

2016 Survey of Occupational Injuries and Illnesses (SOII) Data for Ohio

Summary Report

Private and Public-Sector Industries combined

- The incidence rate of non-fatal occupational injuries and illnesses total recordable cases (TRC) for all establishments in Ohio, including private and public establishments, was estimated to be 2.7 cases per 100 full time equivalent (FTE) workers.
- Ohio combined total recordable cases (TRC) incidence rate was lower than the national rate of 3.2 cases per 100 FTE workers.
- There were an estimated 114,600 total recordable cases reported in 2016 for all industries; 37,300 (33%) cases involved one or more days away from work (DAFW), 22,000 (19%) cases involved one or more days of job restriction/transfer only and 55,400 (48%) were recordable cases with no loss time.
- Estimated number of total recordable cases in 2016 decreased from the previous year by about nine (9) percent; driven by a balanced decrease in number of cases in both private and public establishments.
- The combined incidence rate for cases with days away from work for both private and public establishments was 0.9 cases per 100 FTE workers, 0.1 cases lower than the national rate.

Private Industry - Incidence rates

- The TRC incidence rate of in private industry in was 2.7 cases per 100 FTE workers; a four (4) percent decrease from the previous year. This rate is below national private industry TRC incidence rate which was 2.9 cases per 100 FTE workers. Rate of DAFW cases in Ohio private industry was 0.8 while national rate was 0.9 cases per 100 full time employees.
- The decrease in TRC rate was driven by a decline in the rate of cases involving days of job transfer or restriction (DJTR) which fell by 0.1 cases (to 0.5 case) and other recordable cases (ORC) which also fell by 0.1 (to 1.3)— rate of cases involving days away from work (DAFW) remained unchanged at 0.8 cases per 100 full-time workers.
- There were an estimated 98,300 total recordable cases reported for in private industries; 29,300 cases involved one or more days away from work; 20,000 cases involved one or more days of job restriction/transfer only and remaining 49,000 cases were recordable cases with no loss time.
- Private industry employers reported 6,400 fewer nonfatal injury and illness cases in 2016 compared to a year earlier. The total recordable cases (TRC) incidence rate fell 0.1 cases per 100 full-time workers due to decrease in total number of recordable cases.
- There was, approximately, a 3% decrease in the number of cases involving days away from work (DAFW) in comparison to the previous year.

Industry

Private industry sectors with the highest total recordable cases incident rates per 100 FTE workers in Ohio were:

- Healthcare and social assistance – 4.0
- Agriculture, forestry, fishing and hunting – 3.8
- Manufacturing – 3.5
- Transportation and warehousing – 3.4
- Construction – 3.2
- Wholesale – 2.9

Nine of the 15 private industry sectors reported a decline in the rate of injuries and illnesses in 2016: agriculture; transportation and warehousing; construction; retail; utilities; finance and insurance; art, entertainment and recreation; accommodation and food services; and management of companies and enterprises. Contrastingly, two private sector

industries; health care and social assistance; and wholesale reported increase in the rate of injuries and illnesses in 2016 compared to a year earlier.

Table 1: Table shows private sector industries with increase, decrease and stable TRC rates for 2016 in comparison to previous year.

| Decrease in rates (2015 – 2016) | Increase in rates | Unchanged rates |
|---|---|------------------------|
| Agriculture (4.0 – 3.8) | Health care and social assistance (3.7 – 4.0) | Manufacturing (3.5) |
| Transportation (4.0 – 3.4) | Wholesale (2.8 – 2.9) | |
| Construction (3.3 – 3.2) | | |
| Retail (3.1 – 2.7) | | |
| Utilities (3.2 – 1.5) | | |
| Finance and insurance (0.3 – 0.2) | | |
| Art, entertainment and recreation (3.4 – 2.8) | | |
| Accommodation and food services (2.7 – 2.5) | | |
| Management of companies and enterprises (0.6 – 0.5) | | |

Rates show number of cases per 100 FTE. Three industries not listed here could not be compared because rates were unavailable for 2015.

Injuries

- Of the total nonfatal occupational injuries and illnesses reported by private industry employers in 2016, 94,500 (96 percent) were injury cases.
- An estimated 65,200 cases occurred in service-providing industries. The remaining 29,300 injuries (31percent) occurred in goods-producing industries.

Illnesses

- Workplace illnesses accounted for 3,800 cases (3.9 percent) of the estimated total number of injury and illness cases reported by private industry employers in 2016 and occurred at a rate of 10.2 cases per 10,000 full-time workers. Rates among the individual illness categories were mostly lower compared to the previous year.
- Service-providing industries accounted for 55 percent of private industry illness cases and had a rate of 7.6 cases per 10,000 full-time workers.
- Goods-producing industries accounted for 43 percent of all occupational illness cases in 2016, resulting in an incidence rate of 18.2 cases per 10,000 full-time workers—down from the previous year when rate was 19.8 cases. (Note: Long-term latent illnesses are believed to be understated in SOII estimates)

Establishment size

- The rate of injuries and illnesses was highest among mid-size private industry establishments (employing 50 to 249 workers) and lowest among small establishments (employing fewer than 11 workers).
- TRC incident rate per 100 FTE workers for all private sector industries by size classes:
 - Class size 1 (1-10 employees) – 1.1
 - Class size 2 (11-49 employees) – 2.5
 - Class size 3 (50 – 249 employees) – 3.4
 - Class size 4 (250 – 999 employees) – 2.7
 - Class size 5 (1000+ employees) – 2.7
- Ohio TRC rates are lower than national rates in all selected industry sectors except in utilities industry and other services (except public administration) industry.

Table 2 compares Ohio TRC incident rates per 100 FTE workers with national rates in selected private industry sectors for which data is available for Ohio.

Table 2

| Industry | NAICS code | OH | U.S. |
|---|------------|-----|------|
| Private industry | | 2.7 | 2.9 |
| Agriculture, forestry, fishing and hunting | 11 | 3.8 | 6.1 |
| Mining | 21 | 1.6 | 1.5 |
| Construction | 23 | 3.2 | 3.2 |
| Manufacturing | 31-33 | 3.5 | 3.6 |
| Wholesale trade | 42 | 2.9 | 2.8 |
| Retail trade | 44-45 | 2.7 | 3.3 |
| Transportation and warehousing | 48-49 | 3.4 | 4.6 |
| Utilities | 22 | 1.5 | 2.1 |
| Information | 51 | 0.9 | 1.3 |
| Finance and insurance | 52 | 0.2 | 0.6 |
| Management of companies and enterprises | 55 | 0.5 | 0.9 |
| Administrative and support and waste management and remediation service | 56 | 2.2 | 2.3 |
| Health care and social assistance | 62 | 4.0 | 4.2 |
| Arts, entertainment and recreation | 71 | 2.8 | 4.4 |
| Accommodation and food services | 72 | 2.5 | 3.3 |

- Ohio private industry non-fatal occupational injuries and illnesses TRC incident rate (2.7 cases per 100 FTE workers) compared with some states:
 - Michigan – 3.3
 - Pennsylvania – 3.3
 - Indiana – 3.4
 - California – 3.3
 - Illinois - 2.7
 - Kentucky – 3.2
 - West Virginia - 3.2

Worker and Injury Characteristics (Private industry only)

The estimated total number of cases involving days away from work in private sector decreased by 3% in 2015 to 30,080 cases. SOII provides case and demographic information on injuries and illnesses involving one or more days away from work. The survey also gathers information on occupations of the injured workers. Overall incidence rate for DAFW cases in Ohio private industry was 79.5 cases per 10,000 full time workers, a slight increase from the 79.1 cases in 2015. Other important data points on case and demographic distribution in private sector industries are provided below.

DEMOGRAPHICS

Gender:

- Men accounted for 61.7% of cases involving one or more days away from work; a decrease from 63.1% in 2015.
- Incidence rate for DAFW cases in men decreased from 87.4 in 2015 to 85.6 cases per 10,000 fulltime workers in 2016.
- Incidence rate of DAFW cases in women increased from 68.1 in 2015 to 71.3 cases per 10,000 full time workers in 2016.
- Incidence rate for DAFW cases involving fall on same level in women was significantly higher than the reported rate for men. Incidence rate in women was 26.5 compared to 16.4 cases per 10,000 full time workers in men.

Age

- Distribution of DAFW cases by age group
 - 16-19 – 3.5 %
 - 20-24 – 10.9%
 - 25-34 – 19.6%
 - 35-44 – 20.1%
 - 45-54 – 20.3%
 - 55-64 – 19.5%
 - 65 and over – 4.2%
- Incidence rate of cases per 10,000 full time workers of DAFW cases by age group
 - 16-19 – 93.7
 - 20-24 – 93.6
 - 25-34 – 68.1
 - 35-44 – 79.5
 - 45-54 – 75.8
 - 55-64 – 88.6
 - 65 and over – 80.7
- SOII results for 2016 indicates that in comparison to the previous year, incidence rate of DAFW cases increased in 16-19, 35-44 and 65+ age groups.
- Workers within 16-19 year age group had the highest incidence rate of DAFW cases across the age groups.

Tenure

- Distribution of DAFW cases by employee length of service/employment:
 - Less than 3 months – 12.2%
 - 3 months to 1 year – 22.6%
 - 1-5 years – 34.3%
 - 5 years or more – 39.5%
- Workers with >5 years tenure had the highest median days away from work of all tenure groups with 8 days

Occupation

- Occupation groups with highest incidence rates for DAFW cases per 10,000 full time workers:
 - Transportation and material moving occupations – 200.1
 - Building and grounds cleaning and maintenance occupations – 156.6
 - Installation, maintenance, and repair occupations – 155.4
 - Healthcare support occupation – 147.7

- Education, training, and library occupations – 117.1
- Production occupations - 111.1
- Occupations with highest median days away from work for DAFW cases
 - Light truck or delivery services drivers – 19
 - General and operational managers – 17
 - Maintenance and repair workers, general - 14
 - Heavy and tractor-trailer truck drivers – 13
 - First-line supervisors of retail sales workers - 12
 - Construction laborers – 11
 - Combined food preparation and serving workers, including fast food - 11

CASE CHARACTERISTICS

Nature of injuries

- Distribution of DAFW cases by type of injury
 - Sprains, strains, tears – 41.6%
 - Fractures – 10.5%
 - Cuts, lacerations – 8.2%
 - Soreness and pain – 8.0%
 - Bruises and contusions – 7.5%
- Workers in age group 35-44 years had significantly higher incidence rate of DAFW cases involving sprains strains and tears.

Body parts

- Distribution of DAFW cases by body part injured
 - Back – 17.8%
 - Hands – 13.6%
 - Head – 8.1
 - Shoulder – 7.5%
 - Knee – 7.2%
- Incidence rate statistics indicated that both men and women were more likely to injure their backs than any other body part.
- Healthcare support occupations were more likely to injure their back than any other body part.
- Production occupations had the highest incidence rate of DAFW cases involving injuries to the hand in comparison to other occupation groups.

Source of injury

- Distribution of DAFW cases by source of injury
 - Floors, walkways, ground surfaces – 19.3%
 - Worker's motion or position 13.6%
 - Containers – 12.2%
 - Vehicles - 11.7%
 - Parts and materials – 7.5%
- Transportation and material moving occupations had the highest incidence rate for DAFW cases involving containers.

Events/Causation

- Distribution of DAFW cases by event

- Overexertion – 31.0%
 - Contact with objects – 26.8%
 - Falls, slips, trips – 26.0%
 - Transportation incidents – 6.5%
 - Violence – 5.6%
- Workers in 55-64 years age group had the highest incidence rate for falls, slips and trips of all the age categories.
 - Workers in 35-44-year age group had the highest incidence rate of overexertion related injuries of all age groups.
 - Community and social service occupations had the highest incidence rate DAFW cases related to violence of all occupations groups by a significant margin.

PUBLIC SECTOR INDUSTRY – Incident Rates (State and Local government combined)

Survey result for 2016 includes combined public employer statistics and local and state government establishments separately. The TRC incidence rate per 100 FTE workers for Ohio public employer establishments was 3.1. There were 16,300 total recordable cases reported for all industries; 7,900 cases (48.5%) involved one or more days away from work, 2000 cases (12.3%) involved one or more days of job restriction/transfer only and the remaining 6,400 cases (39.3%) were other recordable cases with no loss time. Public employers are further divided by ownership and the summary of the result is presented below.

State government only

- In 2015, TRC incidence rate for state government establishments in Ohio was 2.4 cases per 100 FTE workers while corresponding national rate was 3.7 cases per 100 FTE workers. There were an estimated 3,400 total recordable cases of workplace injuries and illnesses in the same year.
- Summary of state government industry sector/subsector total recordable cases incidence rates per 100 FTE worker:
 - Education services – 1.1
 - State government colleges, universities and professional schools – 1.0
 - Nursing and residential care facilities – 22.3

PUBLIC SECTOR INDUSTRY – Incidence rates (Local government only)

- TRC incident rate for local government in Ohio was 3.3 cases per 100 FTE workers while corresponding national rate was 5.0 cases per 100 FTE workers. The reported rate for 2016 indicates a significant decrease in comparison to previous year's rate which was 4.8 cases per 100 FTE workers.
- There were an estimated 19,200 total recordable cases of workplace injuries and illnesses in the same year. This represents a 32% decrease in the estimated number of TRC cases in comparison to the previous year.
- Summary of local government industry sector total recordable incident rates per 100 FTE worker:
 - Utilities – 6.7
 - Transportation and warehousing – 4.9
 - Public administration – 4.5
 - Health care and social assistance – 3.4
- Industry subsectors with the highest total recordable cases incident rates per 100 FTE workers in Ohio were:
 - Fire protection – 9.2
 - Police protection – 7.9
 - Water, sewage and other systems – 7.2
 - Nursing and residential care facilities – 6.2
 - Transit and ground passenger transportation – 5.7
 - Hospital – 5.6
- There was (approximately) 12% decrease in the number of cases involving one more days away from work in local government from the previous year estimate. There were an estimated 6,400 cases of injuries and illnesses involving one or more days away from work.

Worker and injury characteristics – Local government establishments only.

Overall incidence rate for DAFW cases in Ohio local government establishments decreased from 182.3 cases in 2015 to 163.2 cases per 10,000 full time workers in 2016. Important data points on case and demographic distribution in local government establishments are provided below.

DEMOGRAPHICS

Gender:

- Men accounted for 58.9% of cases involving one or more days away from work. Incidence rate of DAFW cases was significantly higher in men. Survey results indicate that rate of DAFW cases in men and women were 226.6 and 116.5 cases per 10,000 full time workers, respectively.

Age

- Distribution of DAFW cases by age group
 - 20-24 – 3.6
 - 25-34 – 15.6%
 - 35-44 – 16.1%
 - **45-54 – 33.5%**
 - 55-64 – 26.0%
 - 65 and over – 2.7%
- Incidence rate of cases per 10,000 full time workers of DAFW cases by age group
 - 20-24 – 127.6
 - 25-34 – 136.6
 - 35-44 – 108.5
 - 45-54 – 220.4
 - 55-64 – 210.9
 - 65 and over – 102.4
- Incidence rates of DAFW cases for worker in the age groups provided above were significantly higher in local government than private industry.

Tenure

- Distribution of DAFW cases by employee length of service/employment:
 - < 3 months – 0.9%
 - 3 months to 1 year – 5.2%
 - 1-5 years – 14.8%
 - 5 years or more – 76.5%

CASE CHARACTERISTICS

Nature of injuries

- Distribution of DAFW cases by type of injury
 - Sprains, strains, tears – 54.5%
 - Cuts and laceration – 15.7
 - Bruises and contusions – 5.5%
 - Soreness and pain– 3.8%
 - Fractures – 3.3%
- Incidence rate of sprain, strains & tears was significantly higher in men than in women.
- Workers in age group 45-54 years had the highest incidence rate of DAFW cases involving sprains, strains and tears.

Body parts

- Distribution of DAFW cases by body part injured
 - Back – 14.5%
 - Hands – 13.2%
 - Knee – 11.3%
 - Shoulders – 8.3%
 - Ankle – 5.4%
- Incidence rate statistics indicated rate of back injuries in men was significantly higher than the estimated rate in women.

Source of injury

- Distribution of DAFW cases by source of injury
 - Floors, walkways, ground surfaces – 23.1%
 - Person, other than injured worker – 20.6%
 - Vehicles – 18.3%
 - Worker's motion or position – 13.1%
 - Furniture and fixtures - 2.2%

Events/Causation

- Distribution of DAFW cases by event
 - Falls, slips, trips – 30.6%
 - Overexertion – 25.5%
 - Contact with objects – 20.2%
 - Violence – 16.4%
 - Transportation incidents – 6.9%
- Incidence rate of cases involving overexertion was significantly higher in men than women.
- Incidence rate of DAFW cases resulting from violence in local government establishments was more than 5 times the rate in private sector industry.

For more information on data and statistics from the 2016 Survey of Occupational Injuries and Illnesses for the State of Ohio, please contact Division of Safety and Hygiene's Research and Statistics Department staff at 614-995-8608.