Kentucky FACE Program Annual Report 2008

FATALITY ASSESSMENT AND CONTROL EVALUATION
KY FACE

KENTUCKY INJURY PREVENTION AND RESEARCH CENTER

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 energy exchange resulting in fatal injury, and the role of management, engineering, and behavioral changes in controlling the interaction of these factors. 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.

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*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).

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EXECUTIVE SUMMARY

KY FACE staff recorded 105 occupational fatalities for 2008. The following are significant findings from this annual report**:**

1. **Kentucky's occupational fatality rate is 55% above the national rate (5.9 Kentucky worker deaths/100,000 workers compared to 3.8 US worker deaths/100,000 workers).**

2. **Fatal occupational incidents occurred most frequently in the Services sector (19%).**

3. **Thirty-one (30%) work-related deaths were due to motor vehicle collisions. Seventeen occupational drivers (68%) out of the 25 occupational drivers were NOT wearing their seat belts when the fatal injury occurred.**

4. **Occupational fatality rates were highest in the agriculture, forestry, and fishing industry (45.1 worker deaths/ 100,000 full-time employees), the mining industry (42.6/100,000), the construction industry (17.8/100,000), and the transportation industry (16.6/100,000) in 2008.**

5. **There were nine occupational suicides and 11 occupational homicides (there were five occupational homicides and one occupational suicide in a single incident) in 2008.**

6. **There were six occupational fatalities in the Logging industry in Kentucky in 2008; the most frequent external cause of death was due to being "struck by" an object (67%).**

7. **More workers in the Transportation and Materials Moving occupations (23%) died in fatal work-related incidents than in any other individual occupations.**

8. **In 2008, 1868 years of potential life were lost (YPLL) due to occupational fatalities in the state of Kentucky.**

9. **Farming, Fishing, Forestry occupations had the highest fatality rate (148 deaths/ 100,000 workers in Kentucky compared to the US rate of 62.5 deaths/ per 100,000 workers).**

10. **The highest number of occupational fatalities occurred in Jefferson county in 2008 (n=18, 17%).**

11. **Fourteen fatalities occurred in the Transportation and Warehousing industry. Eleven of the decedents were in motor vehicle and six of the deceased workers were driving semi trucks. Three of the decedents were hauling coal when the fatal incident occurred.**

INVESTIGATION PROGRAM

The KY FACE Program completed seven on-site investigations of selected occupational fatalities in 2008. The fatality report narratives follow:

Case 07KY008: In the Spring of 2007, a 32-year-old Hispanic male carpenter (decedent) died when he fell from a homemade platform (extended approximately seven feet in the air) after it detached from a telehandler (forklift). The decedent and two other carpenters were framing a new construction, single-family residence located on a hillside which was rough and steep. The three carpenters were framing the wall at the rear corner of the house which was high because of the sloping terrain. To reach the area, the crew decided to use a homemade platform as a makeshift scaffold. A fourth worker operated a rough-terrain forklift and elevated the platform with the three carpenters holding the wall to be framed up in the air. The forklift operator lifted the unsecured platform and at approximately seven feet in the air, the platform fell off the forks. Two of the carpenters fell off the platform, which fell on the edge of the foundation above the men's heads. The decedent fell off the left end of the platform which struck him in the head. Emergency medical services were summoned to the scene. Upon their arrival they found the other two carpenters who had fallen together alive and requiring medical attention. They were transported to a nearby hospital and later released. Emergency medical service personnel found the third carpenter to be without vital signs and contacted the local coroner who arrived and declared the carpenter dead at the scene.

Case 06KY079: During the fall of 2006, a 25-year-old male company dump truck driver (decedent) died when he became entangled in the drive shaft of the power-take-off pump (PTO) underneath a dump truck. He and four other dump truck drivers were waiting to have their trucks filled with asphalt when one of the other drivers (Driver 1) began having difficulty with the bed of his truck raising and lowering properly. Another driver (Driver 2) attempted to assist Driver 1 with the problem, but was unsuccessful. Driver 1 decided to inform the plant manager (Owner 1) of the situation and request assistance from the company's mechanics to fix the problem. While Driver 1 was speaking with Owner 1, the decedent (Driver 3), unbeknownst to anyone else, crawled under the dump truck of Driver 1 to see if he could fix the problem.

As Driver 3 lay under the idling truck's spinning PTO shaft, his coat sleeve became entangled in the grease fitting on the front universal joint. He was twisted onto the shaft and under the bed of the dump truck. When Driver 1 returned to his truck to wait for assistance from the company mechanic, he found the decedent caught in the PTO drive shaft underneath the truck. Driver 1 yelled to Owner 1 in the tower to call emergency medical services to the scene. While Owner 1 called 911, he called Owner 2 to the scene. Owner 2 found the decedent entangled in the PTO shaft and with the assistance from Driver 4, they proceeded to cut his clothing to free him from the shaft. Owner 2 tried to resuscitate Driver 3 (decedent) while EMS was enroute. Emergency medical services arrived six minutes later, determined the driver was in critical condition, and notified emergency air care. As emergency medical personnel placed Driver 3 in an ambulance and transported him to a nearby field where the air ambulance waited, he died. Air transport was cancelled and the local coroner was contacted who arrived and declared Driver 3 dead at the scene.

Case 06KY057: On a late summer morning, at approximately 6:10 AM, a 63-year-old, self-employed male dump truck driver left his home hauling a load of dry septic waste. He was hauling

the septic waste to a nearby town for disposal. His home was located at the end of a dead-end street, parallel to the nearby railroad tracks. After the driver exited his driveway, he drove down the street parallel to the tracks which ran north and south. There was a train on the tracks traveling approximately 33 miles per hour. The train engineer, after clearing some trees located between the railroad tracks and the dump truck driver's house, observed the dump truck driver approach the railroad crossing, applied the train brakes and shut down power to the engine. The train struck the dump truck on its passenger side, pushing it over onto its right side. The driver, who was not wearing a seatbelt, was ejected from the truck and pinned underneath the front right tire. The train engineer called emergency medical services who was dispatched immediately. Emergency medical services arrived and transported the driver to a nearby trauma hospital where he arrived at approximately 7:07 AM. He died 5 ½ hours later due to multiple blunt force injuries sustained in the crash.

Case 05KY075: On a Fall day in 2005 at 3:00 PM, a 46 year-old male semi-tractor trailer owner-operator was hauling logs when he rounded a curve, drove off the right side of a two lane state highway, struck a tree and rolled over. Emergency medical services were called to the scene. When they arrived, they found the driver without vital signs and contacted the local coroner. Kentucky State Police arrived and called Kentucky Vehicle Enforcement to the scene. The driver had not been wearing his seatbelt. Toxicology detected methamphetamine and doxylamine in his system at the time of the crash.

Case 07KY070: On a sunny fall day in 2007, a 50-year old semi truck driver hauling processed frozen chicken in a refrigerated trailer, died when his semi crashed into a rock wall. The driver was north bound on an interstate highway when witnesses saw the semi in the left lane contact the concrete median barrier then veer over to the right across one traffic lane and the shoulder, then strike a rock wall. The impact caused the cab to overturn onto the driver's door while the refrigerated trailer remained standing upright. An exhaust pipe located on the back of the cab was horizontal facing skyward on the cab. The fuel line to the refrigeration unit was damaged in the crash allowing fuel to drip onto the hot exhaust pipe and ignite a fire. Numerous calls reporting the crash were placed to 911 emergency medical services. A man and woman reportedly driving behind the semi witnessed the fire start between the cab and trailer. Emergency services arrived and found the cab and front of the trailer engulfed in flames. The local coroner was contacted and called to the scene where he declared the driver dead at the scene.

Case 07KY071: During the fall of 2007, a 53-year-old male iron foreman died when he fell approximately 18 feet from roofing being installed on a retail building under new construction. Two work crews were installing metal decking for a roof by laying corrugated metal sheets to the joists of a retail building being constructed. All workers wore personal fall arrest systems complete with lanyards on the roof; none of the workers were tied off to the building. The foreman had accessed the work site via a 32-foot extension ladder to check on the progress of the work. After speaking to the first crew, the foreman walked along the steel metal decking and joists to talk to the second crew. When he was approximately 71 feet away from the ladder at his origination access point, he fell 18 feet to the concrete floor below. Emergency medical services were contacted. They transported the foreman to the local hospital where the local coroner pronounced him dead due to a brain injury.

08KY007: On a winter day in 2008, a male roofer/ foreman died after falling from a telescopic boom lift. He and four other roofing crew members were installing a new roof at a residence undergoing restoration. They had arrived at the job site at approximately 7:45 AM. At

approximately 8:00 AM, the foreman and two roofers were installing flashing on the roof of an alcove on the south side of the house while two other roofers were in a pickup truck putting on coveralls. The crew on the roof needed red rosin underlayment (paper) which was in the pickup truck. Using a telescopic boom lift, the foreman, who was not wearing a personal fall arrest system and not tied off, descended to the ground to retrieve the red rosin paper from the pickup truck. He spoke to the two roofers in the truck, retrieved the paper, and returned to the telescopic boom lift. Access to the bucket of the telescopic boom lift was opposite from the control panel. He began his ascent in the telescopic boom lift with the red rosin paper, and was not wearing a personal fall arrest system, nor was he tied off. It is unclear if the access gate to the bucket of the telescopic boom lift was open or closed. When he reached a height of approximately 10 feet, he fell out of the telescopic boom lift platform to the ground. Emergency medical services were immediately contacted. Upon their arrival, an ambulance transported the foreman to the nearest hospital. From there he was transferred to the nearest trauma hospital where he died from his injuries at 3:41 PM.

QUANTITATIVE ANALYSIS

The KY FACE Program identified 105 fatal occupational injuries that occurred during 2008, compared to 112 recorded in 2007. The following section provides a descriptive analysis of the 2008 KY FACE data.

Identification of Cases

The primary source of identification for 2008 cases was newspapers (44%) (Figure 1). KY OSHA notified the FACE program of 20% of worker fatalities. The Census of Fatal Occupational Injuries (CFOI) program was the initial source of notification for 16% of the cases. The KY FACE Program was informed of 56% of the occupational fatality cases within two days of the fatality and was notified regarding 71% of the cases within 30 days or less of the fatality.

Figure 1. Sources of Notification – 2008.

There was an increased number of work-related fatalities in June (n = 18) (Figure 2). The lowest number of occupational fatalities occurred during August (n = 4) and November (n=4). The day of the week on which most of the occupational fatalities occurred was Monday (n = 28); the fewest occurred on Sunday (n = 3) (Figure 3).

Figure 2. Kentucky Occupational Fatalities by Month of Death – 2008.

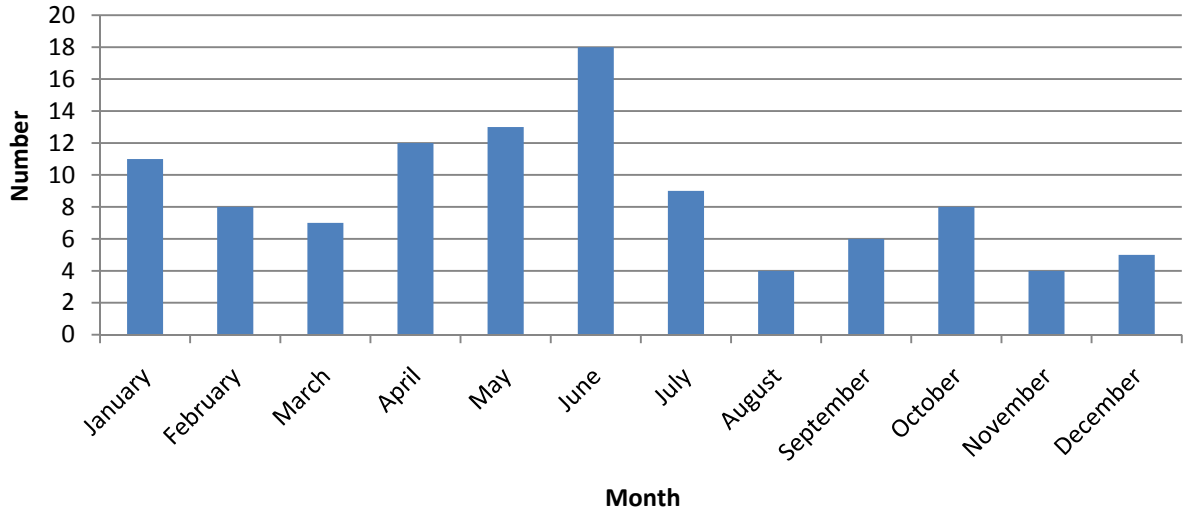
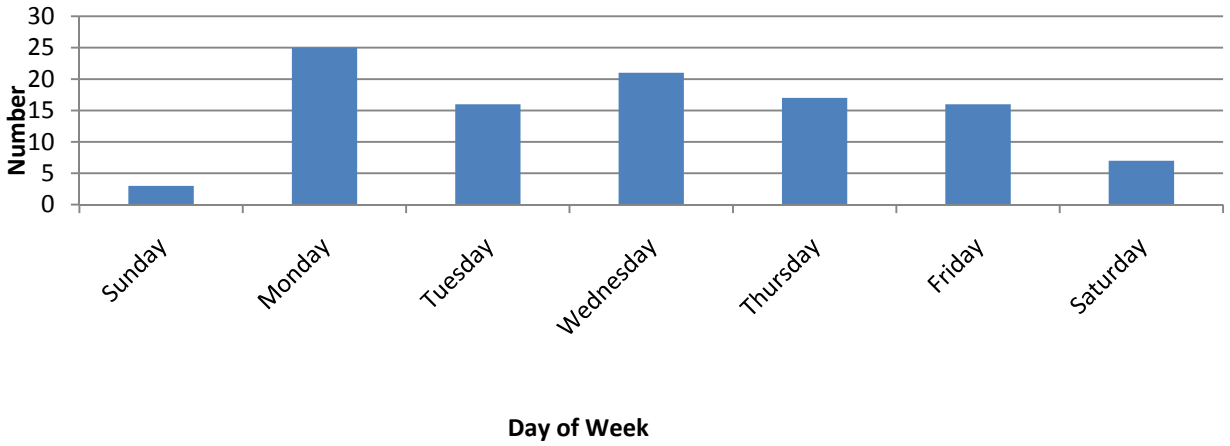


Figure 3. Occupational Fatality Incidents by Day of Week – 2008.



The highest number of occupational fatalities occurred between 2pm and 5:59pm (n=37) and the lowest number of fatalities were recorded between 12am and 5:59am (n=8) (Figure 4).

Figure 4. Fatal Occupational Incidents by Time of Day – 2008.

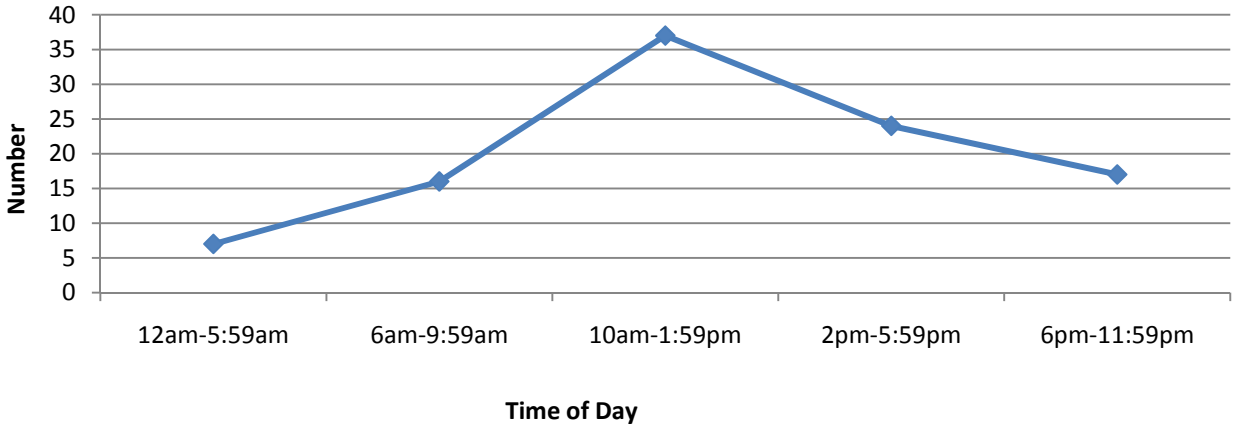
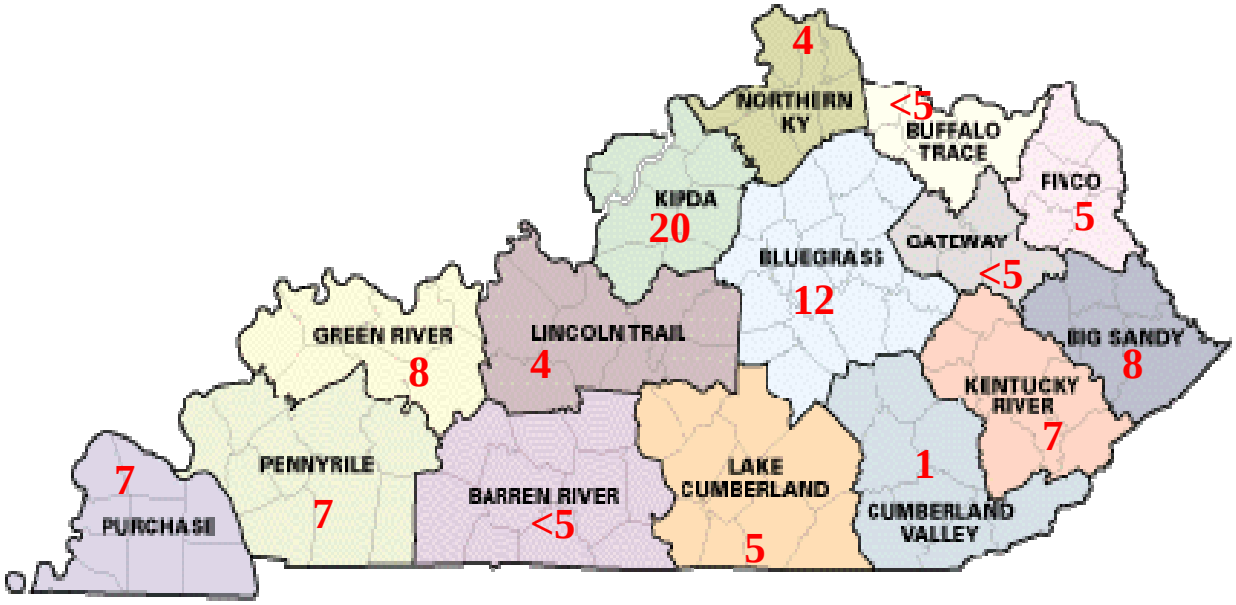


Figure 5 shows the Area Development Districts (ADD) within the Commonwealth of Kentucky. ADD's are defined as partnerships of local governments and these partnerships provide for planned growth within the area. The highest number of 2008 occupational fatalities was in the KIPDA district (n=20), followed by the Bluegrass (n=12) and Cumberland Valley (n = 12) districts. The fewest number of work-related fatal incidents occurred in the Buffalo Trace and Gateway ADDs.

Figure 5. Occupational Fatality Incidents per Area Development District (ADD) – 2008.



The county with the highest number of fatal work-related incidents was Jefferson County (n = 18), followed by Henderson County (n = 6). Table 1 shows the fatality rate per 100.000 workers for the five counties with the highest number of fatalities.

Table 1. Fatality Rates for the Top 5 Counties with the Highest Number of Fatal Occupational Incidents – 2008.

County	Fatalities	Employment[a]	Fatality Rate per 100,000 Workers
Jefferson	18	419,621	4.3
Henderson	6	19,896	30.2
Bell	4	9,345	42.8
Calloway	4	15,770	25.4
Perry	4	13,253	30.2
Total KY	**105**	**1,791,359**	**5.9**

[a]*State and county employment estimates are from the 2008 Kentucky Deskbook of Economic Statistics. Kentucky Cabinet for Economic Development, Division of Research; Frankfort, KY.*

Demographics

Table 2 depicts the demographic characteristics of the workers who were fatally injured on the job in 2008. The ages of the workers involved in fatal occupational incidents ranged from 15 years of age to 83 years of age. The mean age of the fatally injured worker was 47.2 years of age. The majority of those fatally injured at work were born in the United States, although 9 decedents were born in other countries. Nearly all of the decedents (at least 91%) spoke English as their primary language.

When in-state (KY) vs. out-of-state deaths were examined, 10% of the incidents involved out-of-state residents who were fatally injured while working in Kentucky.

Table 2. Demographic Characteristics of Fatally Injured Workers – 2008.

Characteristics		Number	Percent
Total Fatalities		105	100
Sex			
	Male	93	89
	Female	12	11
Race			
	White	89	85
	Other	5	15
Age			
	<20	<5	
	20-29	13	12
	30-39	18	17
	40-49	27	26
	50-59	20	19
	60-69	13	12
	70-79	9	9
	80-89	<5	
Marital Status			
	Married	72	69
	Never Married	12	11
	Widowed	<5	
	Divorced	12	11
Education			
	Less than High School	13	12
	Some High School	12	11
	Finished High School	50	48
	Some College	7	7
	College Graduate	9	9
Country of Origin			
	United States	92	88
	Mexico	7	7
	Other	<5	
Primary Language			
	English	91	87
	Spanish	7	7
	Unknown	2	2
State of Residence			
	Kentucky	92	88
	Other	10	10

Industry

Figure 6 and Table 3 show the number of workers that were fatally injured by industry (*North American Industry Classification System* (NAICS)). Table 3 compares state and national occupational fatality rates. The Services sector recorded the most work-related deaths in Kentucky in 2008 (n = 20, 19% of total fatalities). The occupational fatality rate for this industry was 3.3 worker deaths per 100,000 employed. The highest fatality rates were in the Agriculture, Forestry, Fishing and Hunting industry (45.1 deaths /100,000 employees), the Mining industry (42.6/100,000), the Construction industry (17.8/100,000), and the Transportation and Warehousing industry (16.6/100,000).

Figure 6. Occupational Fatalities by NIOSH Sector (NAICS code) – 2008.

Table 3. Occupational Fatalities by NIOSH Sector (NAICS code) – 2008.

(Rates calculated per 100,000 workers[a]).

Industry[b]	# of KY Deaths In 2008	2008 KY Employment[a,c]	2008 KY Fatality Rate	# of US Deaths in 2008	2008 US Employment[a]	2008 US Fatality Rate[a]
Transportation, Warehousing & Utilities	15	90,243	16.6	798	4,828,851	16.5
Wholesale/Retail Trade	5	287304	1.7	465	21,260,748	2.2
Healthcare and Social Assistance	5	212,386	2.4	110	15,586,001	0.7
Services	20	610,814	3.3	1499	56,338,782	2.7
Agriculture, Forestry, Fishing, and Hunting	17	37,692	45.1	651	1,169,195	55.7
Construction	15	84,327	17.8	969	7,125,029	13.6
Manufacturing	18	245,266	7.3	404	13,383,162	3.0
Mining	10	23,466	42.6	175	713,313	24.5
Total	105	1,791,359	5.9	5071	134,809,552	3.8

[a]Number of employed persons obtained from the Bureau of Labor Statistics based on number of people employed in private industry except for public administration.

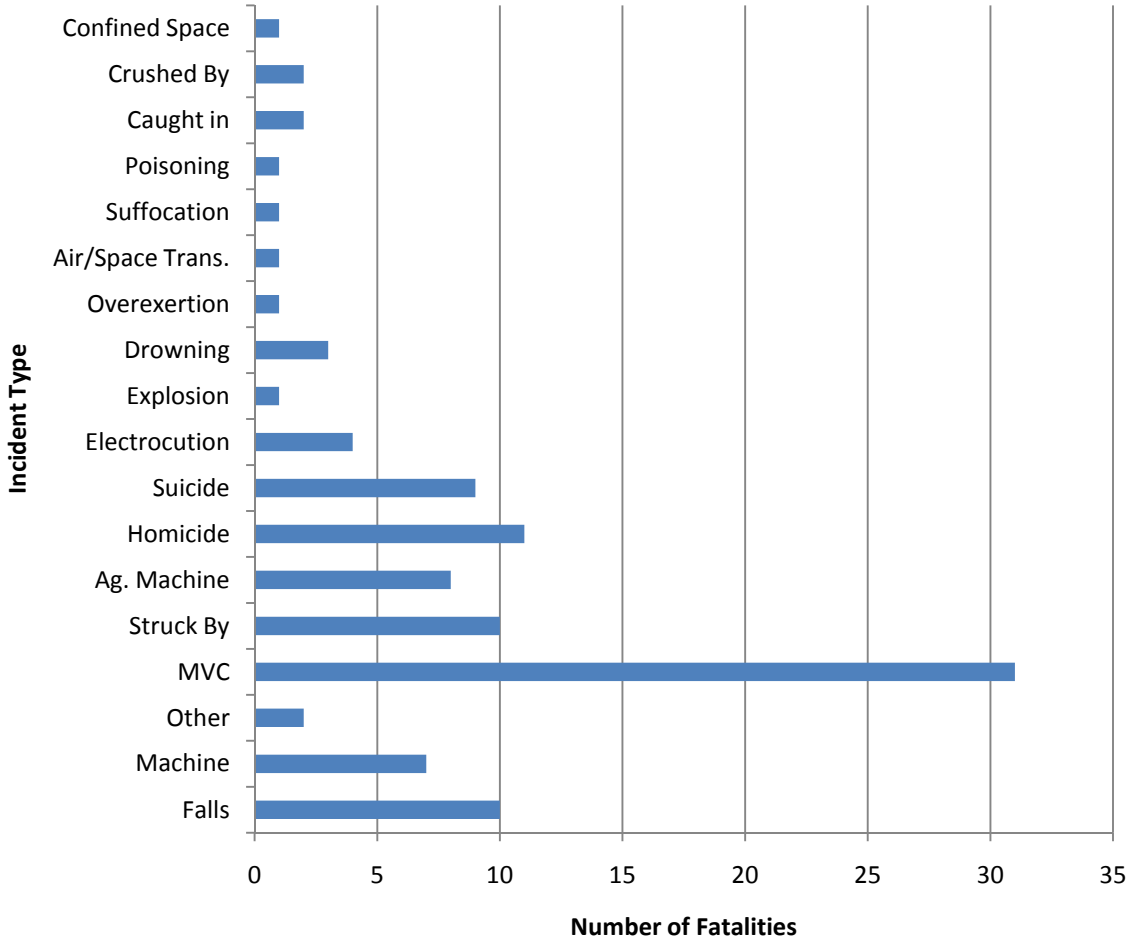
[b]Office of Management and Budget. North America Industry Classification System. 2006. Bernam Press. Lanham, MD.

[c] 2008 Kentucky agricultural employment labor force estimate were derived from the Kentucky Deskbook of Economic Statistics

External Cause of Death

Figure 7 shows the incident type(s) for 2008 occupational fatalities. Motor vehicle collisions (MVCs) were the leading cause of occupational fatalities (n = 31, 30%) in 2008. The second leading cause of worker death was by homicide (n = 11, 10%), and workers being struck by an object and falls were the third major causes of fatal occupational incidents (n=10 each, 10% each).

Figure 7. Occupational Fatalities by Incident Type – 2008.



Occupation

Figure 8 represents Kentucky work-related fatalities classified by occupation, and coded according to the *Standard Occupation Classification Manual, 2000* (SOC). The Transportation and Material Moving occupation accounted for 24 of the 105 occupational deaths in 2008 (23%). Kentucky and US occupational fatality rates by major occupational groups are shown in Table 4. The highest fatality rates were in the Farming & Fishing & Forestry (147.7), Management (25.7), Construction & Extraction (16.4), and the Transportation & Material Moving (14.9) occupations.

In Figures 9-11, the primary cause of death is listed for the three occupational groups with the highest number of deaths. Within the Transportation and Material Moving occupation, motor vehicle collisions were the most frequent incident type (75%). Agricultural machines (25%) were the leading cause of death in the Management occupation, and falls were the leading cause of cause of death in the Construction and Extraction occupation (50%).

Figure 8. Work-Related Fatalities by Occupation (SOC) – 2008.

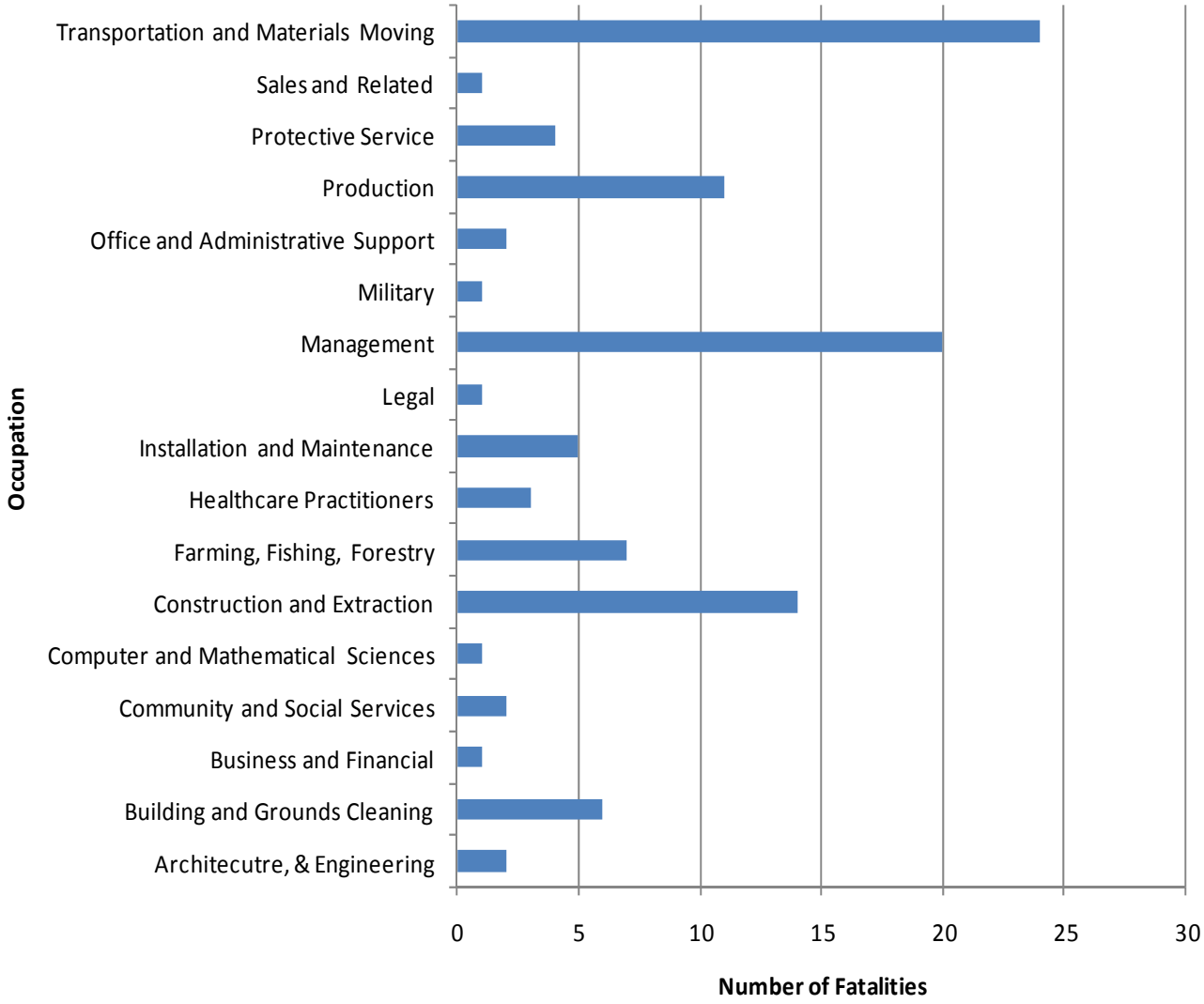


Table 4. Work-Related Fatalities by Major Occupational Classification – 2008.

Occupational Classification	Number of Fatalities	# Employed in KY	2008 KY Rate	2008 Number of Fatalities[b]	# Employed in US[c]	2008 US Rate[a]
Architecture and Engineering Occupations	2	22,470	8.9	39	2,521,630	1.5
Building, Grounds Cleaning	6	52,270	11.5	227	4,429,870	5.1
Business and Financial	1	54,160	1.8	24	6,135,520	0.4
Community and Social Services	2	22,280	9.0	31	1,861,750	1.7
Computer and Mathematical Sciences	1	26,890	3.7	7	3,308,260	0.2
Construction, Extraction	14	85,420	16.4	966	6,548,760	14.8
Farming, Fishing, Forestry	7	4,740	147.7	274	438,490	62.5
Healthcare Practitioner	3	104,200	2.9	60	3,779,280	1.6
Installation, Maintenance	5	81,990	6.1	345	5,374,850	6.4
Legal	1	9,720	10.3	15	1,003,270	1.5
Management	20	77,860	25.7	538	6,152,650	8.7
Military	1	n/a				
Office & Administrative Support	2	293,070	0.7	88	23,231,750	0.4
Production	11	203,000	5.4	261	9,919,120	2.6
Protective Service	4	35,450	11.3	300	3,128,960	9.6
Sales and Related	1	185,220	0.5	266	14,336,430	1.9
Transportation, Material Moving	24	160,700	14.9	1330	9,508,750	14.0

[a]Kentucky employment figures obtained from *Kentucky Office of Employment and Training*. Rates were calculated as the number of occupational fatalities per 100,000 workers.
[b]US occupational fatality numbers obtained from the bureau of Labor Statistics, Census of Fatal Occupational Injuries
[c]US employment numbers obtained from the Bureau of Labor Statistics.

Figure 9. External Causes of Death for Transportation and Material Moving Occupations (SOC) – 2008.

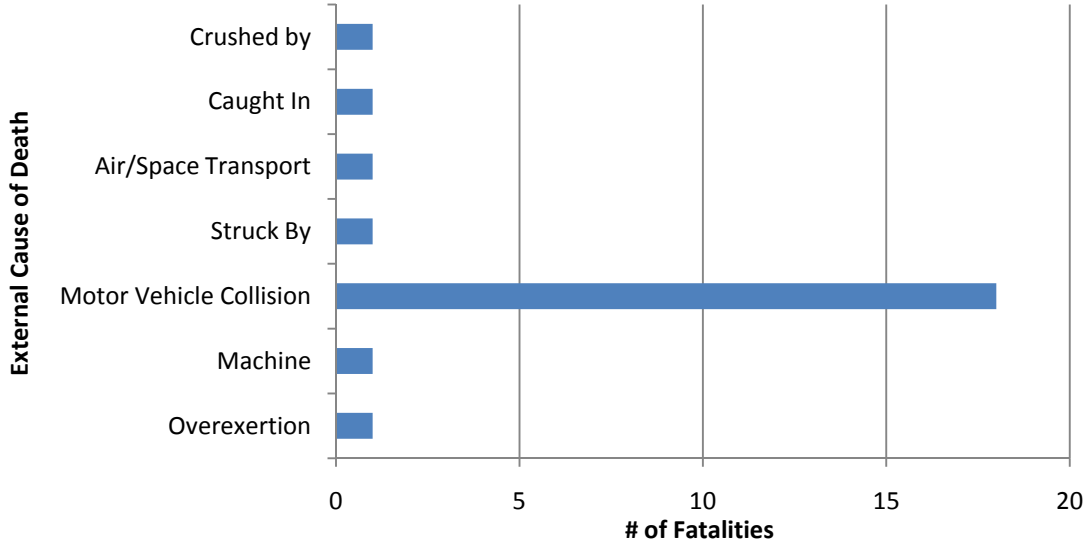


Figure 10. External Causes of Death for the Management Occupation (SOC)- 2008.

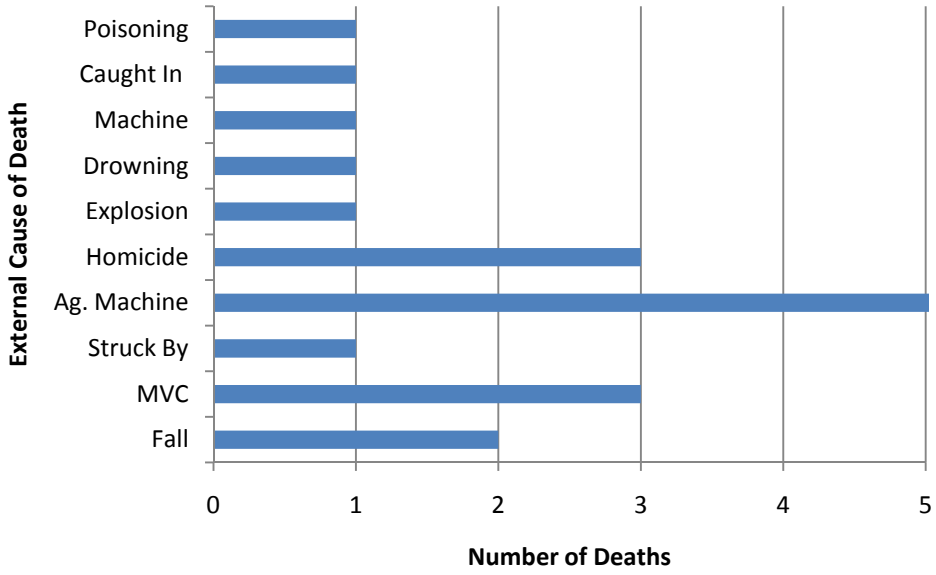
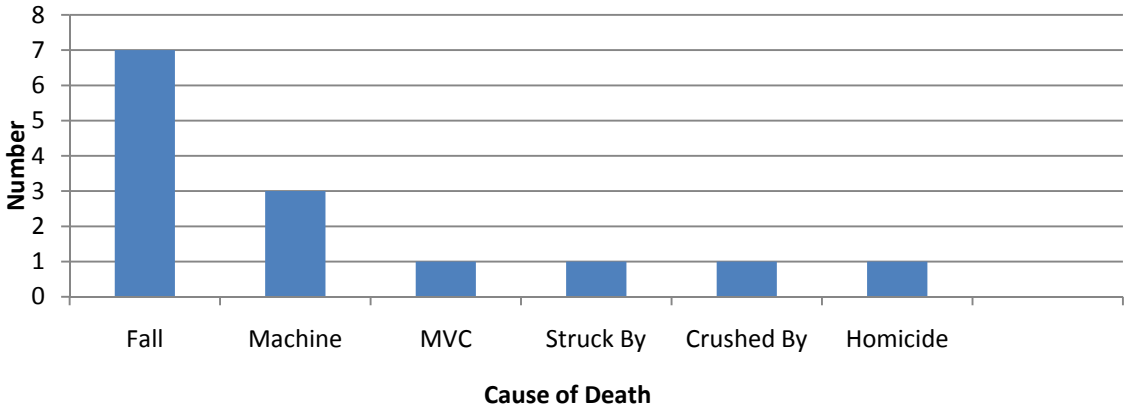


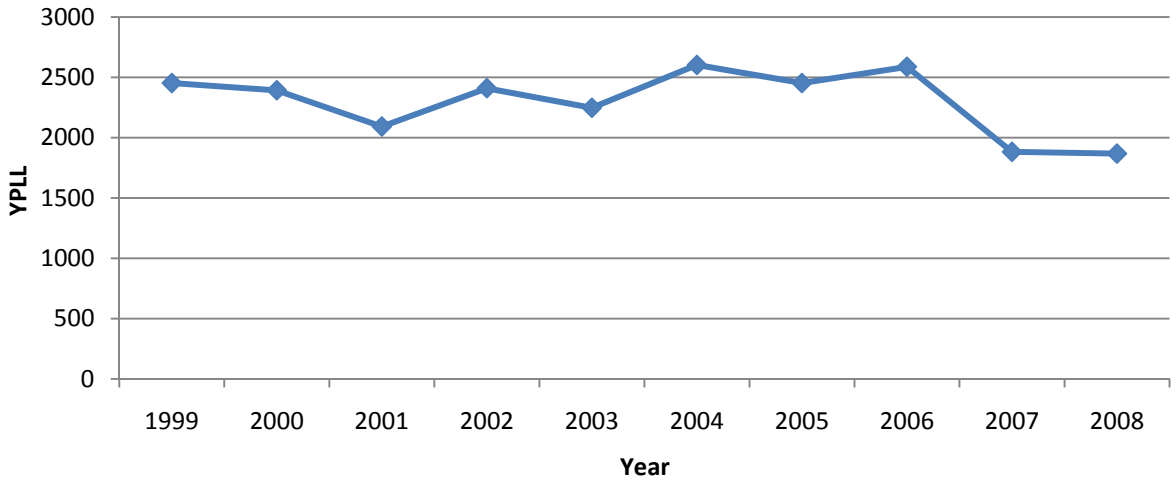
Figure 11. External Causes of Death for the Construction and Extraction Occupation-2008.



Years of Potential Life Lost (YPLL)

Figure 12 represents the total YPLL for the years 1999 – 2008. In 2008, the total YPLL for the 105 fatally injured workers was 1868 (YPLL is based on the age of 65). YPLL is calculated as the age of the worker at the time of death, subtracted from the average age of retirement.

Figure 12. Total Years of Potential Life Lost (YPLL) in Kentucky, 1999-2008.



The industries with the highest average YPLL were in the Administrative Support, and the Public Administration industries (Table 5). These results indicate that workers in these industries are being fatally injured at a younger age. The Manufacturing sector had the highest total YPLL, which indicates that the loss of potential employment and future lost productivity was highest for this industrial group ($14.2 million dollars). Table 6 shows that future lost earnings could total as much as $81 million dollars due to these work-related fatalities. Those industries with future losses of greater than $10 million dollars were the Manufacturing, Mining, Transportation and Warehousing, and the Construction industries.

Table 5. Total and Average YPLL by Industry Classification – 2008.

Industry Classification	Total Fatalities	2007 Total YPLL	Average YPLL per Fatality
Accomodation & Food Service	1	17	17
Administrative & Support	8	228	28.5
Agriculture, Forestry, Fishing, Hunting	17	66	3.4
Construction	15	239	15.9
Finance and Insurance	1	33	33
Healthcare and Social Assistance	5	95	19
Manufacturing	18	328	18.2
Mining	10	247	24.7
Other Services	2	-19	-9.5
Professional and Scientific	3	34	11.3
Public Administration	5	138	27.6
Retail Trade	3	53	17.7
Transportation and Warehousing	14	297	21.2
Utilities	1	36	36
Wholesale Trade	2	76	38
Total	**105**	**1868**	**20.1**

Table 6. Future Lost Wages (by Industry) Due to Work-Related Fatalities – 2008.

Industry Classification	Average Salary[a]	Number of Fatalities	Total Earnings Lost (in millions)	% of Total
Accomodation & Food Service	$21,350	1	$362,950	0.4%
Administrative & Support	$32,640	8	$7,441,920	9.2%
Agriculture, Forestry, Fishing, Hunting	$24,530	17	$1,618,980	2.0%
Construction	$45,100	15	$10,778,900	13.3%
Finance and Insurance	$55,440	1	$1,829,520	2.3%
Healthcare and Social Assistance	$44,330	5	$4,211,350	5.2%
Manufacturing	$43,270	18	$14,192,560	17.5%
Mining	$50,380	10	$12,443,860	15.3%
Other Services	$33,980	2	$-645,620	-0.8%
Professional and Scientific	$66,040	3	$2,245,360	2.8%
Public Administration	$49,530	5	$6,835,140	8.4%
Retail Trade	$28,560	3	$1,513,680	1.9%
Transportation and Warehousing	$42,330	14	$12,572,010	15.5%
Utilities	$60,520	1	$2,178,720	2.7%
Wholesale Trade	$48,700	2	$3,701,200	4.6%
Total	**$43,438**	**105**	**$81,280,530**	**100%**

[a]Average Salaries from *2007 National Industry-Specific Occupational Employment and Wage Estimates.* U.S. Bureau of Labor Statistics.

SPECIAL TOPICS

Fatal Transportation and Warehousing Injuries

The Transportation and Warehousing industry accounted for 14 of the 105 (13%) total work-related fatalities in 2008, decreased from 28% in 2007. Following are the fatality narrative for the 14 cases:

08KY004: The victim was tightening the nuts on a pump under his oil tanker truck. The victim's sleeve became caught in the rotating PTO shaft of the running truck causing blunt force trauma to the victim.

08KY010: The victim was delivering a load of coal in a tractor trailer when the victim struck another tractor trailer traveling in front of him. The victim’s truck crossed the highway, struck a tree, and caught fire.

08KY013: The tractor-trailer jackknifed and overturned on an interstate highway.

08KY015: While leaving the premises of a client, the driver of a tractor trailer stopped at a guard shack to have his trailer checked. While closing the trailer doors, the victim was struck by another tractor trailer driven by a truck driver who was attempting to retrieve items from the floorboard and couldn’t stop in time.

08KY019: The victim was driving a tanker truck on a highway when he was struck head-on by another truck.

08KY021: The victim's body was found with the body of her estranged spouse in the back of a courier vehicle while delivering documents.

08KY022: The victim was the driver of a truck who parked on the shoulder of a road and exited the truck. The vehicle began to roll and the victim tried to jump back into the cab to apply the brakes but the victim was struck by the truck.

08KY029: The victim was driving a tractor-trailer and ran off the side of the interstate.

08KY049: The victim was driving a tractor-trailer when the tractor trailer failed to negotiate a turn on a ramp. The tractor trailer struck a guardrail and overturned.

08KY054: The victim was driving a vehicle which struck the back of a coal truck.

08KY077: The victim suffered a heart attack while loading coal into truck.

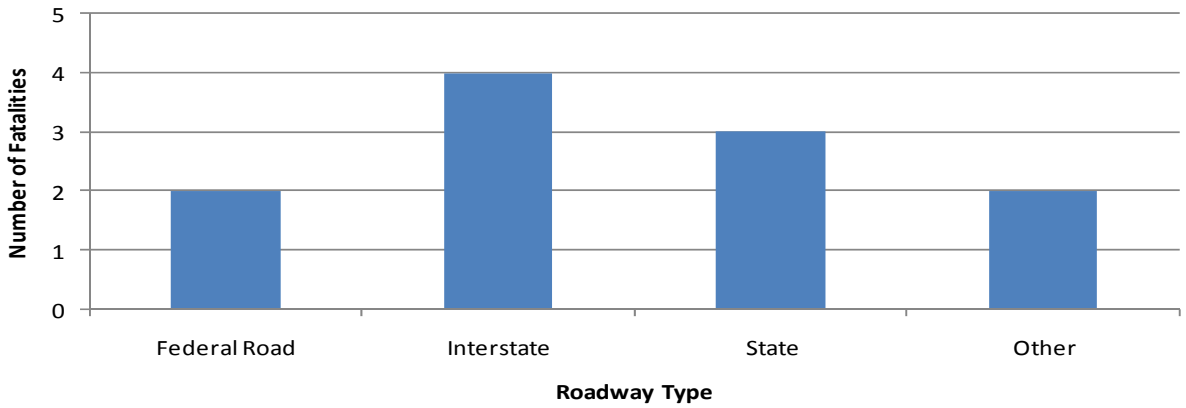
08KY084: The victim was driving a semi truck when it overturned.

08KY092: The victim was piloting a small plane when it crashed.

08KY095: The victim was driving a coal truck and swerved to miss an auto.

Twelve of the victims were married and two were divorced. Six of the victims were self-employed at the time of death. Seven of the transportation and warehousing fatal victims had a high school education and four had less than a high school education; all spoke English as their primary language. Eleven of the fatal incidents involved a motor vehicle; eight involved single vehicle collisions and three involved two vehicles. Four of the transportation and warehousing industry fatalities occurred on interstate highways (Figure 13).

Figure 13. Transportation and Warehousing Deaths by Roadway Type– 2008.



Semi trucks were the vehicles more frequently involved in transportation and warehousing industry fatalities (Figure 14). Three of the vehicles were hauling coal (Figure 15). Five of the seven recorded drivers were not wearing their seat belts but only one of the drivers was ejected from the vehicle. Seven of the ten fatal roadway incidents occurred on four–lane highways. Eleven of the transportation and warehousing industry decedents were employed as truck drivers (Figure 16).

Figure 14. Transportation and Warehousing Industry Fatalities by Vehicle Type– 2008.

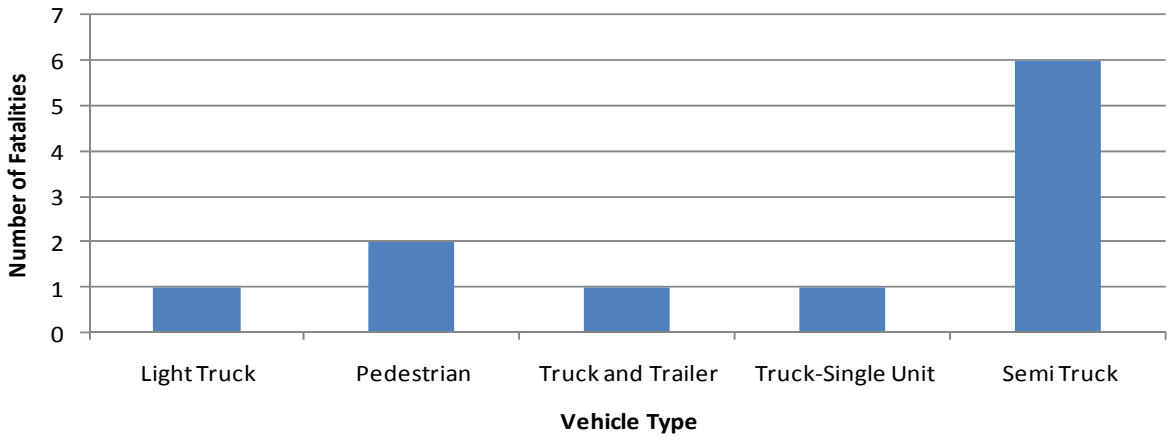


Figure 15. Transportation and Warehousing Industry Fatalities by Cargo Type– 2008.

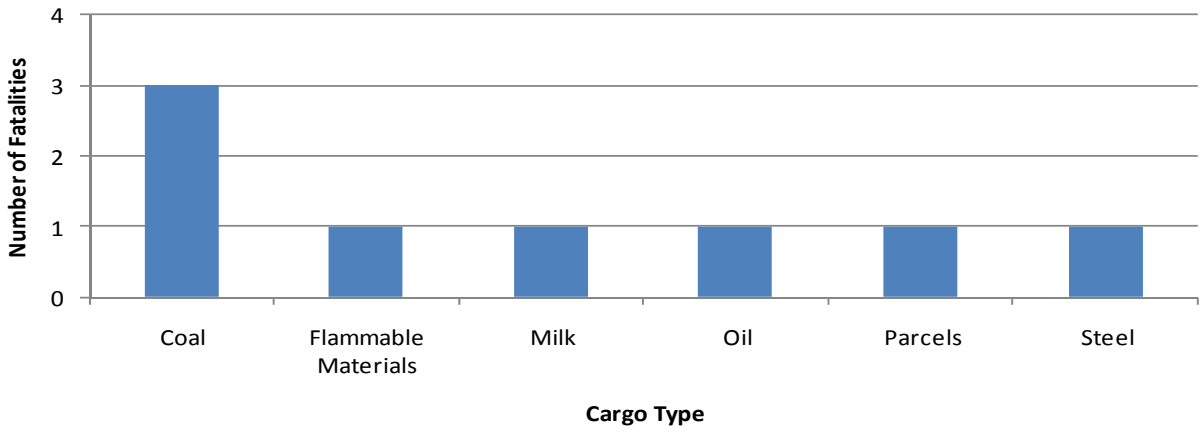
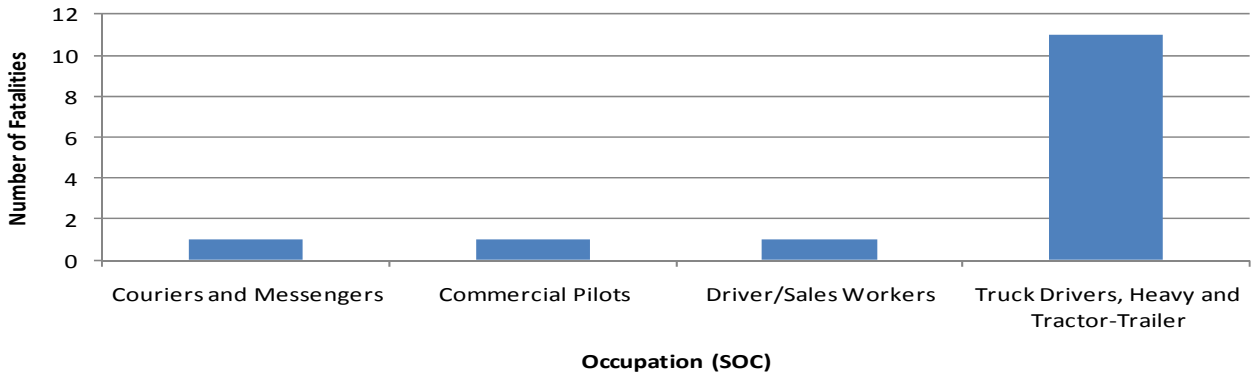


Figure 16. Transportation and Warehousing Industry Fatalities by Occupation (SOC)–2008.



Occupational Suicides

During 2008, 9 of the 105 occupational fatalities were suicides. Six of the suicides (67%) involved the use of firearms (Figure 17). The Manufacturing industry accounted for three of the occupational suicides in 2008 (Figure 18) and the security guard occupation accounted for two of the occupational suicides (Figure 19). Three of the occupational suicide victims were married, four were not married, and two were widowed. Eight of the occupational suicide victims spoke English as their first language. Eight of the nine victims were self-employed and were Kentucky residents. Four of the occupational suicides occurred between noon and 6pm (Figure 20). Seven of the victims were males. The occupational suicide victims ranged in age from twenty-three to seventy-three years old (Figure 21). Seven of the victims had completed high school.

Figure 17. Occupational Suicides by Mode of Death – 2008.

Figure 18. Occupational Suicides by Major Industry – 2008.

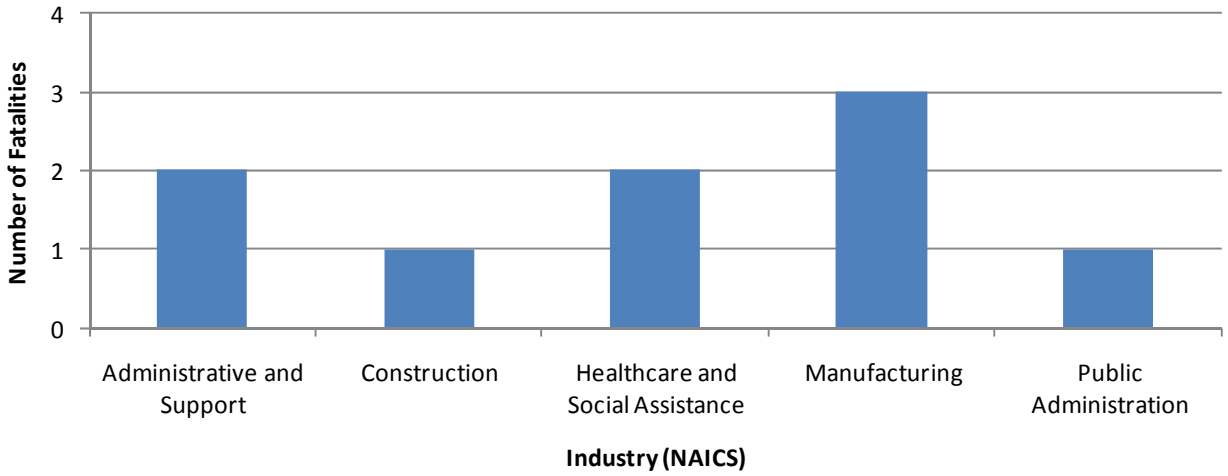


Figure 19. Occupational Suicides by Occupation (SOC) – 2008.

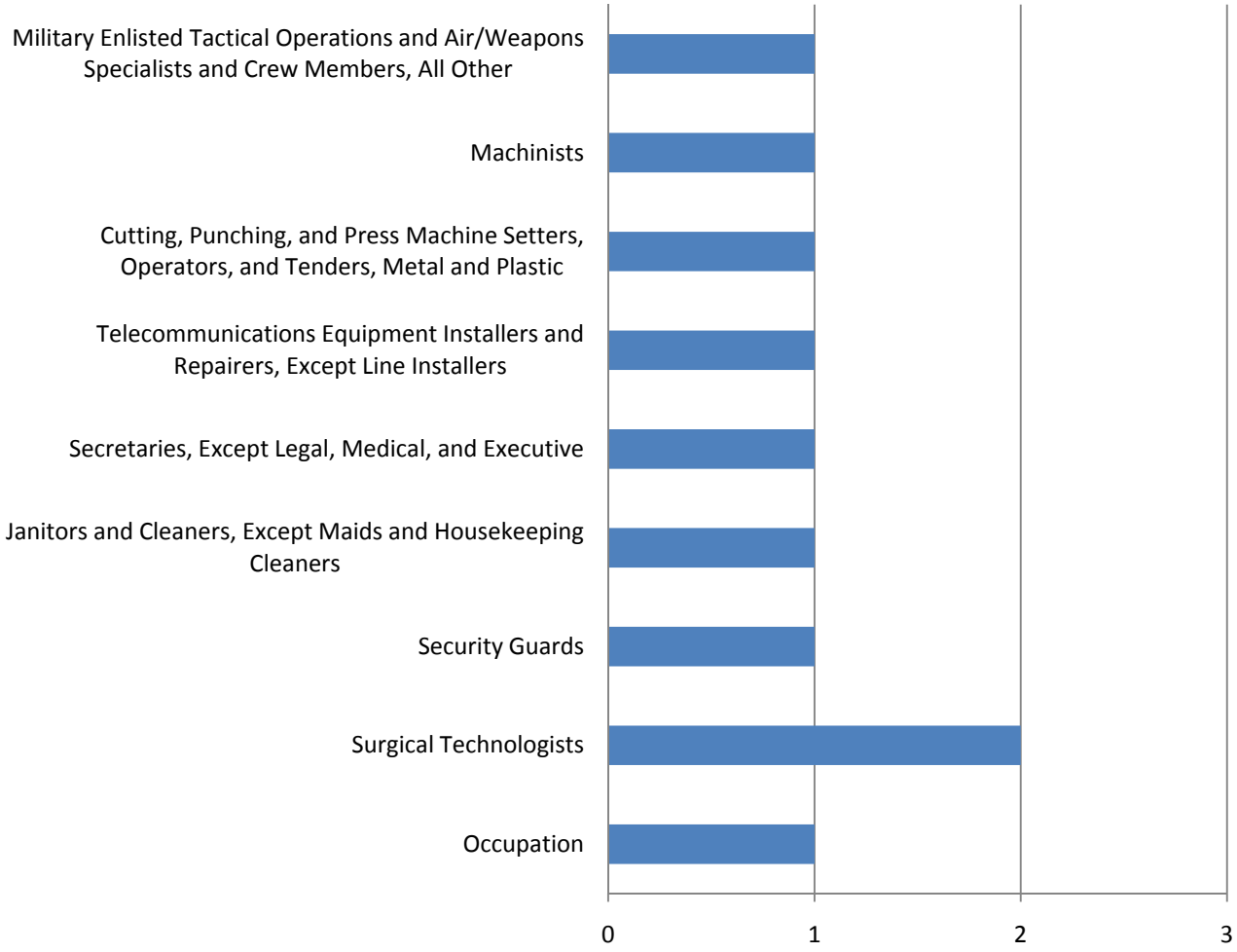


Figure 20. Occupational Suicides by Time of Day – 2008.

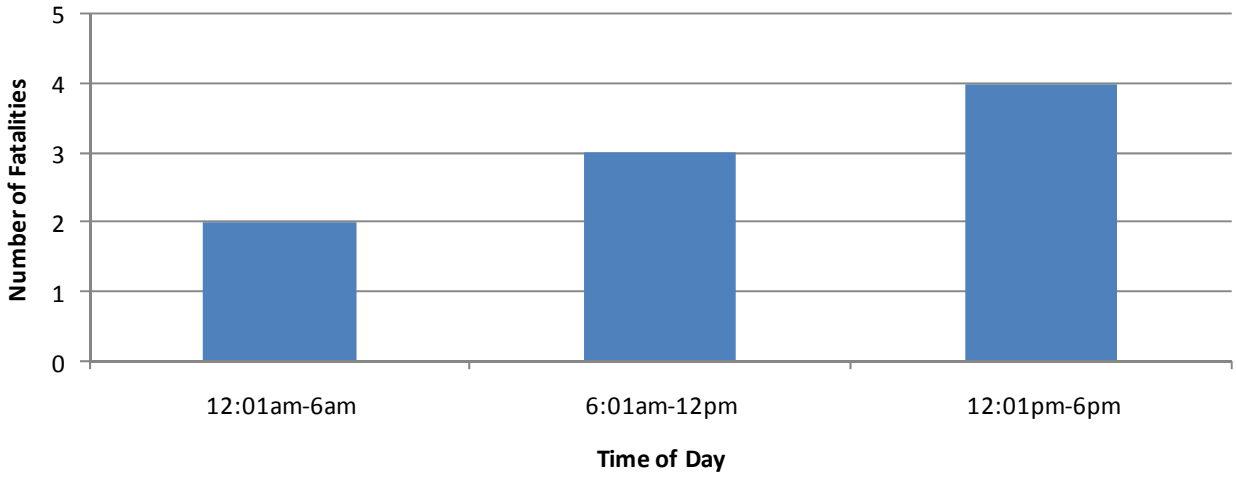
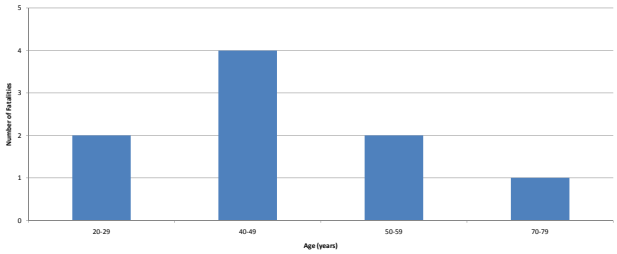


Figure 21. Occupational Suicides by Age – 2008.



Agricultural Industry Occupational Fatalities

During 2008, 17 of the 105 occupational fatalities occurred within the Agriculture, Forestry, Fishing, and Hunting industry. Figure 22 represents the ages of the fatally injured workers in this industry at their time of death. Following are the fatality narratives of the deceased agricultural industry workers:

08KY001: The decedent became caught in a tractor with an attached corn crusher.

08KY027: The victim fell off his tractor and was struck by the tractor and implement.

08KY030: The victim was driving a tractor that overturned while loading hay.

08KY033: The victim was on farm round baling hay. The baler became clogged with hay and while trying to unclog the still running baler, the victim was pulled inside the attachment. He was found several hours later still inside the running machine.

08KY039: The victim was helping his father and older brother unload grain into a grain bin from the back of a truck. The victim fell into the bin and was asphyxiated.

08KY044: The victim drowned due to a tractor overturn.

08KY045: the victim died after being struck by a limb while clearing farm land.

08KY056: The victim was pinned between his tractor and bush hog.

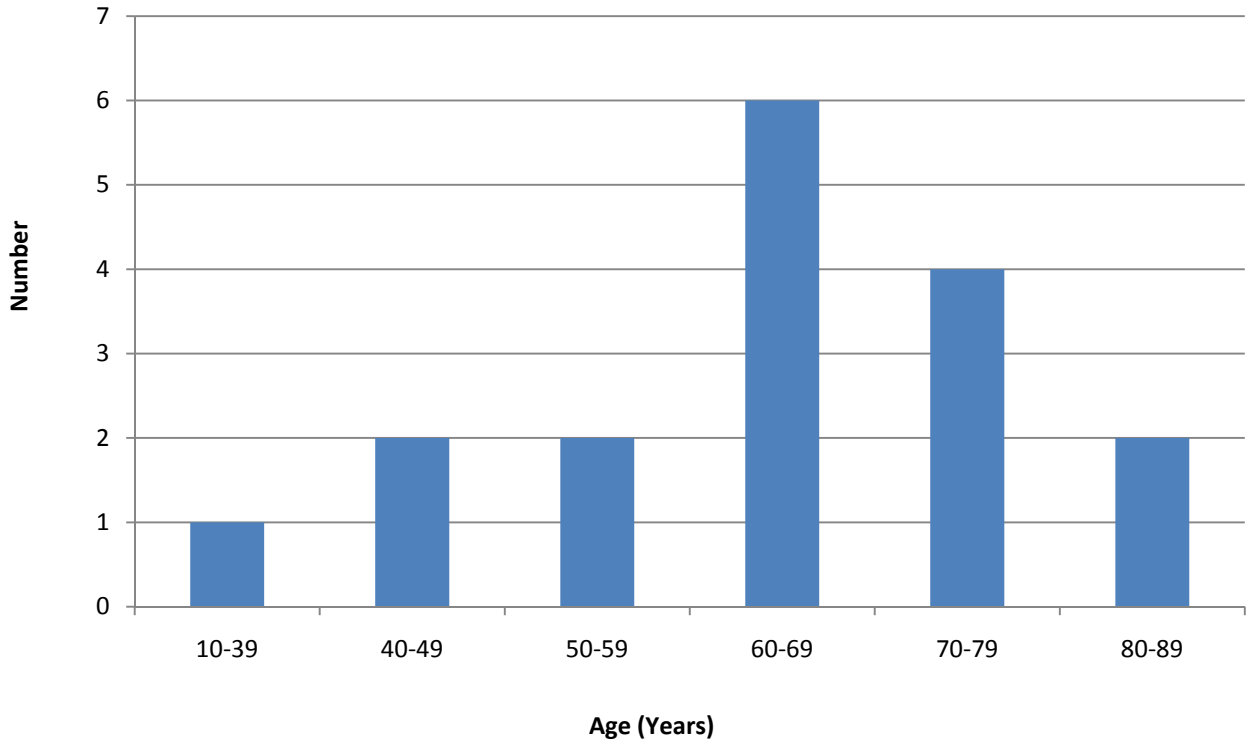
08KY058: The victim was driving a tractor on a rural road when he lost control. He was run over by the farm tractor bush hog.

08KY063: The victim was mowing a field on his property with a tractor and bush hog. He fell from the tractor and was run over.

08KY080: The victim was getting off his tractor when he lost his balance and hit his head after falling.

08KY082: The victim fell from a barn roof.

Figure 22. Age of Agricultural Industry Worker at Death – 2008.



More workers died in the month of June (Figure 23) than in other months, and more workers died on a Monday than any other day of the week (Figure 24).

Figure 23. Month of Agricultural Industry Worker Death – 2008.

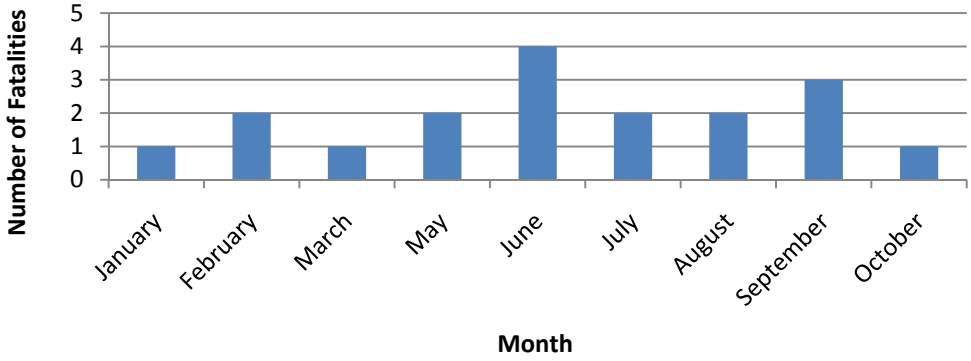
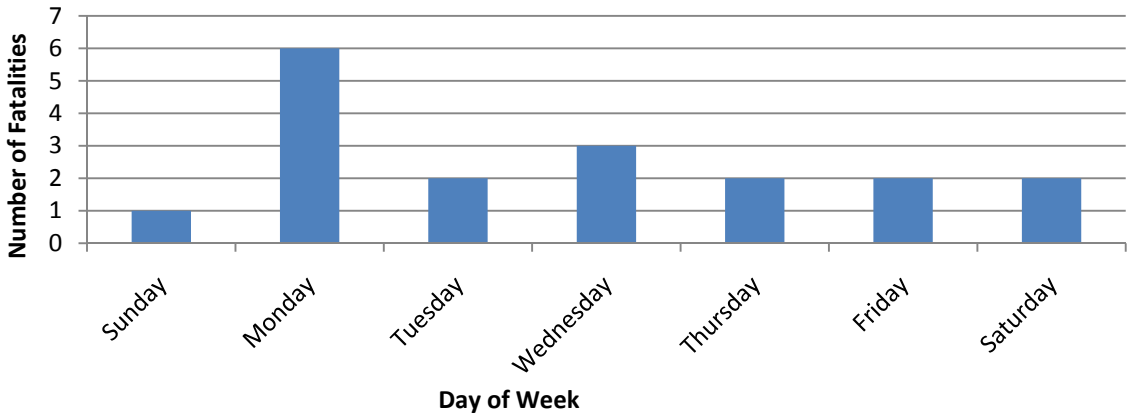
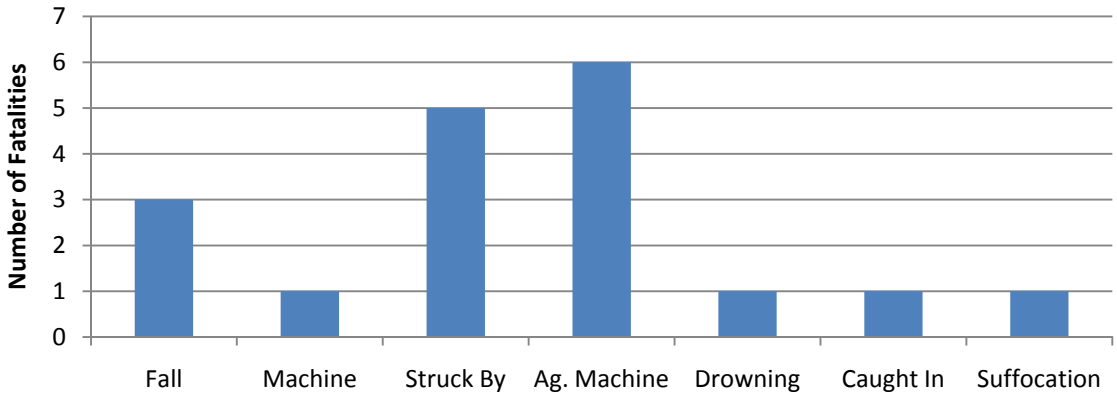


Figure 24. Day of Fatal Incident for Agricultural Industry Workers – 2008.



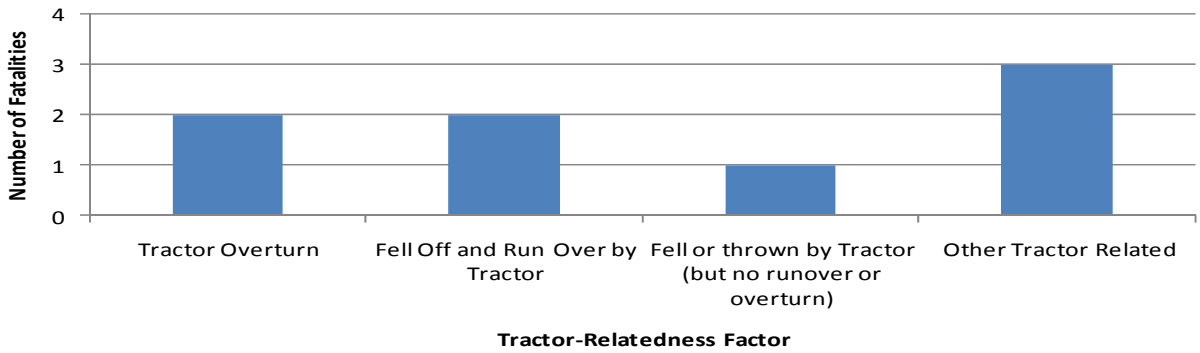
The leading causes of death for these workers were incidents involving agricultural machinery (tractors) (n = 6) and being struck by an object (n = 5) (Figure 25).

Figure 25. Agricultural Industry Worker Deaths by Incident Type – 2008.



Three of the agricultural industry worker deaths were bush hog-related and eight were tractor-related; three were non-ROPS-related (Figure 26).

Figure 26. Tractor-Relatedness of Agricultural Industry Worker Deaths in 2008.



Logging Industry Fatalities

The KY FACE Program recorded 6 fatalities in the Logging industry in 2008. Five of the six workers were 60 years of age and older. Three of the decedents were self-employed and the most frequent external cause of death in this industry was being struck by an object (Figure 27). The narratives of the logging industry fatalities follow:

08KY034: The victim was cutting a tree when a limb from an adjacent tree fell on him.

08KY057: The victim was a logger and a farmer. He died from injuries suffered in a logging accident on his farm. The decedent was crushed beneath the tire of a rolling log skidder.

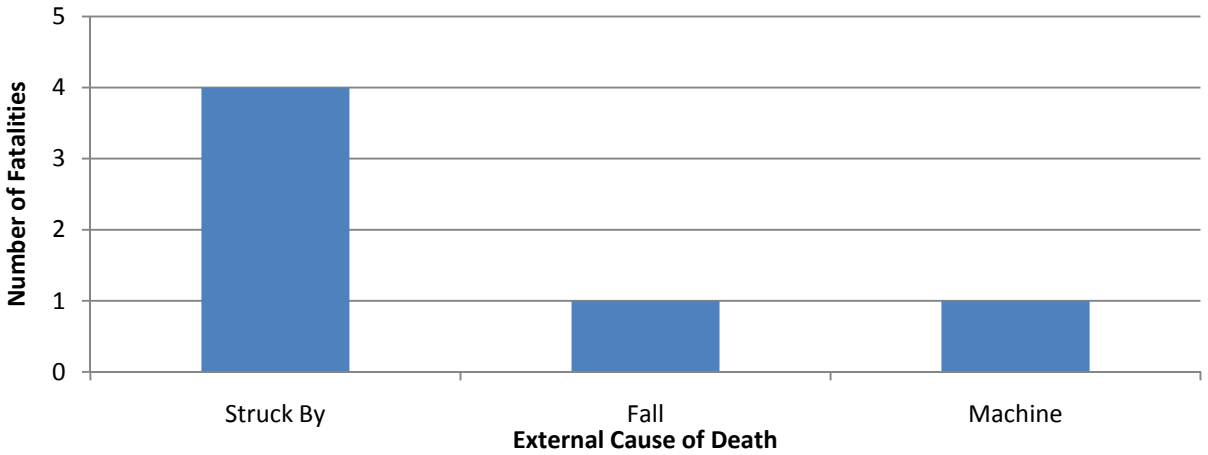
08KY061: The decedent was cutting trees, a regular part-time endeavor. The decedent was trying to down a tree that had become lodged against another. When the tree began to fall it kicked back and fell on top of him.

08KY067: The victim was killed while cutting trees.

08KY069: The victim died when a branch from a tree broke off. A witness reports that he jumped back to avoid the branch. However, it fell in the opposite direction, hitting the decedent on the head and knocked him back thirty or forty feet.

08KY100: Victim was a logger who fell over an embankment after cutting down a tree.

Figure 27. External Cause of Death for Decedents in the Logging Industry – 2008.



February and September were the months in which the highest number of logging deaths were recorded (Figure 28). More of the logging fatalities occurred on either a Monday or a Wednesday (Figure 29). Two of the deceased loggers were multiple job-holders. Three of the fatal incidents occurred between 10am and noon.

Figure 28. Month of Death of Decedents in the Logging Industry- 2008.

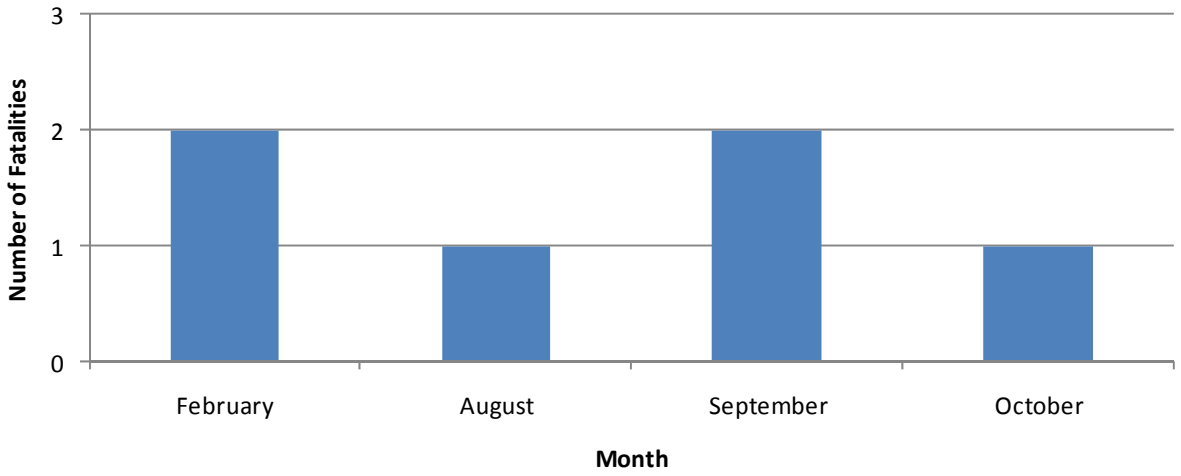
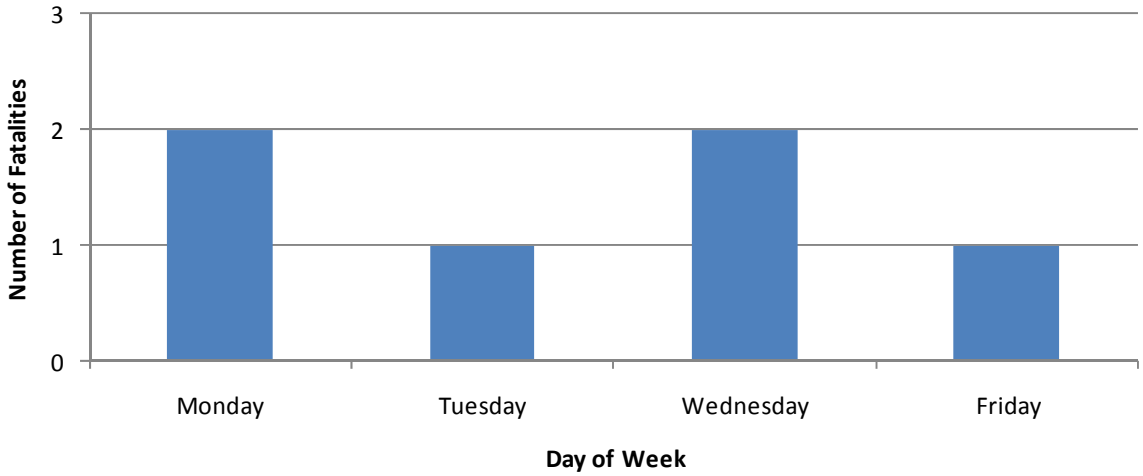


Figure 29. Day of Week of Decedents' Deaths in the Logging Industry- 2008.



Occupational Homicides

In 2008, there were eleven occupational homicides; five of the decedents were killed in a single incident. Nine of the victims were married. Six of the victims spoke English as their primary language; four of the victims spoke Spanish as their primary language and Mexico was their country of origin. Eight of the victims were male. Two of the victims were self-employed. Most of the occupational homicides occurred in the afternoon hours (Figure 30). Ages of the victims ranged from 21 years of age to 60 years of age (Figure 31). Seven of the decedents had completed high school and two had less than a high school education.

Figure 30. Occupational Homicides by Time of Day, 2008.

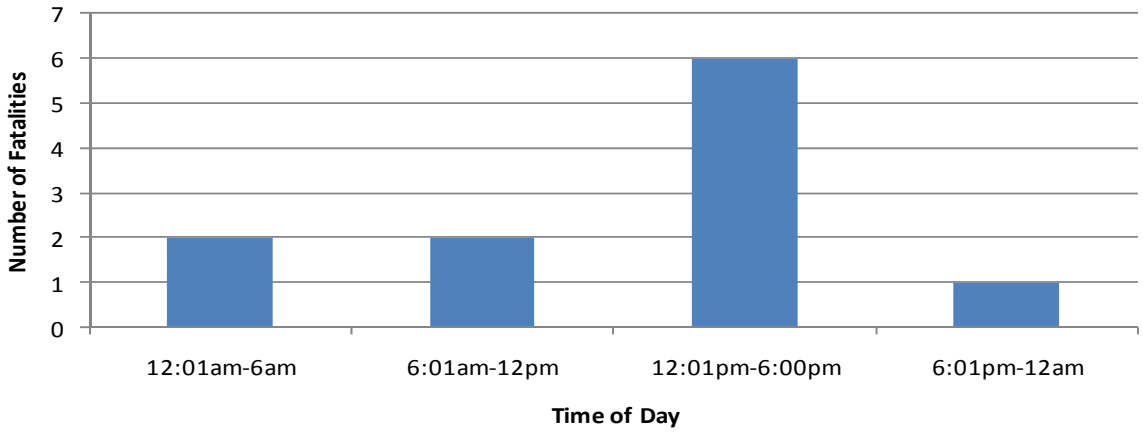
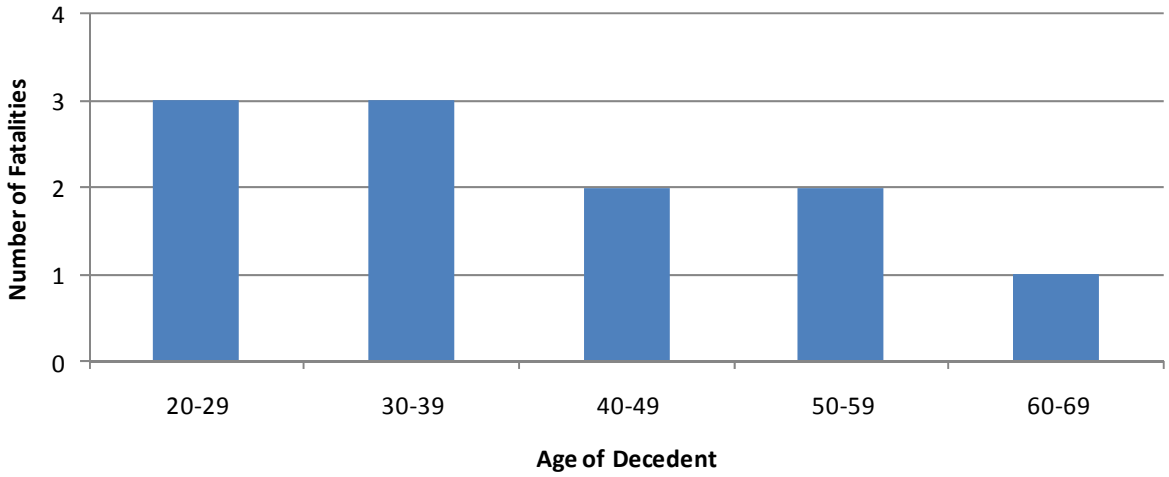


Figure 31. Occupational Homicides by Age, 2008.



Five of the decedents were employed in the manufacturing industry (Figure 32). Four of the decedents were employed in the metal workers and plastic workers occupation (Figure 33).

Figure 32. Occupational Homicides by Major Industry, 2008.

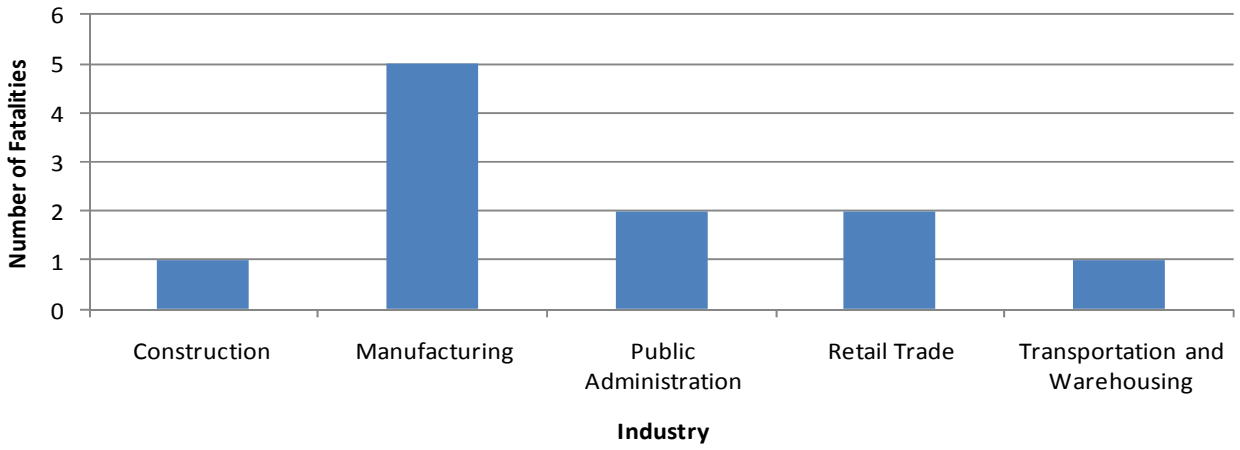
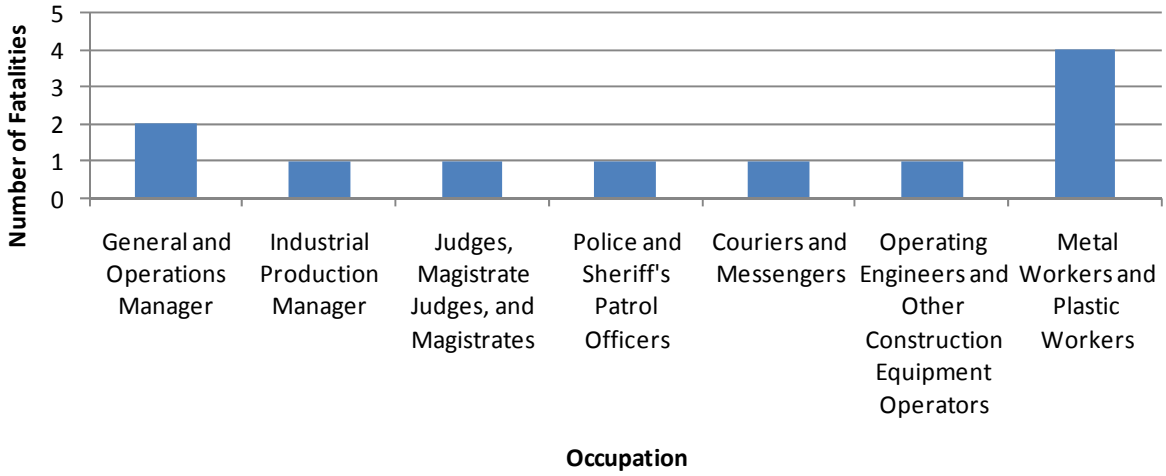


Figure 33. Occupational Homicides by Major Occupational Group, 2008.



Occupational Fall Fatalities

In 2008, ten workers died due to occupational falls. Seven of the victims were married and one victim was never married. Seven of the victims spoke English as their primary language; one spoke Spanish and his country of origin was Mexico. Three of the occupational fall fatality victims were self-employed and six of the victims were Kentucky residents. All of the victims were male, and six of the victims were employed in the construction industry (Figure 34). Four of the victims had less than a high school education. The occupational fall fatality victims came from varied occupations (Figure 35). Seven of the decedents were over the age of fifty years (Figure 36). Six of the fatal incidents occurred between 6am and noon.

Figure 34. Occupational Fall Fatalities by Major Industry (NAICS)- 2008.

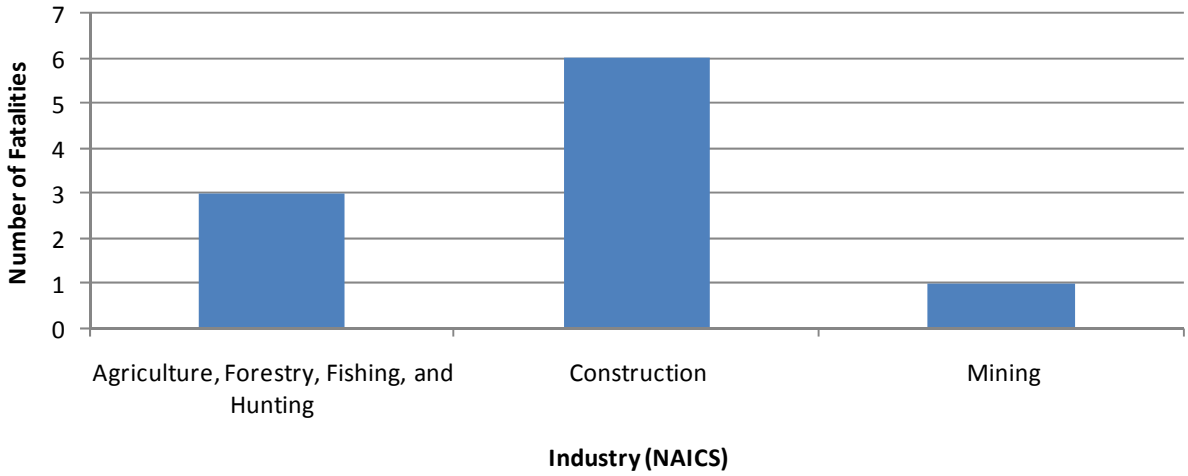


Figure 35. Occupational Fall Fatalities by Occupation (SOC)- 2008.

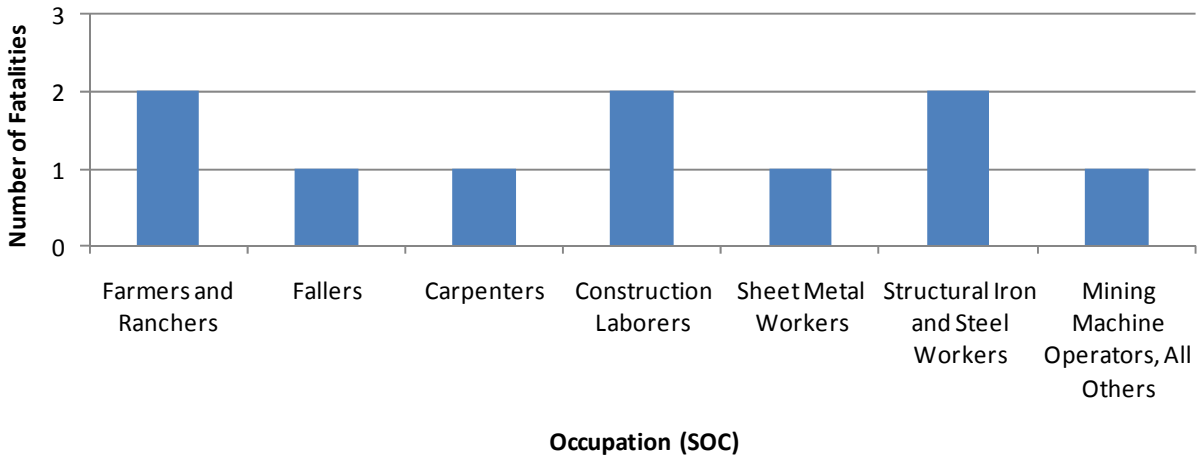
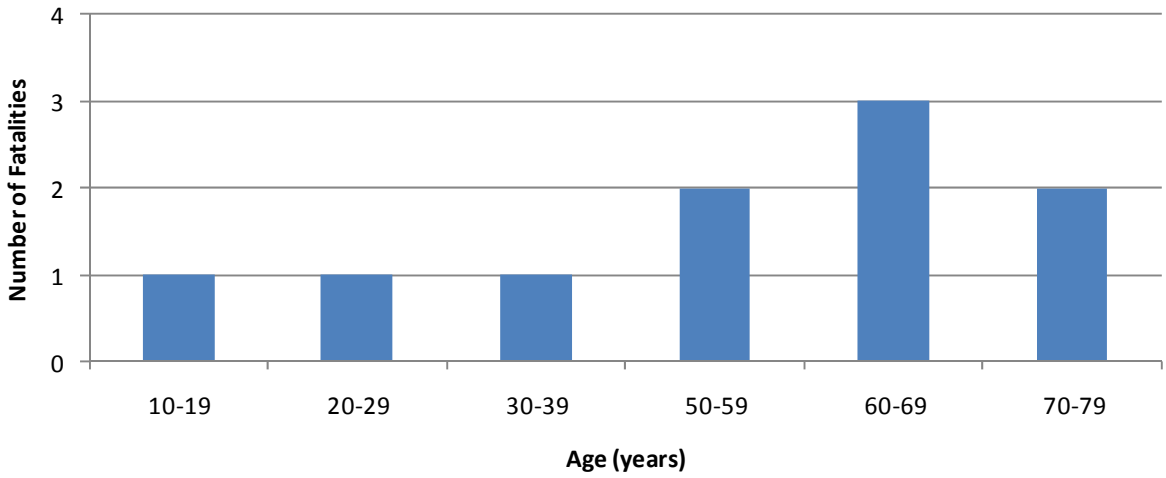


Figure 36. Occupational Fall Fatalities by Age- 2008.



CONCLUSIONS

The KY FACE program identifies industries and occupations at elevated risk for traumatic injuries and investigates targeted worker deaths. Prevention materials that are produced by the program have been used for training purposes such as new worker and new task training, and continuing education such as toolbox talks and seminars. A significant reduction in the total Kentucky fatal occupational injury rate has been observed since 1994 when the FACE program was implemented.