Iowa Department of Public Health

Iowa Burden of Occupational Injury

2009-2013 Data Summary

Bureau of Environmental Health Services

Occupational Health & Safety Surveillance Program

February 2018

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IDPH OHSSP webpage

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Executive Summary

Injuries are a major public health concern that affects all Iowans, regardless of age, race, gender, or size of county. Injuries are preventable. Efforts can be made to reduce the burden of injuries, and those efforts will be most effective when they are tailored to the specific injury burden and the needs of the target population.

This report is a limited summary of the findings in the longer *Iowa Burden of Occupational Injury 2009-2013 Full Report*. The full report includes additional information regarding methodology, limitations, and additional Iowa State Trauma Registry data analysis. For more information regarding the IDPH Occupational Health & Safety Surveillance Program and the expanded version of this report, see the IDPH OHSSP webpage.

Key Data Findings, 2009-2013

- Fractures (61%) are the leading admitting diagnosis for inpatient workers' compensation claims from injury.
- Hospital inpatient charges for workers' compensation claims for injury totaled approximately $78 million for 2009-2013.
- The state of Iowa averages 29 work-related traumatic brain injuries per year based on hospital inpatient workers' compensation claims.
- Falls (53%) and transportation incidents (25%) account for more than 75% of all traumatic brain injuries requiring inpatient care that were covered by workers' compensation claims.
- Iowa workers age 65 or older have an occupational fatal injury rate (32.3/100,000 FTE) that is almost three times the total USA worker fatal injury rate in the same age range (10.7/100,000 FTE).
- Iowa workers 55 years of age or older made up 22% of the workforce, but almost 38% of the fatalities.
- Agricultural workers accounted for 5% of the workforce but 32% of the fatal injuries from 2009 through 2013. Construction workers were 6% of the Iowa workforce but 17% of the fatal injuries. Together, 11% of the average Iowa workforce from 2009 through 2013 experienced 49% of the work-related injury deaths.

List of Acronyms

ADPER-EH.....Acute Disease Prevention, Emergency Response & Environmental Health

BLS..... U.S. Bureau of Labor Statistics

CDC..... Centers for Disease Control and Prevention

CFOI.....Census of Fatal Occupational Injuries

EHS .....Environmental Health Services

ELF ..... Employed Labor Force

FTE.....Full-time equivalent

HHS.....U. S. Department of Health and Human Services

ICD-9.....International Classification of Diseases, Ninth Revision

IDPH ..... Iowa Department of Public Health

IPRC .....Injury Prevention Research Center

NASI..... National Academy of Social Insurance

NCIPC..... National Center for Injury Prevention and Control

NIOSH ..... National Institute for Occupational Safety and Health

OHI ..... Occupational Health Indicators

OHSSP.....Occupational Health and Safety Surveillance Program

SOII ..... Survey of Occupational Illnesses and Injuries

TBI ..... Traumatic Brain Injury

U.S. .....United States of America

UI .....University of Iowa

USA.....United States of America

WISQARS .....Web-based Injury Statistics Query and Reporting System

Iowa Burden of Occupational Injury Summary Report

Background

In 2008 the Iowa Department of Public Health (IDPH) partnered with the University of Iowa Injury Prevention Research Center (UI IPRC) to produce Iowa's first *Burden of Injury in Iowa* report using data from 2002-2006. The report provided statewide rates for fatal and non-fatal injuries, as well as county level reports and is available at IDPH Disability Injury Violence Prevention web page. In 2016 work began on updating the report using 2009-2013 data.

The Burden of Injury in Iowa reports have been used extensively by both local health departments and agencies to prioritize injury programs and promote the need for injury prevention throughout the state. Distribution of the cause, intent, and type of these injuries varies greatly throughout the 99 counties of Iowa, depending on their population demographics and other factors. County level reports can be found at the University of Iowa College of Public Health Injury Prevention and Research Center website.

The 2008 *Burden of Injury in Iowa* report did not include data analysis detailing findings related to occupational injuries. For the 2016 report, the data was further analyzed to provide a look at the burden of occupationally-related injury in Iowa.

This report is a limited summary of the findings in the longer *Iowa Burden of Occupational Injury 2009-2013 Full Data Report*. The full report includes additional information regarding methodology, limitations, and additional Iowa State Trauma Registry data analysis. For more information regarding this program and the expanded version of this report, see the IDPH OHSSP webpage.

Methods and limitations

Capturing comprehensive data regarding occupational injuries can be difficult in Iowa. Whether or not an injury was related to work activities may not be indicated or coded in the inpatient hospital discharge data set. One of the few ways to look at existing data sets to find occupational injury data is to query for those cases listing 'workers' compensation' as the 'expected source of payment.' This method is utilized nationally to provide injury surveillance data reporting, although it has many known limitations. For this reason, the findings of this report likely represent an under-estimate of the true burden of occupational injuries in Iowa.

The 2009-2013 Iowa inpatient hospital discharge dataset used for the full Burden of Injury report was further analyzed to report occupational injury data. Cases listing "workers'

compensation" as the "expected source of payment" were used for numerator counts to calculate rates where indicated. All admitting diagnosis was grouped together using ICD-9 codes in accordance with the Barell Injury Diagnosis Matrix. All full-time equivalent (FTE) rates were calculated using information from the National Institute for Occupational Safety and Health (NIOSH) Employed Labor Force (ELF) query tool to provide the denominator for employed worker population estimates.

Incomplete coding of the hospital inpatient discharge data limits its use for work-related injury analysis. When records are coded fully, the coding provides information regarding the external cause of the injury, the location type where the injury occurred (farm, office, highway, factory, etc.), and the intention behind the injury (unintentional, intentional, etc.).

This dataset does not capture injuries for those treated outside of Iowa, treated by emergency medical services on site, emergency departments without hospital admission, or those treated by medical provider in clinics and offices. Injuries not captured using the workers' compensation filter are also missing. Because of this, the findings do not represent all work-related injuries in Iowa.

Table 1: Estimated Workers covered by Workers' Compensation and Benefits Paid, 2009-2013

	Iowa Workers (in thousands)	Iowa Workers Covered WC* (in thousands)	Total Workers' Compensation Benefits Paid*	Total WC Benefits Paid Cost/covered worker
2013	**1,600**	**1,464**	**$668,646,000**	**$457**
2012	**1,560**	**1,443**	**$659,408,000**	**$457**
2011	**1,570**	**1,419**	**$621,556,000**	**$438**
2010	**1,571**	**1,402**	**$563,025,000**	**$402**
2009	**1,581**	**1,415**	**$552,753,000**	**$391**

*Data source: National Academy of Social Insurance (NASI) annual reports. Workers covered by workers' compensation includes those eligible or required to be covered, regardless of whether or not they are covered by an employer's policy.

Figure 1: Percentage by Age, Iowa Working Population compared to Inpatient Hospital Discharge Workers' Compensation Claims, 2009-2013 data

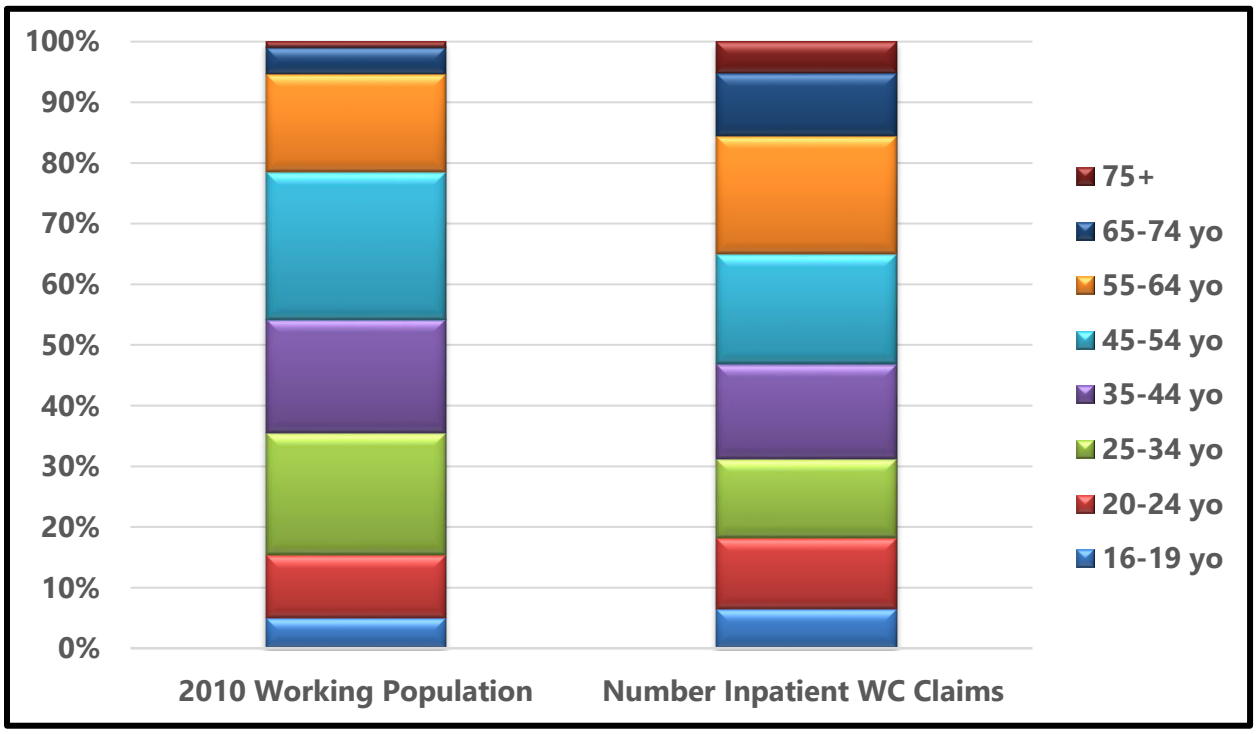


Figure 2: Hospitalized Inpatient Workers' Compensation Claims from Injury Crude Rate per 100,000 FTE by Gender and Age, 5-Year Average, 2009-2013

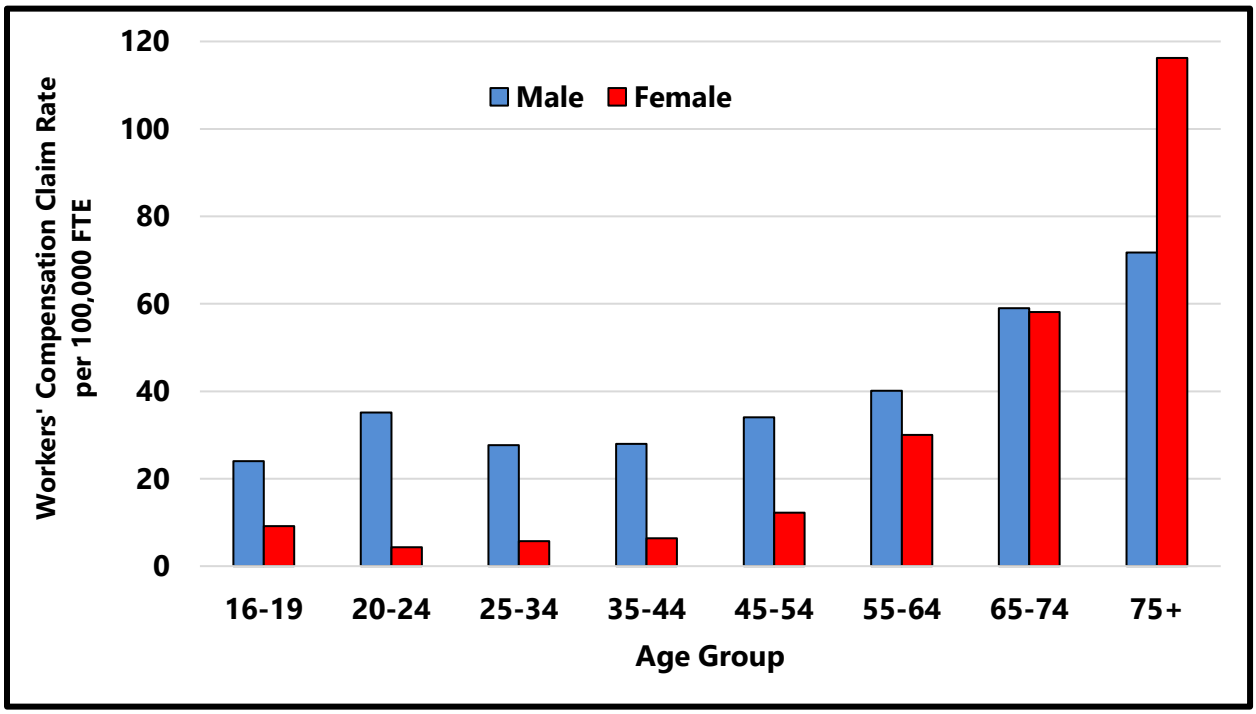


Figure 2: Males represent 52% of the Iowa workforce compared to 48% female workers, but accounted for 75% of the workers' compensation injury cases requiring inpatient hospitalization. Male gender itself is not a risk factor but an indicator of an undetermined difference in hazardous exposures between males and females. Males traditionally outnumber females employed in hazardous occupations and industries. After age 44, the rate of male hospitalized injuries increased steadily but at a slower pace than the dramatic increase in the rate of female injuries, which doubled with each decade of age. Advancing age is not directly the cause of injury, but an indicator of various underlying risk factors more commonly experienced by older workers.

Figure 3: Admitting Diagnosis of Inpatient Hospitalization Workers' Compensation Claims from Injury by Percentage, 2009-2013

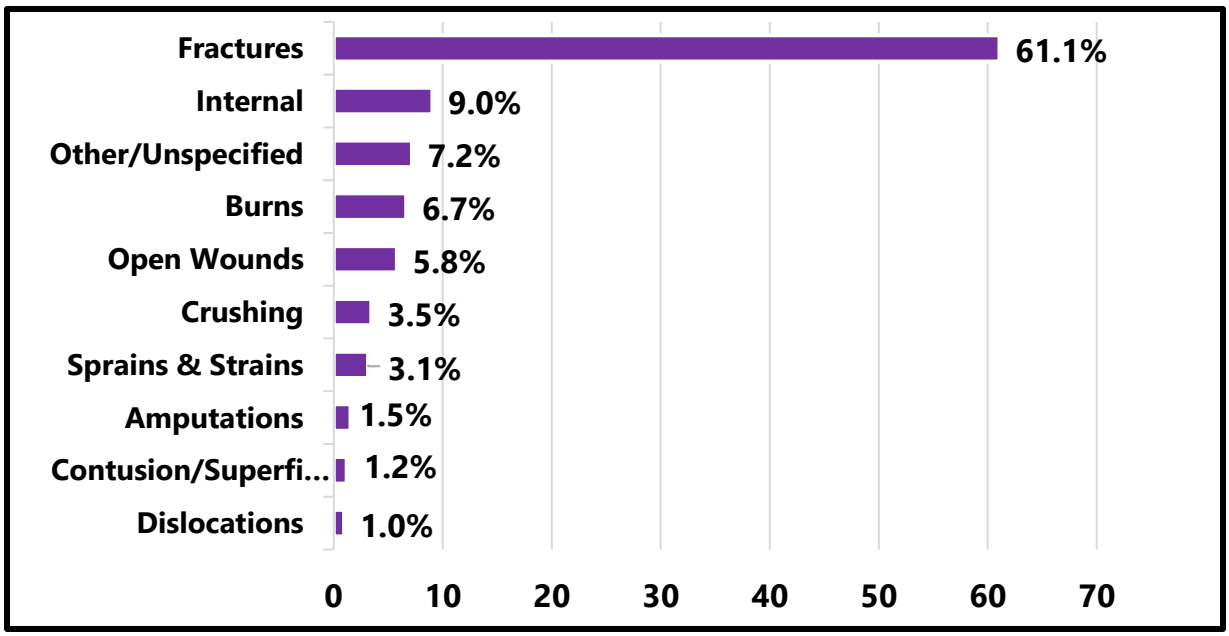


Figure 3: Fractures represent by far the leading admitting diagnosis of hospitalized inpatient workers, with more than 6 out of 10 injuries requiring hospitalization involving fractures. Many of these fractures are the result of slips, trips, or falls on the job, although fractures can also result from other injury causations. Falls are also a leading cause of work-related fatalities in Iowa.

Figure 4: Hospital Inpatient Workers' Compensation Injury Claims by Known External Cause of Injury, 2009-2013

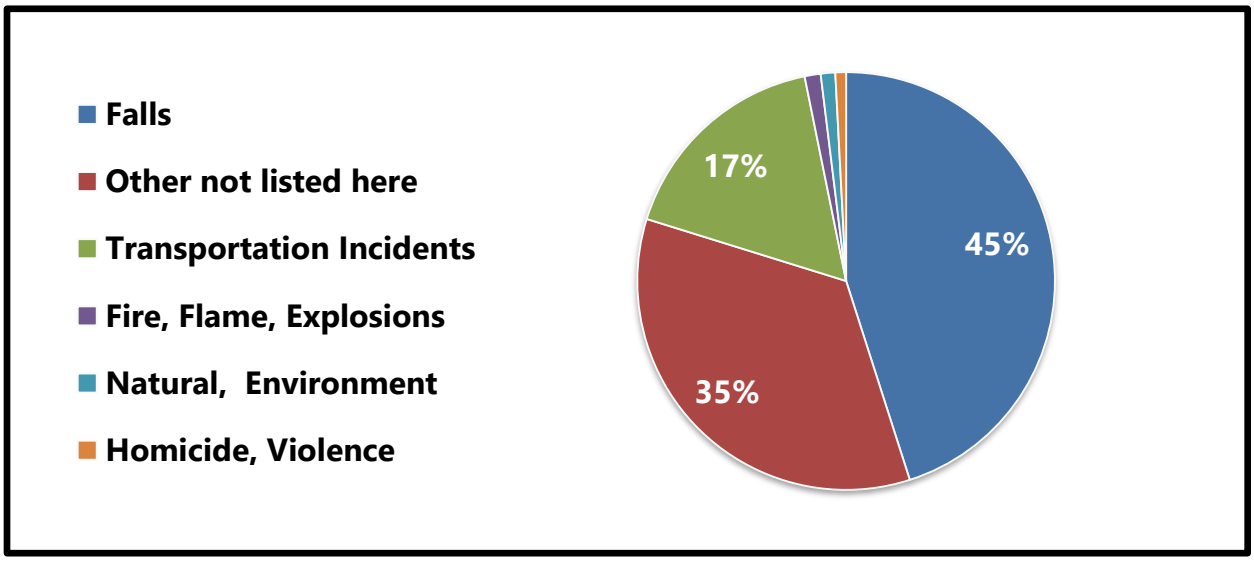


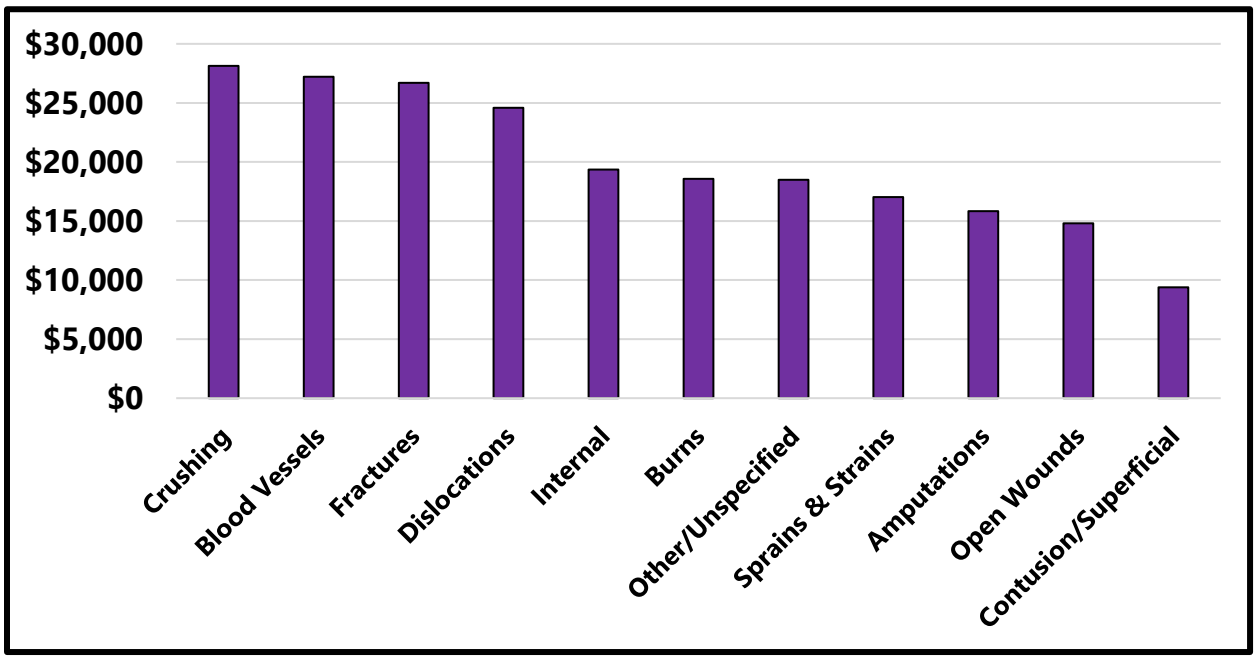
Figure 4: Transportation incidents include: motorized vehicle crashes on and off roadways, other powered vehicle incidents, railway incidents, and vehicle not elsewhere classifiable. Transportation incidents that occur during normal commuting to and from the home are not included. The 'other not listed here' category includes categories with small numbers, and data without enough information to determine classification.

Table 2: Total Hospital Costs for Workers' Compensation Claims for Injury by Admitting Diagnosis, 2009-2013

Admitting Diagnosis	5-Year Total Injuries	Median Cost	5-Year Total Hospital Costs
Crushing	65	$28,142	$3,170,084
Blood Vessels	5	$27,206	$275,628
Fractures	1149	$26,706	$49,112,304
Dislocations	18	$24,598	$603,325
Internal	170	$19,350	$7,226,112
Burns	125	$18,566	$8,518,325
Other, Unspecified	130	$18,496	$4,227,059
Sprains & Strains	59	$17,022	$1,243,922
Amputations	29	$15,846	$1,075,382
Open Wounds	109	$14,793	$2,190,297
Contusion, Superficial	22	$9,378	$273,122
Total	**1881**	**$24,047**	**$77,915,560**

Table 2: This measure is highly dependent on variables such as length of stay and the number of medical procedures performed; therefore, the most important point of this table is the 5-year total hospitalization cost of nearly $78 million for only 1,881 injuries covered by workers' compensation. Data from this table is graphically displayed below.

Figure 5: Median Total Hospital Costs by Admitting Diagnosis of Hospitalized Inpatient Care, Workers' Compensation Claims for Injury, 2009-2013



Occupational Injury: Traumatic Brain Injury Data

Traumatic brain injuries (TBI) accounted for 7.7% of the hospital inpatient workers' compensation claims in 2009 through 2013. Fifty-three percent of TBI claims resulted from falls, which include slips, trips, and falls from various heights. Falls are the number one cause of brain injury in Iowa, both for workers and non-workers, followed by transportation incidents.

Table 3: Total Hospital Costs for Traumatic Brain Injuries Admitting Diagnoses, 2009-2013

Admitting Diagnosis	5-Year Total	Percent of Injuries (%)	5-Year Total Cost	Percent of Costs (%)
TBI	144	7.7	$8,635,998	11.1
Non-TBI	1737	92.3	$69,279,550	88.9
Total	1881	100	$77,915,548	100

Table 3: While hospital inpatient TBI injuries account for only 7.7% of the workers' compensation claims in 2009-2013, those injuries accounted for 11.1% of the total hospital costs.

Figure 6: Traumatic Brain Injury by Causation, Hospital Inpatient Workers' Compensation Claims, 2009-2013

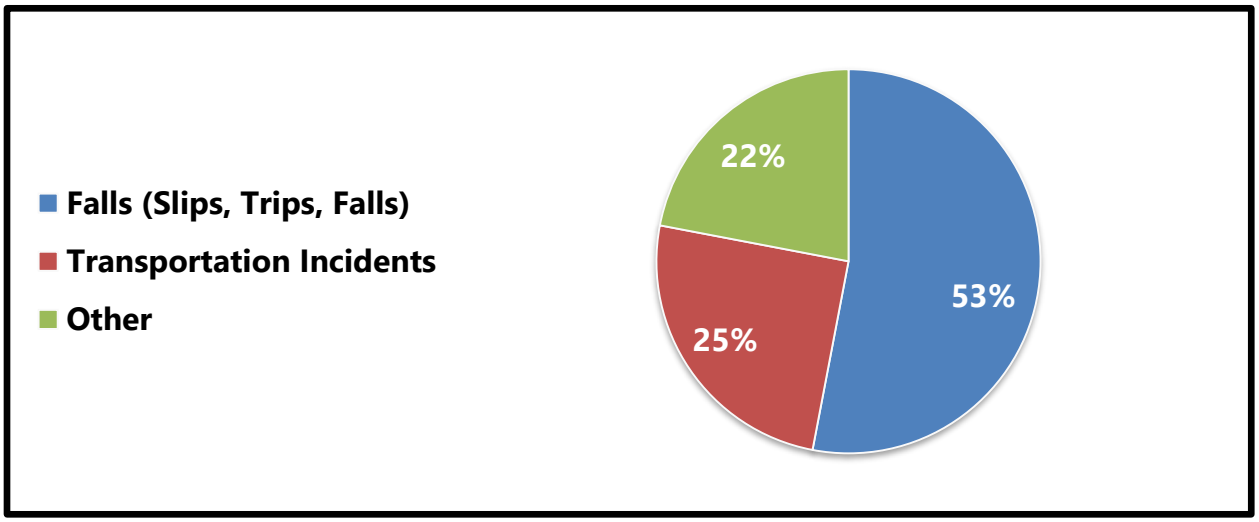


Figure 6: Injuries with a causation code related to a transportation incident (which includes motor vehicle crashes, other road vehicle incidents, railway incidents, and vehicles not elsewhere classifiable) were collapsed into the transportation category. Injuries with a causation coded as activity, homicide, natural and environmental, or therapeutic use were collapsed into 'other'. An additional eighteen injuries with missing values were not included in data for Figure 6.

Occupational Injury, Iowa Occupational Health Indicators Data

Occupational health indicators (OHI) are measures of health (work-related disease or injury) or factors associated with health (workplace exposures, hazards, or interventions) that allow a state to compare its health or risk status with that of other states and evaluate trends over time. These data can help guide priorities for prevention and intervention efforts. As a state-based surveillance program receiving funding from NIOSH, the Iowa Occupational Health and Safety Surveillance Program annually calculates the OHI for Iowa per methodologies agreed upon by the national OHI Workgroup. Selected data are shown in this report.

Fatal Occupational Injury Data

Figure 7: Rate of Fatal Occupational Injuries per 100,000 FTE, Iowa and USA, 2000-2016*

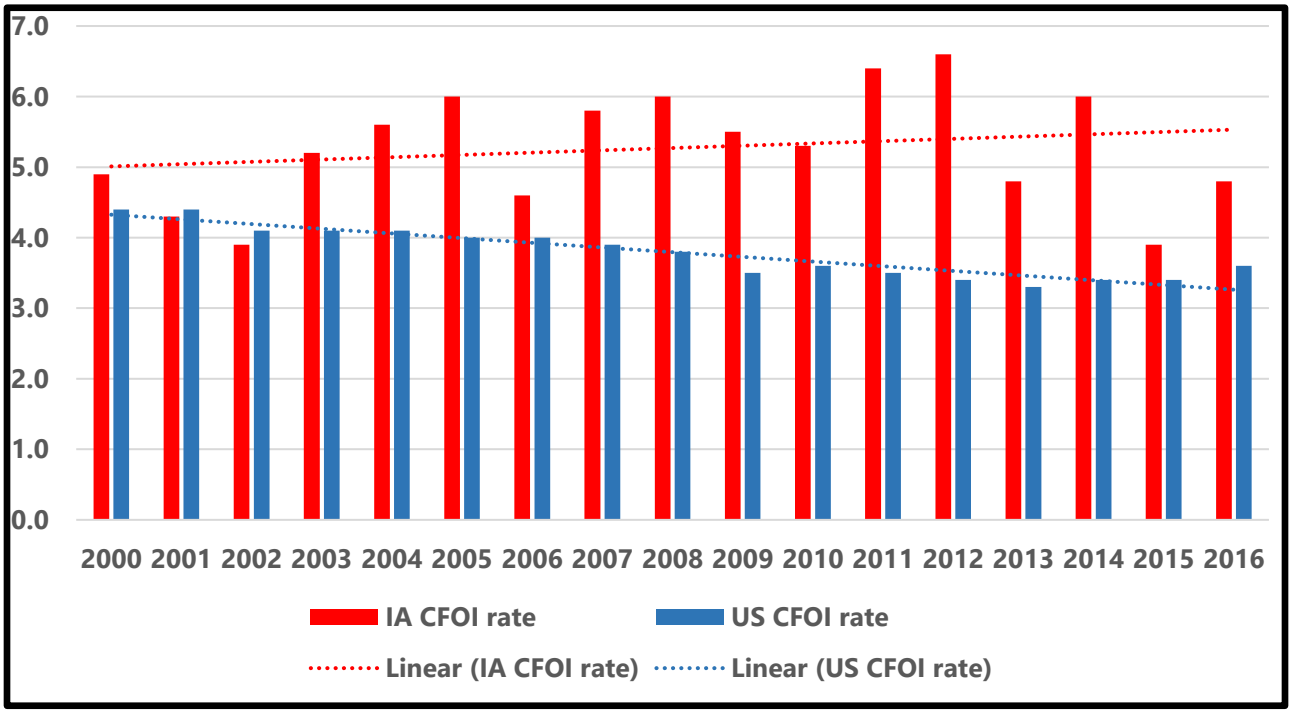


Figure 7: Data Source: U.S. BLS Census of Fatal Occupational Injuries (CFOI) data. CFOI data does not include injuries obtained during normal commuting to and from the work site, or deaths from non-traumatic sources. The Iowa rate fluctuates by year and was showing an upward linear trend through 2013, although the 5-year rolling average rates are showing a decrease (Figure 8). The U.S. rate demonstrates fewer large variations due to the larger size of the data set, but has been on a declining trend.

*Note: CFOI fatality data for 2014-2016 were included in the Figure 7 and 8 updated charts released in February 2018 to better represent current fatality trends in Iowa.

Figure 8: Five-Year Rolling Average Comparison of Occupational Fatal Injury Rates per 100,000 FTE, Iowa and USA, 2000-2016*

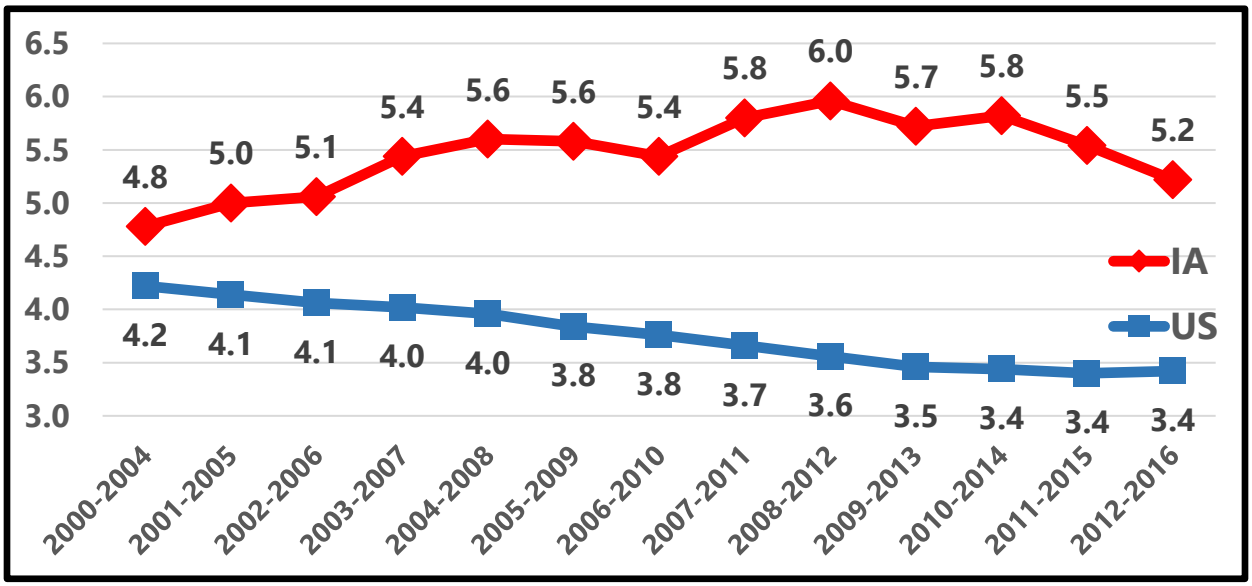


Figure 8: The five-year rolling average comparison is used in the *Healthy Iowans 2017-2021* state plan as a progress measure. The objective is to reduce the 5-year rolling average rate of fatal occupational injuries in Iowa from 5.8/100,000 FTE (2010-2014) to no more than the national 2010-2014 base rate of 3.4/100,000 FTE by 2020. *See the note under Figure 7 regarding the inclusion of 2014-2016 data.

Figure 9: Five-Year Average Rate of Fatal Occupational Injuries per 100,000 FTE by Age Range, Iowa and USA, 2009-2013

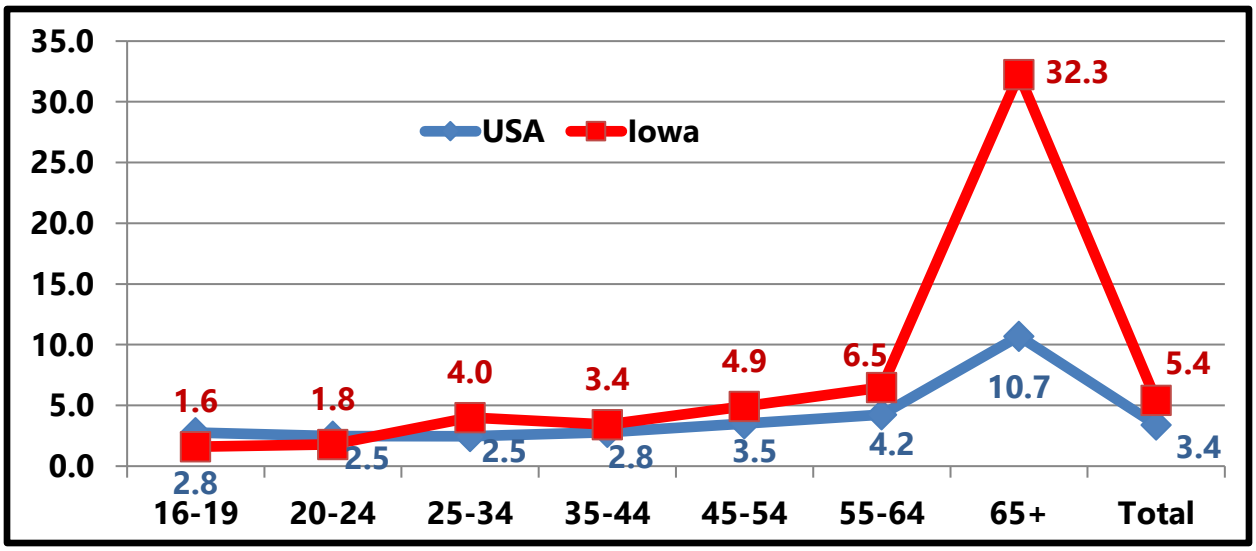


Figure 9: While it is not uncommon to have higher rates of fatal occupational injuries in older workers, in Iowa the rate is almost three times higher for workers 65 years of age or older compared to all USA worker fatalities. Overall, Iowa has more high-risk occupations and industries than the U.S. average. The percentage of workers by age range does not significantly differ between the U.S. and Iowa workforces.

Figure 10: Iowa Five-Year Average Percentage of Total Fatal Injuries by Age Range compared to Percentage of Iowa Workforce by Age Range, 2009-2013

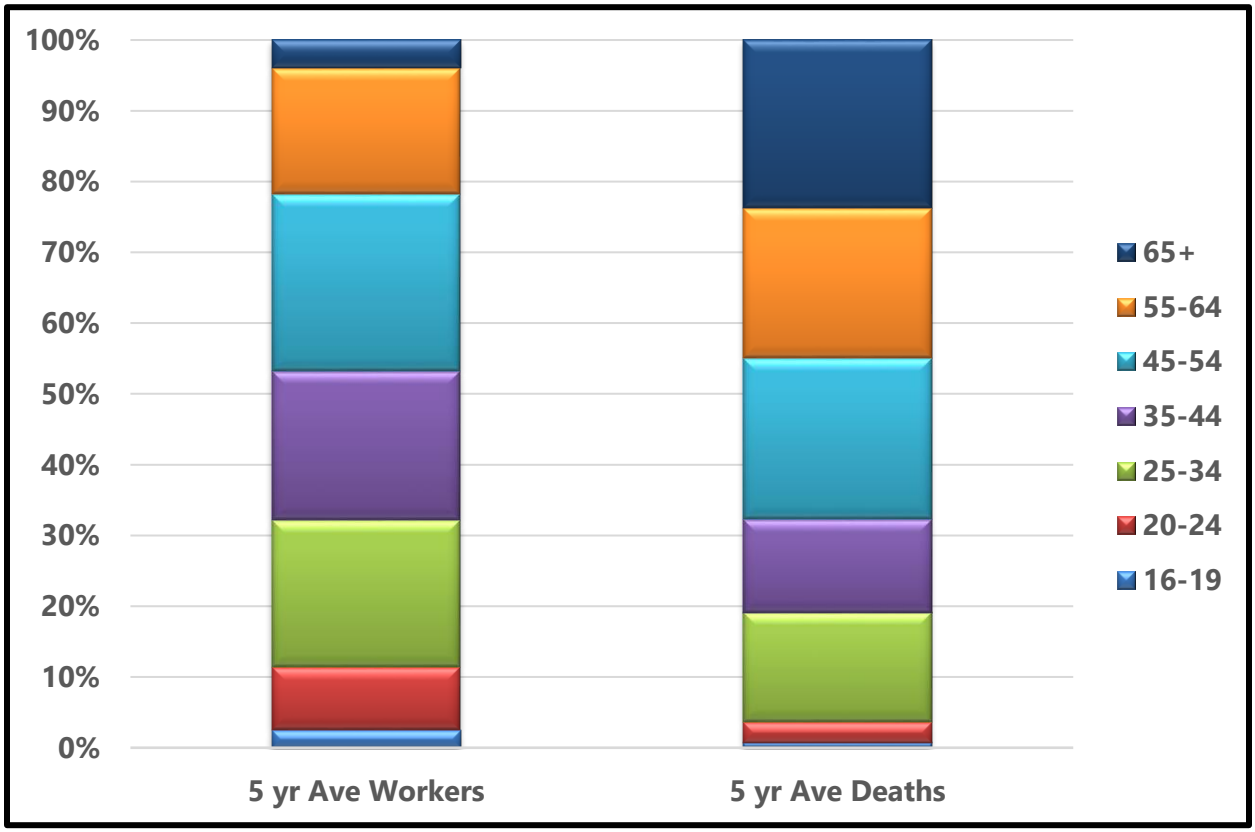
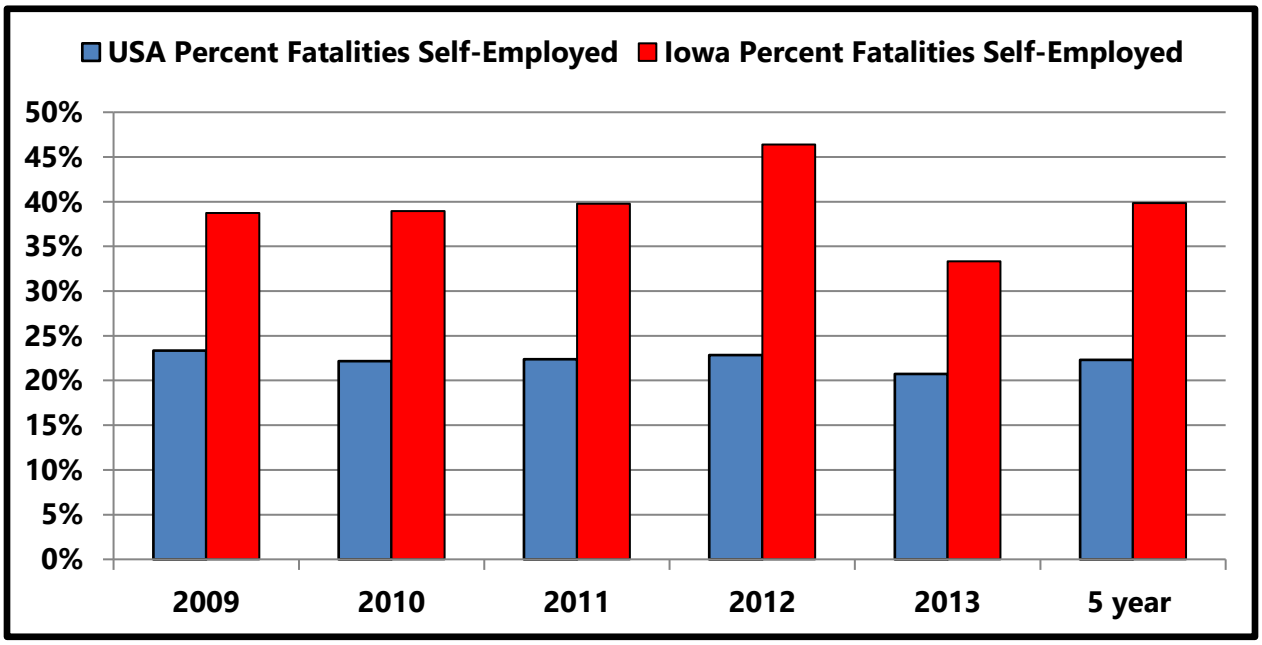


Figure 10: Workers 55 years of age or older made up 22% of the workforce, but almost 38% of the fatalities. BLS CFOI fatality data.

Figure 11: Percentage of Occupational Fatal Injuries by Year where Employment Status was classified as Self-Employed**, 2009-2013, CFOI



Data source BLS CFOI: **Includes self-employed workers, owners of unincorporated businesses and farms, paid and unpaid family workers, and may include some owners of incorporated businesses or members of partnerships.

Figure 11: A larger percentage of self-employed worker fatal injuries occur in Iowa than in the U.S. This indicator may be a major contributor to higher overall Iowa fatality rates, including older worker rates.

Figure 12: Iowa Comparison of Percentage Workforce and Percentage of Occupational Fatal Injuries, 2009-2013.

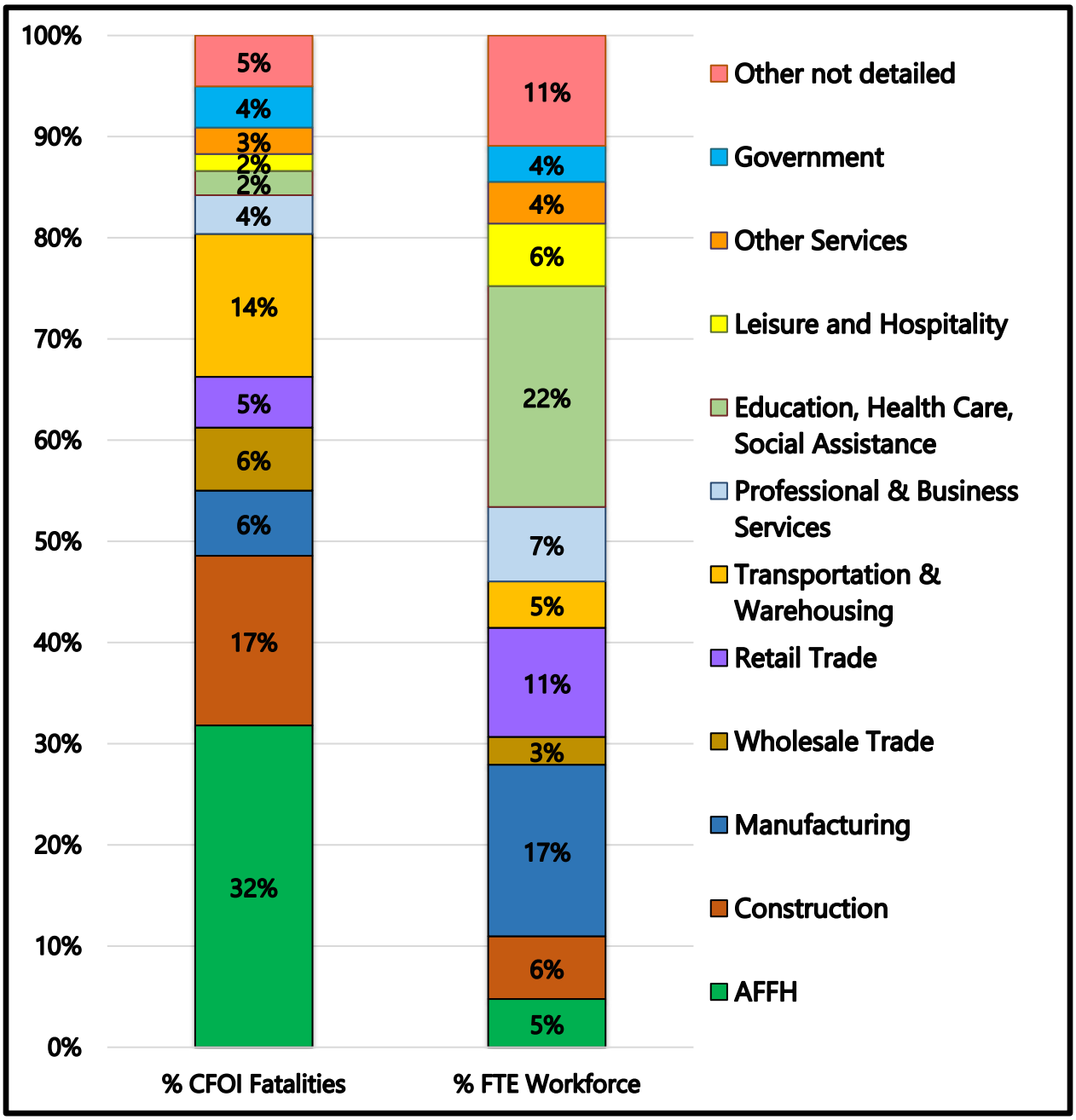


Figure 12: Iowa has significant disparities in the distribution of risk across worker industries. Agricultural workers accounted for 5% of the workforce but 32% of the fatal injuries. Construction workers were 6% of the Iowa workforce but 17% of the fatal injuries. Together, 11% of the average Iowa workforce from 2009 through 2013 experienced 49% of the work-related injury deaths. CFOI fatalities do not include worker commuting deaths.

Appendix 1: Resources

2009 Burden of Injury in Iowa: https://idph.iowa.gov/disability-injury-violence-prevention/injury-prevention

Bureau of Labor Statistics, CFOI and SOII data: www.bls.gov/iif/home.htm

CDC Barell Injury Diagnosis Matrix: www.cdc.gov/nchs/injury/ice/barell_matrix.htm

CDC NIOSH Employed Labor Force (ELF) Tool: wwwn.cdc.gov/wisards/cps/

CDC Injury Prevention & Control, Data & Statistics (WISQARS™): www.cdc.gov/injury/wisqars/ecode_matrix.html

Iowa Department of Public Health: https://idph.iowa.gov/

- IDPH Division of Acute Disease Prevention, Emergency Response & Environmental Health: https://idph.iowa.gov/ADPEREH
- IDPH Division of Behavior Health: https://idph.iowa.gov/bh
- IDPH Healthy Iowans: http://idph.iowa.gov/healthy-iowans
- IDPH Occupational Health & Safety Surveillance Program: https://idph.iowa.gov/Environmental-Health-Services/Occupational-Health-and-Safety-Surveillance
- IDPH Trauma Data Registry: https://idph.iowa.gov/BETS/Trauma/data-registry

NIOSH State Surveillance Program: www.cdc.gov/niosh/oep/statesurv.html

Occupational Health Indicators, as posted on the Council of State and Territorial Epidemiologists website: www.cste.org/group/OHIndicators

University of Iowa IPRC Burden of Injury County Level Data: www.public-health.uiowa.edu/iprc/resources/burden-of-injury-in-ia/

Links were active as of the date of document revision. If you experience an inactive link, please report it to the IDPH OHSSP: kathy.leinenkugel@idph.iowa.gov or 515-281-4930.

Appendix 2: Technical notes

Injury Categorization

The following injury categories were used for data preparation for this report unless designated:

- Road Traffic (Motor vehicle traffic)* – any vehicle incident occurring on a public highway, street, or road (i.e., originating on, terminating on, or involving a vehicle partially on the highway).
- Firearm*– a penetrating force injury resulting from a bullet or other projectile shot from a powder-charged gun. This category includes gunshot wounds from powder-charged handguns, shotguns, and rifles.
- Poisoning* – ingestion, inhalation, absorption through the skin, or injection of so much of a drug, toxin (biologic or non-biologic), or other chemical that a harmful effect results, such as drug overdoses.
- Fall* – an injury received when a person descends abruptly due to the force of gravity and strikes a surface at the same or lower level.
- Suffocation* – inhalation, aspiration, or ingestion of food or other object that blocks the airway or causes suffocation; accidental mechanical suffocation due to hanging, strangulation, or lack of air in a closed place, plastic bag or falling earth.
- Drowning* – suffocation (asphyxia) resulting from submersion in water or another liquid.
- Fire/Burn* – severe exposure to flames, heat, or chemicals that leads to tissue damage in the skin or deeper in the body.
- Cut/Pierce* – an injury resulting from an incision, slash, perforation, or puncture by a pointed or sharp instrument, weapon, or object.
- Struck by/Against* – an injury resulting from being struck by (hit) or crushed by a human, an animal, or an inanimate object or force other than a vehicle or machinery; injury caused by striking (hitting) against a human, animal, or inanimate object or force other than a vehicle or machinery.
- Machinery* – an injury that involves operating machinery, such as drill presses, forklifts, large power-saws, jack hammers, and commercial meat slicers.
- Other Pedal Cycle – an injury that involves riders of unicycles, bicycles, tricycles, mountain bikes, and other non-motorized pedal cycles (non-traffic).
- Other Transportation* – an injury to a person boarding, alighting, or riding in or on all other transport vehicles involved in a collision or other event with another vehicle, pedestrian, or animal not described in MVT. This category includes railway, water, air, space, animal and animal-drawn conveyances (e.g., horseback riding), ATVs, battery-powered carts, ski lifts, and other cable cars not on rails.

- Natural/Environmental *– an injury resulting from exposure to adverse natural and environmental conditions (such as severe heat, severe cold, lightning, sunstroke, large storms, and natural disasters) as well as lack of food or water.
- Overexertion* – working the body or a body part too hard, causing damage to muscle, tendon, ligament, cartilage, joint, or peripheral nerve (e.g., common cause of strains, sprains, and twisted ankles). This category includes overexertion from lifting, pushing, or pulling or from excessive force.
- Other Specified* – an injury that does not fit another category. Some examples include causes such as electric current, electrocution, explosive blast, fireworks, overexposure to radiation, welding flash burn, or animal scratch.
- Not Elsewhere Classified* – includes other environmental and accidental causes or late effects of other accidents.
- Not Specified – injuries with insufficient information to code.
- Suicide* – an injury or poisoning resulting from a deliberate violent act inflicted on oneself with the intent to take one's own life or harm oneself. This category also includes suicide attempts and other intentional self-harm.
- Homicide* – an injury from an act of violence where physical force by one or more persons is used with the intent of causing harm, injury, or death to another person; or an intentional poisoning by another person.
- Unknown Intent – injuries of all causes for which intent could not be determined.

*****Definitions from Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control (NCIPC) WISQARS™ (Web-based Injury Statistics Query and Reporting System). This list was compiled by the UI IPRC.

Data Sources and Methodologies

Numerator data sources used in this report were comprised of Death Certificate Data (2009-2013), Inpatient Hospital Discharge Data (2009-2013) and Bureau of Labor Standards Census of Fatal Occupational Injuries data. The full report also utilizes Iowa Trauma Registry Data (2009-2013).

1. Death Certificate data: The Bureau of Vital Statistics at the Iowa Department of Public Health collects and compiles Iowa residents' death certificates, which are classified by external cause of death. In compliance with the CDC recommendations, this report used the underlying-cause-of-death field to identify the injury deaths (decedents that had an external cause of death code based on ICD-10 (International Classification of Diseases-10th Revision). In addition, the other conditions field was searched only for Traumatic Brain Injury (TBI). The underlying cause of death is defined as "the disease or

injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury11".

2. Hospital Discharge Data (Inpatient): Iowa's 2009-20013 State Inpatient Database (SID) was used to compute CDC-recommended injury indicators. The CDC recommends using the principal diagnostic field to identify injury hospitalizations and searching all the other diagnostic fields to select the External cause of injury codes (E- codes). The injury and external cause of injury codes were classified according to the 9th Revision of the International Classification of Diseases Clinical Modification (ICD-9-CM). Data for hospitalizations include only the first hospitalization for each injury.

3. Iowa Trauma Data Registry: The Iowa Department of Public Health hosts a statewide trauma patient registry. The registry is a web-based system used to collect specific information about patients that have experienced significant traumatic events. All hospitals in Iowa are required to report these data elements. Please note that in this report, data from the trauma registry is not population based; thus, only percentages were calculated instead of rates.

Denominator data sources include data from the Bureau of Labor Statistics (BLS) Current Population Survey (CPS) estimates of employed worker population estimates for workers greater than or equal to 15 years of age and U.S. Census data.

1. BLS CPS data: Estimates are based on a subset of the Bureau of Labor Statistics (BLS) Current Population Survey (CPS) public access data files maintained by the NIOSH Division of Safety Research (DSR), Surveillance and Field Investigation Branch (SFIB), Injury Surveillance Team (IST). The data is retrieved using an online tool called the Employed Labor Force (ELF) query system. The NIOSH ELF query system is based on a subset of CPS data that includes only those persons whose age is greater than or equal to 15 and who are classified as "Employed - At Work" or "Employed - Absent" according to the CPS monthly labor force variable. Estimates derived from this query system exclude unemployed workers and thus do not represent the total U.S. civilian labor force.

2. Census data: Census data is used as denominator data for the entire U.S. or State of Iowa population, including use for the calculation of age-adjusted rates.

Data qualifiers

Rates are reported as the annual average per 100,000 working population for 2009-2013 unless noted otherwise.

Data for hospitalizations include only the first hospitalization for each injury.

Information on injury deaths and hospitalizations are presented in this report. Death data are based on death certificates from the Iowa Department of Public Health and the hospitalization data are from the Iowa Hospital Association hospital inpatient discharge data.

Only injury-related hospitalizations and deaths occurring within the state of Iowa are included in the data used for this report. Iowans may be hospitalized or die outside of Iowa, which excludes those injury numbers from the reported data. The impact from this limitation is unknown.

Additional information about the injury categorizations used for coding death data can be found by viewing this ICD-10 external cause coding reference: www.cdc.gov/nchs/injury/injury_tools.htm/icd10_external.xls

Additional information about the injury categorizations used for the hospitalization data can be found by viewing this ICD-9 external cause coding reference: cdc.gov/nchs/injury/injury_tools.htm/icd9_external.xls

Glossary of Common Injury Data Terminology

Age-adjusted rate (Direct Method): A weighted average of the age-specific incidence or mortality rates from the targeted population(s) where the weights are the proportions of persons in the corresponding age groups of a standard population (Year 2000 U.S. population). Age-adjusted rates allow for comparisons of rates over time or between different populations.

Age-specific rate: The number of cases for a given period (e.g., 2009-20013) for a specific age group by the population for that age group for that time period.

Cause of Death: The disease or injury which set in motion the chain of physiological disturbances which produced death.

Crude death rate or crude hospitalization rate: The number of deaths or hospitalizations over a specified time period divided by the total population (per 100,000).

E-Codes: External Cause of Injury codes, developed by the World Health Organization (WHO), are a supplemental code for use with the International Classification of Diseases (ICD).

Inpatient Hospital discharges: Records from hospital patients discharged after admission.

ICD-9-CM: The International Classification of Diseases, 9th Revision, Clinical Modification codes were used in classifying diagnoses from hospital inpatient and ED visits (prior to October 2015).

ICD-10-CM: The International Classification of Diseases, 10th Revision, Clinical Modification codes were used in classifying causes of death from death certificates since 1999. U.S. hospitalization data coding was transitioned to ICD-10-CM in 2015.