



2007 Traffic Crash Data Linkage Results: Work-Related Roadway Crash Fatalities

According to the Census of Fatal Occupational Injuries (CFOI), a total of 5,657 work-related deaths occurred in the United States in 2007. Of these, 1,414 (25%) were highway incidents. In Oklahoma, there were 36 work-related motor vehicle crash fatalities on public roads in 2007 (5% of all traffic crash deaths; 34% of all work-related deaths).

The Injury Prevention Service of the Oklahoma State Department of Health monitors work-related injury deaths in Oklahoma. Data are collected from multiple sources including death certificates, media reports, and reports from the Office of the Chief Medical Examiner, the Occupational Safety and Health Administration, the Public Employees Occupational Safety and Health Program, and the Department of Public Safety.

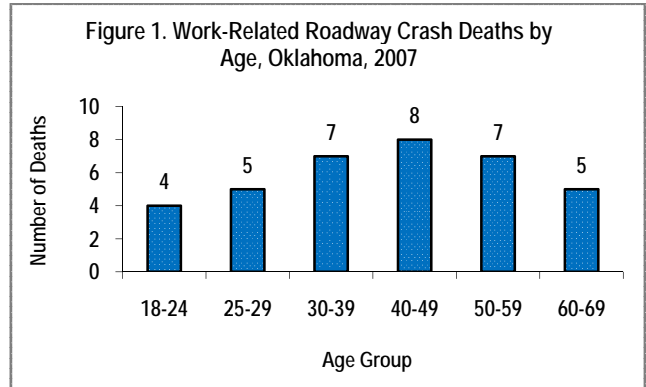
This report describes work-related roadway crash fatalities using linked traffic crash and work-related injury death data.

Inclusion of Cases

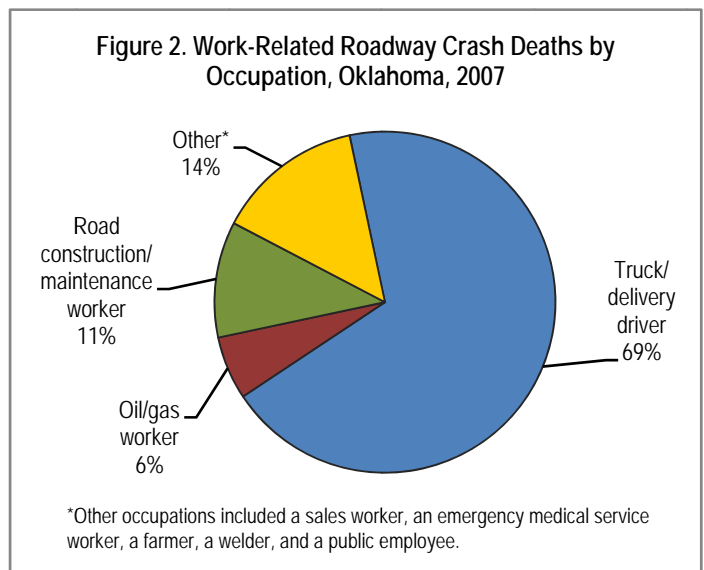
Work-related crashes were identified from the occupational fatality database as all transportation incidents that occurred on public roadways. Incidents that happened while workers commuted to or from work or occurred in parking lots or at industrial sites, farms/ranches, and other private locations were excluded, so that deaths could be matched with traffic crash data. Cases included drivers, passengers, and pedestrians who were involved in crashes with moving motor vehicles while engaged in work activities.

Work-Related Roadway Crash Fatalities

- Of the 36 workers who died, 75% were drivers, 14% were passengers, and 11% were pedestrians.
- Sixty-nine percent of the 36 workers were residents of Oklahoma; whereas, 31% were out of state residents who were mostly large truck drivers passing through Oklahoma.
- Of the 33 work-related roadway crashes, 16 were single vehicle crashes, and 17 were multi-vehicle incidents.
- Overall, the median age of persons who died was 42 years (range: 18-66 years). Almost two-thirds (61%) of deaths occurred among workers between the ages of 30-59 years old (Figure 1). Nearly all decedents were male (94%).



- Over half (58%) of the workers who died were white, 19% were Native American, 14% were black, and 8% were other races.
- Overall, truck/delivery driving was the occupation resulting in the greatest number of work-related crash deaths with 26 deaths (69%). Road construction (or maintenance) workers (11%) were all pedestrians working on public roadways (Figure 2); information on personal protective equipment was not available on these four workers.
- Eighty-one percent (N=26) of the 33 crashes involved large trucks (Table 1), which included the following: single unit truck with 2-axles (N=3), single unit truck with 3 or more axles (N=5), truck/trailer (N=1), truck-tractor/semi-trailer (N=15), and truck with weight more than 10,000 pounds (N=2).





- Half of the commercial motor vehicles (CMV) were identified as interstate, 32% were intrastate CMVs, and 18% were not specified.
- The median age among drivers (41 years) of a large truck was less than drivers (59 years) of other type vehicles.
- Overall, seat belt use status was known for 20 workers. Three-fourths of the workers were not wearing a seat belt at the time of injury.
- Alcohol involvement was known for 32 workers; no workers were identified as impaired by alcohol at the time of injury. However, one truck driver of a large truck was identified as under the influence of drugs.
- Nearly all deaths (94%) occurred on the day of the incident; one person (3%) died the next day and one person (3%) was hospitalized for 83 days before he died.
- Regardless of vehicle type, fatal work-related roadway crash injuries occurred most frequently from Monday through Thursday.
- Among occupants of a large truck, the greatest number of injury deaths occurred between September and November (35%), and between 4:00 am and 7:59 am (31%). For other vehicle types, fatalities occurred mostly from June through August (50%), and between 8:00 am and 3:59 pm (66%).
- Multiple vehicle crashes accounted for 67% of fatalities among other vehicle type occupants.
- Work-related roadway fatalities most commonly occurred on State or U.S. highways.
- Information on leading contributing factors to crashes was known for 27 crashes; these factors were often associated with driver-related errors. Unsafe or excessive speed for traffic/road conditions was highest among drivers of large trucks; whereas, improper overtaking, following too closely, and failing to stop was most common for drivers of the other vehicle types.

Table 1. Work-Related Roadway Crash Deaths,* by Vehicle Type, Oklahoma, 2007

Description	Large Truck (N=26)	Other Type Vehicles (N=6)**
Median age	41 years Range: 21-61 yrs	59 years Range: 22-66 yrs
Occupancy Status		
Driver	22 (85%)	5 (83%)
Passenger	4 (15%)	1 (17%)
Seat belt use	(N=15)	(N=5)
Belted	4 (27%)	1 (20%)
Non-belted	11 (73%)	4 (80%)
Month of injury		
March-May (Spring)	7 (27%)	2 (33%)
June-Aug (Summer)	6 (23%)	3 (50%)
Sep-Nov (Autumn)	9 (35%)	0
Dec-Feb (Winter)	4 (15%)	1 (17%)
Day of week		
Monday-Thursday	17 (65%)	5 (83%)
Friday-Sunday	9 (35%)	1 (17%)
Time of crash		
Midnight-3:59 AM	1 (4%)	0
4:00 AM-7:59 AM	8 (31%)	1 (17%)
8:00 AM-11:59 AM	3 (12%)	2 (33%)
Noon-3:59 PM	7 (27%)	2 (33%)
4:00 PM-7:59 PM	3 (12%)	0
8:00 PM-11:59 PM	4 (15%)	1 (17%)
Total crashes	(N=24)	
Single vehicle crashes	12 (50%)	2 (33%)
Multiple vehicle crashes	12 (50%)	4 (67%)
Type of roadway		
State or U.S. highway	9 (35%)	4 (67%)
Interstate highway	6 (23%)	0
Interstate turnpike	6 (23%)	1 (17%)
County road	5 (19%)	1 (17%)
Primary crash factors		
Unsafe or excessive speed for traffic/road conditions	8 (36%)	1 (20%)
Improper overtaking, following too closely, failing to stop	6 (27%)	3 (60%)
Inattention/sleepiness	3 (14%)	1 (20%)
Avoiding other vehicle, or object/debris in roadway	2 (9%)	0
Others***	3 (14%)	0
*Information on the four pedestrians was not included on Table 1		
**Includes a passenger vehicle, a van, three pickup trucks, and a farm tractor on a public roadway		
***Includes an unsafe vehicle, driver impaired by drugs, and an unspecified action		

Resources:

- Oklahoma Highway Safety Office: http://www.ok.gov/ohso/Crash_Data_and_Statistics/index.html
- Centers for Disease Control and Prevention: <http://www.cdc.gov/motorvehiclesafety/index.html>
- National Highway Traffic Safety Administration: <http://www.nhtsa.dot.gov>
- Fatality Analysis Reporting System: <http://www.nhtsa.dot.gov/people/ncsa/fars.html>



Work-Related Motor Vehicle Crash Death Case Briefs, Oklahoma, 2007

Unsafe Speed (over legal limit or too fast for conditions)

- A 51-year-old female emergency medical technician was an unrestrained passenger of an ambulance transporting a patient to a hospital. The vehicle was traveling too fast for the icy, snowy, unlit roadway and lost control on black ice, causing it to roll.
- A 35-year-old male was driving a concrete mixing truck and turned right at an intersection while traveling at an excessive speed and rolled the truck. The top of the concrete truck struck a semi, ripping the cab off the concrete truck.
- A 45-year-old male was driving an oilfield truck at an excessive speed on a foggy roadway. He failed to see the intersection of a highway, crossed the highway, hit an embankment, and overturned.
- A 26-year-old male was driving a water truck for a road construction site, exceeding the legal speed limit on a dark roadway. He ran off the right side of the road, overcorrected, and lost control. The vehicle flipped two and a half times, ejected the driver, and rolled over him. A 34-year-old male passenger was also killed in the crash. Neither the driver nor passenger was wearing a seat belt.
- A 51-year-old male was driving a semi-truck at a speed too fast for traffic conditions and rear-ended a semi-truck that was merging onto the highway from a rest area, causing his truck to jack-knife.

Unsafe Vehicle

- A 27-year-old male was driving a dump truck with unsafe tires. The truck entered the center median of a highway causing the truck to flip and cross into oncoming traffic, hitting two other vehicles. The truck driver was unrestrained and ejected.

Attempting to Avoid Collision

- A 21-year-old male driver of a delivery truck struck the trailer of a semi-truck that had flipped onto its side on an unlit road. The delivery truck slid along the bottom of the trailer, struck the axle of the tractor, and came to rest at the front of the tractor. Both vehicles burst into flames, and emergency crews were unable to reach the delivery truck driver.
- A 22-year-old male was driving a welding pickup. When he crested a hill, he overcorrected while trying to avoid a collision with another vehicle. He hit the other vehicle and rolled his truck at least two times. He was unrestrained and ejected. His head was crushed by the truck's frame.

Driver Failed to Stop or Negotiate Roadway

- A 66-year-old male was driving a farm tractor across a highway when he failed to stop at a stop sign. He was struck broadside by a motor vehicle, thrown approximately 60 feet, and landed in a ditch. The tractor rolled and landed on the driver, pinning him.
- A 32-year-old male was driving a semi-truck hauling timber when he became distracted and failed to stop at a train crossing. The truck left 25 feet of skid marks and hit the lead engine of a train, knocking it off the tracks and derailing two other engines and a railcar. The timbers shifted on impact and pinned the driver in the cab of the truck.

Sleepy Driver

- A 66-year-old male propane company owner had been up all night working on generators for oil fields. He was driving a pickup on an unlit roadway and hauling a flatbed trailer with at least one very large compressor. His vehicle left the roadway on the left side, drove through a grassy area, and hit a tree. He was not wearing a seat belt.
- A 60-year-old male was driving a semi-truck on a major highway and may have fallen asleep at the wheel. He drifted into the median, overcorrected, and overturned on the roadway. The truck went into a broadside slide and the cab struck a tree. He was not wearing a seat belt.

Driving Under the Influence

- A 51-year-old male was driving a semi-truck and under the influence of drugs. It is presumed that he fell asleep at the wheel, causing his truck to leave the right side of the roadway. He overcorrected and struck a bridge, causing the cab to separate from the trailer. The truck frame rolled over the concrete divider and landed in oncoming traffic. He was not wearing a seat belt.

Debris in Roadway

- A 42-year-old male transportation worker entered the roadway to retrieve debris that had fallen from a truck driving on the road. He was struck by a large dump truck that swerved to avoid the debris. The worker saw the truck coming, dropped the limbs he was carrying, and tried to go back across the lanes off the roadway.

Following Too Closely or Improper Overtaking

- A 40-year-old male unrestrained semi-truck driver was following too closely and rear-ended another semi-truck when it slowed to turn at a "T" intersection. Both vehicles were loaded with gravel.

