

2016 Indiana's Nonfatal Occupational Injuries and Illnesses, **4**

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INdiana Labor Insider

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We at the Indiana Department of Labor (IDOL) are excited to present the winter edition of *INdiana* Labor Insider, full of compliance date reminders, best practices, and relevant workplace topics during the winter months.

It is our pleasure to announce that Indiana's nonfatal occupational injury and illness rate is the lowest in state history with an estimated 3.5 injuries or illnesses per 100 full-time workers. This represents an eight percent decrease from 2015's previous historic low. We are proud of our Hoosier workforce and their dedication to maintaining safe and healthy workplaces. Indiana's employers and employees continue to make workplace safety a top priority. Partnerships with organized labor, trade associations and safety councils, as well as Indiana's IOSHA enforcement and INSafe programs, help ensure that workplace safety is more than a buzzword. It's a culture. More information about the 2016 results is available on Page 4.

We are always looking to learn about and recognize Indiana's hardworking employers. The annual Governor's Workplace Safety Awards (GWSA) are an excellent opportunity to shine the spotlight on an organization that has gone above and beyond to enhance their safety and health programs. Our new **Everyday Safety Hero (ESH)** award gives employers and coworkers the opportunity to publicly appreciate their small or grand part in keeping working Hoosiers safe and healthy. We certainly hope that any readers of the *Insider* will consider applying for a 2018 GWSA or ESH. Learn more on Page 13.

We hope you find the articles and information in this edition of *Insider* beneficial and relevant to your workplace. Remember to keep yourself warm, hydrated, and get plenty of rest this winter season.

From all of us at the IDOL, we wish you a wonderful holiday season and an excellent start to your new year. Let's head into 2018 ready and willing to go the extra mile to protect ourselves and our coworkers.

To your health and wealth,

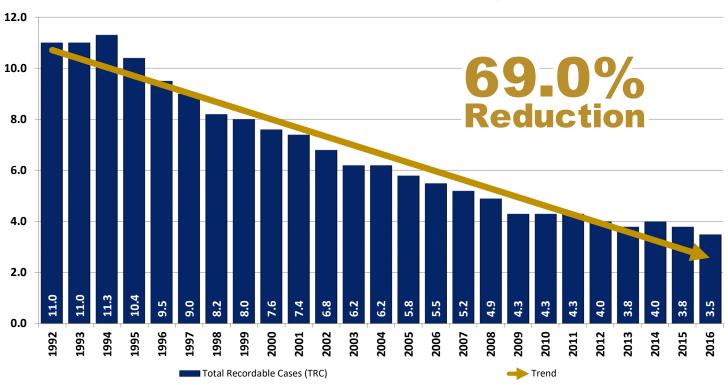


Commissioner

Indiana's Nonfatal 2016 Occupational **Injuries & Illnesses**

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

Indiana's Nonfatal Occupational Injury and Illness Rate



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

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 data collected during this survey are confidential to the public, but are used by BLS to estimate the nonfatal occupational injury and illness rate, or the number of workplace injuries and illnesses per 100 full-time workers. The SOII is conducted by requesting data from employers' Occupational Safety and Health Administration (OSHA) logs showing OSHA recordable injuries that occurred in the previous calendar year.

At 3.5 injuries or illnesses per 100 full-time workers, the 2016 nonfatal injury and illness rate for Indiana is the lowest number of injuries and illnesses in the state's

history. This represents a 7.9% decrease from the previous record low of 3.8 in 2015. 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. The rate reached a high of 11.3 in 1994 and has declined by 69.0% over the last 22 years.

The BLS estimates that 84,300 Hoosier workers experienced an OSHA-recordable injury or illness in 2016. This is a 5.0% decrease in from the 2015 estimate of 88,700 injuries or illnesses.

Nearly half (48.6%) of all recordable injuries and illnesses in 2016 resulted in one or more days away from work (DAFW) or days with job transfer or restriction (DJTR).

2011 - 2016 Nonfatal Injury and **Illness Rates By Industry**

INDUSTRY	2011	2012	2013	2014	2015	2016
Administrative and waste services	3.0	2.5	2.7	2.4	2.5	1.3
Utilities	N/A	3.2	2.8	1.5	2.2	1.4
Information	1.3	1.6	1.8	1.2	1.6	1.4
Educational services	2.0	1.8	2.2	2.0	2.4	2.3
Mining	4.7	2.6	3.2	2.7	2.7	2.4
State government	3.2	2.9	2.7	3.0	2.6	2.4
Other services (except public administration)	3.9	3.6	2.7	3.0	3.6	2.5
Construction	3.9	3.1	2.8	3.4	2.8	2.8
Wholesale trade	3.6	4.0	2.9	3.2	3.2	3.1
Accommodation and food services	4.5	3.8	3.5	3.3	3.1	3.4
Real estate and rental and leasing	3.0	2.7	2.8	6.4	2.7	3.6
Retail trade	3.7	3.6	3.4	3.7	4.0	3.8
Manufacturing	5.2	5.3	4.8	4.9	4.7	4.1
Agriculture, forestry, fishing, and hunting	9.5	7.2	3.6	5.5	7.1	4.3
Transportation and warehousing	4.6	4.5	3.9	4.4	4.6	4.7
Arts, entertainment, and recreation	4.9	5.2	4.4	6.2	6.3	4.9
Healthcare and socialassistance	6.3	5.3	5.3	5.2	4.9	4.9
Local government	5.3	5.9	6	6.7	5.8	5.2

Data is courtesy of the BLS Survey of Nonfatal Occupational Injuries and Illnesses for 2011 - 2016. These data show the estimated number of injuries per 100 fulltime workers. Industry and sub-industry definitions are available online at www.census.gov/cgi-bin/sssd/naics/naicsrch?chart=2012.

Of the 18 major industry sectors in Indiana's SOII data, 13 industries experienced decreases in their nonfatal injury and illness rates from 2015 to 2016. Significant decreases were notable in agriculture, forestry, fishing and hunting, administrative and support and waste management and remediation services, and arts, entertainment and recreation. Only three industries, accommodation and food services, transportation and warehousing and real estate and rental leasing, experienced increases while two remained the same. The rates for construction and healthcare and social **assistance** remained the same.

The rate for agriculture, forestry, fishing and hunting has historically been volatile, with dramatic fluctuations in the nonfatal injury and illness rates from year to year. Some of this can be attributed to the occupational safety and health regulations surrounding farms. For example, OSHA has no jurisdiction over farms with ten or fewer employees. These smaller farms are also exempt from participating in the SOII. Therefore, the SOII estimates are often based on the cases occurring at larger farms.

Numerous factors can affect the nonfatal injury and illness rate for 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 companies surveyed.

For additional results, data, and information including hazard analyses, employment comparisons, and detailed demographics, please view the full 2016 Indiana SOII report and analysis at www.in.gov/dol/2341.htm.

18t9ty SAFTEY IN: 6 NUMBERS:

ACTOSS the nation, safety professionals use the nonfatal injury and illness rates supplied by the Bureau of Labor Statistics (BLS) to benchmark their safety programs against their peers. While these numbers are widely used, the methods of deriving these numbers are often unknown. In fact, those folks who utilize the injury and illness numbers are sometimes the same people who provide the data from which they are derived.

Each year, the Bureau of Labor Statistics (BLS) conducts the annual Survey of Occupational Injuries and Illnesses (SOII). This survey, sent to thousands of employers nationwide, requests information regarding nonfatal injuries and illnesses in the workplace. The collected data are then used to calculate the nonfatal injury and illness rate for hundreds of industries at the state and federal level.

In Indiana, SOII data is collected by the Quality, Metrics, and Statistics (QMS) division of the Indiana Department of Labor (IDOL). These data are coded and input into a BLS database where they are used to calculate the injury and illness rates for Indiana specifically and as part of the nationwide aggregate as a whole.

Advance notice

The survey is a lengthy process that begins in December when 5,800 Hoosier employers in over 200 different industries receive notice that they are required to participate in the SOII for the following calendar year, also known as the "survey year." Employers are required to maintain the appropriate records, most notably OSHA 300 logs and employment records regarding total hours worked and the average number of employees, throughout the survey year.

January

In the January following the conclusion of the survey year, the actual surveys

Survey Season is Open

are sent to Hoosier employers. With industries varying from agriculture, forestry, fishing and hunting to real estate and rental and leasing, the survey includes a broad spectrum of occupations that provide a good overview of the Hoosier workforce.

The survey is mailed out in a manila envelope marked with the words, "BLS OFFICIAL BUSINESS," and "ADDRESS SERVICE REQUESTED." Sometimes, these envelopes are mistaken for junk mail, but they certainly are not. Public Law 91-596 requires that all establishments that receive the survey must complete and return the survey, even if the company had no

injuries or illnesses to report or would otherwise be exempt from OSHA recording requirements. The surveys are completed by human resources professionals, safety managers and/or business owners, either online or on paper, and the results are returned to the IDOL.

When the IDOL receives a response, the QMS team ensures that all of the totals on the summary pages match up and checks the data for inconsistencies. Errors or omissions in the data are discussed via phone with the respondent and corrected quickly. Once the data submitted by a respondent have been verified, the case information for each injury and illness is coded into the BLS system using conventions known as the Occupational Injury and Illness Classification System (OIICS).

Recently, the Indiana Department of Labor has worked with our partners at the BLS to begin using e-mail to contact survey respondents. We found in our dealings with employers that communicating electronically saves quite a bit of time and gathers a better rate of response than relying solely on phone calls. When completing a survey, respondents may opt-in to receive notices about subsequent surveys by e-mail. In some cases, the QMS team may send e-mails to respondents asking that they call us to supply additional information.

Getting Results

Kenneth Boucher II

The survey collection period ends in mid-July, but the survey process does not end there. The QMS team will continue to identify anomalies in the data and contact employers to correct them through September. This is also the period where waivers may be requested for a few larger companies in smaller industries whose participation in the survey could be inferred in the published rates. The corrected and finalized data are then used by BLS to calculate the published state and national nonfatal injury and illness rates, which are commonly released in November.

"While the survey results may seem lagging, the long survey process is a necessity."

While the survey results may seem lagging, the long survey process is a necessity. The survey cannot begin until the survey year has ended. For example, it would not be possible to report the data for survey year 2017 at the time of this article as the 2017 calendar year has not yet ended. In many cases, employers are slow to respond to the initial survey mailings or may require additional time to complete the survey. Once all of the surveys are collected, the BLS needs time to error-check the data and run their algorithms for estimates.

SOII vs. OSHA Electronic Submission

The information collected as part of the SOII is very similar to the information now being collected by OSHA electronic submission of records. We ask for information from the OSHA 300 and 300A logs. The biggest difference between the SOII and OSHA's required electronic submission is that we also require individual case information for each recordable workplace injury that occurred in the survey year. Unfortunately, the Bureau of Labor Statistics cannot provide survey responses to OSHA to fulfill the online reporting requirements. This would violate respondent confidentiality. Therefore, SOII survey responses will need to be treated as separate reports from the OSHA electronic recordkeeping and may require surveyed employers to double-enter their data to fulfill both sets of requirements. Both federal OSHA and the BLS are aware of this duplicity and are discussing ways to minimize this inconvenience.

Additional Assistance

QMS is always happy to help employers, employees, Human Resources professionals, business owners, safety professionals and survey respondents with information about the injury and illness rates and the SOII survey. Additional information about the QMS division and Indiana's injury and illness statistics may be found online at www.in.gov/dol.stats. The QMS division is also available by phone at (317) 232-2668 or by e-mail at stats@dol.in.gov.

Safety In Numbers 7 **6** Safety In Numbers

Gary Hulbert INSafe Health Consultant

An odorless, colorless gas, carbon monoxide is created when fossil fuels are burned. When high levels of carbon monoxide are breathed in, it enters the bloodstream and replaces the oxygen in the red blood cells with carbon monoxide. Carbon monoxide combines with hemoglobin which combines to form carboxyhemoglobin. The formation of carboxyhemoglobin prevents the normal transfer of carbon dioxide and oxygen during the circulation of blood, increasing levels of carboxyhemoglobin result in various degrees of asphyxiation, up to and including death. Symptoms of carbon monoxide poisoning include dull headache, weakness, dizziness, shortness of breath, nausea, confusion, blurred vision, and loss of consciousness.

According to the Center for Disease Control, Morbidity and Mortality Weekly Report, during the period of 1999 to 2010, a total of 5,149 deaths from unintentional, non-fire related, carbon monoxide poisoning occurred in the United States, an average of 430 deaths per year.

Sources of Carbon Monoxide

Vehicles are one of the most prominent producers of carbon monoxide. In the workplace, propane and gasoline powered forklifts, floor scrubbers, and sweepers produce carbon monoxide as the fuel is burned. Gasoline and propane heaters and power washers produce carbon monoxide and are frequently used in areas where ventilation may not be adequate to lower carbon monoxide to acceptable levels. Semi-trucks typically use diesel fuel, which produces carbon monoxide. The air intake for a company using supplied air compressors for respiratory protection may be located too close to a carbon monoxide source, such as gasoline powered vehicles and diesel powered semi-trucks.

Carbon monoxide exposures don't just occur in the workplace. Each year, people die due to exposures to carbon monoxide in the home. Leaving a vehicle running in a garage or other enclosure or heating a home with a stove, charcoal grill, or faulty heater all could prove fatal when the carbon monoxide levels exceed the immediately dangerous to life and health levels (IDLH).

Standard Exposure Limits

The OSHA permissible exposure limit (PEL) for carbon monoxide is 50 parts per million (PPM). The National Institute of Occupational Safety and Health (NIOSH) recommended exposure limit (REL) is 35 PPM, while the American Conference for Governmental Industrial Hygienists (ACGIH) is 25 PPM. All exposure levels are for an eight hour time weighted average. The IDLH level for carbon monoxide is 1200 PPM.

Detecting the Danger

Prompt and accurate detection is critical when there is risk of exposure to dangerous and undetected carbon monoxide. There are several methods that could be used.

A multi-gas detector is a direct reading instrument that will give accurate and immediate results. It is highly recommended for occupations with potential carbon monoxide dangers.

Colorimetric detector tubes with hand pumps can be used to sample over a time period of about two to 12 minutes, with an error factor of plus or minus 25 percent.

Tailpipe exhaust gas analyzers work well for facilities with forklifts and other vehicles.

Residential carbon monoxide alarms are typically used in the home, but shouldn't be used in the workplace. Employees may be exposed above acceptable levels due to inconsistent monitoring levels by different alarm manufacturers.

Preventing Carbon Monoxide Buildup

Proper ventilation is key to preventing carbon monoxide from reaching dangerous levels. In the workplace, colder months present a challenge for ensuring that adequate ventilation is provided. Many facilities open overhead doors to increase ventilation during the warmer months and close doors in the fall and winter. Companies that repair vehicles and need to have the vehicles running to diagnose issues should have a ventilation system in place to vent the vehicle exhaust outside of the building. Gasoline or propane powered equipment should never be used in enclosed areas without proper ventilation. A program that ensures regular monitoring of air quality in areas where carbon monoxide producing equipment is being used should be implemented.

Maintenance of vehicles, especially forklifts and floor scrubbers, is critical to maintaining safe levels of carbon monoxide. It is recommended that the forklift exhaust be checked at least annually to ensure that the vehicle is burning the fuel efficiently. Air intakes for compressors supplying air should be located away from areas where vehicles or other carbon monoxide producing equipment is located.

Respirators should never be the first line of defense for exposures to high levels of carbon monoxide but may be used in areas where the carbon monoxide levels approach IDLH levels. Full facepiece pressuredemand self-contained breathing apparatus (SCBA) certified by NIOSH, or a combination full facepiece pressure demand supplied-air respirator with auxiliary self-contained air supply would be appropriate for high concentrations of carbon monoxide.

For more information about preventing overexposure to carbon monoxide, contact INSafe to speak with a health consultant by calling (317) 232-2688 or emailing insafe@dol.in.gov.



IT HAPPENED HERE **Pike County**

FEBRUARY 15, 2012

An employee was working in a hardware store that offered small engine repair services. While working in a garage with all windows and doors closed, he performed service on a tractor. A propane gas-fueled heater was running inside the garage. The employee was found at the end of the work day, unconscious on the garage floor. Emergency responders provided initial treatment, and he was later pronounced deceased of respiratory arrest due to carbon monoxide toxicity.

LESSONS LEARNED

How can we reduce or eliminate the risk for similar events?

- Ensure heaters and other onsite equipment have adequate ventilation to limit the risk for overexposure to dangerous gases.
- When determining hazardous gas risks, factor in the accumulation of combustion gases from small engines or other equipment, and prepare accordingly.
- Local exhaust ventilation is important with equipment that produces large quantities combustion Otherwise, the room must have additional ventilation, such as open windows, open doors, fans, etc.
- Carbon monoxide detectors air monitoring are highly recommended proactively protect workers from overexposure.

Carbon Monoxide Poisoning



Q: What special laws exist to protect employees working in cold environments?

A: While OSHA does not have a specific standard to address working in cold environments, employer or employees have a responsibility to ensure workers a place of employment which are free from recognized hazards including cold stress. Therefore, employers should train employees on the hazards of working in the cold as well as provide safe work practices and necessary personal protective equipment.

O: What is wind chill and how does it affect workers?

A: Wind chill is the temperature felt by the human body when wind speed and temperature are combined. When adding wind to an already cold day, the effect the temperature has on the skin can be significantly decreased. For example: if the temperature is 40°F and the wind speed is 20mph, the wind chill factor felt by the worker is 18°F. Therefore, the wind chill should always be taken into consideration when working in cold temperatures.

Q: What are some signs of hypothermia?

A: Early signs of hypothermia include shivering and stomping of the feet to generate heat. As it progresses signs include loss of coordination, confusion, dilated pupils, and slowed breathing. When entering the severe stage the symptoms will continue to worsen and shivering will stop. Loss of consciousness and even

death can occur if the person isn't treated immediately. When a person is showing signs of hypothermia, be sure to move them to a warm, dry area and remove any wet clothing. Use layers of blankets to cover the entire person excluding the head to slowly warm the body. Provide the person with a warm sweetened beverage.

Q: What are some signs of frostbite?

A: Signs of frostbite include reddening of the skin, numbness, firmness, and blisters. Frostbite will typically occur in the extremities such as the feet and hands. In severe cases amputation might be unavoidable. When a person is showing signs of frostbite, be sure to follow the same recommendations as hypothermia. Be sure not to apply water or rub affected areas as this could cause more damage.

Q: How can cold stress be prevented?

A: Train workers on ways to prevent and recognize cold stress illnesses and injuries. Utilize engineering controls such as heaters and wind shields to warm work stations. Safe work practices such as mandatory breaks, rotating job duties, and using a buddy system can be implemented. Encourage employees to wear at least three layers of loose fitting clothing. Provide gear such as hand warmers, gloves, hats, and face masks. Ensure all personal protective equipment used for prevent cold stress is insulated and water resistant.

If you have additional questions about workplace safety and health programs or compliance assistance, please contact the INSafe consultation division by phone (317) 232-2688 or by email insafe@dol.in.gov, or visit www.in.gov/dol/insafe.htm.

February



Got recordkeeping questions? Contact INSafe today! (317) 232-2688 | insafe@dol.in.gov | www.in.gov/dol/insafe.htm

COMPLIANCE REMINDERS

The Indiana Department of Labor (IDOL) serves working Hoosiers by working cooperatively with employers, businesses, and organizations to comply with federal Occupational Safety and Health Administration (OSHA) standards and updates. As many compliance dates are upcoming, recently changed, or vary between state and federal, we'll do our best to provide frequent reminders and specifics about how and when to comply to these OSHA-regulated rules.

Indiana's Compliance Dates

Compliance dates for the State of Indiana are as listed below and their OSHA standard listings are linked via each "Rule" line. (Please note these compliance dates are not identical or interchangable with federal OSHA compliance dates.)

compliance dates.)	1	
DESCRIPTION	RULE	ENFORCEMENT IN INDIANA
Electronic Reporting	1904.41	Indiana is not enforcing electronic submission of any 2016 documents. Enforcement of submission of required 2017 documents will begin July 1, 2018.
Silica - Construction	<u>1926.1153</u>	Extended to March 26, 2018 (Except below)
	1926.1153(d)(2)(v)	Extended to December 26, 2018 (ONLY methods of sampling analysis)
Silica - General Industry	<u>1910.1053</u>	Late December 2018 and beyond
Walking/Working Surfaces, Fall Protection Systems	1910 Subpart D and Subpart I	All are enforced as of July 1, 2017 EXCEPT those below
	1910.30(a) & 1910.30(b)	November 9, 2017
	<u>1910.27(b)(1)</u>	May 9, 2018
	1910.28(b)(9)(i)(A) and 1910.28(b)(9)(i)(B)	May 9, 2019
	1910.28(b)(9)(i)(D)	May 9, 2037

Notes: 1) The General Industry application of the new Beryllium rule will not be enforced in Indiana until at least July 2018.

- 2) The Construction application of the new Beryllium rule is in flux and will not be enforced in Indiana anytime soon.
- 3) Civil penalties have not changed in Indiana and will not until the legislature changes the current statute.

Compliance Assistance

The IDOL's consultation divison, **INSafe**, provides free workplace safety and health compliance assistance services to Indiana employers. If you have further questions about Indiana's compliance dates and procedures, please feel free to schedule a consultation with INSafe at www.in.gov/dol/insafeconsultation. You may also reach our consultants either by calling (317) 232-2688 or by email at insafe@dol.in.gov. INSafe is your partner in workplace safety and health, and our staff are more than willing to help you comply with OSHA standards.

2018 - CONTRIBUTION OF THE SAFETY AWARDS AND EVERYDAY SAFETY

The annual **Governor's Workplace Safety Awards** will be presented during the **2018 Indiana Safety and Health Conference and Expo** at the Indiana Convention Center. All award categories are open for applications, including the newly integrated "Everyday Safety Hero" Award!





2018 INDIANA SAFETY AND HEALTH CONFERENCE & EXPO

March 12-14, 2018 Indiana Convention Center, Indianapolis

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www.INSafetyConf.com

12 Compliance Reminders

TIME TO DECORATE OUR SAFETY SALLY AND HEALTHY HANK COOKIES TO BE THE SAFEST GINGERBREAD KIDS THIS SEASON! PRINT PAGE 15 AND USE YOUR MARKERS TO DRAW AND COLOR SAFETY GEAR ONTO YOUR COOKIES!

Gingerbread Safety Gear





Dust Mask



Noise-cancelling Ear Muffs



Safety Boots







THANK YOU FOR TAKING OUR

Ccupational Sales

We appreciate your input and interest in our outgoing materials. Rest assured, we are reading each and every comment, and suggestion. We look forward to continuing to provide educational, informative, beneficial, and relevant information to Hoosier employers and workers.

If you have additional suggestions or comments about INdiana Labor Insider, please feel free to contact INSafe by calling (317) 232-2688 or emailing insafe@dol.in.gov.

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Advancing the safety, health, prosperity of Hoosiers in the w (RTs/Follows/Mentions not end



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Travel safely and stay warm!



The *INdiana Labor Insider* is a free, electronic newsletter of the Indiana Department of Labor's onsite workplace safety and health consultation division, INSafe.

Learn more about INSafe online at www.in.gov/dol/insafe.htm or email INSafe with questions, suggestions or comments at insafe@dol.in.gov.

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