



## 2006 Traffic Crash Data Linkage Results Alcohol-Related Crash Injuries and Deaths, Oklahoma, 2006

In 2006, 13,470 persons died in alcohol-impaired driving crashes, accounting for 32% of all traffic-related deaths in the United States. Similarly, 32% of traffic fatalities in 2006 among Oklahomans involved alcohol. The Oklahoma Traffic Data Linkage Project (TDLP) is a joint effort between the Oklahoma State Department of Health and the Oklahoma Highway Safety Office to obtain and analyze comprehensive information on traffic crashes by linking data from vital statistics, traffic crash records, and the hospital discharge database. This TDLP report describes persons who died or were hospitalized as the result of an alcohol-related crash, using linked data.

### Inclusion of Cases

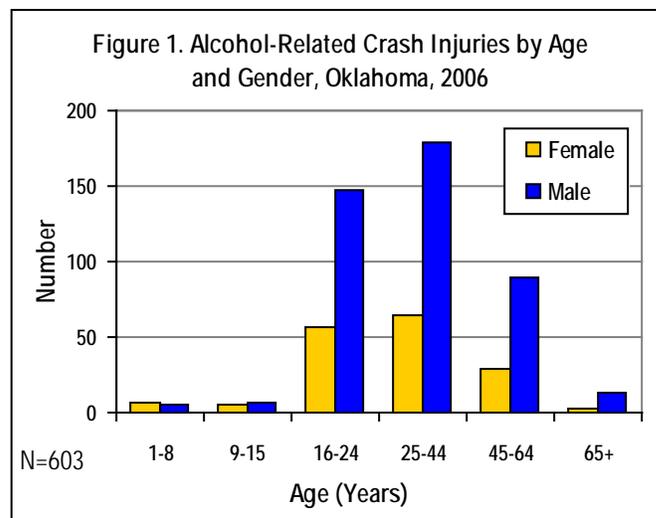
Alcohol-related crashes were identified from the traffic crash database as all incidents with alcohol as a factor or cause, as determined by the responding officer. Oklahoma residents injured in crashes were identified from the linked dataset and included anyone associated with an alcohol-related crash (i.e., occupants, pedestrians, motorcyclists, and bicyclists) that died or was hospitalized. The TDLP linked dataset did not contain information to identify who was at fault at the time of the crash. Injury-producing alcohol-related crashes that occurred on public roadways or other industrial/commercial/private places, such as parking lots, were included. These inclusion criteria were designed to illustrate the full medical and economic impact of alcohol-related crashes on all persons directly involved.

### Alcohol-Related Crashes

- Of the 78,699 traffic crashes in 2006, 5,093 (6%) were alcohol-related.
- There were 471 persons injured and 132 persons killed in alcohol-related crashes.
- Of the 529 alcohol-related crashes resulting in hospitalization or death, 377 were single vehicle crashes, and 152 were multi-vehicle incidents.
- Alcohol involvement may be underreported because alcohol data were collected by law enforcement officers at the crash scene and were not updated for nonfatally injured persons when alcohol blood work results became available.

### Alcohol-Related Crash Injuries: Hospitalizations and Deaths

- Of the 603 injured persons, 394 were drivers, 139 passengers, 49 motorcyclists, 19 pedestrians, and two bicyclists.
  - 341 injured drivers were impaired
  - 27 of 39 injured motorcycle drivers were impaired
  - 17 injured pedestrians were impaired
- Males outnumbered females; 73% of injured persons were male (Figure 1).
- The majority of persons (74%) were 16-44 years of age; 4% were child passengers under 16 years old.
- Type of injuries sustained by hospitalized persons included fractures (42%), internal injuries (20%), open wounds (17%), traumatic brain injuries (9%), and others (12%), which included contusions, dislocations, sprains and strains, and burns.
- Overall, the total hospital charges were \$22,977,452 for 485 hospitalized persons. Of these 485, 14 persons died; the highest median hospital charge (\$87,100) occurred among these fatally injured persons.
- Over one-third of hospitalized persons (38%) were uninsured (or self-pay), 30% had a type of commercial insurance, 15% were on Medicaid/Medicare, 8% had automobile insurance, and 9% had another type of payer (e.g., Indian Health Service, Workers' Compensation, charity, or organ donor coverage).





**Table 1. Characteristics of Persons Injured in Alcohol-Related Crashes and Non-Alcohol-Related Crashes, Oklahoma, 2006**

Description	Injured Persons in Alcohol-Related Crashes	Injured Persons in Non-Alcohol-Related Crashes
Median age	30 years (N=603) Range: 1-76 years	40 years (N=3,038) Range: 0-96 years
Gender		
Male	440 (73%)	1,706 (56%)
Female	163 (27%)	1,332 (44%)
Race	(Rates/10,000 pop)	(Rates/10,000 pop)
White	445 (1.5)	2,471 (8.6)
Am. Indian	88 (2.7)	184 (5.7)
Black	32 (1.1)	191 (6.3)
Others*	20 (0.6)	135 (4.3)
Median hospital charge for nonfatal injuries	\$22,459 (N=471) Range: \$807- \$681,254	\$18,463 (N=2,395) Range: \$222 - \$830,880
Median hospital stay	3 days (N=471) Range: 1-122 days	3 days (N=2,395) Range: 1-107 days
Seat belt use		
Belted	186 (37%)	1,749 (80%)
Non-belted	315 (63%)	433 (20%)
Day of week		
Mon – Thurs	232 (38%)	1,726 (57%)
Fri – Sun	371 (62%)	1,312 (43%)
Type of vehicle		
Passenger car	340 (58%)	1,820 (62%)
Pickup truck	177 (30%)	595 (20%)
Motorcycle	49 (8%)	307 (10%)
Bicycle	2 (<1%)	16 (<1%)
Others	16 (3%)	187 (6%)
Total crashes	529 crashes	2,685 crashes
Single vehicle crashes	377 (71%)	1,186 (44%)
Multiple vehicle crashes	152 (29%)	1,499 (56%)

\*Included Asian/Pacific Islanders and others

- The median age of persons injured in alcohol-related crashes was 10 years younger than persons injured in non-alcohol-related crashes (Table 1).
- There was a higher proportion of males (73%) in the alcohol-related group when compared to males (56%) in non-alcohol-related crashes.
- The highest rate occurred among persons who were identified as American Indian in the alcohol-related group; whereas, it was highest among whites in the non-alcohol group.
- While the median hospital stay (3 days) among nonfatally injured persons was the same in both groups, the median hospital charge (\$22,459) was higher among alcohol-related cases than non-alcohol-related cases (\$18,463).
- Nearly two-thirds of persons (63%) in alcohol-related crashes were not wearing a seat belt; whereas, the majority of persons (80%) in non-alcohol-related crashes were wearing a seat belt.
- Approximately 62% of the alcohol-related injury crashes occurred on the weekend (Friday to Sunday). No substantial differences in the day of injury were identified for non-alcohol-related crashes.
- A passenger car was the predominant type of vehicle identified in both groups.
- Single vehicle crashes occurred most often in the alcohol-related group (71%); whereas, the proportion of multiple vehicle crashes was higher (56%) for the non-alcohol group.
- Alcohol-related injury crashes occurred more frequently at night, particularly between 11:00 pm and 2:00 am. Non-alcohol-related crashes peaked at evening rush hour, between 4:00-5:00 pm (Figure 2).

**Figure 2. Time of Crash for Injured Persons, Alcohol and Non-Alcohol-related Crashes, Oklahoma, 2006**

