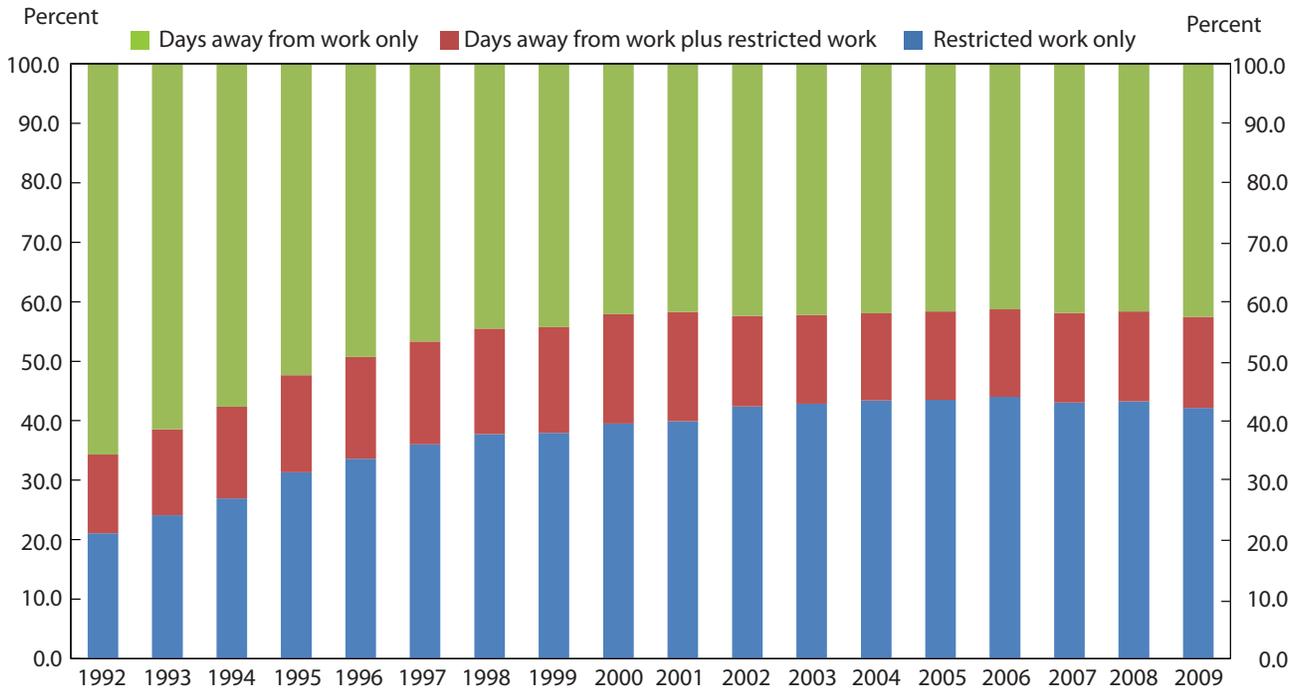
NOTE: Vertical line represents change in definition beginning in 2002.  
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 4. Percentage of cases with days away from work that include restricted-work days, private industry, 1992–2009**



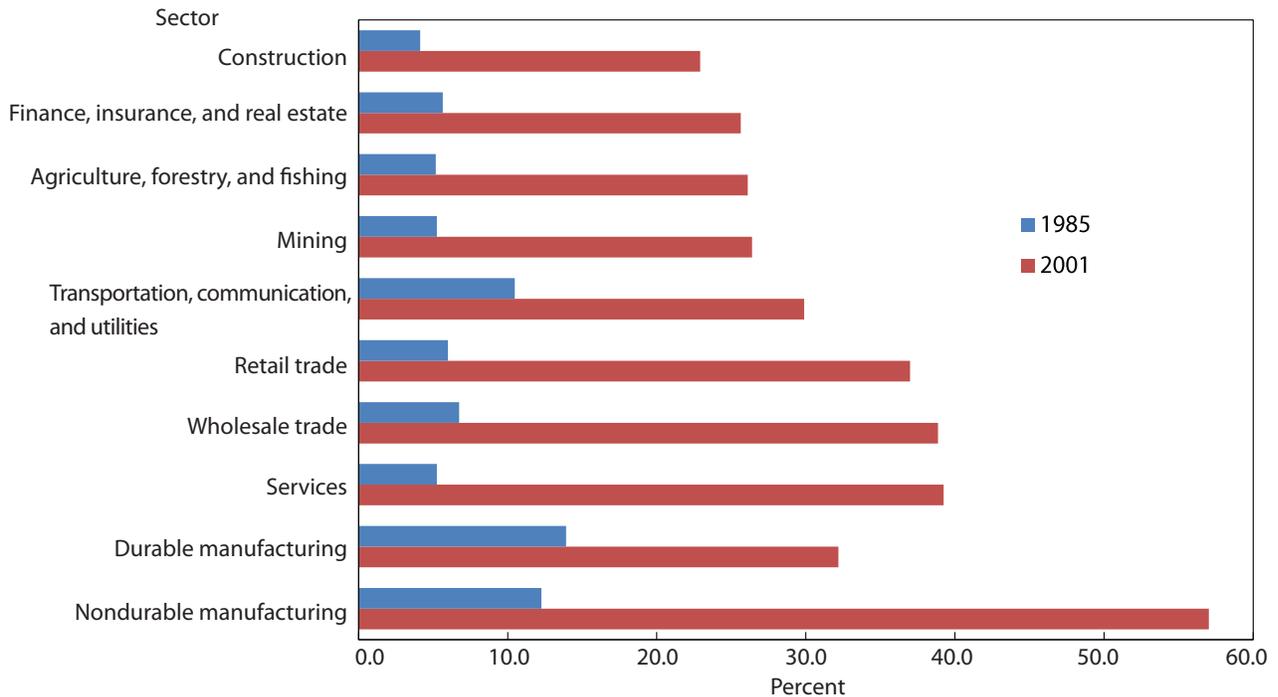
NOTE: Change in definition began in 2002.  
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 5. Percentage of occupational injury and illness cases resulting in lost workdays, by type of case, private industry, 1992–2009**



NOTE: Change in definition began in 2002.  
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 6. Restricted-work cases as a percentage of lost-workday cases, by private industry sector, 1985 and 2001**



SOURCE: U.S. Bureau of Labor Statistics.

those seen in earlier years. Specifically, manufacturing had the highest such proportion in 2009, about 56 percent. (See chart 7.) When more detailed industries are examined, the proportion of restricted-work cases is sometimes seen to be much higher—for example, 64 percent in food manufacturing and 74 percent in leather and allied product manufacturing. (See chart 8.)

Another variable to consider in looking at the proportion of injury and illness cases resulting in restricted work is the size of the establishment: smaller and larger establishments may handle injury and illness cases in different ways. Chart 9 shows a general increase in the proportion of lost-workday cases that involve restricted work as establishments increase in size, although the proportions level off and even decline among the largest establishments. Similarly, the proportion has grown over time among all size classes, with the exception of the largest size classes in the most recent years. Larger establishments may have more varied tasks that make it easier to accommodate restricted work among those unable to continue in their usual job. Looked at another way, the proportion of cases involving days away from work that included days with restricted work generally grew among all size classes through the 1990s, but, just as with all cases, there has been little change in the 2000s. Further, larger establishments are more likely to use restricted work along with days away from work. (See chart 10.)

### Counting days

To explore the number of days recorded for injury and illness cases, including both days away from work and days with restricted work, it is again necessary to consider the proper terminology and understand the relationships among the data. The following facts are relevant:

- Restricted-work cases have no days away from work.
- Cases with days away from work also may have days with restricted work.
- The total count of restricted-work days comes from both cases with days away from work (the restricted days only) and restricted-work cases.
- The total count of lost workdays equals days away from work plus days with restricted work.

Chart 11 repeats the trend line of restricted-work cases as a percentage of all lost-workday cases, but includes an additional trend line showing the percentage of restricted-

work days as a percentage of all lost workdays. Here the trend varies following the recordkeeping change in 2002, with the proportion of restricted-work days, but not that of restricted-work cases, continuing to increase. Chart 12 shows that the proportion of cases with days away from work that included days with restricted work varied little in 1992 by the number of days away per case, but exhibited more variation in 2009. In the latter year, it can be seen that, as the number of days away from work increases, the proportion of cases that include days with restricted work also increases, up to 20 days away. In addition, the median number of restricted-work days (for cases with days away from work that included restricted work) has risen throughout the last two decades (see chart 13) and is greater in larger establishments (see chart 14).

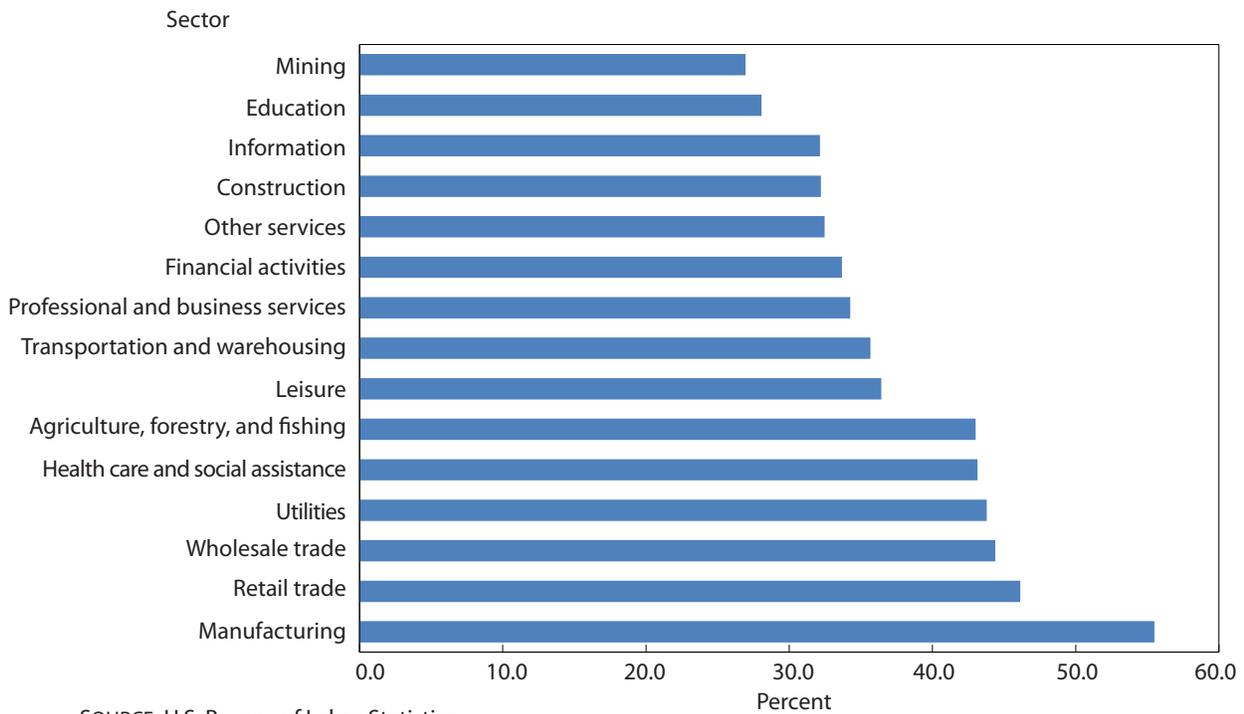
### Worker characteristics and case circumstances

The growth of both restricted-work cases and restricted-work days leads to questions about the workers involved in these cases and the circumstances surrounding the cases. Are similar characteristics found among cases handled as days away from work versus those handled as restricted work? Is there a tendency to treat certain cases or certain groups of workers (e.g., workers of different age) differently? Current BLS data on worker characteristics and case circumstances are limited to those cases with days away from work, although expanding such data to include restricted-work cases is being planned, as described shortly. From the current data, which provide a rich and consistent set of information collected over the past 20 years, some limited detail can be added by looking at cases with both days away from work and restricted work. In these cases, the extent of restricted-work days can be coupled with known characteristics from the cases with days away from work. For example, chart 15 shows the percentage of cases with days away from work that include restricted work, displayed by the nature of the injury; with the exception of sprains, cases involving the nature of the injury that had a higher median number of days away from work (specifically, cases of fractures, dislocations, and carpal tunnel syndrome) were more likely to have days with restricted work as well. Similarly, chart 16 shows an increase with age of the worker in the proportion of cases of days away from work that include restricted work, up through ages 45-54; this trend is consistent with the increase in the median number of days away from work as age increases.

The rich detail available for cases with days away from work tells only partial stories about days with restricted work. Although the preceding examples graft the exist-

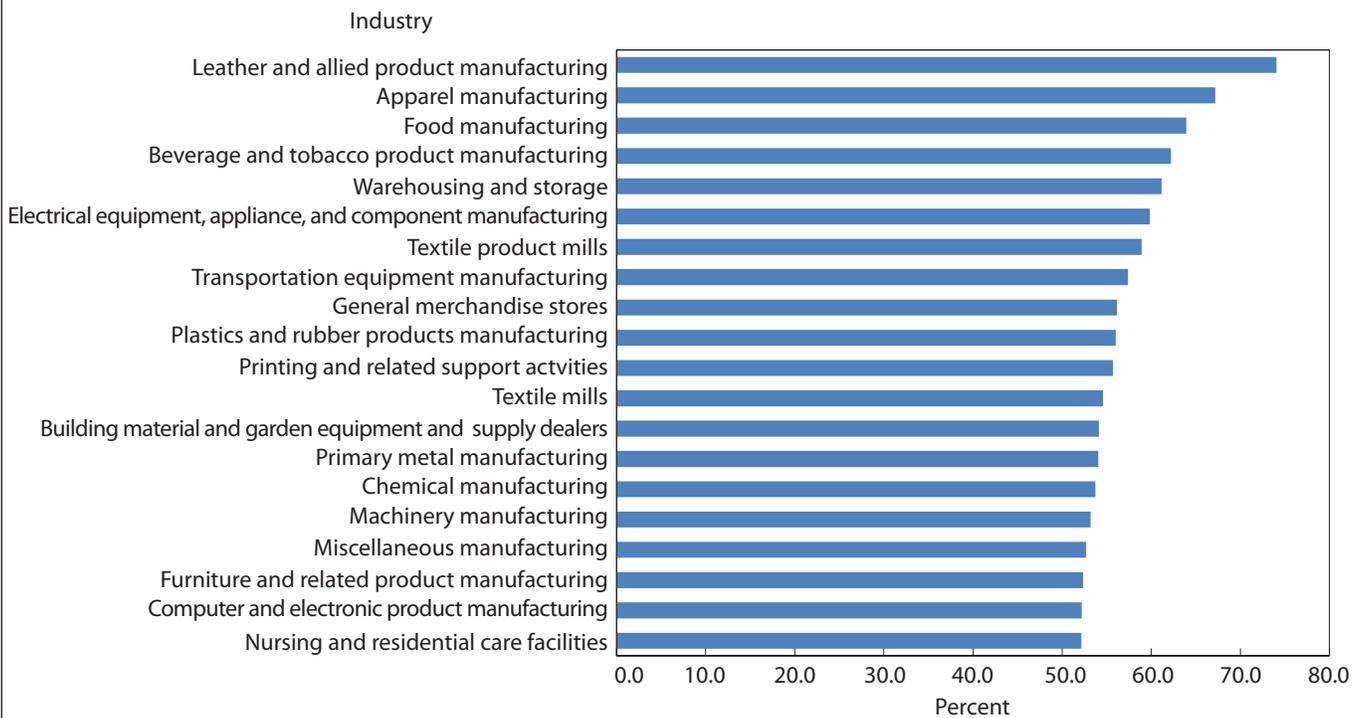
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 7. Restricted-work cases as a percentage of lost-workday cases, by private industry sector, 2009**



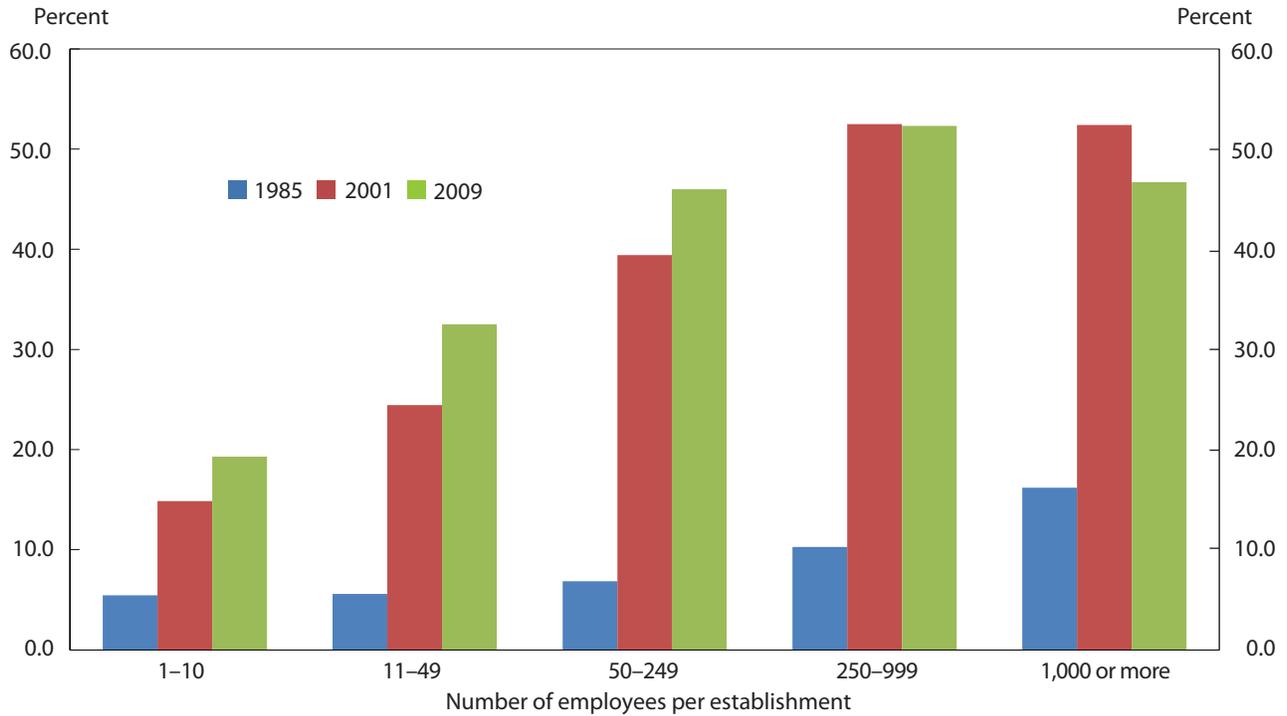
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 8. Restricted-work cases as a percentage of lost-workday cases, by detailed private industry, 2009**



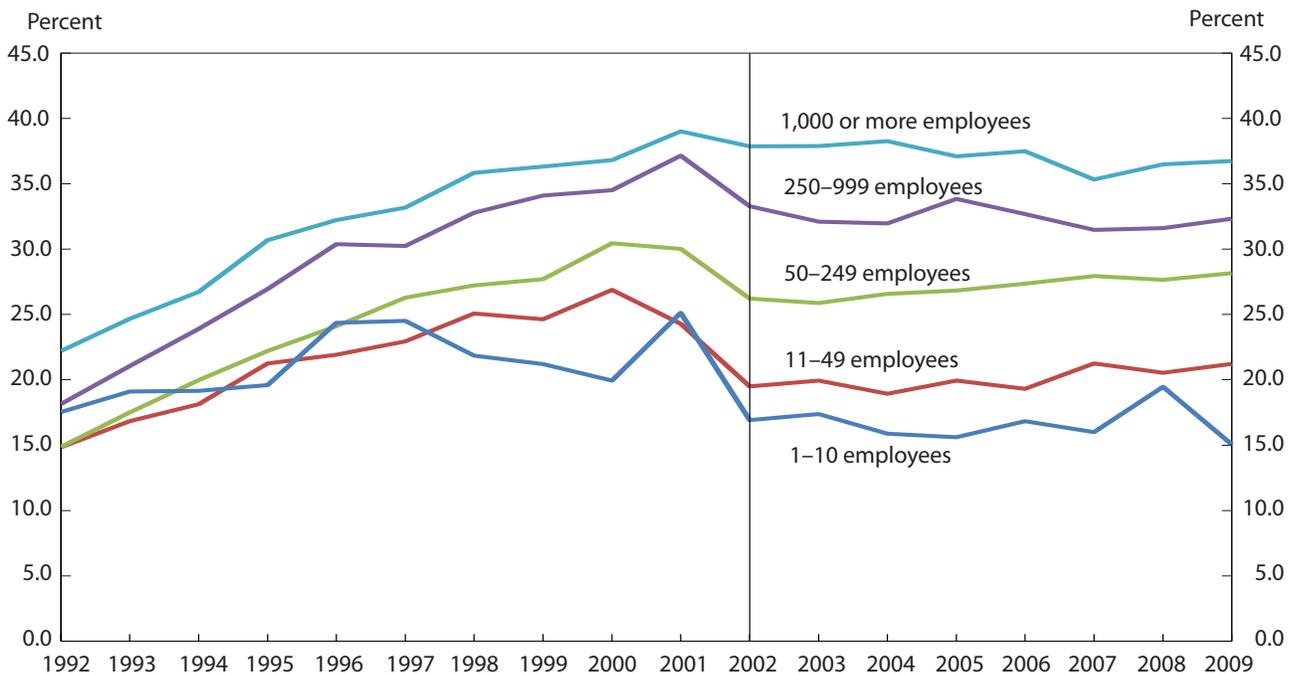
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 9. Restricted-work cases as a percentage of lost-workday cases, by establishment size, 1985, 2001, and 2009**



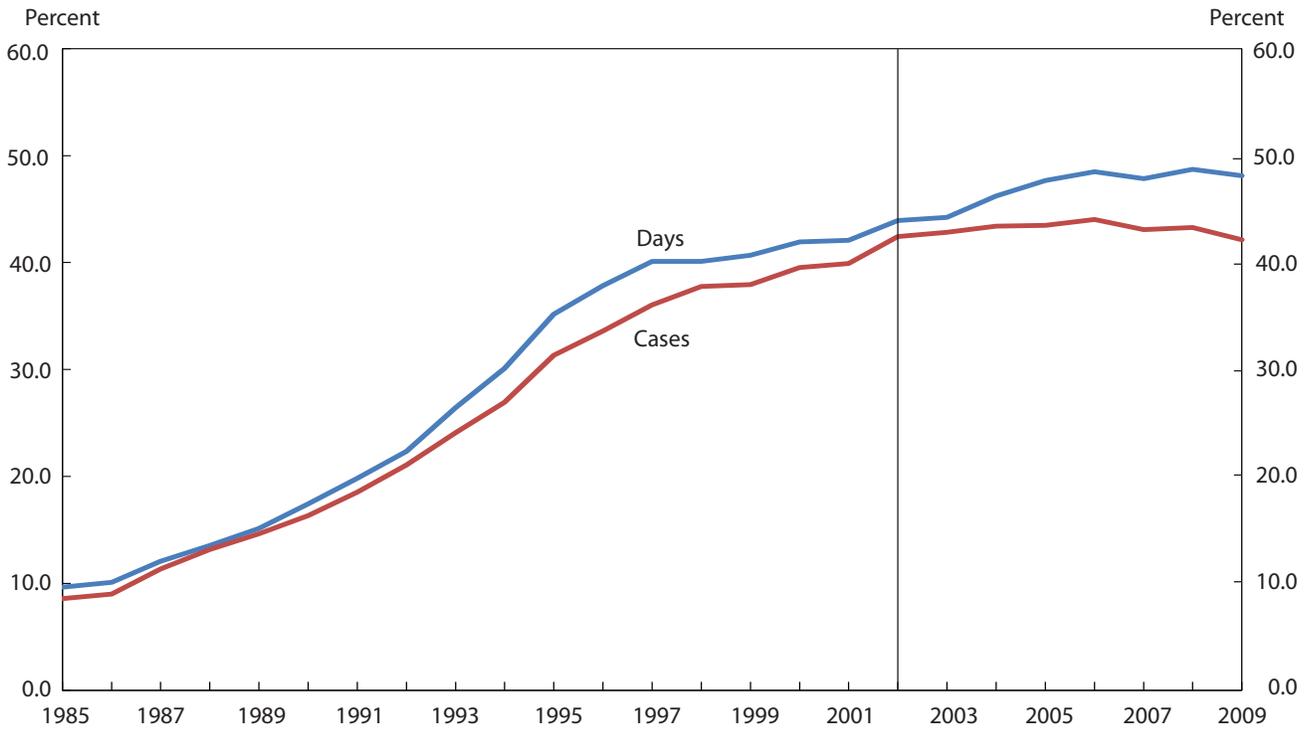
NOTE: Change in definition began in 2002.  
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 10. Percentage of cases with days away from work that include restricted-work days, by establishment size, private industry, 1992-2009**



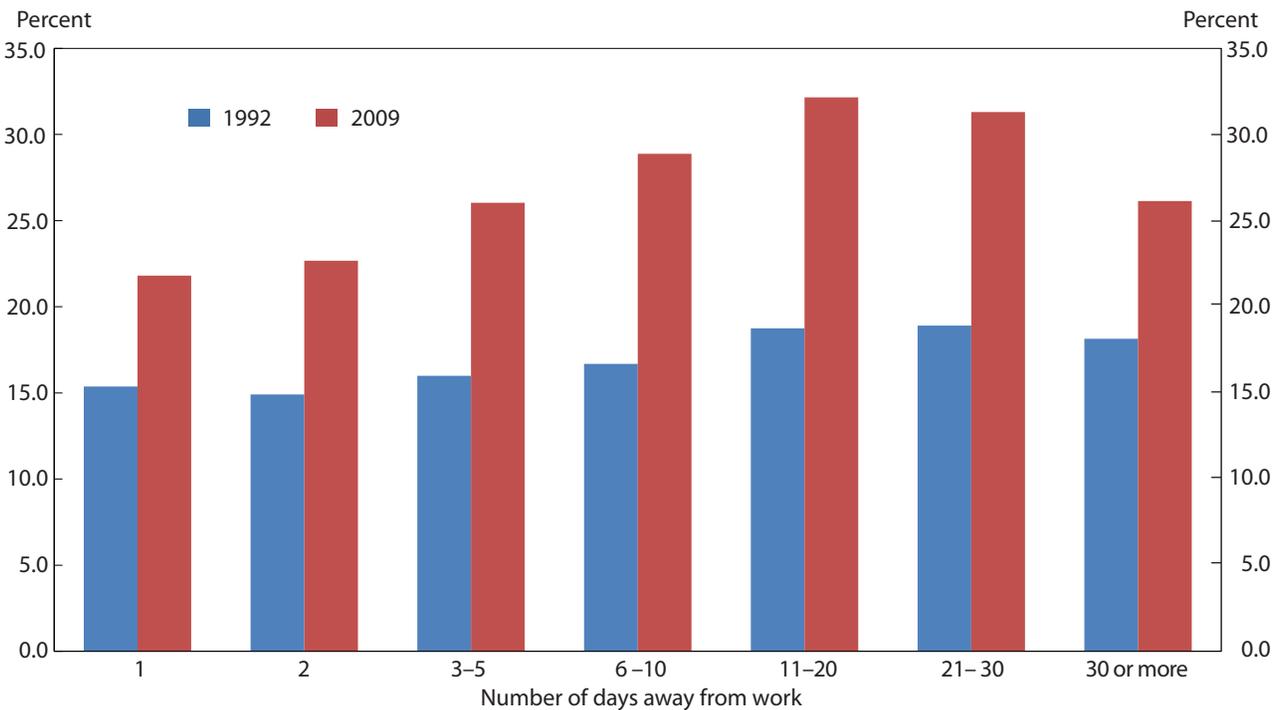
NOTE: Vertical line represents change in definition beginning in 2002.  
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 11. Restricted-work cases and days as a percentage of lost-workday cases and days, private industry, 1985–2009**



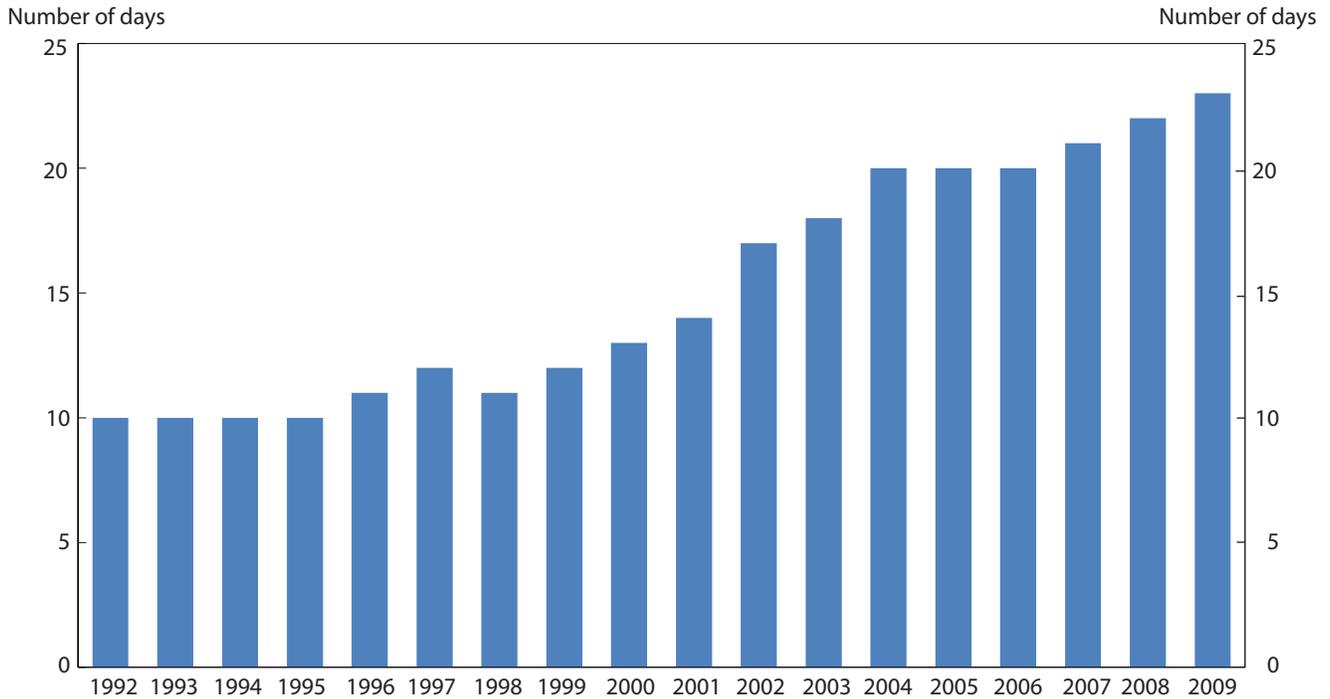
NOTE: Vertical line represents change in definition beginning in 2002.  
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 12. Percentage of cases with days away from work that include restricted-work days, by number of days away from work per case, private industry, 1992 and 2009**



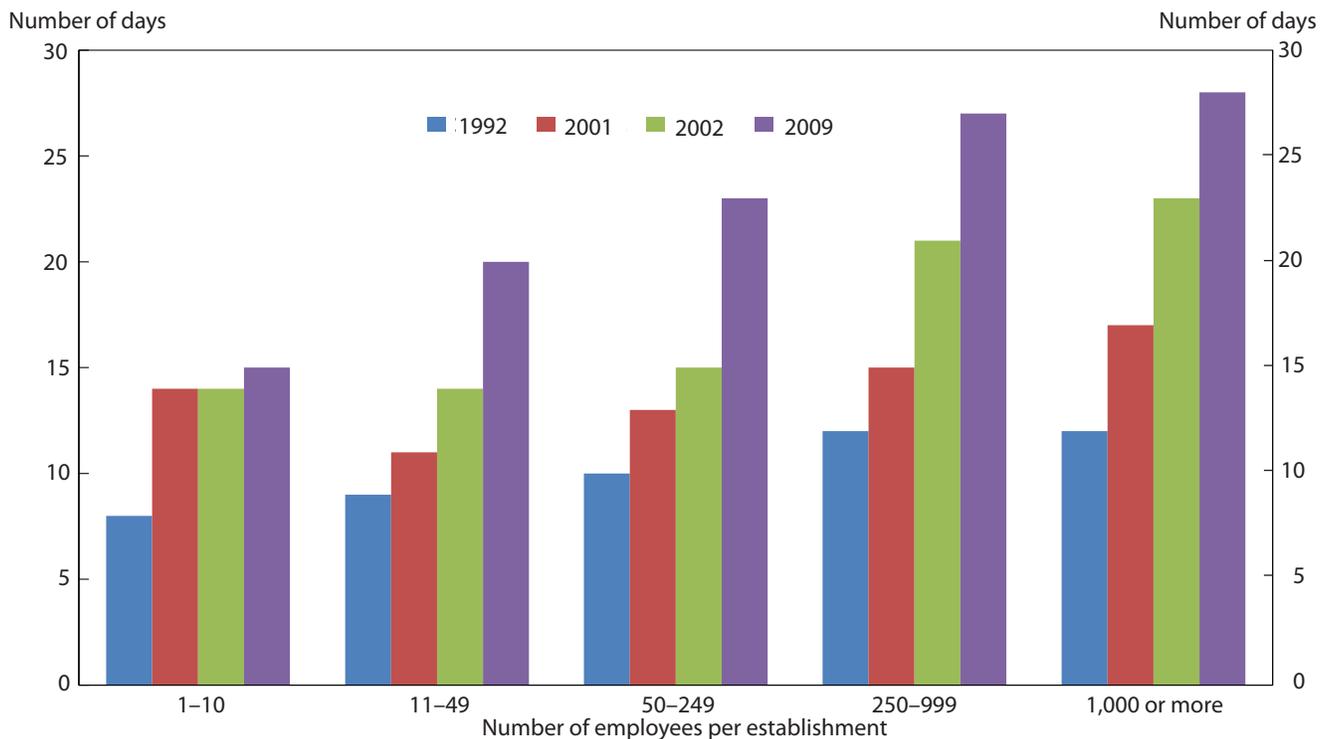
NOTE: Change in definition beginning in 2002.  
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 13. Median number of restricted-work days for cases with days away from work that include at least 1 restricted-work day, private industry, 1992–2009**



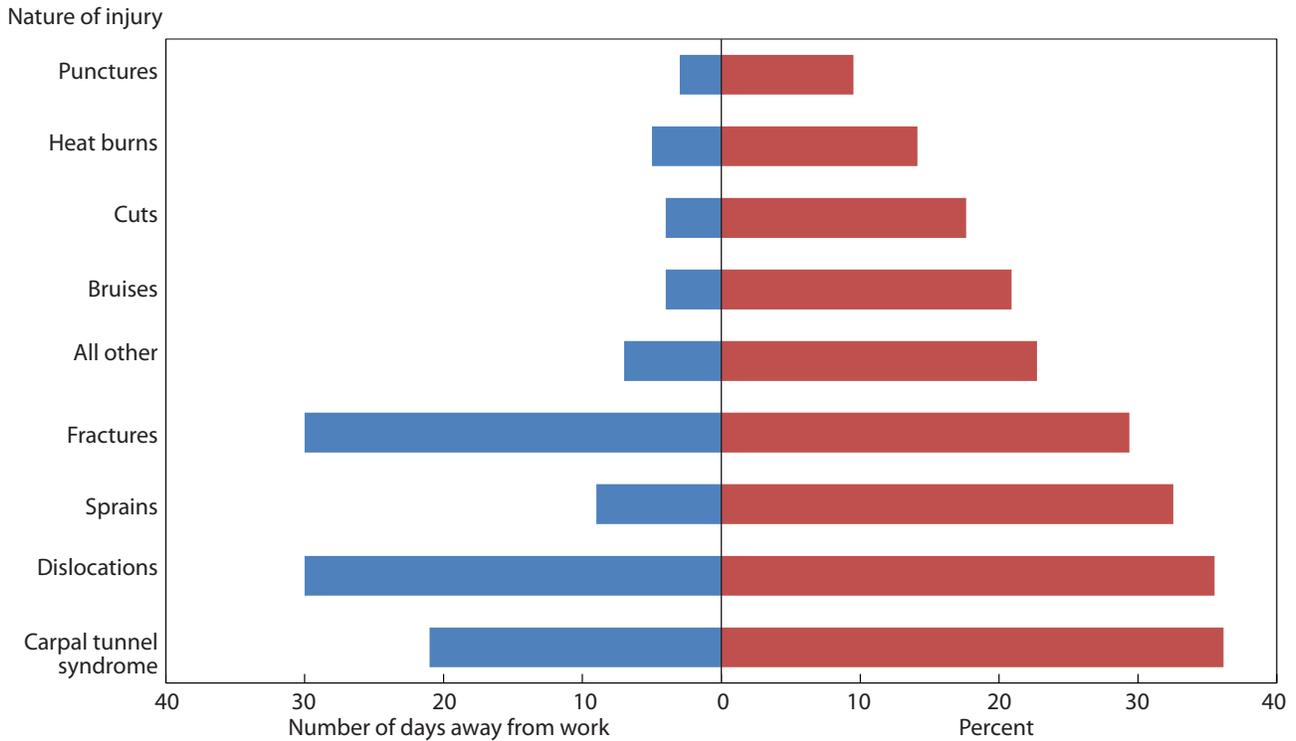
NOTE: Change in definition began in 2002.  
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 14. Median number of restricted-work days for cases with days away from work with at least 1 restricted-work day, by establishment size, private industry, 1992, 2001, 2002, and 2009**



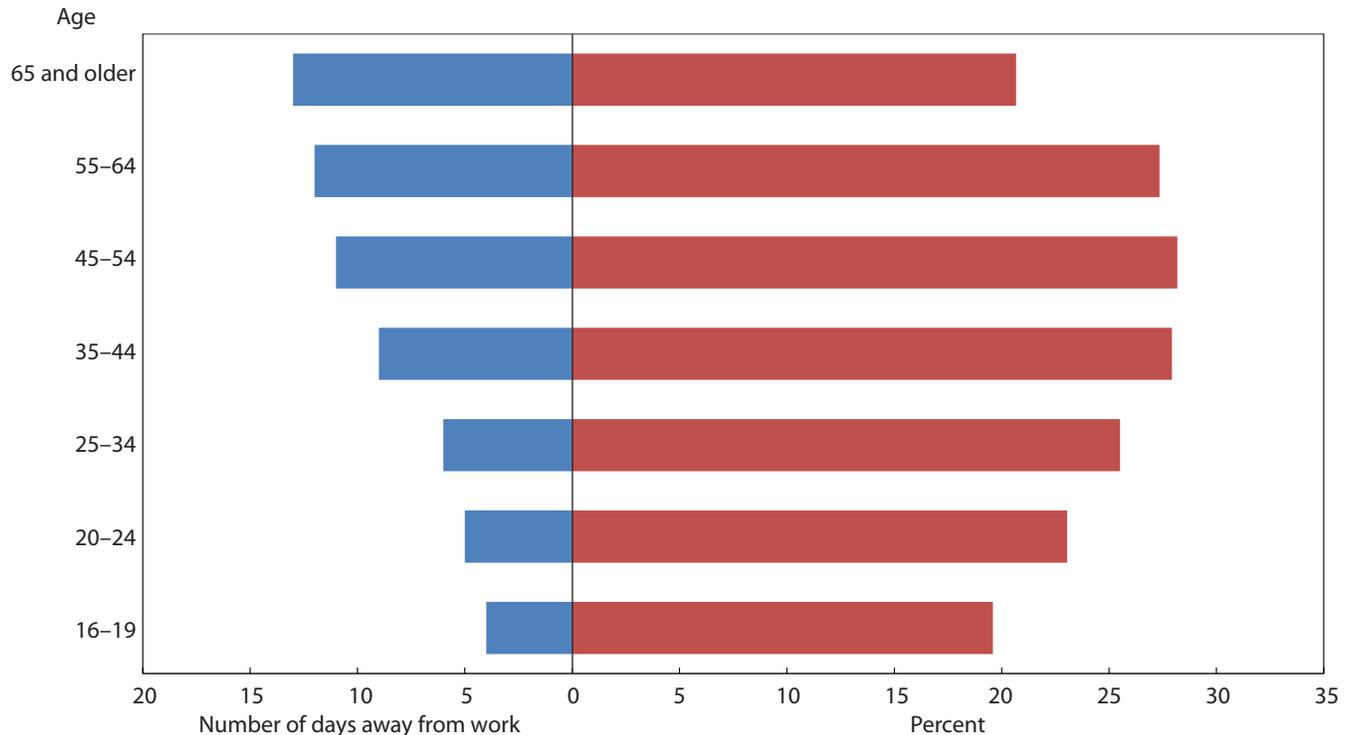
NOTE: Change in definition began in 2002.  
SOURCE: U.S. Bureau of Labor Statistics.

**Chart 15. Median number of days away from work and percentage of cases with days away from work that include restricted-work days, by nature of the injury, 2009**



SOURCE: U.S. Bureau of Labor Statistics.

**Chart 16. Median number of days away from work and percentage of cases with days away from work that include restricted-work days, by age group, 2009**



SOURCE: U.S. Bureau of Labor Statistics.

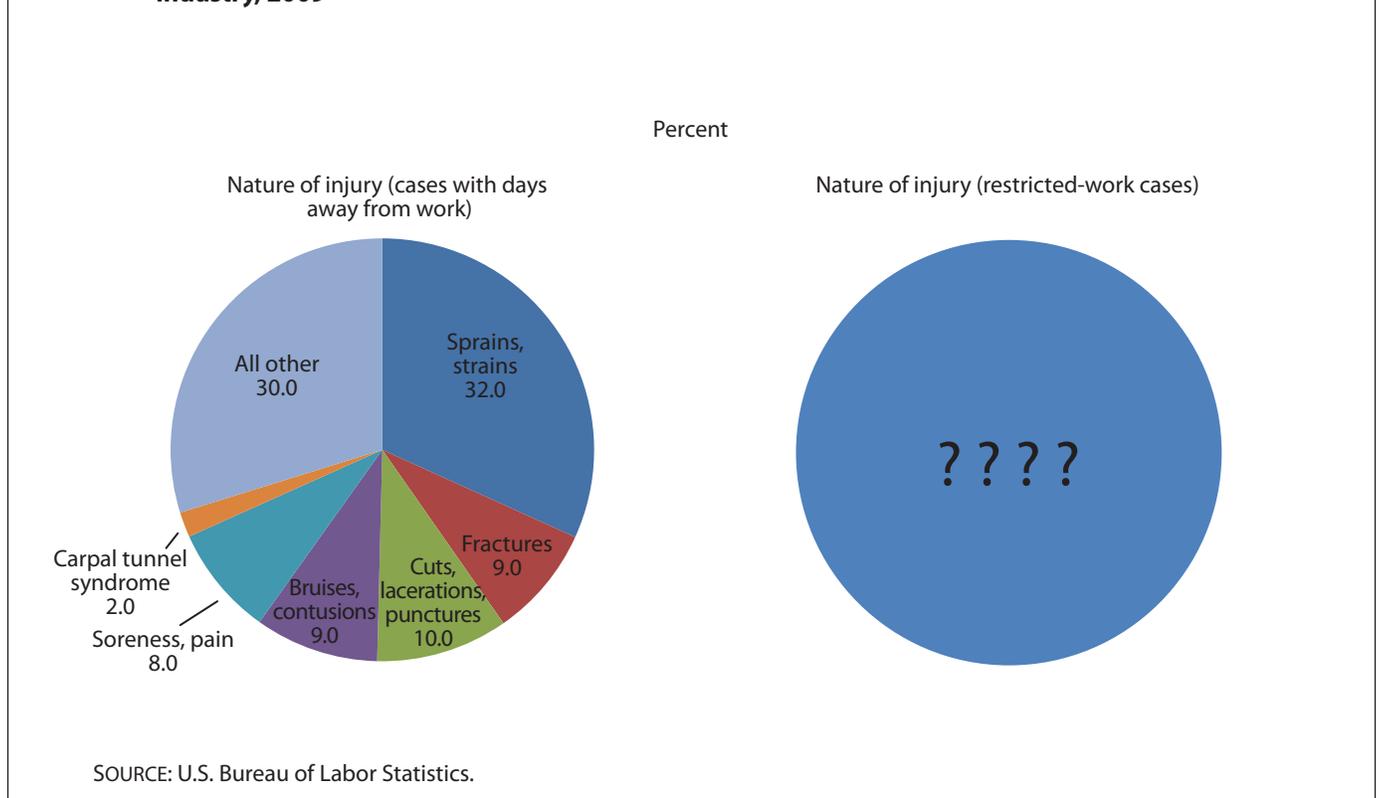
## Restricted Work Due to Workplace Injuries

ence of restricted-work days onto the details from cases with days away from work, as of now there are no details for cases that involve only restricted work. Worker characteristics and case circumstances are unknown for this portion (about two-fifths) of the most serious injury and illness cases. (See chart 17.) To address the issue, the SOII began a pilot survey in 2011 to capture worker and case details for restricted-work cases in six industries. These industries, identified in chart 18, include some in which the rate of restricted-work cases exceeds the rate of cases with days away from work and some in which it does not. For all cases (both cases with days away from work and restricted-work cases), the following data will be captured:

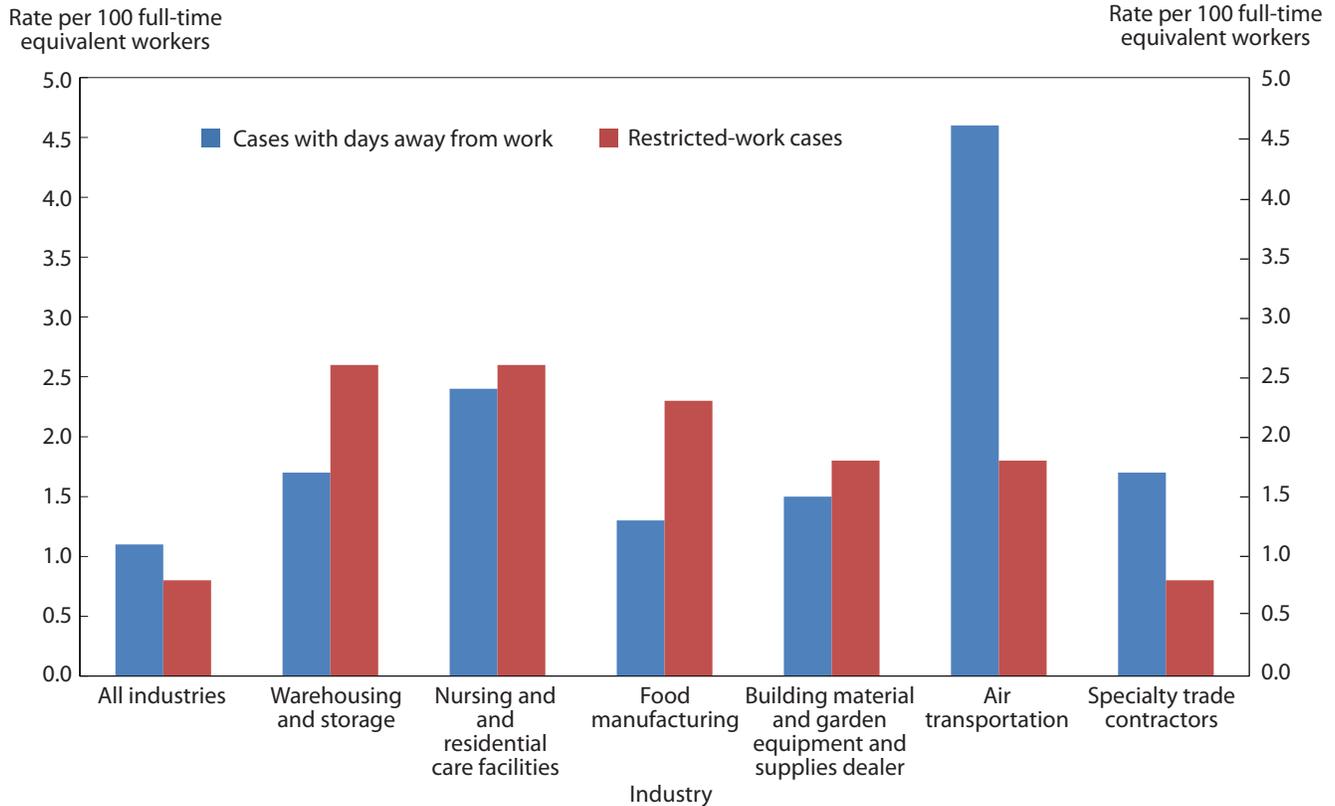
- Occupation
- Age
- Race or ethnic origin
- Gender
- Event or exposure leading to injury or illness
- Nature of injury or illness
- Part of body affected
- Source of injury
- Number of days of job transfer or restricted work
- Number of days away from work
- Length of service with employer
- Day and time of event or exposure
- Amount of time on shift when event or exposure occurred

Although the results of the pilot survey will not represent all industries, they will provide a representative nationwide sample that can shed some light on similarities and differences between worker and case characteristics in the different types of cases. The Bureau will release the first results in 2013, for cases that took place in 2011, and will repeat the pilot test for injuries and illnesses occurring in 2012 and 2013. The Bureau is making plans for how best to move forward with efforts to capture the most complete data possible on all cases, within current resource constraints. One possible approach is to capture worker and case details for a sample of all lost-workday

**Chart 17. Percent distribution of occupational injuries and illnesses, by nature of the injury, food-manufacturing industry, 2009**



**Chart 18. Rates of cases with days away from work and restricted-work cases, selected private industries, 2009**



SOURCE: U.S. Bureau of Labor Statistics.

cases—DART cases—within a sampled establishment, up to a limit designed to maintain the overall number of cases currently collected, thus working within existing resources and limiting any added burden upon sampled employers. This approach would yield fewer cases with days away

from work, perhaps reducing the amount of published detail available. But the tradeoff would be the availability of data on all DART cases combined and some detail on both cases with days away from work and restricted-work cases across all industries. □

## Notes

<sup>1</sup> Unless otherwise indicated, inferences in this article were made on the basis of values published by the Bureau of Labor Statistics and were not validated by statistical tests because sampling errors were proven to be impractical to obtain.

<sup>2</sup> For a discussion of how the changes in OSHA recordkeeping rules were incorporated into the SOII, see William J. Wiatrowski, “Occupational

safety and health statistics: new data for a new century,” *Monthly Labor Review*, October 2005, pp. 3–10, <http://www.bls.gov/opub/mlr/2005/10/art1full.pdf>.

<sup>3</sup> For more information about changes in workers’ compensation programs, see *Workers’ Compensation: Benefits, Coverage, and Costs, 2010* (Washington, DC, National Academy of Social Insurance, August 2012).