

# 2015 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 2.9 cases per 100 full time equivalent (FTE) workers.
- Ohio combined total recordable cases (TRC) incidence rate was lower than the national rate of 3.3 cases per 100 FTE workers.
- There were an estimated 125,700 total recordable cases reported in 2015 for all industries; 37,900 (30%) cases involved one or more days away from work (DAFW), 26,000 (20.7%) cases involved one or more days of job restriction/transfer only and 61,800 (49.2%) were recordable cases with no loss time.
- Estimated number of total recordable cases in 2015 increased from the previous year by about four (4) percent; driven mainly by increase in number of cases in local government 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 2.8 cases per 100 FTE workers; a three (3) percent decrease from the previous year. This rate is below national private industry TRC incidence rate which was 3.0 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 from 2014 rate— DAFW cases and other recordable cases (ORC) remained 0.8 cases and 1.4 cases per 100 full-time workers, respectively.
- There were an estimated 104,700 total recordable cases reported for in private industries; 30,080 cases involved one or more days away from work; 22,900 cases involved one or more days of job restriction/transfer only and remaining 51,700 cases were recordable cases with no loss time.
- Private industry employers reported nearly 900 fewer nonfatal injury and illness cases in 2015 compared to a year earlier. Because of this decline, combined with an increase in reported hours worked, the total recordable cases (TRC) incidence rate fell 0.1 cases per 100 full-time workers.
- There was 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:

- Transportation and warehousing – 4.0
- Agriculture, forestry, fishing and hunting – 4.0
- Healthcare and social assistance – 3.7
- Manufacturing – 3.5
- Arts, entertainment, and recreation – 3.4
- Six of the 15 private industry sectors reported a decline in the rate of injuries and illnesses in 2015: manufacturing; transportation and warehousing; health care and social assistance; arts, entertainment, and recreation; construction; and other services (except public administration).

- Contrastingly, four private sector industries; agriculture, wholesale trade, retail trade, and finance and insurance all reported increase in the rate of injuries and illnesses in 2015 compared to a year earlier.

Table 1: Table shows private sector industries with increase, decrease and stable TRC rates for 2015 in comparison to previous year.

| <b>Decrease in rates (2014 – 2015)</b>                    | <b>Increase in rates</b>          | <b>Unchanged rates</b>                |
|---|-----------------------------------|---------------------------------------|
| Arts, entertainment, and recreation (4.5 – 3.4)           | Agriculture (3.7 – 4.0)           | Accommodation and food services (2.7) |
| Transportation (4.6 – 4.0)                                | Wholesale (2.5 – 2.8)             |                                       |
| Health care and social assistance (4.1 – 3.7)             | Retail (2.7 – 3.1)                |                                       |
| Manufacturing (3.9 – 3.5)                                 | Finance and insurance (0.2 – 0.3) |                                       |
| Other services (except public administration) (2.7 – 2.4) |                                   |                                       |
| Construction (3.5 – 3.3)                                  |                                   |                                       |
| Professional and business services (1.5 – 1.4)            |                                   |                                       |

Rates show number of cases per 100 FTE.

### Injuries

- Of the total nonfatal occupational injuries and illnesses reported by private industry employers in 2015, nearly 100,000 (95.5 percent) were injuries.
- Nearly 70,000 cases of these injuries (70 percent) occurred in service-providing industries while the remaining nearly 30,000 injuries (30.0 percent) occurred in goods-producing industries.

### Illnesses

- Workplace illnesses accounted for 4,700 cases (4.5 percent) of the estimated total number of injury and illness cases reported by private industry employers in 2015 at a rate of 12.3 cases per 10,000 full-time workers. Rates among the individual illness categories were relatively unchanged compared to a year earlier.
- Service-providing industries accounted for 2,900 illness cases at a rate of 9.9 cases per 10,000 full-time workers in 2015.
- Goods-producing industries accounted for 1,800 illness cases in 2015, resulting in an incidence rate of 19.8 cases per 10,000 full-time workers—down from the previous year when rate was 20.6 cases.

### Establishment size

- Similar to what was observed nationally, 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) – 1.8
  - Class size 2 (11-49 employees) – 2.3
  - Class size 3 (50 – 249 employees) – 3.5
  - Class size 4 (250 – 999 employees) – 2.9
  - 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                              |            | 2.8 | 3.0 |
| Agriculture, forestry, fishing and hunting    | 11         | 4.0 | 5.7 |
| Construction                                  | 23         | 3.3 | 3.5 |
| Manufacturing                                 | 31-33      | 3.5 | 3.8 |
| Wholesale trade                               | 42         | 2.8 | 3.1 |
| Retail trade                                  | 44-45      | 3.1 | 3.5 |
| Transportation and warehousing                | 48-49      | 4.0 | 4.5 |
| Utilities                                     | 22         | 3.2 | 2.2 |
| Finance and insurance                         | 52         | 0.3 | 0.5 |
| Real estate and rental and leasing            | 53         | 1.8 | 2.7 |
| Professional and business services            |            | 1.4 | 1.4 |
| Management of companies and enterprises       | 55         | 0.6 | 1.0 |
| Educational services                          | 61         | 1.3 | 2.1 |
| Health care and social assistance             | 62         | 3.7 | 4.3 |
| Arts, entertainment and recreation            | 71         | 3.4 | 4.1 |
| Accommodation and food services               | 72         | 2.7 | 3.3 |
| Other services (except public administration) | 82         | 2.4 | 2.3 |

- Ohio private industry non-fatal occupational injuries and illnesses TRC incident rate (2.8 cases per 100 FTE workers) compared with some states:
  - Michigan – 3.3
  - Pennsylvania - 3.5
  - Indiana - 3.7
  - California - 3.3
  - Illinois - 2.9
  - Kentucky - 3.5
  - 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 79.1 cases per 10,000 full time workers, a decrease from the 84.7 cases in 2014. Other important data points on case and demographic distribution in private sector industries are provided below.

## DEMOGRAPHICS

### Gender:

- Men accounted for 63.1% of cases involving one or more days away from work; an increase from 61.3% in 2014.
- Incidence rate for DAFW cases in men decreased from 93.2 in 2014 to 87.4 cases per 10,000 fulltime workers in 2015.
- Similarly, incidence rate of DAFW cases in women decreased from 73.8 in 2014 to 68.1 cases per 10,000 full time workers in 2015.
- Incidence rate for DAFW cases involving fall on same level in women was almost twice as high as the rate reported for men. Incidence rate in women was 20.0 compared to 10.5 cases per 10,000 full time workers in men.

### Age

- Distribution of DAFW cases by age group
  - 16-19 – 2.9 %
  - 20-24 – 10.4%
  - 25-34 – 21.1%
  - 35-44 – 20.2%
  - 45-54 – 22.2%
  - 55-64 – 18.4%
  - 65 and over – 3.2%
- Incidence rate of cases per 10,000 full time workers of DAFW cases by age group
  - 16-19 – 84.8
  - 20-24 – 97.1
  - 25-34 – 74.0
  - 35-44 – 75.2
  - 45-54 – 80.1
  - 55-64 – 84.7
  - 65 and over – 58.9
- SOII results for 2015 indicates that in comparison to the previous year, incidence rate of DAFW cases decreased in all age groups, except in workers age groups 20 -24 years

### Tenure

- Distribution of DAFW cases by employee length of service/employment:
  - Less than 3 months – 10.7%
  - 3 months to 1 year – 22.5%
  - 1-5 years – 30.1%
  - 5 years or more – 35.8%
- 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 – 211.0

- Installation, maintenance, and repair occupations – 188.9
- Construction and extraction occupations – 141.7
- Healthcare support occupation – 140.9
- Production occupations - 112.9
- Occupations with highest median days away from work for DAFW cases
  - General and operational managers – 180
  - First-line supervisors of food preparation and serving workers – 61
  - Electricians – 60
  - Heavy and tractor-trailer truck drivers – 51
  - Team assemblers – 19

## **CASE CHARACTERISTICS**

### **Nature of injuries**

- Distribution of DAFW cases by type of injury
  - Sprains, strains, tears – 40.1%
  - Cuts, lacerations – 10.4%
  - Bruises and contusions – 10.4%
  - Fractures – 9.6%
  - Soreness and pain – 5.2%
- Workers in age group 55-64 years had significantly higher incidence rate of DAFW cases involving sprains strains and tears.

### **Body parts**

- Distribution of DAFW cases by body part injured
  - Hands – 12.5%
  - Back – 11.7%
  - Shoulder – 7.0%
  - Head – 6.8
  - Knee – 6.2%
- Incidence rate statistics indicated that women were more likely to injure their backs while men were more like to injure hands.
- Incidence rates information also indicated that healthcare support occupations had highest rate for back injuries compared to other occupation groups.
- Food preparation and serving related 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 – 20.2%
  - Worker's motion or position – 12.4%
  - Vehicles - 9.4%
  - Machinery – 9.1%
  - Containers – 8.7%

- Transportation and material moving occupations had the highest incidence rate for DAFW cases involving floors and walkways.

### **Events/Causation**

- Distribution of DAFW cases by event
  - Overexertion – 30.1%
  - Contact with objects – 28.2%
  - Falls, slips, trips – 26.9%
  - Exposure to harmful substances or environment – 5.1%
  - Violence – 5.0%
- Workers in age group >65 years had the highest incidence rate for falls, slips and trips of all the age categories.
- Workers in 55-64 year age group had the highest incidence rate of overexertion related injuries of all age groups.
- Transportation and material moving occupations also had the highest rate of DAFW cases related to overexertion of all occupation groups by a significant margin.

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

Survey result for 2015 includes combined public employers statistics and local and state government establishments separately. The TRC incidence rate per 100 FTE workers for Ohio public employer establishments was 4.1. There were 21,000 total recordable cases reported for all industries; 37% of the cases involved one or more days away from work, 15% of cases involved one or more days of job restriction/transfer only and the remaining 48% were 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 1.6 cases per 100 FTE workers while corresponding national rate was 3.7 cases per 100 FTE workers. There were an estimated 1,800 total recordable cases of workplace injuries and illnesses in the same year. Due to generally low response rate in public industry, data available for this sector is limited.
- Summary of state government industry sector/subsector total recordable cases incidence rates per 100 FTE worker:
  - Education services – 1.2
  - State government colleges, universities and professional schools – 1.2
  - State government hospitals – 4.1

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

- TRC incident rate for local government in Ohio was 4.8 cases per 100 FTE workers while corresponding national rate was 5.6 cases per 100 FTE workers. The reported rate for 2015 indicates a significant increase in comparison to previous year's rate which was 3.6 cases per 100 FTE workers.
- Due to low and fluctuating response rate with public employers, comparison between years is difficult and often impossible because the number of industries with publishable statistics has been inconsistent from year to year.
- There were an estimated 19,200 total recordable cases of workplace injuries and illnesses in the same year. This represents a 40% increase 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:
  - Transportation and warehousing – 6.1
  - Health care and social assistance – 5.3
  - Utilities – 5.0
- Industry subsectors with the highest total recordable cases incident rates per 100 FTE workers in Ohio were:
  - Fire protection – 13.3
  - Nursing and residential care facilities – 9.2
  - Transit and ground passenger transportation – 5.7
- There was (approximately) 38% increase in the number of cases involving one more days away from work in local government from the previous year estimate. There were an estimated 7,300 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 increased from 139.7 cases in 2014 to 182.3 cases per 10,000 full time workers in 2015. Important data points on case and demographic distribution in local government establishments are provided below.

### **DEMOGRAPHICS**

#### **Gender:**

- Men accounted for 74.8% of cases involving one or more days away from work. Incidence rate of DAFW cases was higher in men. Survey results indicate that rate of DAFW cases in men and women were 301.4 and 83.7 cases per 10,000 full time workers, respectively.

#### **Age**

- Distribution of DAFW cases by age group
  - 25-34 – 21.2%
  - 35-44 – 30.9%
  - **45-54 – 28.9%**
  - 55-64 – 17.6%
  - 65 and over – 1.2%
- Incidence rate of cases per 10,000 full time workers of DAFW cases by age group
  - 25-34 – 196.3
  - 35-44 – 227.3
  - 45-54 – 180.5
  - 55-64 – 178.9
  - 65 and over – 69.1
- 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 – 3.7%
  - 3 months to 1 year – 7.9%
  - 1-5 years – 26.5%
  - 5 years or more – 61.7%

### **CASE CHARACTERISTICS**

#### **Nature of injuries**

- Distribution of DAFW cases by type of injury
  - Sprains, strains, tears – 53.6%
  - Fractures – 10.8%
  - Soreness and pain – 8.1%



- Bruises and contusions – 7.8%
- Incidence rate of sprain, strains & tears was significantly higher in men than in women.
- Workers in age group 35-44 years had the highest incidence rate of DAFW cases involving sprains, strains and tears.

### **Body parts**

- Distribution of DAFW cases by body part injured
  - Wrist – 13.0%
  - Hands – 12.4%
  - Back – 9.8%
  - Knee – 9.4%
- 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 – 26.8%
  - Worker's motion or position – 16.6%
  - Person, other than injured worker – 15.9%
  - Vehicles – 13.1%
  - Containers - 11.9%

### **Events/Causation**

- Distribution of DAFW cases by event
  - Falls, slips, trips – 31%
  - Overexertion – 28%
  - Violence – 14.6%
  - Contact with objects – 11.2%
  - Transportation incidents – 11.2%
- 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 8 times the rate in private sector industry.

For more information on data and statistics from the 2015 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.