

Analysis of the Survey of Occupational Injuries and Illnesses (SOII) Results



Prepared by the Indiana Department of Labor Quality, Metrics and Statistics Division Each year, nearly 5,800 Indiana businesses participate in the Survey of Occupational Injuries and Illnesses (SOII) conducted by the federal Bureau of Labor Statistics (BLS). The Survey is designed to provide an estimate of the number of work-related injuries and illnesses and measure the frequency at which they occur. The SOII is conducted by requesting data from employers' Occupational Safety and Health Administration (OSHA) logs showing OSHA recordable workrelated injuries and or illnesses that occurred in the previous calendar year. The sampled employers receive notification a year prior to the year they will be on the survey. After the calendar year has ended, they receive a notification that it is time to submit their OSHA logs.

The Quality, Metrics and Statistics (QMS) division of the Indiana Department of Labor (IDOL) collects and codes this data on behalf of the BLS between January and July of each year. In order to ensure a representative sample size, BLS requires that 85.0% of the distributed surveys be returned within the timeframes established for the SOII. Indiana exceeded the federal minimum standard with a response rate of 89.35%.

The SOII uses the North American Industry Classification System (NAICS) to identify the industries and sub-industries where workplace injuries and illnesses occur. NAICS codes provide a detailed description of the business activity of the injured or ill worker. To maintain respondent confidentiality, data that could potentially identify a particular respondent or employee, such as county or city information or industries with only a few employers in the state, are not published by BLS.

The SOII estimates are based on work related injuries or illnesses defined as recordable by OSHA. Recordable injuries and illnesses can be anything that resulted in death, days away from work (DAFW), days with job transfer or restrictions (DJTR), medical treatment beyond first aid, or loss of consciousness. Cases that meet the general recording criteria based on a diagnosis of a physician or other licensed health care professional are also considered recordable, even if they do not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.

Over the last 29 years of collecting SOII data, QMS has observed that many employers over-record injuries and illnesses sustained in the workplace. The Indiana survey team and our counterparts in other state and federal offices screen each submitted

case individually to ensure the injury or illness reported meets the requirements for a recordable injury or illness. Injuries and/or illnesses that do not meet the minimum reporting requirements are excluded from the survey. As the SOII deals solely with nonfatal injuries and illnesses, cases resulting in death are also excluded. Fatal events are analyzed by the BLS in the annual Census of Fatal Occupational Injuries and Illnesses (CFOI). The 2020 CFOI results will be released at a later date.

The SOII rates are reported as the number of injuries and illnesses per 100 full-time workers. To calculate these rates, BLS divides the total number of nonfatal injuries and illnesses reported in an industry (N) by the total number of hours worked by employees in that industry (EH). To represent the hours worked by 100 full-time workers, the result is then multiplied by 200,000 to represent 100 full-time workers working 40 hours per week for 50 weeks per year.

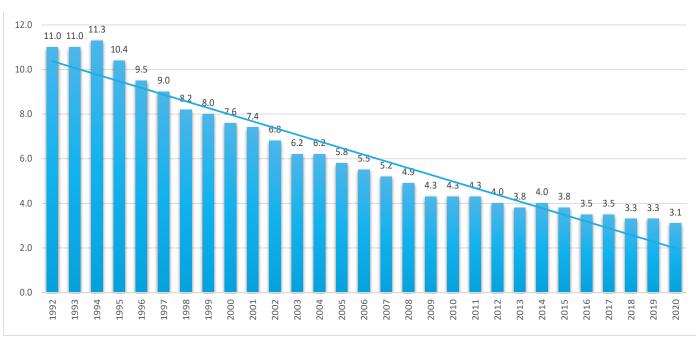
N ---- 
$$x (100 \times 40 \times 50) =$$
 Nonfatal Injury and Illness Rate

The results are parsed to show the rates for each surveyed industry, as well as the number of cases resulting in days away from work, job transfer or restriction.

For more information regarding state and national nonfatal occupational injury and illness rates, visit www.bls.gov/iif/oshstate.htm.

In 2020, businesses in all industries faced a new hazard: the global pandemic, COVID-19. The 2020 SOII survey may include recordable COVID-19 cases. SOII data relies on OSHA records submitted by employers. Employers were advised by OSHA and BLS to log COVID-19 cases as respiratory illnesses if the exposure was investigated and it was determined that an employee that was infected with COVID-19 while performing work-related activities. For COVID-19 to be classified as a work-related illness, there are three guidelines that must be met per OSHA. First, the case must be a confirmed case of COVID-19. Next, the case must be work-related (as defined by 29 CFR 1904.5). Finally, the case must involve one or more of the general recording criteria set forth in 29 CFR 1904.7 (e.g., medical treatment beyond first aid, days away from work, hospitalization, etc.). If COVID-19 was reported as a work-related illness on an employer's OSHA log, then it was reported in the SOII as a nature of "other diseases."

# **Indiana's Nonfatal Occupational Injury and Illness Rate**

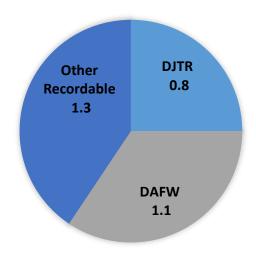


At 3.1 injuries or illnesses per 100 full-time workers, the 2020 nonfatal injury and illness rate for Indiana is the all-time the lowest rate of nonfatal injuries and illnesses in the state's history. The estimated rate decreased by 6.0% from the 2019 injury and illness rate of 3.3. At the inception of the SOII program in 1992, the overall nonfatal injury and illness rate was 11.0 injuries per 100 full-time workers. However, the rate reached a high of 11.3 in 1994 and has since declined 72.57%.

The BLS estimates that approximately 73,800 Hoosier workers experienced a nonfatal OSHA-recordable injury or illness in 2020. This is a 10.98% decrease from the 2019 estimate of 82,900 injuries or illnesses.

More than half (59.62%) of all recordable injuries and illnesses in 2020 resulted in one or more days away from work (DAFW) or days with job transfer or restriction (DJTR). This was a 20.25% increase from the percent of recordable injuries and illnesses in 2019 (49.58%). The median DAFW day(s) for all occupations is (11), a 57.14% increase from the median DAFW day(s) in both 2018 and 2019 of (7).

#### 2020 Overall Injury and Illness Rate



PLEASE NOTE: Because of rounding, components may not add to totals.

Source: Bureau of Labor Statistics Survey of Occupational Injuries and Illnesses 2020 (per 100 full-time workers)

## 2018-2020 Injury and Illness Rates By Industry

	Estimated Injury/Ilness Rate		
Industry Sector	2018	2019	2020
Agriculture, forestry, fishing, and hunting	3.6	4.7	4.3
Mining, quarrying, and oil and gas extraction	2.4	4	2.4
Construction	2.6	2.7	1.9
Manufacturing	4.1	3.7	3.4
Wholesale trade	3	3	2.1
Retail trade	3	3.5	3
Transportation and warehousing	4.4	4.7	3.7
Utilities	2.1	1.9	1.4
Information	1.1	2	0.8
Finance and insurance	0.7	0.7	
Real estate and rental and leasing	2.2		
Professional, scientific, and technical services	1.1	0.8	0.4
Management of companies and enterprises	0.9	0.8	0.6
Administrative and support and waste			
management and remediation services	2	1.9	1.3
Educational services	2.8	1.6	0.9
Health care and social assistance	4.7	4.6	6.9
Arts, entertainment, and recreation	5.7	3.7	3.8
Accommodation and food services	2.5	2.9	2.1
Other services (except public administration)	2.3	1.6	2.1
State government	2.3	2.3	1.8

In 2020, companies with 1,000 or more employees had the highest nonfatal injury and illness rate of 3.9; an increase from the 2019 estimated rate of 3.6. Companies with 50 to 249 employees had the next highest estimated rate of 3.8; a decrease from the 2019 rate of 3.9. Companies with 250 to 999 employees had an estimated rate of 3.6, and companies with 11 to 49 employees had an estimated rate of 2.3. Finally, companies with 1 to 10 employees had an estimated rate of 1.9, which was a decrease from the 2019 nonfatal injury or illness estimated rate of 1.8.

Numerous factors can affect the nonfatal injury and illness rate of a particular industry. Employers, employees, regulatory agencies, outreach programs, trade organizations and labor unions can positively impact occupational safety and health through safety awareness programs, enforcement of occupational safety and health standards, training and education. Economic factors such as the number of employees in a particular industry can also affect the rates, as can the sample size and the composition of companies surveyed.

From the 2020 SOII data, 16 industries experienced decreases in their nonfatal injury and illness rates from 2019 to 2020. These included agriculture, forestry, fishing and hunting; mining, quarrying and oil and gas extraction; construction; manufacturing; wholesale trade; retail trade; transportation and warehousing: utilities; information; professional, scientific and technical services; management of companies and enterprises; administrative and support and waste management and remediation services; educational services: accommodation and food services; local government and **state** government. In contrast, three industries experienced an increase in injury and illness rates from 2019 to 2020. These included health care and social assistance; arts, entertainment, and recreation; and other services (except public administration).

The **information** sector is part of the broader category of service-providing industries. The information sector had the largest estimated rate decrease (60%) from the estimated 2019 rate of 2.0 to .8 in 2020. There were an estimated 200 recordable work-related injury and illness cases in 2020. All the estimated cases resulted in day(s) away from work or day(s) job transferred or restriction injury. In contrast, the **health care and social assistance** industry had the largest estimated rate

increase (50.00%) from a rate of 4.6 in 2019 to a rate of 6.9 in 2020. The *health care and social assistance* industry also had the highest nonfatal injury and illness rate per 100 full-time workers in 2020, with an estimated increase of 48.63% from 14,600 cases in 2019 to 21,700 in 2020. Of the estimated recordable work-related injury and illness cases for 2020, 67.28% resulted in days away from

work or days of job transfer or restriction.

In 2020, **professional**, **scientific**, **and technical services** experienced a 50.00% work-related injury and illness rate decrease from a rate of .8 in 2019 to .4 in 2020. With the lowest injury and illness rate in 2020, this industry also experienced the second largest percentage decrease in injury and illness rate in any industry. This industry had an estimated 500 work-related injury and illness cases for 2020. Of the 500 estimated recordable work-related cases, 20% resulted in an employee who had days away from work or days of job transfer or restriction. This industry is comprised of establishments that specialize in performing professional, scientific, and technical activities for others.

In 2020, *educational services* experienced a 43.75% decrease from an estimated injury and illness rate of 1.6 in 2019 to .9 in 2020. While this was not the largest percentage of decrease in estimated rate in 2020, this industry's estimated rate has decreased by 67.86 % from the 2018 rate of 2.8. It is estimated that this industry had 300 cases in 2020, and that 33.33% of those cases resulted in days away from work or a days of job transfer or restriction.

After an increase in 2019, the *mining, quarrying,* and oil and gas extraction industry experienced a 40.00% decrease from 4.0 to 2.4 in 2020. The **construction** industry's rate decreased by 29.63% from 2.7 in 2019 to 1.9 in 2020.

The estimated nonfatal injury and illness rate for *other services* (*except public administration*) increased by 31.25% from a rate of 1.6 in 2019 to 2.1 in 2020. This sector is comprised of establishments engaged in providing services not classified elsewhere in the NAICS system. A few activities that are included in this sector include grantmaking, advocacy, machinery repair, and personal care services. This sector had an estimated 1,400 work-related injury and illness cases, and 57.14% of those cases involved days away from work or days of job transfer or restriction. an estimated 1,400 work-related injury and illness cases, and 57.14% of those cases involved days away from work or days of job transfer or restriction.



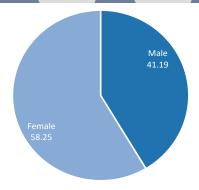






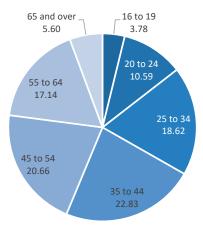


Hoosier females experienced the majority (58.25%) of recordable workplace injuries and illnesses that resulted in days away from work in 2020. Hoosier males experienced 41.19% of the injuries. The percentage of work-related injuries for females increased by 20.95% from the 2019 SOII rate 37.30%. However, the percentage of work-related injuries in males decreased by over 21.71% from the 2019 rate 62.90%.



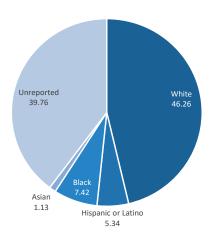
#### Age

There is a common misconception that workplace injuries most often befall younger workers. The 2020 estimates show Hoosiers 35 to 44 years of age experienced the highest percentage (22.83%) of nonfatal workplace injuries and illnesses involving days away from work. Workers 45 to 54 experienced 20.66% and workers 25 to 34 experienced 18.62% of nonfatal workplace injuries and illness. In contrast, workers 16 to 19 experienced the lowest percentage of nonfatal workplace injuries and illness at 3.78%.



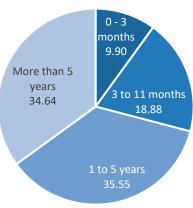
### Race or Ethnic Origin

From the 2020 SOII estimates, 46.27 % of the nonfatal injuries and illnesses that involved days away from work affected workers classified as white. Black workers experienced 7.42%, Hispanic or Latino workers experienced 5.34%, and Asian workers experienced 1.13%. Race was not reported or was unknown in 39.76% of the cases.



## Length of Service with Employer

In 2020, the majority of injuries and illnesses resulting in days away from work affected employees with 1 to 5 years (35.55%) and more than 5 years (34.64%) of service with their employers. In 2019, employees with 1 to 5 years of service had the most reported workplace injuries (33.21%) compared with employees who had more than 5 years (28.77%). Employees with fewer than 3 months of service accounted for the lowest percentage of injuries (9.90%), a decrease from 14.98% in 2019.



Each case that is submitted from the respondent goes through a coding process to determine the nature of the injury or illness, the part of body affected, the event that caused the injury or illness, and any source and secondary source that contributed to the injury or illness. The nature identifies the principal physical characteristic(s) of the work-related injury or illness. The event or exposure describes the manner in which the injury or illness was produced or inflicted by the source of injury or illness. Finally, the source and secondary source identify objects, substances, equipment, and other factors that precipitated the event or exposure. The source and secondary source are coded according to the previouslyidentified event or exposure as dictated by the Occupational Injury and Illness Classification System (OIICS) rules of selection. All of these data collected from the cases submitted can be used by the workplace to help make a safer environment for their employees.

In 2020, it is estimated that 42.71% of all cases involving day(s) away from work (DAFW) or day(s) of job transfer or restriction (DJTR) were coded under nature coded *other diseases due* to viruses, not elsewhere classified. These natures are illness-related cases. These types of Illness cases are diseases and disorders caused by a viral disease that impacts the body system. It is estimated that 100% of all cases related to this nature impacted the body system. For an employee's case to fall under other diseases due to viruses or illnesses, the employee's case must be deemed work-related by the employer. In 100% of the cases in this nature, the employees were exposed to something harmful in their work environment. For this nature, it is estimated that 93.29% of the cases came from the **service providing** industry, of which 88.34% of the estimated cases fell under the *health care and* **social assistance** industry sector. The median DAFW for all cases coded under this nature was 11. Employers could not report how long the employee was exposed before falling ill in 85.06% of all estimated cases.

In 2020, it was estimated that 18.1% of all work-related injury and illness cases involving DAFW and DJTR were due to **sprains**, **strains** and **tears**. Sprains, strains and tears is a traumatic injury that affects muscles, tendons, ligaments, joints, etc. An estimated 68.82% cases that involved sprains, strains or tears as the nature of the injury were due to **overexertion** and **bodily reaction**. The most frequently impacted part of

the body was the trunk, comprising an estimated 33.09% of the cases. The trunk of the body is classified as the main part of the body where the head and limbs are attached (torso), and the area is bound by the neck, shoulders and legs. The shoulders themselves are not part of the trunk. It is estimated that 26.14% of all employees whose injury fell under a sprain, strain or a tear, was due to the employee's bodily motion or position. An estimated 76.50% of all sprains, strains and tears were experienced by workers in the service providing industry. The median DAFW or DJTR for all sprain, strain or tear cases was 14.

In 2020, it was estimated that 9.85% all DAFW and DJTR cases were coded with a nature of **soreness**, **pain**, **hurt or nonspecified** injury. Cases coded here fall under nonspecified traumatic injuries and disorders. An estimated 81.94% of these cases occurred in the **service providing** industry. An estimated 51.98% of all cases were caused by worker overexertion and bodily reaction. An estimated 36.12% of these cases involved an employee hurting the trunk of their body. The median DAFW and DJTR for this nature of injury was 13.

Indiana's nonfatal occupational injury and illness rate has been below 4.0 per 100 full-time workers for six of the last seven survey years. These steadily low rates reflect the dedication of employers and employees to a culture of workplace safety and health excellence. Along with the decrease in nonfatal injury and illness rates from 11.0 in 1992 to the record low rate of 3.1 in 2020, the nonfatal injury and illnesses rate has decreased by 72.57% since the program high of 11.3 in 1994.

While significant progress has been made to reduce the number of nonfatal injuries and illnesses in Indiana, there is still a lot of work to be done. The Indiana Department of Labor continues to pursue its mission to advance safety, health and prosperity of Hoosiers in the workplace, and continues to educate Hoosier workers and their employers about best practices, changing standards, and emphasis programs as they arise.

Over the last several years, the Indiana Department of Labor has worked alongside Hoosier employers, safety and trade associations, and organized labor to identify and correct hazards, but also to change the culture inside Hoosier businesses. The most successful occupational safety and health programs combine full management commitment with active employee involvement. Employees should be encouraged to speak up and alert management if they spot a hazard or potential safety issue. Employers can reduce employee exposure to hazards by being diligent in addressing safety concerns the moment they arise. Hazard recognition and elimination are key to making workplaces safer. Working together to foster a culture of safety and health ensures each employee is participating in and taking ownership of the well-being of his or her coworkers.

Hoosier businesses and organizations involved in the Indiana Department of Labor's cooperative programs including partnerships, alliances, the Voluntary Protection Program (VPP) and the Indiana Safety and Health Achievement Recognition Program (INSHARP) represent employers and employees who wholly embrace workplace safety and health management at all levels—from frontline employees to upper management. As such, these businesses regularly have lower injury and illness rates than many of their industry peers.

The Indiana Department of Labor proivides a comprehensive framework of enforcement and compliance assistance for employers. Regulatory jurisdiction extends to occupational health and safety, coal mine safety, and wage and hour requirements. For more information about the Indiana Department of Labor and its programs and divisions, please visit www.in.gov/dol.

The Quality, Metrics and Statistics (QMS) division collects occupational safety and health data on behalf of the United States Department of Labor Bureau of Labor Statistics (BLS). These data are used to identify occupational safety and health trends in Indiana and nationwide. QMS also assists other Indiana Department of Labor divisions with performance metrics and process improvement. For more information, please visit https://www.in.gov/dol/stats.htm.

**INSafe** is a division of the IDOL which provides occupational safety and health compliance assistance to Hoosier employers. Through onsite consultation service, the goal of the program is to reduce work-related injuries and illnesses by assisting with identifying and correcting potential safety and health hazards. Employers who are interested in learning more about these services may visit <a href="https://www.in.gov/dol/insafe">www.in.gov/dol/insafe</a>.

At the time of initial publication of this document (11/2021), INSafe, the Indiana Consultation State Plan, receives 84 % of its budget from a grant of \$941,300 in federal funds. The remaining 16% of the State Plan budget is financed through \$179,066 in Indiana state funds. IOSHA, the Indiana Enforcement State Plan, receives 50% of its budget from a grant of \$2,570,100 in federal funds. The remaining 50% of the State Plan budget is financed through \$2,57,100 in Indiana state funds.



Quality, Metrics and Statistics

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