

# Kentucky FACE Program

*2013 Annual Report*

## *About the Kentucky FACE Program*

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, the work environment, the energy exchange resulting in fatal injury, and the role of management, engineering, and behavioral changes in preventing future injuries. KY FACE investigators evaluate information from multiple sources including 1) interviews of employers, coworkers, witnesses and other investigators; 2) examination of the work site and equipment; 3) review of Occupational Safety and Health Administration (OSHA) reports, police reports, and medical examiner reports; and 4) employer safety procedures. The FACE program does not seek to determine fault or place blame on companies or individual workers. Findings are summarized in narrative reports that include recommendations for preventing similar events in the future.

\*Organizationally, KIPRC is located in the University of Kentucky College of Public Health and is a bona fide agent of the Kentucky Department for Public Health (KDPH). Funding for the KY FACE Program is provided by the National Institute for Occupational Safety and Health (NIOSH) Cooperative Agreement Number 5U60OH008483-09.

For more  
detailed  
information  
concerning KY  
FACE



Terry Bunn, PhD

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 Worker Fatalities at a Glance

To create effective injury prevention programs, it's important to look at where and how fatal injuries among workers occur in Kentucky. Here is a brief snapshot of worker fatalities that occurred from January 1, 2013 through December 30, 2013.

### How many workers died from injuries in 2013?

While working in Kentucky this year, 80 residents from Arkansas, Georgia, Illinois, Kentucky, Michigan, Mississippi, New York, Ohio, Tennessee, Texas, Virginia and West Virginia died on the job.

#### What were the leading causes?

- Motor vehicle collision (18)
- Fall (11)
- Struck by (8)
- Agriculture Machine (8)
- Homicide (6)
- Machine (4)
- Electrocution (4)

#### Who was at the highest risk?

- Transportation workers (23)
- Construction workers (14)
- Farmers (9)
- Building and grounds/cleaning workers (6)
- Production workers (5)

#### Deaths by County

- Daviess (4)
- Fayette (4)
- Jefferson (4)
- Clay (3)
- Nelson (3)
- The remainder of fatalities is spread across 49 of Kentucky's 120 counties, with no more than two deaths per county.

#### Fatal Occupational Injury rate for 2013

In 2013, the Kentucky rate of fatal occupational injury decreased 10% from 4.6 deaths per 100,000 workers (2012) to 4.2 deaths per 100,000 workers (2013). However, the 2013 Kentucky rate of fatal occupational injury is 24% above the 2012 U.S. rate of 3.4 deaths per 100,000 workers.



## Demographics

In Kentucky, 80 workers died as a result of work-related injuries. The following lists the demographic profile of this group.

Table 1: Demographics of Kentucky Work-Related Injuries, 2013

Characteristics		Number	Percent of 80 fatalities
Sex	Male	75	94%
	Female	5	6%
Race	White	73	91%
	Other	7	9%
Age	20 - 29	13	16%
	30 - 39	17	21%
	40 - 49	12	15%
	50 - 59	22	28%
	60 - 69	9	11%
	70 - 79	4	5%
	80 - 89	3	4%
Marital Status	Married	55	69%
	Never Married	10	13%
	Widowed	2	2%
	Divorced	11	14%
	Unknown	2	2%
Education	Less than High School	6	7%
	Some High School	9	11%
	Finished High School	34	43%
	Some College	16	20%
	College Graduate	5	6%
	Unknown	10	13%
Country of Origin	United States	72	90%
	Mexico	3	4%
	Other	5	6%
Primary Language	English	72	90%
	Spanish	4	5%
	Other	4	5%
State of Residence	Kentucky	66	82%
	Other	14	18%



## Investigation Program

The Kentucky FACE Program completed 8 investigations of selected occupational fatalities from July 1, 2013 to June 30, 2014. For more detailed descriptions of each case, see the KIPRC website at: <http://www.mc.uky.edu/kiprc/projects/KOSHS/index.html>

### [Truck Driver Dies When Tractor-Trailer Leaves The Road And Plunges Into A Creek-Bed \(13-KT-039\)](#)

In the early morning hours of a fall day, exact time unknown and the length of time driving unknown, a 28-year-old male truck driver was driving north on an interstate transporting 30,000 lbs. of blue plastic injection molding pellets. The truck driver exited the highway behind a guardrail and traveled 1,320 feet, striking a wire fence and several trees before plummeting into a creek bed, shearing the cab open. At 10:27 a.m., a citizen called the fire department to report a mysterious blue substance observed in the creek a couple of miles down from the accident. The fire department arrived on scene, followed the creek and found the semi in the creek. The driver was extricated by mechanical means by the fire department and declared dead at the scene by the coroner's office.

*To prevent future occurrences of similar incidents, the following recommendations have been made:*

- Semi tractor-trailer drivers should routinely receive refresher training to recognize signs of fatigue and drowsiness and when to seek appropriate rest periods.
- Never turn off your airbags while driving a tractor-trailer.
- Motor carriers need to monitor their drivers' driving records for key violations that indicate a future crash is likely.
- Motor carriers should consider regular online safety training that allows drivers the flexibility to complete course(s) at times convenient to their busy schedules.

### [A Metal Fabrication and Finishing Foreman Dies after 25 Foot Fall at a Commercial Building Site \(13KY042\)](#)

On a fall Wednesday afternoon at 3:00 pm, a 53-year-old male fabrication and finishing foreman was installing sheets of insulation prior to decking on a commercial building. The foreman was standing at the edge of the decking on roof beams, arguing with an excavation contractor about the movement of his loader to complete grading work. Witnesses say the foreman was distracted when he told the other workers to spread the "itchy" (meaning rolls of fiberglass insulation). When the foreman took a step forward as he usually did, he fell off the edge and died of head and neck injuries.

*To prevent future occurrences of similar incidents, the following recommendations have been made:*

- Employers should always ensure employees have access to tie off when working in high areas, allowing employees to remain tied off at all times.
- General Contractors should coordinate and stagger various subcontractors' work to prevent creation of additional hazards, conflict and obstructions.
- Employers should be sure safety training is given to each new hire prior to working.
- Employers should implement and enforce a written safety policy which states the consequences of not following their personal fall arrest policy.
- General contractors should ensure through contract language that all subcontractors implement and enforce appropriate safety and health programs and training specific to the work to be performed.



### Grain Truck Driver Killed at Train Crossing (13KY046)

On a clear fall Wednesday afternoon, at 3:45 p.m., a 69 year-old driver of a semi-trailer loaded with soybeans was killed when he turned off a two lane state highway and into a farm driveway, directly into the path of an oncoming freight train. The train and truck were both travelling west on parallel pathways; the truck driver was struck on the blind spot of his cab's passenger side by the train. The truck driver was not wearing his seatbelt and was ejected from the cab. The train finally came to a stop at the next intersection, approximately a half a mile down the tracks.

To prevent future occurrences of similar incidents, the following recommendations have been made:

- When approaching train tracks, truck drivers and farmers should obey all traffic guidelines and regulations pertaining to railroad track crossings.
- Drivers should always wear seat belts while operating any vehicle.
- Crossings should be marked and guard arms installed at all crossings.
- Truck drivers and farmers should consider attending an "Operation Lifesaver" education program in communities where railroad traffic is present.

### Roofer Dies After Gust of Wind Knocks Him And Co-worker off Roof (13KY059)

Around 11:00 a.m. on a windy fall day, a 73-year-old roofer and a roofing coworker arrived at the commercial construction site to roof a newly constructed building. The two roofers climbed an extension ladder to access the roof to determine where they were going to place their anchors to tie off. While reviewing the backside of the commercial structure, a gust of wind around 33 m.p.h. made the two roofers lose their balance and fall from the roof. The 73-year-old roofer landed first and the second roofer landed on top of him. Both men fell 15 feet and 6 inches and landed on a sloped grassy area.

To prevent future occurrences of similar incidents, the following recommendations have been made:

- Employers should not allow their roofers to access roofing areas in times of windy, wet, or icy conditions to prevent falls.
- A roofer should use a personal fall protection system during all phases of a roofing job.
- Employers should have a written fall protection program in place and should fully plan their fall protection system before it is used.

### Auto Technician Mistakes Handicapped-Accessible Accelerator Pedal for Brake Pedal and Fatally Pins Co-Worker (14KY001)

Monday, January 6, 2014, a 50-year-old master technician and married father was sitting at his desk in the service bay area of a dealership, with his back to the service area, when an auto technician mistook a handicapped-accessible accelerator pedal for the brake pedal causing a Lincoln MKX to travel forward. The vehicle struck the desk chair the victim was sitting in and knocked him into the desk. The co-worker driving the MKX tried to steer to the right when he realized what was occurring, but was unable to avoid striking the victim. The co-worker exited the vehicle and yelled for someone to call 911.

To prevent future occurrences of similar incidents, the following recommendations have been made:

- Based on manufacturer's recommendations, service technicians should detach unfamiliar handicapped accessible equipment if untrained to use the special equipment before operating the vehicle.
- Administrative duties should be performed in an area away from or barricaded from contact with vehicles being serviced.

## Kentucky FACE Program



### Construction Flagger Struck and Killed in Work Zone (14KY002)

On a clear, cold, Monday, January 20, 2014, a 36-year-old married flagger, entered a two-lane highway with his back toward oncoming traffic and was struck by a 2010 red Toyota Corolla, driven by a 53 year-old motorist. The seven-man crew had finished setting up a construction zone on a two-lane highway to repair damaged guardrails along the westbound side of the roadway. The crew had placed alert signs in each direction of travel in preparation to stop all traffic prior to completely closing the westbound lane and had just dropped off the victim, who was designated as the flagger for the eastbound traffic. Traffic flow was to be coordinated with flaggers by two-way radios. Witnesses stated that the victim walked out into the eastbound lane with his back to oncoming traffic while facing the other flagger, and the lane of traffic he stepped into had not yet been stopped. The victim was struck from behind by a passenger vehicle traveling approximately 55 mph. Police interviews with the driver stated that his vision was obscured due to the glare of the sun through his windshield and he did not see the victim.

To prevent future occurrences of similar incidents, the following recommendations have been made:

- Flaggers should never enter the roadway before traffic has been stopped and never turn their backs towards oncoming traffic.
- Operators of motor vehicles should always adhere to roadway warning signage by slowing down and paying close attention while in a work zone area.
- Employers should train employees quarterly to keep flagging safety policies and procedures fresh in their minds while working in highway situations.

### Tanker Truck Involved in Deadly Crash on Interstate (14KY007)

February 17, 2014, on a cloudy Monday, around 4:40 p.m., a 40 year-old male tanker truck driver (victim) was driving down a straight level 3-lane interstate headed north bound to a neighboring state going approximately 70 m.p.h., to deliver his 45,000 lbs. of liquid sodium sulfate, when he came upon a slow moving vehicle in the right lane. The victim swerved to the left to avoid the vehicle and his 2001 Kenworth tractor trailer left the road. The victim then overcorrected and his semi flipped, landing on its top in the right side of the roadway in a grassy area with a rock cut ditch.

To prevent future occurrences of similar incidents, the following recommendations have been made:

- Commercial motor vehicle drivers should avoid distracted driving to prevent resultant collisions and driver errors.
- Commercial motor vehicle companies should consider using Defensive Driving training for their employees on an annual basis.
- Commercial motor vehicle drivers should be trained to know the signs of fatigue and steps to take to eliminate driving while fatigued.

### Hispanic Laborer Killed when Struck by Falling Plywood on a Commercial Construction Site (14KY008)

On a clear windy Wednesday, around 11:50 a.m., a 24 year-old Hispanic laborer was helping his brother-in-law load trusses on the ground, when a gust of wind ripped an 8 foot by 4 foot sheet of plywood from another Hispanic laborer's hands as he was handing the plywood to a co-worker 60 feet above on a commercial construction site roof. The co-worker on the roof tried to grab the sliding plywood by jumping onto it, but could not stop it. The co-worker's life line prevented him from falling over the edge of the roof. As the plywood reached the edge of the roof, the wind whipped it 30 feet from the building, striking the Hispanic laborer on the back of the head just below his hard hat. A crane operator witnessing the events unfolding immediately began blowing his horn trying to warn the laborers on the ground, but it was too late.

To prevent future occurrences of similar incidents, the following recommendations have been made:

- When conducting overhead work, employers should take precautions to protect workers on the ground from falling objects, tools and debris.
- When possible, employers should move workers out of the hazard area when conducting overhead work.
- When employers hire foreign workers, they should have training materials printed in the native language and provide extensive safety training to ensure understanding.
- When the presence of high winds occurs, employers should consider postponing high overhead work to eliminate many incidents.



## Kentucky Hazard Alerts

The Kentucky FACE Program completed 3 HazAlerts on selected occupational fatalities from July 1, 2013 to June 30, 2014. For the complete HazAlerts, see the KIPRC website:

<http://www.mc.uky.edu/kiprc/projects/KOSHS/index.html>

### Arborists Die after Falling, November 2013

From October 2013 through June 2013, three arborists were killed as a direct result of falling. Two of the workers were using aerial lifts and one of the workers had climbed up into the tree.

*To prevent arborist injuries, the Kentucky FACE program recommends:*

- Never allow an aerial lift to be used as a crane or material lifting device.
- All trees and limbs should be inspected for structural weakness such as rot before work starts.
- Arborists should wear appropriate personal protective equipment while performing tree trimming activities.
- When working from an aerial lift, do not exceed the boom and basket load limits specified by the manufacturer.
- When working from an aerial lift, use a body harness that is properly attached.

### Emergency Responders Struck and Killed During Incident Response April 2014

Three emergency responders, including a tow truck driver, an emergency roadside technician and an environmental cleanup company worker were all struck and killed while working.

*To prevent roadside injuries, the Kentucky FACE program recommends:*

- Employers should develop a safety training policy that requires annual safety training of incident management responders.
- Employers should perform routine safety vehicle inspections to ensure that vehicles are in proper, safe working condition.
- Wear appropriate high-visibility vests when working along roadways.
- Use proper traffic control devices that warn approaching motorists of emergency incidents.

### Roofing and Construction Workers Killed due to High Winds June 2014

From October 2013 to February 2014, two workers were killed during incidents where high winds were a factor, including a construction worker struck by a sheet of airborne plywood and a roofer who fell to his death.

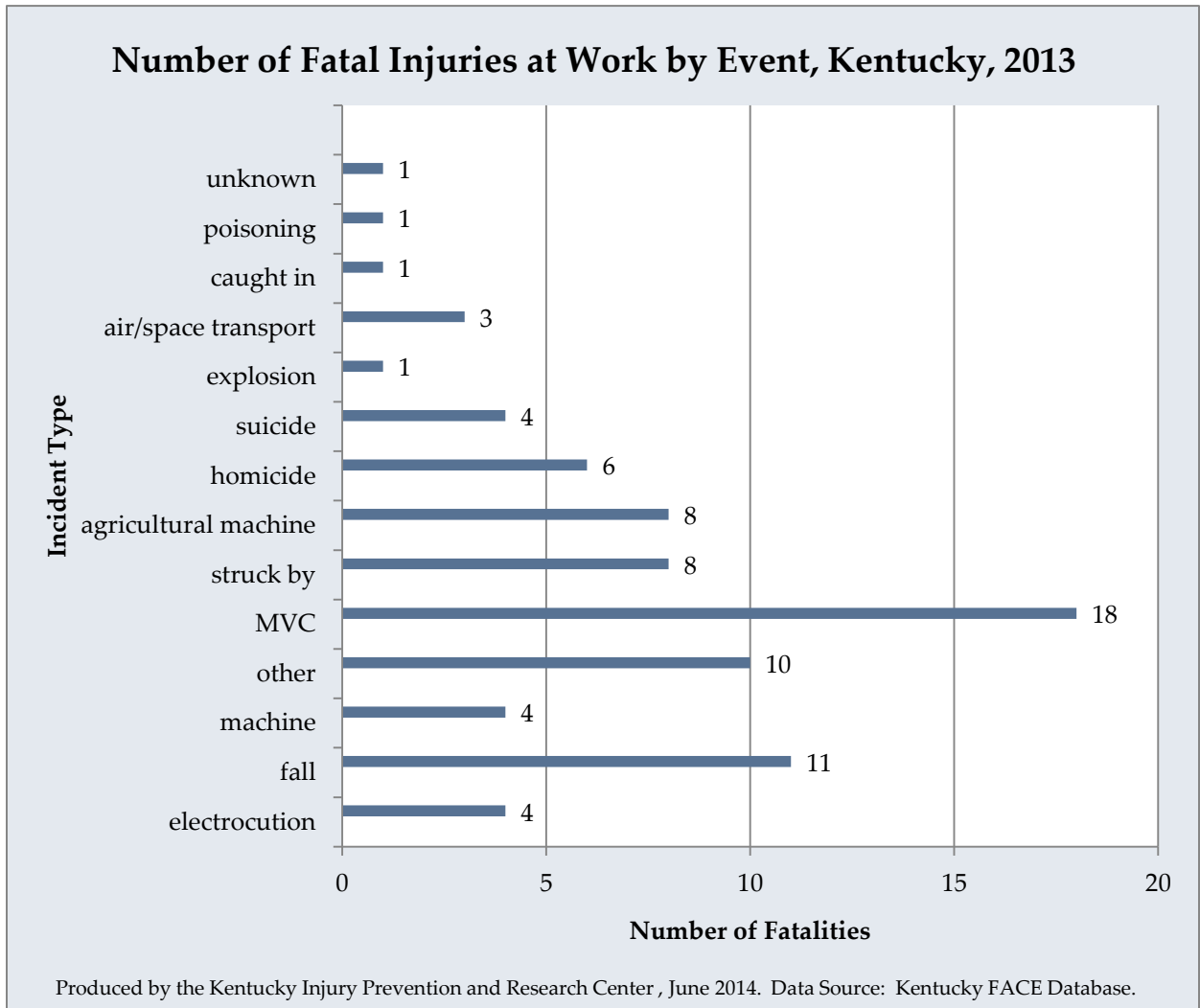
*To prevent construction injuries due to high winds, the Kentucky FACE program recommends:*

- Workers should not handle materials from rooftops or scaffolding during times of high wind.
- Employers should provide safety training to any and all workers who may be exposed to fall hazards.
- Appropriate fall protection devices should be used during all phases of a roofing job.
- Safety nets should be used to help catch falling debris and falling workers.
- Hazardous areas should be clearly marked and off limits, when materials are being transported overhead.



## Types of Events Causing Worker Deaths

Figure 1



### Highlights:

- Of the 80 fatal occupational injuries in Kentucky, 18 were motor vehicle collisions. Motor vehicle fatalities are down from 28 deaths in 2012, a decrease of 36 %.
- 17 men and 1 woman lost their lives while operating motor vehicles on the job; 10 Kentuckians, as well as drivers from New York, West Virginia, Michigan, Tennessee, Mississippi and Arkansas. 3 pedestrian deaths occurred, including a good Samaritan who stopped to offer assistance and lost his life.
- Of the 11 fatal falls in Kentucky in 2013, 6 occurred in the construction industry. 2 were tree trimmers and all were men between the ages of 29 and 73.
- 3 Kentuckians lost their lives to burns, including a boiler explosion, a farmer burning a brush fire in an open field, and an off duty volunteer fire fighter who entered a burning building looking for



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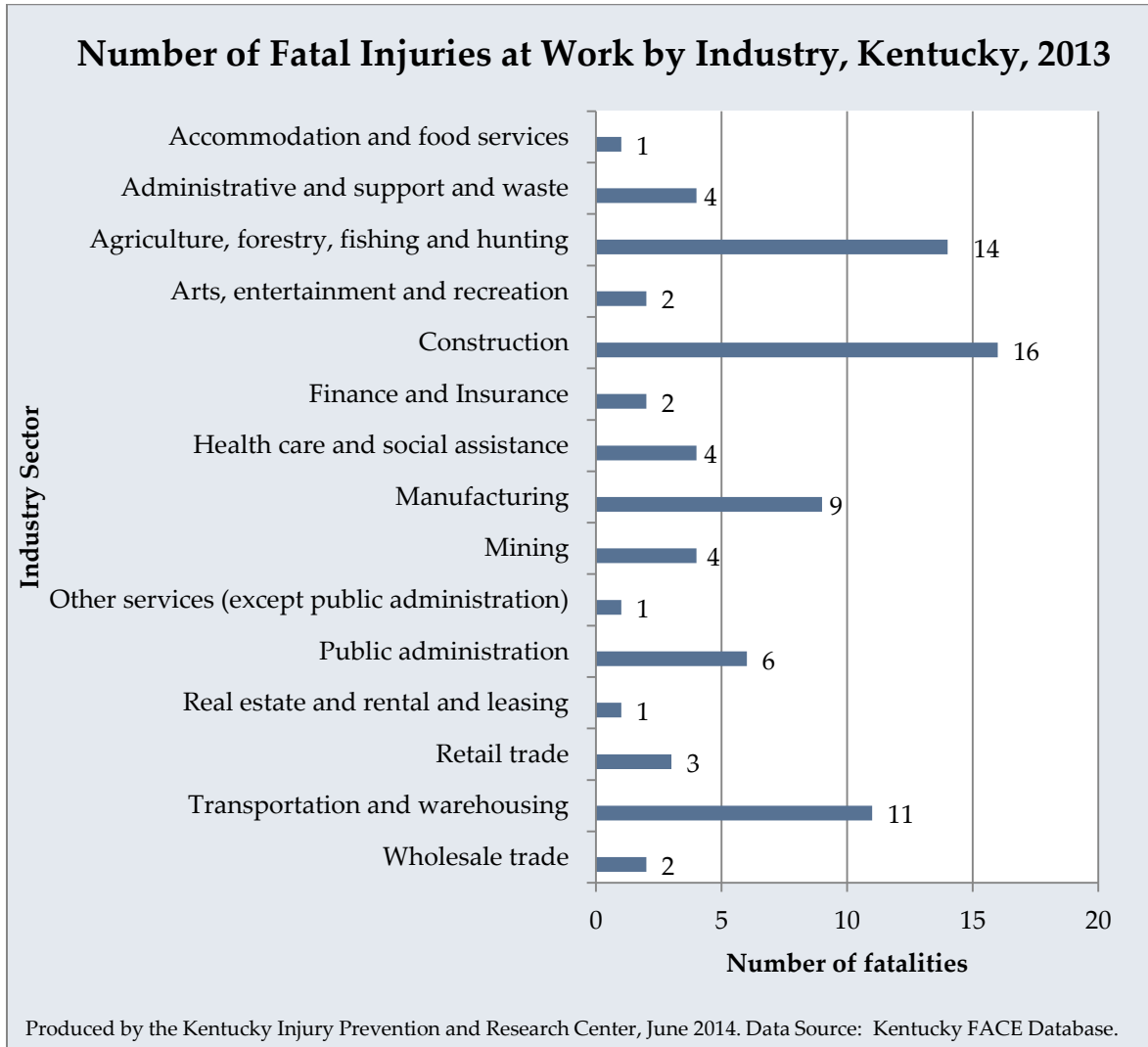
survivors. There were 2 deaths due to mining cave-ins. 3 water transport deaths occurred during cold, icy conditions. 2 men hanging tobacco to dry in a barn were electrocuted by a lightning strike.

- Of the 8 struck-by work fatalities in Kentucky, 3 were related to trimming or transporting trees, and 2 occurred in the mining industry. 40% (n=4) of the cases were men over 50 years of age. Self-employed workers accounted for 75% (n=6) of those who lost their lives after being struck in the workplace.
- 8 farmers between the ages of 42 and 85 were killed in Kentucky in 2013, 7 when their tractors overturned, and 1 was run over by a tractor.
- 6 Kentuckians were assaulted and killed while doing their jobs, including a police officer who stopped to clear debris from a roadway and was shot.
- 2 masonry contractors were electrocuted when their bucket struck a power line. A bridge construction worker and an electrical contractor died when they came into contact with electrical current on the job.
- A mill worker, a mechanic, a skidder operator and a maintenance employee all lost their lives in machine related deaths.
- 3 Kentucky men and one woman took their own lives at work.
- At least 6 worker deaths involved drugs.



## Fatal Injuries at Work by Industry

Figure 2



### Highlights:

- The Construction Industry accounted for 16 of Kentucky’s 80 work-related fatalities, including 6 falls and 4 electrocutions. The deaths were men from Kentucky (13), Ohio (1), Texas (1) and Georgia (1), between the ages of 30 and 75.
- 14 deaths occurred in the Agriculture, Forestry, Fishing and Hunting Industry, 11 farming and 3 logging. All deaths were Kentucky men; 8 were tractor-related deaths of farmers between the ages of 42 and 85.

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- 11 Transportation Industry deaths occurred in Kentucky, with residents spanning 6 different states: Arkansas, Kentucky (6), Michigan, Mississippi, Tennessee and West Virginia, including 7 motor vehicle collisions and 2 water transport incidents.
- 7 men and 2 women were killed in Manufacturing Injury incidents, including 3 machine related deaths.
- In the Public Administration Industry, an off duty state trooper, police officer and fire fighter all lost their lives responding to situations where help was needed.
- 4 men residing in Kentucky (2), Virginia and Illinois lost their lives in Mining Industry incidents, including 2 cave ins. 1 fatality occurred during a dredging operation on a barge, under icy conditions.
- A paramedic, nurse and pilot lost their lives in a helicopter crash during transport. A medical transport driver died of latent injuries from a motor vehicle collision.



## *Conclusions*

The Kentucky Injury Prevention and Research Center would like to take a moment to respectfully acknowledge the individuals that the numbers in this report represent, and the pain and loss their families must endure. It is hoped that surveillance of these tragic workplace situations will help guide government, industry, workers and communities to direct their efforts toward future injury prevention.