

**California Department of Industrial Relations**

**Office of the Director**

**Research Unit**

**Findings from the  
2016 California Survey of Occupational Injuries and Illnesses (SOII)**



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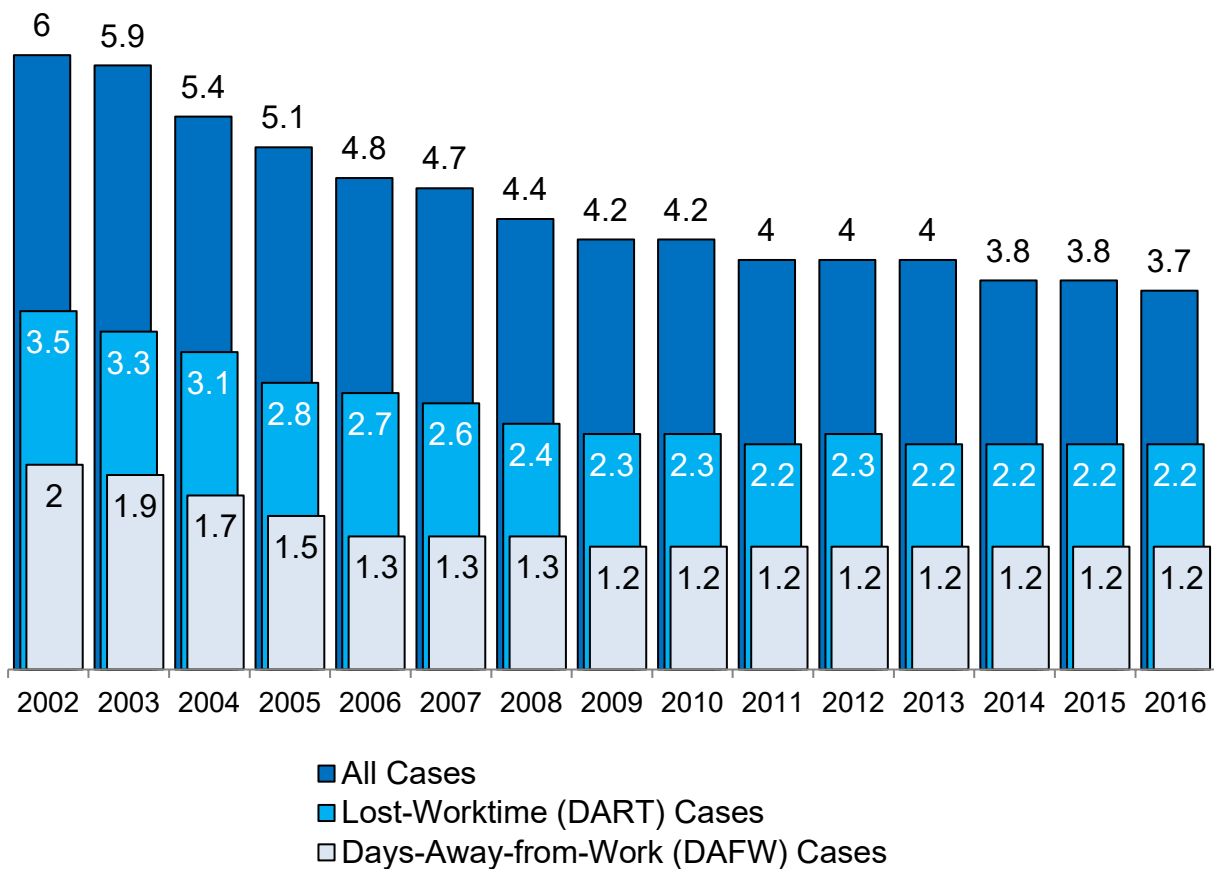
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## Overview

This report presents highlights from the California [Survey of Occupation Injuries and Illnesses \(SOII\)](#) conducted by the U.S. Bureau of Labor Statistics (BLS) and the California Department of Industrial Relations (DIR).<sup>1</sup> In 2016, private and public sector employers in California reported over 466,000 nonfatal workplace injuries and illnesses. According to estimates, California’s overall incidence rate of nonfatal occupational injuries and illnesses is the lowest it has been in over a decade, at 3.7 cases per 100 full-time employees (FTEs). In addition, the statewide all-industry rate of cases leading to days away from work (DAFW cases) has been steady for the past eight years (see Chart 1).

**CHART 1. Incidence of Nonfatal Occupational Injuries and Illnesses (Cases per 100 FTEs) in California, All Industry Sectors, 2002–2016**

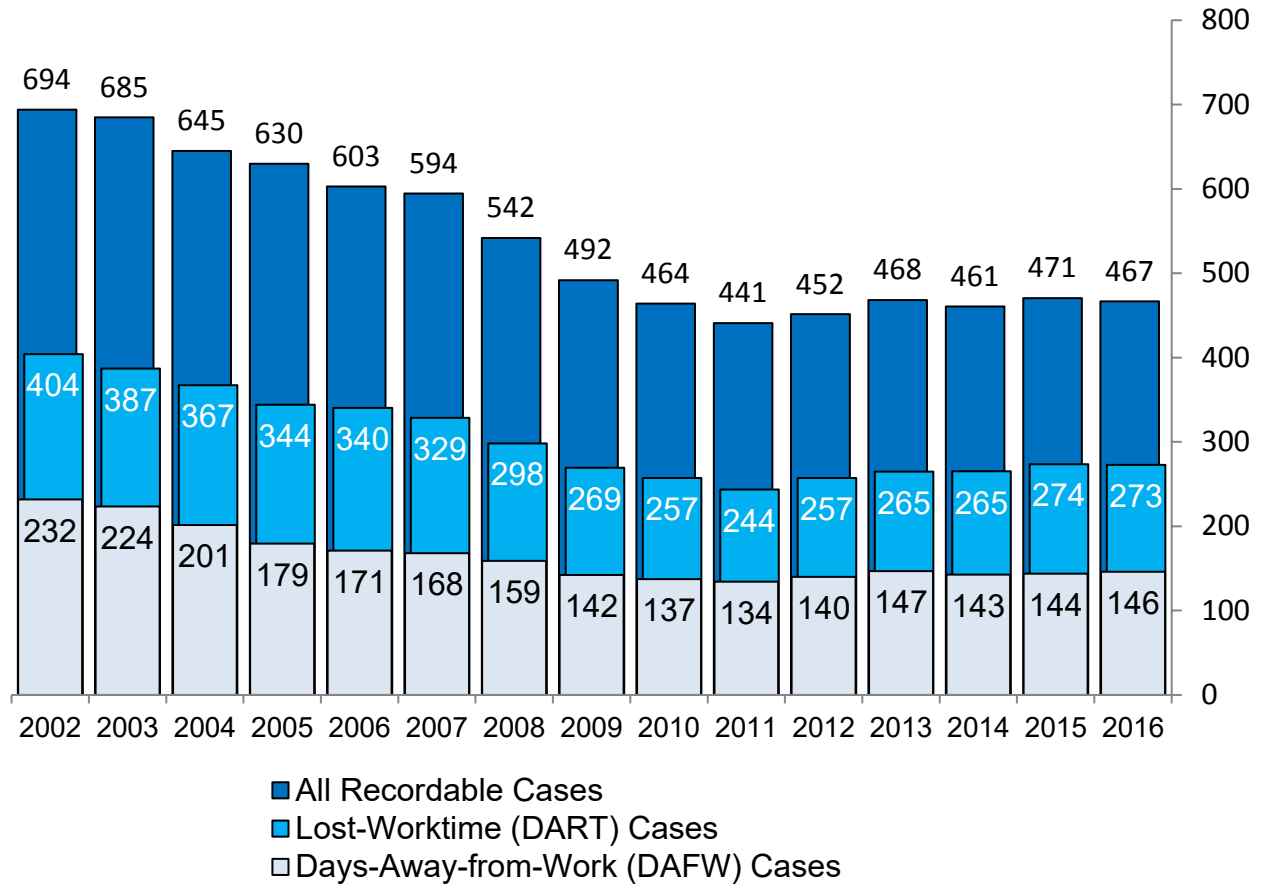


<sup>1</sup> Estimates for the California SOII are derived from a statistical sample of employers in the state. See Appendix: SOII Methodology.

Source: DIR Director's Office of Policy, Research, and Legislation (OPRL) and the U.S BLS, [SOII 2016 Table 1, October 5, 2017](#)

Of the 466,600 recordable cases of occupational injury and illness estimated for California in 2016, there were 272,700 DART (lost worktime) cases and 145,900 DAFW cases (see Chart 2).<sup>2</sup>

**CHART 2. Nonfatal Occupational Injuries and Illnesses (in Thousands), California, All Industry Sectors, 2002–2016**



Source: DIR’s OPRL

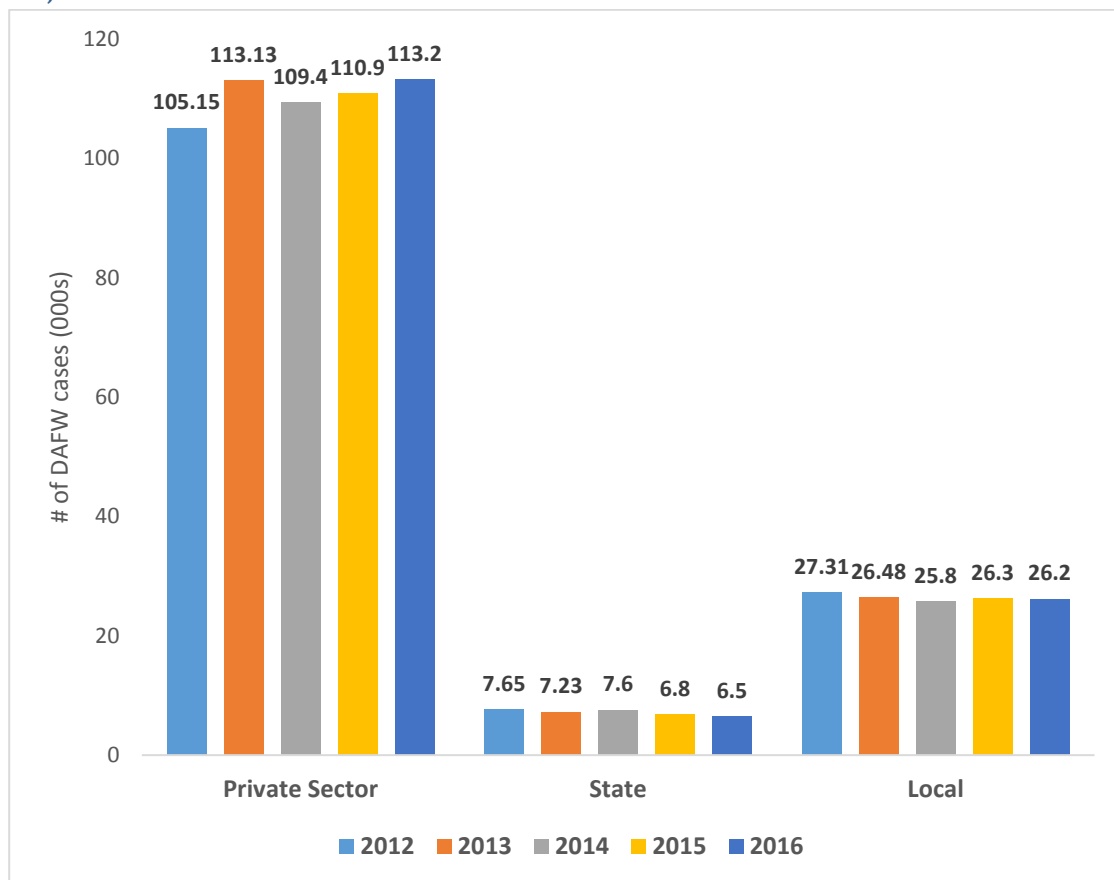
<sup>2</sup> In this brief, the term “lost worktime cases” is used synonymously with what the U.S. Bureau of Labor Statistics describes as “cases involving days away from work, job transfer, or restriction” (or DART cases). Job transfer or restriction cases occur when, as a result of a work-related injury or illness, an employer or health-care professional keeps or recommends keeping an employee from performing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work before the injury or illness occurred. Cases involving days away from work (DAFW cases) are those that require at least one day away from work with or without days of job transfer or restriction.

## Injuries and Illnesses Involving Days Away from Work

SOII includes detailed findings for DAFW cases, which are presented in this report.<sup>3</sup> All findings presented are derived from the data collected by SOII for California in 2016.

Small changes occurred in the estimates of DAFW cases by sector between 2015 and 2016. In both years, over 77 percent of reported DAFW injuries and illnesses occurred in private sector employment, while state and local government accounted for approximately 5 percent and 18 percent of the total, respectively (see Chart 3).

CHART 3. Cases of DAFW Injuries and Illnesses (in Thousands) in California, by Sector, 2012–2016

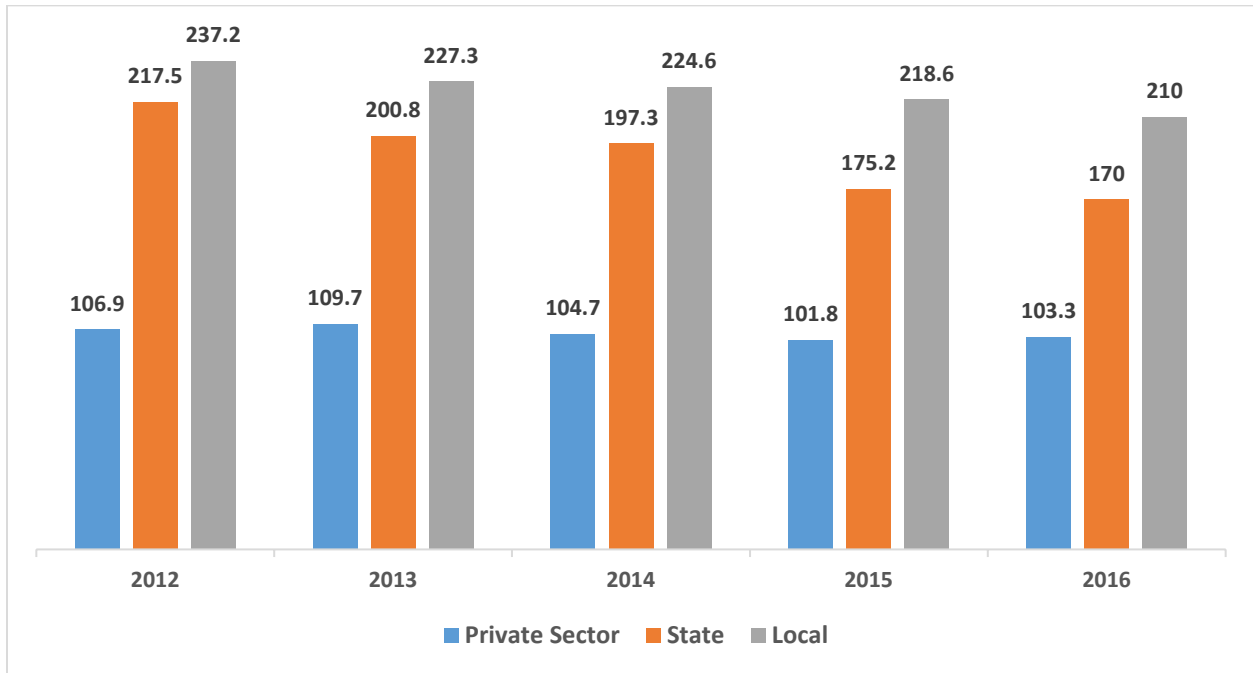


Reported DAFW incidence rates (injuries and illnesses per 10,000 FTEs) differ substantially between private and public sector workers. In 2016, the reported rate of DAFW injury or illness

<sup>3</sup> BLS refers to these findings as case and demographic statistics.

among state and local government workers was 170 cases and 210 cases, respectively, while private sector employers experienced a rate of 103 cases per 10,000 FTEs (see Chart 4).

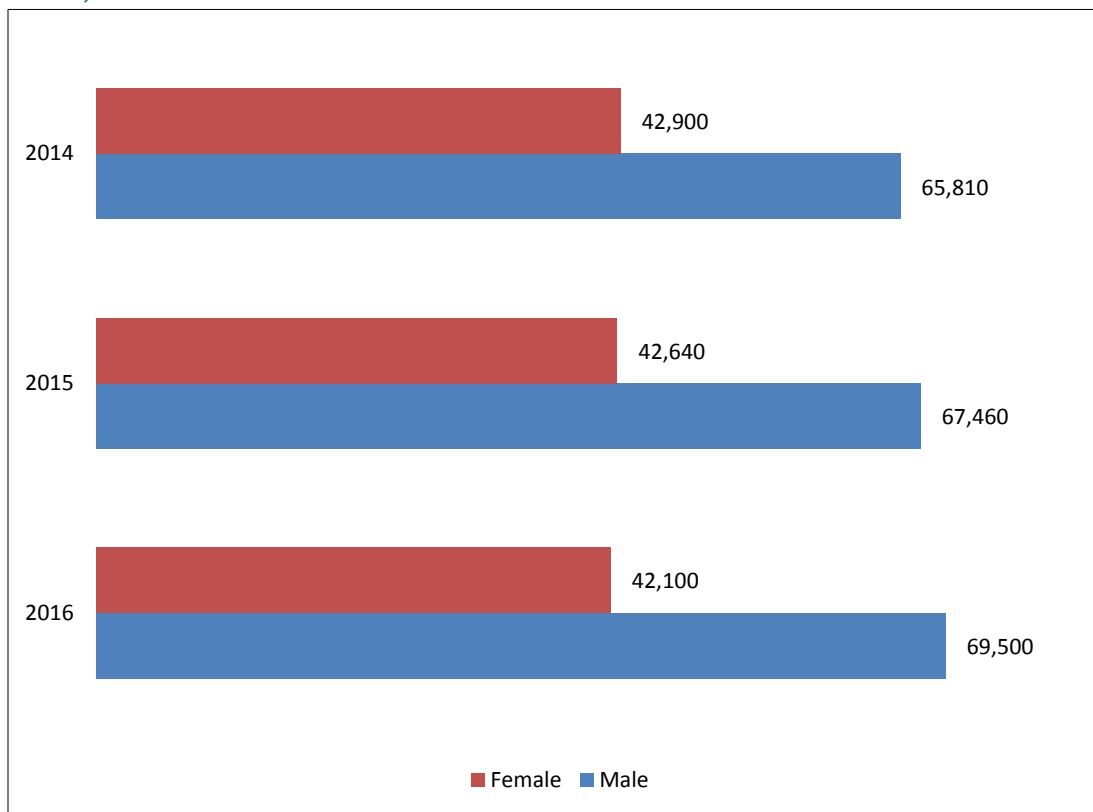
**CHART 4. Incidence Rates of DAFW Injuries and Illnesses (Cases per 10,000 FTEs) in California, by Sector, 2012–16**



## Gender

As of 2015, California private sector employment was 55 percent male and 45 percent female.<sup>4</sup> Occupational injuries among men are more prevalent and have a higher rate of injury per 100 FTEs than female counterparts in the private sector. In 2016, male workers accounted for the majority of reported DAFW cases (62 percent), similar to their contributing share (60 percent) in 2014 and 2015 (see Chart 5). In 2016, the injury and illness incidence rate per 100 FTEs was over 11 percent higher among males than females (see Chart 6).

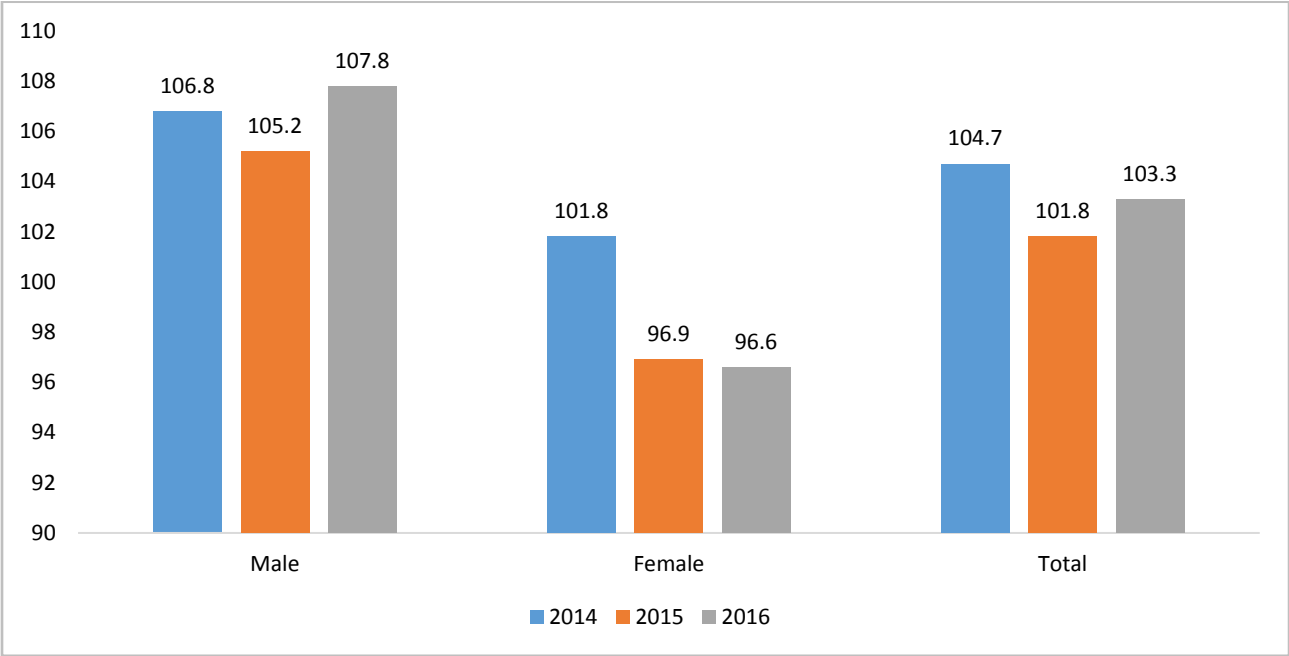
CHART 5. Reported DAFW Work Injuries and Illnesses in California's Private Sector, by Gender, 2014–16



<sup>4</sup> This estimate is based on Quarterly Workforce Indicators from the US Census Bureau for employment by industry sector for California, 2015. Estimates received from California's Employment Development Department, Labor Market Information Division, 11/6/2017



CHART 6. Incidence Rates (Cases per 100 FTEs): Reported DAFW Work Injuries and Illnesses in California’s Private Sector, by Gender, 2014–16



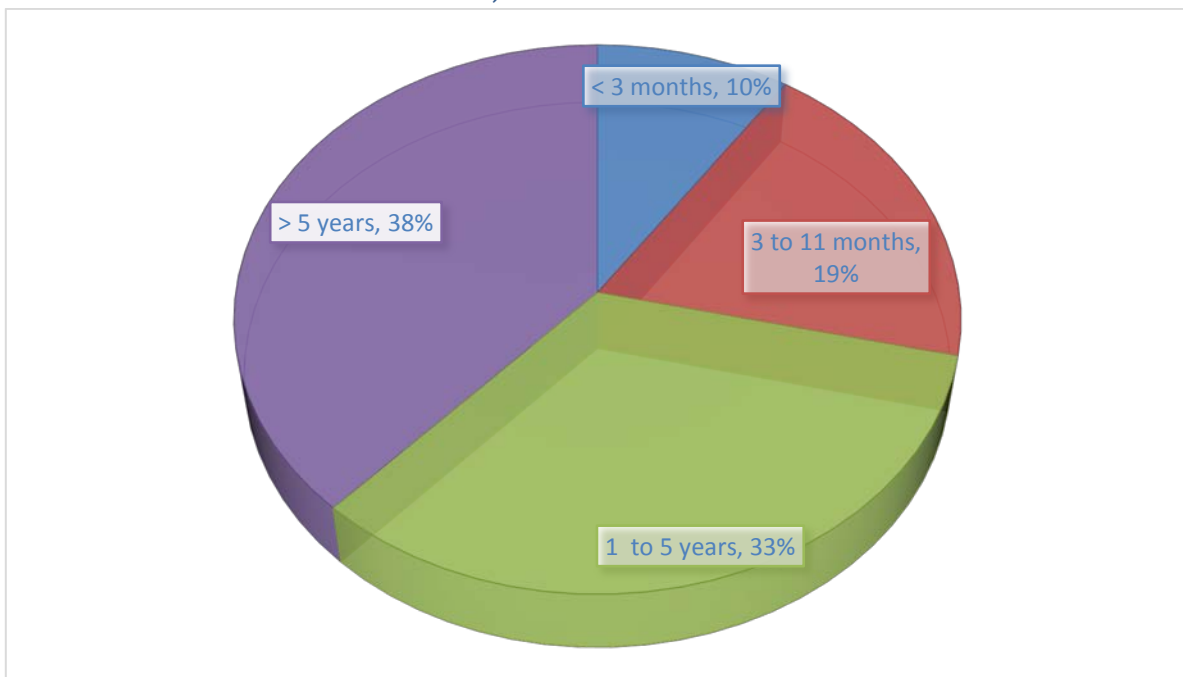
## Race and Ethnicity

The classification of workers by race and ethnicity for SOII is based on the 1997 Standards for Federal Data on Race and Ethnicity as defined by the Office of Management and Budget. In 2002, SOII amended some of the race and ethnicity categories such that individuals may be categorized in more than one race or ethnic group. Race and ethnicity is one of the few data elements that are optional in SOII.<sup>5</sup> In 40 percent of the cases involving days away from work (DAFW) cases, race and ethnicity were not reported in the 2016 SOII, limiting our ability to reliably interpret any findings.

## Length of Service with Employer

In 2016, 29 percent of reported DAFW work injuries in California's private industry occurred among workers with less than a year of tenure (see Chart 7).

CHART 7. Length of Service with Employer before Reported DAFW Work Injury or Illness in California's Private Sector, 2016



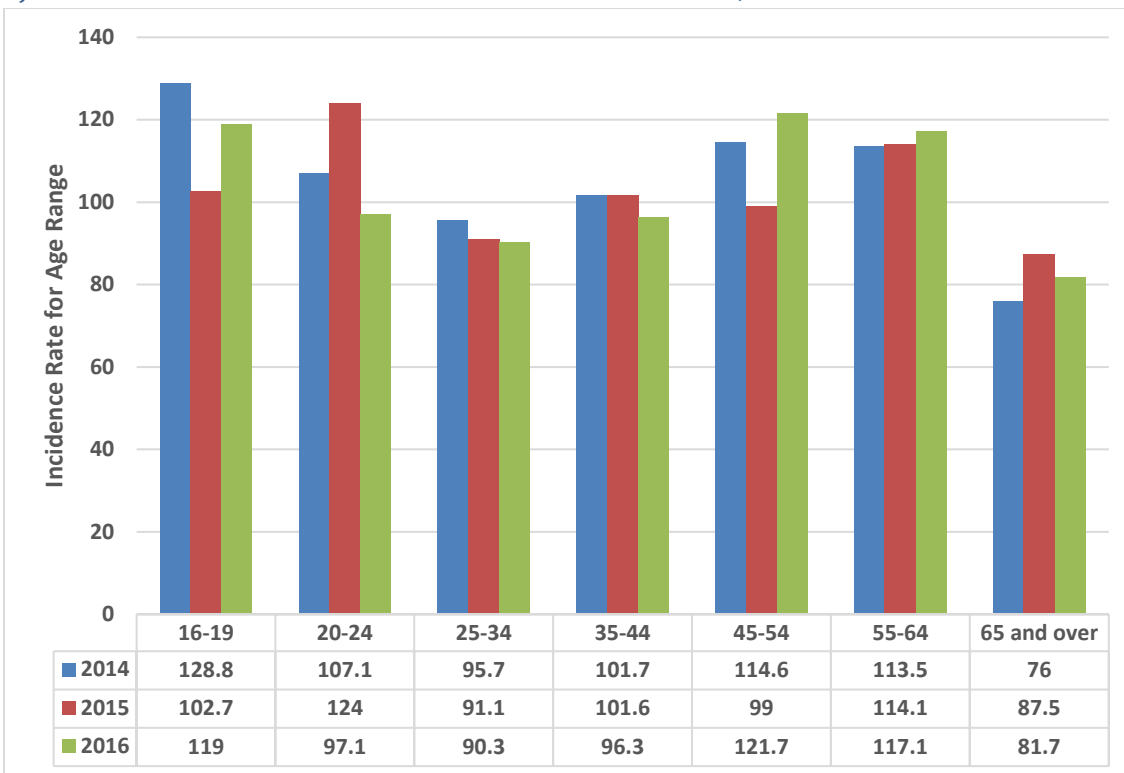
<sup>5</sup> See discussion of race and ethnicity in the BLS Handbook of Methods for SOII, p. 12.  
<https://www.bls.gov/opub/hom/soii/pdf/soii.pdf>

At goods-producing firms in the private sector, 35 percent of DAFW injuries and illnesses occurred within a year of hire. In manufacturing, the number was 25 percent. Construction saw the highest percentage of such injuries, at 43 percent, and information service workers experienced the lowest percentage of DAFW injuries in their first year of work, at 15 percent.

## Age

Chart 8 shows the incidence rate of DAFW occupational injury and illness cases in California’s private sector by the age of the worker for 2014–2016. The highest private sector injury and illness incidence rate in 2016 is among workers (FTEs) ages 45 to 64 years old, and the lowest injury or illness incidence rate is among those 65 and older.

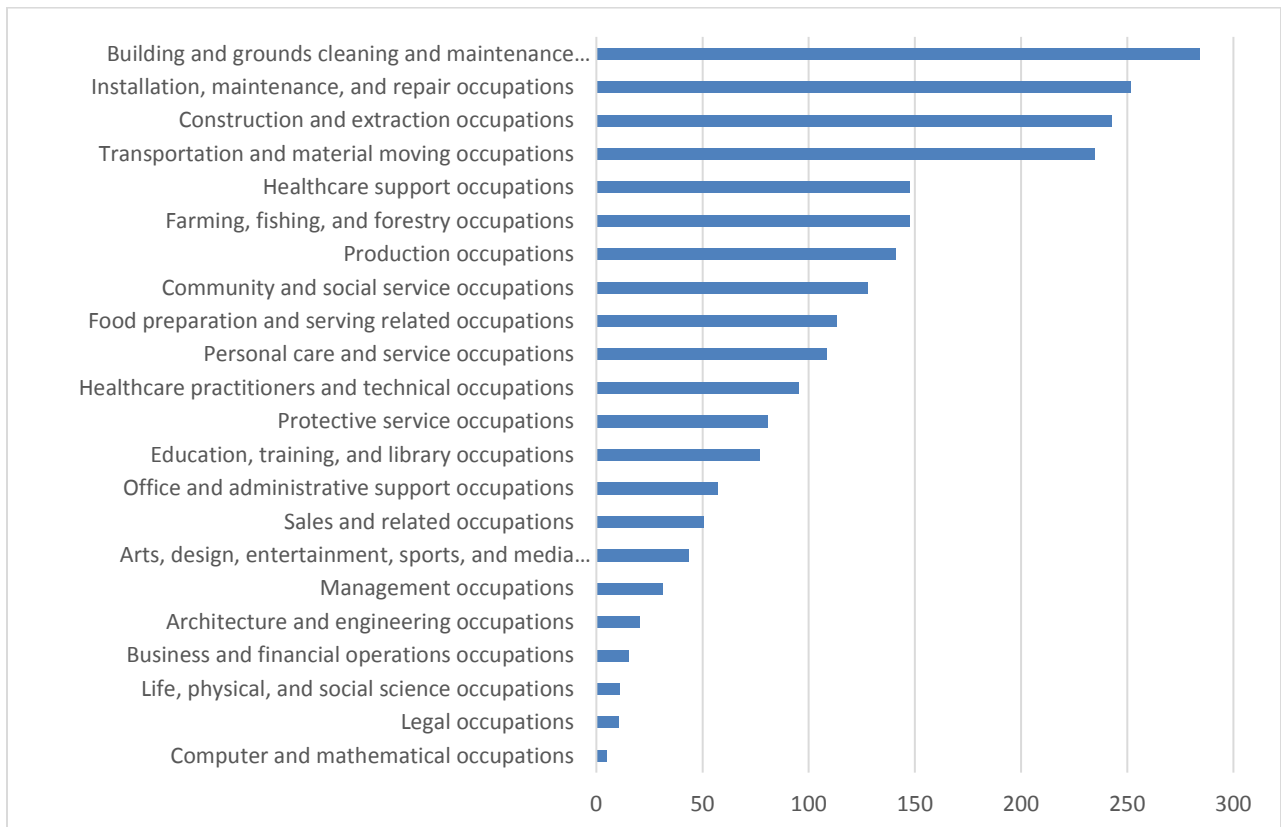
**CHART 8. Incidence Rates (Cases per 10,000 FTEs) by Age for DAFW Work Injuries and Illnesses in California’s Private Sector, 2014–2016**



## Occupation

In 2016, private sector occupations involving building and grounds maintenance, installation and repair, construction and extraction, and transportation and material moving had the highest incidence rates for DAFW cases (see Chart 9).

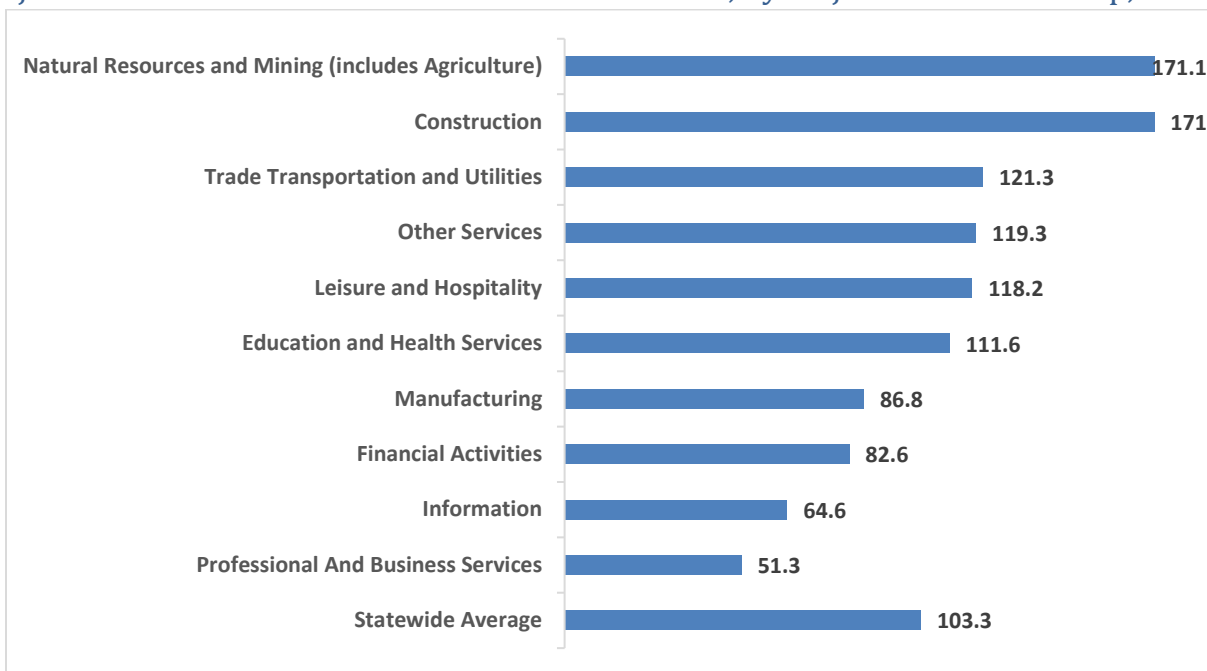
**CHART 9. Incidence Rate (Cases per 10,000 FTEs) of DAFW Nonfatal Occupational Injuries and Illnesses in California’s Private Sector, by Major Occupational Group, 2016**



## Industry

Every year about one in 100 California private sector workers are injured on the job. Natural resources and mining (a category that is dominated by agricultural work in California) and construction are the private sector industries with the highest reported injury and illness incidence rates. In addition, trade and transportation, leisure and hospitality, other services (including waste management, janitorial, and temporary agencies), and education and health services exceed the statewide average incidence rate (see Chart 10).

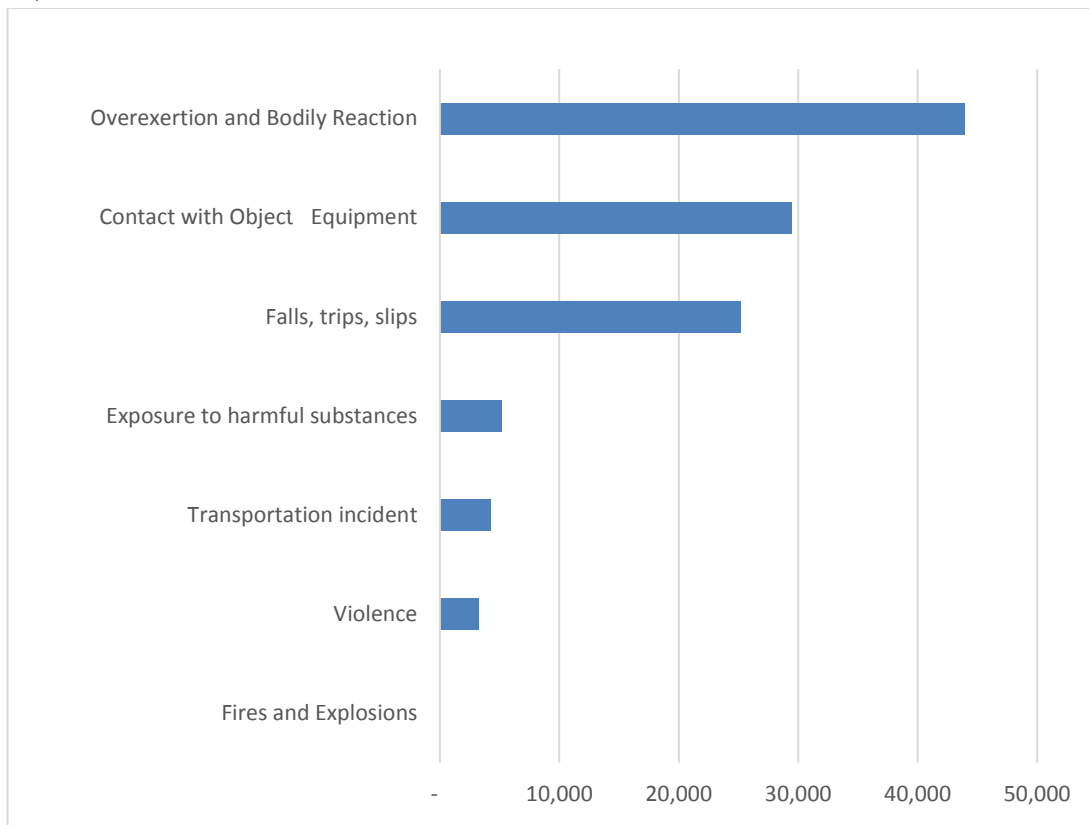
**CHART 10. Incidence Rate (Cases per 10,000 FTEs) of DAFW Nonfatal Occupational Injuries and Illnesses in California's Private Sector, by Major Industrial Group, 2016**



## Cause of Injury and Illness

As in prior years, among private sector workers, the highest number of DAFW work injuries were caused by overexertion and bodily reaction, by contact with an object or piece of equipment, and by falls, trips, and slips. Other causes of DAFW work injuries and illnesses included exposure to harmful substances or environments, transportation incidents, and workplace violence (see Chart 11).

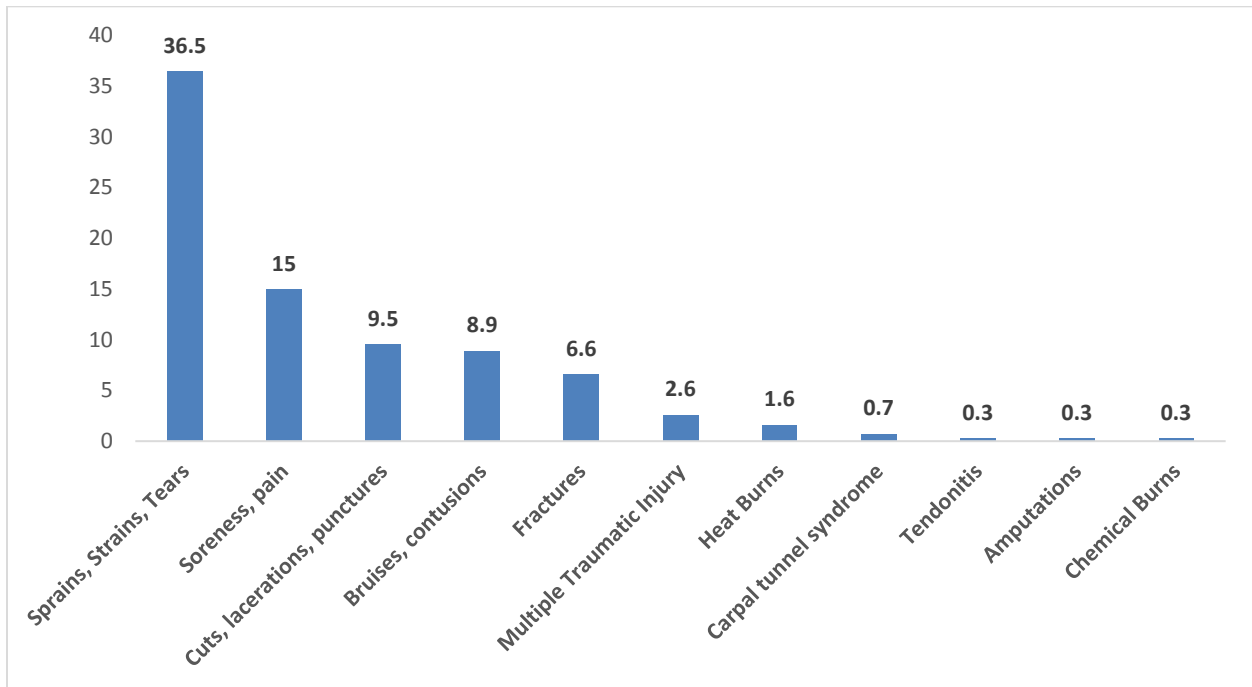
CHART 11 Causes of DAFW Work Injuries and Illnesses in California's Private Sector, 2016



## Nature of Injury and Illness

Sprains, strains, and tears are the leading causes of private sector DAFW injuries and illnesses, followed by soreness and pain (see Chart 12).

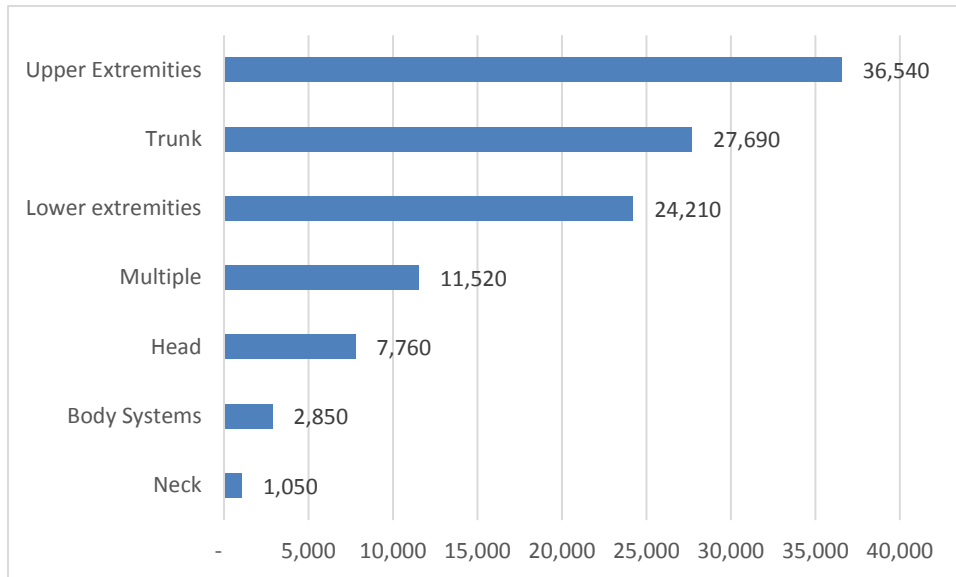
CHART 12. Incidence Rates (Cases per 10,000 FTEs): Nature of DAFW Work Injuries and Illnesses in California's Private Sector, 2016



## Part of the Body Injured

Consistent with prior years, the upper extremities, trunk, and lower extremities were the body parts with the highest number of private sector DAFW injuries and illnesses reported in 2016. (see Chart 13).

CHART 13 Number of DAFW Injuries and Illnesses by Part of Body Injured in California's Private Sector, 2016





## Conclusion

This brief summarizes reported occupational injury and illness data from the California SOII program for 2016. The annual survey is jointly administered by the U.S. Department of Labor, BLS, and the California Department of Industrial Relations, OPRL. It is compiled from surveys completed by a representative sample of California employers and based upon data required to be collected under the Occupational Safety and Health Act (OSHA). [Data for California for 2016](#) are posted online, including detailed summary tables as well as case and demographic data for private and public sector employers. While this report includes some data on public sector workers, much of the analysis focuses on the private sector.

The number and incidence rates of reported occupational injuries and illnesses in 2016 remain at levels markedly lower than those a decade earlier.

More than one in four workers whose injury or illness involved days away from work in private industry in 2016 were new hire with tenure of less than a year.

The occupational categories with the highest incidence rates (cases per 10,000 FTEs) in 2016 were building and grounds maintenance workers, installation and repair occupations, construction and extraction trades, and transportation and material moving occupations.

The industrial categories with the highest incidence rates (cases per 10,000 FTEs) in 2016 were natural resources and mining (a category dominated by agricultural work in California) and construction.

The survey indicates that private sector workers tend to suffer more sprains, strains, and tears than other types of injury. Among injuries or illnesses resulting in days away from private sector work, the most important causes are overexertion and bodily reaction, contact with an object or piece of equipment, and falls, trips, and slips, and these cases most frequently involve upper extremity disorders.

## Appendix: SOII Methodology

Estimates for the California SOII are derived from a statistical sample of employers in the state. The SOII program is administered by the [US Bureau of Labor Statistics](#) in cooperation with participating state agencies. Surveyed employers report data as required by the OSHA Recordkeeping regulation ([29 CFR 1904](#)), using the OSHA 300 Log. See more from BLS [on the SOII methodology](#).

Additional background and methodological information regarding the BLS occupational safety and health statistics program can be found in Chapter 9 of the [BLS Handbook of Methods](#). Employment data in these findings are 2015 annual averages from the BLS Quarterly Census of Employment and Wages (QCEW) program.