

# 2019 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, combining private and public establishments, was estimated to be 2.6 cases per 100 full time equivalent (FTE) workers.
- Ohio combined total recordable cases (TRC) incidence rate was lower than the national rate of 3.0 cases per 100 FTE workers.
- There were an estimated 110,500 total recordable cases reported in 2019 for all industries; 36,200 (32.7%) cases involved one or more days away from work (DAFW), 19,600 (17.7%) cases involved one or more days of job restriction/transfer only and 54,700 (49.5%) were recordable cases with no loss time.
- Estimated number of total recordable cases in 2019 decreased by, approximately, three (3) percent in comparison to the previous year; driven mostly by a decrease in the number of cases in private establishments.
- The combined incidence rate of cases with days away from work (DAFW) for both private and public establishments was 0.8 cases per 100 FTE workers, 0.1 cases lower than the national rate.

### Private Industry - Incidence rates

- The TRC incidence rate for private industry in 2019 was 2.4 cases per 100 FTE workers; unchanged from the reported rate for the previous year. This rate is below national private industry TRC incidence rate which was 2.8 cases per 100 FTE workers. Incidence rate of DAFW cases in Ohio private industry was 0.8 while national rate was 0.9 cases per 100 full time employees.
- There were an estimated 91,800 total recordable cases reported for private sector industries; 28,600 cases involved one or more days away from work; 17,900 cases involved one or more days of job restriction/transfer only and remaining 45,200 cases were recordable cases with no loss time.
- Private industry employers reported a decrease of 1,300 cases in nonfatal injury and illness cases in 2019 compared to a year earlier.
- There was, approximately, a four (4) percent increase 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:

- Healthcare and social assistance – 3.7
- Transportation and warehousing – 3.5
- Retail trade – 3.2
- Manufacturing – 2.8

Four private industry sectors reported a decline in the rate of injuries and illnesses in 2019: construction; manufacturing; wholesale; and arts, entertainment and recreation industry. Contrastingly, five private sector industries; mining; transportation; retail; education; and healthcare and social assistance industry reported an increase in the rate of injuries and illnesses in 2019 compared to a year earlier.

Table 1: Table shows private sector industries with increase and decrease in TRC rates for 2019 in comparison to previous year.

Decrease in rates (2018 – 2019)	Increase in rates
Construction (3.1 – 2.3)	Transportation (3.3 – 3.5)
Manufacturing (3.2 – 2.8)	Retail Trade (2.9 – 3.2)
Wholesale Trade (2.7 – 2.5)	Health care and social assistance (3.3 – 3.7)
Arts, Entertainment and Recreation (3.6 – 2.5)	Education services (0.7 – 1.8)
	Mining (0.9 – 1.1)

Rates show number of cases per 100 FTE. Three industries not listed here could not be compared because rates were unavailable for 2017.

### Injuries

- Of the total nonfatal occupational injuries and illnesses reported by private industry employers in 2019, 87,400 (95 percent) were injuries.
- An estimated 63,800 occurred in service-providing industries. The remaining 23,600 injuries (27 percent) occurred in goods-producing industries.

### Illnesses

- Workplace illnesses accounted for 4,400 cases (5 percent) of the estimated total number of injury and illness cases reported by private industry employers in 2019 and occurred at a rate of 11.5 cases per 10,000 full-time workers. This represent a slight decrease in rate when compared to the previous year when the rate was 11.6 cases per 10,000 full-time workers.
- Service-providing industries accounted for 70 percent of private industry illness cases and had a rate of 10.9 cases per 10,000 full-time workers.
- Goods-producing industries accounted for 30 percent of all occupational illness cases in 2019, resulting in an incidence rate of 13.3 cases per 10,000 full-time workers—a significant decrease from the previous year when rate was 18.5 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.
- TRC incidence rate per 100 FTE workers for all private sector industries by size classes:
  - Class size 2 (11-49 employees) – 2.2
  - Class size 3 (50 – 249 employees) – 3.2
  - Class size 4 (250 – 999 employees) – 2.6
  - Class size 5 (1000+ employees) – 2.4
- Ohio TRC rates are lower than national rates in all selected industry sectors with publishable data in the state.

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.

Industry	NAICS code	OH	U.S.
Private industry		2.4	2.8
Mining	21	1.1	1.2
Construction	23	2.3	2.8
Manufacturing	31-33	2.8	3.3
Wholesale trade	42	2.5	2.7
Retail trade	44-45	3.2	3.4
Transportation and warehousing	48-49	3.5	4.4
Utilities	22	0.8	2.2
Professional and business services		1.2	0.8
Educational services	61	1.8	2.0
Health care and social assistance	62	3.7	3.8
Arts, entertainment and recreation	71	2.5	4.0
Accommodation and food services	72	2.0	3.2

Table 3 compares Ohio TRC incident rates per 100 FTE workers and number of cases for the last two years.

	Ohio				
	Incidence rates (cases per 100 full time workers)		Number of cases in thousands		
	2018	2019	2018	2019	Difference - highlighted cases indicate increase
All industries	2.6	2.6	114.0	110.5	3.5
Private industry	2.4	2.4	93.1	91.8	1.3
Construction	3.1	2.3	6.3	4.9	1.4
Manufacturing	3.2	2.8	21.9	19.4	2.5
Wholesale	2.7	2.5	6.2	5.6	0.6
Retail	2.9	3.2	11.9	13.2	-1.3
Transportation	3.3	3.5	6.4	7.0	-0.6
Healthcare	3.3	3.7	20.0	23.1	-3.1
Educational services	0.7	1.8	0.4	0.9	-0.5

- Ohio private industry non-fatal occupational injuries and illnesses TRC incident rate (2.4 cases per 100 FTE workers) compared with some states:

- Michigan – 2.8
- Pennsylvania – 3.2
- Indiana – 3.2
- Kentucky – 3.0
- West Virginia – 2.8

### **Worker and Injury Characteristics (Private industry only)**

The estimated total number of cases involving days away from work in private sector increased by four (4) percent from the previous year to 28,640 cases in 2019. 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 71.7 cases in 2018. Other important data points on case and demographic distribution in private sector industries are provided below.

### **DEMOGRAPHICS**

#### **Gender:**

- Men accounted for 58.5% of cases involving one or more days away from work; a decrease from 60.5% in 2018.
- Incidence rate for DAFW cases in men decreased from 76.9 in 2018 to 76.7 cases per 10,000 fulltime workers in 2019.
- Incidence rate of DAFW cases in women increased from 64.8 in 2018 to 73.8 cases per 10,000 full time workers in 2019.
- 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 20.7 compared to 10.3 cases per 10,000 full time workers in men.

#### **Age**

- Distribution of DAFW cases by age group
  - 16-19 – 3.8 %
  - 20-24 – 10.4%
  - 25-34 – 20.4%
  - 35-44 – 16.8%
  - 45-54 – 22.6%
  - 55-64 – 20.4%
  - 65 and over – 4.3%
- Incidence rate of cases per 10,000 full time workers of DAFW cases by age group
  - 16-19 – 149.3
  - 20-24 – 94.5
  - 25-34 – 62.5
  - 35-44 – 60.2
  - 45-54 – 62.4
  - 55-64 – 95.8
  - 65 and over – 101.2

- SOII results for 2019 indicate that in comparison to the previous year, incidence rate of DAFW cases increased in all age groups except in age groups.
- 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 2019.

### Tenure

- Distribution of DAFW cases by employee length of service/employment:
  - Less than 3 months – 11.5%
  - 3 months to 1 year – 25.4%
  - 1-5 years – 33.2%
  - 5 years or more – 28.7%
- 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 – 194.9
  - Building and grounds cleaning and maintenance occupations – 158.1
  - Installation, maintenance, and repair occupations – 136.9
  - Healthcare support occupation – 127.0
  - Farming, fishing, and forestry occupations – 119.5
  - Construction and extraction occupations – 118.1
  - Educational instruction and library occupations – 108.2
- Occupations with highest median days away from work for DAFW cases
  - Driver/sales worker – 125
  - Retail salesperson - 31
  - Maids and housekeeping cleaners – 30
  - Cashiers – 30
  - Secretaries and administrative assistants, except legal, medical, and executive - 25
  - Telecommunications line installers and repairers – 21
  - Fast food and counter workers - 19
  - Light truck or delivery services drivers – 17

## CASE CHARACTERISTICS

### Nature of injuries

- Distribution of DAFW cases by type of injury
  - Sprains, strains, tears – 32.8%
  - Fractures – 12.7%
  - Soreness and pain – 10.7%
  - Bruises and contusions – 9.3%
  - Cuts, lacerations – 8.1%
- 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
  - Hands – 16.0%
  - Back – 12.4%

- Head – 8.6%
- Shoulder – 7.6%
- Knee – 7.1%
- Incidence rate statistics indicated that the hand was the most injured body part for both men and women than any other body part in 2019.
- Transportation and material moving occupations were more likely to injure their back than any other body part.
- Healthcare support occupations had the highest incidence rate of DAFW cases involving injuries to the back in comparison to other occupation groups.

#### **Source of injury**

- Distribution of DAFW cases by source of injury
  - Floors, walkways, ground surfaces – 18.9%
  - Vehicles – 14.5
  - Worker’s motion or position 12.1%
  - Containers – 8.1%
  - Parts and materials – 7.9%
  - Machinery – 5.9%
- Transportation and material moving occupations had the highest incidence rate for DAFW cases involving containers.

#### **Events/Causation**

- Distribution of DAFW cases by event
  - Falls, slips, trips – 27.9%
  - Overexertion – 25.0%
  - Contact with objects – 24.6%
  - Transportation incidents – 9.5%
  - Violence – 5.1%
- Workers in age group ≥65 years had the highest incidence rate for falls, slips and trips of all the age categories.
- Workers in 20-24-year age group had the highest incidence rate of overexertion related injuries of all the age groups.
- Installation, maintenance and repair occupations had the highest incidence rate DAFW cases related to overexertion of all occupations groups.

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

Survey result for 2019 includes combined public employer statistics and local and state government establishments separately. An estimated 18,700 nonfatal injury and illness cases were reported in 2019 among public employers, combining both state and local government establishments—for example, elementary and secondary schools, hospitals, and police or fire protection—resulting in a rate of 3.6 cases per 100 full-time workers. It is estimated that 7,600 cases (41%) involved one or more days away from work, 1,600 cases (9%) involved one or more days of job restriction/transfer only and the remaining 9,500 cases (50%) 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 2019, TRC incidence rate for state government establishments in Ohio was 2.8 cases per 100 FTE workers while corresponding national rate was 3.5 cases per 100 FTE workers. There were an estimated 3,200 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 – 1.1
  - Hospitals – 3.7
  - Nursing and residential care facilities – 27.7
  - Justice, public order and safety activities – 3.2
  - Correctional institutions – 3.9

### **PUBLIC SECTOR INDUSTRY – Incidence rates (Local government only)**

- TRC incidence rate for local government in Ohio was 3.8 cases per 100 FTE workers while corresponding national rate was 5.0 cases per 100 FTE workers. The reported rate for 2019 indicates a decrease in comparison to previous year's rate which was 4.3 cases per 100 FTE workers.
- There were an estimated 15,500 total recordable cases of workplace injuries and illnesses in the same year. This represents a 12% 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 – 2.9
  - Public administration – 5.2
- Industry subsectors with the highest total recordable cases incidence rates per 100 FTE workers in Ohio were:
  - Hospital – 5.9
  - Nursing and residential care facilities – 1.6
- There were an estimated 6,000 cases of injuries and illnesses involving one or more days away from work. This represents an 8% decrease in the number of cases involving one or 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 160.7 cases in 2018 to 147.1 cases per 10,000 full time workers in 2019. Important data points on case and demographic distribution in local government establishments are provided below.

### **DEMOGRAPHICS**

#### **Gender:**

- Men accounted for 52% 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 171.4 and 127.6 cases per 10,000 full time workers, respectively.

#### **Age**

- Distribution of DAFW cases by age group
  - 20-24 – 3.4%
  - 25-34 – 29.5%
  - 35-44 – 23.5%
  - 45-54 – 22.5%
  - 55-64 – 11.7%
  - 65 and over – 9.4%
- Incidence rate of cases per 10,000 full time workers of DAFW cases by age group
  - 20-24 – 193.6
  - 25-34 – 179.9
  - 35-44 – 138.4
  - 45-54 – 142.4
  - 55-64 – 81.2
  - 65 and over – 385.2
- 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 – 3.2%
  - 3 months to 1 year – 2.9%
  - 1-5 years – 37.4%
  - 5 years or more – 53.5%

### **CASE CHARACTERISTICS**

#### **Nature of injuries**

- Distribution of DAFW cases by type of injury
  - Sprains, strains, tears – 30.4%
  - Soreness and pain – 16.3%



- Bruises and contusions – 13.3%
- Fractures – 10.1%
- Cuts and laceration – 1.3%
- Incidence rate of sprain, strains & tears was significantly higher in men than in women.
- Workers in age group 20 -24 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 – 16.8%
  - Head – 12.1%
  - Hand – 11.6%
  - Knee – 9.9%
  - Ankle – 8.2
  - Neck – 4.4
- 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
  - Person, other than injured worker – 40.3%
  - Floors, walkways, ground surfaces – 20.0%
  - Worker’s motion or position – 12.2%
  - Vehicles – 9.1%
  - Parts and material – 2.9%

### **Events/Causation**

- Distribution of DAFW cases by event
  - Violence – 38.9%
  - Falls, slips, trips – 24.7%
  - Overexertion – 20.6%
  - Contact with objects – 9.1%
  - Transportation incidents – 6.4%
- 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 10 times the rate in private sector industry.

For more information on data and statistics from the 2019 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.