

2017 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 3.1 cases per 100 FTE workers.
- There were an estimated 116,800 total recordable cases reported in 2017 for all industries; 36,000 (31%) cases involved one or more days away from work (DAFW), 21,700 (18.5%) cases involved one or more days of job restriction/transfer only and 59,100 (50.5%) were recordable cases with no loss time.
- Estimated number of total recordable cases increased in 2017 by about two (2) percent in comparison to the previous year; driven by an increase in number of cases in private establishments.
- The combined incidence rate for cases with days away from work for both private and public establishments was 0.8 cases per 100 FTE workers, 0.2 cases lower than the national rate.

Private Industry - Incidence rates

- The TRC incidence rate of in private industry in 2017 was 2.6 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 2.8 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 total recordable cases (TRC) incidence rate fell 0.1 cases per 100 full-time workers in 2017 from 2.7 cases per 100 FTE reported the previous year.
- There were an estimated 101,500 total recordable cases reported for private sector industries; 28,900 cases involved one or more days away from work; 20,200 cases involved one or more days of job restriction/transfer only and remaining 52,400 cases were recordable cases with no loss time.
- Private industry employers reported an increase of 3,200 cases in nonfatal injury and illness cases in 2017 compared to a year earlier.
- There was, approximately, a 1.3% 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 incidence rates per 100 FTE workers in Ohio were:

- Art, entertainment and recreation – 4.9
- Transportation and warehousing – 4.1
- Healthcare and social assistance – 4.0
- Manufacturing – 3.1
- Retail trade – 3.1

Seven private industry sectors reported a decline in the rate of injuries and illnesses in 2017: agriculture; construction; manufacturing; healthcare and social assistance; wholesale; utilities; mining, quarrying and oil and gas extraction; and administrative and support and waste management and remediation services. Contrastingly, five private sector industries; transportation and warehousing; retail; information; arts, entertainment and recreation; and accommodation and food services reported increase in the rate of injuries and illnesses in 2017 compared to a year earlier.

Table 1: Table shows private sector industries with increase and decrease in TRC rates for 2017 in comparison to previous year.

Decrease in rates (2016 – 2017)	Increase in rates
Manufacturing (3.5 – 3.1)	Transportation (3.4 – 4.1)
Construction (3.2 – 2.4)	Retail (2.7 – 3.1)
Health care and social assistance (4.0 – 3.6)	Information (0.9 – 1.2)
Wholesale (2.9 – 2.4)	Art, entertainment and recreation (2.8 – 4.9)
Utilities (1.5 – 1.0)	Accommodation and food services (2.5 – 2.7)
Mining, quarrying and oil and gas extraction (1.6 – 1.4)	
Administrative and support and waste management and remediation services (2.2 – 2.1)	

- Rates show number of cases per 100 FTE. Four industries not listed here could not be compared because rates were unavailable for 2016.

Injuries

- Of the total nonfatal occupational injuries and illnesses reported by private industry employers in 2017, 97,700 (96 percent) were injury cases.
- An estimated 72,500 cases occurred in service-providing industries. The remaining 25,200 injuries (26 percent) 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 2017 and occurred at a rate of 10.0 cases per 10,000 full-time workers.
- Service-providing industries accounted for 61 percent of private industry illness cases and had a rate of 8.0 cases per 10,000 full-time workers.
- Goods-producing industries accounted for 39 percent of all occupational illness cases in 2017, resulting in an incidence rate of 16.1 cases per 10,000 full-time workers—down from the previous year when rate was 18.2 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 incidence rate per 100 FTE workers for all private sector industries by size classes:
 - Class size 1 (1-10 employees) – 1.4
 - Class size 2 (11-49 employees) – 2.8
 - Class size 3 (50 – 249 employees) – 3.1
 - Class size 4 (250 – 999 employees) – 2.8
 - Class size 5 (1000+ employees) – 2.4
- Ohio TRC rates are lower than national rates in all selected industry sectors except in the Arts, entertainment and recreation industry and the 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		2.6	2.8
Mining	21	1.4	1.5
Construction	23	2.4	3.1
Manufacturing	31-33	3.1	3.5
Wholesale trade	42	2.4	2.8
Retail trade	44-45	3.1	3.3
Transportation and warehousing	48-49	4.1	4.6
Utilities	22	1.0	2.0
Information	51	1.2	1.3
Administrative and support and waste management and remediation service	56	2.1	2.2
Educational services	61	1.6	1.9
Health care and social assistance	62	3.6	4.1
Arts, entertainment and recreation	71	4.9	4.2
Accommodation and food services	72	2.7	3.2
Other services (except public administration)	81	2.7	2.1

- Ohio private industry non-fatal occupational injuries and illnesses TRC incident rate (2.6 cases per 100 FTE workers) compared with some states:
 - Michigan – 3.1
 - Pennsylvania – 3.1
 - Indiana – 3.3
 - California – 3.2
 - Illinois - 2.6
 - Kentucky – 3.1
 - West Virginia – 2.9

Worker and Injury Characteristics (Private industry only)

The estimated total number of cases involving days away from work in private sector decreased by 2% the previous year to 28,880 cases in 2017. 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 75.4 cases per 10,000 full time workers, a slight increase from the 79.5

cases in 2016. Other important data points on case and demographic distribution in private sector industries are provided below.

DEMOGRAPHICS

Gender:

- Men accounted for 61.2% of cases involving one or more days away from work; a decrease from 61.7% in 2016.
- Incidence rate for DAFW cases in men decreased from 85.6 in 2016 to 81.2 cases per 10,000 fulltime workers in 2017.
- Incidence rate of DAFW cases in women decreased from 71.3 in 2016 to 67.8 cases per 10,000 full time workers in 2017.
- 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 15.4 compared to 9.6 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 – 98.4
 - 20-24 – 83.8
 - 25-34 – 69.2
 - 35-44 – 76.7
 - 45-54 – 67.5
 - 55-64 – 82.3
 - 65 and over – 79.0
- SOII results for 2017 indicate that in comparison to the previous year, incidence rate of DAFW cases decreased in all age groups except in age groups 16-19 and 25-34 where rates were higher in 2017.
- Similar to what was reported the previous year, workers within the 16-19 year age group had the highest incidence rate of DAFW cases across the age groups in 2017.

Tenure

- Distribution of DAFW cases by employee length of service/employment:
 - Less than 3 months – 13.1%
 - 3 months to 1 year – 22.3%
 - 1-5 years – 32.3%
 - 5 years or more – 30.8%
- Workers with >5 years tenure had the highest median days away from work of all tenure groups with 10 days

Occupation

- Occupation groups with highest incidence rates for DAFW cases per 10,000 full time workers:

- Transportation and material moving occupations – 232.6
- Installation, maintenance, and repair occupations – 173.6
- Building and grounds cleaning and maintenance occupations – 169.2
- Healthcare support occupation – 115.9
- Personal care and service occupations – 108.1
- Education, training, and library occupations – 99.3
- Production occupations – 93.0
- Occupations with highest median days away from work for DAFW cases
 - Construction laborers – 60
 - Refuse and recyclable material collectors- 38
 - Cutting, punching, and press machine setters, operators, and tenders, metal and plastic- 18
 - Driver/sales workers – 15
 - Heavy and tractor-trailer truck drivers – 14
 - Heating, air conditioning, and refrigeration mechanics and installers- 14
 - Light truck or delivery services drivers – 13
 - Landscaping and grounds keeping workers - 12

CASE CHARACTERISTICS

Nature of injuries

- Distribution of DAFW cases by type of injury
 - Sprains, strains, tears – 39.1%
 - Soreness and pain – 11.3%
 - Fractures – 9.9%
 - Bruises and contusions – 9.3%
 - Cuts, lacerations – 9.1%
- Workers in transportation and material moving occupations had significantly higher incidence rate of DAFW cases involving sprains strains and tears than any other occupation group.

Body parts

- Distribution of DAFW cases by body part injured
 - Back – 17.0%
 - Hands – 13.9%
 - Knee – 10.1%
 - Head – 8.3%
 - Shoulder – 8.0%
- Incidence rate statistics indicated that men injured their hands more often than any other body part while women injured their back more often than any other body part in 2017.
- Transportation and material moving occupations were more likely to injure their back than any other body part.
- Farming, fishing and forestry 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 – 15.1%
 - Worker's motion or position 14.6%
 - Containers – 11.9%

- Vehicles - 11.4%
 - Parts and materials – 8.7%
- Transportation and material moving occupations had the highest incidence rate for DAFW cases involving containers.

Events/Causation

- Distribution of DAFW cases by event
 - Overexertion – 33.5%
 - Contact with objects – 29.2%
 - Falls, slips, trips – 25.8%
 - Transportation incidents – 4.6%
 - Violence – 3.9%
- Workers in age group ≥ 65 years 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 the age groups.
- Education, training, and library 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 2017 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. Total number recordable cases decreased by 6% from the previous year to 15,300 cases reported for all industries. It is estimated that 7,100 cases (46%) involved one or more days away from work, 1,500 cases (10%) involved one or more days of job restriction/transfer only and the remaining 6,700 cases (44%) were other recordable cases with no loss time. The TRC incidence rate for combined public sector in Ohio was significantly lower than that of the nation which was 4.6 cases per 100 full time workers. Public employers are further divided by ownership and the summary of the result is presented below.

State government only

- In 2017, TRC incidence rate for state government establishments in Ohio was 2.1 cases per 100 FTE workers while corresponding national rate was 3.6 cases per 100 FTE workers. There were an estimated 2,800 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 – 0.9
 - State government colleges, universities and professional schools – 0.9
 - Hospitals – 3.3
 - Nursing and residential care facilities – 19.6
 - Justice, public order and safety activities – 6.0
 - Correctional institutions – 8.7

PUBLIC SECTOR INDUSTRY – Incidence rates (Local government only)

- TRC incidence rate for local government in Ohio was 3.5 cases per 100 FTE workers while corresponding national rate was 5.0 cases per 100 FTE workers. The reported rate for 2017 indicates an increase in comparison to previous year's rate which was 3.3 cases per 100 FTE workers.
- There were an estimated 12,500 total recordable cases of workplace injuries and illnesses in the same year. This represents a 4% 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:
 - Educational services – 2.6
 - Public administration – 4.0
 - Health care and social assistance – 3.8
- Industry subsectors with the highest total recordable cases incidence rates per 100 FTE workers in Ohio were:
 - Hospital – 5.3
 - Nursing and residential care facilities – 3.8
 - Educational services – 2.6
- There were an estimated 5,700 cases of injuries and illnesses involving one or more days away from work. This represents a 11% decrease in the number of cases involving one more days away from work in local government from the previous year estimate.

Worker and injury characteristics – Local government establishments only.

Overall incidence rate for DAFW cases in Ohio local government establishments decreased from 163.2 cases in 2016 to 157.8 cases per 10,000 full time workers in 2017. Important data points on case and demographic distribution in local government establishments are provided below.

DEMOGRAPHICS

Gender:

- Men accounted for 54.5% 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 189.9 and 131.2 cases per 10,000 full time workers, respectively.

Age

- Distribution of DAFW cases by age group
 - 20-24 – 3.3%
 - 25-34 – 12.7%
 - 35-44 – 31.1%
 - **45-54 – 31.3%**
 - 55-64 – 14.4%
 - 65 and over – 6.7%
- Incidence rate of cases per 10,000 full time workers of DAFW cases by age group
 - 20-24 – 112.5
 - 25-34 – 90.5
 - 35-44 – 210.3
 - 45-54 – 196.0
 - 55-64 – 124.2
 - 65 and over – 206.4
- 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 – 0.7%
 - 3 months to 1 year – 6.0%
 - 1-5 years – 31.6%
 - 5 years or more – 61.7%

CASE CHARACTERISTICS

Nature of injuries

- Distribution of DAFW cases by type of injury
 - Sprains, strains, tears – 47.5%
 - Fractures – 9.1%

- Soreness and pain– 7.2%
- Bruises and contusions – 5.3%
- Cuts and laceration – 4.4%
- 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 – 15.3%
 - Knee – 12.8%
 - Ankle – 12.5%
 - Head – 8.4%
 - Hand – 5.8%
- Incidence rate statistics indicated rate of back injuries in men was almost equal to the estimated rate in women.

Source of injury

- Distribution of DAFW cases by source of injury
 - Floors, walkways, ground surfaces – 27.6%
 - Person, other than injured worker – 23.2%
 - Worker’s motion or position – 14.6%
 - Vehicles - 5.4%
 - Furniture and fixtures – 4.6%

Events/Causation

- Distribution of DAFW cases by event
 - Falls, slips, trips – 37.8%
 - Overexertion – 26.2%
 - Violence – 20.0%
 - Contact with objects – 10.5%
 - Transportation incidents – 4.6%
- 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 6 times the rate in private sector industry.

For more information on data and statistics from the 2017 Survey of Occupational Injuries and Illnesses for the State of Ohio, please contact the Division of Safety and Hygiene’s Research and Statistics Department staff at 614-995-8608.