Kentucky FACE Program

2020 Annual Report

About the Kentucky FACE Program

The Kentucky Fatality Assessment and Control Evaluation (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 of 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. Kentucky 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.

FACE would like to respectfully acknowledge 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 located in 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 (NIOSH) Cooperative Agreement Number 5U60OH008483-16.

Prepared by:
Terry Bunn, PhD
Michael Turner, MS
Madison Liford, MPH
Ashley Bush, DrPH

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For more detailed information concerning KY FACE

KY FACE Program,
Kentucky Injury Prevention and Research Center (KIPRC)

333 Waller Avenue
Suite 242
Lexington, KY 40504
TEL: (859) 257 - 4955
FAX: (859) 257 - 3909

KENTUCKY INJURY PREVENTION AND RESEARCH CENTER

https://kiprc.uky.edu/

Kentucky Public Health
Prevent. Promote. Protect.

Kentucky Worker Fatalities at a Glance

To create effective occupational injury prevention programs, it is important to look at where and how fatal injuries among workers occurred in Kentucky. Here is a brief snapshot of worker fatalities that occurred from January 1, 2020 through December 31, 2020.

How many workers died from injuries in 2020?

While working in Kentucky in 2020, 89 residents from Kentucky, Illinois, Indiana, Missouri, Mississippi, New Mexico, Ohio, Pennsylvania, Tennessee, West Virginia, and Mexico died. November was the deadliest month for workers in Kentucky, with 15% of fatalities in 2020 (13 deaths).

Leading Causes of Death

- Motor Vehicle Collision (33%)
- Struck by Object (13%)
- Drug Poisoning (12%)
- Falls (10%)

Leading Industries and Occupations

- Trade, Transportation, and Utilities (26 deaths)
  - 58% of cases in this industry involved truck drivers
- Natural Resources and Mining (17 deaths)
  - 47% of cases in this industry were farmers.
  - 41% of cases in this industry were loggers.
- Manufacturing (17 deaths)
- Construction Industry (12 deaths)

Incidents by County

- Jefferson (13%). Jefferson County is the location of the state's largest city, Louisville, and contains 17% of the state's population.
- Fayette (6%). Fayette County is the second largest county in the state.
- The remaining fatalities (81%) are distributed across 48 of Kentucky's 120 counties, with no more than four fatal incidents in any one county.

Note: All data is preliminary and subject to change based on the availability of new or corrected information.

Fatal Occupational Injury Rate

- In 2019, the Kentucky fatal occupational injury rate was 4.2 deaths per 100,000 workers, a decrease from 4.4 deaths per 100,000 workers in 2018.*
- In 2019, Kentucky's fatal occupational injury rate of 4.2 deaths per 100,000 full-time employees was 20% higher than the national rate of 3.5 deaths per 100,000 full-time employees.**

*Rates for 2019 were provided by the Bureau of Labor Statistics.
**Rates for 2020 were not available at the time of this report.

Demographics

In Kentucky, 89 workers died as a result of work-related injuries in 2020. The following lists the demographic profile of this group.

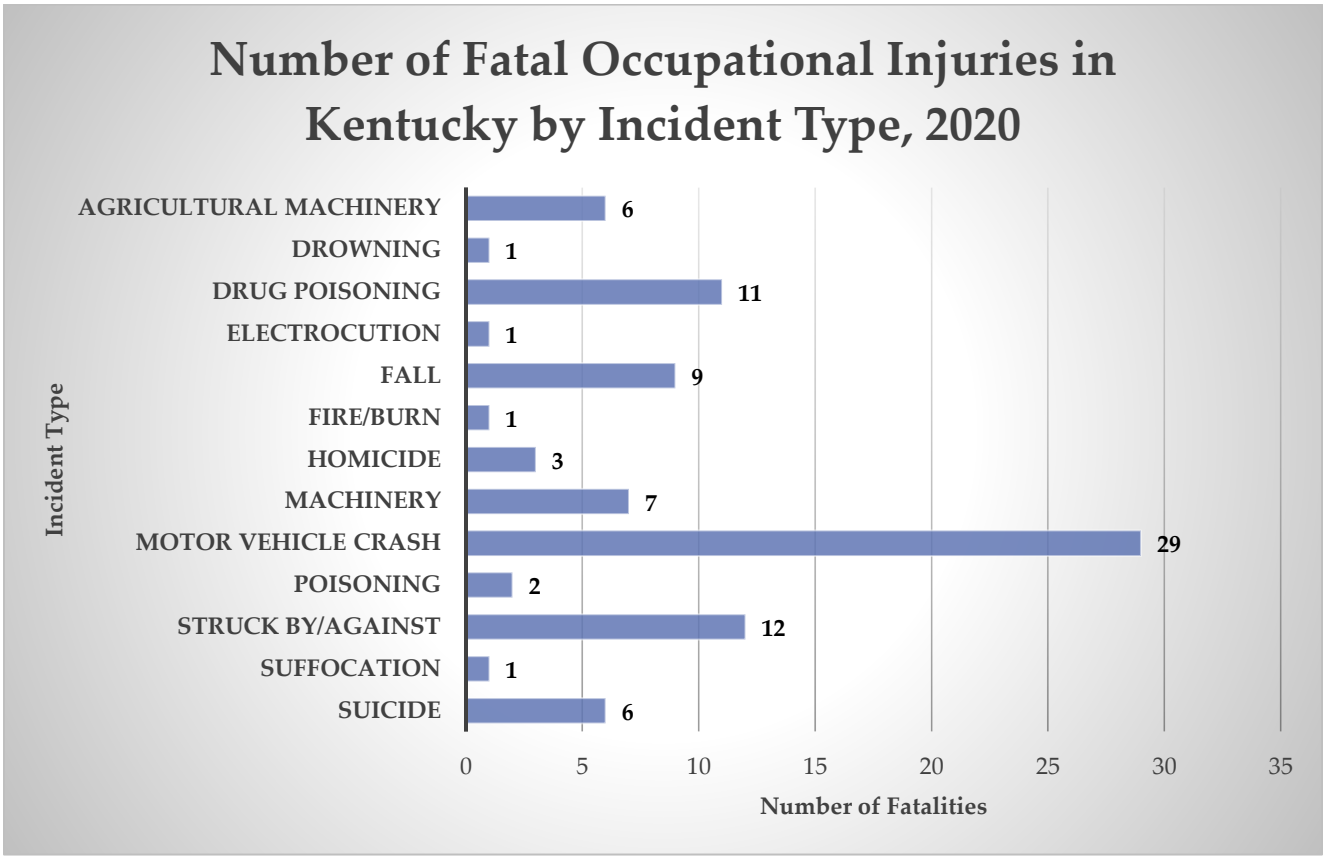
Table 1: Demographics of Kentucky Fatal Work-Related Injuries, 2020

Characteristics		Number	Percentage of total fatalities*
Sex	Male	83	93%
	Female	6	7%
Race	White	84	94%
	Black	1	1%
	Other/Unknown	4	5%
Age	16-19	2	2%
	20-29	7	8%
	30-39	24	27%
	40-49	18	20%
	50-59	17	19%
	60-69	16	18%
	70+	5	6%
Marital Status	Married	42	47%
	Divorced/Separated	17	19%
	Never Married	27	30%
	Widowed	3	3%
Education	8th Grade or Less	8	9%
	Some High School	9	10%
	High School Graduate/GED	48	54%
	Some College	10	11%
	College and Beyond (AA+)	11	12%
	Unknown	3	3%
Country of Origin	United States	84	94%
	Mexico	2	2%
	Other	3	3%
Ethnicity	Not Hispanic or Latino	85	96%
	Hispanic or Latino	4	4%
State of Residence	Kentucky	65	73%
	Indiana	6	7%
	Ohio	6	7%
	Illinois	3	3%
	Tennessee	3	3%
	Other/Unknown	6	7%

Produced by the Kentucky Injury Prevention and Research Center as bona fide agent for the Kentucky Department for Public Health.
June 2021. Data source: Kentucky FACE Database.

Worker Deaths by Incident Type

Figure 1



Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. June 2021. Data source: Kentucky FACE Database.

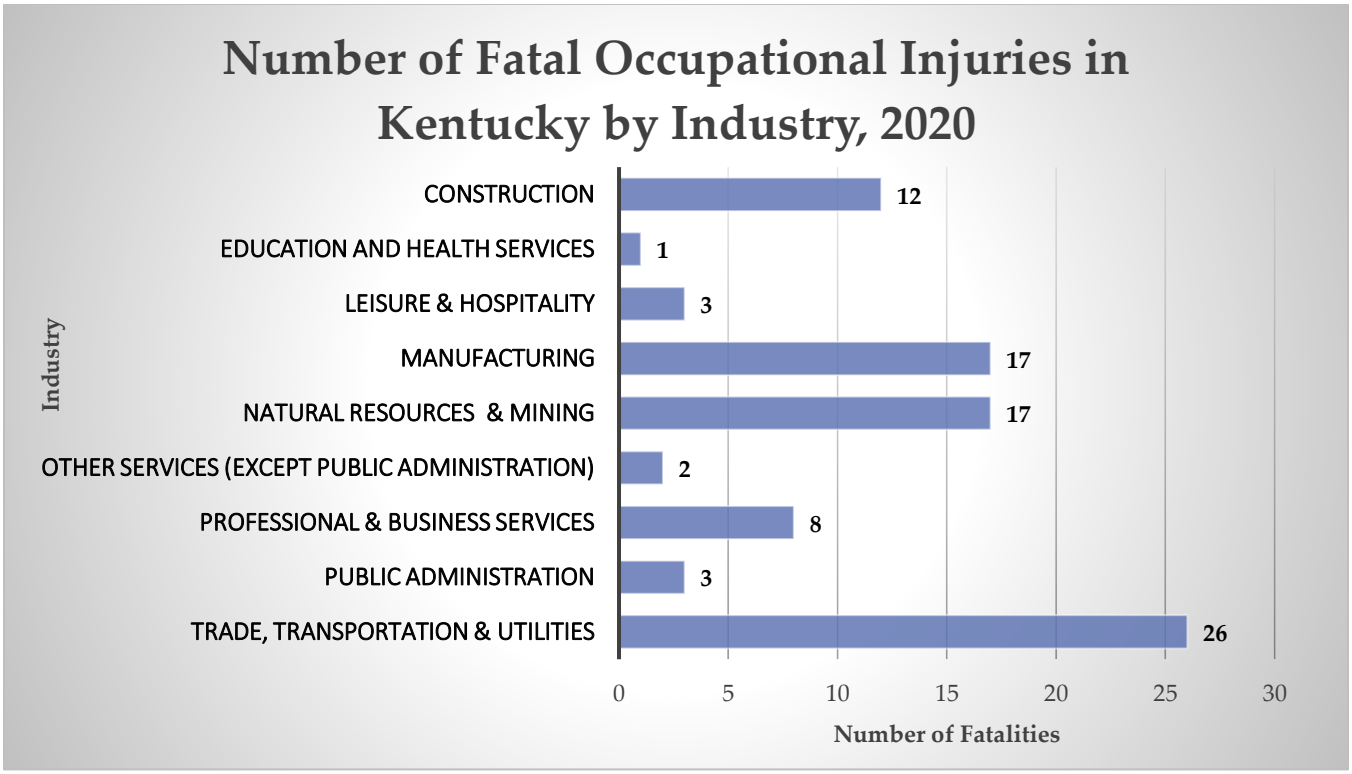
Highlights:

- Of the 89 occupational fatalities in Kentucky in 2020, 33% (n=29) were motor vehicle crashes (MVC) (Figure 1). This is similar to the number of occupational MVC fatalities observed in 2019 (n=30) and 2018 (n=32).
- Of the 29 MVC deaths, 55% (n=16) were operating a commercial motor vehicle at the time of the crash. Twenty-four percent (n=7) were operating a pickup truck, box truck, or van at the time of the crash.
- Struck by/against incidents represent 13% (n=12) of all occupational fatalities in Kentucky in 2020. Fifty percent (n=6) of struck by/against fatalities involved loggers or tree trimmers being struck while felling trees. According to the Bureau of Labor Statistics, logging workers have a fatal injury rate that is more than 30 times higher than the all-worker rate[1].
- After an elevated number of fatalities involving motor vehicles vs. pedestrians, the Kentucky FACE Program released a hazard alert, *Pedestrian Fatalities*. In 2020, the number of pedestrian fatalities dropped 50% from 2019 (n=10) to 2020 (n=5).

- Occupational fatalities due to accidental drug poisoning saw an 83% increase from 2019 (n=6) to 2020 (n=11).
    - Of the 11 drug poisoning deaths, three were employed in the trade, transportation, and utilities industry; three were employed in the professional and business services industry; two were employed in the construction industry; two were employed in the manufacturing industry; and one was employed in the leisure and hospitality industry.
- FACE works with county coroners to obtain toxicology testing results for workplace fatalities when available. In 2020, 67 decedents received post-mortem toxicology exams, 54 of which were received by FACE staff.
    - Of the 54 toxicology reports received, 52% (n=28) tested positive for alcohol or drugs at the time of death. The remaining 26 decedents tested negative for drugs or alcohol.
    - Of the 28 employees who tested positive for drugs or alcohol at the time of death, eight were employed in the trade, transportation, and utilities industry; six were employed in the manufacturing industry; five were employed in the construction industry; four were employed in the professional and business services industry; three were employed in the natural resources and mining industry; one was employed in the leisure and hospitality industry; and one was employed in the other services industry.
    - Substances detected in post-mortem toxicologies include alprazolam, diazepam, nordazepam, hydrocodone, amphetmaines, methamphetamine, oxycodone, oxymorphone, buprenorphine, norbuprenorphine, paroxetine, cocaine, THC, ethanol, fentanyl, norfentanyl, 4-ANPP, acetylfentanyl, methadone, benzoylecgonine, hydromorphone, tramadol, and O-Desmethyltramadol.
- Deaths by suicide in the workplace rose from two in 2019 to six in 2020, a 200% increase. Three of the six suicide deaths were in the trade, transportation, and utilities industry; two of the suicide deaths were in the manufacturing industry; the remaining suicide was in the education and health services industry.
- Of the nine fall fatalities presented in Figure 1, four were employed in the construction industry. This represents a 33% decrease in fatal construction falls when compared to 2019 (n=6). Falls remain the leading cause of death in the construction industry nationwide[2].

Fatal Injuries at Work by Industry

Figure 2



Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. June 2021. Data source: Kentucky FACE Database.

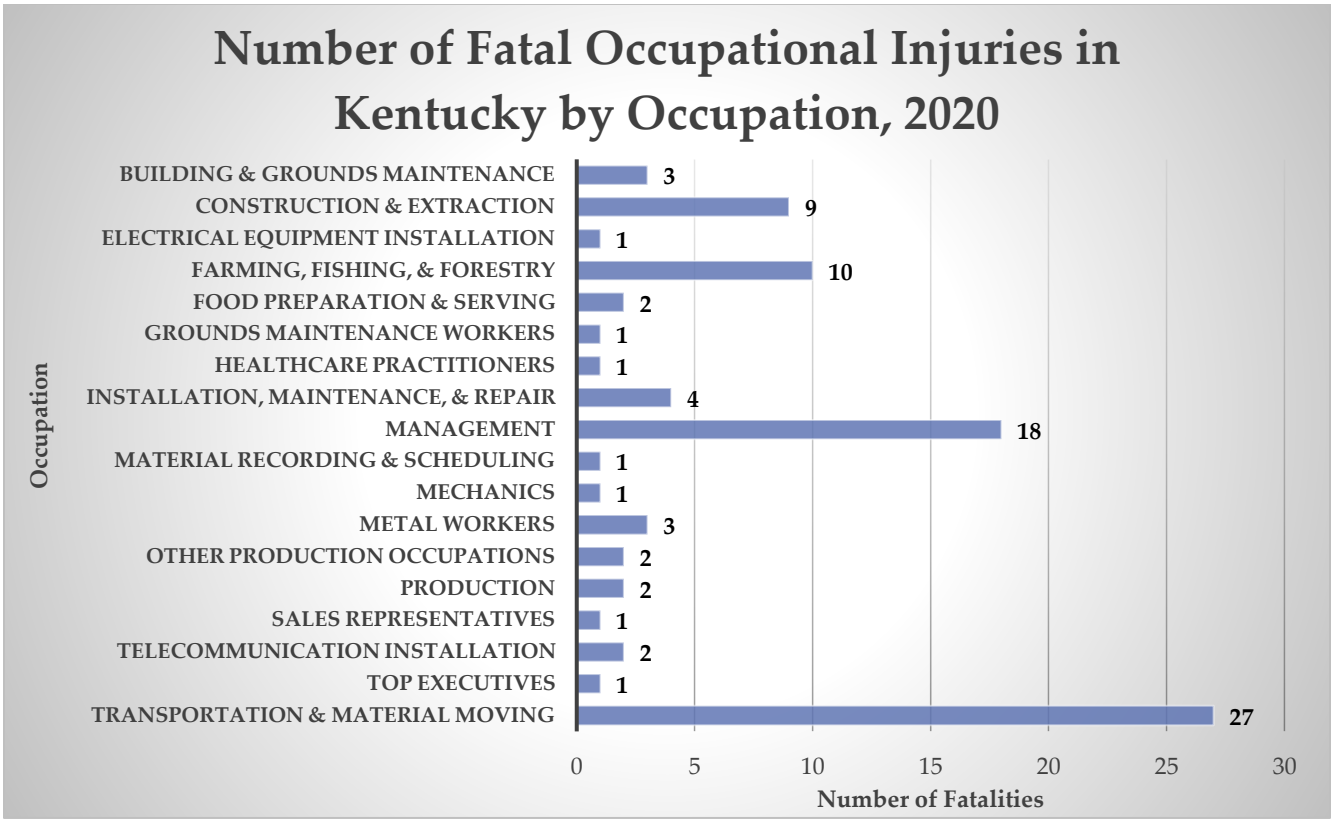
Highlights:

- The trade, transportation and utilities industry accounted for 29% (n=26) in 2020. This number remains unchanged from 2019 and up slightly from 2018 (n=25). The upward trend of fatalities in this industry continues. The average of trade, transportation, and utilities workers killed on the job from 2018-2020 was 25.6 – an increase of 71% over the three prior years of 2015-2017 (mean=15).
    - Of the 26 fatalities in this industry, 14 were semi-truck company drivers (n=11) or owners-operators (n=3).
    - The Kentucky FACE program has completed a number of investigation reports concerning trucking and truck drivers.
- The manufacturing industry saw a dramatic increase of 183% from 2019 (n=6) to 2020 (n=17).
    - Of the 17 fatalities, five were MVC. Of the five MVC, four victims were operating commercial motor vehicles at the time of their death.
    - The remaining 12 fatalities were workers employed in a wide array of positions, including machinist, maintenance technician, shipping clerk, and factory laborer.

- The natural resources and mining industry continues to be a dangerous occupation for Kentucky's older workers in 2020, with the average age of the industry's 17 decedents being 58 years; the average decedent age for all other industries was 44 years. Farmers included in this industry (n=7) had an average age of 68 years.
- Fatalities in the construction industry fell from 15 in 2019 to 12 in 2020, a decrease of 20%. Nine of the twelve fatalities were in commercial construction; the remaining three were in residential construction.
    - Of the 12 fatalities, 42% (n=5) of decedents died with drugs or alcohol in their system. A study performed by New York University found that construction workers are the most likely of all occupations to use cocaine and misuse prescription opioids[3].

Fatal Injuries at Work by Occupation

Figure 3



Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. June 2021. Data source: Kentucky FACE Database.

Highlights:

- Of the 27 fatal injuries in the transportation and material moving occupations in 2020, 63% (n=17) died in a MVC.
- The 18 fatal injuries in management occupations occurred in a variety of industries, including 5 farm owners. The leading cause of death for management occupations was contact with agricultural machinery (n=5) followed by MVC (n=3)
- Of the 10 farming, fishing, and forestry fatalities in 2020, 7 were loggers. This represents a 133% increase from the number of logger deaths in 2019 (n=3).

Investigation Program

FACE completed eight investigations of selected occupational fatalities from July 1, 2020 to June 30, 2021. Each report begins with a case summary and provides recommendations for preventing future similar incidents. Our reports do not determine fault or blame. We do not use personal identifiers in our reports or identify the names of companies.

FACE investigations are listed below. For the complete report, visit https://kiprc.uky.edu/

Case ID	Title	Category
20KY006	Farmworker Dies in Grain Bin Engulfment. A 44-year-old farmworker died after he entered a grain bin to dislodge corn that had bridged near the top of the bin. The corn collapsed while the worker was on top of it and engulfed him.	Grain Bin Engulfment
20KY010	Semi-Truck Driver Dies in Single Vehicle Collision After Truck Overturns. A 52-year-old commercial truck driver veered off the roadway, causing him to overcorrect as he approached an overpass. The truck struck a guardrail and overturned.	MVC
20KY030	Dump Truck Driver Dies in Multi-Vehicle Collision after Truck Overturns. A 67-year-old male dump truck driver died after a passenger vehicle merged into his lane, causing him to strike another vehicle and overturn.	MVC
20KY040	Truck Driver Killer 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 rest on top of him.	MVC
20KY050	Shelter Kitchen Manager Fatally Stabbed by Resident. A 56-year-old female died after she was knocked to the ground and stabbed to death by a male utilizing the shelter services.	Homicide
20KY065	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.	Electrocution
20KY071	Manufacturing Worker Dies by Suicide. A 27-year-old worker died after he left his work station following a dispute with his dometic partner, who was also his co-worker. The worker went to his vehicle where he died via self-inflicted gunshot wound.	Suicide
21KY002	Manufacturing Worker Dies after Being Pulled into 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.	Caught in/between

Kentucky Hazard Alerts

The Kentucky Occupational Safety and Health Program produced three Hazard Alerts based on Kentucky FACE investigations and data between July 1, 2020 and June 30, 2021:

- Women as Victims of Workplace Violence. In Kentucky, from 1998-2018, 33 female workers were victims of homicide in the workplace, accounting for 22% of all workplace fatalities involving women. By comparison, homicides of male workers made up only 5% of workplace fatalities in the same time period. In Kentucky, homicides are the second highest cause of workplace deaths for women, second only to motor vehicle crashes.
- 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 the construction's 'Fatal Four', and accounted for 8.5% of the industry's 1008 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).

Hazard Alerts can be accessed at the KIPRC website: https://kiprc.uky.edu/programs/fatality-assessment-and-control-evaluation-face/hazard-alerts.

Kentucky FACE Social Media

Kentucky FACE maintains a presence on Social Media, enabling us to share references and links to occupational injury prevention materials and sources. Please visit us:

@KYFACEProgram

@KYFACEProgram

Kentucky FACE Data Source

All data in this report was produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. June 2021. Data source: Kentucky FACE Database. The Kentucky FACE Database collects occupational fatality data from multiple surveillance data sources.

Survey

Please click here to take a brief, anonymous survey. Your feedback helps us to improve future output.

References

[1] Jill Janocha and Caleb Hopler, "The facts of the faller: Occupational injuries, illnesses, and fatalities to loggers 2006–2015," Beyond the Numbers: Workplace Injuries, vol. 7, no. 5 (U.S. Bureau of Labor Statistics, April 2018), https://www.bls.gov/opub/btn/volume-7/the-facts-of-the-faller-occupational-injuries-illnesses-and-fatalities-to-loggers-2006-2015.htm.

[2] Commonly Used Statistics | Occupational Safety and Health Administration. (2020). OSHA.gov. https://www.osha.gov/data/commonstats.

[3] Danielle C. Ompad, Robyn R. Gershon, Simon Sandh, Patricia Acosta, Joseph J. Palamar. Construction trade and extraction workers: A population at high risk for drug use in the United States, 2005-2014. Drug and Alcohol Dependence, 2019; 107640 DOI: 10.1016/j.drugalcdep.2019.107640