



UNDERSTANDING OCCUPATIONAL FATALITIES AND INJURIES IN KANSAS: DATA AND INSIGHTS

ISSUE BRIEF

Introduction

In 2024, America’s Health Rankings placed Kansas among the 20 states with the highest occupational fatality rates for the construction, manufacturing, trade, transportation and utility, and professional and business service industries, in aggregate. This is an improvement from 2023, when Kansas was among the 10 states with the highest occupational fatality rates in these industries. Over the past 13 years, workers in Kansas have experienced higher rates of occupational fatalities and workplace injuries and illnesses than workers across the U.S. overall.

Occupational fatalities and injuries not only jeopardize employees' physical and emotional health, but also place a significant economic burden on workers, employers and their communities. In 2022, the [National Safety Council](#) estimated



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KEY POINTS

- ✓ In 2024, America’s Health Rankings placed Kansas among the 20 states with the highest occupational fatality rates, based on an analysis of industries including construction, manufacturing, professional and business services, and trade, transportation and utilities.
- ✓ Since 2011, Kansas has had higher rates of occupational fatalities and injuries than the U.S. overall. From 2021–2023, Kansas averaged 4.1 fatalities and 2,833 injuries per 100,000 full-time equivalent (FTE) workers, compared to the U.S. with 3.7 fatalities and 2,700 injuries per 100,000 FTE workers.
- ✓ Agriculture remains the most hazardous industry in Kansas, leading in both injury and fatality rates despite a 30 percent decrease in the injury rate (6,233 down to 4,333 injuries per 100,000 FTE) and a nearly 50 percent drop in the fatality rate over the past decade (38.6 down to 21.3 fatalities per 100,000 FTE).
- ✓ Nearly 1 in 5 (19.4 percent) occupational fatalities in Kansas involve workers age 65 and older, despite this group comprising only 9.6 percent of the workforce, reflecting the dangers faced by aging workers in high-risk industries such as agriculture.
- ✓ Despite men and women making up roughly similar portions of Kansas' workforce (53.5 percent and 46.5 percent, respectively), men make up a much more significant percentage of occupational fatalities (94.2 percent compared to 5.8 percent).

Injuries and illnesses are considered by the Occupational Safety and Health Administration (OSHA) to be work-related if an event or exposure in the workplace caused or contributed to the condition or significantly aggravated a preexisting condition.

Injuries include any wounds or damage to the body resulting from an event in the work environment.

Illnesses include skin diseases or disorders, respiratory conditions, poisoning and hearing loss – recorded based on the employer's judgment of work-related exposure (e.g., COVID-19 contracted due to work duties).

Fatalities are any death resulting from an event in the work environment. This excludes illness-related deaths unless precipitated by an injury event.

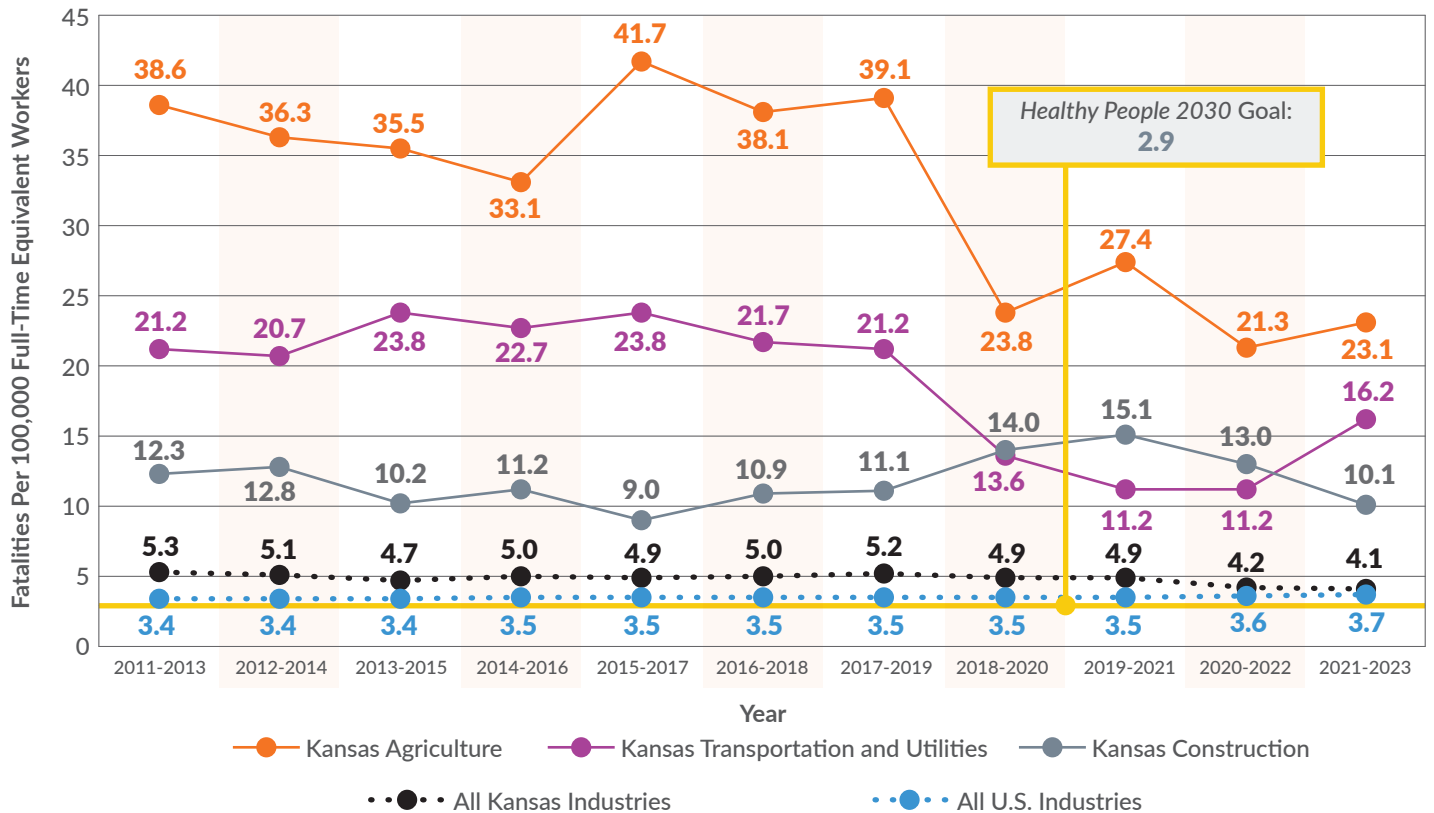
Events or Exposures signify the manner in which the injury or illness was produced or inflicted; for example, falling from a ladder or overexertion while lifting.

the total economic impact of workplace injuries and fatalities at \$167.0 billion, including lost wages, lost productivity, medical expenses and administrative expenses.

Many work-related injuries and illnesses are preventable, and reducing these preventable events also may curb work-related fatalities. As an initial step toward making workplaces safer,

this issue brief analyzes 13 years of data from the Bureau of Labor Statistics (BLS) to understand better the landscape of occupational fatalities and injuries within Kansas. Data in this brief on injuries and illnesses only account for employees in private industries, while fatality data include employees in the private and public sectors. Additionally, demographic characteristics associated with

Figure 1. Three-Year Rolling Average of Occupational Fatality Rates in Kansas and the United States, 2011-2023



Note: Data include workers earning salaries or wages, self-employed workers, owners of unincorporated businesses and farms, and paid and unpaid family workers, and may include some owners of incorporated businesses or members of partnerships. The U.S. Bureau of Labor Statistics uses the North American Industry Classification System (NAICS) to define industries. Only industries with the top three occupational fatality rates in Kansas during 2021-2023 are shown.

Source: Kansas Health Institute analysis of the U.S. Bureau of Labor Statistics Fatal Occupational Injuries in Kansas, 2011-2023.

occupational fatalities are examined to assess potential patterns and help with identifying potentially high-risk groups. If not otherwise specified, rates shown are three-year rolling averages calculated by the average rate over a continuous three-year period (for example, 2021–2023) and, as the time period moves one year forward, replacing the rate of the oldest year with that of the new year.

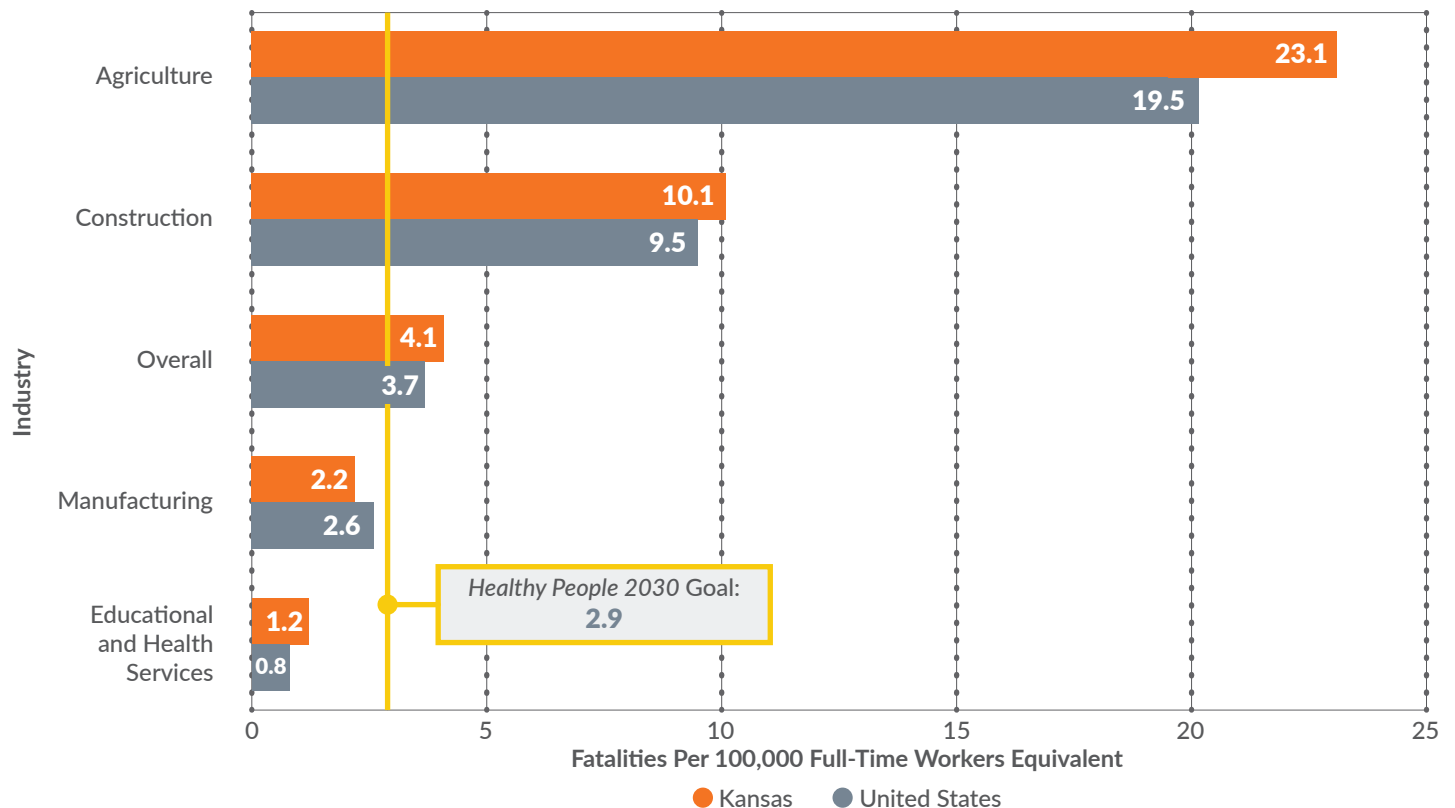
Occupational Fatalities

Analyzing workplace fatalities can highlight underlying safety issues, risks workers face in certain occupations and the need for improved safety regulations. Kansas consistently reported higher occupational fatality rates compared to the U.S. overall in the past decade (Figure 1, page 2). From 2021–2023, the Kansas occupational fatality rate was 4.1 per 100,000 full-time equivalent (FTE) workers compared to the U.S. at 3.7. With the *Healthy People 2030* goal of 2.9, Kansas and the U.S. still have room to improve.

While the rate of lives lost within Kansas’ agricultural industry has been cut almost in half in the past decade, agriculture remains the leading industry for fatal workplace injuries within Kansas at 23.1 per 100,000 FTE workers. This rate is 18.5 percent higher than the U.S. (19.5) for agriculture (Figure 2). These differences highlight an opportunity for health and safety experts to partner with industries and regulators to assess and improve workplace safety standards in Kansas.

Analyzing fatalities by industry alongside the specific events or exposures that cause them helps provide a clearer picture of workplace safety risks. Transportation incidents are the leading cause of workplace deaths, accounting for 58.3 percent of the total number of Kansas occupational fatalities (485 out of 832) across all industries in the past decade (2011–2023). Fatal accidents that occur during a normal commute, however, are not included in these counts. The second leading cause of workplace deaths is contact with objects and equipment, which accounts for 14.1 percent of fatalities (117 out of 832).

Figure 2. Occupational Fatality Rate by Industry in Kansas and the United States, 2021–2023



Note: A directly comparable U.S. rate for the Transportation and Utilities category was not available, so it has not been shown. Data include workers earning salaries or wages, self-employed workers, owners of unincorporated businesses and farms, and paid and unpaid family workers, and may include some owners of incorporated businesses or members of partnerships. The U.S. Bureau of Labor Statistics uses the North American Industry Classification System (NAICS) to define industries. Only industries with the top three occupational fatality rates in Kansas during 2021–2023 are shown.

Source: Kansas Health Institute analysis of the U.S. Bureau of Labor Statistics Fatal Occupational Injuries in Kansas, 2021–2023.

Demographics

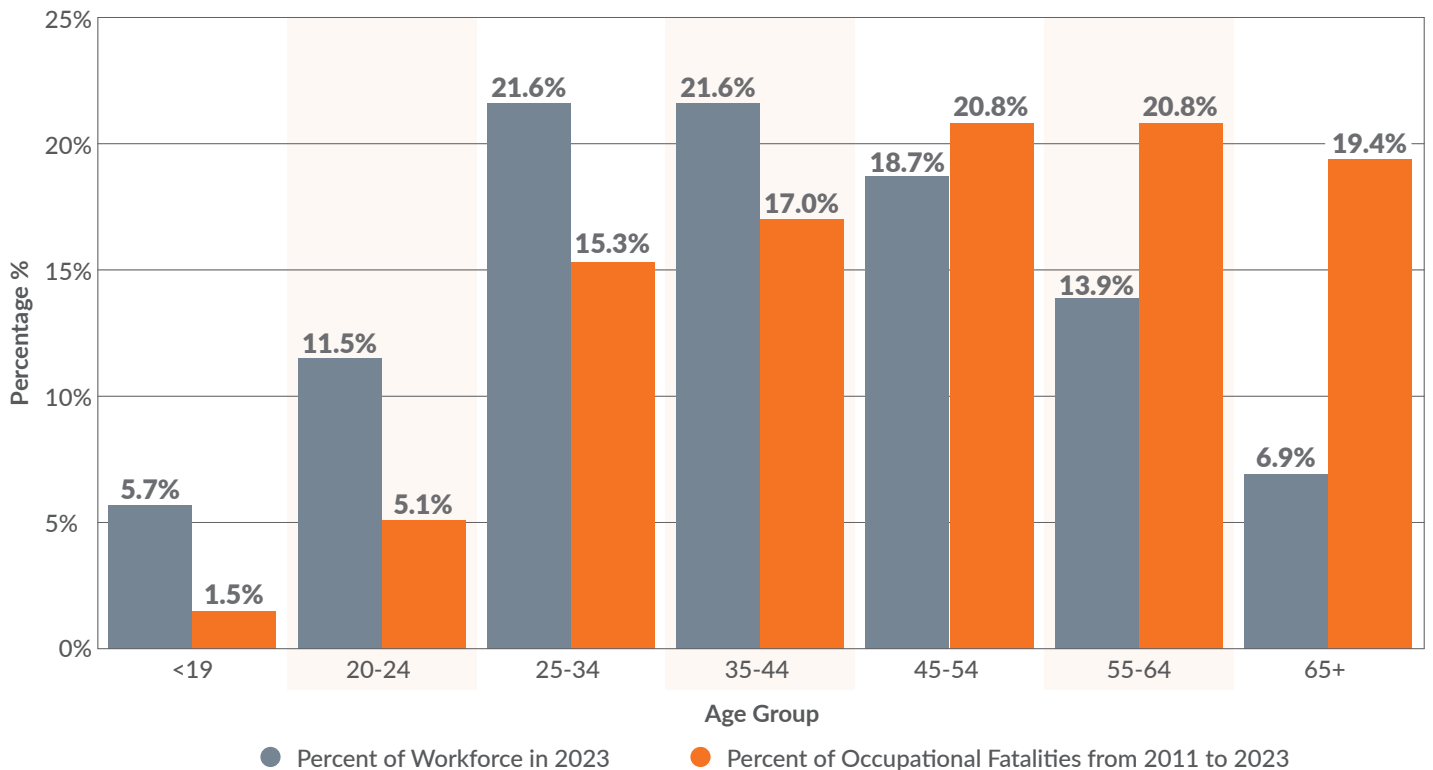
Over the past decade, significant disparities have been evident in lives lost due to workplace incidents in Kansas, with notable differences between genders and age groups. As shown in *Figure 3*, workers age 45–54 made up about 18.7 percent of the workforce in Kansas in 2023, yet this age group experienced 20.8 percent of workplace fatalities during 2011–2023. Those same years, workers age 55–64 comprised 13.9 percent of the Kansas workforce and 20.8 percent of workplace fatalities, while workers age 65 and older experienced the largest disparity, comprising only 6.9 percent of the Kansas workforce and 19.4 percent of occupational fatalities.

The proportion of workplace fatalities for male workers outpaces the percentage of their representation within the workforce. In 2023, men and women made up similar proportions of the workforce in Kansas (53.5 percent and 46.5 percent, respectively); however, men accounted

for more than 90 percent of lives lost in the workplace (94.2 percent) during 2011–2023 (*Figure 4*, page 5). This imbalance suggests that male workers may be more concentrated in hazardous occupations or roles with higher exposure to workplace risks.

Beyond gender and age, racial and ethnic differences also show up in workplace fatalities, highlighting the need for a broader understanding of occupational risks. Across racial and ethnic groups in Kansas, White workers and Hispanic employees experienced a disproportionately high share of workplace fatalities relative to their representation in the workforce. White Kansans, who made up 86.3 percent of the workforce in 2023, experienced 96.8 percent of workplace fatalities between 2011–2023. Those same years, Black Kansans made up 5.9 percent of the workforce and 2.0 percent of workplace fatalities, and Hispanic or Latino Kansans of any race made up 11.8 percent of the workforce and 14.5 percent of workplace fatalities.

Figure 3. Percent of Occupational Fatalities by Age Group Compared to Percent of Workforce by Age in Kansas, 2011–2023



Note: Total number of Kansans in the labor force age 16 years and older = 1,535,000. Workplace fatal injuries include all available age groups. Total number of fatal workplace injuries during 2011–2023 = 841. Data include workers earning salaries or wages, self-employed workers, owners of unincorporated businesses and farms, and paid and unpaid family workers, and may include some owners of incorporated businesses or members of partnerships. The U.S. Bureau of Labor Statistics uses the North American Industry Classification System (NAICS) to define industries. Only industries with the top three occupational fatality rates in Kansas during 2021–2023 are shown.

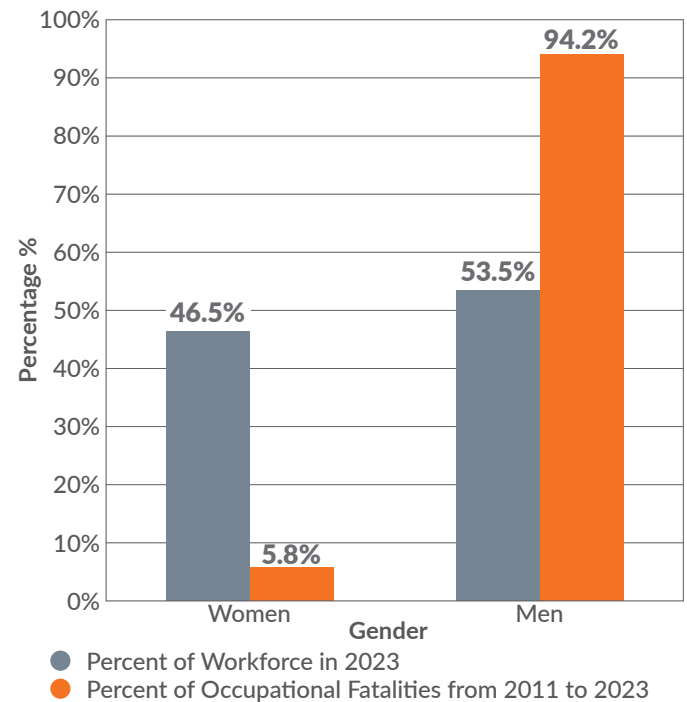
Source: Kansas Health Institute analysis of the U.S. Bureau of Labor Statistics Fatal Occupational Injuries in Kansas, 2011–2023 and the United States Census Bureau American Community Survey Table S2301, 1-Year Estimates, 2023.

National-level reports reflect similar trends. At the national level, men and women made up nearly equal portions of the workforce in 2023 (52.8 and 47.2 percent, respectively), but men made up 92.2 percent of occupational fatalities during 2011–2023. In 2023, the [Bureau of Labor Statistics](#) reported that workers age 55–64 had the highest number of fatalities (20.6 percent of total fatalities). Like in Kansas, White workers and Hispanic employees nationally experienced a disproportionately high share of workplace fatalities relative to their representation in the workforce. However, unlike in Kansas, Black employees nationwide experienced a higher portion of fatalities (16.4 percent) than their workforce representation (12.1 percent).

Injuries and Illnesses

Incidence rates of occupational injuries and illnesses are key metrics with significant impacts on workers' health and the economic stability of their communities. Over the past 13 years, Kansas has had a consistently higher occupational injury and illness rate than the U.S. as a whole (Figure 5, page 6). Occupational injuries and illnesses can lead to missed workdays, resulting in lost wages for workers, increased costs for businesses and broader economic strain on families, local economies and health systems. From 2021–2023,

Figure 4. Percent of Occupational Fatalities by Gender Compared to Percent of Workforce by Gender in Kansas, 2011–2023



Note: Total number of Kansans in the labor force age 20–64 years and older = 1,347,000. Workplace fatal injuries include all available age groups. Total number of fatal workplace injuries during 2011–2023 = 799. Data include workers earning salaries or wages, self-employed workers, owners of unincorporated businesses and farms, and paid and unpaid family workers, and may include some owners of incorporated businesses or members of partnerships. The U.S. Bureau of Labor Statistics uses the North American Industry Classification System (NAICS) to define industries. Only industries with the top three occupational fatality rates in Kansas during 2021–2023 are shown.

Source: Kansas Health Institute analysis of the U.S. Bureau of Labor Statistics Fatal Occupational Injuries in Kansas, 2011–2023 and United States Census Bureau American Community Survey Table S2301, 1-Year Estimates, 2023.

Technical Notes

Full-time equivalent (FTE) workers: The number is derived by taking the total hours worked by all employees divided by 2,000 hours (working 40 hours per week, 50 weeks per year).

If not otherwise specified, rates shown are three-year rolling averages calculated by the average rate over a continuous three-year period (for example, 2021–2023) and, as the time period moves one year forward, replacing the rate of the oldest year with that of a new year.

The North American Industry Classification System (NAICS) classifies businesses into sectors, sub-sectors and industries for collecting, analyzing and publishing comparable statistical data.

- Agriculture includes forestry, fishing, and hunting (NAICS 11).
- Construction includes construction of buildings, heavy and civil engineering construction, and specialty trade contractors (NAICS 236–238).
- Educational and health services include educational services, health care, and social assistance (NAICS 61–62).
- Manufacturing includes establishments engaged in the mechanical, physical or chemical transformation of materials, substances or components into new products; for example, animal slaughtering and processing (NAICS 31–33).
- Trade, transportation, and utilities include wholesale trade, retail trade, transportation and warehousing, and utilities (NAICS 22, 42, 44–45, and 48–49).

in Kansas, across all industries, the rate of injury or illness cases resulting in days away from work, job transfer or restriction was 1,500 per 100,000 FTE workers. This trend highlights the ongoing risks workers face across the state and the undue economic strain placed on Kansas families, businesses and health systems, emphasizing the importance of prioritizing occupational safety.

Different industries pose different health risks to employees. Between 2021–2023, the top five industries for injuries and illnesses in Kansas included agriculture (4,333 per 100,000 FTEs), educational and health services (3,600), trade and transportation (3,533), manufacturing (3,366) and construction (2,767). Despite a 30 percent decrease in the occupational injury rate since 2011–2013, the agriculture industry remains the leading industry for occupational injuries in Kansas (Figure 6, page 7).

Conclusion

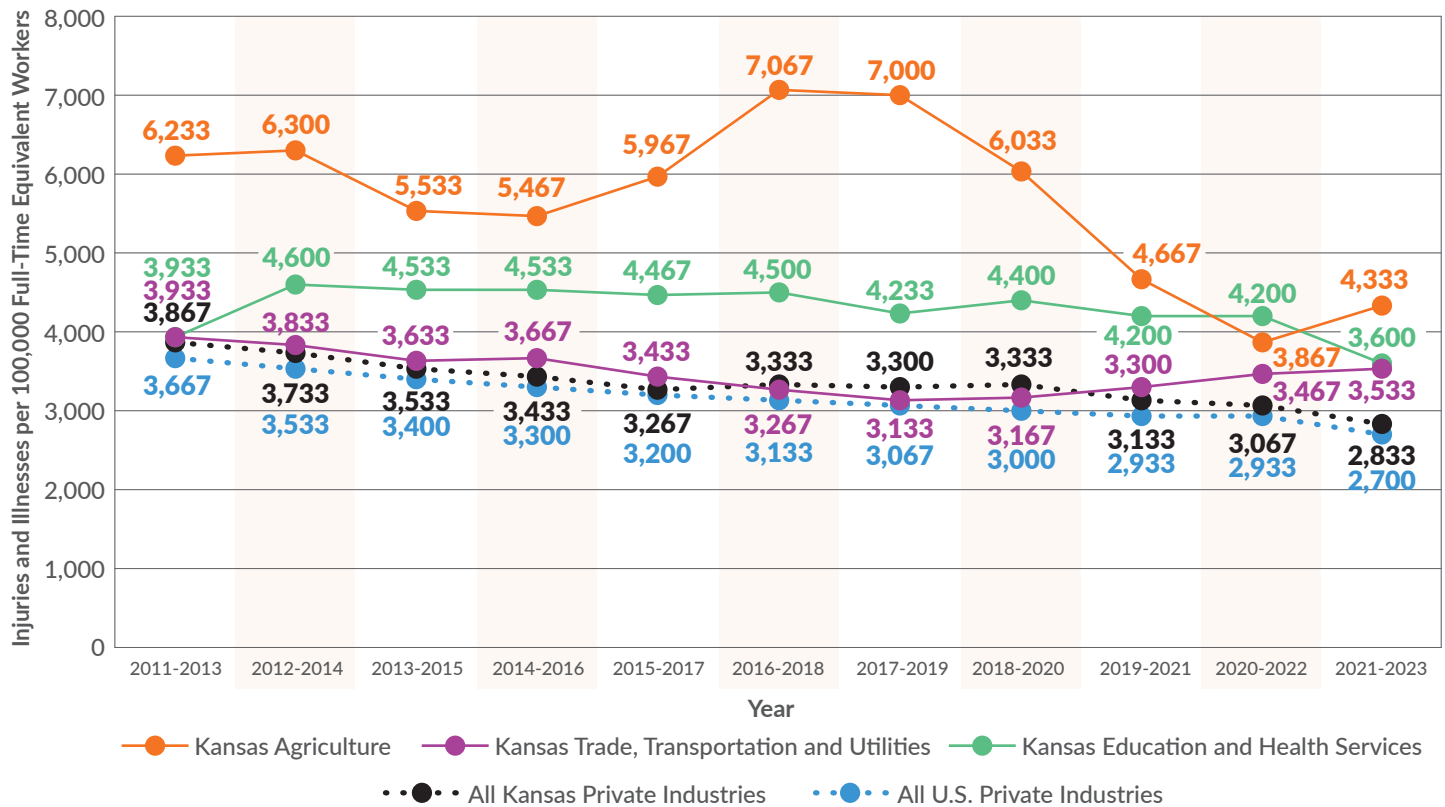
Kansas has consistently faced higher rates of occupational fatalities and injuries compared

to the U.S. overall, with differences across industries, age groups, genders and other demographics. Although the agricultural industry has seen a reduction in fatalities and injuries, it remains the industry with the highest rate of worker deaths and injuries in Kansas.

The findings emphasize the need for targeted interventions with the objective of enhancing workplace safety for older workers, who often bring years of experience and institutional knowledge that are difficult to replace. Furthermore, the comparatively high rate of injuries and fatalities in Kansas workplaces highlights a preventable strain on the Kansas economy and communities. Understanding the patterns in Kansans' occupational health offers a first step for communities attempting to make meaningful progress toward achieving the *Healthy People 2030* goal and ultimately enhancing the well-being of working Kansans.

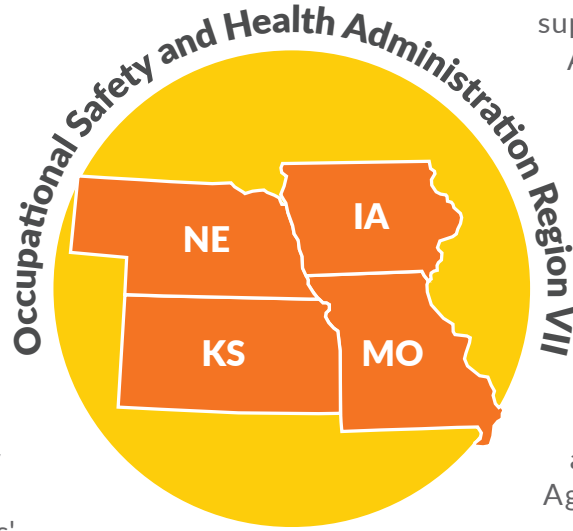
The Kansas Department of Labor provides free, confidential safety and health consultations.

Figure 5. Three-Year Rolling Average of Occupational Injury and Illness Rates in Private Industries in Kansas and the United States, 2011–2023



Note: The U.S. Bureau of Labor Statistics defines industries using the North American Industry Classification System (NAICS). Only the industries with the top three injury and illness rates in 2021–2023 in Kansas are shown. The injury and illness data presented above include only private industries.
 Source: Kansas Health Institute analysis of the U.S. Bureau of Labor Statistics, Table 1, Incidence Rates of Nonfatal Injuries and Illnesses by Industry and Case Types, Kansas, 2011–2023.

This resource can help identify or address any hazards in a workplace. In Kansas, 150 companies across varying industries have participated in the Safety Health Achievement Recognition Program (SHARP), a collaborative program with OSHA that recognizes small businesses that use safety consultation program services and operate exemplary safety and health programs. SHARP can help reduce workers' compensation premiums and improve the safety of employees. OSHA Region VII – which also includes Iowa, Missouri and Nebraska – is headquartered in Kansas City, Missouri. Kansas benefits from regionally tailored support for workplace safety and health.

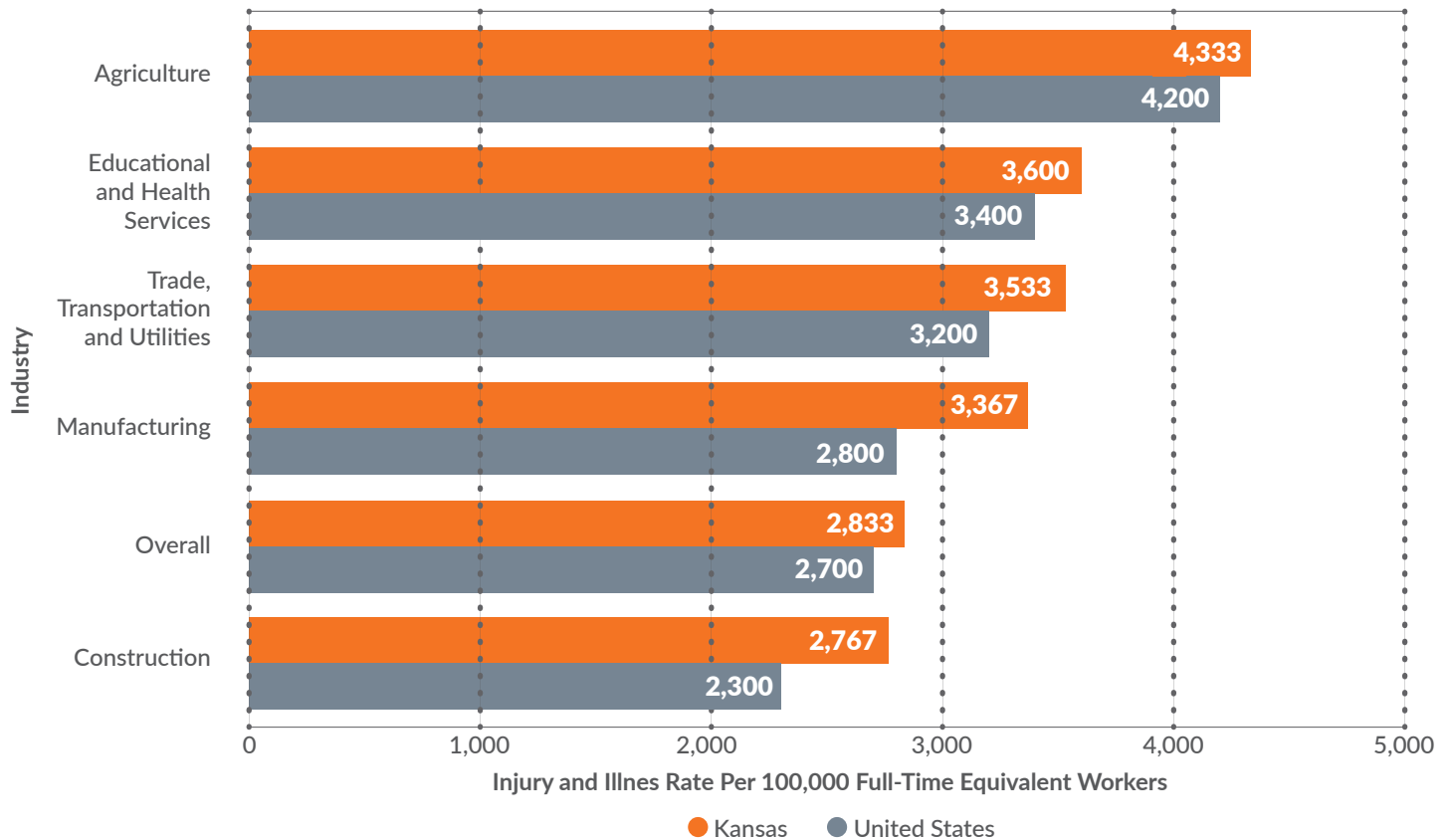


supports regional Centers for Agricultural Disease and Injury Research, Education and Prevention. These centers focus on research, education, and prevention initiatives to address critical agricultural health and safety concerns nationwide. Kansas is served by both the Central States Center for Agricultural Safety and Health and the Great Plains Center for Agricultural Health.

In the agriculture industry, the National Institute for Occupational Safety and Health

Expanding participation in programs like SHARP, utilizing available safety consultations and engaging with agricultural safety initiatives are essential steps in fostering a culture of workplace safety. By leveraging resources, Kansas industries can work toward reducing preventable injuries and fatalities, creating safer environments for workers across all sectors.

Figure 6. Occupational Injury and Illness Rate by Industry in Kansas and the United States, 2021–2023



Note: The U.S. Bureau of Labor Statistics uses the North American Industry Classification System (NAICS) to define industries. The injury and illness data presented above include only private industries.
 Source: Kansas Health Institute analysis of the U.S. Bureau of Labor Statistics, Table 2, Incidence Rates of Nonfatal Injuries and Illnesses by Industry and Case Types, Kansas, 2011–2023.

Your Next Step to a Safer Workplace Starts Here

Tap into these resources for occupational safety and health in Kansas.



Kansas Department of Labor (KDOL)

- 1. Industrial Safety and Health (ISH) Services:** The ISH program provides free, confidential consultation services to help private-sector employers identify and correct occupational hazards. Services include on-site safety and health surveys, training and assistance in developing safety programs tailored to the workplace.
- 2. Safety and Health Achievement Recognition Program (SHARP):** SHARP recognizes small employers who operate exemplary safety and health programs. Businesses that achieve SHARP status are acknowledged as model worksites, often seeing improved employee morale, reduced injury rates and exemption from certain OSHA inspections for up to two years.



dol.ks.gov/industrial-safety-health/services-for-private-sector

Great Plains Center for Agricultural Health (GPCAH)

Housed at the University of Iowa, GPCAH offers resources, funding opportunities and research-based strategies aimed at reducing injuries and fatalities in agriculture. The center supports outreach, education and community-driven health promotion for agricultural workers across the Midwest.



gpcah.public-health.uiowa.edu/

Central States Center for Agricultural Safety and Health (CS-CASH)

Based at the University of Nebraska Medical Center, CS-CASH conducts research and outreach to promote occupational health and safety in agriculture. The center emphasizes regional partnerships and offers tools, training materials and data on emerging risks and prevention strategies.



unmc.edu/publichealth/cscash/

National Center for Productive Aging and Work (NCPAW)

Part of the National Institute for Occupational Safety and Health, NCPAW promotes the lifelong well-being of workers by integrating occupational safety with health promotion across all ages. It offers research, guidance and practical tools to help organizations create age-friendly workplaces that support older workers while benefiting the entire workforce



cdc.gov/niosh/centers/productive-aging.html

ABOUT THE ISSUE BRIEF

This brief is based on work by Kaci Cink, M.P.H., Emma Wituk and Wen-Chieh Lin, Ph.D. It is available online at khi.org/articles/understanding-occupational-fatalities-and-injuries-in-kansas-data-and-insights.

KANSAS HEALTH INSTITUTE

For 30 years, the Kansas Health Institute has believed evidence-based information, objective analysis and civil dialogue enable policy leaders to be champions for a healthier Kansas. Established in 1995 with a multiyear grant from the Kansas Health Foundation, KHI is a nonprofit, nonpartisan educational organization based in Topeka.

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