

Kentucky FACE Program Annual Report

2004



KENTUCKY INJURY PREVENTION AND RESEARCH CENTER

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The Kentucky Fatality Assessment and Control Evaluation (KY FACE) Program is an occupational fatality surveillance project 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 tools used, the energy exchange resulting in fatal injury, and the role of management in controlling the interaction of these factors. KY FACE investigators evaluate information from multiple sources including interviews of employers, coworkers, witnesses and other investigators; examination of the fatality site and equipment; and review of records such as Occupational Safety and Health Administration (OSHA), police, and medical examiner reports; and 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.

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EXECUTIVE SUMMARY

During 2004, KY FACE staff recorded 128 occupational fatalities. The categories designated by NIOSH as eligible for field investigation during this period were youth fatalities (<18 years old), highway work zone deaths, machinery-related incidents and immigrant worker deaths. Ten on-site investigative case reports were completed and disseminated to employers and others in a position to effect change in work practices.

Following are significant findings of this annual report:

- 1. Future lost earnings could total as much as \$84.8 million dollars in industries where fatal work injuries occurred.**
- 2. A total of 2303 Years of Potential Life were lost (YPLL) due to fatal work injuries in 2004.**
- 3. Most of the Kentucky fatal work injuries occurred in the Transportation and Warehousing industry.**
- 4. Most Kentucky workers were employed in transportation/materials moving occupations at the time of death.**
- 5. The primary external cause of death in Kentucky workers was due to motor vehicle collisions.**
- 6. There were 9 occupational homicides in 2004 and 6 occurred in the Retail Trade industry.**
- 7. Thirteen of the 20 Agricultural deaths occurred on tractors and 8 were tractor overturns.**

INVESTIGATION PROGRAM

The KY FACE Project completed 10 on-site investigations of selected occupational fatalities during 2004 in the NIOSH-designated categories of machinery related incidents, highway work zones, youth workers (<18 years), and immigrant workers.

Year 2004 final investigation reports included 3 machinery-related, 5 construction-related, and 2 highway-construction incidents. Following are case summaries for each of these incidents:

Case 1: On Monday, March 31, 2003, a 39-year-old male (decedent) highway traffic technician, working alone, received fatal head injuries after falling out of the bucket of an aerial boom truck. Injuries sustained in the fall resulted in his death four days later. He was changing a burned-out green traffic bulb in a traffic signal suspended over 2 lanes of traffic. As he worked from the aerial lift suspended over traffic to change the burned out bulb, a cargo truck drove underneath the bucket, striking it, and causing the decedent to fall to the asphalt below. As the worker fell approximately 10 feet, an eye witness called emergency services. Paramedics arrived within minutes and transported the technician to a nearby hospital. From there, the technician was airlifted to a trauma level hospital where he died 4 days later due to head injuries.

Case 2: At approximately 8:30 am on April 16, 2003, a 48-year-old male (decedent) highway construction laborer working in an interstate highway median, died when he was struck by an out-of-control double trailer (a semi-truck pulling two trailers). The laborer was speaking with the job foreman and another laborer in the median next to a grading machine. As the decedent looked toward the traffic, he saw a double trailer traveling on the right-hand shoulder swerve into the left-hand lane and drive into the median where all three men were standing. He told the other two men to get out of the way as he himself tried to do. The double trailer hit the victim, who died at the scene from multiple blunt force injuries.

Case 3: On June 27, 2003, a 41-year-old, male laborer died from heat stroke one day after being taken to the hospital. The laborer was working on an addition to a factory, sawing boards to make concrete forms. He worked until 5:00 pm that day and was in the parking lot on his way to his vehicle when he apparently collapsed beside his vehicle. A worker on the second shift at the factory was taking scrap material outside to a dumpster when he found the laborer on the ground. The factory worker returned to the plant and told his supervisor there was a man on the ground in the parking lot who needed emergency care. After instructing the company receptionist to call for emergency medical services, the supervisor went to the parking lot to administer emergency care to the laborer until EMS arrived. When EMS arrived, they recorded the laborer's body temperature as 107 degrees F. The laborer was transported to a local hospital where he died the next day with an internal body temperature of 108 degrees F. Death was listed by the coroner as due to heat stroke.

Case 4: On June 27, 2003, a 28-year-old male sound technician died due to injuries received after falling approximately 50 feet from a lift. Three men (one chief sound engineer and two sound technicians) were sent to repair a sound system in a school gymnasium. Upon arriving and assessing the situation, the three diagnosed that a particular speaker, located in the rafters, should be removed from its location. Using a 30-year-old telescoping, self-leveling lift belonging to the school, the chief engineer used controls located at the base of the lift, to hoist the two sound

technicians to the speaker in the rafter. After determining which tools they needed to remove the speaker, the chief engineer lowered the two men to the ground. They retrieved the appropriate tools from their equipment truck and proceeded to be hoisted a second time to the speaker. After removing the speaker from the rafter, the two sound technicians placed the speaker in the middle of the lift's basket and the chief engineer reversed the direction of the lift and began to lower the two men and the speaker to ground level. Shortly after the lift began to descend, it started to tilt to the east side of the gym. The lift continued its fall to the ground. Both sound technicians were critically injured and transported to a hospital where one survived and the other died of multiple blunt force trauma.

Case 5: On July 29, 2003, a 35-year-old, male master plumber died when an unshorn trench collapsed. Two employees from the contracting company were speaking with him at the time from the side of the trench. He had searched and diagnosed a water line leak when the walls of the trench collapsed. The plumber was employed by a plumbing company contracted by a commercial establishment to locate and repair a water leak. He died at the scene from asphyxia due to chest compression.

Case 6: On September 19, 2003, a 23-year-old male laborer (decedent) died when he became caught in the activated arms of a skidsteer loader. A work crew consisting of a contractor and 3 laborers had spent the day installing fence on a dairy farm. Earlier in the day, the contractor had borrowed a skidsteer from the farm owner. The work crew used the skidsteer to set fence posts in the ground. At the end of the work day (approximately 4:00 PM), the contractor instructed the decedent to return the skidsteer to the barn area. From the work site, the decedent drove the skidsteer 200 yards with the bucket in the upright position (above the cab of the machine) to the gate for the barn area. As the decedent approached the gate and stopped the machine, the decedent kept the arms of the skidsteer in the upright position. The exact circumstances of what happened next are unknown. No one saw the decedent exit the machine to open the gate. The contractor (200 yards away with the other laborers) heard the machine idle but not moving, looked over and saw the decedent trapped between the arms and the machine. Upon seeing the trapped decedent, the contractor and the other two laborers ran the 200 yards to the skidsteer. The dairy farmer noticed the situation and also ran to the skidsteer. When the contractor, laborers and dairy farmer arrived at the skidsteer, they found the decedent caught in between the arms and the body of the machine and removed the decedent's body from the machine. Emergency services were contacted. When emergency services arrived several minutes later, the laborer was determined to be dead and the coroner was contacted. The coroner arrived and pronounced the victim dead at the scene.

Case 7: At 8:00 AM on the morning of October 7, 2003, a 33-year-old laborer, working for a roofing contractor, was removing debris from a commercial building roof when he slipped and fell 60 feet to the sidewalk below. There were 2 other laborers and the contractor at the work site that morning. It was the second work day at this particular job site and the three workers were to finish discarding bags of debris from the roof. The decedent and one of the laborers accessed the roof through the building interior, up a flight of stairs to a five-step ladder which led to the roof opening. Two personal fall arrest systems were available for the laborers to wear before they accessed the roof area. The personal fall arrest systems were secured to roof anchors by 25 foot lanyards so that when the laborers entered the roof area, they were wearing a personal fall arrest system and were already tied off. The third laborer was in a pick-up truck parked next to the

building and the contractor was standing by the truck to load the bags of debris dropped off the roof by the two laborers.

Case 8: On November 3, 2003, a 38-year-old male construction laborer died when the unprotected 8-foot high walls of the trench he was working in collapsed. The decedent was working for a subcontractor who was contracted by a construction company to remove old gas, storm and sanitary sewer lines and install similar new lines. The old abandoned 6-inch diameter gas line was a high pressure, 300 – 320 psi gas line in 10-inch steel casing and was 600 feet long. There were five employees at the job site employed by the subcontractor; a foreman who was a certified competent person, a lab technician who was a certified competent person, and 3 laborers (one of which was the decedent). The foreman had dug an 8-foot deep trench with a track hoe to expose the abandoned gas line. After the gas line was exposed, the 38-year-old laborer climbed into the trench with a saw to cut through the gas pipe and its casing. The sides of the trench were not shored or benched. As the laborer began sawing, the sides of the trench collapsed, burying him. He was declared dead at the scene by the local coroner.

Case 9: On July 4, 2003, a 36-year-old male lead electrician died after being electrocuted with 480 volts of electricity. A crew of five licensed electricians were working at an automotive supply manufacturing facility running wires to connect service for two air conditioning units (3-phase; 480 volts; 30 amp and 35 amp) and service for a lighting panel (3-phase; 277/480 volts and 200 amps). The manufacturing facility had been shut down for the holiday, and besides a Facilities office worker in the Facilities main office, the five men were the only workers at the site and had complete control of the facility utilities (they were the only ones who had the ability to turn on/off utilities at the facility). Normally, everyone who was working directly with wiring or who could come in contact with live electric wires would place their lock and tag on the appropriate breaker or other control device to guard against unexpected energy being released. This time, it was decided by the crew only the job foreman would use his lockout/tagout equipment on the breakers.

The victim was sitting in a 4' x 4' junction box with another employee pulling wires to connect two air conditioning units and service to a lighting panel. Having completed the wiring connection for the lighting service, the lead electrician instructed the job foreman to throw on the breaker to the lighting service while he continued to run the wiring for the two air conditioning units. Instead, the foreman thought he was supposed to throw on the breakers for both the lighting service and the air conditioning services, which he did. As the foreman threw on the breakers, the lead electrician was holding the wiring for the air conditioning service in his hand and was electrocuted. Upon the lead electrician collapsing, the foreman summoned emergency services to the facility while another coworker administered CPR to the victim. Paramedics arrived and transported the decedent to a nearby hospital where he was pronounced dead.

Case 10: On December 15, 2003, a metal fabrication shop owner died when a 4,000 pound steel base plate fell on him. While inside the shop building, the work crew of least three men, including the owner, fabricated a 10' x 20' steel base plate to be used at a water treatment plant. The base plate was to house or serve as a base anchor for a large water pump. After welding connectors and channel iron beams to one side of the plate, the crew pushed the plate through a bay door with a forktruck to an outside area in back of the shop. The forktruck operator used the forks to lift one side of the plate. The owner then crawled headfirst underneath the plate to place

blocks underneath the plate. While the owner was underneath the plate, the plate slipped off the forks of the forktruck, and the plate fell on the victim. He died at the scene due to multiple blunt force injuries.

QUANTITATIVE ANALYSIS

KY FACE identified 128 fatal occupational injuries during 2004. The following section provides a descriptive analysis of the KY FACE data.

Identification of Cases

Newspapers were the primary source of case identification in 2004 (Figure 1) in 49% of all cases. Vital Statistics (death certificates) and the Census of Fatal Occupational Injuries (CFOI) identified 24% and 12% of the cases, respectively. KY FACE was informed of 48% of all occupational fatality cases within two days (Figure 2), and of 66% within 30 days of occurrence.

Figure 1. Sources of Notification 2004.

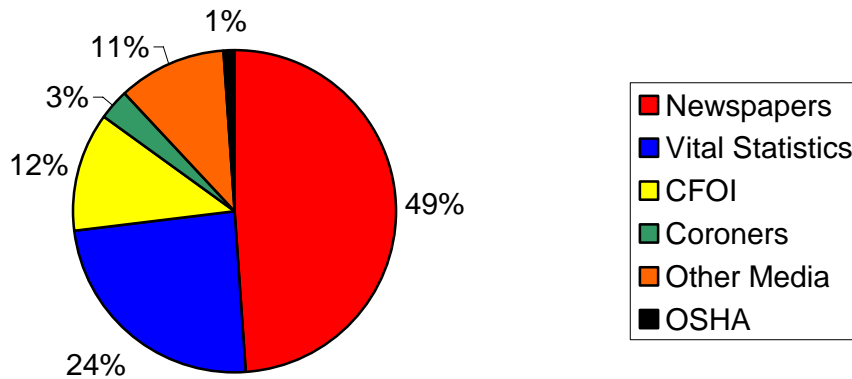
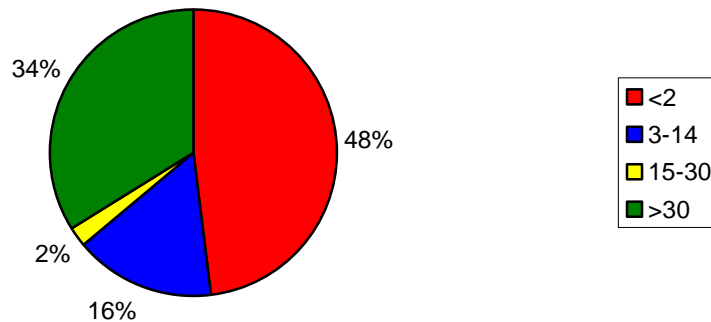


Figure 2. Time of Initial Notification (Days) of Occupational Fatalities in 2004.



The lowest number of occupational fatalities during 2004 (n=7) was recorded in January, October, and December (Fig. 3). Most worker deaths occurred during the summer months of June-September (n=52), which coincides with when most farming and construction work is performed. The day of the week when worker fatality incidents occurred is shown in Figure 4. Most workers died on either Monday (n=27) or Wednesday (n=24).

Figure 3. Kentucky Occupational Fatalities by Month-2004.

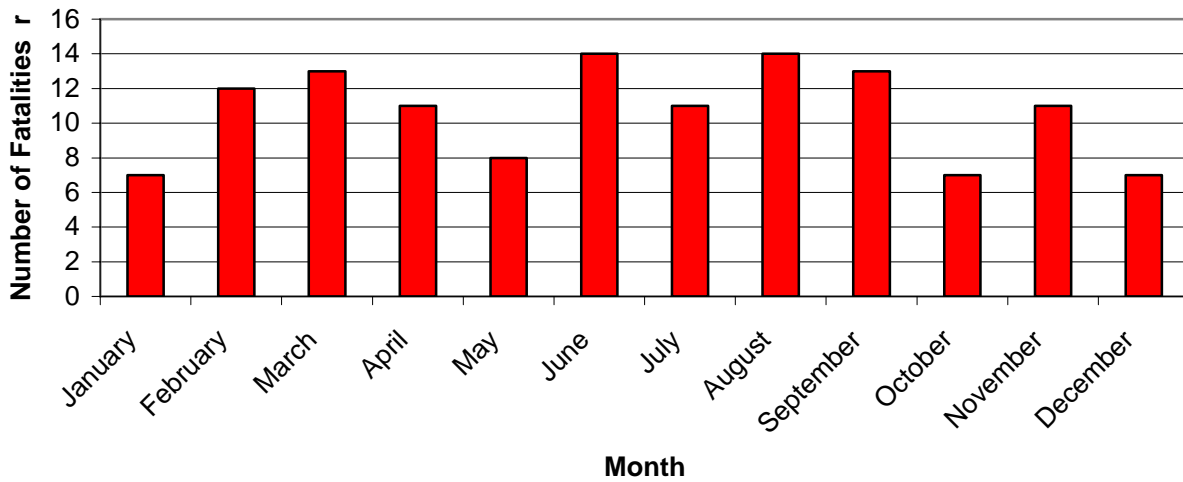
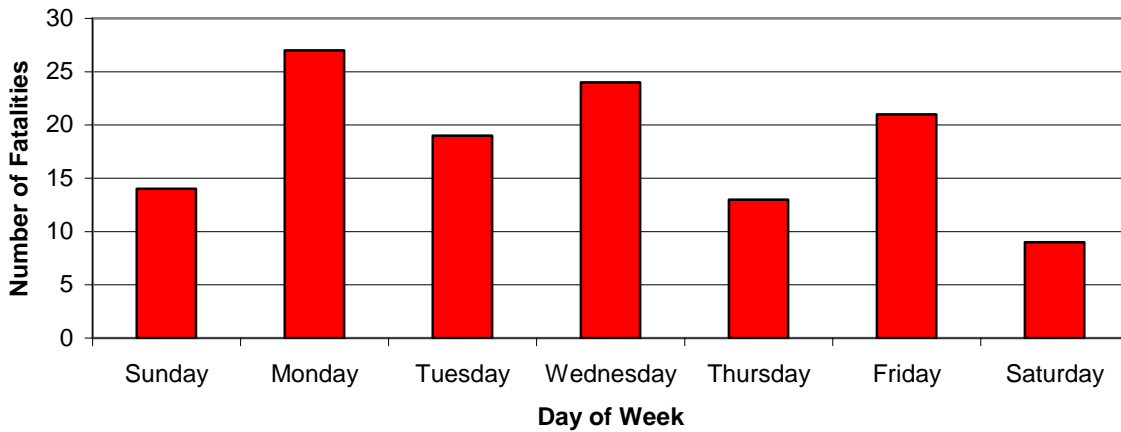


Figure 4. Occupational Fatality Incidents by Day of Week-2004.



Most occupational fatality incidents occurred between 2pm and 6pm (Figure 5), and the fewest number were recorded between 12am and 6am.

Figure 5. Occupational Fatality Incidents by Time of Day-2004.

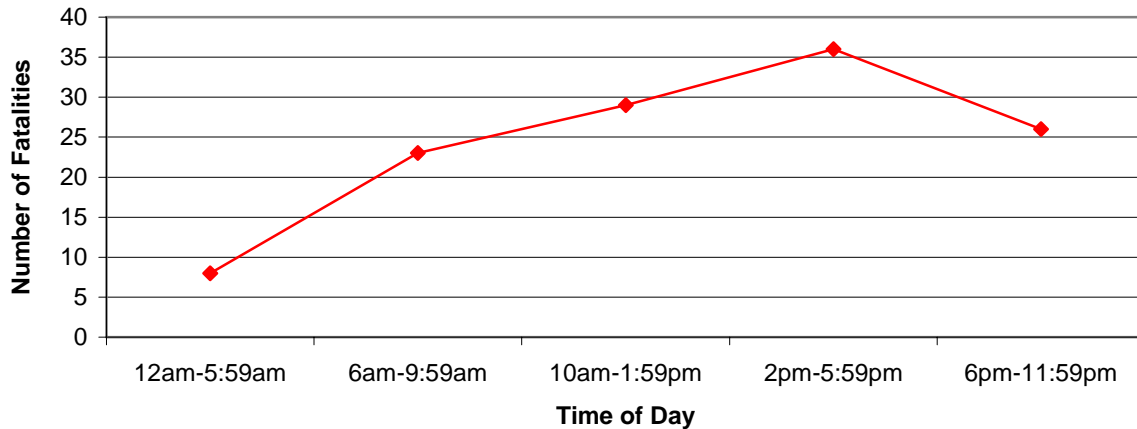
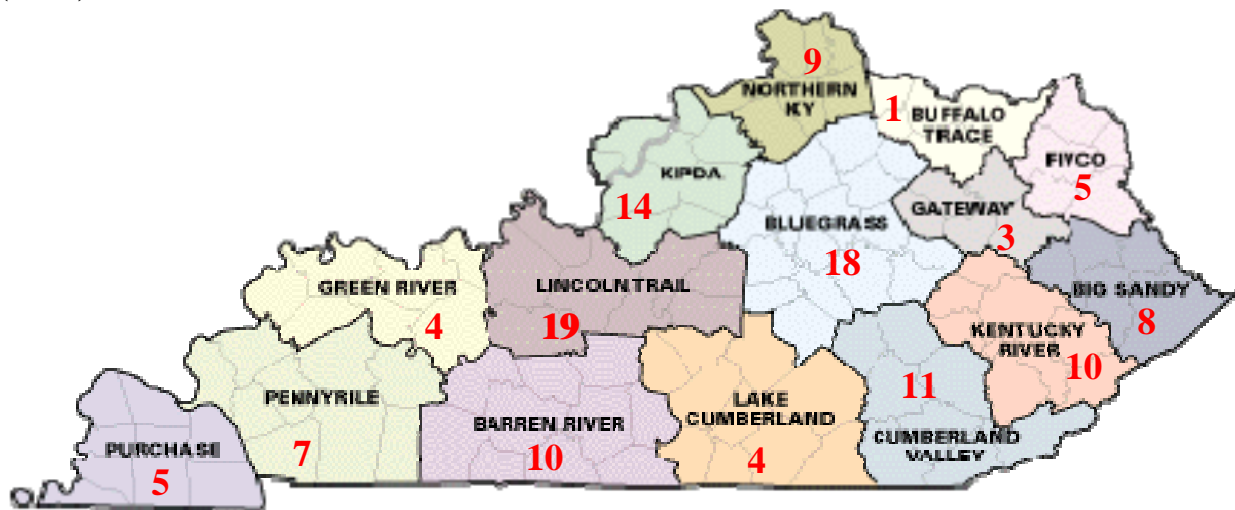


Figure 6 shows a map of Kentucky with the number of work-related fatality incidents that occurred in each Area Development District (ADD). ADD's are defined as partnerships of local governments, which provide for planned growth. The Lincoln Trail ADD recorded the most fatalities with 19, followed by the Bluegrass District (includes Lexington) with 18. The lowest number of occupational fatalities was recorded in the Buffalo Trace district (n= 1), which includes the city of Maysville.

Figure 6. Number of Occupational Fatalities in Kentucky per Area Development District (ADD).



Thirty-eight of Kentucky's 120 counties had at least one occupational fatality during 2004. Jefferson County had the most fatalities with 12, followed by Fayette County and Hardin County with 9 each. Pike County recorded 5 and Boone, Grayson, and Warren Counties each recorded 4 occupational fatalities. Table 1 shows the fatality rate per 100,000 workers for these 7 counties using employment estimates. Pike and Grayson counties had high fatality rates compared to Jefferson and Fayette counties and these rates are a product of the low number of employed workers in both counties.

Table 1. Fatality Rates for Counties with the Greatest Frequency of Occupational Fatalities in 2004.

County	Fatalities	Employment^a	Fatality Rate per 100,000 Workers
Jefferson	12	356,566	3.4
Fayette	9	137,676	6.5
Hardin	9	42,873	21.0
Pike	5	21,340	23.4
Boone	4	51,855	7.7
Grayson	4	10,546	37.9
Warren	4	50,609	7.9
Total KY	128	1,870,249	6.8

^aState and county employment estimates are from the 2004 Kentucky Deskbook of Economic Statistics. Kentucky Cabinet for Economic Development, Division of Research; Frankfort, KY.

Demographics

Demographic characteristics of all workers fatally injured on the job are shown in Table 2. Eighty-nine percent of occupational workers killed were male, and the workers were primarily white (93%). The age of workers killed ranged from 16 to 86 years. The youngest worker killed was a 16-year-old farm worker and the oldest was an 86-year-old farmer. Seventy-two percent of those killed were married, while 15% and 11%, respectively, were either unmarried or divorced. Seventy-eight percent were high school graduates and 8% had a college degree. Fifteen percent of workers killed had less than a high school education. The majority of deaths, as expected, involved people born in the United States, although 4 deaths involved workers born in other countries. Almost all of the decedents spoke English (98%).

When in-state vs. out-of-state resident deaths were examined, 14 (14%) of the 128 fatal incidents involved residents from other states who were fatally injured while working in Kentucky.

Table 2. Demographic Characteristics of Worker Deaths- 2004.

Characteristics	Number	Percent
Total Fatalities	128	100
<u>Sex</u>		
Male	114	89
Female	14	11
<u>Race</u>		
White	114	93
Black	7	6
Other	1	1
American Indian/Alaska Native	1	1
<u>Age</u>		
<20	2	1
20-29	16	13
30-39	31	24
40-49	31	24
50-59	25	20
60-69	14	11
70-79	4	3
80-89	5	4
<u>Marital Status</u>		
Never married	19	15
Married	88	72
Divorced	14	11
Widowed	2	2
<u>Education</u>		
Less than high school	18	15
High school graduate	66	56
Some college	16	14
College graduate	10	8
Unknown	8	7
<u>Country of Origin</u>		
United States	124	97
Canada	1	1
Dominican Republic	1	1
Bosnia	1	1
England	1	1
<u>Primary Language</u>		
English	126	98
Spanish	1	1
Bosnian	1	1
<u>State of Residence</u>		
Kentucky	110	86
Tennessee	3	2
Indiana	3	2
Ohio	2	2
South Carolina	2	2
Other	8	6

Industry

Figure 7 and Table 3 show the number of workers killed in each industry (as classified by the *North American Industry Classification System* (NAICS)), as well as a comparison of state and national occupational fatality rates. The Transportation and Warehousing industry (NAICS sectors 48-49) recorded the majority of work-related deaths in Kentucky (n= 32, 25% of total) and the occupational fatality rate for this industry is more than double the US fatality rate (40 deaths/100,000 workers in Kentucky vs. 17.5 deaths/100,000 workers nationwide). In addition, the Kentucky construction, mining, and agricultural fatality rates are twice that of the U.S rate.

Figure 7. Fatalities by Industry (NAICS code)- 2004.

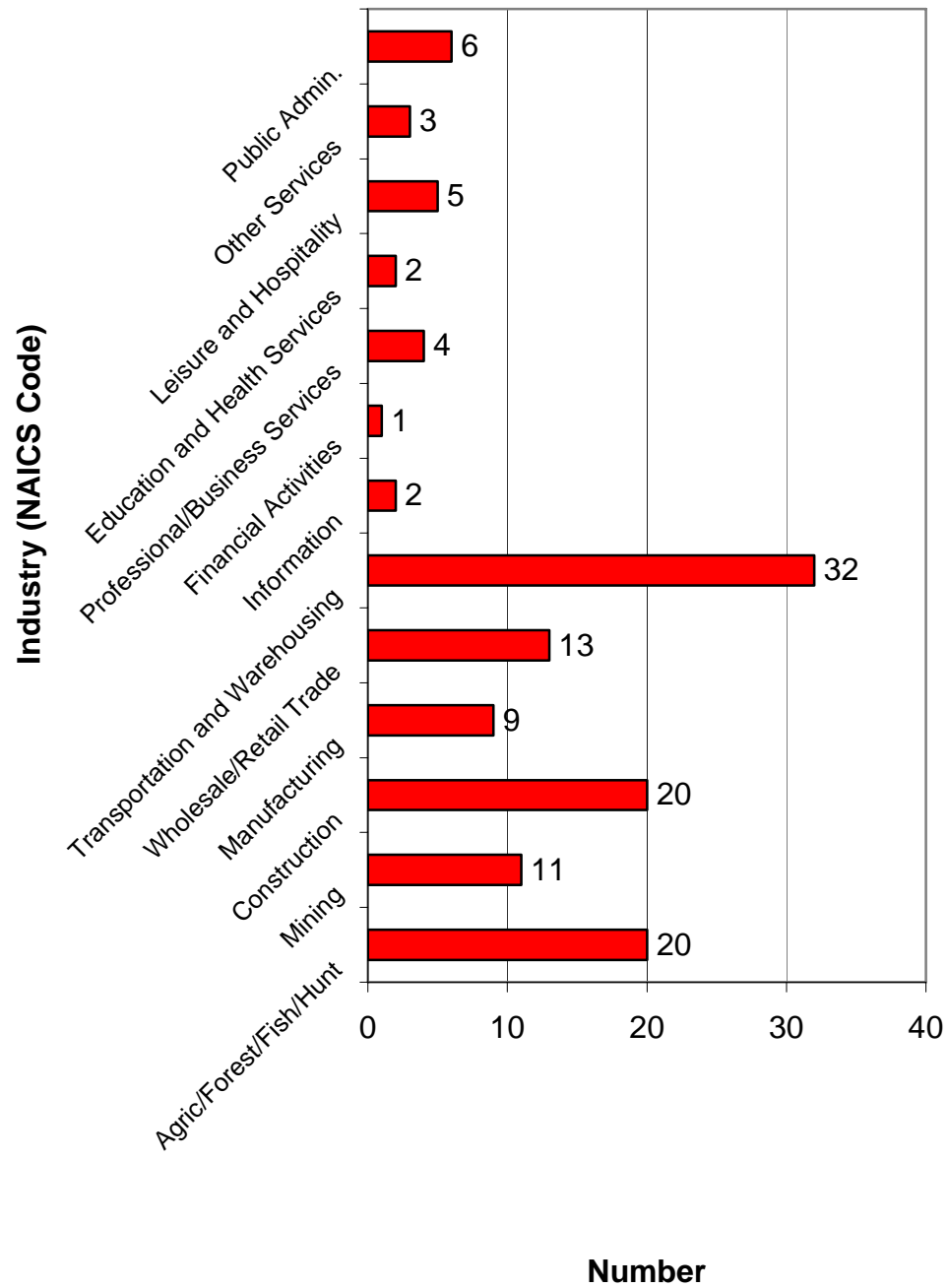


Table 3. Occupational Fatalities by Industry (NAICS Code)- 2004 (Rates calculated per 100,000 workers^a).

Industry ^b	Number of Fatalities	2004 KY Rate	US Rate ^c
Agric/Forest/Fish/Hunt	20	61.2	31.2
Mining	11	79.1	26.9
Construction	20	24.1	11.7
Manufacturing	9	3.4	2.5
Wholesale/Retail Trade	13	4.6	2.6
Transportation/Warehousing	32	40	17.5
Information	2	6.7	1.8
Financial Activities	1	1.2	1.3
Professional /Business Services	4	2.6	3.2
Education and Health Services	2	0.9	0.5
Leisure and Hospitality	5	3.2	2.3
Other Services	3	3.9	2.8
Public Administration	6	1.9	8.4
Totals	128	7.0	4

^aNumber of employed persons obtained from the Bureau of Labor Statistics.

^bOffice of Management and Budget. North America Industry Classification System. 1997. Bernam Press. Lanham, MD.

^cCensus of Fatal Occupational Injuries Summary. US Dept. of Labor, Bureau of Labor Statistics, National Census of Fatal Occupational Injuries in 2003.

External Cause of Death

Figure 8 shows the external cause(s) of death for work-related fatalities as classified by E-code according to the *International Classification of Diseases, Ninth Revision (ICD-9 CM)*. MVCs were the leading cause of occupational deaths (38%) in 2004. Being struck by an object (n= 17, 13%) and machinery (n= 14, 11%) were the second and third major causes of occupational deaths. Ag machine-related fatalities (n= 11) accounted for 9% of all worker deaths.

The primary external cause of death for the top three industrial classifications is shown in Figures 9-11. As expected, the majority of Transportation industry deaths was due to MVCs (81%). Ag machines (55%) and, falls and machines (25% each) caused the most Agriculture and Construction industry fatalities, respectively.

Increased intervention and prevention measures need to be undertaken in order to reduce the overall high fatality rates in Kentucky. Areas of concentration for targeted interventions this coming year include the Transportation industry and the Agriculture industry. Also, the factors that contributed to motor vehicle collisions will be examined more thoroughly.

Figure 8. Fatalities by External Cause of Death- 2004.

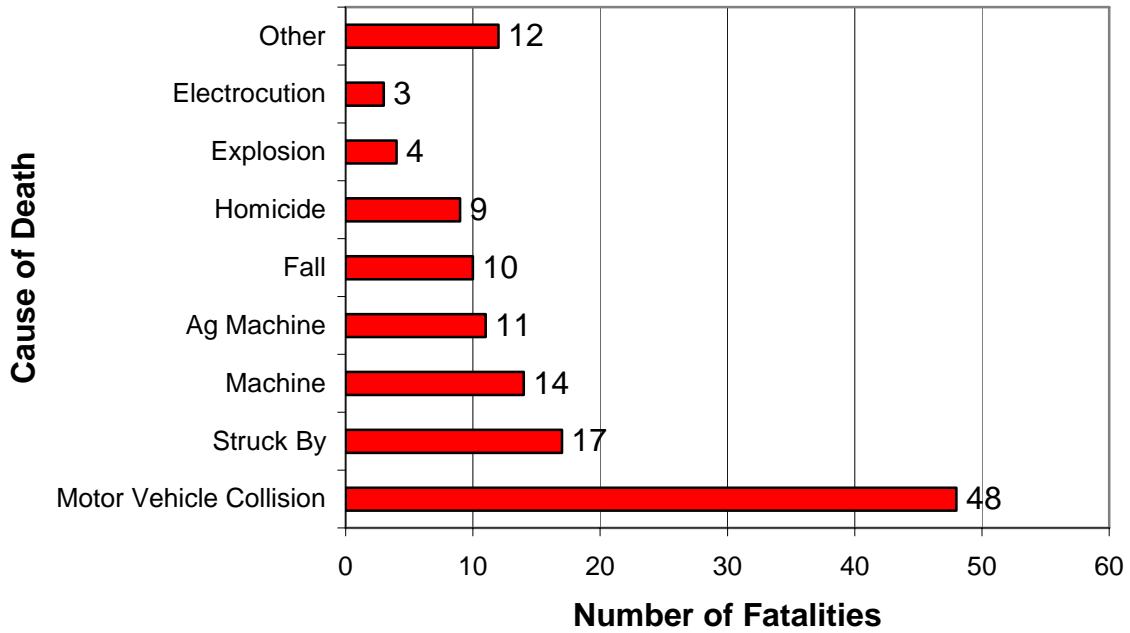


Figure 9. Transportation and Warehousing Industry Occupational Fatalities by External Cause of Death- 2004.

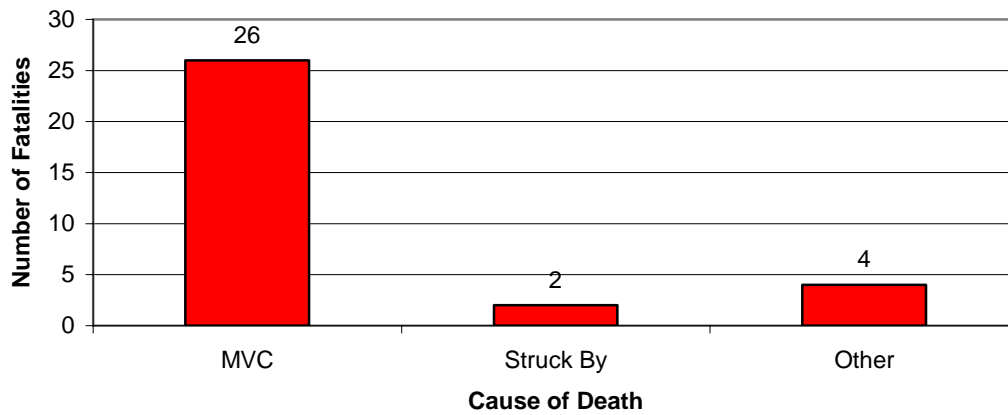


Figure 10. Construction Industry Occupational Fatalities by External Cause of Death-2004.

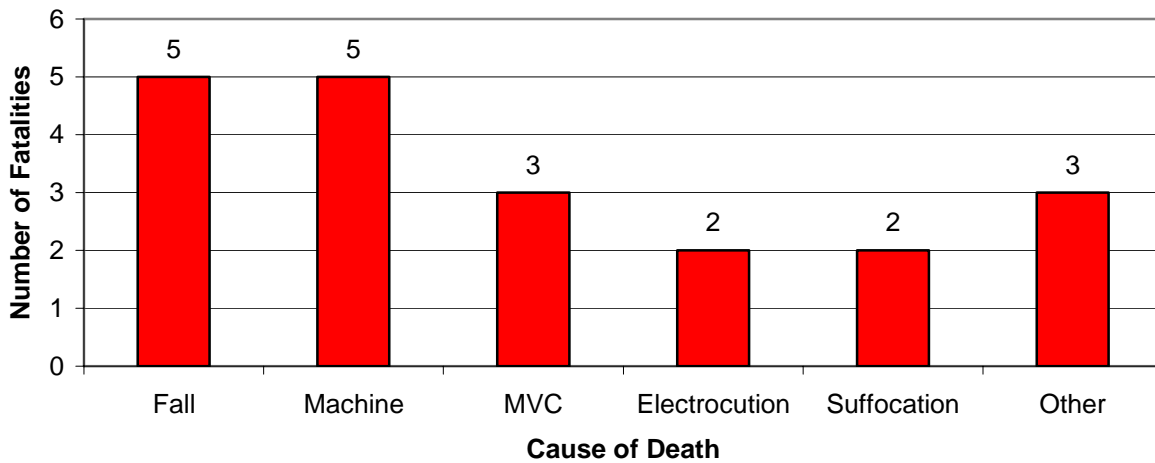
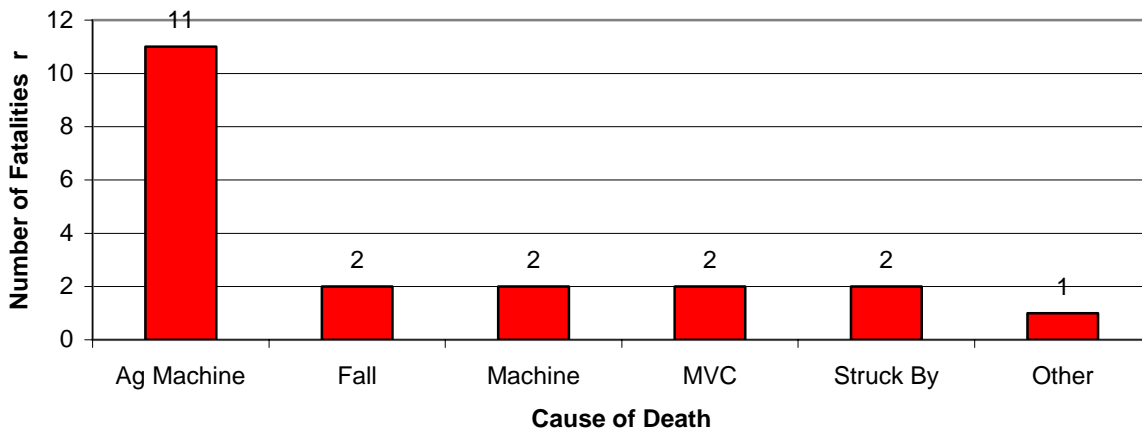


Figure 11. Agriculture, Forestry, and Fishing Industry Occupational Fatalities by External Cause of Death- 2004.



Occupation

Figure 12 represents Kentucky work-related fatalities by occupation, classified using the *Standard Occupation Classification Manual, 2000*. The Transportation/Materials Moving occupations accounted for the majority of occupational deaths in Kentucky in 2004 (29%). The second highest number of deaths was observed in the Management occupation (20%). The US and KY fatality rates are shown in Table 4. The occupation with highest fatality rate was the Farming/Fishing/Forestry occupation and the second highest was for the Management occupation.

The primary cause of death is listed for 3 of the major occupational classes (Fig. 13-15). The most frequent cause of death in the Transportation/Materials Moving occupation was by

motor vehicle collisions (n= 30). Motor vehicle collisions and agricultural machinery (n= 6 each) accounted for the majority of deaths in the Management occupation. A large number of deaths in the Construction occupation involved being struck by (n= 6).

Figure 12. Work-Related Fatalities by Occupation in 2004.

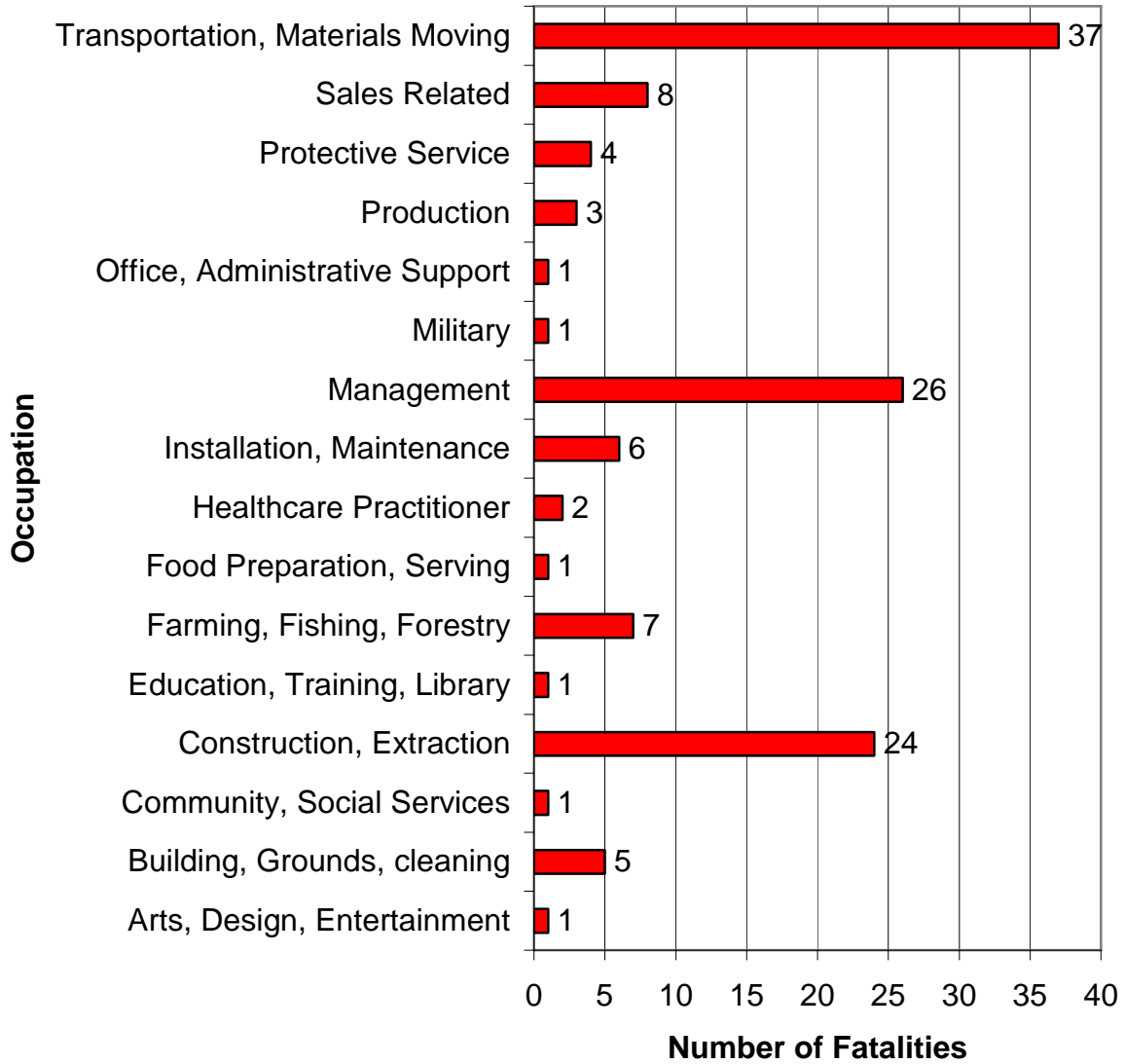


Table 4. Work-Related Fatalities by Occupation- 2004.

Occupation	Number (%)	2004 KY Rate	2004 US Rate ^a
Arts, Design Entertainment	1 (1%)	6.7	1.9
Building, Grounds, Cleaning	5 (4%)	9.4	5.6
Community, Social Services	1 (1%)	4.7	2.0
Construction, Extraction	24 (19%)	28.5	13.2
Education, Training, Library	1 (1%)	1.0	0.3
Farming, Fishing, Forestry	7 (6%)	14.8	28.4
Food Preparation, Serving	1 (1%)	0.7	0.7
Healthcare Practitioner	2 (2%)	2.0	1.1
Installation, Maintenance	6 (5%)	7.7	7.5
Management	26 (20%)	32.1	1.3
Military Specific	1 (1%)	-	-
Office, Administrative Support	1 (1%)	0.3	0.5
Production	3 (2%)	1.5	1.6
Protective Service	4 (3%)	12.1	9.5
Sales Related	8 (6%)	4.7	2.2
Transportation, Material Moving	37 (29%)	24.3	17.5

^a Employment figures obtained from *Census of Fatal Occupational Injuries- 2004 data*, US Department of Labor, Bureau of Labor Statistics, Washington, DC 20212-0001. Rates were calculated as the number of occupational fatalities per 100,000 workers.

Figure 13. Transportation Occupation External Cause of Death- 2004.

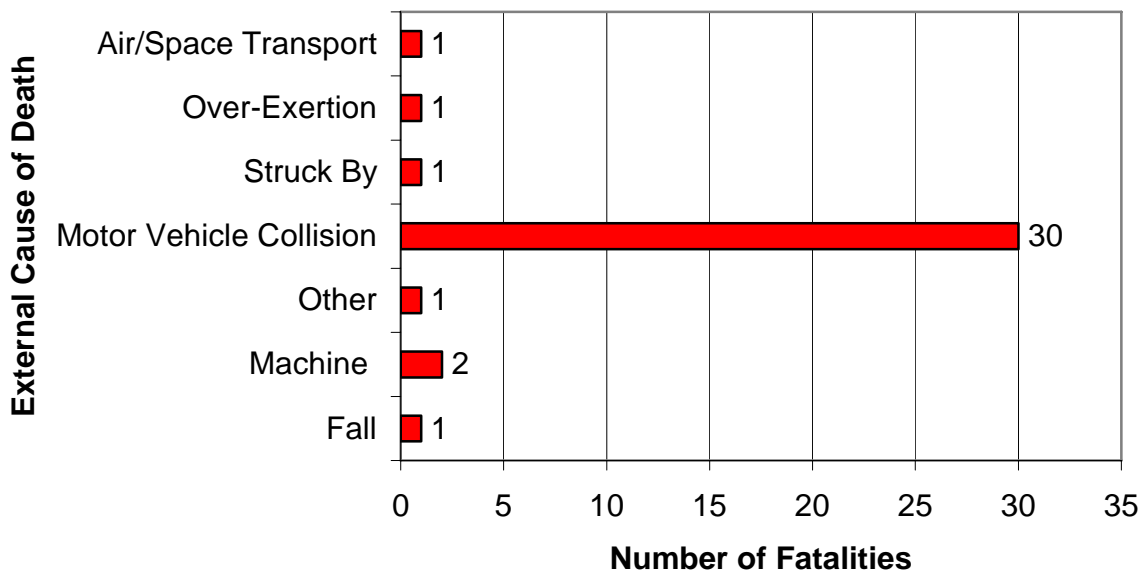


Figure 14. Management Occupation External Cause of Death- 2004.

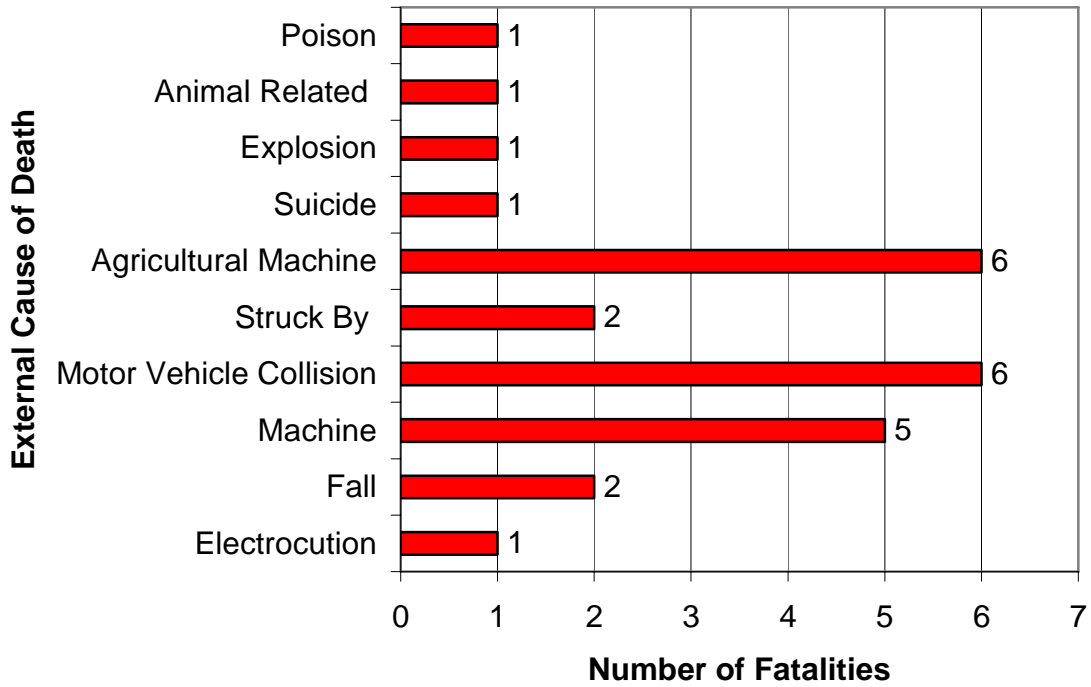
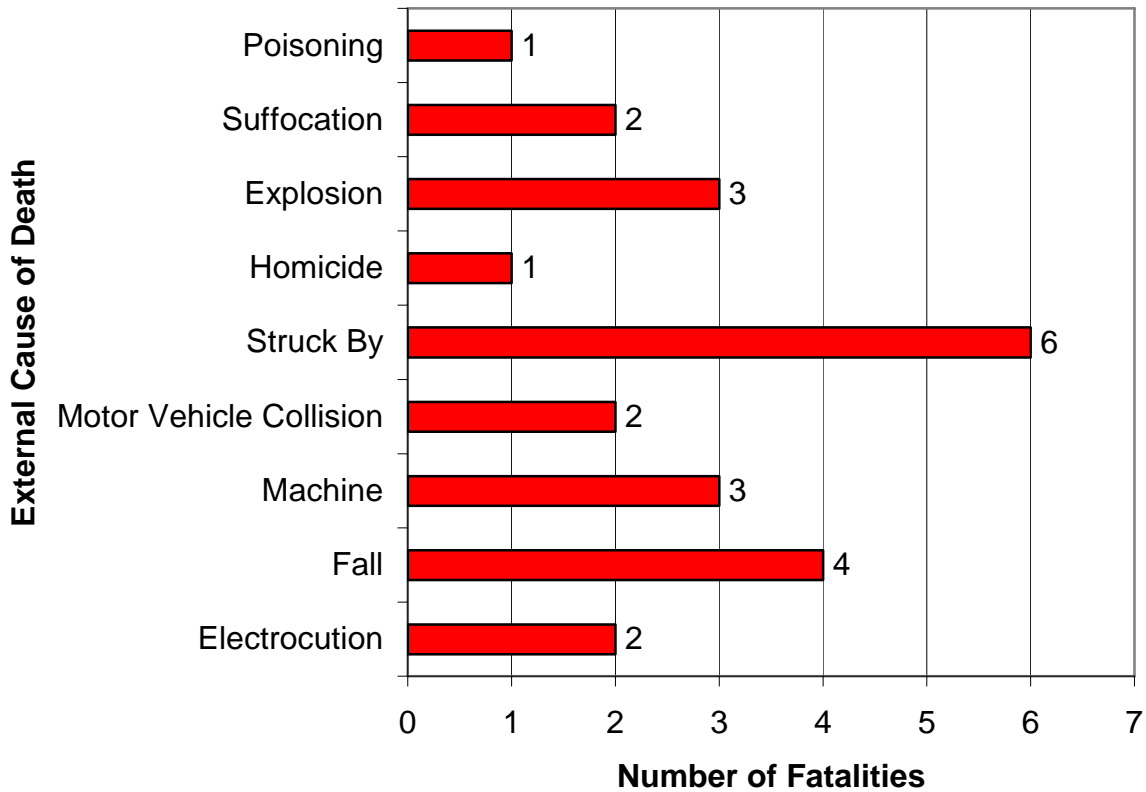


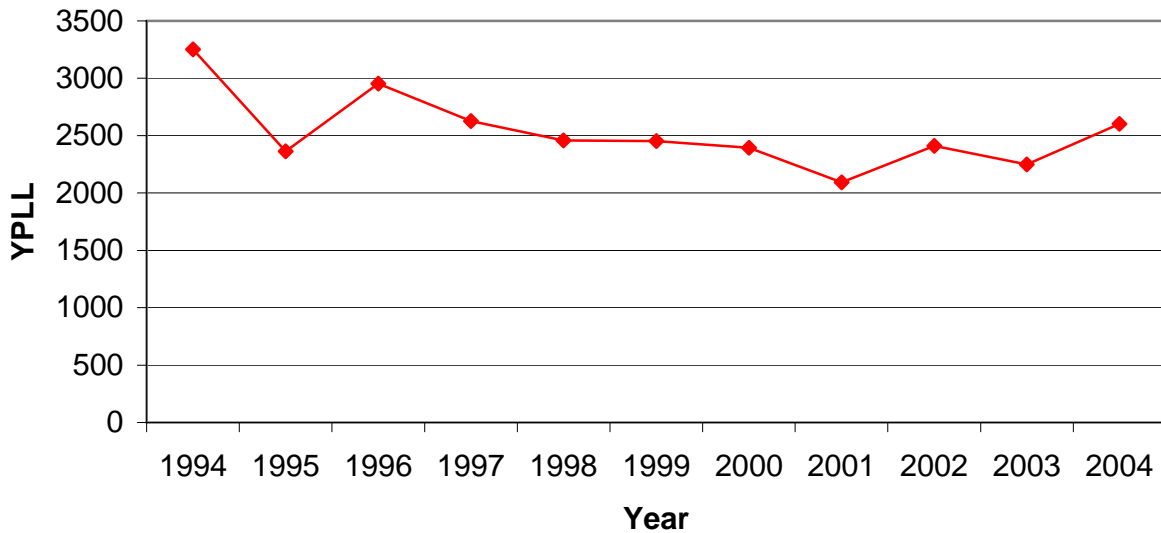
Figure 15. Construction Occupation External Cause of Death- 2004.



Years of Potential Life Lost (YPLL)

One hundred twenty-eight Kentucky workers died in 2004 due to fatal occupational injuries with a total of 2603 YPLL (Fig. 16) based on age 65. YPLL was calculated as the age of the worker at death subtracted from the average lifespan. Age 65 is the cutoff age used for analysis here (U.S. Decennial Life Tables for 1989-1991, CDC/National Center for Health Statistics, 1997) since it is the average age at retirement so the YPLL is more aptly termed years of potential employment lost (Struttman *et al.* 1998). The median age at time of death was 45 years of age.

Figure 16. Total Years of Potential Life Lost (YPLL) in Kentucky 1994-2004.



In Table 5, the total and average YPLL were calculated per industry division (NAICS). The industries with the highest average YPLL were the mining and construction industries which indicate that people are dying at a younger age in these 2 industries and that additional worker safety training for young workers might be recommended. The industry with the highest total YPLL, and thus potential employment lost was the Transportation industry. When the future lost productivity was calculated for this industry (Table 7), it is estimated that the Transportation industry could lose approximately \$23 million dollars. When all industries are combined, future lost productivity could total as much as \$84.8 million dollars for 2004 fatalities compared to \$82.7 million dollars of future lost productivity for 2003. This substantial total dollar amount is indicative of the continued need for targeted injury prevention strategies and interventions.

Table 5. Total and Average YPLL by Industry Classification (NAICS) for 2004.

Industry Division	Total Fatalities	2004 Total	Average YPLL per Fatality
Agriculture, Forestry, Fishing, and Hunting	20	202	10.1
Mining	11	278	25.273
Construction	20	443	22.15
Manufacturing	9	184	20.44
Wholesale Trade	1	40	40
Retail Trade	12	191	15.917
Transportation and Warehousing	32	564	17.625
Information	2	79	39.5
Real Estate and Rental and Leasing	1	6	6
Administrative and Support and Waste Management and Remediation Services	4	56	14
Health Care and Social Assistance	2	30	15
Arts, Entertainment, and Recreation	3	99	33
Accommodation and Food Services	2	66	33
Other Services (except Public Administration)	3	42	14
Public Administration	6	142	23.667

Table 6. Future Lost Wages Due to Work-Related Fatalities by Industry-2004.

Industry Division	Average Salary ^a	Total Earnings Lost (in millions)	% of Total
Agric., Forestry, Fish./ Hunting	\$25,274	\$5.1	6%
Mining	\$46,409	\$12.9	15%
Construction	\$34,130	\$15.1	18%
Manufacturing	\$41,391	\$7.6	9%
Wholesale/ Retail Trade	\$31,391	\$7.3	9%
Transportation/Warehousing	\$40,738	\$23	27%
Information	\$35,729	\$2.8	3%
Real Estate/Rental/Leasing	\$25,792	\$0.2	0%
Admin./Supp./Waste Man./Remed.	\$19,929	\$1.1	1%
Health Care/Social Assistance	\$32,600	\$1.0	1%
Arts/Entertainment/Recreation	\$18,280	\$1.8	2%
Accommodation/Food Services	\$11,953	\$0.8	1%
Other Services	\$22,761	\$1.0	1%
Public Administration	\$35,651	\$5.1	6%
Total		\$84.8	100%

^a Average Salaries from *Private Industry By State And 6-Digit NAICS Industry: Establishments, Employment, And Wages, 2003 Annual Averages*. U.S. Bureau of Labor Statistics. Amounts are not adjusted for inflation.

Special Topics

Fatal Transportation Industry Injuries

There were 32 transportation (NAICS) industry worker deaths in 2004 and 27 were due to MVCs. Most of the fatalities happened in March, April, and September (Fig. 17) and on a Monday (Fig 18).

Figure 17. Month of Transportation Industry Worker Deaths, 2004.

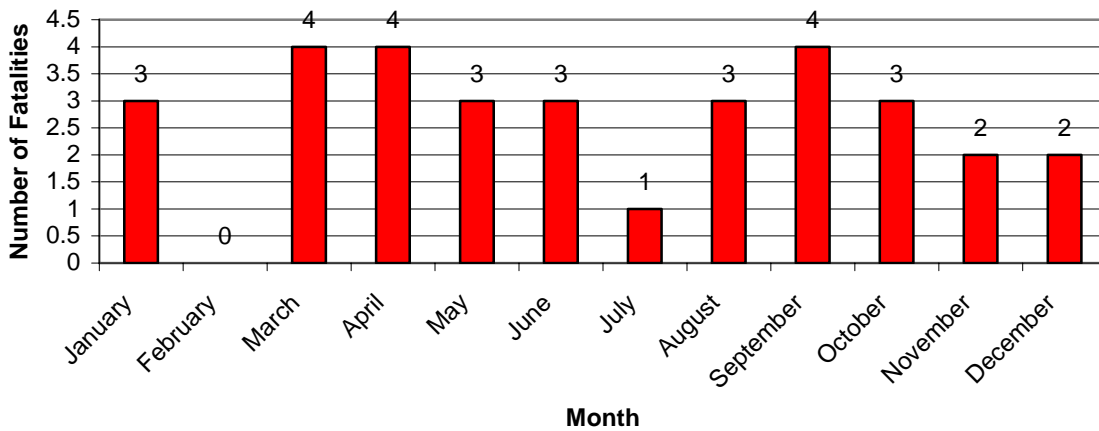
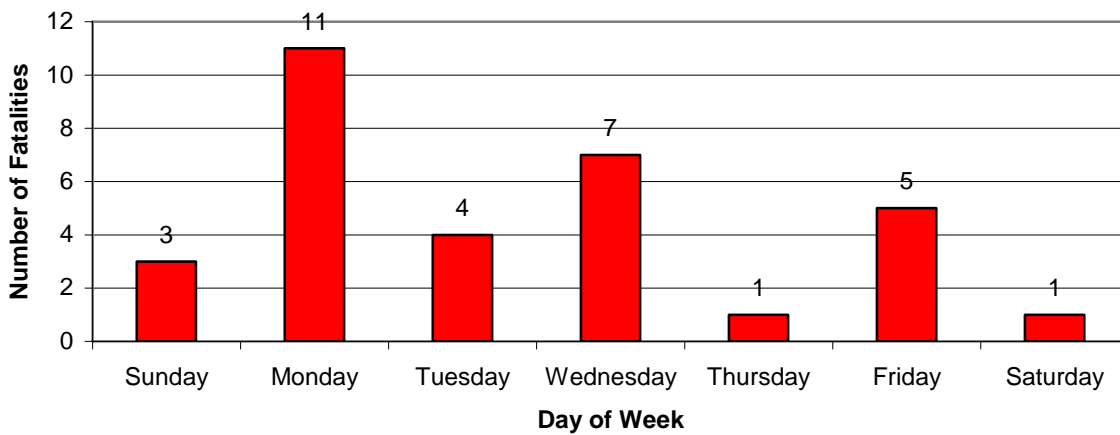


Figure 18. Day of Transportation Industry Fatality Incidents, 2004.



Most of the fatal transportation industry incidents occurred between 8pm and 11:59pm (Fig. 19). The most frequent transportation industry fatalities occurred in Lincoln Trail ADD district (Table 7). Two of the transportation industry decedents were female and the decedents were more frequently 35-39 years old (Fig. 20).

Figure 19. Time of Transportation Industry Fatality Incidents, 2004.

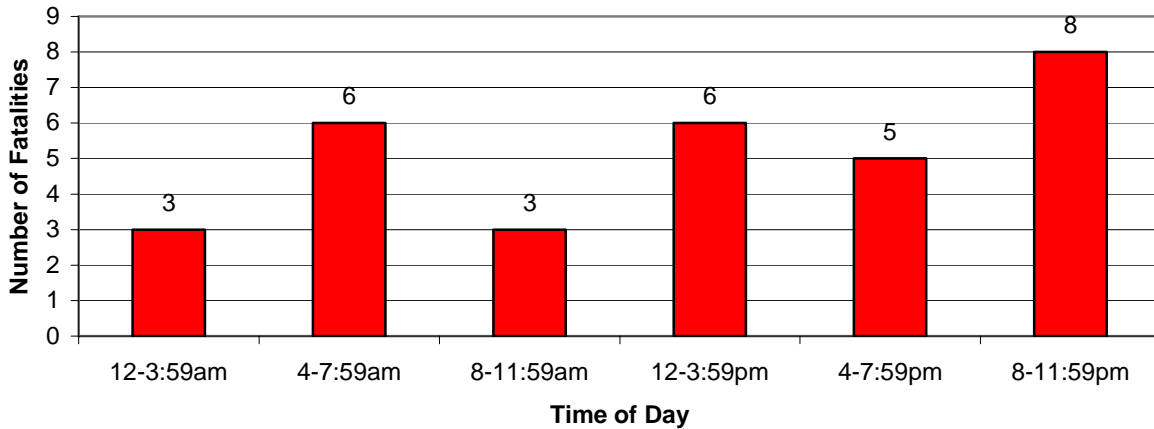
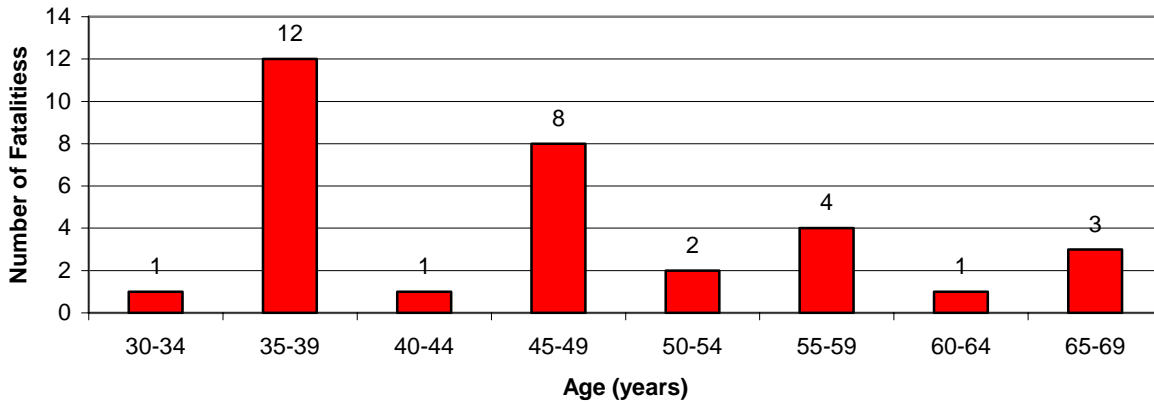


Table 7. Transportation Industry Fatality Incidents by ADD, 2004.

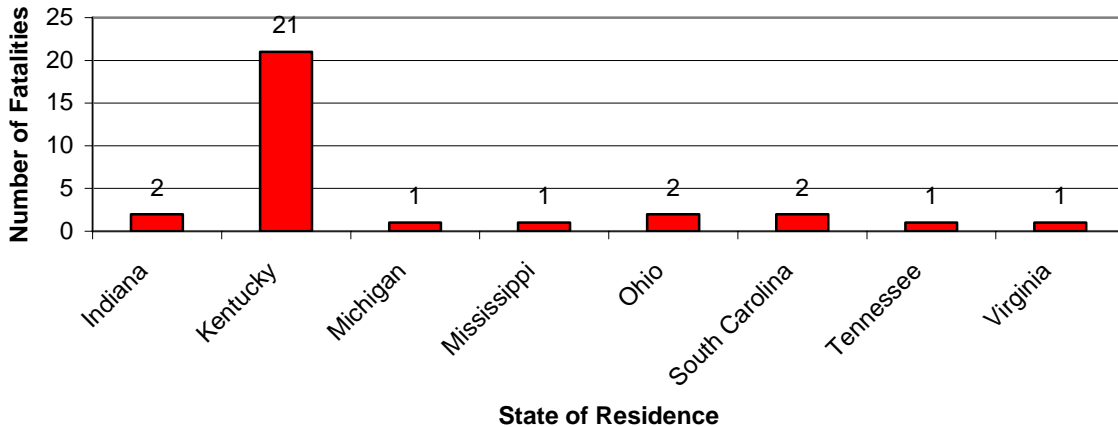
Area Development District	Number of Fatalities
Barren River	2
Big Sandy	3
Bluegrass	2
Cumberland Valley	3
FIVCO	1
Green River	1
Kentucky River	1
KIPDA	4
Lake Cumberland	2
Lincoln Trail	7
Northern Kentucky	5
Pennyrile	1

Figure 20. Age of Transportation Industry Worker Decedents, 2004.



The USA was the country of origin for 29 of the 32 decedents and 21 of the decedents resided in Kentucky (Fig. 21).

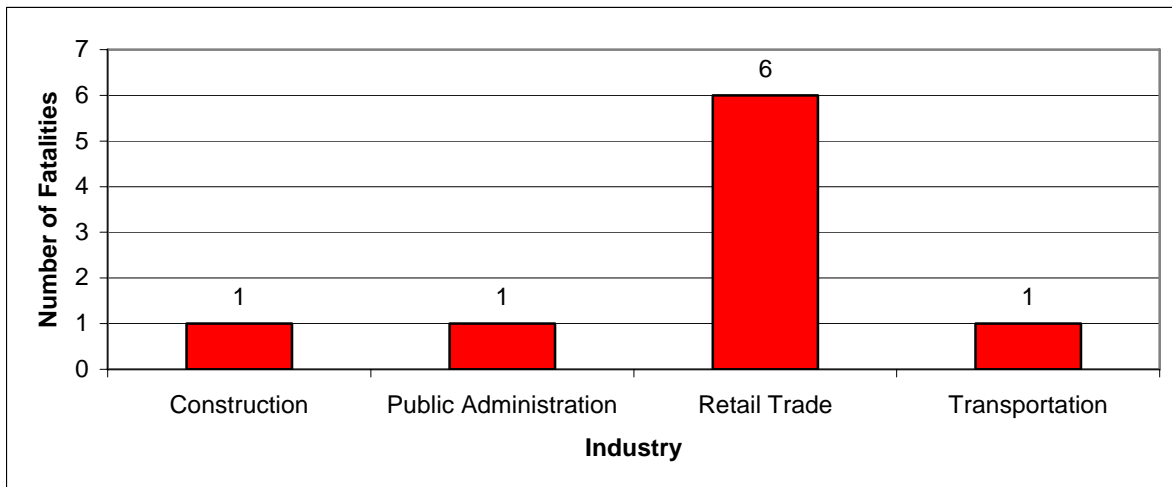
Figure 21. Transportation Industry Decedent State of Residence, 2004.



Worker Homicides

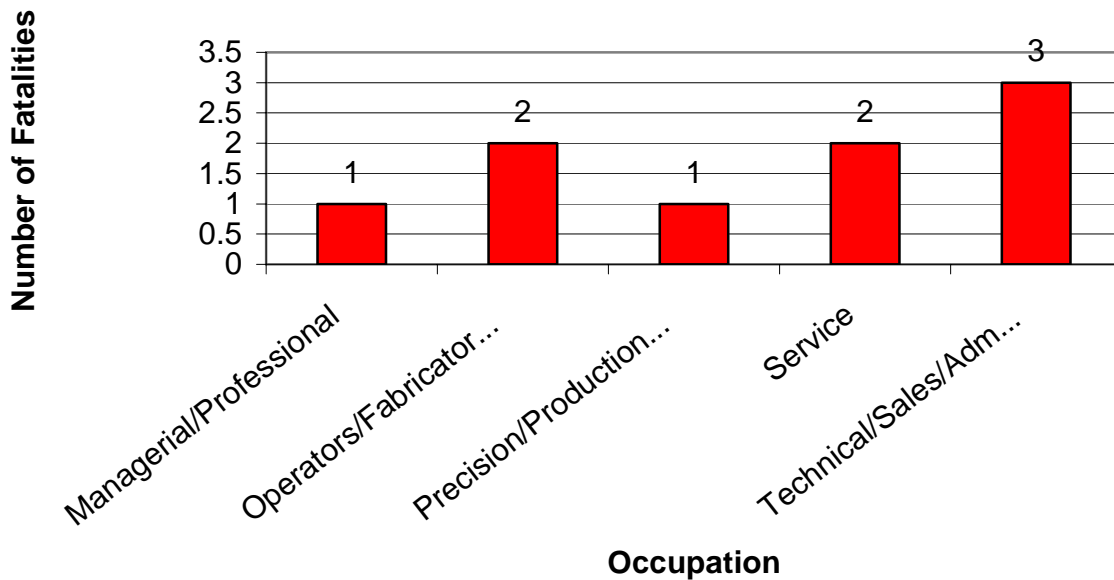
Nine workers died by homicide in 2004. Four of the homicides occurred between 6pm and 11:59pm and 4 were in Fayette county. Five were male and 4 were female. The Retail Trade industry is where most of the worker deaths occurred (Fig. 22).

Figure 22. Worker Homicides by Industry, 2004.



Most of the homicide victims were employed in the Technical/Sales/Administrative occupations (Fig. 23).

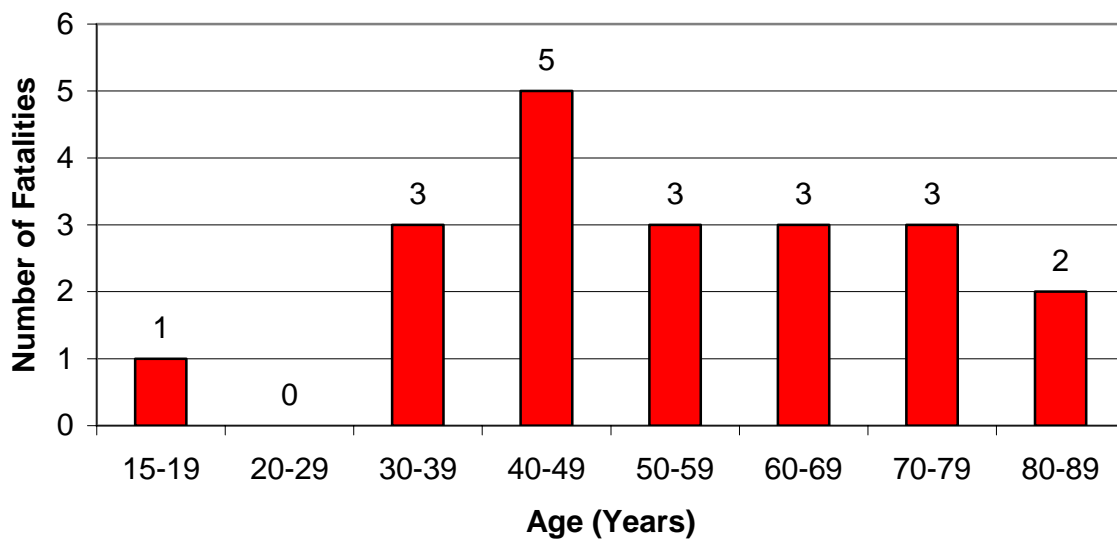
Figure 23. Occupational Homicides by Occupation, 2004.



Agricultural Industry Deaths

The Kentucky agricultural industry fatality rate was 61.2 deaths per 100,000 workers, double the national fatality rate of 31.2/100,000 with 20 agricultural fatalities (16% of all worker deaths). Twelve of the decedents were self-employed at the time of death. Ages of the agricultural decedents are shown in Figure 24.

Figure 24. Age of Agricultural Industry Workers at Death.



More workers died in the month September (Fig. 25) on a Wednesday (Fig. 26).

Figure 25. Month of Agricultural Industry Worker Death.

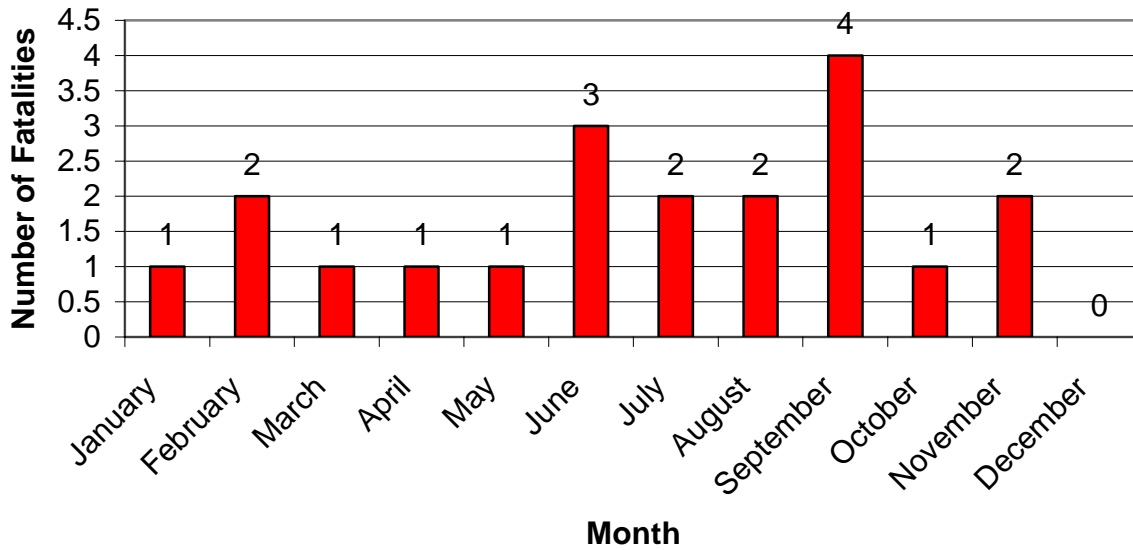
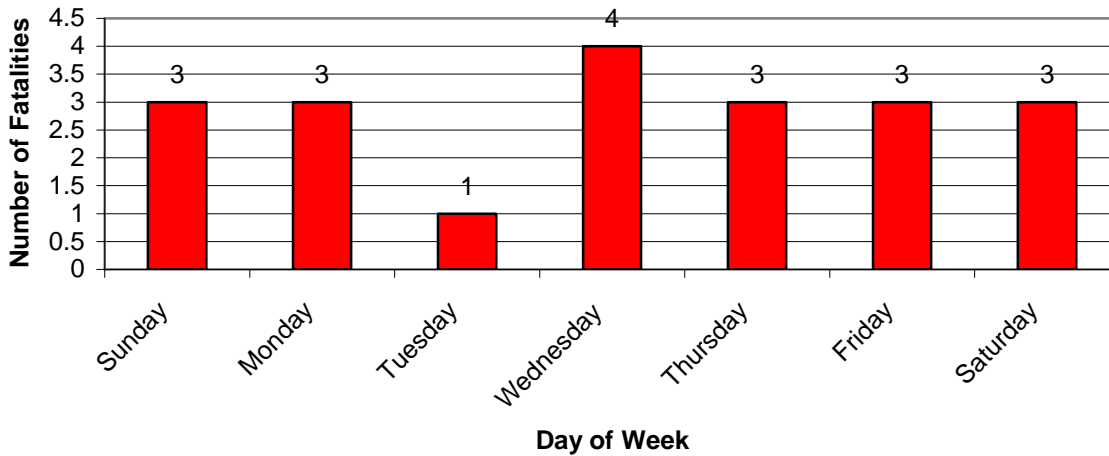
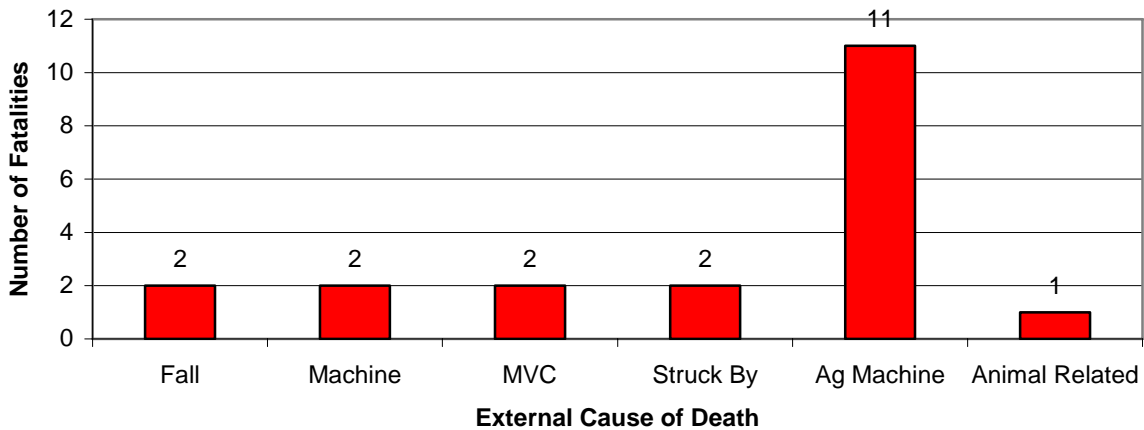


Figure 26. Day of Fatal Incident for Agricultural Industry Workers, 2004.



The major external cause of death for agricultural workers was due to agricultural machines (Fig. 27) and 13 were tractor-related. Eight of the victims were involved in a tractor overturn, 1 fell off and was run over by the tractor, and 4 were other tractor-related type incidents.

Figure 27. External Cause of Death in Agricultural Industry Workers, 2004.



Conclusion

Of the 128 worker deaths in 2004, 48 were due to motor vehicle collisions and 32 involved workers in the transportation industry. The Kentucky FACE program will focus on-site investigations in the Transportation industry in the next year to enhance surveillance and evaluation data, and focus targeted intervention strategies and approaches to occupational fatalities due to motor vehicle collisions.

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