

Occupational Fatalities in Kentucky

ANNUAL REPORT



2021

Kentucky Fatality Assessment
and Control Evaluation

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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 6U60OH008483-16.

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INTRODUCTION

In 2021, KY FACE recorded the deaths of 96 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 2021. According to the U.S. Bureau of Labor Statistics (BLS), the national fatal occupational injury rate was 3.4 per 100,000 full-time equivalent workers in 2020. The 2021 national rate was not yet available at the time this report was developed.

2021 Trends in Fatal Occupational Injuries:

- The number of occupational fatalities in Kentucky was higher compared to the previous four years. In 2017, 2018, 2019, and 2020, there were 68, 87, 79, and 89 occupational fatalities, respectively.
- The trade, transportation, and utilities industry had the highest number of occupational fatalities, followed by the construction, manufacturing, and natural resources and mining industries.
- Motor vehicle crash was the leading cause of occupational fatalities, followed by overdose and struck/by against.

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[Charts characterizing fatal occupational injuries \(pages 6-10\).](#)

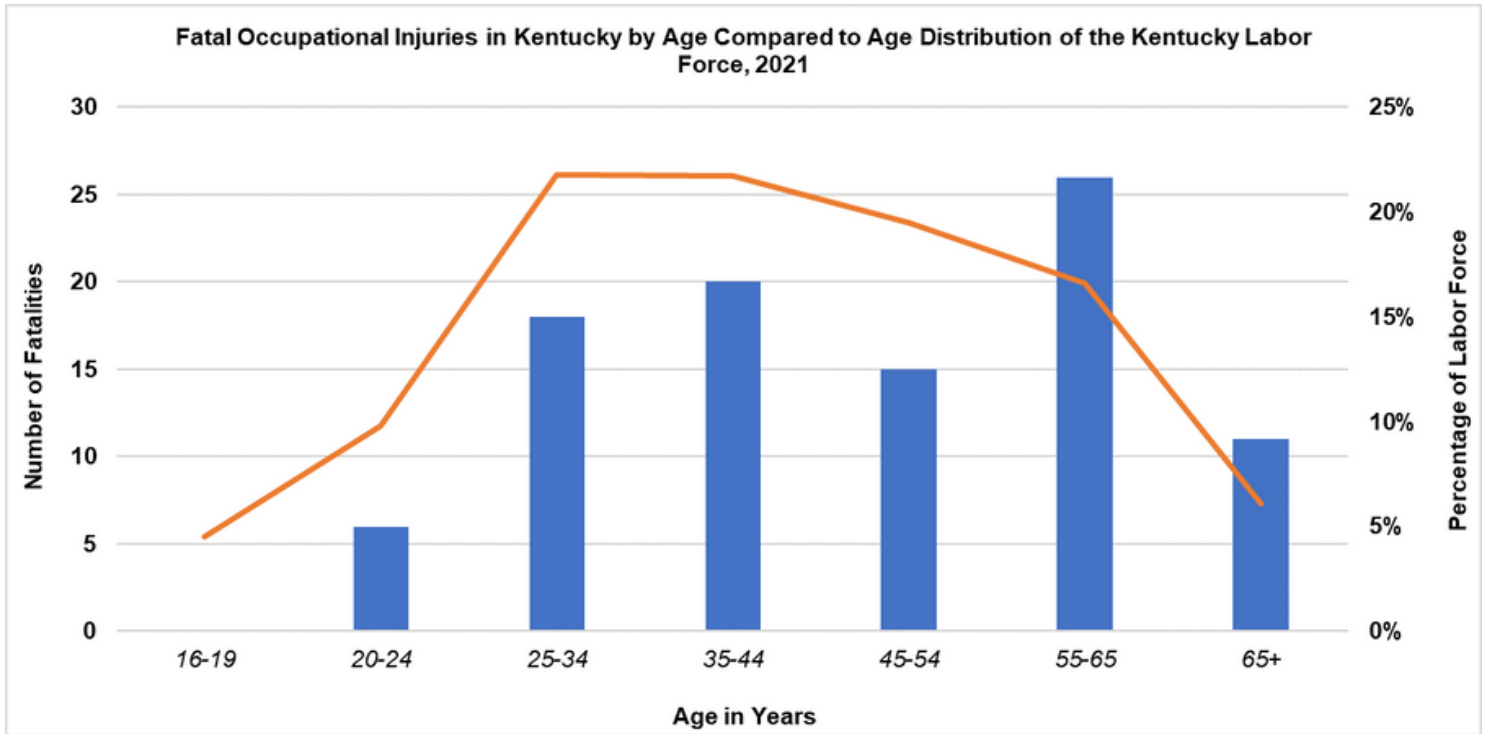
[Summaries of the five investigative reports KY FACE published in 2021 \(page 11\).](#)

[Summaries of the four hazard alerts KY FACE published in 2021 \(page 12\).](#)

[KY FACE online resources and a link to provide feedback \(page 13\).](#)

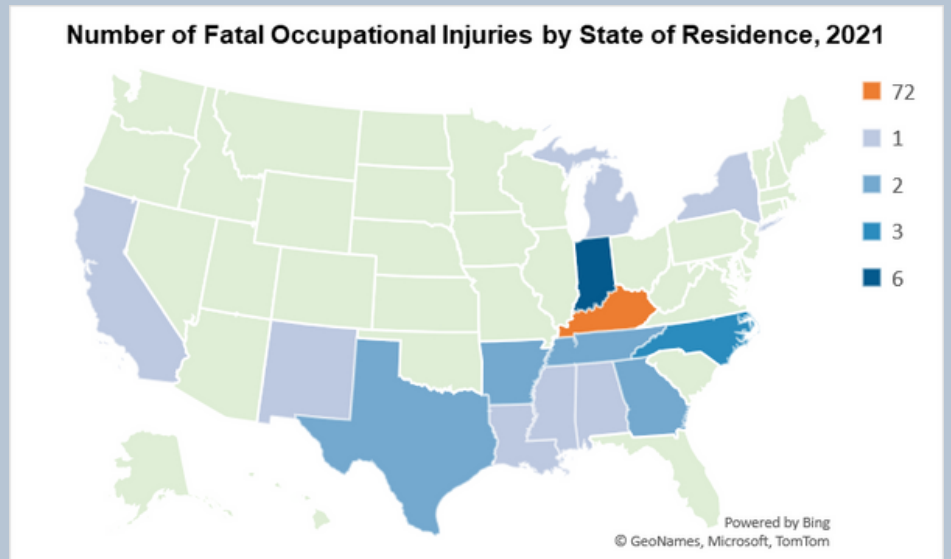
CHARTS

Demographics of Fatal Occupational Injuries, 2021



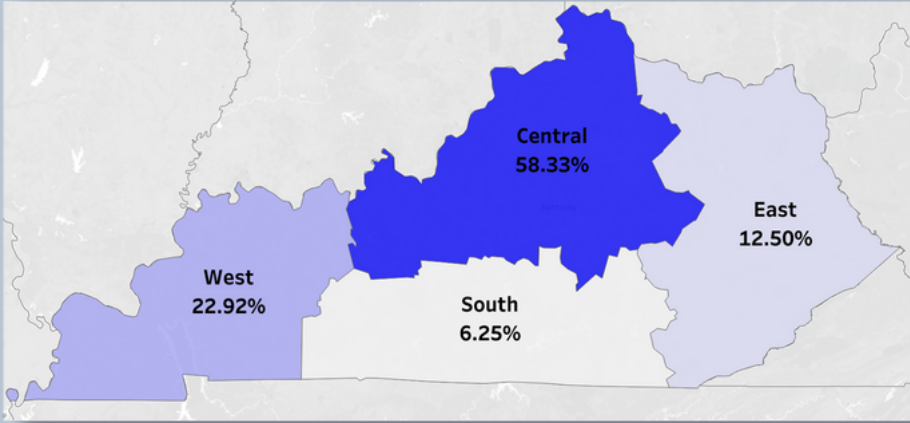
The bars above reflect fatal occupational injuries by age; the line reflects age distribution of the Kentucky labor force.

- While working in Kentucky in 2021, 96 residents from the following states died due to an occupational injury: Kentucky, Indiana, North Carolina, Texas, Tennessee, Georgia, Arkansas, New York, New Mexico, Mississippi, Michigan, Louisiana, California, Alabama.
- Fifty-eight percent of deaths that occurred among non-Kentucky residents were due to motor vehicle crashes.



Demographics of Fatal Occupational Injuries, 2021 (continued)

Fatal Occupational Injuries by Workforce Planning Regions

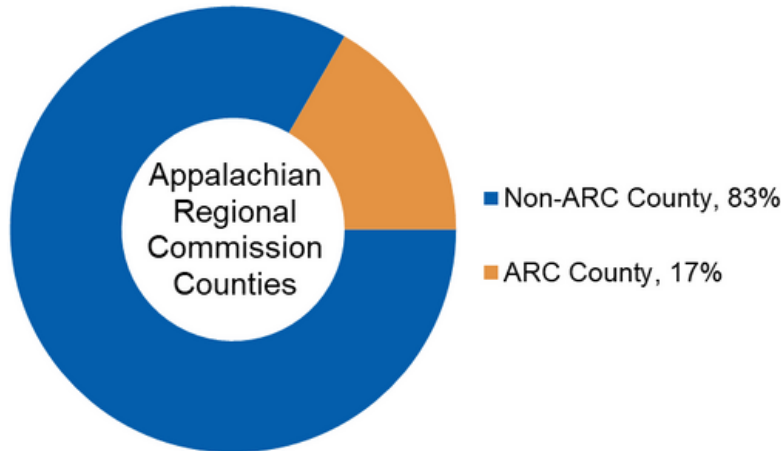


The central region of Kentucky contains the two most populous cities in Kentucky, Louisville and Lexington. The western region contains the third and fourth most populous cities, Bowling Green and Owensboro.

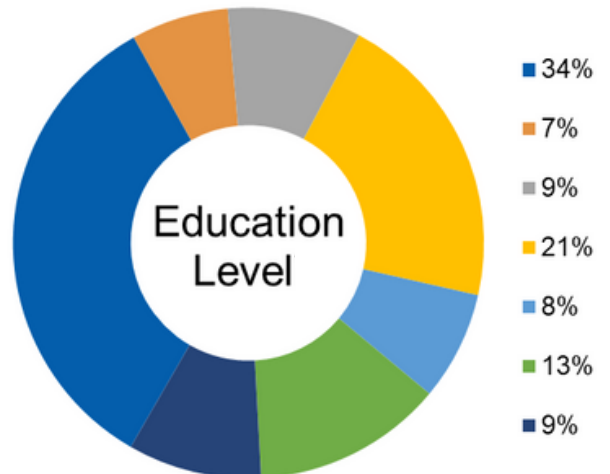
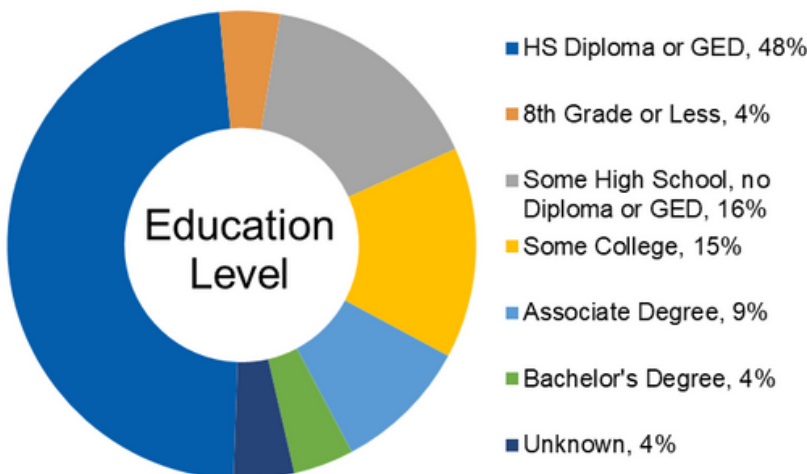
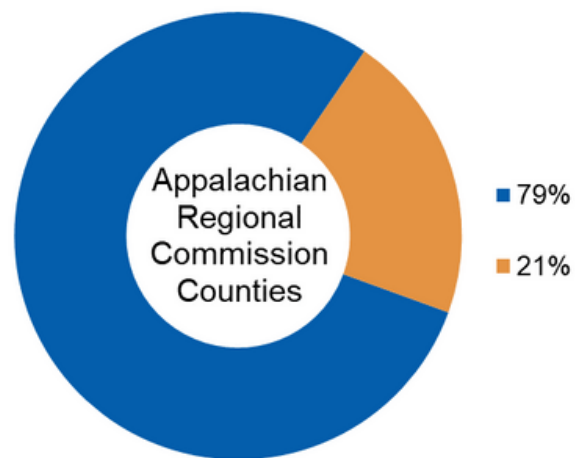
Incidents by County

- **Jefferson County (27%).** Jefferson County is the location of the state's largest city, Louisville, and contains 17% of the state's population. By comparison, in 2020, 13% of occupational fatalities occurred in Jefferson County. Thirty-five percent of the 2021 occupational fatalities that occurred in Jefferson County were homicides and 25% were overdoses.
- **Graves County (8%).** All of the occupational fatalities that occurred in Graves County were related to a tornado in December 2021.
- **Fayette County (5%).** Fayette County is the second largest county in the state and contains the state's second largest city, Lexington.

Fatal Occupational Injuries , 2021 (96 total)



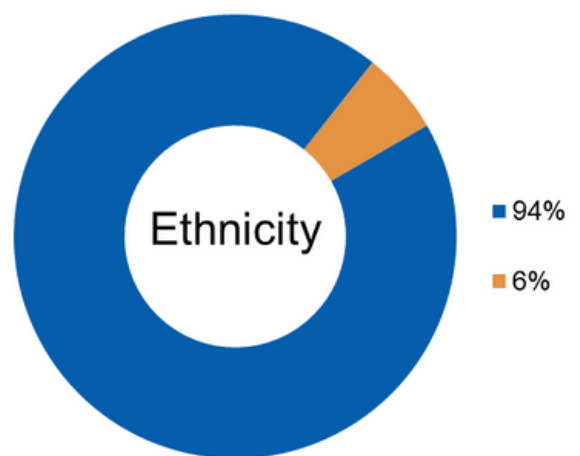
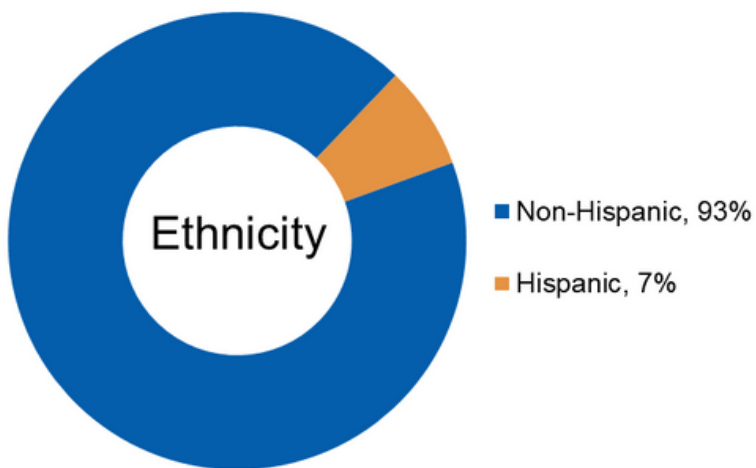
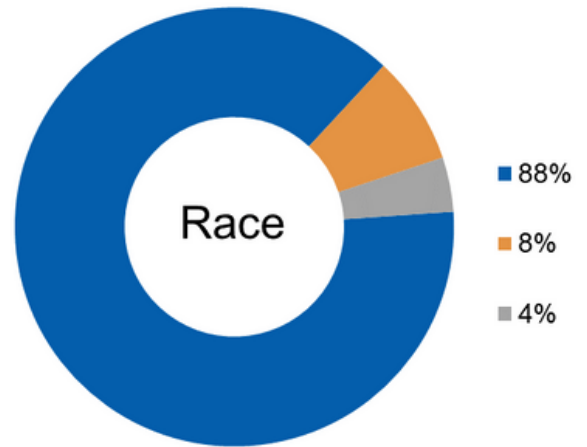
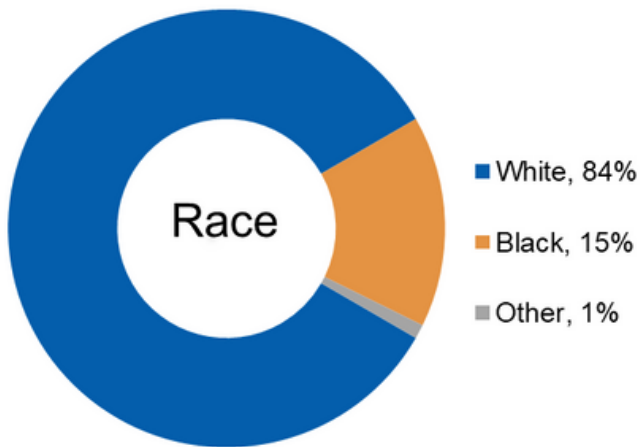
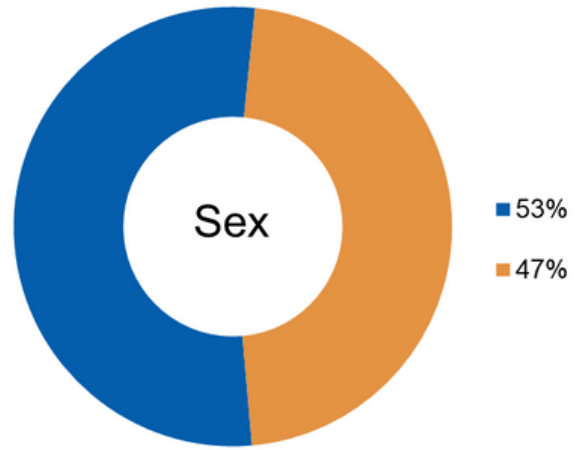
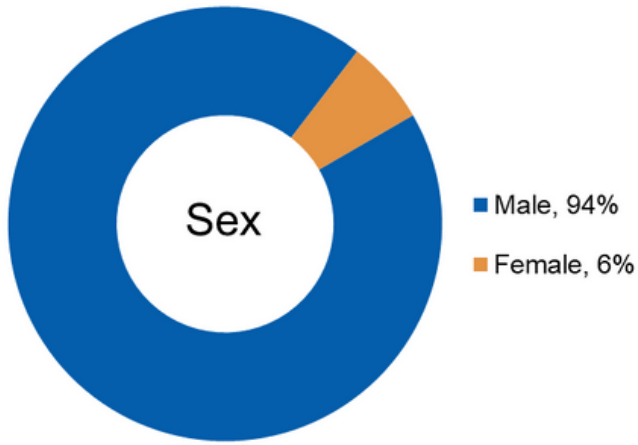
Civilian Labor Force in Kentucky (BLS, 2021)

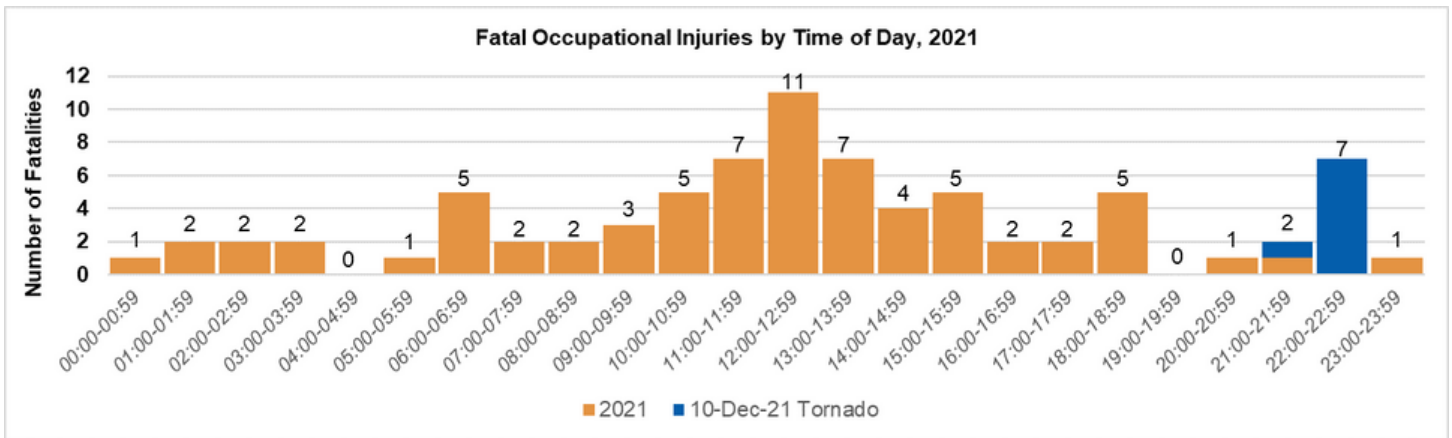
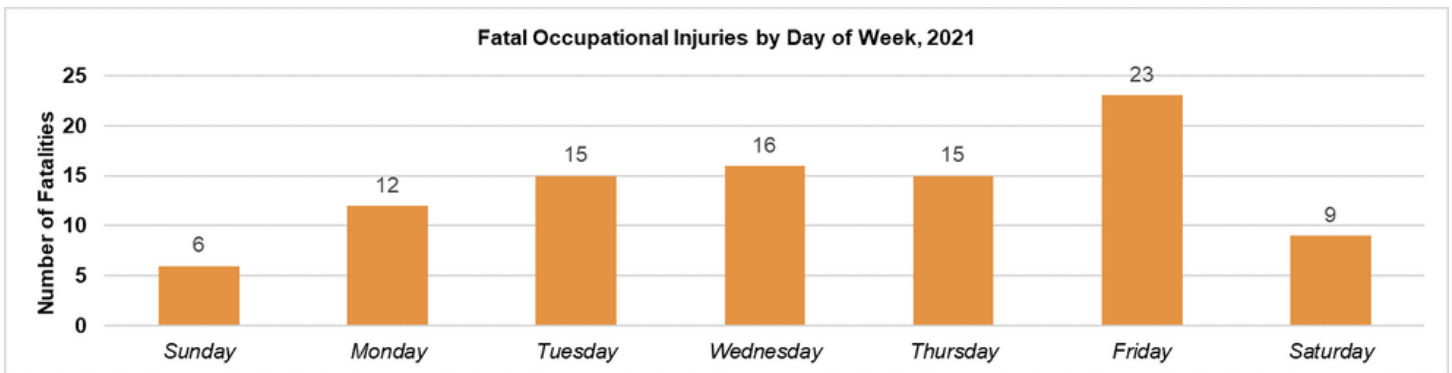
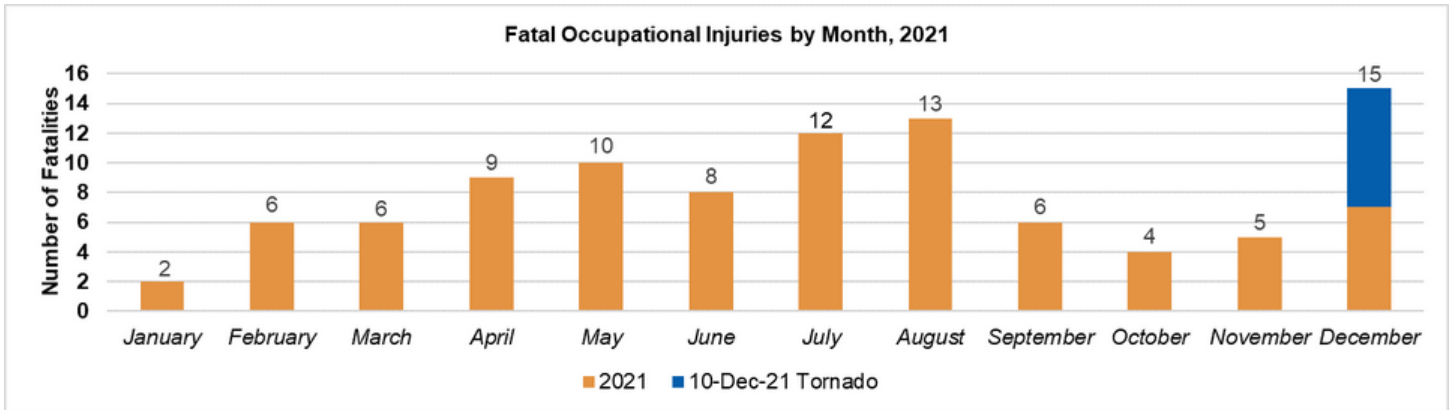
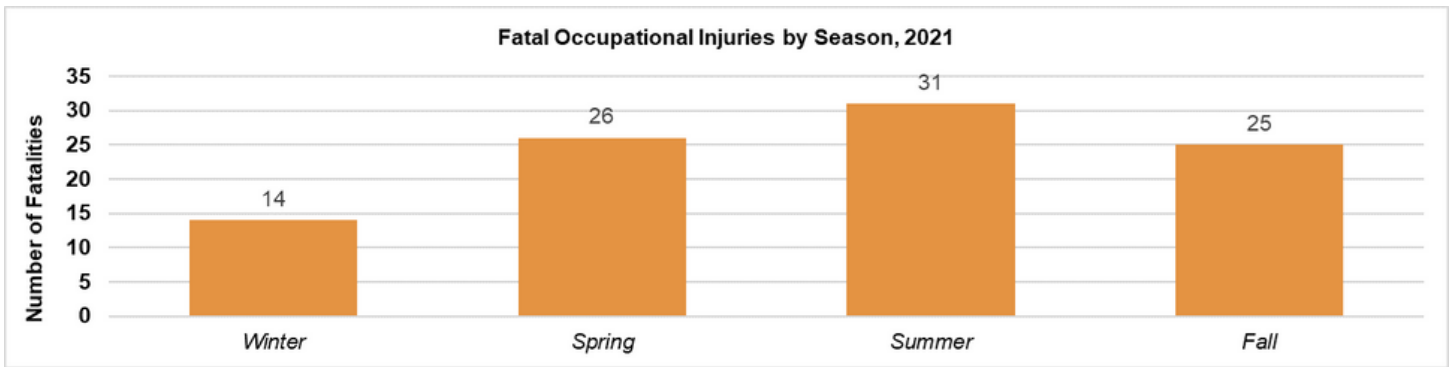


Note: Statewide education level chart displays data for the total Kentucky population 25 years and older. All other statewide data is restricted to the Kentucky Civilian Labor Force.

Demographics of Fatal Occupational Injuries, 2021
(96 total)

Civilian Labor Force in Kentucky
(BLS, 2021)

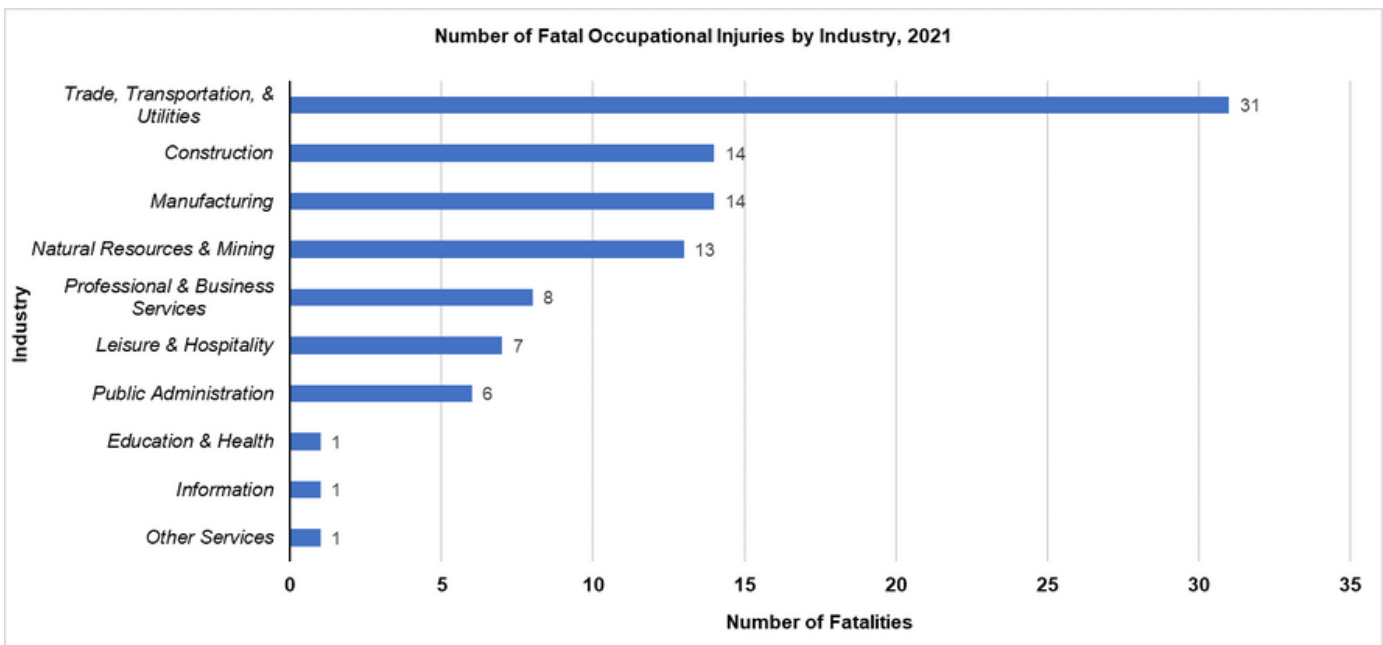
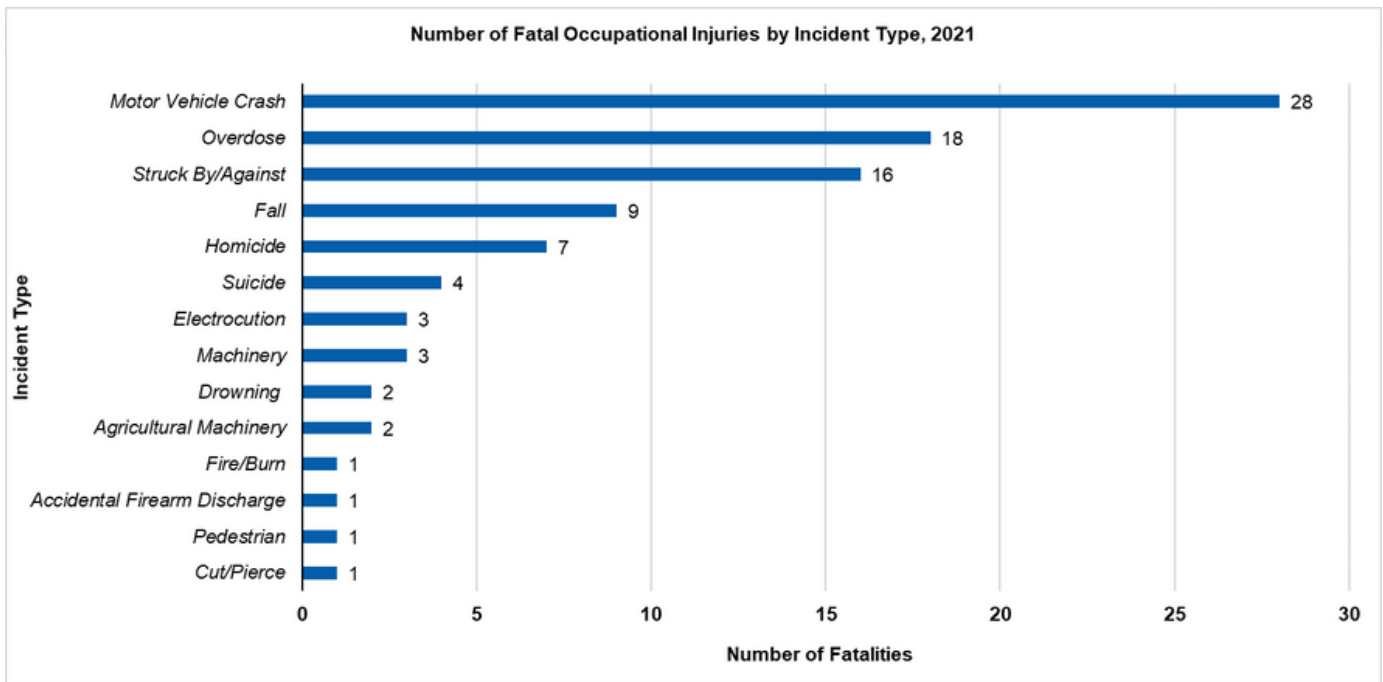




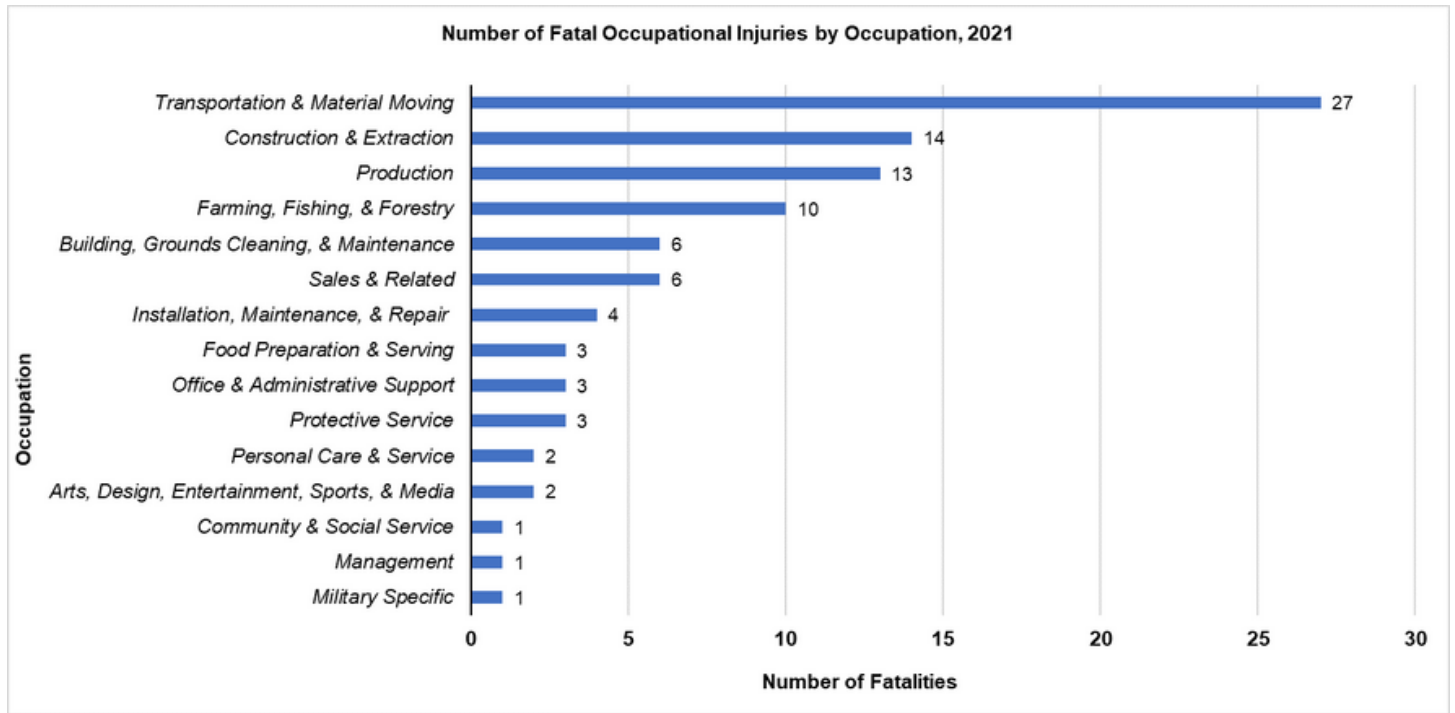
Note: Fatalities without a known time of incident are not included in the above chart.

Fatal Occupational Injuries by Incident Type & Industry

- Of the 96 occupational fatalities in Kentucky in 2021, 29% (n=28) were motor vehicle crashes (MVC). MVC fatalities accounted for a lower percentage of overall occupational fatalities than in 2020 (33%), 2019 (38%), and 2018 (37%).
- Overdose fatalities accounted for 19% (n=18) of total occupational fatalities in Kentucky in 2021. This represents a 64% increase in overdose fatalities from 2020 (n=11).
- Struck by/against events were the third leading cause of occupational fatalities in Kentucky in 2021, with 17% (n=16) of fatalities. Eight of the fatalities in this category were associated with a tornado in December 2021.
- The trade, transportation, and utilities industry accounted for the same percentage of occupational fatalities as in 2020, 29%.
- The construction and manufacturing industries each had 14 fatalities in 2021. Falls continue to be the leading cause of fatalities in the construction industry, with 43% of fatalities resulting from a fall. Half of the fatalities that occurred in the manufacturing industry were related to a tornado in December 2021.



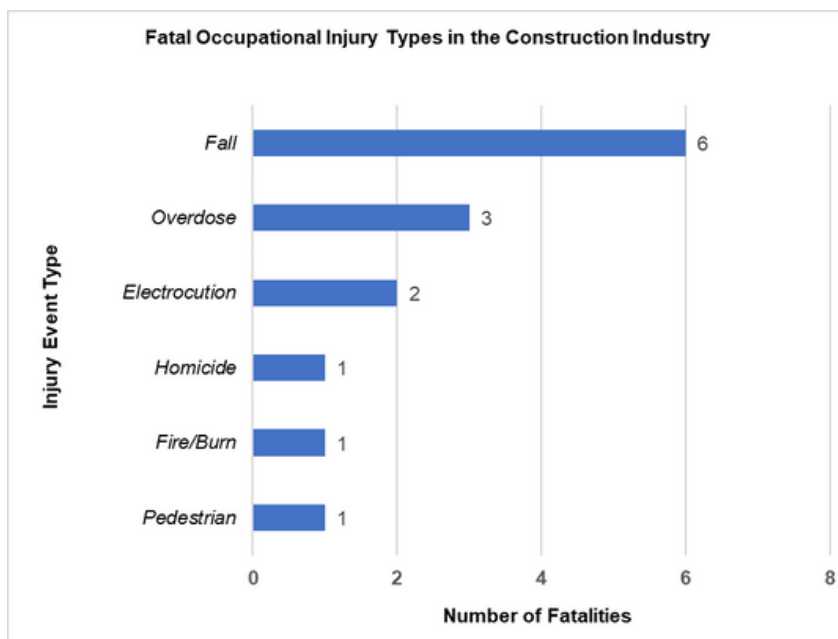
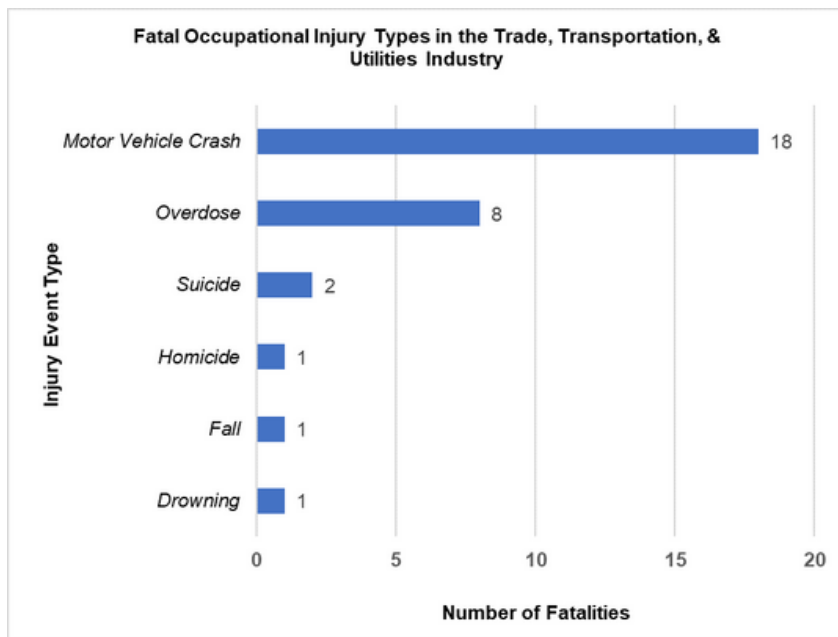
Fatal Occupational Injuries by Occupation



- Of the 27 fatal injuries in the transportation and material moving (TTM) occupations in 2021, 70% (n=19) died in a motor vehicle crash, 22% (n=6) died due to an overdose, and 7% died from suicide (n=2). Eighty-one percent (n=22) of the fatal injuries in the TTM occupations were among truck drivers.
- Thirty-six percent (n=5) of fatal injuries in the construction & extraction industry were due to falls, and 21% (n=3) were due to drug overdose.
- Fifty-four percent (n=7) of fatal injuries in the production industry were due to a tornado that caused a building collapse in December 2021.
- Of the 10 farming, fishing, and forestry fatalities in 2021, four were loggers. This represents a 43% decrease in occupational fatalities among loggers from 2020 (n=7).



Fatalities by Select Industries



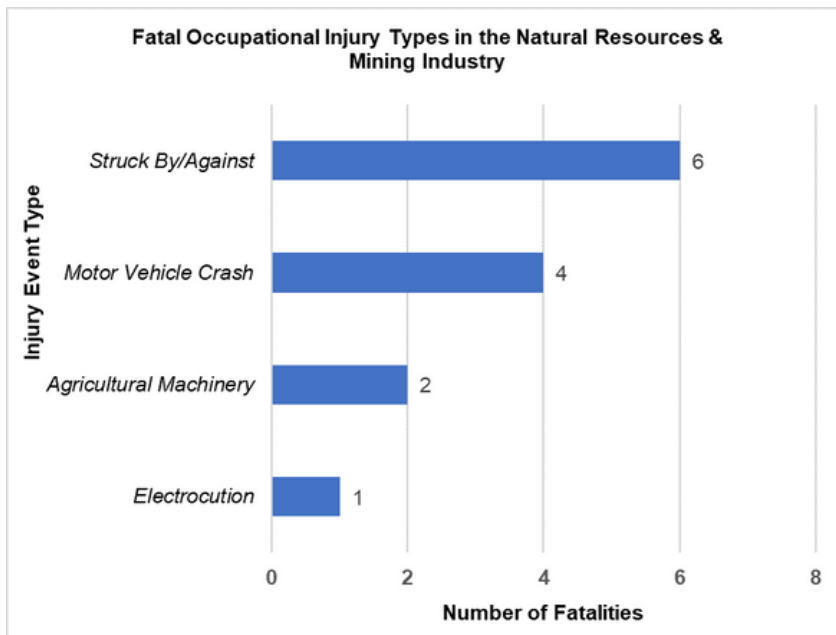
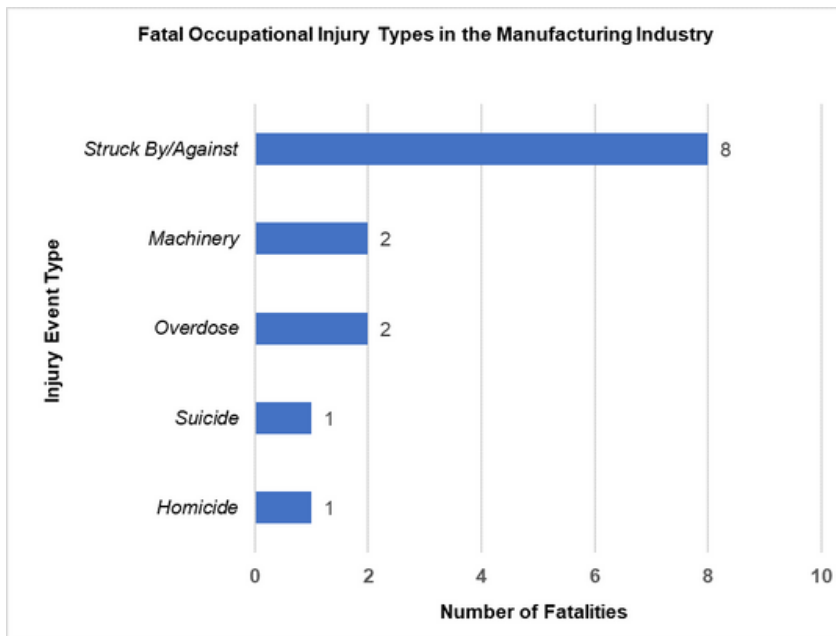
Trade, Transportation & Utilities

- The trade, transportation, and utilities industry accounted for 32% (n=31) of workplace fatalities in 2021, up from 29% (n=26) in 2020.
- Fifty-eight percent of cases in this industry involved truck drivers.
- Sixty-two percent of overdose cases in this industry involved truck drivers. Twenty-five percent were in the sales and related occupations and 13% in office and administrative support occupations.

Construction

- Fifteen percent (n=14) of workplace fatalities occurred in the construction industry in 2021. This percentage remains unchanged from 2020.
- Fifty-four percent of construction industry fatalities occurred in Jefferson County.

Fatalities by Select Industries (continued)



Manufacturing

- The manufacturing industry saw a decrease of 18% from 2020 (n=17), after experiencing a significant increase in the number of occupational fatalities of 183% from 2019 (n=6).
- Fifty percent (n=8) of the fatalities in the manufacturing industry were a result of a building collapse caused by a tornado.

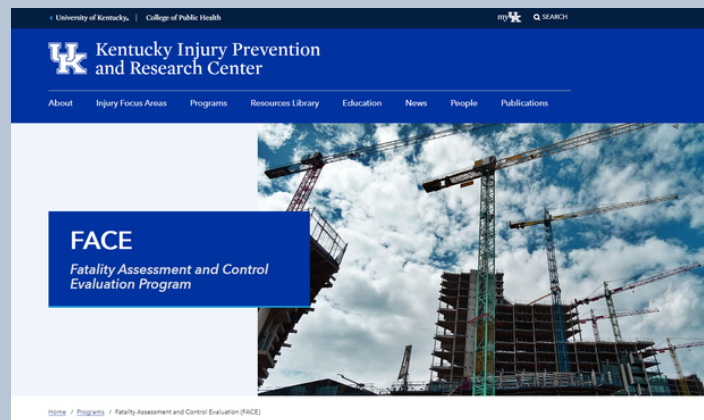
Natural Resources & Mining

- Fourteen percent (n=13) of occupational fatalities in 2021 occurred in the natural resources & mining. This percentage remains unchanged from 2020.
- In 2020, the average age of deceased workers in the natural resources and mining industry was significantly higher (58 years) than the average age of deceased workers from all other industries (44 years). In 2021, the average age of deceased workers in this industry was significantly younger at 45 years.

Investigation Program

On-site investigations of selected cases are conducted by a KY FACE investigator. Investigative reports are reviewed by professional safety experts and National Institute for Occupational Safety and Health (NIOSH) prior to publication. Investigative reports seek to identify root causes of fatal workplace incidents and provide targeted recommendations for workplace injury prevention. Five FACE investigation reports were published during 2021.

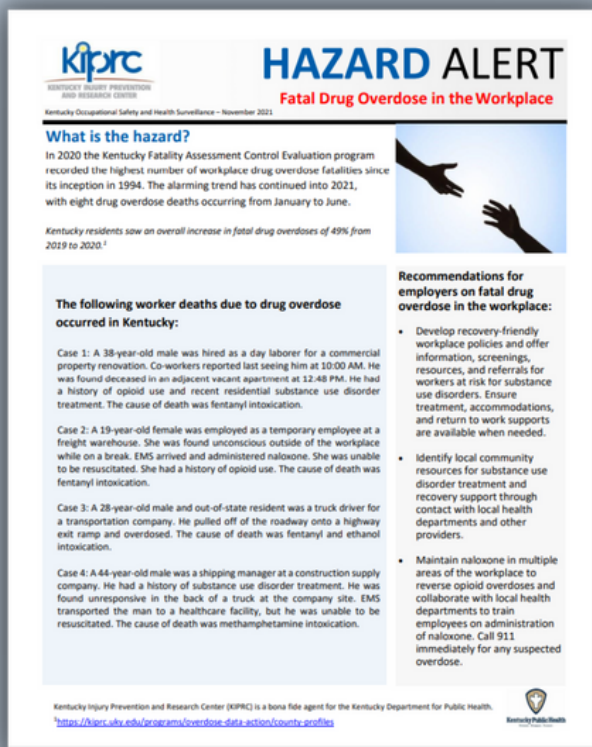
Full Reports



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

FACE Investigation Summaries

Case ID Number	20KY040	Industry	General Freight Trucking
Truck Driver Killed after Vehicle Rollaway A 52-year-old male died when he exited the semi-truck he was operating to remove debris from the front of the truck and it rolled forward, knocking him to the ground and coming to a rest on top of him.			
Case ID Number	20KY050	Industry	Rooming & Boarding Houses
Shelter Kitchen Manager Fatally Stabbed by Resident A 56-year-old female died after she was knocked to the ground and stabbed by a male utilizing the shelter services.			
Case ID Number	20KY065	Industry	Engineering Services
Field Technician Dies after Contacting Downed Power Line A 31-year-old male field technician died after he attempted to remove a downed power line that was entangled in a tree. As the worker was moving the line, it became energized and he was electrocuted.			
Case ID Number	20KY075	Industry	Manufacturing
Manufacturing Worker Dies by Suicide A 27-year-old worker died after he left his work station following a dispute with his domestic partner, who was also his co-worker. The worker went to his vehicle, where he died via self-inflicted gunshot.			
Case ID Number	21KY002	Industry	Manufacturing
Machinist Dies after Being Pulled into Manual Lathe A 54-year-old worker died after he attempted to reach the top of a moving lathe to retrieve an item. The worker's jacket sleeve became entangled in the lathe, pulling him into the machine.			



HAZARD ALERTS

The Kentucky Occupational Safety and Health Surveillance (KOSHS) Program produces Hazard Alerts based on trends observed in FACE data and investigations.

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

Fatal Drug Overdose in the Workplace

In 2020 the KY FACE Program recorded the highest number of workplace drug overdose fatalities since its inception in 1994. The alarming trend has continued, with 17 drug overdose deaths among workers occurring in 2021.

Electrocutions in the Construction Industry. From 2000–2019, 64 workers in Kentucky died by electrocution, accounting for 3.2% of all work–related fatalities in the state during that time. Of the 64 deaths, 25 (39%) occurred in the construction industry. Nationally, electrocution is one of construction’s ‘Fatal Four’ and accounted for 8.5% of the industry’s 1,008 fatalities in 2018.

Pedestrian Fatalities. From 1994–2014, Kentucky saw an average of four work–related pedestrian fatalities per year. From 2015–2019, the average number of work–related pedestrian fatalities rose to seven per year, an alarming 75% increase. The construction industry has seen the most pedestrian fatalities from 1994–2019 (27), followed by the transportation and warehousing industry (20).

SEVERE WEATHER RESPONSE AND RECOVERY

Eight worker deaths occurred in December 2021 when a tornado touched down in Graves County, Kentucky accounting for eight percent of total workplace fatalities in 2021. Severe weather is an ongoing risk to Kentucky workers. Eleven workers lost their lives to lightning, tornados, and floods while working in Kentucky from 1994 through 2020. A hazard alert was produced in January 2022 to provide employers with recommendations to prevent injury during and after severe weather.



KY Face Data Source

All data in 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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KY Face Social Media

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