

## **Nonfatal Workplace Injuries and Illnesses in Maryland for 2009**

A total of 72,500 nonfatal work-related injuries and illnesses were reported by Maryland's public and private sector workplaces during 2009, according to the latest results of the Survey of Occupational Injuries and Illnesses (SOII). There were 2,500 fewer cases reported than in 2008. The number of injuries and illnesses converts to a total recordable case (TRC) incidence rate of 3.7 injuries and illnesses per 100 equivalent full-time workers. The Maryland rate for all industries including State and local government remained unchanged from 2008. Maryland's TRC rate is also 5 percent below the 2009 national average.

### **Injury and Illness Industry Summary Data, Maryland's Private Sector, 2009**

Occupational injuries and illnesses among Maryland's private sector employers occurred at a rate of 3.3 cases per 100 equivalent full-time workers. This rate also remained unchanged from the previous year. The TRC injury and illness incidence rate among the State's private industry employers has declined significantly each year since 2003, when estimates from the Survey were first published based upon the 2002 North American Industry Classification System (NAICS). Similarly, the number of workplace injury and illness cases for the State's private sector declined three percent from 58,600 cases in 2008 to 56,700 in 2009.

### **Key findings for the State's private sector, 2009**

- Of the 56,700 injuries and illnesses reported by Maryland's private sector employers, 20,500 of these cases were severe enough to require at least one day off from work for recuperation. Of these, 16,700 cases (81 percent of the private sector total) were in the service-providing industries. The remaining 3,800 were in the goods-producing industries.
- The rates for injuries and illnesses in the State's private sector varied depending on the size of the establishment. The TRC injury and illness incidence rate for the largest establishments (those employing 1,000 or more workers) was highest at 4.5 cases for every 100 equivalent full-time workers. This compared with 1.5 cases per 100 equivalent full-time workers in establishments with 10 or less employees.
- Employing some 296,400 workers, the State's goods-producing industries collectively had a TRC rate of 3.8 cases per 100 equivalent full-time workers. This was down slightly from the previous year's reported rate of 3.9. Additionally, Maryland's rate was 12 percent below the 2009 national average. The goods-producing sector is a NAICS aggregate industry sector that includes manufacturing, construction, agriculture, natural resources and the mining industry sectors.

- With 1,774,000 workers employed, Maryland’s service-providing sector reported a TRC incidence rate of 3.2. This rate remains unchanged from the previous year. In addition, Maryland’s rate was six percent below the national average of 3.4 cases per 100 equivalent full-time workers.
- Wholesale trade’s total recordable case rate decreased from 3.3 injuries and illnesses per 100 equivalent full-time workers in 2008 to 3.0 in 2009. This sector employed 91,600 workers in the State during 2009.
- With more than three times the employment of wholesale trade, the 285,200 workers in retail trade experienced a TRC incidence rate of 4.1. This was two percent below the national average for retail trade.
- Private sector construction reported 5,900 occupational injury and illness cases (1,000 fewer than in 2008). Since 2006, both the rate and number of injury and illness cases in construction have continued to decline.
- There were 2,300 new cases of occupational illness reported in the State’s private sector during 2009. Of these, 400 cases were classified as “skin disorders;” 200 cases were “respiratory conditions”; and 100 were cases of “hearing loss”.

### **Maryland State and local government, 2009**

The public sector injury and illness estimates, covering slightly over 349,300 Maryland State and local government workers, resulted in a total recordable case incidence rate of 5.9 injury and illness cases per 100 full-time equivalent workers. Although this represented an 11 percent decline from the previous year’s rate of 6.6, Maryland’s public sector rate is two percent higher than the national average for State and local government. There were 15,900 new cases of occupational injury and illness reported for Maryland’s State and local government.

Historically, injury and illness rates for State and local government have tended to be higher than those for many industries in the private sector. There are probably several factors influencing this. Certainly the greater relative risk of injury or illness due to occupational hazards associated among particular occupations concentrated within the public sector plays a role. For example, police, firefighters, correctional officers, public transportation workers, hospital workers and public works employees consistently record high rates. Because of hazardous occupations, many of the highest industry rates for Maryland in 2009 were reported within State and local government. Some notable examples were State government hospitals (16.7); nursing and residential care facilities (25.2); and correctional institutions (15.5). Examples in local government were fire protection (20.5); and police protection (11.8).

## **State and local government highlights, 2009**

- There were 5,300 new injury and illness cases reported by Maryland State government (an increase of 300 cases from 2008). The total recordable case incidence rate was 5.9, up from the previous year's rate of 5.7.
- For State government, 2,300 injuries and illnesses cases, or over two-fifths of the total, were severe enough to require time off from work for recuperation.
- There were 10,600 new occupational injuries and illnesses reported for local government with 3,800 (over one-third of the total) requiring time off from work.
- Elementary and secondary schools under local government reported 3,300 injury and illness cases with 30 percent of the cases requiring at least one or more days away from work for recuperation.

## **Maryland Nonfatal Injury and Illness Case Characteristics and Demographic Data**

In addition to occupational injury and illness rates based on industry, the SOII provides details on worker demographics (e.g., occupation, age, gender, race, and length of service) for the more serious cases. A serious case is defined as a one that requires the injured or ill employee to take at least one day off from work for recuperation. The SOII also provides information that details the circumstances of these days away from work cases. The injury or illness is described from four vantage points.

- 1) Nature of the injury or illness - identifies the principal physical characteristics (e.g., sprain, cut, amputation);
- 2) Part of the body affected - identifies the part of the body directly affected by the previously identified nature of injury or illness (e.g., lung, brain, back);
- 3) Event or exposure - describes the manner in which the injury or illness was produced (e.g., fall, assault, struck by an object); and
- 4) Source and secondary source - identifies the object, substance, bodily motion or exposure which directly produced or inflicted the injury or illness (e.g., punch press, bodily motion, ground, acid).

## **Case and Demographic Highlights: the Private and Public Sectors, 2009**

- For every year since 2003, the occupation with the most injuries and illnesses resulting in days away from work in the private sector was “Laborers and freight, stock, and material movers, hand” with 1,600 cases reported in 2009. This represented a 12 percent decline for this occupation from 2008.
- The number of days-away-from-work cases for private sector “construction laborers” increased 11 percent to 840 in 2009 up from 760 cases reported the previous year.
- Three occupations in local government: “Police and sheriff’s patrol officers” (670), Firefighters” (420) and Bus drivers, transit and intercity (250) accounted for over one-third of the total number of 3,800 cases resulting in days away from work.
- Three occupations in State government: “Correctional officers and jailers” (560), “Bus drivers, transit and intercity” (390) and “Police and sheriff’s patrol officers” (130) accounted for close to half the total number of 2,270 cases reported.

## **Demographic Characteristics**

- Men accounted for approximately 63 percent of the 20,510 days-away-from-work cases reported by private industry in 2009. The rate of injury and illness for men declined by one percent from the previous year. The rate for women, however, increased two percent, though men continue to have a higher incidence rate (135.2 cases per 10,000 workers) than women (99.7 cases per 10,000 workers).
- Men accounted for 68 percent of all the lost time cases reported for local government where gender was reported. The 2,570 injuries and illnesses involving male workers represented a 12 percent increase compared with 2008.
- Women accounted for the majority of the 2,270 cases in State government with 55.5 percent (1,260) of the total.
- Based on race or ethnicity, the 7,030 injury and illness cases in the private sector requiring time off involving white workers decreased four percent when compared with 2008. The 4,100 cases to black workers represented an eight percent decline from the previous year. In spite of these declines, injuries and illnesses to Hispanic or Latino workers increased slightly over one-third from 1760 cases reported in 2008 to 2,360 for 2009. Race or ethnicity was not reported for one-third of the cases submitted.
- Workers between 20 to 24 years of age had the highest rate for cases requiring time off from work (170.7 per 10,000 equivalent full-time workers) in private

industry while State government workers between 20 to 24 years had the highest rate (362.8 per 10,000 equivalent full-time workers) for the public sector.

### **Case Characteristics**

- One measure indicating injury or illness severity is the median number of days away from work required for the worker to recuperate. Based on the event -- which describes the manner in which the injury or illness was produced -- for every year since 2005, cases due to repetitive motion have had the highest median number of days away from work for private sector workers with 24 days in 2009.
- Based on the nature of the injury or illness-- which identifies the principal physical characteristics -- punctures with 60 days, had the highest median number of days missed from work in the State's private sector. This was followed by carpal tunnel syndrome with 45 days. The median number of days missed for all cases was 7.
- Thirty-five percent of private industry's 8,290 sprains and strains cases were back injuries. One-quarter involved the lower extremities (typically the knee or ankle).

### **Background of the Survey of Occupational Injuries and Illnesses (SOII)**

The Survey of Occupational Injuries and Illnesses (SOII) is a cooperative program between the State of Maryland's Department of Labor, Licensing and Regulation, Division of Labor and Industry and the U.S. Department of Labor, Bureau of Labor Statistics. The SOII provides estimates of the number and frequency (incidence rates) of nonfatal occupational injuries and illnesses by industry. The survey also provides details on the circumstances and characteristics of the more seriously injured and ill workers. The statistics are based on safety and health logs that by law, employers are required to keep. Occupational injury and illness statistics have been published for the Maryland's private sector every year since 1973 and for State and local government since 1979.

The SOII program utilizes an employer-based questionnaire that is mailed to over 4,700 business establishments. Most employers now submit their data electronically through a secure on-line website. The responses are compiled, tabulated and the results published annually. The Survey of Occupational Injuries and Illnesses is the primary source for charting the nature and magnitude of the non-fatal occupational injury and illness problem across the country.

The survey uses statistical sampling techniques for producing estimates. Because the results are based on a random sampling of establishments in the universe file (the universe is all operating in-scope establishments in Maryland's unemployment insurance tax file), the estimates probably differ from the figures that would be obtained if every establishment in the State had participated. To determine the precision of each data

estimate, a standard error is calculated. The standard error defines a range (confidence interval) around each estimate. Relative standard errors are calculated for every estimate produced. The survey sample is stratified by establishment size class and by industry classification. Industry classifications are based using the 2007 North American Industry Classification System (NAICS).

The number of injuries and illnesses reported in a given year can be influenced by changes in the level of economic activity, working conditions and work practices, worker training, and the number of hours worked.

The quality of the data is dependent on the employer's understanding of which cases are recordable under the Occupational Safety and Health Administration's (OSHA) recordkeeping regulation. Maryland state agencies and all local government municipalities and jurisdictions are required by law to keep records of occupational injuries and illnesses. Additionally, many private sector establishments are required to keep records. The OSHA recordkeeping system is designed to measure the incidence, rather than the prevalence, of occupational injuries and illnesses. Prevalence measures capture all injuries and illnesses that occurred in a given year including all ongoing or unresolved cases from previous years. The intent of the OSHA recordkeeping system is to measure each occupational injury and illness only once. The Survey of Occupational Injuries and Illnesses, therefore, provides estimates of the numbers and rates of new workplace injuries and illnesses in a given year.

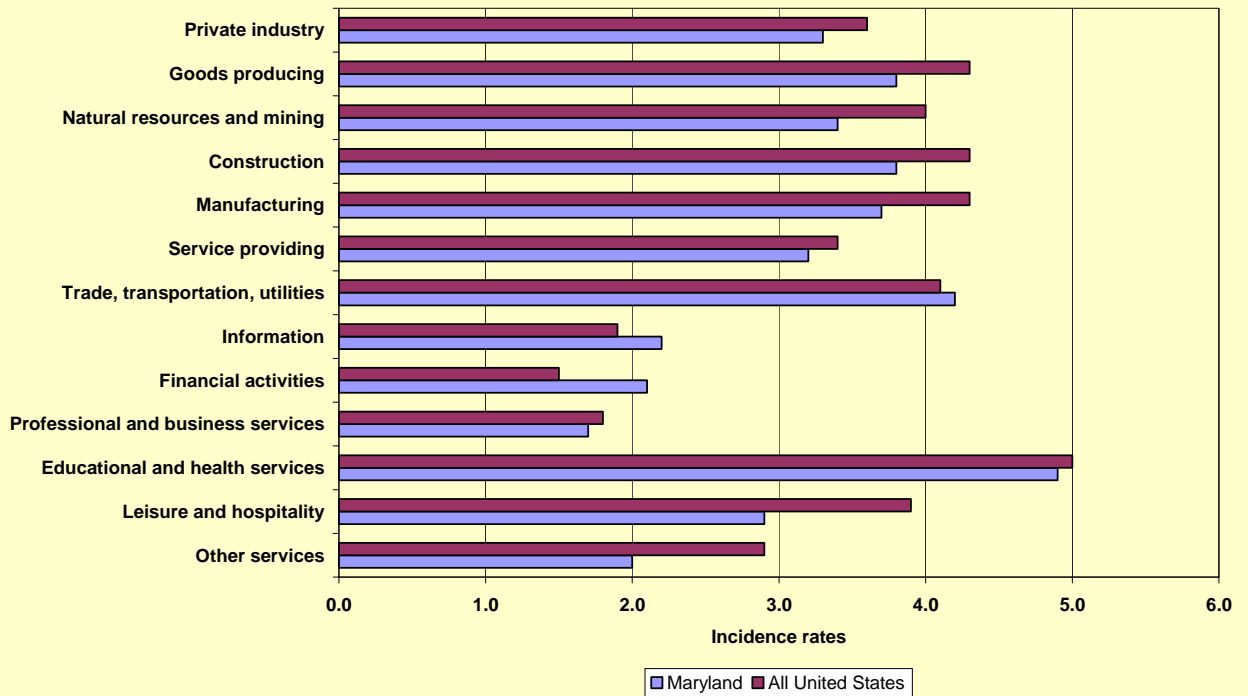
Excluded from the Survey of Occupational Injuries and Illnesses were the self-employed, farming operations with fewer than 11 employees, private households and federal government agencies. Occupational injury and illness data for coal, metal, and nonmetal mining and for railroad activities were provided by the U.S. Department of Labor's Mine Safety and Health Administration (MSHA) and The U.S. Department of Transportation's Federal Railroad Administration respectively.

#### A Note Regarding Occupational Illness Statistics

Collecting information to produce occupational illness statistics remains a challenge with the true numbers and rates difficult to measure. Unlike injuries, which result from sudden instantaneous events and are easily reported and documented, many types of occupational illness are not diagnosed until long after the initial exposures to carcinogens or other workplace toxins have taken place. It may be years before the cumulative effects of those exposures present as occupational disease and the ill employee may no longer be in the workforce. Because of this, it is believed the numbers and rates of certain types of long-term, latent occupational diseases are understated by the SOII. In contrast, the overwhelming majority of the reported illnesses are those that are easier to directly relate to the workplace, such as contact dermatitis or carpal tunnel syndrome.

SOURCE: Maryland Department of Labor, Licensing and Regulation, Division of Labor and Industry in cooperation with the U.S Department of Labor, Bureau of Labor Statistics.

**Incidence rates per 100 full-time workers for  
total nonfatal occupational injuries and illnesses by major industry sector,  
Maryland and All United States, 2009**



**Selected industries with the highest incidence rates  
of total nonfatal occupational injuries and illnesses,  
Maryland, 2009**

