Occupational Fatalities in Kentucky

ANNUAL REPORT



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KENTUCKY FATALITY ASSESSMENT AND CONTROL EVALUATION

The Kentucky Fatality Assessment and Control Evaluation (KY FACE) program is an occupational fatality surveillance program of the Kentucky Injury Prevention and Research Center (KIPRC)*. The goal of KY FACE is to prevent fatal work injuries by studying the worker, work environment, energy exchange resulting in fatal injury, and the role of management, engineering, and behavioral changes in preventing future injuries. KY FACE investigators evaluate data from multiple sources, including 1) interviews with employers, coworkers, witnesses, and other investigators; 2) examinations of the work site and equipment; 3) Occupational Safety and Health Administration reports, police reports, and medical examiner reports; 4) employer safety procedures; and 5) information provided by the Kentucky Office of Vital Statistics. KY FACE does not seek to determine fault or place blame on companies or individual workers. Rather, findings are summarized in narrative reports that include recommendations for preventing similar events in the future.

KY FACE respectfully acknowledges the individuals who lost their lives to workplace injury in Kentucky and the pain and loss endured by their families and colleagues. It is hoped that surveillance of these tragic workplace incidents will help government, industry, workers, and communities target their injury prevention efforts and resources.

*Organizationally, KIPRC is part of the University of Kentucky and is a bona fide agent of the Kentucky Department for Public Health. Funding for the KY FACE program is provided by the National Institute for Occupational Safety and Health Cooperative Agreement Number 5U6O0HO08483-17.

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INTRODUCTION

In 2022, KY FACE recorded the deaths of 97 individuals due to work-related injuries that occurred in Kentucky. This number represents a rate of 4.7 fatalities per 100,000 workers employed in Kentucky in 2022. According to the U.S. Bureau of Labor Statistics (BLS), the national fatal occupational injury rate was 3.6 per 100,000 full-time equivalent workers in 2021. The 2022 national rate was not yet available at the time this report was developed.

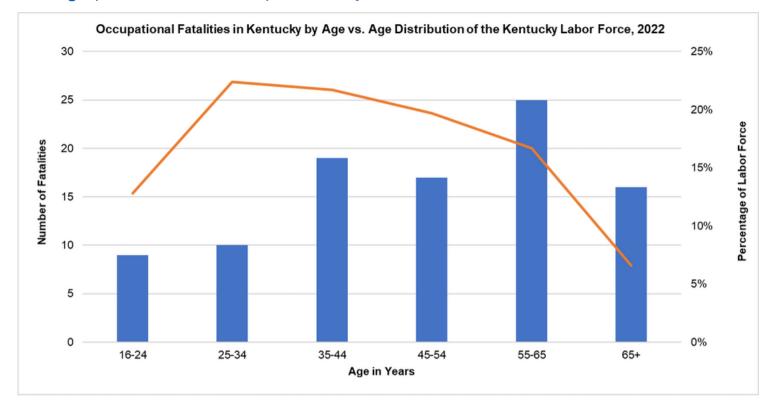
2022 Trends in Fatal Occupational Injuries:

- The number of occupational fatalities in Kentucky was nearly the same as in 2021. In 2021, there were 96 occupational fatalities.
 The occupational fatality rate remained the same as in 2021.
- The trade, transportation, and utilities industry had the highest number of occupational fatalities, followed by the natural resources and mining industry and the construction industry.
- Motor vehicle crash was the leading cause of occupational fatalities, followed by agricultural machinery and crushed/by against.



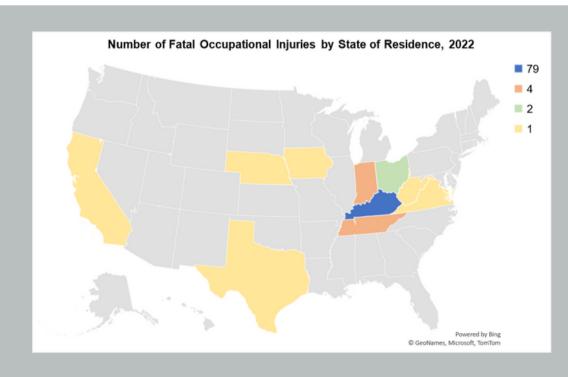
CHARTS

Demographics of Fatal Occupational Injuries, 2022

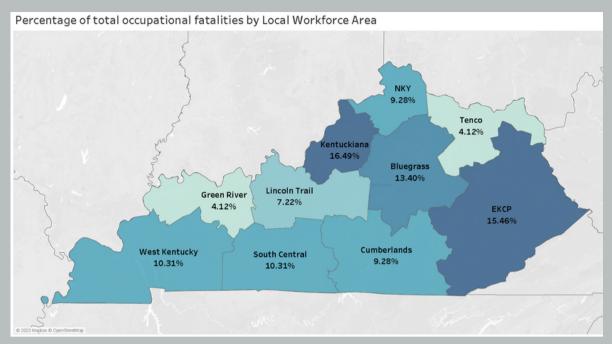


The bars above reflect fatal occupational injuries by age; the line reflects age distribution of the Kentucky labor force.

- While working in Kentucky in 2022, 97 residents of the following states died due to an occupational injury: Kentucky, California, Indiana, Iowa, Ohio, Tennessee, Texas, Virginia, and West Virginia.
- Forty-two percent of deaths that occurred among non-Kentucky residents were due to motor vehicle crashes.

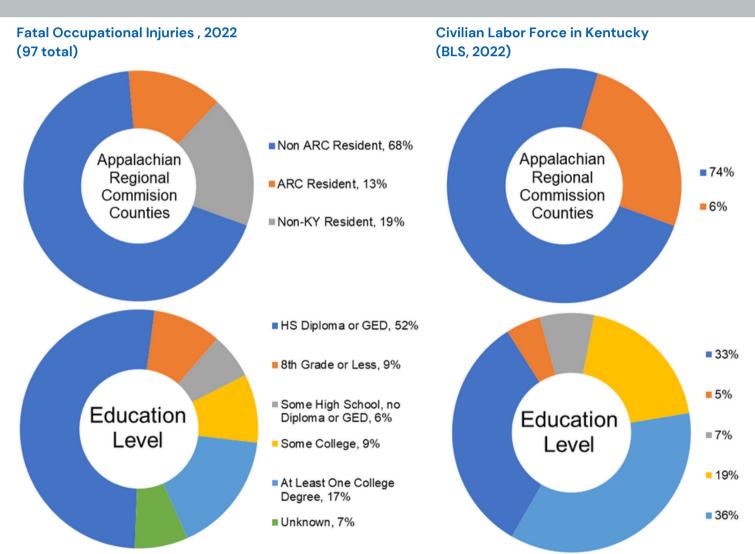


Demographics of Fatal Occupational Injuries, 2022 (continued)



Incidents by County

- Jefferson County (11%).
 Jefferson County is the location of the state's largest city, Louisville, and contains 17% of the state's population. By comparison, in 2021, 27% of occupational fatalities occurred in Jefferson County.
- Boone County (5%)
- Warren County (5%)
- Fayette County (4%)

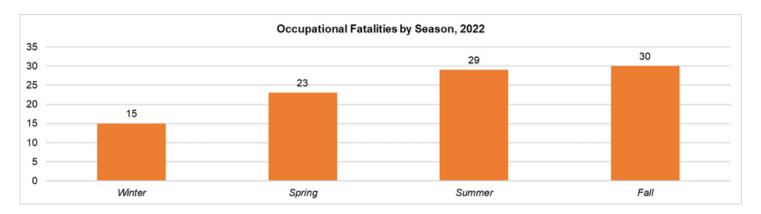


Note: Statewide education level chart displays data for the total Kentucky population 18 years and older. All other statewide data are restricted to the Kentucky Civilian Labor Force.

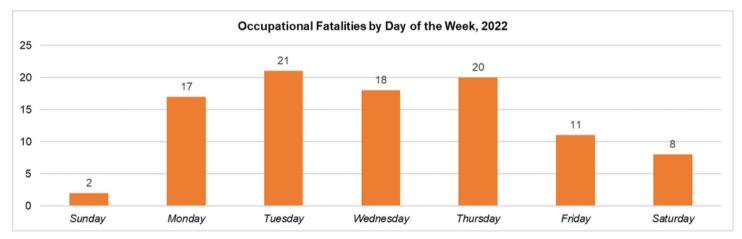
Demographics of Fatal Occupational Injuries, 2022 (97 total)

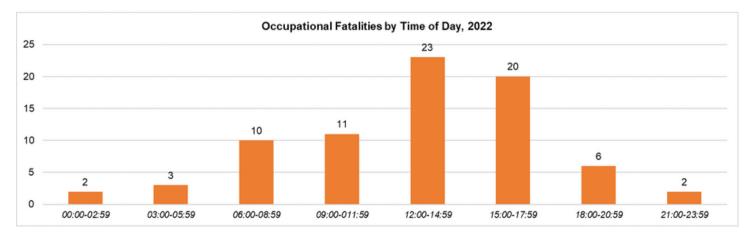
Civilian Labor Force in Kentucky (BLS, 2022)







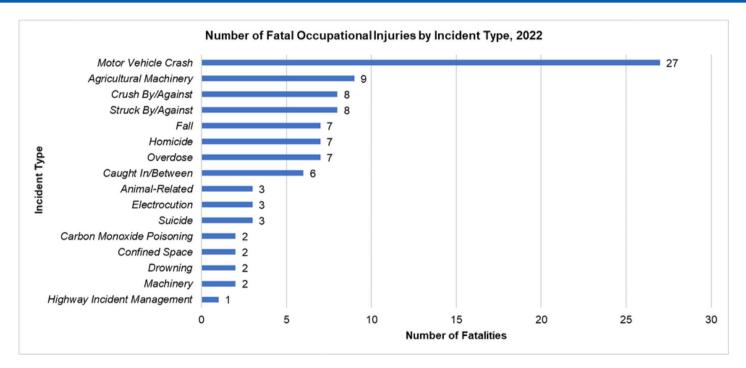


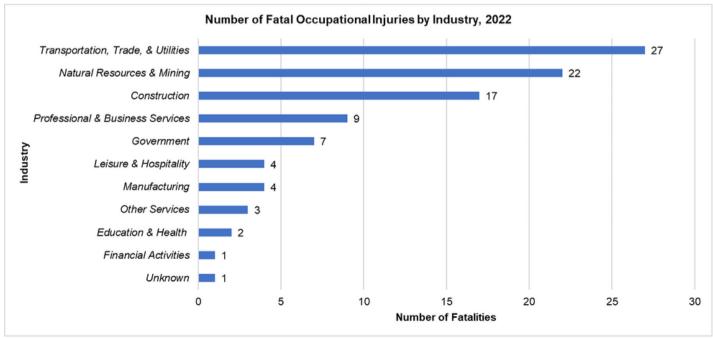


Note: Fatalities without a known time of incident are not included in the above chart.

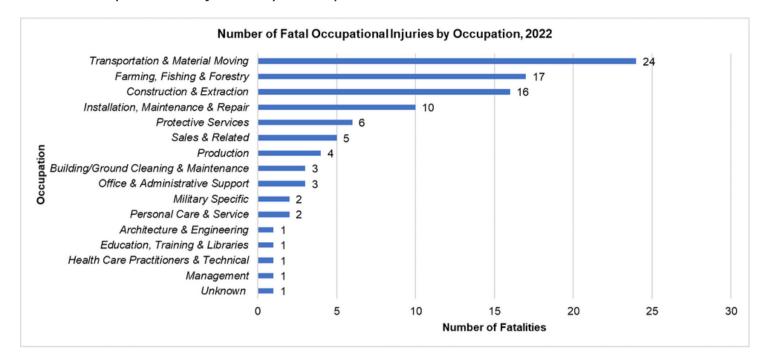
Fatal Occupational Injuries by Incident Type & Industry

- Of the 97 occupational fatalities in Kentucky in 2022, 28% (n=27) were caused by motor vehicle crashes (MVC). MVC fatalities accounted for a lower percentage of overall occupational fatalities in 2022 than in 2021 (29%), 2020 (33%), 2019 (38%), and 2018 (37%).
- Agricultural machinery incidents were the second leading cause of occupational fatalities in Kentucky in 2022, with 9% (n=9) of fatalities.
- Overdoses accounted for 7% (n=7) of total occupational fatalities in Kentucky in 2022. This represents a 61% decrease in overdose fatalities from 2021 19% (n=18).
- The trade, transportation, and utilities industry accounted for 28% of occupational fatalities in 2022, nearly the same as in 2021 (29%).
- Deaths in the natural resources and mining industry increased from 13 in 2021 to 22 in 2022.





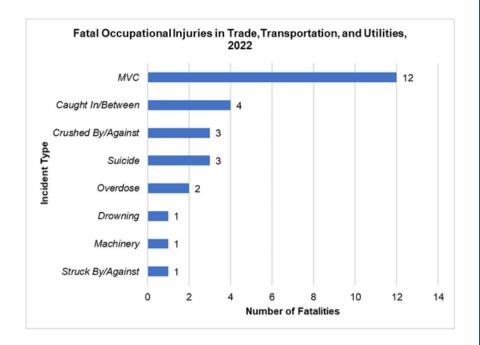
Fatal Occupational Injuries by Occupation

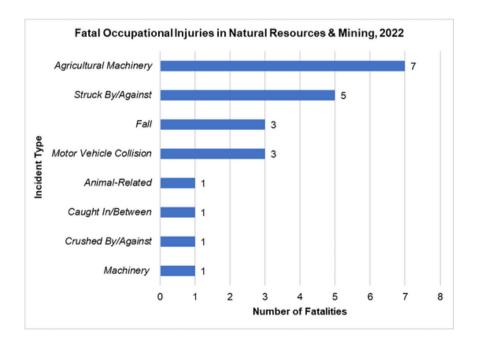


- Of the 24 fatal injuries in the transportation and material moving (TTM) occupations in 2022, 58% (n=14) resulted from a motor vehicle crash, 22% (n=6) were due to an overdose, and 7% died from suicide (n=2). Fiftyfour percent (n=13) of the fatal injuries in the TTM occupations were among truck drivers.
- Of the 17 farming, fishing, and forestry fatalities in 2022, 23% (n=4) were among loggers compared to 40% (n=4) in 2021. Thirty-one percent of fatalities in this occupation were agricultural machinery-related.
- Half of all Hispanic workers who died in the workplace in 2022 worked in farming occupations.
- Twenty-five percent (n=4) of the fatal injuries in construction & extraction occupations were due to falls.



Fatalities by Select Industries





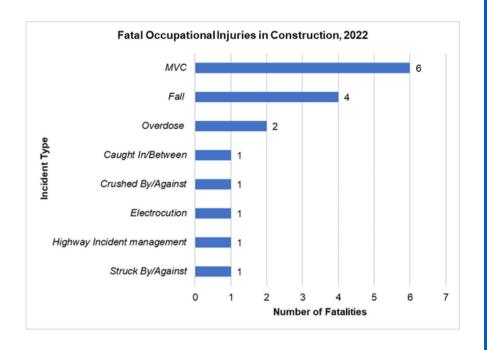
Trade, Transportation & Utilities

- The trade, transportation, and utilities industry accounted for 28% (n=27) of workplace fatalities in 2022, up from 32% (n=31) in 2021.
- Forty-eight percent of cases in this industry involved truck drivers, down from 58% in 2021.
- Overdose fatalities in the trade, transportation, and utilities industry decreased by 75% from eight overdoses in 2021 to two in 2022. In 2021, this industry accounted for 44% of all occupational overdose fatalities. In 2022, this industry accounted for 28% of all occupational overdose fatalities.

Natural Resources & Mining

- Twenty-three percent (n=22) of occupational fatalities in 2022 occurred in the natural resources & mining industry. This increased from 13% in 2021.
- Fifty-six percent of deaths in this industry were among farmers.

Fatalities by Select Industries (continued)



Construction

- Eighteen percent (n=17) of workplace fatalities occurred in the construction industry in 2022. This percentage is a slight increase over 2021's percentage (15%).
- In 2022, motor vehicle collisions surpassed falls as the leading cause of fatalities in the construction industry. In 2021 there were no motor vehicle collision fatalities in the construction industry.



Investigation Program

On-site investigations of selected cases are conducted by a KY FACE investigator. Investigative reports are reviewed by professional safety experts and the National Institute for Occupational Safety and Health prior to publication. Investigative reports seek to identify root causes of fatal workplace incidents and provide targeted recommendations for workplace injury prevention. Six FACE investigation reports were published from July 1, 2022, to June 30, 2023.

FULL INVESTIGATIVE REPORTS



Complete investigative reports can be viewed at https://kiprc.uky.edu/fatality-assessment-and-control-evaluation-face.

FACE Investigation Summaries

Case ID Number: 22KY006 Industry: Wholesale Trade

<u>Delivery Driver Crushed by Granite Slab</u> A 57-year-old delivery driver was killed when he was struck by an unsecured slab of granite while off-loading slabs of granite from his flatbed trailer.

Case ID Number: 22KY083 Industry: Water and Sewer Line and Related Structures

<u>Equipment Operator Crushed by Skid-Steer Attachment</u> A 46-year-old skid-steer operator was killed when he was struck by his skid-steer's twin-fork attachment with a gravel bucket secured to it. The operator had raised the skid-steer's arms and exited the cab. While the operator was beneath the attachment, it separated from the skid-steer's lift arms and fell onto him.

Case ID Number: 23KY009 **Industry:** Roofing Contractors

<u>Project Manager Dies after Falling through Skylight</u> A 59-year-old roofing project manager was performing a post-purchase roof inspection for the buyer of a commercial warehouse. In the process, the victim stepped on a polycarbonate skylight and fell to the surface below.

Case ID Number: 22KY096 Industry: Roofing Contractors

<u>Roofing Contractor Dies after Falling through Skylight</u> A 37-year-old roofing contractor. was assisting the job foreman with the installation of a commercial grade rubberized roof coating. In the process, the victim stepped on a fiberglass skylight and fell to the surface below.

Case ID Number: 22KY097 Industry: Highway Construction

<u>Highway Construction Flagger Dies after Being Struck by Vehicle</u> A 25-year-old general laborer was conducting traffic control for a highway construction project on a two-lane state highway. While doing so, a vehicle failed to stop and struck the victim.

Case ID Number: 22KY046 Industry: Site Preparation Contractor

<u>Demolition Laborer Dies in Fall through Skylight</u> A 44-year-old Hispanic demolition laborer suffered a fatal fall while working on the roof of a building that was undergoing demolition. The employee was walking backwards when he stepped onto a skylight and fell through it, falling approximately 19 feet to a concrete floor below.

Hazard Alerts

The Kentucky Occupational Safety and Health Surveillance (KOSHS) program produces Hazard Alerts based on trends observed in FACE data and investigations. Two hazard alerts were produced between July 1, 2022, and June 30, 2023.

Complete versions of Hazard Alerts can be found at: https://kiprc.uky.edu/programs/fatality-assessment-and-control-evaluation-face/hazard-alerts.

Fatalities Caused by Falls through Skylights

According to the Census of Fatal Occupational Injuries, 62 workers in the construction industry died due to falling through a surface or opening like a skylight in the U.S. in 2021. Since 1994, seven construction workers in Kentucky have died due to falling through skylights. Three of the seven fatalities occurred during the 10-month period from May 2022 through February 2023.

Due to the spike in fatalities from falls through skylights, the KOSHS program developed a toolkit with training resources in English and Spanish about this topic.

Access the Preventing Falls through Skylight Toolkit



HAZARD ALERT

FATALITIES
CAUSED BY FALLS
THROUGH
SKYLIGHTS

oto 1: Fiberglass skylight on

Photo 2: Polycarbonate skylight that victim fell themsels ICase 31.

What is the hazard?

According to the Census of Fatal Occupational Injuries, 62 workers in the construction industry died due to failing through a surface or opening like a skylight in the U.S. in 2021. Since 1994. 7 construction workers in Kentucky have died due to failing through skylights. Three of the 7 statistics occurred during the 1D month period from May 2022 through February 2023.

The following deaths caused by falls through skylights occurred in Kentucky

Case 1: A demolition laborer fell while working on the roof of a building that was undergoing demolition. The employee was walking backward when he stepped onto a skylight in the roof and fell through it, falling approximately 19 feet to a concrete floor below. (2022)

Case 2: A roofing contractor was assisting a job foreman with the installation of a commercial grade rubberized roof coating. In the process, the victim steepped on a fiberglass skylight and fell 30 feet to the surface below. Post-incident, a non-employee family member of the foreman was attempting to retrieve tools left on the roof. While doing so, he also fell through a filterglass skylight that was situated adjacent to the skylight involved in the fatal incident. The family member suffered non-life-threatening injuries. (2022)

Case 3: A roofing project manager was performing a post-purchase roof inspection for the buyer of a commercial warehouse. In the process the victim stepped on a polycarbonate skylight and fell 25 feet to the surface below. (2023)

REQUIREMENTS:

- Employees must be protected from falling more than 6 feet through floor holes and skylights by personal fall arrest systems, covers, or guardrail systems erected around such openings. Sec 1926.50 (18)(4)(i)
- Employers must provide a training program for each employee who might be exposed to fall hazards. The program should enable employees to recognize the hazards of falling and should train employees in the procedures to follow in order to minimize fall hazards. See: 1926.5031a/s11

PECOMMENDATIONS

- Perform a pre-job hazard analysis to identify potential fall hazards; plan control measures
- Prior to beginning a job, ensure that all necessary fall protection systems are in working order.
- Conduct frequent scheduled and unscheduled inspections to ensure that a fall protection
- Year a season through design (PID) to 'design out' or minimize hazards. By utilizing the Prevention through Design initiative, employers can eliminate fall hazards associate with skylights by excluding them from building designs. Facilities with existing skylights can phase out and remove existing skylights in lieu of repairing them, thus eliminating the hazard and future exposure.



Working in Winter Weather

Winter weather presents a number of hazards. From 2018–2021, 2,325 Kentucky workers experienced various types of winter-weather related injuries. Slips or falls caused the most injuries, accounting for 95% of the winter weather-related occupational injuries, followed by motor vehicle collisions (2%), overexertion during snow/ice removal (2%), and other (1%).

PUBLICATIONS

Terry Lee Bunn, Madison Liford, Michael Turner, Ashley Bush. (2022). Driver injuries in heavy vs. light and medium truck local crashes, 2010–2019. Journal of Safety Research, Volume 83; 26–34. ISSN 0022-4375, https://doi.org/10.1016/j.jsr.2022.08.001.

Read the article

Press Releases

KIPRC, KY FACE report shows rise in occupational overdose deaths from 2019 to 2021

<u>May 1-6 is National Safety Stand-Down to Prevent Falls in</u> <u>Construction Week</u>

<u>Drowsy Driving Prevention Week raises awareness about</u> workplace driver fatigue

Sept. 5-9 is Construction Suicide Prevention Week

KY Face Data Source

This report was produced by the Kentucky Injury and Prevention Research Center, as a bona fide agent for the Kentucky Department for Public Health. Data source: KY FACE Database. The KY FACE database collects occupational fatality data from multiple surveillance sources, including but not limited to death certificates, OSHA-36 forms, Mine Safety and Health Administration Fatalgrams, newspaper clippings, workers' compensation forms, Kentucky State Police Crash Data, coroner reports, and toxicology reports.



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