# 2000 Utah Crash Summary


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## *Introduction*

The Utah Crash Summary produced annually identifies and describes the trends and effects of traffic crashes in Utah. The statistics within the Utah Crash Summary describe factors that contribute to the occurrence of crashes, and crash-related injuries and fatalities. This report is designed to heighten awareness about traffic safety by allowing safety program specialists, public health personnel, and other interested individuals to identify areas where programs may be focused in an effort to reduce traffic-related injuries and fatalities.

The data for this summary is derived from Utah crash reports. These reports are completed by law enforcement officers throughout the state who collect data from crash scenes on public roadways. Information is collected when a crash involves injuries, fatalities, or at least $1,000 property damage; when the jurisdiction in which the crash occurs requires it; or when the responding officer determines that a report is warranted.

Crash reports are forwarded to the Utah Department of Transportation (UDOT) for central collection. UDOT reviews the crash report forms and enters the data into a database called the Crash Analysis Reporting System (CARS). Beginning in 1997, all private property crashes were excluded from CARS. Since private property crashes accounted for approximately 10% of crashes in previous years, the decrease in crashes since 1997 is due in part to the exclusion of private property crashes. Additional information is collected on fatal crashes and compiled into a separate database, the Fatality Analysis Reporting System (FARS). This database was used for the reporting of alcohol and other drug-related fatal crashes and fatalities.

This report was prepared by the Utah Crash Outcome Data Evaluation System (CODES) project located at the Intermountain Injury Control Research Center, University of Utah School of Medicine. For more information, please contact:

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This crash summary is available on the internet at http://www.utcodes.org

# Definitions

**Alcohol and Other Drug-Related Crash** - A crash in which the investigating officer cited a driver for "driving under the influence" (DUI) or coded a contributing factor of "DUI", "had been drinking" or "under the influence of drugs". Since breath test or blood test results may not always be used to determine a person's alcohol and other drug content, these crashes may be underestimated.

**Alcohol and Other Drug-Related Injury Crash** - A non-fatal crash in which one or more persons are injured and in which the investigating officer cited a driver for "driving under the influence" (DUI), or coded a contributing factor of "DUI", "had been drinking" or "under the influence of drugs". Since breath test or blood test results may not always be used to determine a person's alcohol and other drug-related content, these injury crashes may be underestimated.

**Alcohol and Other Drug-Related Fatal Crash** - A crash resulting in one or more deaths and in which the drug / alcohol test was positive (blood or breath test) for any driver, pedestrian, or bicyclist involved in the crash. Alcohol and other drug-related fatal crash information is obtained as part of the FARS database.

**Alcohol and Other Drug-Related Injury** - A non-fatal injury resulting from an alcohol and other drug-related crash. Since breath test or blood test results may not always be used to determine alcohol and other drug-related crashes, these injuries may be underestimated.

**Alcohol and Other Drug-Related Fatality** - A death resulting from an alcohol and other drug-related crash. Since breath test or blood test results may not always be used to determine alcohol and other drug-related crashes, these fatalities may be underestimated.

**Crash Participant** - A person who is involved in a crash, including motor vehicle occupants, pedestrians and bicyclists.

**Contributing Factor** - The circumstances reported by the investigating officer surrounding a crash that contributed to the crash or the crash severity. Examples are "speed too fast", "fatigue" and "had been drinking".

**Fatal Crash** - A motor vehicle crash on public roadways resulting in one or more deaths. The death must occur within 30 days of the crash.

**Injury Crash** - A crash in which one or more persons sustained a possible injury, probable injury, or an incapacitating injury as recorded by the investigating officer.

**Large Truck Crash** - A crash involving one or more vehicles of the following type: (1) a 2-axel, 6-tire single unit truck or van, (2) a 3 or more axle single unit truck, (3) a single unit truck with one or more trailers, (4) a bobtail (power unit only), (5) a tractor with one or more trailers, (6) a concrete mixer, (7) a garbage/ dump truck, (8) an auto transporter, (9) a flatbed truck, and (10) a cargo tank.

**Million Vehicle Miles Traveled** - The number of miles traveled in a year for a given area, reported in millions. This is calculated by the Utah Department of Transportation.

**Motorcycle Crash** - A crash involving one or more motorcycles or mopeds.

**Motor Vehicle Crash** - A crash that involves a motor vehicle on public roadways.

**Out of State Driver** - A driver licensed from a state other than Utah who is involved in a crash. Some of these drivers may reside in the state of Utah, but have not yet applied for a Utah driver's license.

**Seatbelt Use** - Seatbelt use is reported for occupants in a passenger car, a light truck or van. Occupants are coded as wearing a seatbelt if they reported using a shoulder/lap belt, lap belt or a child safety seat at the scene of the crash (for the purpose of this report, occupants using only a shoulder strap were reported to be unbelted). In the majority of cases, seatbelt use as recorded by the investigating officer is self-reported by the crash occupant. It is possible that crash occupants may report using a seatbelt when they were not in order to avoid a citation or fine, thus over-inflating the seatbelt use rate. In the case of fatal or severe injury crashes the officer will determine the seatbelt use.

**School Bus Crash** - A crash involving one or more school buses.

**Speed-Related Crash** - A crash where the investigating officer cites one or more drivers for "speeding", or codes a contributing factor of "speed too fast".

**Teenage Driver** - A 15 to 19 year old driver.

**Teenage Driver Crash** - A crash involving a teenage driver.

**Teenage Driver Injury Crash** - An injury crash involving a teenage driver.

**Teenage Driver Fatal Crash** - A fatal crash involving a teenage driver.

**Vehicular Homicide** - Vehicular homicide, a third degree felony, is when a driver operates a motor vehicle while having a blood alcohol content of 0.08% or greater by weight, or while under the influence of alcohol, any drug, or the combined influence of alcohol or any drug, to a degree that renders the driver incapable of safely operating the vehicle, and causes the death of another by operating the vehicle in a negligent manner.

**Violation** - The traffic violation that a driver was cited for at the scene of the crash. These include both moving and non-moving violations.

# Executive Summary

**Death and disability** associated with motor vehicle crashes continues to be a problem in the United States, as well as in the state of Utah. Great strides have been made to reduce the motor vehicle crash rate in Utah, and since 1969, the injury and fatal crash rates have steadily declined. In fact, the Utah 2000 crash rate of 236.0 per 100 million vehicle miles traveled represents a 2% decrease from the 1999 rate, and is the lowest crash rate in 30 years. This reduction can be attributed to a variety of factors including local and statewide traffic safety programs that have increased awareness of traffic safety issues, legislation mandating seatbelt use and graduated driver licensure, increased DUI legislation and enforcement, better engineered roadways, and safer vehicles. Despite this progress, motor vehicle crashes continue to take their toll. In Utah, a crash occurs every 10 minutes, a person is injured in a crash every 17 minutes, and a person dies every day from a motor vehicle crash.

In 2000, there were 53,151 crashes in Utah accounting for 30,086 injured persons and 373 fatalities. Overall, crash participants tended to be male and in the 15 to 24 year age group. Most crashes occurred in urban areas; however, rural crashes were 5 times more likely to result in a fatality than crashes occurring in urban areas. Increased speeds and longer response time for emergency medical services in the rural areas may account for the rural/ urban difference in fatal crash rates. Rear-end collisions (excluding "Other") were the leading collision type, but head-on collisions were 6 times more likely to result in a fatality than other collisions, and single vehicle rollovers were 5 times more likely to result in a fatality than other collisions. While passenger cars accounted for the majority of vehicles involved in Utah crashes, motorcycle- as well as large/semi truck-crashes were more likely to be fatal than crashes involving other vehicles.

**Pedestrians, bicyclists, and motorcyclists** involved in a motor vehicle crash are at high risk from suffering injury or death. In 2000, 94.4% of pedestrians, 91.2% of bicyclists, and 85.3% of motorcyclists involved in a motor vehicle crash experienced an injury or death compared to 21.6% of all motor vehicle crash participants. Pedestrians, bicyclists, and motorcyclists have little or no physical barrier between themselves and a motor vehicle or roadway, thus resulting in the high injury and death rate. As with seatbelts, helmets have proven to reduce severe injury and death for bicyclists and motorcyclists. Unfortunately, only 29.5% of motorcyclists involved in a crash were reported to be wearing a helmet.

**Teenage drivers** are another group that are of concern in Utah because of their high crash rates. Every 32 minutes, a crash occurs in Utah that involves a teenage driver. In 2000, approximately one-third of total crashes involved teenage drivers. Lack of driving experience may contribute to the higher crash rates for teenage drivers. A graduated driver licensing law was passed in Utah in 1998 to help address some of these concerns. The law requires teenage drivers to gain more supervised driving experience before receiving their driver license, and places restrictions on the time of day teenage drivers are allowed to drive. Because crashes where the teenage driven vehicle contained four or more occupants were twice as likely to be fatal than crashes involving teenage driven vehicles with fewer occupants, local traffic safety entities focused legislative efforts on creating a more comprehensive graduated driver licensing law. The law was modified in 2000 to include passenger limitation.

**Speeding and impaired driving** are contributing factors that led to severe injury or death in motor vehicle crashes. In 2000, there were over 7,725 speed-related crashes resulting in 111 fatalities. The majority of the speed-related crashes occurred on a highway. In 2000, 2,163 crashes were attributed to alcohol and other drug involvement resulting in 90 fatalities. This was a 25.0% increase in alcohol and other drug-related crash fatalities from 1999. While alcohol and drug-related crashes are of great concern nationwide, speeding appears to be the leading factor associated with crash fatalities and may warrant increased attention in Utah.

**Seatbelts** have been shown to save lives and decrease the severity of injuries in motor vehicle crashes. In Utah, unbelted occupants were 12 times more likely to sustain a fatal injury than belted occupants. Overall, 91.9% of the occupants involved in a crash in 2000 reported using a seatbelt, but seatbelt use rates varied by age and type of crash. Children under the age of 5 years had the highest percentage of seatbelt use (96.4%), while those aged 10 to 14 years experienced the lowest percentage of use (88.6%). Unfortunately, the rate for seatbelt use for fatalities was much lower; only 40.6% of the occupants who died in a crash were reported as wearing a seatbelt. In addition, the majority of ejected occupants (who often suffer severe injury or death) were not wearing a seatbelt. Utah law requires all children under the age of 19 years to be properly restrained in a motor vehicle. Children under the age of 5 years must ride in an approved child safety seat, and children aged 5 to 19 years must ride in an approved child safety seat or seatbelt.

Motor vehicle crashes in Utah continue to be a leading cause of death and disability in the state. Of particular concern are speed-related crashes, crashes involving pedestrians and motorcyclists, and teenage driver crashes. Many people have worked together to address these and other traffic-safety-related issues. However, an overwhelming number of people are affected by motor vehicle crashes, and traffic safety needs to remain a top priority in Utah.

# Crash Synopsis
# 2000

**Crashes, Injury Crashes and Fatal Crashes**

- 53,151 motor vehicle crashes were reported, a less than 1% increase from 1999.
- Over 19,500 injury crashes were reported, the same as 1999.
- 318 fatal motor vehicle crashes were reported 2000, the same number as in 1999.
- Sundays had nearly double the odds for a fatal crash than any other day of the week.
- The July 24th holiday weekend had the highest fatal crash rate per day among holidays.
- Head-on collisions were 6 times more likely to be fatal than other collision types.
- Drivers cited for driving under the influence were 10 times more likely to be involved in a fatal crash than drivers cited for other violations.
- Drivers between the age of 15 and 19 years old had the highest crash, and injury crash rates per licensed driver whereas drivers aged 20 to 24 year old had the highest fatal crash rates per licensed driver.
- Out of state drivers were involved in 9% of crashes and 19% of fatal crashes.

**Crash Participants, Injured Persons and Fatalities**

- 373 crash related fatalities occurred, a 4% increase from 1999.
- For every 81 persons injured in a motor vehicle crash, one person was killed.
- Front seat passengers (excluding drivers) were 1.2 times more likely than back seat passengers to sustain a fatal injury.
- Crash participants over the age of 65 years were 3 times more likely to be killed than all other age groups.

**Pedestrian Crashes**

- 785 pedestrians were involved in pedestrian-motor vehicle crashes.
- 33 pedestrians were killed, a 13% decrease from 1999.
- Half (49%) of the pedestrians involved in a motor vehicle crash were under the age of 20 years.
- 32% of the drivers involved in pedestrian crashes were aged 15 to 24 years.

**Bicyclist-Motor Vehicle Crashes**

- 706 bicyclists were involved in motor vehicle crashes, a 17% decrease from 1999.
- 9 bicyclist were killed.
- 29% of the motor vehicle drivers involved in bicyclist-motor vehicle crashes were 15 to 24 years of age.

**Motorcycle Crashes**

- 733 crashes involved motorcycles, an 8% increase from 1999.
- 21 motorcycle crashes were fatal.
- 85% of the motorcyclists in crashes were male.
- 30% of motorcyclists involved in crashes were wearing a helmet.

# Crash Synopsis
# 2000

**Teenage Driver Crashes**

- 16,578 crashes and 63 fatal crashes involved a teenage driver.
- Half (49%) of all teenage drivers involved in a crash received a citation for a violation.
- Of the 63 teenager driver fatal crashes 14 involved alcohol or other drugs.
- Teenage driver crashes that the teenage driven vehicles had 4 or more occupants were 5 times more likely to be fatal than crashes involving teenage driven vehicles with fewer occupants.

**Alcohol and Other Drug-Related Crashes**

- 2,163 (4%) crashes and 79 (24%) fatal crashes involved alcohol or other drugs.
- 90 fatalities were a result of alcohol and other drug-related crashes, a 25% increase from 1999.
- Male drivers were involved in over three-quarters (79%) of alcohol and other drug-related crashes.
- 16% of the impaired drivers were under the age of 21 years.
- 82% of drunk drivers involved in fatal crashes had a blood alcohol level above the legal limit of 0.08.

**Speed-Related Crashes**

- 7,725 (15%) crashes and 104 (33%) fatal crashes were speed-related.
- 111 person were killed in speed-related crashes.
- The highest percentage of drivers involved in speed-related crashes were aged 15 to 19 years for both male and female drivers.

**Occupant Protection**

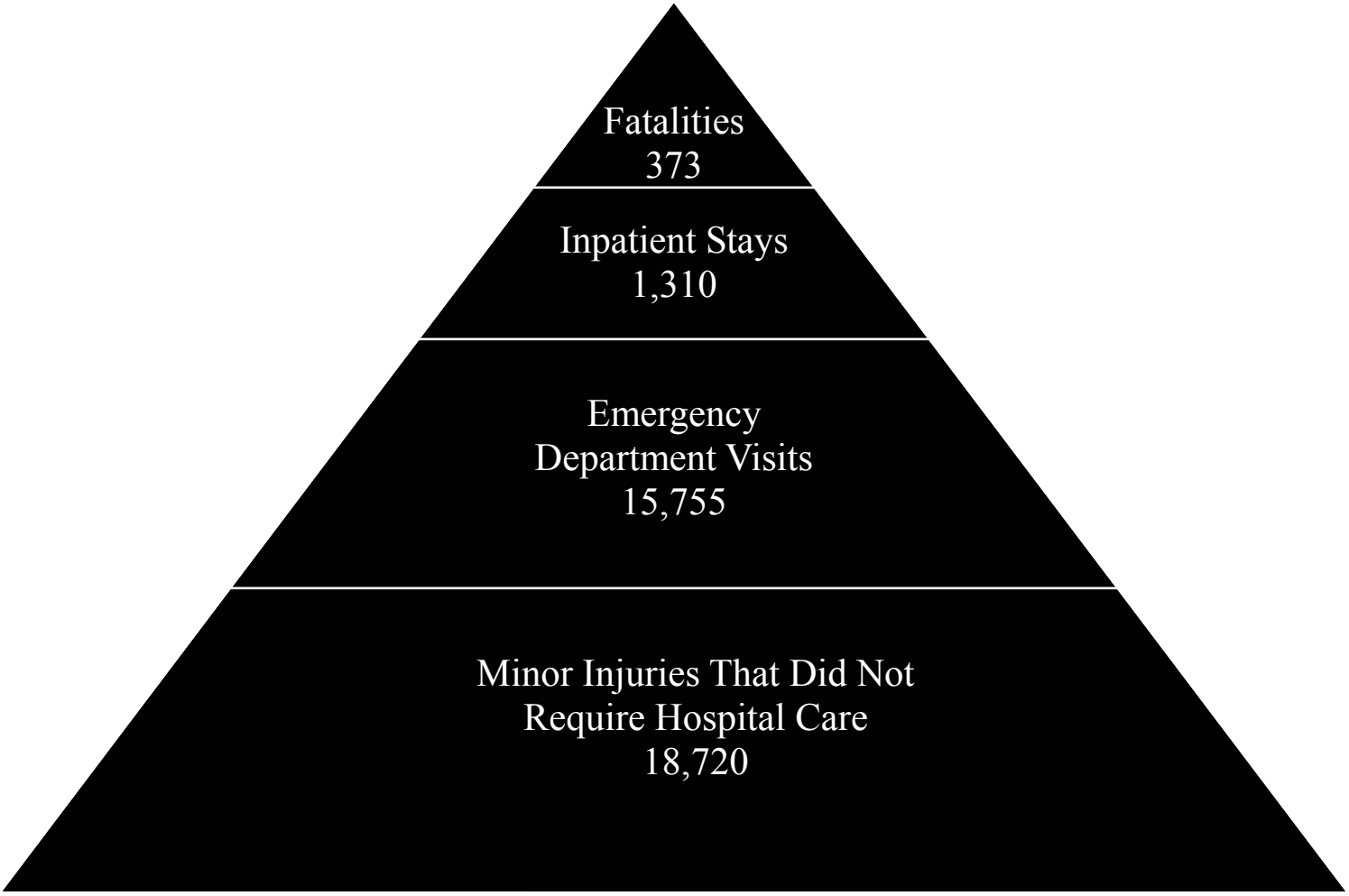
- 92% of all crash participants, 83% of injured crash participants and 41% of the fatalities were reported as using a seatbelt.
- Unbelted occupants were 12 times more likely to be killed than belted occupants.
- 90% of the ejected passengers were not wearing a seatbelt.
- Children under the age of 2 years were 5 times more likely to be in a child safety seat than children between the ages of 2 to 4 years.
- Children in the back seat were 4 times more likely to be in a child safety seat than children in the front seat.

# Utah Crash Clock

**In the year 2000;**

- One crash occurred every 10 minutes
- One person was injured in a crash every 17 minutes
- One person died in a crash every 23 hours
- One pedestrian was in a crash every 11 hours
- One pedestrian fatality occurred every 11 days
- One bicyclist was in a crash every 12 hours
- One motorcyclist was in a crash every 12 hours
- One motorcycle fatality occurred every 16 days
- One teenage driver crash occurred every 32 minutes
- One teenage driver fatal crash occurred every 6 days
- One alcohol and other drug-related crash occurred every 4 hours
- One speed-related crash occurred every hour
- One unbelted occupant died every 2 ½ days

# Utah Motor Vehicle Crash Injury Pyramid




Note: Data based on crash records from the year 2000 and emergency department visits and inpatient stays which are estimated based on Utah CODES research from 1996 and 1997.

# Section 1
# Total Crashes, Injury Crashes and Fatal Crashes, 2000



## TABLES



## FIGURES

# Utah Crashes 1970 - 2000

From 1970 to 2000, over 1.4 million crashes occurred in Utah. Approximately 450,000 of the crashes involved injuries and 8,600 involved fatalities. During this 30-year time span, the total crash rates, injury crash rates, and fatal crash rates have all decreased significantly (Table 1.01).

In 2000, the total crash rate per 100 million vehicle miles traveled in Utah was 236; a 2% decrease from the 1999 rate. The injury crash rate decreased by 3% from the 1999 rate. The decrease was even more substantial for fatal crash rates in 2000 with a 7% decline from the 1999 rate.

Several factors may account for these changes. One may be the changes in the crash reporting criteria. Most notably, 1997 was the first year crashes occurring on private property were excluded. This change in the reporting system could account for the decrease in total crashes and injury crashes from the previous years. It would not impact the reporting of fatal crashes because all fatal crashes are reported regardless of whether they occur on private property or not. Another factor may be improvements in the medical system. As more lives are saved, the number of fatalities may be reduced, but the number of injuries reported may increase. Other factors that impact the decrease in the number of crashes, as well as the severity of crash injuries include: increased seatbelt use; improvements in the design of the roadways and vehicles; legislation including lower speed limits, impaired driving laws, and graduated driver licensing laws.

It is important to note that when doing comparisons between years, rates should be used rather than the crude number of events. Rates provide a more accurate picture of trends over time. The rates used in this report are based on the annual vehicle miles traveled. The Utah Department of Transportation supplies the number of vehicle miles traveled each year.

Table 1.01 Total Crashes, Injury Crashes and Fatal Crashes, Utah 1970-2000

| Year | Million Vehicle Miles Traveled (MVMT) | Total Crashes | Injury Crashes | Fatal Crashes | Total Crash Rate per 100 MVMT | Injury Crash Rate Per 100 MVMT | Fatal Crash Rate per 100 MVMT |
|---|---|---|---|---|---|---|---|
| 1970 | 6,108 | 35,166 | 10,722 | 276 | 575.7 | 175.5 | 4.5 |
| 1971 | 6,544 | 39,108 | 11,399 | 280 | 597.6 | 174.2 | 4.3 |
| 1972 | 6,969 | 39,856 | 11,630 | 312 | 571.9 | 166.9 | 4.5 |
| 1973 | 7,274 | 38,234 | 11,710 | 304 | 525.6 | 161.0 | 4.2 |
| 1974 | 7,457 | 31,401 | 10,560 | 204 | 421.1 | 141.6 | 2.7 |
| 1975 | 7,942 | 36,426 | 11,441 | 245 | 458.7 | 144.1 | 3.1 |
| 1976 | 8,420 | 34,345 | 11,685 | 225 | 407.9 | 138.8 | 2.7 |
| 1977 | 9,054 | 38,524 | 12,652 | 310 | 425.5 | 139.7 | 3.4 |
| 1978 | 9,826 | 42,684 | 13,423 | 315 | 434.4 | 136.6 | 3.2 |
| 1979 | 9,811 | 40,468 | 13,449 | 287 | 412.5 | 137.1 | 2.9 |
| 1980 | 10,645 | 33,582 | 11,701 | 292 | 315.5 | 109.9 | 2.7 |
| 1981 | 10,733 | 35,989 | 11,824 | 321 | 335.3 | 110.2 | 3.0 |
| 1982 | 10,947 | 38,192 | 11,504 | 263 | 348.9 | 105.1 | 2.4 |
| 1983 | 11,228 | 40,989 | 12,317 | 253 | 365.1 | 109.7 | 2.3 |
| 1984 | 11,642 | 47,489 | 13,477 | 274 | 407.9 | 115.8 | 2.4 |
| 1985 | 12,035 | 47,871 | 13,917 | 270 | 397.8 | 115.6 | 2.2 |
| 1986 | 12,253 | 46,690 | 13,988 | 276 | 381.0 | 114.2 | 2.3 |
| 1987 | 12,679 | 47,256 | 13,599 | 271 | 372.7 | 107.3 | 2.1 |
| 1988 | 13,263 | 49,249 | 13,377 | 258 | 371.3 | 100.9 | 1.9 |
| 1989 | 13,915 | 51,320 | 13,941 | 269 | 368.8 | 100.2 | 1.9 |
| 1990 | 14,646 | 52,691 | 14,632 | 236 | 359.8 | 99.9 | 1.6 |
| 1991 | 15,390 | 47,435 | 13,763 | 229 | 308.2 | 89.4 | 1.5 |
| 1992 | 16,263 | 50,660 | 15,665 | 235 | 311.5 | 96.3 | 1.4 |
| 1993 | 17,055 | 55,704 | 17,088 | 259 | 326.6 | 100.2 | 1.5 |
| 1994 | 18,080 | 59,272 | 18,726 | 303 | 327.8 | 103.6 | 1.7 |
| 1995 | 18,786 | 57,644 | 19,828 | 284 | 306.8 | 105.5 | 1.5 |
| 1996 | 19,433 | 61,505 | 20,988 | 292 | 316.5 | 108.0 | 1.5 |
| 1997 | 20,408 | 54,952 | 21,131 | 309 | 269.3 | 103.5 | 1.5 |
| 1998 | 21,237 | 54,072 | 19,427 | 308 | 254.6 | 91.5 | 1.5 |
| 1999 | 21,867 | 52,802 | 19,513 | 318 | 241.5 | 89.2 | 1.5 |
| 2000 | 22,517 | 53,151 | 19,564 | 318 | 236.0 | 86.9 | 1.4 |
| Total | 404,427 | 1,414,727 | 448,641 | 8,596 | 349.8 | 110.9 | 2.1 |

Note: All data in section 1 are based on crashes, not person statistics. Person data are reported in section 2.

# Injury and Fatal Crashes Trends 1970 - 2000

Figure 1.01 reflects the decreasing trend in injury crash rates per 100 million vehicle miles traveled (MVMT) from 1970 to 2000. The injury crash rates were highest in the early 1970s. A large decrease occurred in 1980, followed by a slight increase between 1990 to 1997.

Figure 1.01 Injury Crash Rates per Million Vehicle Miles Traveled, Utah 1970 - 2000

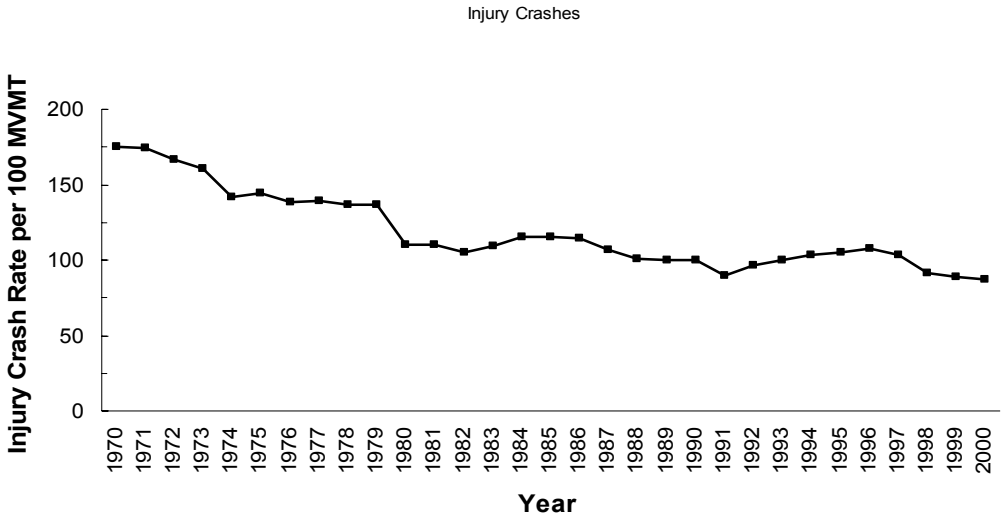


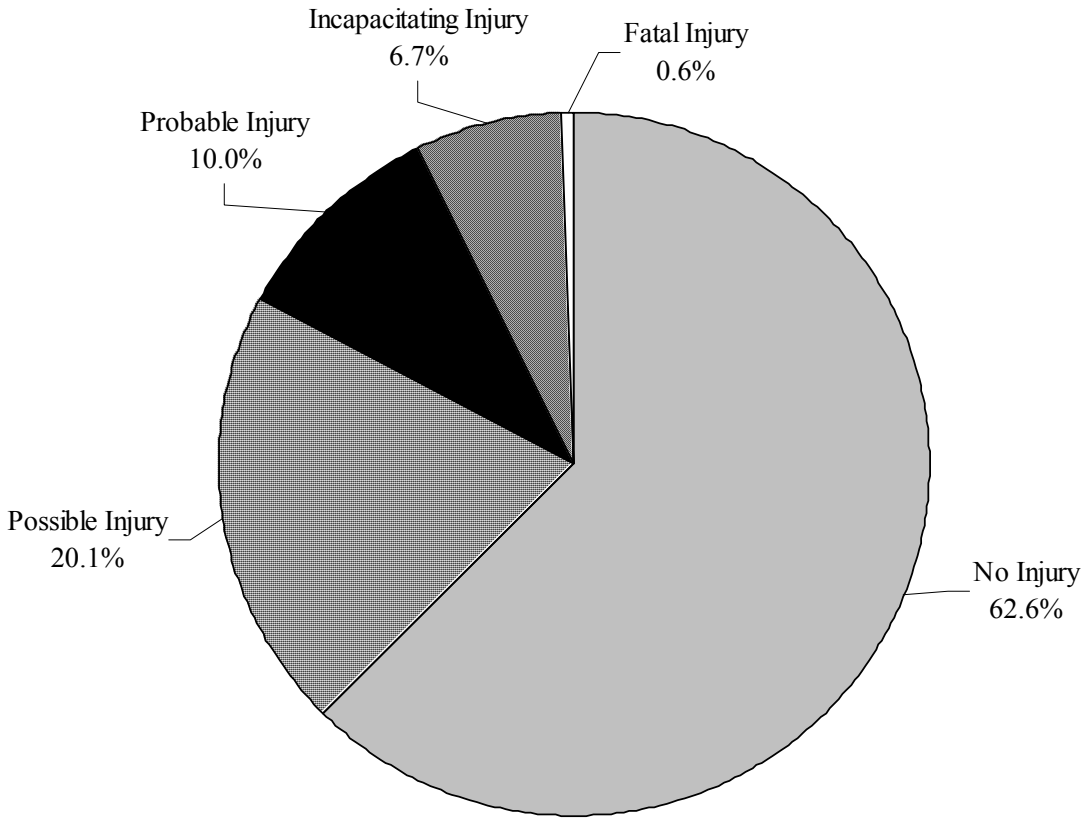

Figure 1.02 reflects the decreasing trend in fatal crash rates per 100 million vehicle miles traveled (MVMT) from 1970 to 2000. The fatal crash rates have markedly decreased from 1970 (4.5 per 100 MVMT) to 2000 (1.4 per 100 MVMT). The biggest decrease in fatal crash rates occurred in 1973, the same year the speed limit was lowered to 55 MPH.

Figure 1.02 Fatal Crash Rates per Million Vehicle Miles Traveled, Utah 1970 - 2000

# Crash Severity

Figure 1.03 shows the breakdown of crash severity as recorded by the police. The majority (62.6%) of crashes resulted in property damage only, 37.4% of crashes resulted in some level of injury, and fatal crashes represented less than 1% (0.6%) of crashes in Utah.

Figure 1.03 Severity of Crashes as Reported by Police, Utah 2000 (n=53,151)



# Crashes by County

Figure 1.04 depicts the number of injury and fatal crashes for each county in Utah. For rates of total crashes, injury crashes and fatal crashes see Table 1.02.

Figure 1.04 Injury and Fatal Crashes by County, Utah 2000

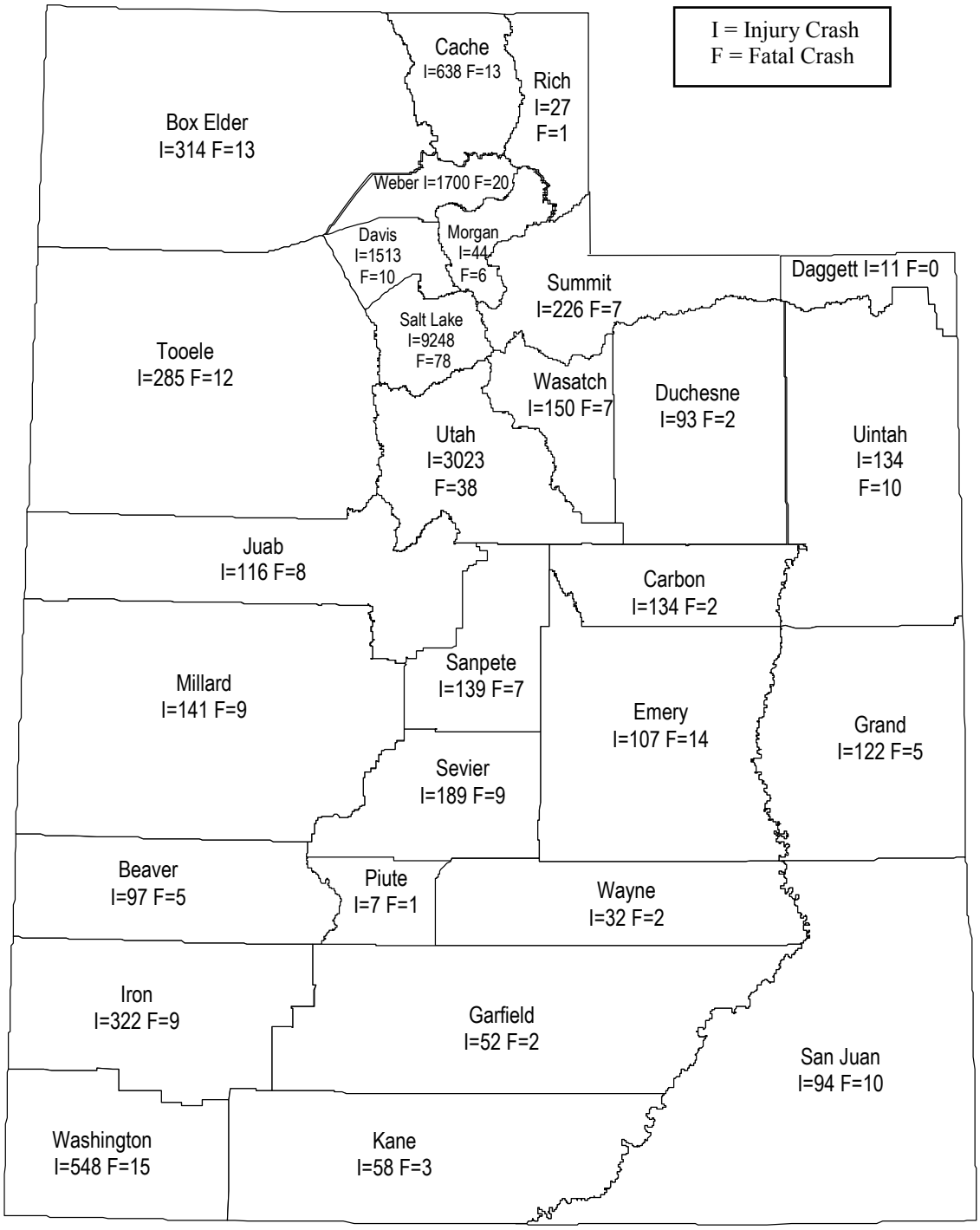


Table 1.02 shows the rates of total crashes, injury crashes and fatal crashes for each county. Two different rates are given in Table 1.02; one based on the miles traveled in the county and another on the population of the county. The rate of crashes per miles traveled provides a more accurate reflection of the motor vehicle crash risk. Cases where the crash rate per population is higher than the rate per miles traveled may indicate that the county has a large number of non-county drivers. Salt Lake, Weber, and Utah had the highest total crash and injury crash rates per miles traveled, while Morgan, Wayne, and Emery counties had the highest rates of fatal crashes.

Table 1.02 Total Crashes, Injury Crashes and Fatal Crashes by County, Utah 2000

| | Total Crashes | | | Injury Crashes | | | Fatal Crashes | | |
|---|---|---|---|---|---|---|---|---|---|
| County | # | Rate per MVMT | Rate per 10,000 Population | # | Rate per 10 MVMT | Rate per 10,000 Population | # | Rate per 100 MVMT | Rate per 10,000 Population |
| Beaver | 267 | 1.3 | 384.9 | 97 | 4.5 | 139.9 | 5 | 2.3 | 7.2 |
| Box Elder | 937 | 1.0 | 219.6 | 314 | 3.4 | 73.6 | 13 | 1.4 | 3.0 |
| Cache | 1,985 | 2.5 | 212.5 | 638 | 8.0 | 68.3 | 13 | 1.6 | 1.4 |
| Carbon | 452 | 1.3 | 199.1 | 134 | 3.9 | 59.0 | 2 | 0.6 | 0.9 |
| Daggett | 44 | 1.7 | 514.6 | 11 | 4.3 | 128.7 | 0 | 0.0 | 0.0 |
| Davis | 4,669 | 2.2 | 198.2 | 1,513 | 7.2 | 64.2 | 10 | 0.5 | 0.4 |
| Duchesne | 316 | 1.6 | 219.6 | 93 | 4.8 | 64.6 | 2 | 1.0 | 1.4 |
| Emery | 327 | 0.9 | 291.7 | 107 | 3.0 | 95.4 | 14 | 4.0 | 12.5 |
| Garfield | 134 | 1.0 | 282.2 | 52 | 3.8 | 109.5 | 2 | 1.5 | 4.2 |
| Grand | 255 | 0.9 | 232.1 | 122 | 4.4 | 111.0 | 5 | 1.8 | 4.6 |
| Iron | 864 | 1.5 | 251.4 | 322 | 5.7 | 93.7 | 9 | 3.0 | 2.6 |
| Juab | 317 | 0.9 | 387.2 | 116 | 3.4 | 141.7 | 8 | 2.3 | 9.8 |
| Kane | 159 | 1.3 | 212.5 | 58 | 4.7 | 77.5 | 3 | 2.4 | 4.0 |
| Millard | 437 | 1.1 | 338.5 | 141 | 3.4 | 109.2 | 9 | 2.2 | 7.0 |
| Morgan | 182 | 1.5 | 260.6 | 44 | 3.7 | 63.0 | 6 | 5.0 | 8.6 |
| Piute | 45 | 1.5 | 269.5 | 7 | 2.4 | 41.9 | 1 | 3.4 | 6.0 |
| Rich | 73 | 1.6 | 388.5 | 27 | 6.1 | 143.7 | 1 | 2.2 | 5.3 |
| Salt Lake | 23,319 | 3.2 | 267.3 | 9,248 | 12.6 | 106.0 | 78 | 1.1 | 0.9 |
| San Juan | 324 | 1.2 | 239.4 | 94 | 3.4 | 69.4 | 10 | 3.6 | 7.4 |
| Sanpete | 392 | 1.7 | 175.3 | 139 | 6.1 | 62.2 | 7 | 3.1 | 3.1 |
| Sevier | 622 | 1.6 | 317.0 | 189 | 4.9 | 96.3 | 9 | 2.3 | 4.6 |
| Summit | 883 | 1.4 | 321.0 | 226 | 3.6 | 82.2 | 7 | 1.1 | 2.5 |
| Tooele | 823 | 1.2 | 233.3 | 285 | 4.2 | 80.8 | 12 | 1.8 | 3.4 |
| Uintah | 497 | 1.7 | 199.3 | 134 | 4.5 | 53.7 | 10 | 3.4 | 4.0 |
| Utah | 8,044 | 2.7 | 232.5 | 3,023 | 10.0 | 87.4 | 38 | 1.3 | 1.1 |
| Wasatch | 512 | 2.0 | 355.1 | 150 | 6.0 | 104.0 | 7 | 2.8 | 4.9 |
| Washington | 1,599 | 1.8 | 185.5 | 548 | 6.1 | 63.6 | 15 | 1.7 | 1.7 |
| Wayne | 90 | 2.2 | 343.4 | 32 | 7.8 | 122.1 | 2 | 4.9 | 7.6 |
| Weber | 4,583 | 3.0 | 240.3 | 1,700 | 11.3 | 89.1 | 20 | 1.3 | 1.0 |
| Statewide | 53,151 | 2.4 | 244.7 | 19,564 | 8.7 | 90.1 | 318 | 1.4 | 1.5 |

# Crashes by City

The crash rates per population for cities with over 200 crashes in 2000 are shown in Table 1.03. While South Salt Lake had the highest rate of total crashes, Riverdale had the highest rate of injury crashes, and Lindon had the highest rate of fatal crashes.

Table 1.03 Total Crash, Injury Crash and Fatal Crash Rates of Cities with More than 200 Crashes, Utah 2000

| City | Total Crashes # | Total Crashes Rate Per 100,000 Population | Injury Crashes # | Injury Crashes Rate Per 100,000 Population | Fatal Crashes # | Fatal Crashes Rate Per 100,000 Population |
|---|---|---|---|---|---|---|
| Salt Lake | 4042 | 2259.0 | 2382 | 1331.2 | 23 | 12.9 |
| Provo | 2538 | 2451.0 | 986 | 952.2 | 5 | 4.8 |
| Ogden City | 2228 | 3326.3 | 841 | 1255.6 | 8 | 11.9 |
| Ogden | 1937 | 5482.4 | 642 | 1817.1 | 2 | 5.7 |
| Sandy | 1934 | 1923.7 | 706 | 702.3 | 2 | 2.0 |
| Orem | 1900 | 2274.6 | 707 | 846.4 | 5 | 6.0 |
| Layton | 1241 | 2283.6 | 428 | 787.6 | 2 | 3.7 |
| South Salt Lake | 1230 | 6420.0 | 379 | 1978.2 | 4 | 20.9 |
| West Jordan | 1184 | 1882.9 | 433 | 688.6 | 1 | 1.6 |
| Logan | 1060 | 2425.9 | 316 | 723.2 | 3 | 6.9 |
| St. George | 1009 | 2013.5 | 328 | 654.5 | 2 | 4.0 |
| Taylorsville | 883 | 1496.6 | 301 | 510.2 | 2 | 3.4 |
| Draper | 785 | 2936.9 | 232 | 868.0 | 2 | 7.5 |
| Midvale | 753 | 2628.5 | 230 | 802.8 | 0 | 0.0 |
| Bountiful | 657 | 1624.8 | 197 | 487.2 | 2 | 4.9 |
| Clearfield | 535 | 2273.6 | 166 | 705.5 | 2 | 8.5 |
| Roy City | 476 | 1446.5 | 175 | 531.8 | 0 | 0.0 |
| South Jordan | 438 | 1602.6 | 125 | 457.4 | 1 | 3.7 |
| Cedar | 434 | 1906.0 | 148 | 650.0 | 0 | 0.0 |
| Riverdale | 416 | 5547.4 | 167 | 2227.0 | 2 | 26.7 |
| Roy | 385 | 1776.2 | 145 | 669.0 | 4 | 18.5 |
| Springville | 377 | 2142.4 | 121 | 687.6 | 1 | 5.7 |
| North Salt Lake | 364 | 4360.8 | 117 | 1401.7 | 0 | 0.0 |
| Riverton | 353 | 1150.4 | 129 | 420.4 | 2 | 6.5 |
| Centerville | 322 | 2016.4 | 94 | 588.6 | 1 | 6.3 |
| Spanish Fork | 322 | 1872.1 | 123 | 715.1 | 0 | 0.0 |
| Kaysville | 312 | 1657.5 | 96 | 510.0 | 0 | 0.0 |
| Pleasant Grove | 281 | 1349.1 | 101 | 484.9 | 1 | 4.8 |
| South Ogden | 276 | 2391.3 | 101 | 875.1 | 0 | 0.0 |
| South Ogden City | 269 | 1807.8 | 95 | 638.4 | 1 | 6.7 |
| Tooele | 257 | 1478.2 | 53 | 304.8 | 2 | 11.5 |
| Lindon | 228 | 3351.0 | 81 | 1190.5 | 2 | 29.4 |
| Lehi | 226 | 1399.4 | 73 | 452.0 | 2 | 12.4 |

# Crash Times

Table 1.04 shows that total crashes and injury crashes were more likely to occur between 2 p.m. and 6 p.m., with a peak at 5 p.m. (evening rush hour). Fatal crashes followed a similar pattern with the peak occurring between 4 p.m. and 6 p.m. (Figure 1.05).

Table 1.04 Hour of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Hour | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| 12 a.m. | 730 | 1.4% | 281 | 1.4% | 12 | 3.8% |
| 1 a.m. | 616 | 1.2% | 223 | 1.1% | 15 | 4.7% |
| 2 a.m. | 455 | 0.9% | 195 | 1.0% | 4 | 1.3% |
| 3 a.m. | 331 | 0.6% | 134 | 0.7% | 4 | 1.3% |
| 4 a.m. | 369 | 0.7% | 131 | 0.7% | 10 | 3.1% |
| 5 a.m. | 622 | 1.2% | 226 | 1.2% | 12 | 3.8% |
| 6 a.m. | 1,262 | 2.4% | 416 | 2.1% | 17 | 5.3% |
| 7 a.m. | 2,730 | 5.1% | 869 | 4.4% | 9 | 2.8% |
| 8 a.m. | 2,546 | 4.8% | 839 | 4.3% | 18 | 5.7% |
| 9 a.m. | 1,905 | 3.6% | 622 | 3.2% | 10 | 3.1% |
| 10 a.m. | 2,109 | 4.0% | 759 | 3.9% | 17 | 5.3% |
| 11 a.m. | 2,583 | 4.9% | 978 | 5.0% | 14 | 4.4% |
| 12 p.m. | 3,339 | 6.3% | 1,224 | 6.3% | 15 | 4.7% |
| 1 p.m. | 3,072 | 5.8% | 1,163 | 5.9% | 14 | 4.4% |
| 2 p.m. | 3,589 | 6.8% | 1,326 | 6.8% | 17 | 5.3% |
| 3 p.m. | 4,237 | 8.0% | 1,622 | 8.3% | 11 | 3.5% |
| 4 p.m. | 4,328 | 8.1% | 1,645 | 8.4% | 17 | 5.3% |
| 5 p.m. | 4,978 | 9.4% | 1,911 | 9.8% | 19 | 6.0% |
| 6 p.m. | 3,837 | 7.2% | 1,422 | 7.3% | 25 | 7.9% |
| 7 p.m. | 2,558 | 4.8% | 968 | 4.9% | 10 | 3.1% |
| 8 p.m. | 2,059 | 3.9% | 771 | 3.9% | 14 | 4.4% |
| 9 p.m. | 2,076 | 3.9% | 806 | 4.1% | 12 | 3.8% |
| 10 p.m. | 1,630 | 3.1% | 579 | 3.0% | 12 | 3.8% |
| 11 p.m. | 1,190 | 2.2% | 454 | 2.3% | 10 | 3.1% |
| Grand Total | 53,151 | 100.0% | 19,564 | 100.0% | 318 | 100.0% |

Figure 1.05 Hour of Injury Crashes and Fatal Crashes, Utah 2000 (see Table 1.04 for values)

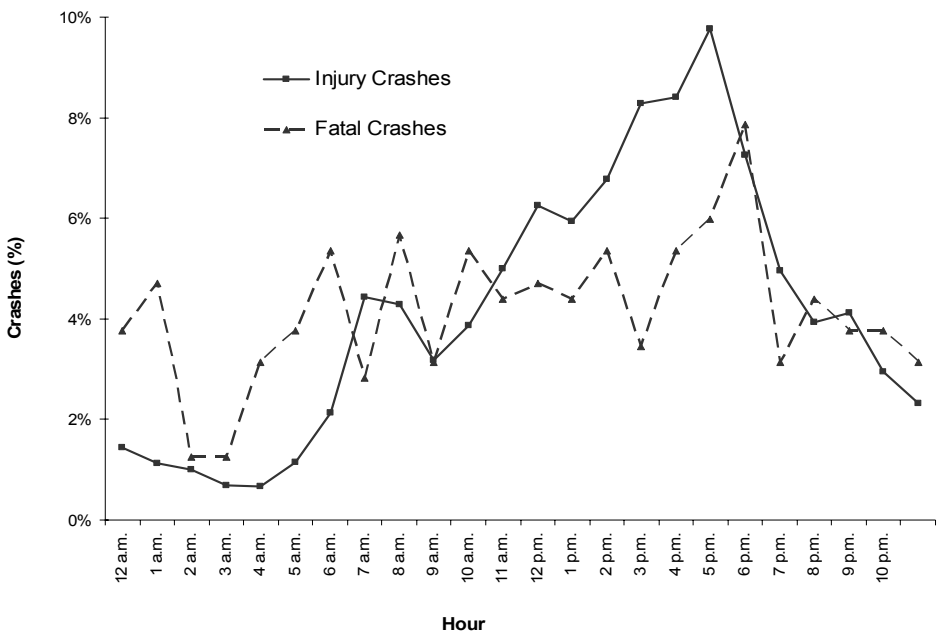


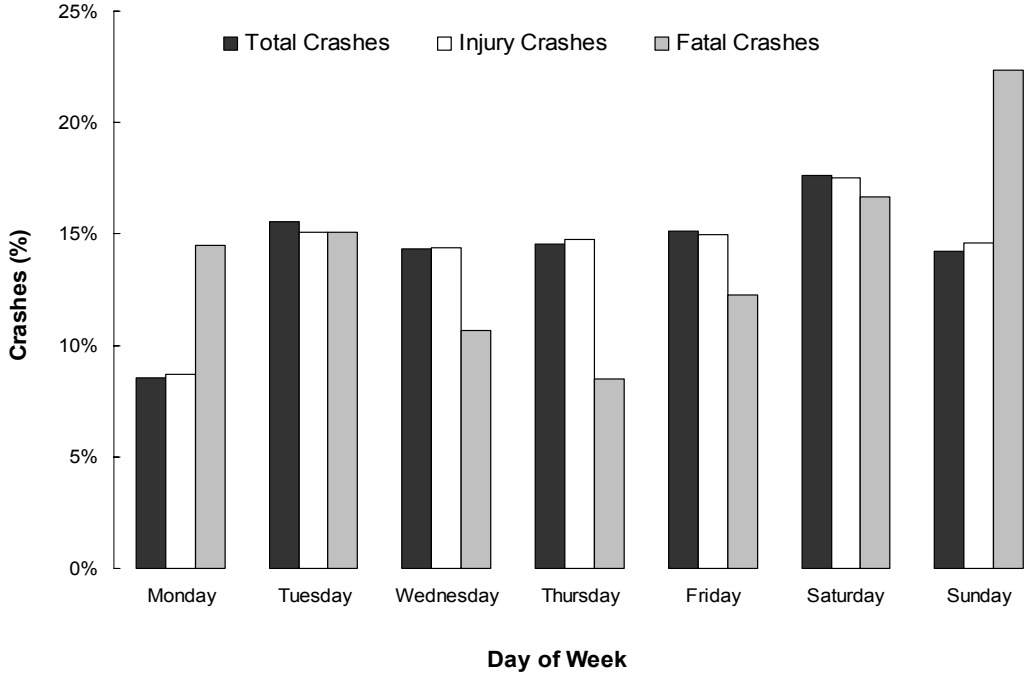

Table 1.05 shows that December had the highest rate of total crashes per day, while the months June, July, and August had the highest rates of fatal crashes per day. In fact, 32% of all fatal crashes occurred between June and August.

Table 1.05 Month of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| Crash Month | # | Rate per Day | # | Rate per Day | # | Rate per Day |
| January | 4,494 | 145.0 | 1,538 | 49.6 | 25 | 0.8 |
| February | 4,028 | 143.9 | 1,375 | 49.1 | 20 | 0.7 |
| March | 4,357 | 140.5 | 1,600 | 51.6 | 17 | 0.5 |
| April | 3,975 | 132.5 | 1,540 | 51.3 | 25 | 0.8 |
| May | 4,257 | 137.3 | 1,635 | 52.7 | 27 | 0.9 |
| June | 4,275 | 142.5 | 1,703 | 56.8 | 35 | 1.2 |
| July | 4,320 | 139.4 | 1,642 | 53.0 | 36 | 1.2 |
| August | 4,543 | 146.5 | 1,769 | 57.1 | 32 | 1.0 |
| September | 4,451 | 148.4 | 1,741 | 58.0 | 27 | 0.9 |
| October | 4,726 | 152.5 | 1,787 | 57.6 | 26 | 0.8 |
| November | 4,771 | 159.0 | 1,565 | 52.2 | 21 | 0.7 |
| December | 4,954 | 159.8 | 1,669 | 53.8 | 27 | 0.9 |
| Grand Total | 53,151 | 145.6 | 19,564 | 53.6 | 318 | 0.9 |

Figure 1.06 and Table 1.06 show that the highest percentage of total crashes and injury crashes occurred on Saturday. However, crashes occurring on Sunday were 1.7 times more likely to involve a fatality compared to crashes that occurred on other days of the week. The majority of Sunday fatal crashes occurred during the early morning hours.

Figure 1.06 Day of Week for Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000




Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one category across the days of the week. For example, look at only the white bars (i.e. injury crashes) from day to day. Do not compare the heights of the different crash categories for a specific day.

Table 1.06 Day of Week for Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| Day of Week | # | % | # | % | # | % |
| Monday | 4,543 | 8.5% | 1,702 | 8.7% | 46 | 14.5% |
| Tuesday | 8,276 | 15.6% | 2,952 | 15.1% | 48 | 15.1% |
| Wednesday | 7,621 | 14.3% | 2,814 | 14.4% | 34 | 10.7% |
| Thursday | 7,740 | 14.6% | 2,889 | 14.8% | 27 | 8.5% |
| Friday | 8,054 | 15.2% | 2,926 | 15.0% | 39 | 12.3% |
| Saturday | 9,360 | 17.6% | 3,424 | 17.5% | 53 | 16.7% |
| Sunday | 7,557 | 14.2% | 2,857 | 14.6% | 71 | 22.3% |
| Grand Total | 53,151 | 100.0% | 19,564 | 100.0% | 318 | 100.0% |

# Holiday Crashes 1998 - 2000

Table 1.07 shows the number of fatal crashes that occurred on holidays for the past three years. The number of days included in a holiday varied by year. When a holiday falls on Monday, the holiday begins at noon the Friday before the holiday, and ends at midnight on the holiday. If a holiday does not fall on the weekend, the holiday begins at noon the day before the holiday, and ends on midnight the day after the holiday. Because of the differing lengths of holidays, the rate per day is provided and should be used to compare holidays by year. Holidays are a concern due to increased motor vehicle travel combined with other possible risk factors (e.g., alcohol and other drug impaired driving, fatigued driving). Thanksgiving was the holiday with the highest rate of fatal crashes for 1998, Memorial Day had the highest rate of fatal crashes for 1999, and July 24th had the highest rate of fatal crashes in 2000. The fatal crash rate per day for holidays is 0.6 which is lower than the rate per day of 0.9 for the whole year.

Table 1.07 Fatal Crashes by Holiday, Utah 1998 - 2000

| | 1998 Fatal Crashes | | 1999 Fatal Crashes | | 2000 Fatal Crashes | |
|---|---|---|---|---|---|---|
| **Holiday** | **#** | **Rate per day** | **#** | **Rate per day** | **#** | **Rate per day** |
| New Years | 2 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Memorial Day | 2 | 0.5 | 7 | 1.8 | 2 | 0.5 |
| July 4th | 2 | 0.7 | 5 | 1.7 | 4 | 1.0 |
| July 24th | 2 | 0.5 | 4 | 1.0 | 5 | 1.3 |
| Labor Day | 4 | 1.0 | 4 | 1.0 | 3 | 0.8 |
| Thanksgiving | 10 | 2.5 | 3 | 0.8 | 2 | 0.4 |
| Christmas | 2 | 0.5 | 1 | 0.3 | 1 | 0.3 |
| Total | 24 | 0.9 | 24 | 0.9 | 17 | 0.6 |

# Crash Characteristics

Table 1.08 shows crashes involving two motor vehicles represented the majority of crashes (72.3%). Pedestrian-motor vehicle crashes represented 1.3% of all crashes, but accounted for 9.4% of fatal crashes resulting in a 8-fold increased risk of a fatality. In addition when a vehicle ran off the roadway (to the right, to the left, and through the median), there was a 4-fold increased risk of a fatality.

Table 1.08 Types of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Crash Type | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Two Motor Vehicles | 38,436 | 72.3% | 13,787 | 70.5% | 106 | 33.3% |
| Ran Off Roadway - To the Right | 3,504 | 6.6% | 1,555 | 7.9% | 72 | 22.6% |
| Motor Vehicle and Fixed Object | 2,496 | 4.7% | 784 | 4.0% | 9 | 2.8% |
| Motor Vehicle and Wild Animal | 2,121 | 4.0% | 146 | 0.7% | 2 | 0.6% |
| Ran Off Roadway - To the Left | 1,876 | 3.5% | 880 | 4.5% | 33 | 10.4% |
| Other Non-Collision | 1,215 | 2.3% | 369 | 1.9% | 4 | 1.3% |
| Motor Vehicle and Bicycle | 691 | 1.3% | 625 | 3.2% | 8 | 2.5% |
| Motor Vehicle and Pedestrian | 687 | 1.3% | 626 | 3.2% | 30 | 9.4% |
| Motor Vehicle and Other Object | 651 | 1.2% | 127 | 0.6% | 3 | 0.9% |
| Ran Off Roadway Through Median | 554 | 1.0% | 274 | 1.4% | 38 | 11.9% |
| Overturned in Roadway | 467 | 0.9% | 292 | 1.5% | 9 | 2.8% |
| Motor Vehicle and Domestic Animal | 419 | 0.8% | 88 | 0.4% | 2 | 0.6% |
| Motor Vehicle and Train | 34 | 0.1% | 11 | 0.1% | 2 | 0.6% |
| Grand Total | 53,151 | 100.0% | 19,564 | 100.0% | 318 | 100.0% |

Table 1.09 shows the majority of crashes (75%) occurred in urban areas. However, the majority of fatal crashes (60.4%) occurred in rural areas. In fact, rural crashes were 5 times more likely to result in a fatality than other crashes.

Table 1.09 Urban / Rural Location of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Urban / Rural Location | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Rural Area - Up to 5,000 | 13,293 | 25.0% | 4,290 | 21.9% | 192 | 60.4% |
| Small Urban - 5,000 to 49,999 | 2,447 | 4.6% | 803 | 4.1% | 10 | 3.1% |
| Moderate Urban - 50,000 to 199,999 | 1,224 | 2.3% | 408 | 2.1% | 5 | 1.6% |
| Large Urban - 200,000 or More | 36,176 | 68.1% | 14,057 | 71.9% | 111 | 34.9% |
| Missing | 11 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Grand Total | 53,151 | 100.0% | 19,558 | 100.0% | 318 | 100.0% |

Table 1.10 shows the leading collision types (excluding other) were a rear end (28.9%) and a broadside (23.7%). These were also the leading injury collision types. The leading fatal collision type was a single vehicle rollover (37.4%), followed by broadside (15.4%) and pedestrian/bicyclist crash (11.9%). Head-on collisions were 6 times more likely and single vehicle rollovers were 5 times more likely to result in a fatality than other collisions.

Table 1.10 Collision Description of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Collision Description | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Other | 16,057 | 30.2% | 3,242 | 16.6% | 38 | 11.9% |
| Rear End | 15,364 | 28.9% | 6,044 | 30.9% | 10 | 3.1% |
| Broadside | 12,572 | 23.7% | 5,737 | 29.3% | 49 | 15.4% |
| Side Swipe | 3,605 | 6.8% | 820 | 4.2% | 26 | 8.2% |
| Single Vehicle Rollover | 3,354 | 6.3% | 2,134 | 10.9% | 119 | 37.4% |
| Pedestrian/Bicyclist Crash | 1,378 | 2.6% | 1,251 | 6.4% | 38 | 11.9% |
| Single Vehicle Fixed Object | 508 | 1.0% | 173 | 0.9% | 9 | 2.8% |
| Head-on | 285 | 0.5% | 155 | 0.8% | 28 | 8.8% |
| Single Vehicle Other | 28 | 0.1% | 8 | 0.0% | 1 | 0.3% |
| Grand Total | 53,151 | 100.0% | 19,564 | 100.0% | 318 | 100.0% |

Table 1.11 shows the majority of vehicles involved in Utah crashes were passenger cars (54.9%). While motorcycles represented less than 1% of vehicles involved in crashes, they represented 4.6% of vehicles in fatal crashes. Crashes involving a motorcycle were 6 times more likely to be fatal than crashes involving other vehicles. Crashes involving a large/semi truck were 3 times more likely to be fatal than crashes involving other vehicles.

Table 1.11 Type of Vehicles Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Vehicle Type | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Passenger Car | 54,533 | 54.9% | 21,191 | 56.6% | 208 | 43.5% |
| Pickup Truck / Vans | 39,151 | 39.4% | 14,102 | 37.7% | 205 | 40.3% |
| Large/Semi Truck | 3,288 | 3.3% | 913 | 2.4% | 44 | 8.9% |
| Other | 1,454 | 1.5% | 578 | 1.5% | 8 | 46.2% |
| Motorcycle | 746 | 0.8% | 636 | 1.7% | 21 | 4.6% |
| School Bus | 135 | 0.1% | 32 | 0.1% | 2 | 0.0% |
| Grand Total | 99,307 | 100.0% | 37,452 | 100.0% | 488 | 100.0% |

# Crash Violations and Contributing Factors

Officers at the scene cited 53.1% of drivers involved in a crash for a traffic violation. Table 1.12 shows the leading violation for all crashes was "failure to yield right of way" (26.6%). The top violations in fatal crashes were "driving under the influence" (23%) and "vehicular homicide" (19.7%). Drivers cited for "driving under the influence" were 10 times more likely to be involved in a fatal crash than drivers cited for other violations.

Table 1.12 Violations for Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| **Violations** | **#** | **%** | **#** | **%** | **#** | **%** |
| Failure to Yield Right of Way | 13,562 | 26.6% | 5,888 | 28.8% | 8 | 13.1% |
| Improper Lookout | 11,884 | 23.3% | 4,630 | 22.6% | 6 | 9.8% |
| Speeding | 5,308 | 10.4% | 1,814 | 8.9% | 6 | 9.8% |
| Following Too Close | 4,736 | 9.3% | 1,821 | 8.9% | 1 | 1.6% |
| Other Non-Moving Violations | 3,203 | 6.3% | 1,308 | 6.4% | 3 | 4.9% |
| All Other Moving Violations | 2,895 | 5.7% | 1,097 | 5.4% | 6 | 9.8% |
| Failure to Stop at Red Light | 1,725 | 3.4% | 948 | 4.6% | 1 | 1.6% |
| Driving Under the Influence | 1,531 | 3.0% | 837 | 4.1% | 14 | 23.0% |
| Negligent Collision | 1,337 | 2.6% | 491 | 2.4% | 0 | 0.0% |
| Improper Turn | 1,254 | 2.5% | 420 | 2.1% | 0 | 0.0% |
| Improper Lane Change | 872 | 1.7% | 212 | 1.0% | 0 | 0.0% |
| Failure to Stop at Stop Sign | 556 | 1.1% | 287 | 1.4% | 0 | 0.0% |
| Reckless Driving | 502 | 1.0% | 238 | 1.2% | 2 | 3.3% |
| Improper Passing | 410 | 0.8% | 115 | 0.6% | 0 | 0.0% |
| Hit and Run | 407 | 0.8% | 134 | 0.7% | 1 | 1.6% |
| Improper Backing | 378 | 0.7% | 45 | 0.2% | 1 | 1.6% |
| Wrong Side of Road | 283 | 0.6% | 129 | 0.6% | 0 | 0.0% |
| Improper Start or Stop | 200 | 0.4% | 55 | 0.3% | 0 | 0.0% |
| Vehicular Homicide | 12 | 0.0% | 0 | 0.0% | 12 | 19.7% |
| Wrong Way on One Way Street | 6 | 0.0% | 4 | 0.0% | 0 | 0.0% |
| Grand Total | 51,061 | 100.0% | 20,473 | 100.0% | 61 | 100.0% |

The factors contributing to crashes in 2000 are listed in Table 1.13. These factors were coded by the scene officers for each vehicle involved in the crash. The officer may record no contributing factor or up to two different contributing factors. The leading contributing factors recorded for total crashes and injury crashes were "improper lookout" (14.1 % and 13.5%), while "speed too fast" (16.7%) was the leading contributing factor recorded for fatal crashes. If "driving under the influence", "had been drinking" and "under the influence of drugs" were combined it would be the third leading contributing factor for fatal crashes at 8.6%.

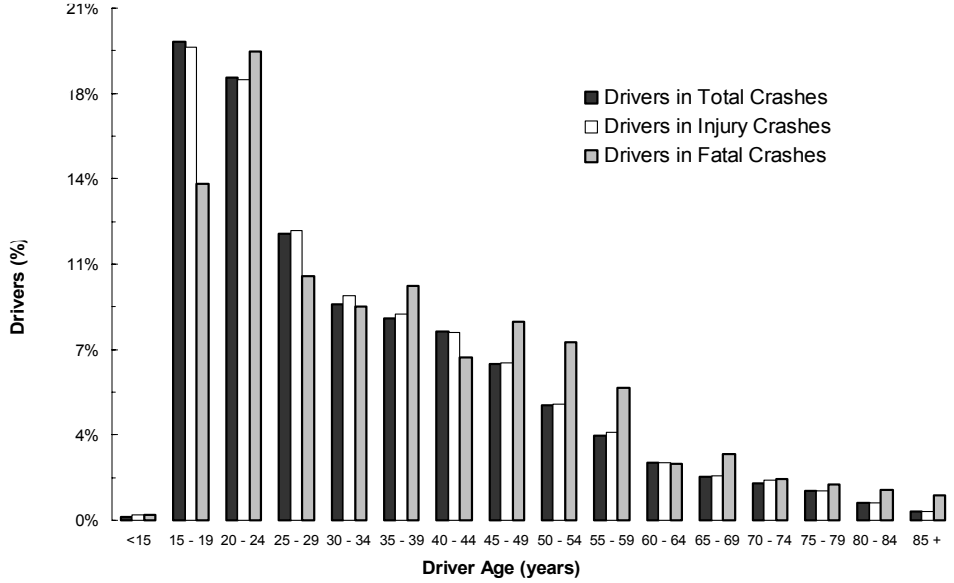
Table 1.13 Contributing Factors of Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| **Contributing Factors** | **#** | **%** | **#** | **%** | **#** | **%** |
| Improper Lookout | 15,972 | 14.1% | 5,805 | 13.5% | 44 | 6.9% |
| Failed to Yield the Right of Way | 10,180 | 9.0% | 4,233 | 9.9% | 34 | 5.4% |
| Following Too Closely | 7,530 | 6.7% | 2,797 | 6.5% | 4 | 0.6% |
| Speed Too Fast | 7,789 | 6.9% | 2,959 | 6.9% | 106 | 16.7% |
| Other Improper Driving | 5,696 | 5.0% | 2,239 | 5.2% | 60 | 9.5% |
| Improper Turn | 2,451 | 2.2% | 738 | 1.7% | 5 | 0.8% |
| Hit and Run | 2,507 | 2.2% | 654 | 1.5% | 6 | 0.9% |
| Disregarded Traffic Signal | 2,306 | 2.0% | 1,225 | 2.9% | 10 | 1.6% |
| Driving Under the Influence | 1,490 | 1.3% | 808 | 1.9% | 35 | 5.5% |
| Improper Overtaking | 1,146 | 1.0% | 315 | 0.7% | 4 | 0.6% |
| Non-Contact Vehicle Involved | 1,390 | 1.2% | 443 | 1.0% | 13 | 2.1% |
| Drove Left of Center | 1,113 | 1.0% | 467 | 1.1% | 36 | 5.7% |
| Asleep | 882 | 0.8% | 457 | 1.1% | 27 | 4.3% |
| Improper Backing | 727 | 0.6% | 71 | 0.2% | 2 | 0.3% |
| Passed Stop Sign | 719 | 0.6% | 378 | 0.9% | 3 | 0.5% |
| Had Been Drinking | 453 | 0.4% | 237 | 0.6% | 18 | 2.8% |
| Other Defective Condition | 405 | 0.4% | 119 | 0.3% | 5 | 0.8% |
| Fatigued | 385 | 0.3% | 192 | 0.4% | 20 | 3.2% |
| Brakes Defective | 306 | 0.3% | 113 | 0.3% | 3 | 0.5% |
| Tires Defective | 284 | 0.3% | 102 | 0.2% | 3 | 0.5% |
| Improper Parking | 292 | 0.3% | 79 | 0.2% | 0 | 0.0% |
| Ill | 221 | 0.2% | 143 | 0.3% | 2 | 0.3% |
| Cargo Loss or Shift | 244 | 0.2% | 48 | 0.1% | 2 | 0.3% |
| Failed to Signal | 165 | 0.1% | 38 | 0.1% | 0 | 0.0% |
| Wrong Side of Road | 140 | 0.1% | 61 | 0.1% | 3 | 0.5% |
| Non-collision Fire | 206 | 0.2% | 9 | 0.0% | 0 | 0.0% |
| Under the Influence of Drugs | 128 | 0.1% | 77 | 0.2% | 2 | 0.3% |
| Jackknife | 122 | 0.1% | 27 | 0.1% | 2 | 0.3% |
| Down Hill Runaway | 90 | 0.1% | 24 | 0.1% | 0 | 0.0% |
| Windshield Not Clear | 107 | 0.1% | 42 | 0.1% | 0 | 0.0% |
| Stolen | 104 | 0.1% | 38 | 0.1% | 2 | 0.3% |
| Separation of Units | 126 | 0.1% | 17 | 0.0% | 0 | 0.0% |
| Towed Vehicle | 96 | 0.1% | 22 | 0.1% | 0 | 0.0% |
| Headlights Insufficient or Out | 76 | 0.1% | 34 | 0.1% | 0 | 0.0% |
| Vehicle Rolling in Traffic Lane | 105 | 0.1% | 37 | 0.1% | 0 | 0.0% |
| Other Lights or Reflecting/Defective | 52 | 0.0% | 20 | 0.0% | 0 | 0.0% |
| Steering Mechanism Defective | 51 | 0.0% | 16 | 0.0% | 0 | 0.0% |
| Eyesight Defective Uncorrected | 44 | 0.0% | 9 | 0.0% | 0 | 0.0% |
| Headlights Glaring | 47 | 0.0% | 13 | 0.0% | 0 | 0.0% |
| Wrong Way on One Way Street | 19 | 0.0% | 12 | 0.0% | 0 | 0.0% |
| Immersion | 15 | 0.0% | 5 | 0.0% | 1 | 0.2% |
| Explosion or Fire | 31 | 0.0% | 7 | 0.0% | 2 | 0.3% |
| Collision Fire | 7 | 0.0% | 3 | 0.0% | 2 | 0.3% |
| Grand Total | 112,981 | 100.0% | 42,955 | 100.0% | 634 | 100.0% |

# Drivers Involved in Crashes

Figure 1.07 shows the age of drivers involved in crashes for 2000. The age distribution of drivers involved in total crashes and injury crashes were similar; drivers between the age of 15 to 19 years represented the highest percentage of drivers involved in these crashes. Drivers between the age of 20 to 24 represented the largest percentage of drivers involved in fatal crashes. For information regarding crash rate per license driver, see Figure 1.08.

Figure 1.07 Age of Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000



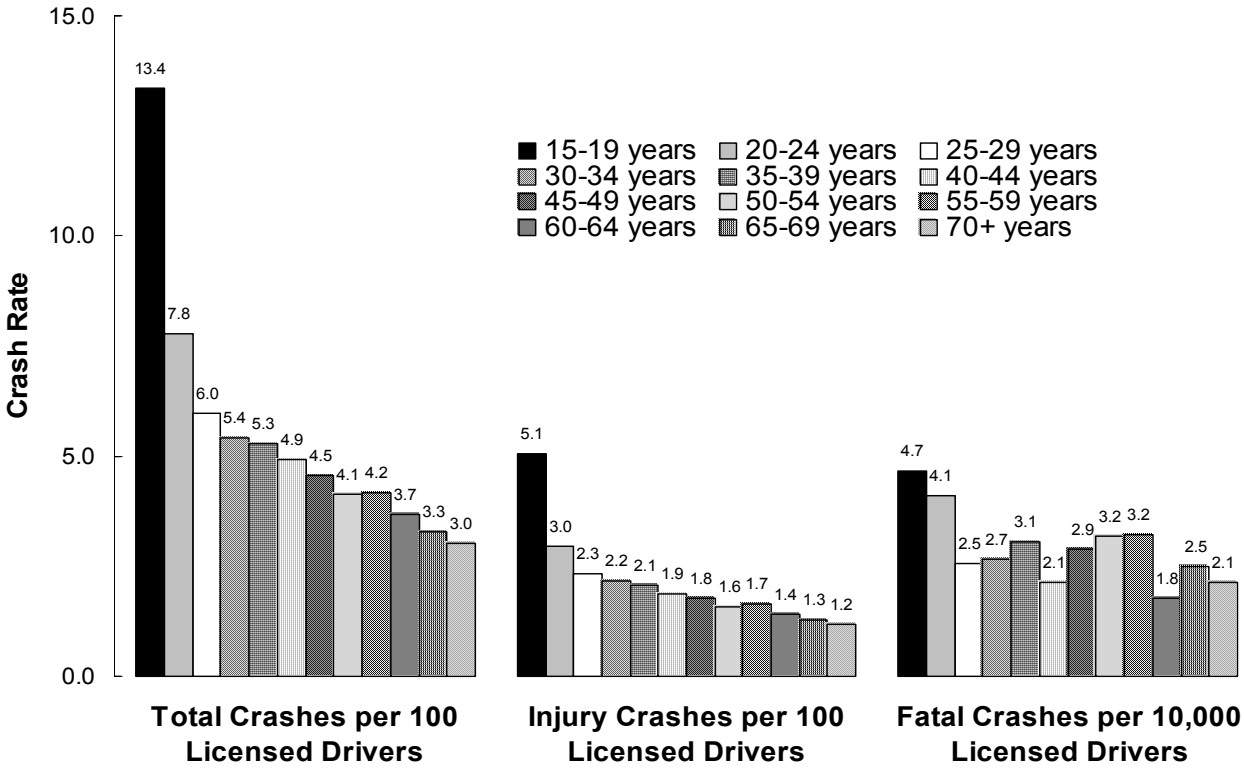

Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one category across the age groups. For example, look at only the white bars (i.e. drivers in injury crashes) from age group to age group. Do not compare the heights of the different crash categories for a specific age group.

Table 1.14 Age of Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| Driver's Age | # | % | # | % | # | % |
| <15 | 129 | 0.1% | 79 | 0.2% | 1 | 0.2% |
| 15 - 19 | 18,856 | 19.6% | 7,129 | 19.4% | 66 | 13.8% |
| 20 - 24 | 17,475 | 18.2% | 6,638 | 18.0% | 92 | 19.2% |
| 25 - 29 | 11,285 | 11.7% | 4,376 | 11.9% | 48 | 10.0% |
| 30 - 34 | 8,530 | 8.9% | 3,395 | 9.2% | 42 | 8.8% |
| 35 - 39 | 7,948 | 8.3% | 3,107 | 8.4% | 46 | 9.6% |
| 40 - 44 | 7,445 | 7.7% | 2,835 | 7.7% | 32 | 6.7% |
| 45 - 49 | 6,142 | 6.4% | 2,374 | 6.5% | 39 | 8.1% |
| 50 - 54 | 4,547 | 4.7% | 1,743 | 4.7% | 35 | 7.3% |
| 55 - 59 | 3,353 | 3.5% | 1,330 | 3.6% | 26 | 5.4% |
| 60 - 64 | 2,282 | 2.4% | 865 | 2.4% | 11 | 2.3% |
| 65 - 69 | 1,706 | 1.8% | 663 | 1.8% | 13 | 2.7% |
| 70 - 74 | 1,467 | 1.5% | 599 | 1.6% | 8 | 1.7% |
| 75 - 79 | 1,166 | 1.2% | 444 | 1.2% | 7 | 1.5% |
| 80 - 84 | 690 | 0.7% | 265 | 0.7% | 6 | 1.3% |
| 85 + | 337 | 0.4% | 136 | 0.4% | 5 | 1.0% |
| Missing | 2,792 | 2.9% | 800 | 2.2% | 2 | 0.4% |
| Grand Total | 96,150 | 100.0% | 36,778 | 100.0% | 479 | 100.0% |

Similar trends in the age of drivers involved in crashes are illustrated in Figure 1.08 which shows the crash rate per licensed drivers. Drivers aged 15 to 19 years experienced the highest total crash, injury crash and fatal crash rates. Drivers aged 20 to 24 years had the second highest total crash, injury crash, and fatal crash rate.

Figure 1.08 Age of Driver by Crash Rate per Licensed Driver*, Utah 2000




*The number of licensed drivers was provided by the Utah Driver License Division.

Table 1.15 shows males represented 58.1% of all drivers involved in a crash, and 71.9% of drivers involved in fatal crashes. Females accounted for 39.9% of drivers involved in a crash, but they represented a slightly higher percentage of drivers in injury crashes at 42.8%.

Table 1.15 Gender of Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| Driver's Gender | # | % | # | % | # | % |
| Female | 38,339 | 39.9% | 15,751 | 42.8% | 135 | 27.4% |
| Male | 55,889 | 58.1% | 20,543 | 55.9% | 343 | 71.9% |
| Missing | 1,922 | 2.0% | 484 | 1.3% | 1 | 0.6% |
| Grand Total | 96,150 | 100.0% | 36,778 | 100.0% | 479 | 100.0% |

# Out of State Drivers Involved in Utah Crashes

Table 1.16 shows the state of licensure for drivers involved in Utah crashes. While out-of-state licensed drivers accounted for 8.6% of drivers involved in crashes, they represented 19.1% of drivers involved in fatal crashes. This may be due in part to fatigued driving on out-of-state trips. There were several counties that had a disproportional amount of out-of-state drivers (Table 1.17). Most notably, Grand (46.2%), San Juan (44.4%), Kane (43.3%), and Daggett (39.2%) had a high proportion of out-of-state licensed drivers involved in crashes. These drivers may place an extra burden on the residents and medical services in these counties.

Table 1.16 State of Licensure for Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Drivers License State | Total Crashes | | Injury Crashes | | Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Out of State | 8,568 | 8.6% | 3,192 | 8.5% | 93 | 19.1% |
| Utah | 84,299 | 84.9% | 32,598 | 87.0% | 384 | 78.7% |
| Missing | 6,440 | 6.5% | 1,662 | 4.4% | 11 | 2.3% |
| Grand Total | 99,307 | 100.0% | 37,452 | 100.0% | 488 | 100.0% |

Table 1.17 State of Licensure for Drivers by County, Utah 2000

| County | Total Drivers | Out of State Drivers | |
|---|---|---|---|
| | | # | % |
| Beaver | 330 | 99 | 30.0% |
| Box Elder | 1,356 | 230 | 17.0% |
| Cache | 3,595 | 406 | 11.3% |
| Carbon | 661 | 67 | 10.1% |
| Daggett | 51 | 20 | 39.2% |
| Davis | 8,740 | 646 | 7.4% |
| Duchesne | 407 | 25 | 6.1% |
| Emery | 399 | 123 | 30.8% |
| Garfield | 178 | 62 | 34.8% |
| Grand | 340 | 157 | 46.2% |
| Iron | 1,339 | 258 | 19.3% |
| Juab | 401 | 73 | 18.2% |
| Kane | 210 | 91 | 43.3% |
| Millard | 531 | 140 | 26.4% |
| Morgan | 238 | 33 | 13.9% |
| Piute | 52 | 13 | 25.0% |
| Rich | 89 | 15 | 16.9% |
| Salt Lake | 44,788 | 2,558 | 5.7% |
| San Juan | 396 | 176 | 44.4% |
| Sanpete | 556 | 29 | 5.2% |
| Sevier | 804 | 229 | 28.5% |
| Summit | 1,312 | 275 | 21.0% |
| Tooele | 1,247 | 147 | 11.8% |
| Uintah | 732 | 63 | 8.6% |
| Utah | 15,059 | 1,653 | 11.0% |
| Wasatch | 710 | 67 | 9.4% |
| Washington | 2,843 | 414 | 14.6% |
| Wayne | 103 | 24 | 23.3% |
| Weber | 8,683 | 475 | 5.5% |
| Grand Total | 96,150 | 8,568 | 8.9% |

# Section 2
# Crash Participants, Injured Persons and Fatalities, 2000



## TABLES



## FIGURES

# Injured Persons and Fatalities 1970 - 2000

The trends in injuries and fatalities for the past thirty years are shown in Table 2.01. During this time period nearly 700,000 people have been injured and almost 10,000 people have been killed in a crash.

In 2000, the injured person rate per 100 million vehicle miles traveled (MVMT) was 133.6. This was a 2% decrease from the 1999 rate of 137.0. The lowest fatality rate occurred in 1998 and 1999 at 1.6. There was a 6% increase in this rate to 1.7 in 2000.

Table

| Year | Million Vehicle Miles Traveled (MVMT) | Injuries | Fatalities | Injury Rate per 100 MVMT | Fatality Rate per 100 MVMT |
|---|---|---|---|---|---|
| 1970 | 6,108 | 17,076 | 335 | 279.6 | 5.5 |
| 1971 | 6,544 | 18,073 | 337 | 276.2 | 5.1 |
| 1972 | 6,969 | 18,261 | 382 | 262.0 | 5.5 |
| 1973 | 7,274 | 18,415 | 361 | 253.2 | 5.0 |
| 1974 | 7,457 | 16,268 | 228 | 218.2 | 3.1 |
| 1975 | 7,942 | 17,762 | 274 | 223.6 | 3.5 |
| 1976 | 8,420 | 18,315 | 254 | 217.5 | 3.0 |
| 1977 | 9,054 | 19,728 | 360 | 217.9 | 4.0 |
| 1978 | 9,826 | 21,029 | 376 | 214.0 | 3.8 |
| 1979 | 9,811 | 20,798 | 328 | 212.0 | 3.3 |
| 1980 | 10,645 | 17,828 | 335 | 167.5 | 3.1 |
| 1981 | 10,733 | 18,090 | 364 | 168.5 | 3.4 |
| 1982 | 10,947 | 17,538 | 296 | 160.2 | 2.7 |
| 1983 | 11,228 | 18,910 | 283 | 168.4 | 2.5 |
| 1984 | 11,642 | 20,487 | 315 | 176.0 | 2.7 |
| 1985 | 12,035 | 21,346 | 303 | 177.4 | 2.5 |
| 1986 | 12,253 | 21,350 | 312 | 174.2 | 2.5 |
| 1987 | 12,679 | 19,237 | 297 | 151.7 | 2.3 |
| 1988 | 13,263 | 19,066 | 297 | 143.8 | 2.2 |
| 1989 | 13,915 | 19,843 | 303 | 142.6 | 2.2 |
| 1990 | 14,646 | 20,608 | 272 | 140.7 | 1.9 |
| 1991 | 15,390 | 19,540 | 271 | 127.0 | 1.8 |
| 1992 | 16,263 | 22,490 | 269 | 138.3 | 1.7 |
| 1993 | 17,055 | 25,763 | 303 | 151.1 | 1.8 |
| 1994 | 18,080 | 28,436 | 343 | 157.3 | 1.9 |
| 1995 | 18,786 | 28,343 | 325 | 150.9 | 1.7 |
| 1996 | 19,433 | 30,711 | 328 | 158.0 | 1.7 |
| 1997 | 20,408 | 31,238 | 366 | 153.1 | 1.8 |
| 1998 | 21,237 | 30,232 | 350 | 142.4 | 1.6 |
| 1999 | 21,867 | 29,959 | 360 | 137.0 | 1.6 |
| 2000 | 22,517 | 30,086 | 373 | 133.6 | 1.7 |
| Total | 404,427 | 676,826 | 9,900 | 167.4 | 2.4 |

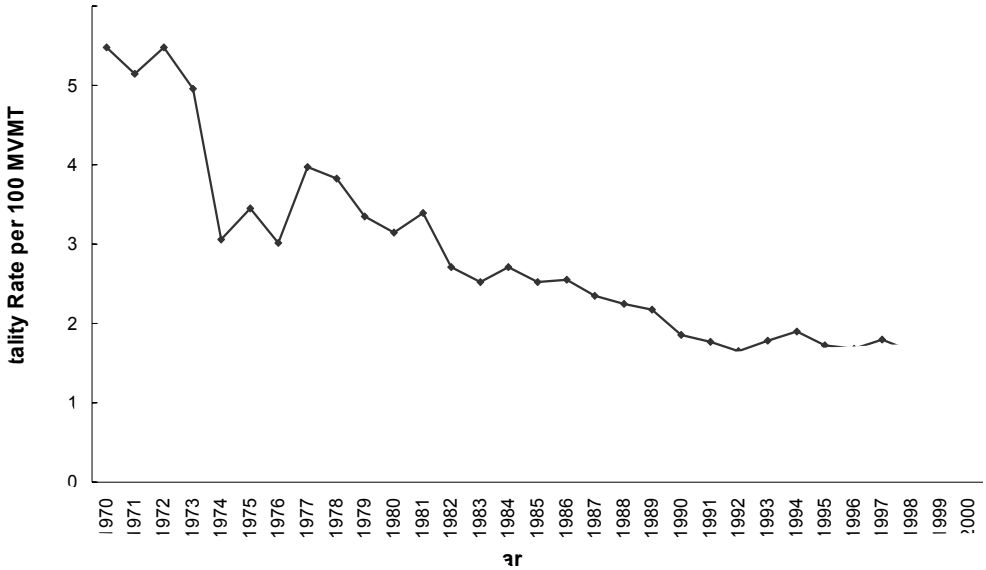
# Injured Persons and Fatalities 1970 - 2000

Figure 2.01 reflects the trends in rates of persons injured in crashes per 100 million vehicle miles traveled (MVMT) from 1970 to 2000. The injury rates were highest in the early 1970s.

Figure 2.01 Crash Injured Person Rates per Million Vehicle Miles Traveled, Utah 1970-2000


Figure 2.02 shows the trends in the rate of persons killed in crashes per 100 million vehicle miles traveled. The rate has markedly decreased from 5.5 persons killed per 100 MVMT in 1970 to 1.7 persons killed per 100 MVMT in 2000. The biggest decrease in fatalities occurred after the implementation of a 55 MPH speed limit in 1973.

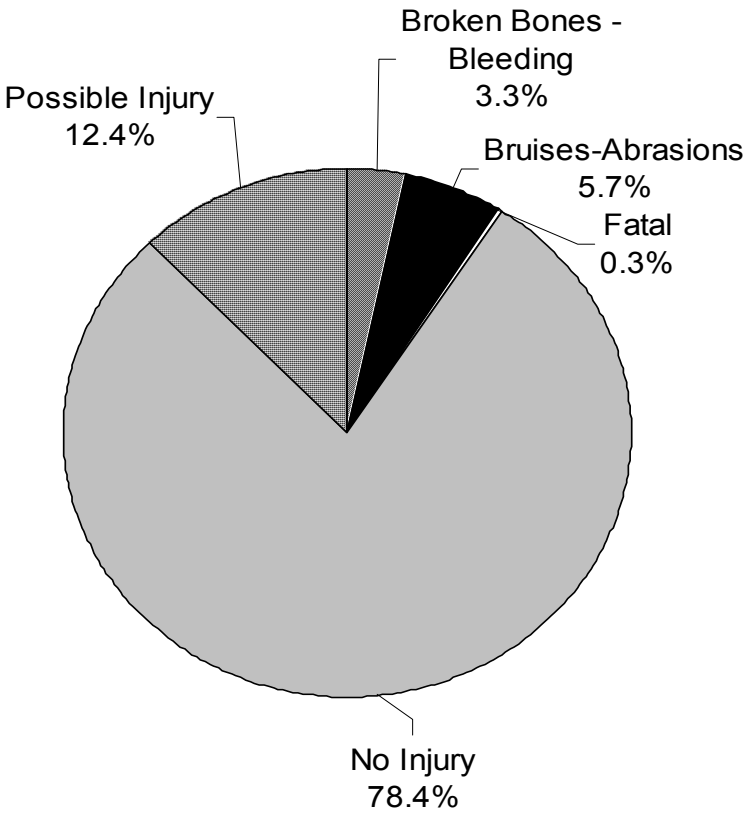
Figure 2.02 Crash Fatality Rates per Million Vehicle Miles Traveled, Utah 1970-2000



# Crash Injury Severity

The majority (78.4%) of total crash participants did not sustain any injury. Fatal crashes represented 0.6% of total crashes, yet a fatal injury was sustained by 0.3% of total crash participants. These facts indicate that individuals in the same crash have different injury experiences. Many factors influence injury patterns including seatbelt use, seat position, and vehicle safety equipment.

Figure 2.03 Severity of Injuries as Reported by Police, Utah 2000 (n=140,777)



# Crash Participants, Injured Persons and Fatalities by County

Figure 2.04 depicts the number of injuries and fatalities for each county. For rates of crash participants, injured persons and fatalities see Table 2.02.

Figure 2.04 Injuries and Fatalities by County, Utah 2000

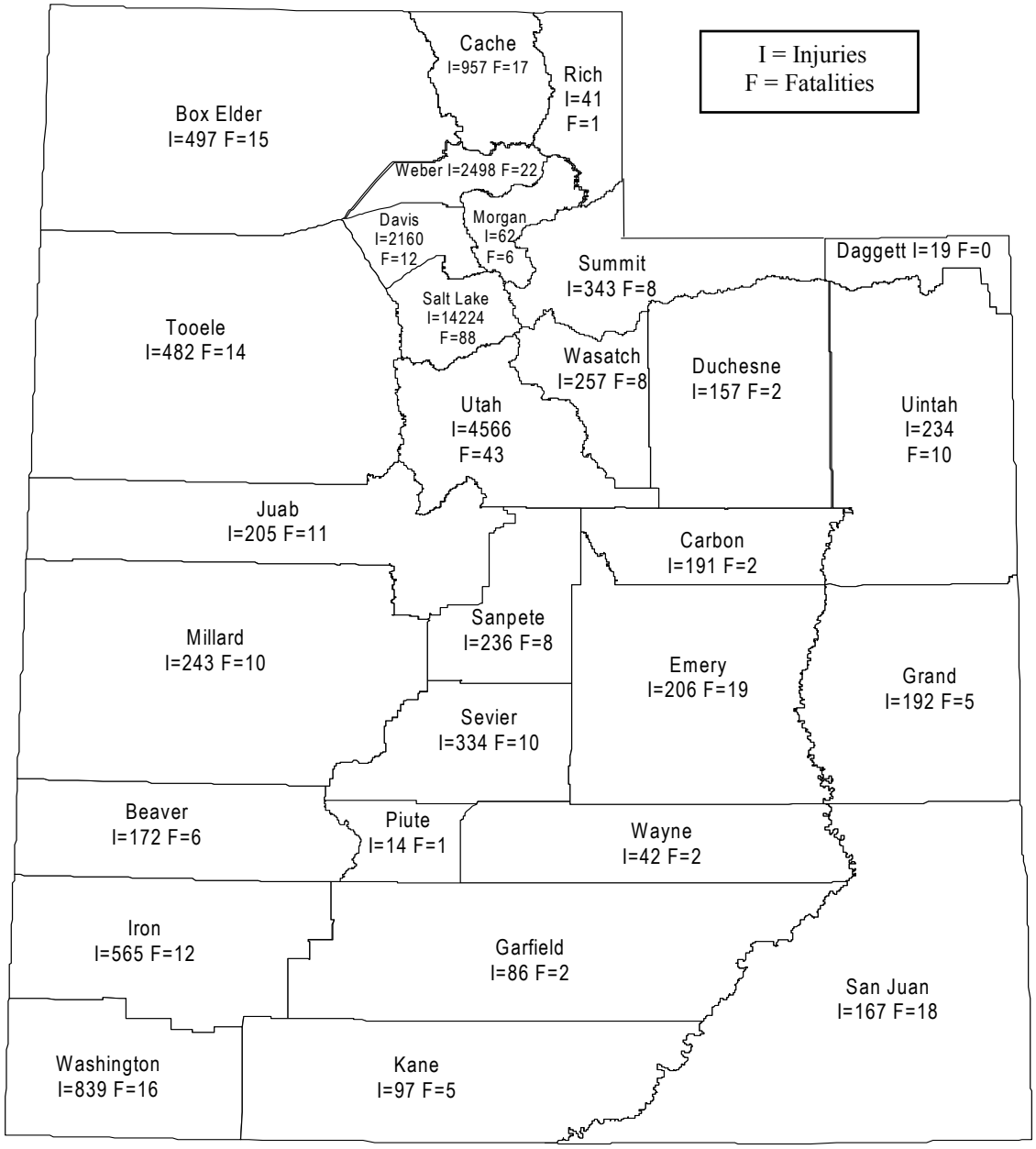


Table 2.02 shows the rates of crash participants, injured persons and fatalities for each county. Two different rates are given in Table 2.02; one based on miles traveled in the county and another on the population of the county. The leading counties for crash participants based on miles traveled were Salt Lake, Weber, and Utah. The leading for injured persons were also Salt Lake, Weber, and Utah. While the leading three for fatalities were San Juan, Emery, and Morgan.

Table 2.02 Crash Participants, Injured Persons and Fatalities by County, Utah 2000

| | Crash Participants | | | Injured Persons | | | Crash Fatalities | | |
|---|---|---|---|---|---|---|---|---|---|
| County | # | Rate per MVMT | Rate Per 10,000 Population | # | Rate per 10 MVMT | Rate Per 10,000 Population | # | Rate per 100 MVMT | Rate Per 10,000 Population |
| Beaver | 588 | 2.8 | 847.8 | 172 | 8.1 | 248.0 | 6 | 2.8 | 8.7 |
| Box Elder | 2,118 | 2.3 | 496.4 | 497 | 5.4 | 116.5 | 15 | 1.6 | 3.5 |
| Cache | 5,365 | 6.8 | 574.3 | 957 | 12.1 | 102.4 | 17 | 2.1 | 1.8 |
| Carbon | 968 | 2.8 | 426.5 | 191 | 5.5 | 84.1 | 2 | 0.6 | 0.9 |
| Daggett | 102 | 4.0 | 1,193.0 | 19 | 7.5 | 222.2 | 0 | 0.0 | 0.0 |
| Davis | 13,075 | 6.3 | 554.9 | 2,160 | 10.3 | 91.7 | 12 | 0.6 | 0.5 |
| Duchesne | 655 | 3.4 | 455.2 | 157 | 8.1 | 109.1 | 2 | 1.0 | 1.4 |
| Emery | 660 | 1.9 | 588.7 | 206 | 5.8 | 183.7 | 19 | 5.4 | 16.9 |
| Garfield | 355 | 2.6 | 747.7 | 86 | 6.4 | 181.1 | 2 | 1.5 | 4.2 |
| Grand | 569 | 2.1 | 517.8 | 192 | 6.9 | 174.7 | 5 | 1.8 | 4.6 |
| Iron | 2,273 | 4.0 | 661.3 | 565 | 10.0 | 164.4 | 12 | 2.1 | 3.5 |
| Juab | 705 | 2.0 | 861.0 | 205 | 5.9 | 250.4 | 11 | 3.2 | 13.4 |
| Kane | 400 | 3.2 | 534.5 | 97 | 7.9 | 129.6 | 5 | 4.0 | 6.7 |
| Millard | 934 | 2.3 | 723.5 | 243 | 5.9 | 188.2 | 10 | 2.4 | 7.7 |
| Morgan | 309 | 2.6 | 442.4 | 62 | 5.1 | 88.8 | 6 | 5.0 | 8.6 |
| Piute | 77 | 2.6 | 461.1 | 14 | 4.7 | 83.8 | 1 | 3.4 | 6.0 |
| Rich | 159 | 3.6 | 846.2 | 41 | 9.2 | 218.2 | 1 | 2.2 | 5.3 |
| Salt Lake | 64,118 | 8.8 | 735.0 | 14,224 | 19.4 | 163.0 | 88 | 1.2 | 1.0 |
| San Juan | 696 | 2.5 | 514.2 | 167 | 6.0 | 123.4 | 18 | 6.4 | 13.3 |
| Sanpete | 857 | 3.7 | 383.2 | 236 | 10.3 | 105.5 | 8 | 3.5 | 3.6 |
| Sevier | 1,281 | 3.3 | 652.9 | 334 | 8.6 | 170.2 | 10 | 2.6 | 5.1 |
| Summit | 1,849 | 3.0 | 672.1 | 343 | 5.5 | 124.7 | 8 | 1.3 | 2.9 |
| Tooele | 1,856 | 2.8 | 526.1 | 482 | 7.2 | 136.6 | 14 | 2.1 | 4.0 |
| Uintah | 1,155 | 3.9 | 463.1 | 234 | 7.9 | 93.8 | 10 | 3.4 | 4.0 |
| Utah | 22,106 | 7.3 | 639.1 | 4,566 | 15.1 | 132.0 | 43 | 1.4 | 1.2 |
| Wasatch | 1,119 | 4.5 | 776.2 | 257 | 10.3 | 178.3 | 8 | 3.2 | 5.5 |
| Washington | 4,461 | 5.0 | 517.4 | 839 | 9.3 | 97.3 | 16 | 1.8 | 1.9 |
| Wayne | 168 | 4.1 | 641.0 | 42 | 10.3 | 160.2 | 2 | 4.9 | 7.6 |
| Weber | 11,799 | 7.8 | 618.7 | 2,498 | 16.5 | 131.0 | 22 | 1.5 | 1.3 |
| Grand Total | 140,777 | 6.3 | 648.0 | 30,086 | 13.4 | 138.5 | 373 | 1.7 | 1.7 |

# Characteristics of Crash Participants,

Table 2.03 contains the injury levels by participant placement in the crash. Pedestrians involved in a crash were at the greatest risk for a fatal injury. In fact, pedestrians were 18 times more likely than other crash participants to sustain a fatal injury. For occupants, the back seat provided more protection than front seat passengers against fatal injury. Front seat passengers were 1.2 times more likely than back seat passengers to sustain a fatal injury.

Table 2.03 Injury Severity by Participants Placement in the Crash, Utah 2000

| Participant Placement | Crash Participants | | Injured Persons | | Crash Fatalities | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Driver | 96,150 | 68.3% | 18,936 | 62.9% | 200 | 51.6% |
| Front Seat Passenger | 24,966 | 17.7% | 6,363 | 21.1% | 80 | 24.0% |
| Back Seat Passenger | 17,687 | 12.6% | 3,232 | 10.7% | 46 | 9.8% |
| Cargo Area | 267 | 0.2% | 61 | 0.2% | 2 | 0.8% |
| Pedestrian | 785 | 0.6% | 708 | 2.4% | 33 | 10.7% |
| Bicyclist | 706 | 0.5% | 635 | 2.1% | 9 | 0.8% |
| Other | 216 | 0.2% | 151 | 0.5% | 3 | 2.2% |
| Grand Total | 140,777 | 100.0% | 30,086 | 100.0% | 373 | 100.0% |

The gender breakdown of crash participants is found in Table 2.04. Over half of the crash participants were male (54.6%). While males sustained fatal injuries at a slightly higher percentage than females, female crash participants were more likely to sustain an injury than male crash participants.

Table 2.04 Gender of Crash Participants, Injured Persons and Fatalities, Utah 2000

| Gender | Crash Participants | | Injured Persons | | Crash Fatalities | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Female | 61,751 | 43.9% | 15,882 | 52.8% | 138 | 41.5% |
| Male | 76,850 | 54.6% | 14,074 | 46.8% | 235 | 58.5% |
| Missing | 2,176 | 1.5% | 130 | 0.4% | 0 | 0.0% |
| Grand Total | 140,777 | 100.0% | 30,086 | 100.0% | 373 | 100.0% |

Figure 2.05 shows the age of persons involved in crashes. The largest proportion of crash participants (36.9%) were aged 15 to 24 years. Individuals over the age of 65 years represented a small proportion of crash participants. However, in the event of a crash, individuals of this age group were 3 times more likely than all other age groups to sustain a fatal injury.

Figure 2.05 Age of Crash Participants, Injured Persons and Fatalities, Utah 2000

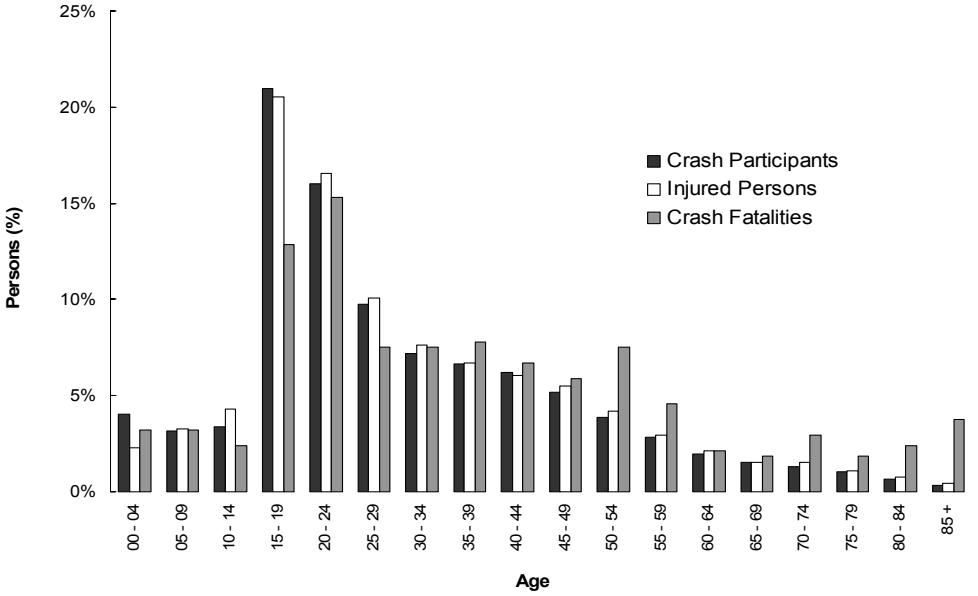
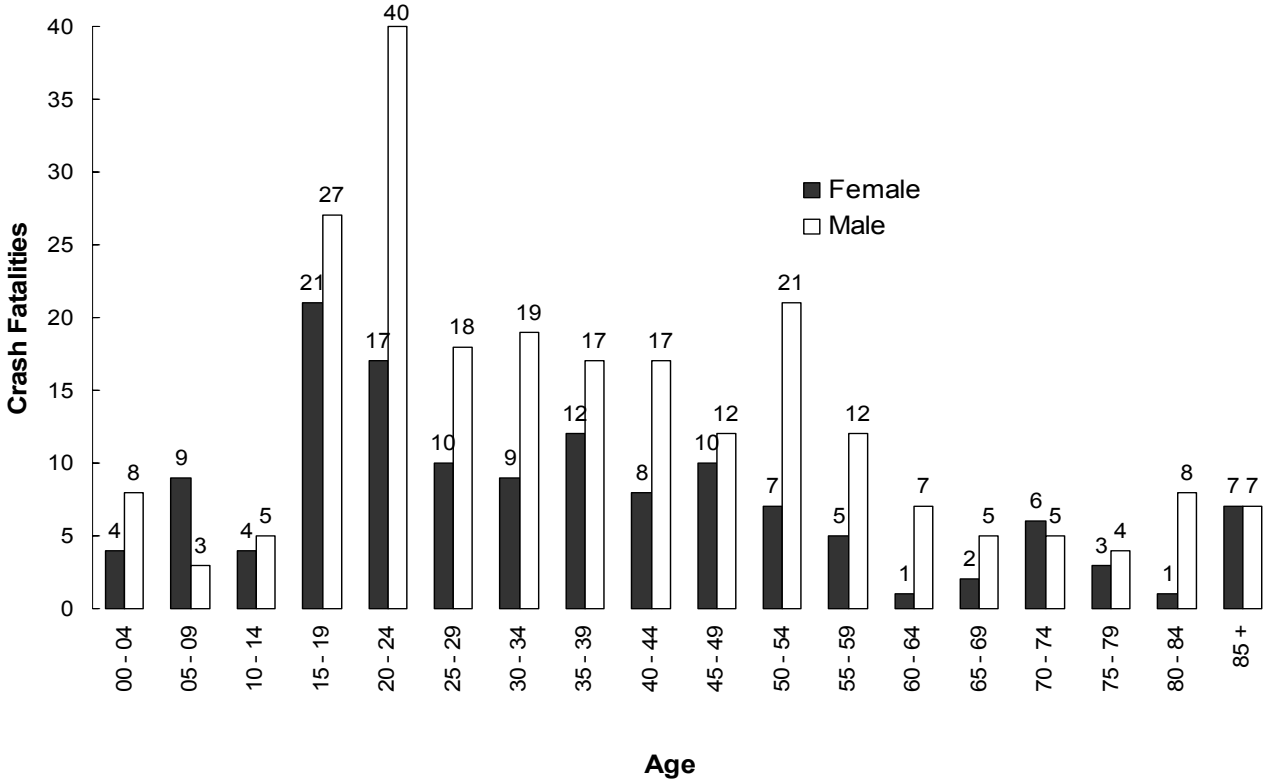



Table 2.05 Age of Crash Participants, Injured Persons and Fatalities, Utah 2000

| | Crash Participants | | Injured Persons | | Crash Fatalities | |
|---|---|---|---|---|---|---|
| Age | # | % | # | % | # | % |
| 00 - 04 | 5,712 | 4.1% | 695 | 2.3% | 12 | 3.2% |
| 05 - 09 | 4,461 | 3.2% | 988 | 3.3% | 12 | 3.2% |
| 10 - 14 | 4,790 | 3.4% | 1,296 | 4.3% | 9 | 2.4% |
| 15 - 19 | 29,483 | 20.9% | 6,174 | 20.5% | 48 | 12.9% |
| 20 - 24 | 22,575 | 16.0% | 4,983 | 16.6% | 57 | 15.3% |
| 25 - 29 | 13,693 | 9.7% | 3,035 | 10.1% | 28 | 7.5% |
| 30 - 34 | 10,121 | 7.2% | 2,299 | 7.6% | 28 | 7.5% |
| 35 - 39 | 9,333 | 6.6% | 2,017 | 6.7% | 29 | 7.8% |
| 40 - 44 | 8,724 | 6.2% | 1,821 | 6.1% | 25 | 6.7% |
| 45 - 49 | 7,279 | 5.2% | 1,663 | 5.5% | 22 | 5.9% |
| 50 - 54 | 5,427 | 3.9% | 1,268 | 4.2% | 28 | 7.5% |
| 55 - 59 | 3,985 | 2.8% | 879 | 2.9% | 17 | 4.6% |
| 60 - 64 | 2,787 | 2.0% | 643 | 2.1% | 8 | 2.1% |
| 65 - 69 | 2,119 | 1.5% | 462 | 1.5% | 7 | 1.9% |
| 70 - 74 | 1,869 | 1.3% | 463 | 1.5% | 11 | 2.9% |
| 75 - 79 | 1,478 | 1.0% | 334 | 1.1% | 7 | 1.9% |
| 80 - 84 | 924 | 0.7% | 224 | 0.7% | 9 | 2.4% |
| 85 + | 480 | 0.3% | 125 | 0.4% | 14 | 3.8% |
| Missing | 5,537 | 3.9% | 717 | 2.4% | 2 | 0.5% |
| Grand Total | 140,777 | 100.0% | 30,086 | 100.0% | 373 | 100.0% |

There were 373 crash-related fatalities during 2000. Figure 2.06 shows that over one-quarter of the fatalities (28%) occurred among those aged 15 to 24 years. The largest number of fatalities for males occurred in the 20 to 24 year old age group, compared to the 15 to 19 year old group for females.

Figure 2.06 Age and Gender of Fatalities, Utah 2000



# Section 3
# Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, 2000



## TABLES



## FIGURES

# Crashes Involving Pedestrians 1993 - 2000

Table 3.01 and Figure 3.01 show the trends in pedestrian crashes for 1993 - 2000. The highest rate per million vehicle miles traveled (MVMT) of pedestrian crashes and pedestrian injury crashes occurred in 1996, while the highest rate of fatal pedestrian crashes occurred in 1995. Part of the decrease in reported pedestrian crashes from 1997 to 2000 is due to a change in reporting criteria initiated in 1997 that excluded private property crashes. As a result, pedestrian crashes that occurred in a parking lot, driveway, sidewalk, and other private roadways would not be included from 1997 forward.

Figure 3.01 Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 1993 - 2000

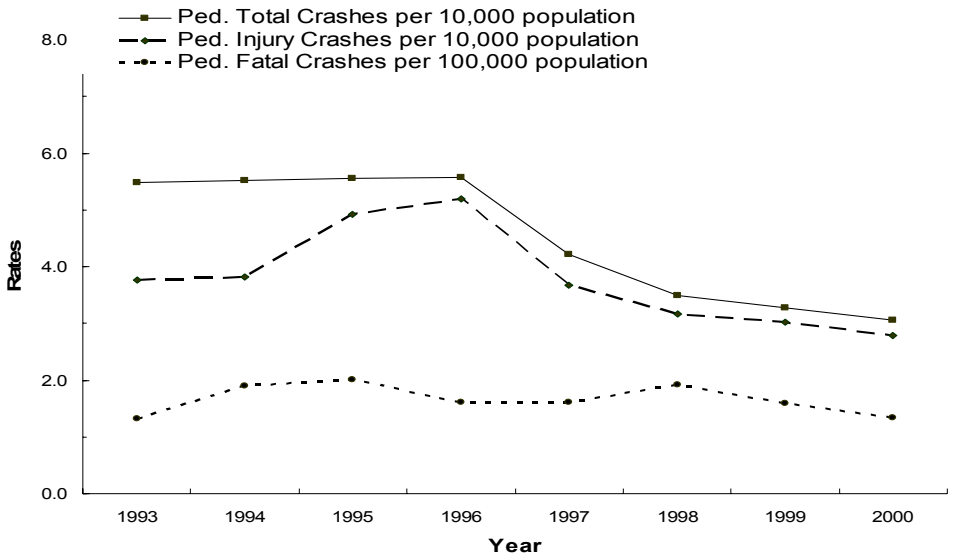


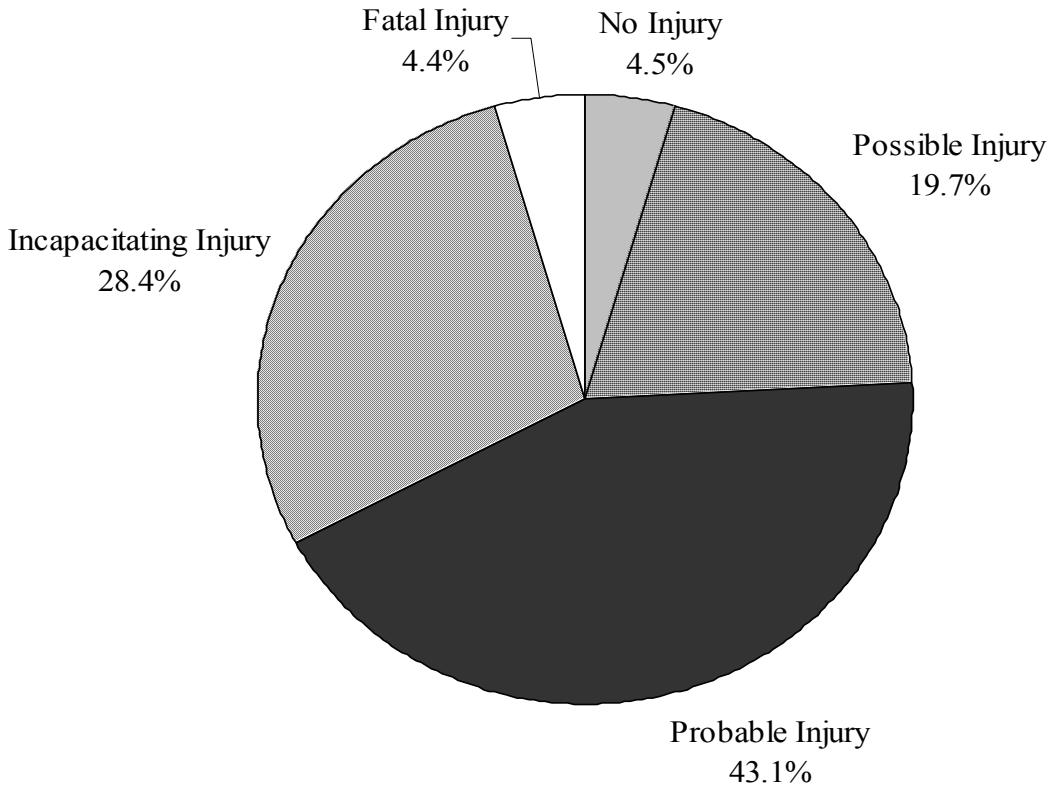

Table 3.01 Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 1993 - 2000

| Year | Ped. Total Crashes # | Ped. Total Crashes Rate per 10,000 population | Ped. Injury Crashes # | Ped. Injury Crashes Rate per 10,000 population | Ped. Fatal Crashes # | Ped. Fatal Crashes Rate per 100,000 population |
|---|---|---|---|---|---|---|
| 1993 | 1,035 | 5.5 | 712 | 3.8 | 25 | 1.3 |
| 1994 | 1,075 | 5.5 | 745 | 3.8 | 37 | 1.9 |
| 1995 | 1,108 | 5.6 | 981 | 4.9 | 40 | 2.0 |
| 1996 | 1,137 | 5.6 | 1,060 | 5.2 | 33 | 1.6 |
| 1997 | 884 | 4.2 | 773 | 3.7 | 34 | 1.6 |
| 1998 | 748 | 3.5 | 679 | 3.2 | 41 | 1.9 |
| 1999 | 720 | 3.3 | 661 | 3.0 | 35 | 1.6 |
| 2000 | 687 | 3.1 | 626 | 2.8 | 30 | 1.3 |

# Pedestrian Crash Severity

Figure 3.02 shows that the majority of pedestrian crashes (95.5%) resulted in some level of injury compared to 37.4% of all motor vehicle crashes. Moreover, 4.4% of pedestrian crashes resulted in a fatality, compared to 0.6% of all motor vehicle crashes.

Figure 3.02 Severity of Pedestrian Motor Vehicle Crashes as Reported by Police, Utah 2000 (n=687)



# Pedestrian Crashes by County

The rates of pedestrian-involved crashes, injury crashes and fatal crashes by county are shown in Table 3.02. There are two different rates given; one based on the miles traveled in the county, and another on the population of the county. The top three counties for pedestrian-involved crashes and injury crashes based on miles traveled were Salt Lake, Weber, and Utah.

Table 3.02 Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians by County, Utah 2000

| | Ped. Total Crashes | | | Ped. Injury Crashes | | | Ped. Fatal Crashes | | |
|---|---|---|---|---|---|---|---|---|---|
| County | # | Rate per 100 MVMT | Rate per 10,000 Population | # | Rate per 100 MVMT | Rate per 10,000 Population | # | Rate per 1000 MVMT | Rate per 10,000 Population |
| Beaver | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Box Elder | 11 | 1.2 | 2.6 | 9 | 1.0 | 2.1 | 2 | 2.2 | 0.5 |
| Cache | 18 | 2.3 | 1.9 | 17 | 2.1 | 1.8 | 1 | 1.3 | 0.1 |
| Carbon | 3 | 0.9 | 1.3 | 3 | 0.9 | 1.3 | 0 | 0.0 | 0.0 |
| Daggett | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Davis | 58 | 2.8 | 2.5 | 53 | 2.5 | 2.2 | 1 | 0.5 | 0.0 |
| Duchesne | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Emery | 1 | 0.3 | 0.9 | 1 | 0.3 | 0.9 | 0 | 0.0 | 0.0 |
| Garfield | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Grand | 3 | 1.1 | 2.7 | 3 | 1.1 | 2.7 | 0 | 0.0 | 0.0 |
| Iron | 3 | 0.5 | 0.9 | 3 | 0.5 | 0.9 | 0 | 0.0 | 0.0 |
| Juab | 1 | 0.3 | 1.2 | 1 | 0.3 | 1.2 | 0 | 0.0 | 0.0 |
| Kane | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Millard | 2 | 0.5 | 1.5 | 2 | 0.5 | 1.5 | 0 | 0.0 | 0.0 |
| Morgan | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Piute | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Rich | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Salt Lake | 356 | 4.9 | 4.1 | 322 | 4.4 | 3.7 | 19 | 2.6 | 0.2 |
| San Juan | 1 | 0.4 | 0.7 | 1 | 0.4 | 0.7 | 0 | 0.0 | 0.0 |
| Sanpete | 2 | 0.9 | 0.9 | 2 | 0.9 | 0.9 | 0 | 0.0 | 0.0 |
| Sevier | 5 | 1.3 | 2.5 | 5 | 1.3 | 2.5 | 0 | 0.0 | 0.0 |
| Summit | 7 | 1.1 | 2.5 | 6 | 1.0 | 2.2 | 0 | 0.0 | 0.0 |
| Tooele | 9 | 1.3 | 2.6 | 7 | 1.0 | 2.0 | 2 | 3.0 | 0.6 |
| Uintah | 5 | 1.7 | 2.0 | 5 | 1.7 | 2.0 | 0 | 0.0 | 0.0 |
| Utah | 117 | 3.9 | 3.4 | 111 | 3.7 | 3.2 | 2 | 0.7 | 0.1 |
| Wasatch | 3 | 1.2 | 2.1 | 2 | 0.8 | 1.4 | 0 | 0.0 | 0.0 |
| Washington | 14 | 1.6 | 1.6 | 13 | 1.4 | 1.5 | 0 | 0.0 | 0.0 |
| Wayne | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Weber | 68 | 4.5 | 3.6 | 60 | 4.0 | 3.1 | 3 | 2.0 | 0.2 |
| Statewide | 687 | 3.1 | 3.2 | 626 | 2.8 | 2.9 | 30 | 1.3 | 0.1 |

Table 3.03 compares pedestrian crashes in 1999 to 2000. More counties experienced a decrease in pedestrian crashes for 2000 compared to 1999.

Table 3.03. Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians by County, Utah 1999 - 2000

| | Ped. Total Crashes | | | | Ped. Injury Crashes | | | | Ped. Fatal Crashes | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1999 | | 2000 | | 1999 | | 2000 | | 1999 | | 2000 | |
| County | # | Rate per 100 MVMT | # | Rate per 100 MVMT | # | Rate per 100 MVMT | # | Rate per 100 MVMT | # | Rate per 1000 MVMT | # | Rate per 1000 MVMT |
| Beaver | 1 | 0.5 | 0 | 0.0 | 1 | 0.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Box Elder | 11 | 1.3 | 11 | 1.2 | 10 | 1.1 | 9 | 1.0 | 1 | 1.1 | 2 | 2.2 |
| Cache | 24 | 3.2 | 18 | 2.3 | 22 | 2.9 | 17 | 2.1 | 2 | 2.6 | 1 | 1.3 |
| Carbon | 2 | 0.6 | 3 | 0.9 | 2 | 0.6 | 3 | 0.9 | 0 | 0.0 | 0 | 0.0 |
| Daggett | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Davis | 48 | 2.4 | 58 | 2.8 | 42 | 2.1 | 53 | 2.5 | 5 | 2.5 | 1 | 0.5 |
| Duchesne | 4 | 2.2 | 0 | 0.0 | 4 | 2.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Emery | 0 | 0.0 | 1 | 0.3 | 0 | 0.0 | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 |
| Garfield | 1 | 0.8 | 0 | 0.0 | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Grand | 2 | 0.7 | 3 | 1.1 | 2 | 0.7 | 3 | 1.1 | 0 | 0.0 | 0 | 0.0 |
| Iron | 6 | 1.1 | 3 | 0.5 | 6 | 1.1 | 3 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Juab | 1 | 0.3 | 1 | 0.3 | 1 | 0.3 | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 |
| Kane | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Millard | 2 | 0.5 | 2 | 0.5 | 2 | 0.5 | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Morgan | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Piute | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Rich | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Salt Lake | 366 | 5.1 | 356 | 4.9 | 336 | 4.7 | 322 | 4.4 | 14 | 1.9 | 19 | 2.6 |
| San Juan | 5 | 2.0 | 1 | 0.4 | 5 | 2.0 | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Sanpete | 5 | 2.2 | 2 | 0.9 | 4 | 1.7 | 2 | 0.9 | 1 | 4.3 | 0 | 0.0 |
| Sevier | 4 | 1.1 | 5 | 1.3 | 4 | 1.1 | 5 | 1.3 | 0 | 0.0 | 0 | 0.0 |
| Summit | 4 | 0.7 | 7 | 1.1 | 4 | 0.7 | 6 | 1.0 | 0 | 0.0 | 0 | 0.0 |
| Tooele | 4 | 0.6 | 9 | 1.3 | 3 | 0.5 | 7 | 1.0 | 1 | 1.6 | 2 | 3.0 |
| Uintah | 1 | 0.4 | 5 | 1.7 | 0 | 0.0 | 5 | 1.7 | 0 | 0.0 | 0 | 0.0 |
| Utah | 127 | 4.3 | 117 | 3.9 | 118 | 4.0 | 111 | 3.7 | 6 | 2.1 | 2 | 0.7 |
| Wasatch | 2 | 0.8 | 3 | 1.2 | 2 | 0.8 | 2 | 0.8 | 0 | 0.0 | 0 | 0.0 |
| Washington | 24 | 2.9 | 14 | 1.6 | 20 | 2.4 | 13 | 1.4 | 2 | 2.4 | 0 | 0.0 |
| Wayne | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Weber | 76 | 5.1 | 68 | 4.5 | 72 | 4.9 | 60 | 4.0 | 3 | 2.0 | 3 | 2.0 |
| Statewide | 720 | 3.3 | 687 | 3.1 | 661 | 3.0 | 626 | 2.8 | 35 | 1.6 | 30 | 1.3 |

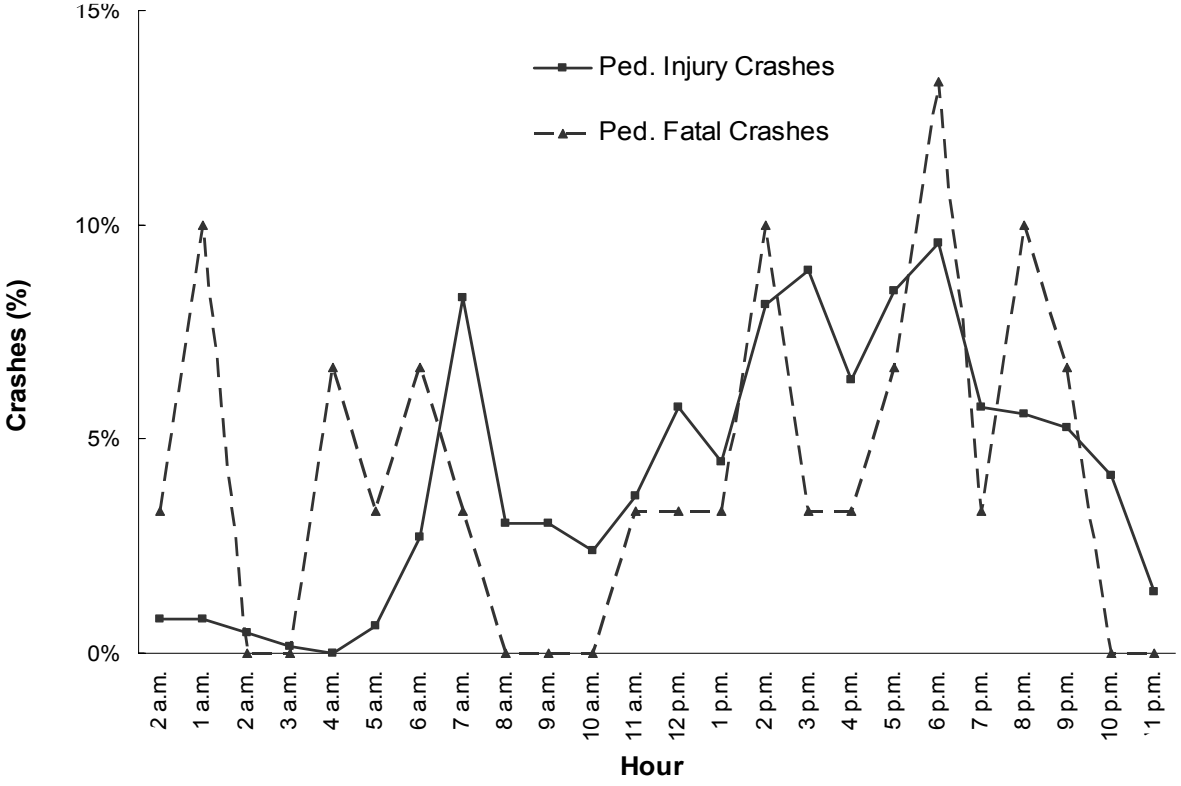
# Pedestrian Crash Times

Table 3.04 and Figure 3.03 show that pedestrian crashes and pedestrian injury crashes peaked during the afternoon (2 p.m. to 6 p.m.) and again in the morning hour at 7 a.m. Fatal pedestrian crashes occurred most often at 6 p.m.

Table 3.04 Hour of Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000

| | Ped. Total Crashes | | Ped. Injury Crashes | | Ped. Fatal Crashes | |
|---|---|---|---|---|---|---|
| Hour | # | % | # | % | # | % |
| 12 a.m. | 6 | 0.9% | 5 | 0.8% | 1 | 3.3% |
| 1 a.m. | 8 | 1.2% | 5 | 0.8% | 3 | 10.0% |
| 2 a.m. | 3 | 0.4% | 3 | 0.5% | 0 | 0.0% |
| 3 a.m. | 1 | 0.1% | 1 | 0.2% | 0 | 0.0% |
| 4 a.m. | 2 | 0.3% | 0 | 0.0% | 2 | 6.7% |
| 5 a.m. | 5 | 0.7% | 4 | 0.6% | 1 | 3.3% |
| 6 a.m. | 19 | 2.8% | 17 | 2.7% | 2 | 6.7% |
| 7 a.m. | 55 | 8.0% | 52 | 8.3% | 1 | 3.3% |
| 8 a.m. | 22 | 3.2% | 19 | 3.0% | 0 | 0.0% |
| 9 a.m. | 21 | 3.1% | 19 | 3.0% | 0 | 0.0% |
| 10 a.m. | 16 | 2.3% | 15 | 2.4% | 0 | 0.0% |
| 11 a.m. | 26 | 3.8% | 23 | 3.7% | 1 | 3.3% |
| 12 p.m. | 38 | 5.5% | 36 | 5.8% | 1 | 3.3% |
| 1 p.m. | 33 | 4.8% | 28 | 4.5% | 1 | 3.3% |
| 2 p.m. | 56 | 8.2% | 51 | 8.1% | 3 | 10.0% |
| 3 p.m. | 61 | 8.9% | 56 | 8.9% | 1 | 3.3% |
| 4 p.m. | 44 | 6.4% | 40 | 6.4% | 1 | 3.3% |
| 5 p.m. | 57 | 8.3% | 53 | 8.5% | 2 | 6.7% |
| 6 p.m. | 66 | 9.6% | 60 | 9.6% | 4 | 13.3% |
| 7 p.m. | 37 | 5.4% | 36 | 5.8% | 1 | 3.3% |
| 8 p.m. | 40 | 5.8% | 35 | 5.6% | 3 | 10.0% |
| 9 p.m. | 36 | 5.2% | 33 | 5.3% | 2 | 6.7% |
| 10 p.m. | 26 | 3.8% | 26 | 4.2% | 0 | 0.0% |
| 11 p.m. | 9 | 1.3% | 9 | 1.4% | 0 | 0.0% |
| Grand Total | 687 | 100.0% | 626 | 100.0% | 30 | 100.0% |

Figure 3.03 Hour of Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000



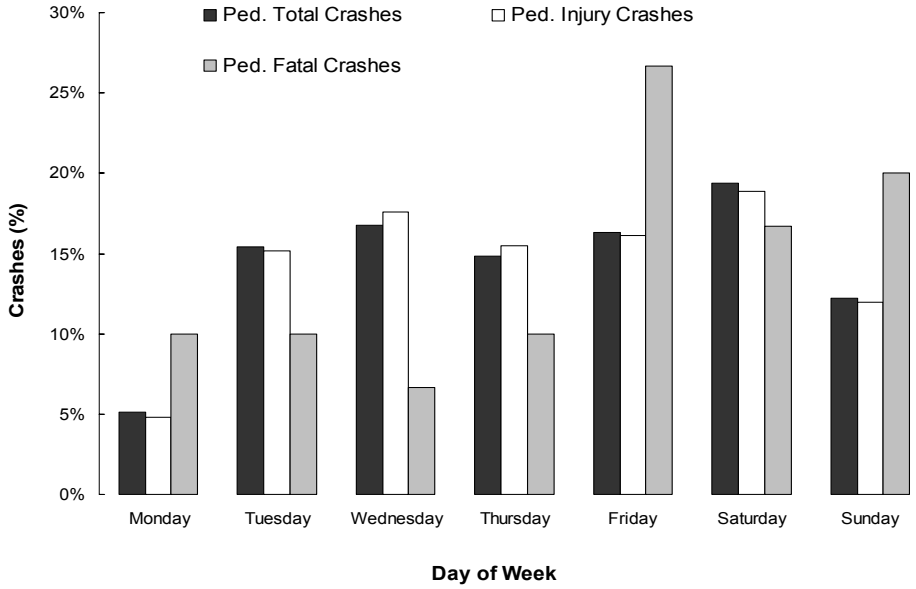

September and October had the highest rates of pedestrian crashes and pedestrian injury crashes (Table 3.05). The majority of fatal pedestrian crashes occurred in the summer months of June, July, and August (33%) and in the winter months of December and January (33%). The rate of fatal pedestrian crashes per day during January and July was 0.2 which is double the yearly rate of 0.1.

Table 3.05 Month of Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000

| | Ped. Total Crashes | | Ped. Injury Crashes | | Ped. Fatal Crashes | |
|---|---|---|---|---|---|---|
| Crash Month | # | Rate per Day | # | Rate per Day | # | Rate per Day |
| January | 61 | 2.0 | 52 | 1.7 | 6 | 0.2 |
| February | 59 | 2.1 | 57 | 2.0 | 1 | 0.0 |
| March | 58 | 1.9 | 54 | 1.7 | 0 | 0.0 |
| April | 49 | 1.6 | 44 | 1.5 | 3 | 0.1 |
| May | 49 | 1.6 | 44 | 1.4 | 2 | 0.1 |
| June | 38 | 1.3 | 35 | 1.2 | 3 | 0.1 |
| July | 47 | 1.5 | 40 | 1.3 | 5 | 0.2 |
| August | 43 | 1.4 | 36 | 1.2 | 2 | 0.1 |
| September | 76 | 2.5 | 73 | 2.4 | 0 | 0.0 |
| October | 76 | 2.5 | 71 | 2.3 | 3 | 0.1 |
| November | 63 | 2.1 | 60 | 2.0 | 1 | 0.0 |
| December | 68 | 2.2 | 60 | 1.9 | 4 | 0.1 |
| Grand Total | 687 | 1.9 | 626 | 1.7 | 30 | 0.1 |

Figure 3.04 shows that the highest percentage of pedestrian crashes and pedestrian injury crashes occurred on Saturday. Fatal pedestrian crashes occurred most often on Friday.

Figure 3.04 Day of Week for Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000




Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one category across the days of the week. For example, look at only the white bars (i.e. pedestrian injury crashes) from day to day. Do not compare the heights of the different crash categories for a specific day.

Table 3.06 Day of Week for Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000

| | Ped. Total Crashes | | Ped. Injury Crashes | | Ped. Fatal Crashes | |
|---|---|---|---|---|---|---|
| Day of Week | # | % | # | % | # | % |
| Monday | 35 | 5.1% | 30 | 4.8% | 3 | 10.0% |
| Tuesday | 106 | 15.4% | 95 | 15.2% | 3 | 10.0% |
| Wednesday | 115 | 16.7% | 110 | 17.6% | 2 | 6.7% |
| Thursday | 102 | 14.8% | 97 | 15.5% | 3 | 10.0% |
| Friday | 112 | 16.3% | 101 | 16.1% | 8 | 26.7% |
| Saturday | 133 | 19.4% | 118 | 18.8% | 5 | 16.7% |
| Sunday | 84 | 12.2% | 75 | 12.0% | 6 | 20.0% |
| Grand Total | 687 | 100.0% | 626 | 100.0% | 30 | 100.0% |

# Pedestrian Crash Characteristics

Urban areas accounted for 86.7% of the fatal pedestrian crashes and 86.9% of total pedestrian crashes (Table 3.07).

Table 3.07 Urban / Rural Location of Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000

| Urban / Rural Location | Ped. Total Crashes | | Ped. Injury Crashes | | Ped. Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Rural Area - Up to 5,000 | 90 | 13.1% | 83 | 13.3% | 4 | 13.3% |
| Small Urban - 5,000 to 49,999 | 33 | 4.8% | 31 | 5.0% | 1 | 3.3% |
| Moderate Urban - 50,000 to 199,999 | 17 | 2.5% | 16 | 2.6% | 1 | 3.3% |
| Large Urban - 200,000 or More | 547 | 79.6% | 496 | 79.2% | 24 | 80.0% |
| Grand Total | 687 | 100.0% | 626 | 100.0% | 30 | 100.0% |

Table 3.08 shows that the largest percentage of vehicles involved in pedestrian crashes and injury crashes were passenger cars, while pickup trucks and vans were involved in the largest percentage of fatal pedestrian crashes. School buses were involved in 4 pedestrian crashes of which one was an injury crash that involved two injured pedestrians and two that resulted in two pedestrian fatalities. Large/semi trucks were involved in 11 pedestrian crashes resulting in 9 injured pedestrians and 2 fatalities.

Table 3.08 Type of Vehicles Involved in Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000

| Vehicle Type | Ped. Total Crashes | | Ped. Injury Crashes | | Ped. Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Passenger Car | 400 | 55.7% | 370 | 56.9% | 13 | 40.6% |
| Pickup Truck / Vans | 275 | 38.3% | 247 | 38.0% | 14 | 43.8% |
| Unknown | 16 | 2.2% | 13 | 2.0% | 0 | 0.0% |
| Large/Semi Truck | 11 | 1.5% | 9 | 1.4% | 2 | 6.3% |
| Other | 7 | 1.0% | 6 | 0.9% | 0 | 0.0% |
| Motorcycle | 2 | 0.3% | 2 | 0.3% | 0 | 0.0% |
| School Bus | 4 | 0.6% | 1 | 0.2% | 2 | 6.3% |
| Grand Total | 718 | 100.0% | 650 | 100.0% | 32 | 100.0% |

Note: More than one vehicle may be involved in a pedestrian crash. Unknown vehicles are "hit and run" vehicles.

# Pedestrian Crash Violations and Contributing Factors

There were 703 drivers involved in pedestrian crashes, of which 358 (50.9%) were cited for a traffic violation (Table 3.09). Almost half (49.2%) of the violations were for "failure to yield right of way". Only 8 of the 32 (25%) drivers involved in fatal pedestrian crashes received a citation at the crash scene.

Table 3.09 Violations for Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000

| | Ped. Total Crashes | | Ped. Injury Crashes | | Ped. Fatal Crashes | |
|---|---|---|---|---|---|---|
| **Violations** | **#** | **%** | **#** | **%** | **#** | **%** |
| Failure to yield right-of-way | 176 | 49.2% | 168 | 50.0% | 2 | 25.0% |
| Improper lookout | 70 | 19.6% | 68 | 20.2% | 0 | 0.0% |
| All Other Non-moving violations | 39 | 10.9% | 37 | 11.0% | 2 | 25.0% |
| Hit and Run | 12 | 3.4% | 11 | 3.3% | 1 | 12.5% |
| Speeding | 12 | 3.4% | 12 | 3.6% | 0 | 0.0% |
| Driving under the influence | 10 | 2.8% | 9 | 2.7% | 1 | 12.5% |
| All other moving violations | 8 | 2.2% | 7 | 2.1% | 0 | 0.0% |
| Reckless Driving | 6 | 1.7% | 4 | 1.2% | 0 | 0.0% |
| Improper backing | 6 | 1.7% | 5 | 1.5% | 1 | 12.5% |
| Red light | 6 | 1.7% | 4 | 1.2% | 0 | 0.0% |
| Negligent collision | 4 | 1.1% | 4 | 1.2% | 0 | 0.0% |
| Improper passing | 2 | 0.6% | 1 | 0.3% | 0 | 0.0% |
| Following too close | 2 | 0.6% | 2 | 0.6% | 0 | 0.0% |
| Improper turn | 2 | 0.6% | 2 | 0.6% | 0 | 0.0% |
| Vehicular homicide | 1 | 0.3% | 0 | 0.0% | 1 | 12.5% |
| Stop sign | 1 | 0.3% | 1 | 0.3% | 0 | 0.0% |
| Wrong side of road | 1 | 0.3% | 1 | 0.3% | 0 | 0.0% |
| Grand Total | 358 | 100.0% | 336 | 100.0% | 8 | 100.0% |

The factors contributing to pedestrian crashes are listed in Table 3.10. These factors were coded by the officers at the scene for vehicles involved in the crash. The officer may record no contributing factor or up to two different contributing factors. The primary contributing factor recorded for all types of pedestrian crashes was "improper lookout." Alcohol and other drugs appear to be an important contributing factor in fatal pedestrian crashes. While "DUI", "had been drinking" and "under the influence of drugs" account for 3% of contributing factors in all pedestrian crashes, these factors accounted for 16% in fatal pedestrian crashes.

Table 3.10 Contributing Factors in Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000

| | Ped. Total Crashes | | Ped. Injury Crashes | | Ped. Fatal Crashes | |
|---|---|---|---|---|---|---|
| **Contributing Factors** | # | % | # | % | # | % |
| Improper Lookout | 171 | 32.3% | 159 | 33.2% | 5 | 26.3% |
| Failed to Yield the Right of Way | 139 | 26.3% | 131 | 27.3% | 2 | 10.5% |
| Hit and Run | 79 | 14.9% | 69 | 14.4% | 4 | 21.1% |
| Other Improper Driving | 33 | 6.2% | 29 | 6.1% | 1 | 5.3% |
| Speed Too Fast | 21 | 4.0% | 19 | 4.0% | 0 | 0.0% |
| Disregarded Traffic Signal | 13 | 2.5% | 11 | 2.3% | 0 | 0.0% |
| Driving Under the Influence | 11 | 2.1% | 9 | 1.9% | 2 | 10.5% |
| Improper Backing | 8 | 1.5% | 7 | 1.5% | 1 | 5.3% |
| Improper Parking | 8 | 1.5% | 8 | 1.7% | 0 | 0.0% |
| Windshield Not Clear | 7 | 1.3% | 7 | 1.5% | 0 | 0.0% |
| Non-Contact Vehicle Involved | 6 | 1.1% | 3 | 0.6% | 3 | 15.8% |
| Drove Left of Center | 4 | 0.8% | 3 | 0.6% | 0 | 0.0% |
| Improper Turn | 4 | 0.8% | 4 | 0.8% | 0 | 0.0% |
| Improper Overtaking | 3 | 0.6% | 2 | 0.4% | 0 | 0.0% |
| Other Defective Condition | 3 | 0.6% | 3 | 0.6% | 0 | 0.0% |
| Under the Influence of Drugs | 3 | 0.6% | 3 | 0.6% | 0 | 0.0% |
| Following Too Closely | 2 | 0.4% | 2 | 0.4% | 0 | 0.0% |
| Non-collision Fire | 2 | 0.4% | 0 | 0.0% | 0 | 0.0% |
| Other Lights or Reflecting/Defective | 2 | 0.4% | 2 | 0.4% | 0 | 0.0% |
| Brakes Defective | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Cargo Loss or Shift | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Down Hill Runaway | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Eyesight Defective Uncorrected | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Fatigued | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Had Been Drinking | 1 | 0.2% | 0 | 0.0% | 1 | 5.3% |
| Headlights Insufficient or Out | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Ill | 1 | 0.2% | 0 | 0.0% | 0 | 0.0% |
| Passed Stop Sign | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Vehicle Rolling in Traffic Lane | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Grand Total | 529 | 100.0% | 479 | 100.0% | 19 | 100.0% |

# Drivers Involved in Pedestrian Crashes

Table 3.11 and Figure 3.05 shows that drivers between the ages of 15 to 19 years represented the greatest percentage (17.5%) of drivers involved in all pedestrian crashes and pedestrian injury crashes. The largest percentage (21.9%) of drivers involved in fatal pedestrian crashes were in the age groups 20 to 24 years.

Table 3.11 Age of Drivers in Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000

| | Ped. Total Crashes | | Ped. Injury Crashes | | Ped. Fatal Crashes | |
|---|---|---|---|---|---|---|
| Driver's Age | # Drivers | % | # Drivers | % | # Drivers | % |
| <15 | 1 | 0.1% | 1 | 0.2% | 0 | 0.0% |
| 15 - 19 | 123 | 17.5% | 111 | 17.5% | 4 | 12.5% |
| 20 - 24 | 100 | 14.2% | 89 | 14.0% | 7 | 21.9% |
| 25 - 29 | 67 | 9.5% | 62 | 9.8% | 3 | 9.4% |
| 30 - 34 | 63 | 9.0% | 56 | 8.8% | 3 | 9.4% |
| 35 - 39 | 42 | 6.0% | 34 | 5.4% | 5 | 15.6% |
| 40 - 44 | 51 | 7.3% | 47 | 7.4% | 2 | 6.3% |
| 45 - 49 | 44 | 6.3% | 43 | 6.8% | 1 | 3.1% |
| 50 - 54 | 35 | 5.0% | 31 | 4.9% | 2 | 6.3% |
| 55 - 59 | 22 | 3.1% | 21 | 3.3% | 0 | 0.0% |
| 60 - 64 | 23 | 3.3% | 19 | 3.0% | 2 | 6.3% |
| 65 - 69 | 11 | 1.6% | 10 | 1.6% | 1 | 3.1% |
| 70 - 74 | 10 | 1.4% | 9 | 1.4% | 1 | 3.1% |
| 75 - 79 | 9 | 1.3% | 9 | 1.4% | 0 | 0.0% |
| 80 - 84 | 6 | 0.9% | 5 | 0.8% | 0 | 0.0% |
| 85 + | 2 | 0.3% | 2 | 0.3% | 0 | 0.0% |
| Missing | 94 | 13.4% | 86 | 13.5% | 1 | 3.1% |
| Grand Total | 703 | 100.0% | 635 | 100.0% | 32 | 100.0% |

Note: More than one driver may be involved in a pedestrian crash and driver information may be missing (e.g. a hit and run).

Figure 3.05 Age of Drivers in Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000


Note: The above graph is based on percentage for the different crash categories. To read the above graph, look at one category across the age groups. For example, look at only the white bars (i.e. driver in pedestrian injury crashes) from age group to age group. Do not compare the heights of the different crash categories for a specific age group.

Slightly over half (55%) of drivers involved in total pedestrian crashes were male (Table 3.12). Male drivers represented 78.1% of drivers involved in fatal pedestrian crashes.

Table 3.12 Gender of Drivers in Total Crashes, Injury Crashes and Fatal Crashes Involving Pedestrians, Utah 2000

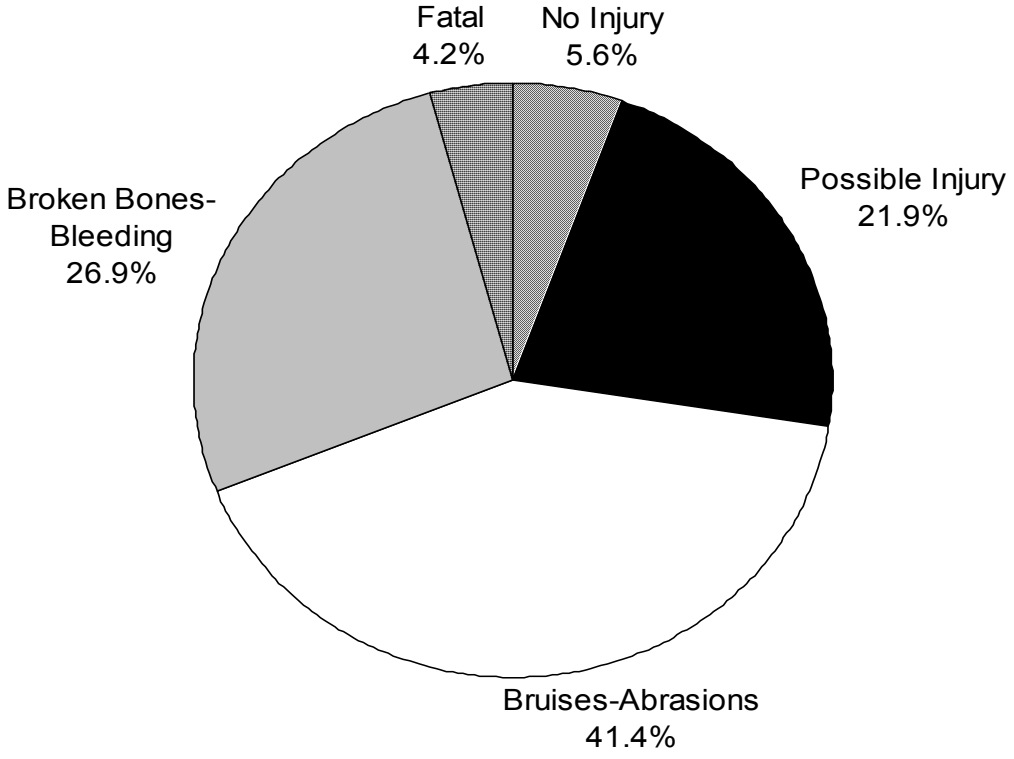
| | Ped. Total Crashes | | Ped. Injury Crashes | | Ped. Fatal Crashes | |
|---|---|---|---|---|---|---|
| Driver's Gender | # Drivers | % | # Drivers | % | # Drivers | % |
| Female | 262 | 37.3% | 242 | 38.1% | 6 | 18.8% |
| Male | 387 | 55.0% | 343 | 54.0% | 25 | 78.1% |
| Missing | 54 | 7.7% | 50 | 7.9% | 1 | 3.1% |
| Grand Total | 703 | 100.0% | 635 | 100.0% | 32 | 100.0% |

Note: More than one driver may be involved in a pedestrian crash and driver information may be missing (e.g., a hit and run).

# Pedestrian Injury Severity

Figure 3.06 shows that 94.4% of pedestrians involved in a crash sustained an injury compared to 21.6% of all motor vehicle crash participants. The percentage of pedestrian fatalities (4.2%) was higher than the percentage for all motor vehicle crash participants (0.3%).

Figure 3.06 Pedestrian Injury Severity as Reported by Police, Utah 2000 (n=785)



# Pedestrians by County

There were 785 pedestrians involved in crashes during 2000. This is approximately 4% less than the number of recorded pedestrians involved in crashes during 1999. Table 3.13 shows the number of pedestrians, injured pedestrians and pedestrians killed in motor vehicle crashes by county. Salt Lake, Utah, and Weber Counties had the highest rates of total pedestrians and injured pedestrians per million vehicle miles traveled. Salt Lake and Tooele had the highest rate of pedestrians killed.

Table 3.13 Total Pedestrians, Injured Pedestrians and Pedestrian Fatalities by County, Utah 2000

| | Total Pedestrians | | | Injured Pedestrians | | | Pedestrian Fatalities | | |
|---|---|---|---|---|---|---|---|---|---|
| County | # | Rate per 100 MVMT | Rate Per 10,000 Population | # | Rate per 100 MVMT | Rate Per 10,000 Population | # | Rate per 1000 MVMT | Rate Per 10,000 Population |
| Beaver | 1 | 0.5 | 1.4 | 1 | 0.5 | 1.4 | 0 | 0.0 | 0.0 |
| Box Elder | 11 | 1.2 | 2.6 | 9 | 1.0 | 2.1 | 2 | 2.2 | 0.5 |
| Cache | 20 | 2.5 | 2.1 | 19 | 2.4 | 2.0 | 1 | 1.3 | 0.1 |
| Carbon | 5 | 1.4 | 2.2 | 5 | 1.4 | 2.2 | 0 | 0.0 | 0.0 |
| Daggett | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Davis | 67 | 3.2 | 2.8 | 62 | 3.0 | 2.6 | 1 | 0.5 | 0.0 |
| Duchesne | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Emery | 1 | 0.3 | 0.9 | 1 | 0.3 | 0.9 | 0 | 0.0 | 0.0 |
| Garfield | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Grand | 3 | 1.1 | 2.7 | 2 | 0.7 | 1.8 | 0 | 0.0 | 0.0 |
| Iron | 3 | 0.5 | 0.9 | 3 | 0.5 | 0.9 | 0 | 0.0 | 0.0 |
| Juab | 1 | 0.3 | 1.2 | 1 | 0.3 | 1.2 | 0 | 0.0 | 0.0 |
| Kane | 1 | 0.8 | 1.3 | 1 | 0.8 | 1.3 | 0 | 0.0 | 0.0 |
| Millard | 2 | 0.5 | 1.5 | 2 | 0.5 | 1.5 | 0 | 0.0 | 0.0 |
| Morgan | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Piute | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Rich | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Salt Lake | 402 | 5.5 | 4.6 | 362 | 4.9 | 4.1 | 22 | 3.0 | 0.3 |
| San Juan | 1 | 0.4 | 0.7 | 1 | 0.4 | 0.7 | 0 | 0.0 | 0.0 |
| Sanpete | 3 | 1.3 | 1.3 | 3 | 1.3 | 1.3 | 0 | 0.0 | 0.0 |
| Sevier | 7 | 1.8 | 3.6 | 7 | 1.8 | 3.6 | 0 | 0.0 | 0.0 |
| Summit | 7 | 1.1 | 2.5 | 7 | 1.1 | 2.5 | 0 | 0.0 | 0.0 |
| Tooele | 11 | 1.6 | 3.1 | 9 | 1.3 | 2.6 | 2 | 3.0 | 0.6 |
| Uintah | 5 | 1.7 | 2.0 | 5 | 1.7 | 2.0 | 0 | 0.0 | 0.0 |
| Utah | 146 | 4.8 | 4.2 | 132 | 4.4 | 3.8 | 2 | 0.7 | 0.1 |
| Wasatch | 4 | 1.6 | 2.8 | 3 | 1.2 | 2.1 | 0 | 0.0 | 0.0 |
| Washington | 15 | 1.7 | 1.7 | 14 | 1.6 | 1.6 | 0 | 0.0 | 0.0 |
| Wayne | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Weber | 69 | 4.6 | 3.6 | 59 | 3.9 | 3.1 | 3 | 2.0 | 0.2 |
| Statewide | 785 | 3.5 | 3.6 | 708 | 3.1 | 3.3 | 33 | 1.5 | 0.2 |

# Pedestrian Characteristics

Almost half (49.4%) of pedestrians involved in crashes were under 20 years of age (Table 3.14). This same age group accounted for 24.2% of the fatalities. While 4.6% of pedestrians involved in crashes were over the age of 65 years old, this age group accounted for 4.2% of injured pedestrians and 18.2% of the fatalities (Figure 3.07).

Figure 3.07 Age of Total Pedestrians, Injured Pedestrians and Pedestrian Fatalities, Utah 2000 (See Table 3.14 for values)


Note: The above graph is based on percentages for the different injury categories. To read the above graph, look at one category across the age groups. For example, look at only the white bars (i.e. injured pedestrians) from age group to age group. Do not compare the heights of the different categories for a specific age group.

Table 3.14 Age of Total Pedestrians, Injured Pedestrians and Pedestrian Fatalities, Utah 2000

| | Total Pedestrians | | Injured Pedestrians | | Pedestrian Fatalities | |
|---|---|---|---|---|---|---|
| Age | # | % | # | % | # | % |
| 00 - 04 | 42 | 5.4% | 37 | 5.2% | 1 | 3.0% |
| 05 - 09 | 85 | 10.8% | 73 | 10.3% | 5 | 15.2% |
| 10 - 14 | 133 | 16.9% | 126 | 17.8% | 1 | 3.0% |
| 15 - 19 | 128 | 16.3% | 120 | 16.9% | 1 | 3.0% |
| 20 - 24 | 77 | 9.8% | 71 | 10.0% | 2 | 6.1% |
| 25 - 29 | 45 | 5.7% | 43 | 6.1% | 1 | 3.0% |
| 30 - 34 | 47 | 6.0% | 44 | 6.2% | 1 | 3.0% |
| 35 - 39 | 38 | 4.8% | 33 | 4.7% | 4 | 12.1% |
| 40 - 44 | 37 | 4.7% | 32 | 4.5% | 2 | 6.1% |
| 45 - 49 | 37 | 4.7% | 30 | 4.2% | 3 | 9.1% |
| 50 - 54 | 29 | 3.7% | 25 | 3.5% | 4 | 12.1% |
| 55 - 59 | 16 | 2.0% | 14 | 2.0% | 2 | 6.1% |
| 60 - 64 | 12 | 1.5% | 11 | 1.6% | 0 | 0.0% |
| 65 - 69 | 8 | 1.0% | 8 | 1.1% | 0 | 0.0% |
| 70 - 74 | 13 | 1.7% | 10 | 1.4% | 3 | 9.1% |
| 75 - 79 | 5 | 0.6% | 5 | 0.7% | 0 | 0.0% |
| 80 - 84 | 7 | 0.9% | 5 | 0.7% | 2 | 6.1% |
| 85 + | 3 | 0.4% | 2 | 0.3% | 1 | 3.0% |
| Missing | 23 | 2.9% | 19 | 2.7% | 0 | 0.0% |
| Grand Total | 785 | 100.0% | 708 | 100.0% | 33 | 100.0% |

Table 3.15 shows the gender of pedestrians involved in crashes. Over half of the pedestrians involved in all three types of pedestrian crashes were male (60.3%, 60.9%, and 54.5% respectively).

Table 3.15 Gender of Total Pedestrians, Injured Pedestrians and Pedestrian Fatalities, Utah 2000

| | Total Pedestrians | | Injured Pedestrians | | Pedestrian Fatalities | |
|---|---|---|---|---|---|---|
| Gender | # | % | # | % | # | % |
| Female | 309 | 39.4% | 274 | 38.7% | 15 | 45.5% |
| Male | 473 | 60.3% | 431 | 60.9% | 18 | 54.5% |
| Missing | 3 | 0.4% | 3 | 0.4% | 0 | 0.0% |
| Grand Total | 785 | 100.0% | 708 | 100.0% | 33 | 100.0% |

The actions of the pedestrian prior to the crash are shown in Table 3.16. The leading pedestrian actions prior to the crash occurrence were "crossing the roadway not at an intersection" (20.8%), and crossing the roadway at intersection (with signal, no signal, against signal, diagonally) (43.8%).

Table 3.16 Pedestrian Action Prior to Crash, Utah 2000

| | Pedestrians | | Injured Pedestrians | | Pedestrian Fatalities | |
|---|---|---|---|---|---|---|
| **Pedestrian Action Prior to Crash** | **#** | **%** | **#** | **%** | **#** | **%** |
| Crossing Not at Intersection | 163 | 20.8% | 147 | 20.8% | 15 | 45.5% |
| Crossing Intersection with Signal | 137 | 17.5% | 128 | 18.1% | 0 | 0.0% |
| Crossing Intersection with No Signal | 134 | 17.1% | 126 | 17.8% | 3 | 9.1% |
| Crossing Intersection Against Signal | 66 | 8.4% | 57 | 8.1% | 5 | 15.2% |
| Other in Roadway | 51 | 6.5% | 45 | 6.4% | 3 | 9.1% |
| Coming from Behind Parked Cars | 37 | 4.7% | 35 | 4.9% | 0 | 0.0% |
| Not in Roadway | 32 | 4.1% | 29 | 4.1% | 0 | 0.0% |
| Other Standing in Roadway | 28 | 3.6% | 25 | 3.5% | 2 | 6.1% |
| Walking in Roadway with Traffic | 21 | 2.7% | 17 | 2.4% | 1 | 3.0% |
| Playing in Roadway | 20 | 2.5% | 18 | 2.5% | 1 | 3.0% |
| Other Working in Roadway | 15 | 1.9% | 12 | 1.7% | 0 | 0.0% |
| Walking To or From School | 14 | 1.8% | 11 | 1.6% | 0 | 0.0% |
| Pushing-Working on Veh in Roadway | 13 | 1.7% | 13 | 1.8% | 0 | 0.0% |
| Walking in Roadway Against Traffic | 11 | 1.4% | 11 | 1.6% | 0 | 0.0% |
| Not Stated | 10 | 1.3% | 8 | 1.1% | 0 | 0.0% |
| Walking on Sidewalk | 7 | 0.9% | 6 | 0.8% | 1 | 3.0% |
| Crossing Intersection Diagonally | 6 | 0.8% | 5 | 0.7% | 1 | 3.0% |
| Getting On or Off Other Vehicle | 5 | 0.6% | 4 | 0.6% | 0 | 0.0% |
| Hitching on Vehicle | 4 | 0.5% | 4 | 0.6% | 0 | 0.0% |
| Getting On or Off Bus | 2 | 0.3% | 1 | 0.1% | 0 | 0.0% |
| Riding in Roadway Against Traffic | 2 | 0.3% | 2 | 0.3% | 0 | 0.0% |
| Riding on Sidewalk | 1 | 0.1% | 1 | 0.1% | 0 | 0.0% |
| Standing on Crosswalk Median Island | 1 | 0.1% | 1 | 0.1% | 0 | 0.0% |
| Lying on Roadway | 1 | 0.1% | 0 | 0.0% | 1 | 3.0% |
| Missing | 4 | 0.5% | 2 | 0.3% | 0 | 0.0% |
| Grand Total | 785 | 100.0% | 708 | 100.0% | 33 | 100.0% |

There were 33 pedestrian fatalities in 2000. The age group and gender with the most fatalities were males aged 50 to 54 and females aged 5 to 9 years. (Table 3.17).

Table 3.17 Age and Gender of Pedestrian Fatalities, Utah 2000

| | Males | | Females | |
|---|---|---|---|---|
| Age | # | % | # | % |
| 00 - 04 | 1 | 5.6% | 0 | 0.0% |
| 05 - 09 | 2 | 11.1% | 3 | 20.0% |
| 10 - 14 | 0 | 0.0% | 1 | 6.7% |
| 15 - 19 | 0 | 0.0% | 1 | 6.7% |
| 20 - 24 | 1 | 5.6% | 1 | 6.7% |
| 25 - 29 | 1 | 5.6% | 0 | 0.0% |
| 30 - 34 | 1 | 5.6% | 0 | 0.0% |
| 35 - 39 | 2 | 11.1% | 2 | 13.3% |
| 40 - 44 | 1 | 5.6% | 1 | 6.7% |
| 45 - 49 | 1 | 5.6% | 2 | 13.3% |
| 50 - 54 | 4 | 22.2% | 0 | 0.0% |
| 55 - 59 | 1 | 5.6% | 1 | 6.7% |
| 60 - 64 | 0 | 0.0% | 0 | 0.0% |
| 65 - 69 | 0 | 0.0% | 0 | 0.0% |
| 70 - 74 | 2 | 11.1% | 1 | 6.7% |
| 75 - 79 | 0 | 0.0% | 0 | 0.0% |
| 80 - 84 | 1 | 5.6% | 1 | 6.7% |
| 85 + | 0 | 0.0% | 1 | 6.7% |
| Grand Total | 18 | 100.0% | 15 | 100.0% |

**Alcohol and Other Drugs:**

There were 6 pedestrian fatalities that involved alcohol and other drugs. Of these, 5 pedestrians and 1 drivers were impaired by alcohol and other drugs.

# Section 4
# Bicyclist-Motor Vehicle Total Crashes, Injury Crashes and Fatal Crashes, 2000



## TABLES



## FIGURES

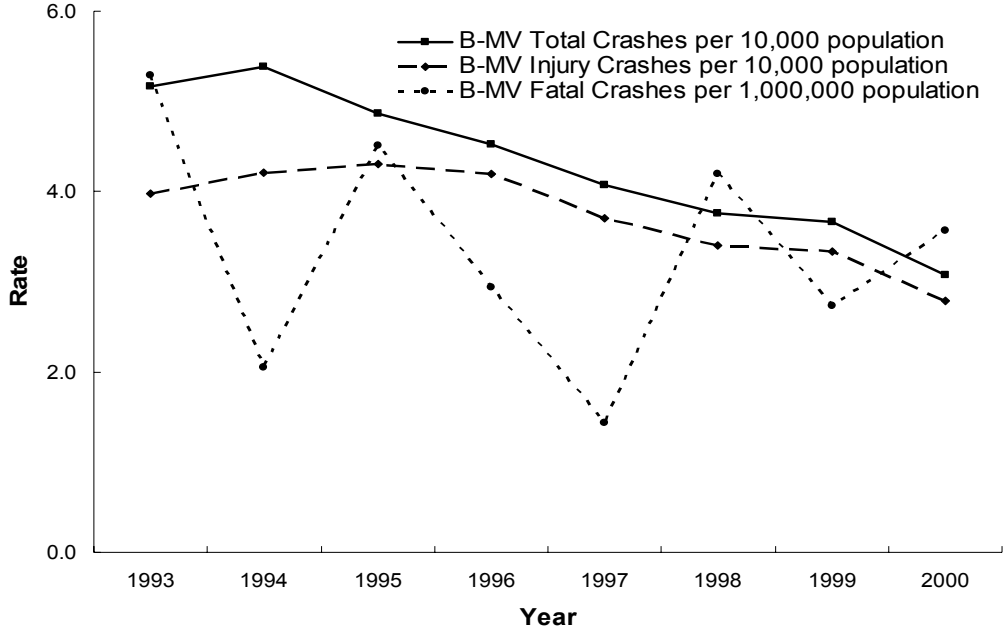
# Bicyclist-Motor Vehicle Crashes 1993 - 2000

Table 4.01 and Figure 4.01 shows the trends in bicyclist-motor vehicle (B-MV) crashes for 1993 to 2000. The rates of total bicyclist-motor vehicle crashes and injury crashes have decreased steadily since 1994, while fatal crashes varied year to year. Part of the decrease in reported bicycle crashes from 1997 to 2000 is due to a change in reporting criteria initiated in 1997 that excluded private property crashes. As a result, bicycle crashes that occurred in a parking lot, driveway, sidewalk, and other private roadways would not be included from 1997 forward. Therefore, the years 1993-1996 cannot be compared with years 1997-2000. The small number of bicyclist-motor vehicle fatal crashes makes it difficult to compare increases and decreases from year to year.

Table 4.01 Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993 - 2000

| | B-MV Total Crashes | | B-MV Injury Crashes | | B-MV Fatal Crashes | |
|---|---|---|---|---|---|---|
| Year | # | Rate per 10,000 population | # | Rate per 10,000 population | # | Rate per 1,000,000 population |
| 1993 | 977 | 5.2 | 751 | 4.0 | 10 | 5.3 |
| 1994 | 1,047 | 5.4 | 819 | 4.2 | 4 | 2.1 |
| 1995 | 972 | 4.9 | 860 | 4.3 | 9 | 4.5 |
| 1996 | 925 | 4.5 | 858 | 4.2 | 6 | 2.9 |
| 1997 | 855 | 4.1 | 778 | 3.7 | 3 | 1.4 |
| 1998 | 804 | 3.8 | 728 | 3.4 | 9 | 4.2 |
| 1999 | 804 | 3.7 | 732 | 3.3 | 6 | 2.7 |
| 2000 | 691 | 3.1 | 625 | 2.8 | 8 | 3.6 |

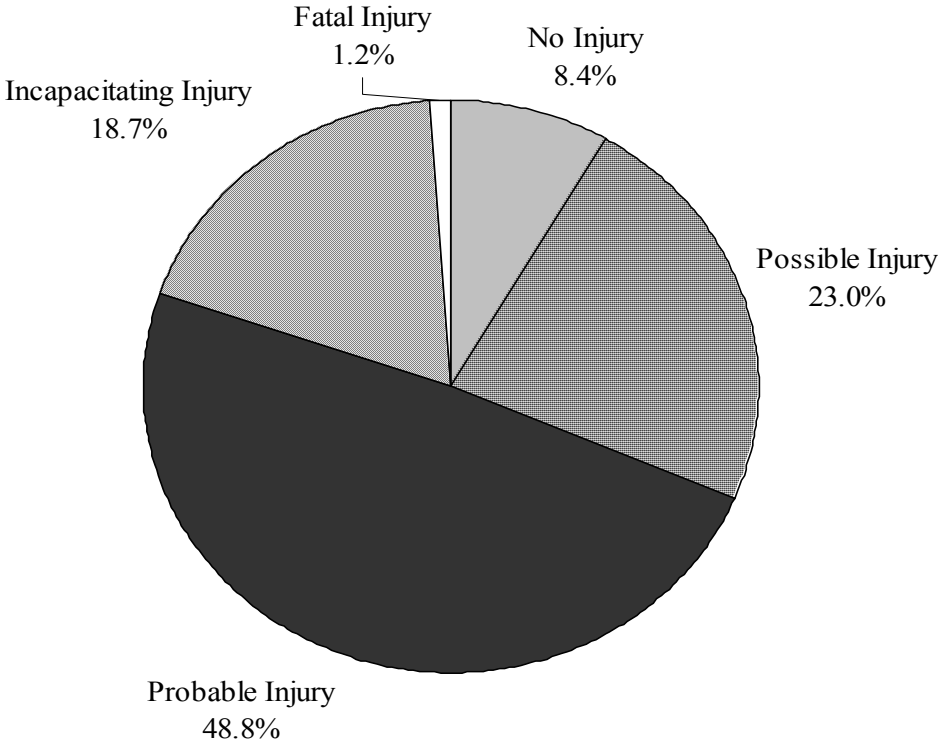
Figure 4.01 Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993 - 2000



# Bicyclist-Motor Vehicle Crash Severity

Figure 4.02 shows the breakdown of bicyclist-motor vehicle crash severity. Almost all bicyclist-motor vehicle crashes resulted in an injury (91.6%) compared to 37.4% of all motor vehicle crashes. However, bicyclist-motor vehicle crashes resulted in only a slightly larger percentage (1.2%) of fatal crashes compared to all motor vehicle crashes (0.6%).

Figure 4.02 Severity of Bicyclist-Motor Vehicle Crashes as Reported by Police, Utah 2000 (n=691)



# Bicyclist-Motor Vehicle Crashes by County

The rates of total bicycle-involved motor vehicle crashes, injury crashes and fatal crashes by county are shown in Table 4.02. There are two different rates given; one based on the miles traveled by motor vehicles in the county, and another on the population of the county. The top three counties for total bicyclist-involved motor vehicle crashes and injury crashes based on miles traveled were Salt Lake, Cache, and Utah.

Table 4.02 Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes by County, Utah 2000

| | B-MV Total Crashes | | | B-MV Injury Crashes | | | B-MV Fatal Crashes | | |
|---|---|---|---|---|---|---|---|---|---|
| County | # | Rate per 100 MVMT | Rate per 10,000 Population | # | Rate per 100 MVMT | Rate per 10,000 Population | # | Rate per 10,000 MVMT | Rate per 100,000 Population |
| Beaver | 1 | 0.5 | 1.4 | 1 | 0.5 | 1.4 | 0 | 0.0 | 0.0 |
| Box Elder | 9 | 1.0 | 2.1 | 9 | 1.0 | 2.1 | 0 | 0.0 | 0.0 |
| Cache | 37 | 4.7 | 4.0 | 35 | 4.4 | 3.7 | 0 | 0.0 | 0.0 |
| Carbon | 1 | 0.3 | 0.4 | 1 | 0.3 | 0.4 | 0 | 0.0 | 0.0 |
| Daggett | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Davis | 54 | 2.6 | 2.3 | 53 | 2.5 | 2.2 | 0 | 0.0 | 0.0 |
| Duchesne | 2 | 1.0 | 1.4 | 2 | 1.0 | 1.4 | 0 | 0.0 | 0.0 |
| Emery | 1 | 0.3 | 0.9 | 1 | 0.3 | 0.9 | 0 | 0.0 | 0.0 |
| Garfield | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Grand | 3 | 1.1 | 2.7 | 3 | 1.1 | 2.7 | 0 | 0.0 | 0.0 |
| Iron | 6 | 1.1 | 1.7 | 6 | 1.1 | 1.7 | 0 | 0.0 | 0.0 |
| Juab | 2 | 0.6 | 2.4 | 2 | 0.6 | 2.4 | 0 | 0.0 | 0.0 |
| Kane | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Millard | 2 | 0.5 | 1.5 | 2 | 0.5 | 1.5 | 0 | 0.0 | 0.0 |
| Morgan | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Piute | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Rich | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Salt Lake | 356 | 4.9 | 4.1 | 313 | 4.3 | 3.6 | 4 | 5.5 | 0.5 |
| San Juan | 1 | 0.4 | 0.7 | 1 | 0.4 | 0.7 | 0 | 0.0 | 0.0 |
| Sanpete | 2 | 0.9 | 0.9 | 2 | 0.9 | 0.9 | 0 | 0.0 | 0.0 |
| Sevier | 3 | 0.8 | 1.5 | 2 | 0.5 | 1.0 | 0 | 0.0 | 0.0 |
| Summit | 8 | 1.3 | 2.9 | 7 | 1.1 | 2.5 | 1 | 16.1 | 3.6 |
| Tooele | 4 | 0.6 | 1.1 | 4 | 0.6 | 1.1 | 0 | 0.0 | 0.0 |
| Uintah | 4 | 1.4 | 1.6 | 4 | 1.4 | 1.6 | 0 | 0.0 | 0.0 |
| Utah | 115 | 3.8 | 3.3 | 106 | 3.5 | 3.1 | 2 | 6.6 | 0.6 |
| Wasatch | 3 | 1.2 | 2.1 | 3 | 1.2 | 2.1 | 0 | 0.0 | 0.0 |
| Washington | 25 | 2.8 | 2.9 | 23 | 2.6 | 2.7 | 1 | 11.1 | 1.2 |
| Wayne | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Weber | 52 | 3.4 | 2.7 | 45 | 3.0 | 2.4 | 0 | 0.0 | 0.0 |
| Statewide | 691 | 3.1 | 3.2 | 625 | 2.8 | 2.9 | 8 | 3.6 | 0.4 |

Table 4.03 compares the rates of bicyclist-motor vehicle crashes by county in 2000 to 1999. Most counties experienced only slight changes in total bicyclist-motor vehicle crashes and injury crashes from 1999 to 2000.

Table 4.03. Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes by County, Utah 1999 - 2000

| | B-MV Total Crashes | | | | B-MV Injury Crashes | | | | B-MV Fatal Crashes | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1999 | | 2000 | | 1999 | | 2000 | | 1999 | | 2000 | |
| County | # | Rate per 100 MVMT | # | Rate per 100 MVMT | # | Rate per 100 MVMT | # | Rate per 100 MVMT | # | Rate per 10000 MVMT | # | Rate per 10000 MVMT |
| Beaver | 0 | 0.0 | 1 | 0.5 | 0 | 0.0 | 1 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Box Elder | 5 | 0.6 | 9 | 1.0 | 5 | 0.6 | 9 | 1.0 | 0 | 0.0 | 0 | 0.0 |
| Cache | 35 | 4.6 | 37 | 4.7 | 34 | 4.5 | 35 | 4.4 | 0 | 0.0 | 0 | 0.0 |
| Carbon | 5 | 1.4 | 1 | 0.3 | 5 | 1.4 | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 |
| Daggett | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Davis | 70 | 3.5 | 54 | 2.6 | 64 | 3.2 | 53 | 2.5 | 0 | 0.0 | 0 | 0.0 |
| Duchesne | 4 | 2.2 | 2 | 1.0 | 4 | 2.2 | 2 | 1.0 | 0 | 0.0 | 0 | 0.0 |
| Emery | 1 | 0.3 | 1 | 0.3 | 1 | 0.3 | 1 | 0.3 | 0 | 0.0 | 0 | 0.0 |
| Garfield | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Grand | 6 | 2.2 | 3 | 1.1 | 6 | 2.2 | 3 | 1.1 | 0 | 0.0 | 0 | 0.0 |
| Iron | 8 | 1.5 | 6 | 1.1 | 8 | 1.5 | 6 | 1.1 | 0 | 0.0 | 0 | 0.0 |
| Juab | 2 | 0.6 | 2 | 0.6 | 2 | 0.6 | 2 | 0.6 | 0 | 0.0 | 0 | 0.0 |
| Kane | 1 | 0.8 | 0 | 0.0 | 1 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Millard | 1 | 0.2 | 2 | 0.5 | 1 | 0.2 | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Morgan | 1 | 0.9 | 0 | 0.0 | 1 | 0.9 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Piute | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Rich | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Salt Lake | 400 | 5.6 | 356 | 4.9 | 356 | 4.9 | 313 | 4.3 | 4 | 5.6 | 4 | 5.5 |
| San Juan | 3 | 1.2 | 1 | 0.4 | 3 | 1.2 | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Sanpete | 3 | 1.3 | 2 | 0.9 | 3 | 1.3 | 2 | 0.9 | 0 | 0.0 | 0 | 0.0 |
| Sevier | 3 | 0.8 | 3 | 0.8 | 3 | 0.8 | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Summit | 2 | 0.3 | 8 | 1.3 | 2 | 0.3 | 7 | 1.1 | 0 | 0.0 | 1 | 16.1 |
| Tooele | 6 | 0.9 | 4 | 0.6 | 6 | 0.9 | 4 | 0.6 | 0 | 0.0 | 0 | 0.0 |
| Uintah | 5 | 1.8 | 4 | 1.4 | 4 | 1.5 | 4 | 1.4 | 1 | 36.7 | 0 | 0.0 |
| Utah | 171 | 5.8 | 115 | 3.8 | 159 | 5.4 | 106 | 3.5 | 1 | 3.4 | 2 | 6.6 |
| Wasatch | 5 | 2.1 | 3 | 1.2 | 5 | 2.1 | 3 | 1.2 | 0 | 0.0 | 0 | 0.0 |
| Washington | 19 | 2.3 | 25 | 2.8 | 19 | 2.3 | 23 | 2.6 | 0 | 0.0 | 1 | 11.1 |
| Wayne | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Weber | 48 | 3.2 | 52 | 3.4 | 40 | 2.7 | 45 | 3.0 | 0 | 0.0 | 0 | 0.0 |
| Statewide | 804 | 3.7 | 691 | 3.1 | 732 | 3.4 | 625 | 2.8 | 6 | 2.8 | 8 | 3.6 |

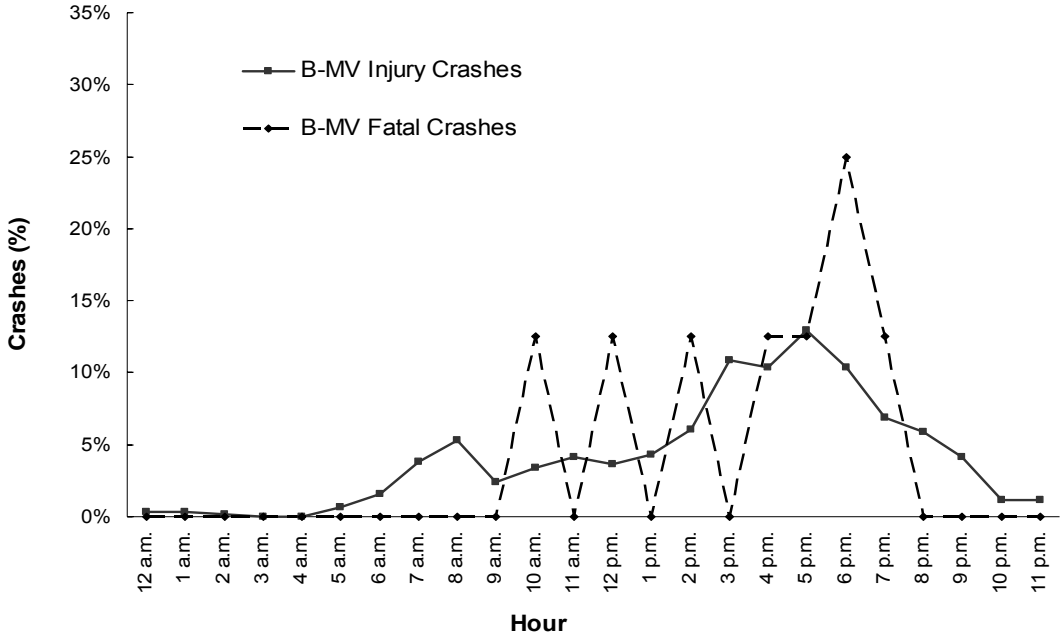
# Bicyclist-Motor Vehicle Crash Times

Table 4.04 and Figure 4.03 show that total bicyclist-motor vehicle crashes and injury crashes peaked during the late afternoon and early evening hours (3 p.m. to 7 p.m.).

Table 4.04 Hour of Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | B-MV Total Crashes | | B-MV Injury Crashes | | B-MV Fatal Crashes | |
|---|---|---|---|---|---|---|
| Hour | # | % | # | % | # | % |
| 12 a.m. | 2 | 0.3% | 2 | 0.3% | 0 | 0.0% |
| 1 a.m. | 2 | 0.3% | 2 | 0.3% | 0 | 0.0% |
| 2 a.m. | 1 | 0.1% | 1 | 0.2% | 0 | 0.0% |
| 3 a.m. | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 4 a.m. | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 5 a.m. | 5 | 0.7% | 4 | 0.6% | 0 | 0.0% |
| 6 a.m. | 11 | 1.6% | 10 | 1.6% | 0 | 0.0% |
| 7 a.m. | 26 | 3.8% | 24 | 3.8% | 0 | 0.0% |
| 8 a.m. | 34 | 4.9% | 33 | 5.3% | 0 | 0.0% |
| 9 a.m. | 18 | 2.6% | 15 | 2.4% | 0 | 0.0% |
| 10 a.m. | 24 | 3.5% | 21 | 3.4% | 1 | 12.5% |
| 11 a.m. | 28 | 4.1% | 26 | 4.2% | 0 | 0.0% |
| 12 p.m. | 27 | 3.9% | 23 | 3.7% | 1 | 12.5% |
| 1 p.m. | 30 | 4.3% | 27 | 4.3% | 0 | 0.0% |
| 2 p.m. | 45 | 6.5% | 38 | 6.1% | 1 | 12.5% |
| 3 p.m. | 76 | 11.0% | 68 | 10.9% | 0 | 0.0% |
| 4 p.m. | 73 | 10.6% | 65 | 10.4% | 1 | 12.5% |
| 5 p.m. | 87 | 12.6% | 81 | 13.0% | 1 | 12.5% |
| 6 p.m. | 71 | 10.3% | 65 | 10.4% | 2 | 25.0% |
| 7 p.m. | 48 | 6.9% | 43 | 6.9% | 1 | 12.5% |
| 8 p.m. | 40 | 5.8% | 37 | 5.9% | 0 | 0.0% |
| 9 p.m. | 28 | 4.1% | 26 | 4.2% | 0 | 0.0% |
| 10 p.m. | 7 | 1.0% | 7 | 1.1% | 0 | 0.0% |
| 11 p.m. | 8 | 1.2% | 7 | 1.1% | 0 | 0.0% |
| Grand Total | 691 | 100.0% | 625 | 100.0% | 8 | 100.0% |

Figure 4.03 Hour of Bicyclist-Motor Vehicle (B-MV) Injury Crashes and Fatal Crashes, Utah 2000 (See Table 4.04 for values)



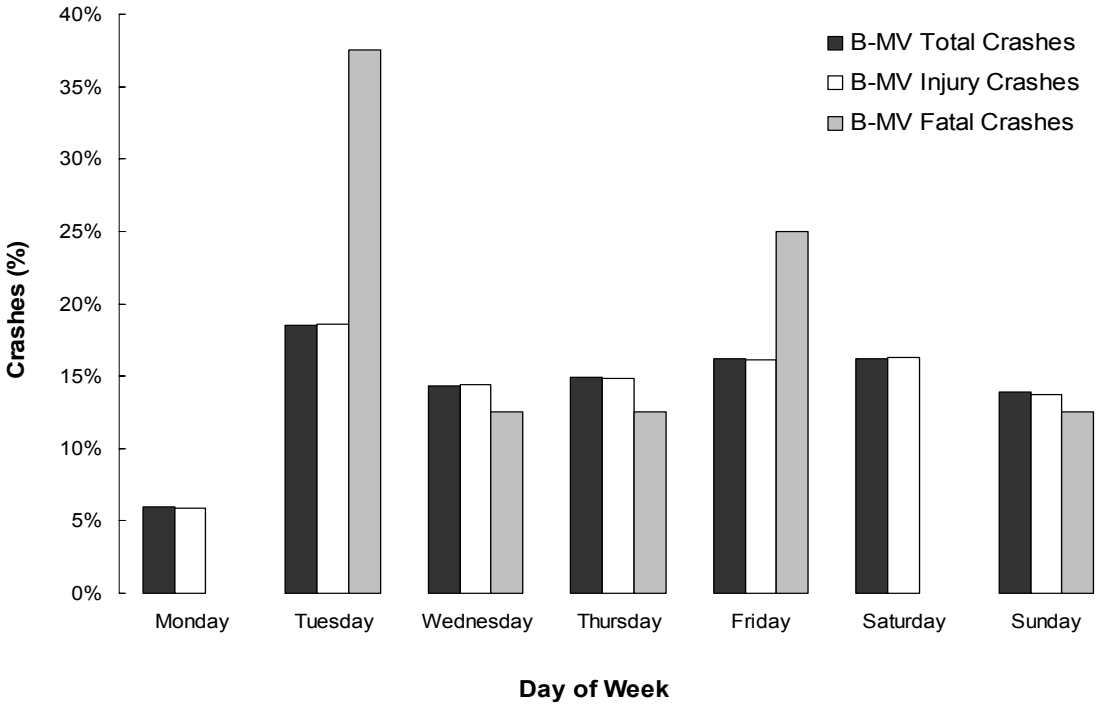

June through September had the highest rates of total bicyclist-motor vehicle crashes and injury crashes per day (Table 4.05).

Table 4.05 Month of Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | B-MV Total Crashes | | B-MV Injury Crashes | | B-MV Fatal Crashes | |
|---|---|---|---|---|---|---|
| Crash Month | # | Rate per Day | # | Rate per Day | # | Rate per Day |
| January | 18 | 0.6 | 17 | 0.5 | 0 | 0.0 |
| February | 19 | 0.7 | 16 | 0.6 | 1 | 0.0 |
| March | 46 | 1.5 | 43 | 1.4 | 0 | 0.0 |
| April | 55 | 1.8 | 48 | 1.6 | 0 | 0.0 |
| May | 74 | 2.4 | 68 | 2.2 | 1 | 0.0 |
| June | 98 | 3.3 | 91 | 3.0 | 1 | 0.0 |
| July | 86 | 2.8 | 79 | 2.5 | 1 | 0.0 |
| August | 96 | 3.1 | 93 | 3.0 | 0 | 0.0 |
| September | 88 | 2.9 | 75 | 2.5 | 2 | 0.1 |
| October | 64 | 2.1 | 53 | 1.7 | 1 | 0.0 |
| November | 32 | 1.1 | 30 | 1.0 | 0 | 0.0 |
| December | 15 | 0.5 | 12 | 0.4 | 1 | 0.0 |
| Grand Total | 691 | 1.9 | 625 | 1.7 | 8 | 0.0 |

Figure 4.04 and Table 4.06 show that the highest percentage of total bicyclist-motor vehicle crashes and injury crashes occurred on Tuesday, while the lowest number occurred on Monday. Over one-third (37.5%) of fatal bicyclist-motor vehicle crashes occurred on Tuesday.

Figure 4.04 Day of Week for Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000




Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one category across the days of the week. For example, look at only the white bars (i.e. bicyclist-motor vehicle injury crashes) from day to day. Do not compare the heights of the different crash categories for a specific day.

Table 4.06 Day of Week for Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | B-MV Total Crashes | | B-MV Injury Crashes | | B-MV Fatal Crashes | |
|---|---|---|---|---|---|---|
| Day of Week | # | % | # | % | # | % |
| Monday | 41 | 5.9% | 37 | 5.9% | 0 | 0.0% |
| Tuesday | 128 | 18.5% | 116 | 18.6% | 3 | 37.5% |
| Wednesday | 99 | 14.3% | 90 | 14.4% | 1 | 12.5% |
| Thursday | 103 | 14.9% | 93 | 14.9% | 1 | 12.5% |
| Friday | 112 | 16.2% | 101 | 16.2% | 2 | 25.0% |
| Saturday | 112 | 16.2% | 102 | 16.3% | 0 | 0.0% |
| Sunday | 96 | 13.9% | 86 | 13.8% | 1 | 12.5% |
| Grand Total | 691 | 100.0% | 625 | 100.0% | 8 | 100.0% |

# Bicyclist-Motor Vehicle Crash Characteristics

Urban areas accounted for 87.5% of the fatal bicyclist-motor vehicle crashes and 86.7% if the total bicycle-motor vehicle crashes (Table 4.07).

Table 4.07 Urban / Rural Location of Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Urban / Rural Location | B-MV Total Crashes | | B-MV Injury Crashes | | B-MV Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Rural Area - Up to 5,000 | 92 | 13.3% | 86 | 13.8% | 1 | 12.5% |
| Small Urban - 5,000 to 49,999 | 39 | 5.6% | 36 | 5.8% | 1 | 12.5% |
| Moderate Urban - 50,000 to 199,999 | 26 | 3.8% | 24 | 3.8% | 0 | 0.0% |
| Large Urban - 200,000 or More | 534 | 77.3% | 479 | 76.6% | 6 | 75.0% |
| Missing | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Grand Total | 691 | 100.0% | 625 | 100.0% | 8 | 100.0% |

Table 4.08 shows the type of vehicles involved in bicyclist-motor vehicle crashes. Over half of the vehicles involved in all three types of bicyclist-motor vehicle crashes were passenger cars (56.8%, 56.5%, and 50.0% respectively).

Table 4.08 Type of Vehicles Involved in Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Vehicle Type | B-MV Total Crashes | | B-MV Injury Crashes | | B-MV Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Passenger Car | 394 | 56.8% | 355 | 56.5% | 4 | 50.0% |
| Pickup Truck / Vans | 259 | 37.3% | 237 | 37.7% | 2 | 25.0% |
| Unknown | 21 | 3.0% | 19 | 3.0% | 0 | 0.0% |
| Large Truck/Semi | 9 | 1.3% | 7 | 1.1% | 1 | 12.5% |
| Other | 7 | 1.0% | 6 | 1.0% | 1 | 12.5% |
| Motorcycle | 4 | 0.6% | 4 | 0.6% | 0 | 0.0% |
| School Bus | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Grand Total | 694 | 100.0% | 628 | 100.0% | 8 | 100.0% |

Note: More than one vehicle may be involved in a bicyclist- motor vehicle crash. Unknown vehicles are 'hit and run' vehicles.

# Bicyclist-Motor Vehicle Crash Violations and Contributing Factors

There were 691 drivers involved in bicyclist-motor vehicle crashes, of which 160 (23.2%) were cited for a traffic violation (Table 4.09). The leading violation was "failure to yield right of way" (35.6%). Only 2 of the 8 (25%) drivers involved in fatal bicyclist-motor vehicle crashes received a citation at the scene.

Table 4.09 Violations for Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | B-MV Total Crashes | | B-MV Injury Crashes | | B-MV Fatal Crashes | |
|---|---|---|---|---|---|---|
| **Violations** | **#** | **%** | **#** | **%** | **#** | **%** |
| Failure to Yield Right of Way | 57 | 35.6% | 55 | 36.7% | 0 | 0.0% |
| Improper Lookout | 40 | 25.0% | 36 | 24.0% | 1 | 50.0% |
| All Other Non-Moving Violations | 27 | 16.9% | 25 | 16.7% | 0 | 0.0% |
| Negligent Collision | 5 | 3.1% | 5 | 3.3% | 0 | 0.0% |
| All Other Moving Violations | 5 | 3.1% | 5 | 3.3% | 0 | 0.0% |
| Improper Turn | 4 | 2.5% | 4 | 2.7% | 0 | 0.0% |
| Hit and Run | 4 | 2.5% | 3 | 2.0% | 0 | 0.0% |
| Stop Sign | 3 | 1.9% | 3 | 2.0% | 0 | 0.0% |
| Speeding | 3 | 1.9% | 3 | 2.0% | 0 | 0.0% |
| Red Light | 3 | 1.9% | 3 | 2.0% | 0 | 0.0% |
| Reckless Driving | 3 | 1.9% | 3 | 2.0% | 0 | 0.0% |
| Improper Backing | 2 | 1.3% | 2 | 1.3% | 0 | 0.0% |
| Wrong Side of Road | 1 | 0.6% | 1 | 0.7% | 0 | 0.0% |
| Following Too Close | 1 | 0.6% | 1 | 0.7% | 0 | 0.0% |
| Improper Start and Stop | 1 | 0.6% | 1 | 0.7% | 0 | 0.0% |
| Vehicle Homicide | 1 | 0.6% | 0 | 0.0% | 1 | 50.0% |
| Grand Total | 160 | 100.0% | 150 | 100.0% | 2 | 100.0% |

The factors contributing to bicycle-motor vehicle crashes are listed in Table 4.10. These factors were coded by the officers at the scene for motor vehicles involved in the crash. The officer may record no contributing factor or up to two different contributing factors. The primary contributing factors recorded for total bicyclist-motor vehicle crashes and injury crashes were "improper lookout", "failure to yield right of way", and "hit and run". "Driving under the influence" accounted for only 0.2% of contributing factors in total bicyclist-motor vehicle crashes and injury crashes.

Table 4.10 Contributing Factors of Bicyclist-Motor Vehicle (B-MV) Total Crashes and Injury Crashes, Utah 2000

| | B-MV Total Crashes | | B-MV Injury Crashes | | B-MV Fatal Crashes | |
|---|---|---|---|---|---|---|
| **Contributing Factors** | **#** | **%** | **#** | **%** | **#** | **%** |
| Improper Lookout | 207 | 43.0% | 186 | 43.5% | 3 | 37.5% |
| Failed to Yield the Right of Way | 122 | 25.4% | 111 | 25.9% | 0 | 0.0% |
| Hit and Run | 62 | 12.9% | 54 | 12.6% | 0 | 0.0% |
| Other Improper Driving | 19 | 4.0% | 16 | 3.7% | 2 | 25.0% |
| Speed Too Fast | 17 | 3.5% | 14 | 3.3% | 2 | 25.0% |
| Improper Turn | 16 | 3.3% | 14 | 3.3% | 0 | 0.0% |
| Non-Contact Vehicle Involved | 6 | 1.2% | 5 | 1.2% | 0 | 0.0% |
| Passed Stop Sign | 5 | 1.0% | 5 | 1.2% | 0 | 0.0% |
| Disregarded Traffic Signal | 4 | 0.8% | 4 | 0.9% | 0 | 0.0% |
| Drove Left of Center | 3 | 0.6% | 3 | 0.7% | 0 | 0.0% |
| Following Too Closely | 2 | 0.4% | 2 | 0.5% | 0 | 0.0% |
| Improper Backing | 2 | 0.4% | 2 | 0.5% | 0 | 0.0% |
| Improper Overtaking | 2 | 0.4% | 2 | 0.5% | 0 | 0.0% |
| Improper Parking | 2 | 0.4% | 2 | 0.5% | 0 | 0.0% |
| Windshield Not Clear | 2 | 0.4% | 2 | 0.5% | 0 | 0.0% |
| Asleep | 1 | 0.2% | 0 | 0.0% | 0 | 0.0% |
| Cargo Loss or Shift | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Driving Under the Influence | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Failed to Signal | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Headlights Insufficient or Out | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Other Defective Condition | 1 | 0.2% | 0 | 0.0% | 1 | 12.5% |
| Other Lights or Reflecting/Defective | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Vehicle Rolling in Traffic Lane | 1 | 0.2% | 0 | 0.0% | 0 | 0.0% |
| Wrong Side of Road | 1 | 0.2% | 0 | 0.0% | 0 | 0.0% |
| Wrong Way on One Way Street | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Grand Total | 481 | 100.0% | 428 | 100.0% | 8 | 100.0% |

# Drivers Involved in Bicyclist-Motor Vehicle Crashes

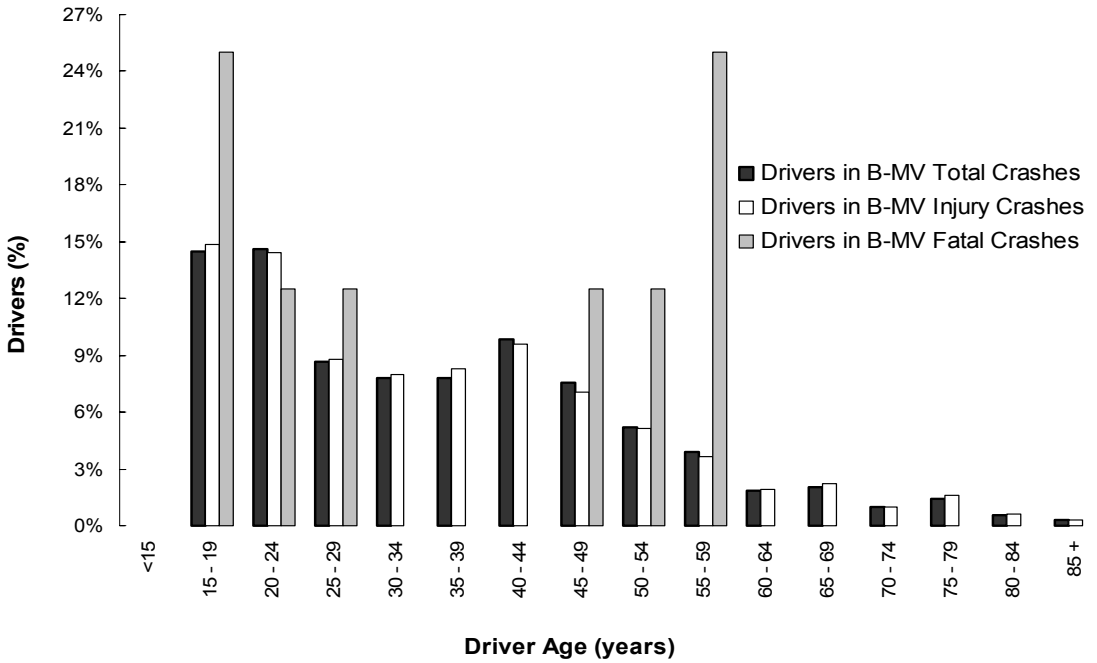
Drivers between the ages of 15 to 24 years represented the greatest percentage of motor vehicle drivers (29.1%) involved in a total bicyclist-motor vehicle crash, while drivers aged 15 to 19 years and 55 to 59 years each accounted for one-fourth of drivers involved in fatal bicyclist-motor vehicle crashes (Table 4.11 and Figure 4.05).

Table 4.11 Age of Drivers Involved in Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | B-MV Total Crashes | | B-MV Injury Crashes | | B-MV Fatal Crashes | |
|---|---|---|---|---|---|---|
| Driver's Age | # Drivers | % | # Drivers | % | # Drivers | % |
| <15 | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 15 - 19 | 100 | 14.5% | 93 | 14.9% | 2 | 25.0% |
| 20 - 24 | 101 | 14.6% | 90 | 14.4% | 1 | 12.5% |
| 25 - 29 | 60 | 8.7% | 55 | 8.8% | 1 | 12.5% |
| 30 - 34 | 54 | 7.8% | 50 | 8.0% | 0 | 0.0% |
| 35 - 39 | 54 | 7.8% | 52 | 8.3% | 0 | 0.0% |
| 40 - 44 | 68 | 9.8% | 60 | 9.6% | 0 | 0.0% |
| 45 - 49 | 52 | 7.5% | 44 | 7.0% | 1 | 12.5% |
| 50 - 54 | 36 | 5.2% | 32 | 5.1% | 1 | 12.5% |
| 55 - 59 | 27 | 3.9% | 23 | 3.7% | 2 | 25.0% |
| 60 - 64 | 13 | 1.9% | 12 | 1.9% | 0 | 0.0% |
| 65 - 69 | 14 | 2.0% | 14 | 2.2% | 0 | 0.0% |
| 70 - 74 | 7 | 1.0% | 6 | 1.0% | 0 | 0.0% |
| 75 - 79 | 10 | 1.4% | 10 | 1.6% | 0 | 0.0% |
| 80 - 84 | 4 | 0.6% | 4 | 0.6% | 0 | 0.0% |
| 85 + | 2 | 0.3% | 2 | 0.3% | 0 | 0.0% |
| Missing | 89 | 12.9% | 78 | 12.5% | 0 | 0.0% |
| Grand Total | 691 | 100.0% | 625 | 100.0% | 8 | 100.0% |

Note: More than one driver may be involved in bicyclist-motor vehicle crashes and driver information may be missing (e.g. a hit and run).

Figure 4.05 Age of Drivers Involved in Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000 (See Table 4.11 for values)




Note: The above graph is based on percentage for the different crash categories. To read the above graph, look at one category across the age groups. For example, look at only the white bars (i.e. drivers in bicyclist-motor vehicle injury crashes) from age group to age group. Do not compare the heights of the different crash categories for a specific age group.

Table 4.12 shows that half (51.8%) of motor vehicle drivers involved in total bicycle-motor vehicle crashes, and injury bicycle-motor vehicle crashes were male; an even larger percentage of drivers in fatal crashes were male (75%).

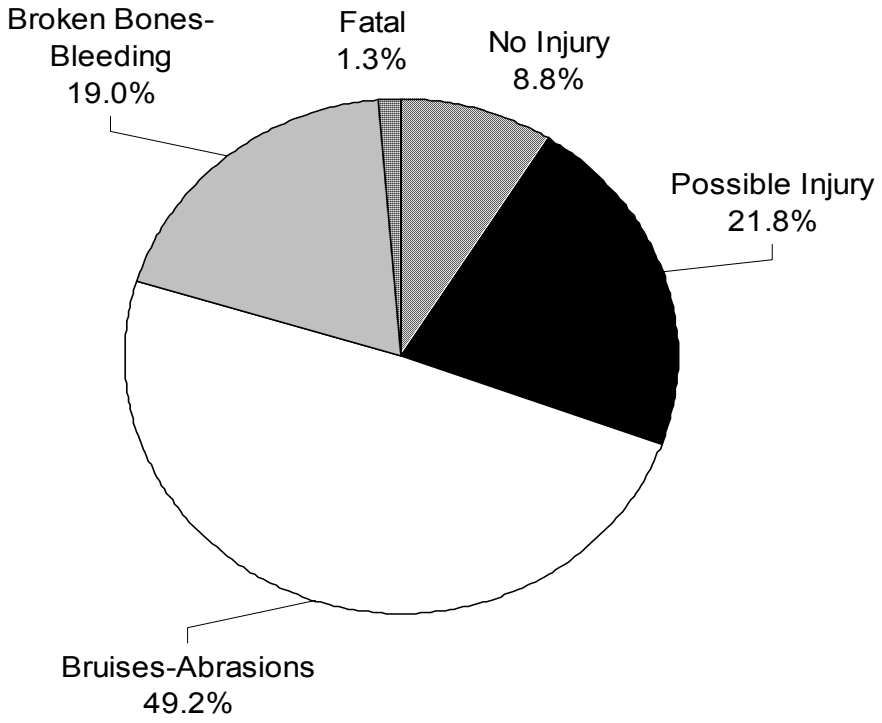
Table 4.12 Gender of Drivers Involved in Bicyclist-Motor Vehicle (B-MV) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | B-MV Total Crashes | | B-MV Injury Crashes | | B-MV Fatal Crashes | |
|---|---|---|---|---|---|---|
| Driver's Gender | # Drivers | % | # Drivers | % | # Drivers | % |
| Female | 275 | 39.8% | 252 | 40.3% | 2 | 25.0% |
| Male | 358 | 51.8% | 322 | 51.5% | 6 | 75.0% |
| Missing | 58 | 8.4% | 51 | 8.2% | 0 | 0.0% |
| Grand Total | 691 | 100.0% | 625 | 100.0% | 8 | 100.0% |

# Bicyclist Injury Severity

Figure 4.06 shows that the majority of bicyclists sustained an injury (91.2%) compared to 21.6% of all motor vehicle crash participants. The percentage of bicyclist fatalities (1.3%) was higher than for all motor vehicle crash participants (0.3%). There were 9 bicyclists killed on Utah public roadways in 2000, compared to 7 bicyclists killed during 1999.

Figure 4.06 Bicyclist Injury Severity as Reported by Police, Utah 2000 (n=706)



# Bicyclists by County

Table 4.13 shows the number of bicyclists, injured bicyclists and bicyclist fatalities involved in motor vehicle crashes by county. The leading counties for total bicyclists and injured bicyclists involved in a motor vehicle crash per million vehicle miles traveled were Salt Lake, Cache, Utah, and Weber Counties.

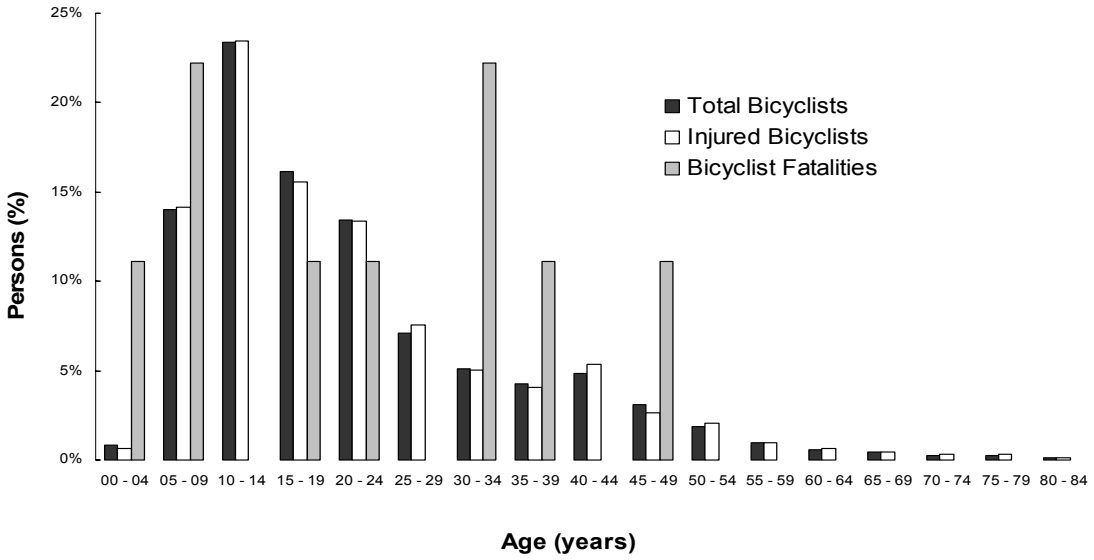
Table 4.13 Total Bicyclists, Injured Bicyclists and Bicyclist Fatalities by County, Utah 2000

| | Total Bicyclists | | | Injured Bicyclists | | | Bicyclist Fatalities | | |
|---|---|---|---|---|---|---|---|---|---|
| County | # | Rate per 100 MVMT | Rate Per 10,000 Population | # | Rate per 100 MVMT | Rate Per 10,000 Population | # | Rate per 10,000 MVMT | Rate Per 100,000 Population |
| Beaver | 1 | 0.5 | 1.4 | 1 | 0.5 | 1.4 | 0 | 0.0 | 0.0 |
| Box Elder | 10 | 1.1 | 2.3 | 10 | 1.1 | 2.3 | 0 | 0.0 | 0.0 |
| Cache | 35 | 4.4 | 3.7 | 34 | 4.3 | 3.6 | 0 | 0.0 | 0.0 |
| Carbon | 1 | 0.3 | 0.4 | 1 | 0.3 | 0.4 | 0 | 0.0 | 0.0 |
| Daggett | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Davis | 54 | 2.6 | 2.3 | 53 | 2.5 | 2.2 | 0 | 0.0 | 0.0 |
| Duchesne | 2 | 1.0 | 1.4 | 2 | 1.0 | 1.4 | 0 | 0.0 | 0.0 |
| Emery | 1 | 0.3 | 0.9 | 1 | 0.3 | 0.9 | 0 | 0.0 | 0.0 |
| Garfield | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Grand | 3 | 1.1 | 2.7 | 3 | 1.1 | 2.7 | 0 | 0.0 | 0.0 |
| Iron | 7 | 1.2 | 2.0 | 7 | 1.2 | 2.0 | 0 | 0.0 | 0.0 |
| Juab | 2 | 0.6 | 2.4 | 2 | 0.6 | 2.4 | 0 | 0.0 | 0.0 |
| Kane | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Millard | 2 | 0.5 | 1.5 | 2 | 0.5 | 1.5 | 0 | 0.0 | 0.0 |
| Morgan | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Piute | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Rich | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Salt Lake | 362 | 4.9 | 4.1 | 317 | 4.3 | 3.6 | 4 | 5.5 | 0.5 |
| San Juan | 1 | 0.4 | 0.7 | 1 | 0.4 | 0.7 | 0 | 0.0 | 0.0 |
| Sanpete | 2 | 0.9 | 0.9 | 2 | 0.9 | 0.9 | 0 | 0.0 | 0.0 |
| Sevier | 3 | 0.8 | 1.5 | 2 | 0.5 | 1.0 | 0 | 0.0 | 0.0 |
| Summit | 11 | 1.8 | 4.0 | 9 | 1.4 | 3.3 | 1 | 16.1 | 3.6 |
| Tooele | 4 | 0.6 | 1.1 | 4 | 0.6 | 1.1 | 0 | 0.0 | 0.0 |
| Uintah | 5 | 1.7 | 2.0 | 5 | 1.7 | 2.0 | 0 | 0.0 | 0.0 |
| Utah | 114 | 3.8 | 3.3 | 104 | 3.4 | 3.0 | 3 | 9.9 | 0.9 |
| Wasatch | 3 | 1.2 | 2.1 | 3 | 1.2 | 2.1 | 0 | 0.0 | 0.0 |
| Washington | 26 | 2.9 | 3.0 | 23 | 2.6 | 2.7 | 1 | 11.1 | 1.2 |
| Wayne | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Weber | 57 | 3.8 | 3.0 | 49 | 3.2 | 2.6 | 0 | 0.0 | 0.0 |
| Statewide | 706 | 3.1 | 3.2 | 635 | 2.8 | 2.9 | 9 | 4.0 | 0.4 |

# Bicyclist Characteristics

Figure 4.07 and Table 4.14 show that most total bicyclists (67.0%) and injured bicyclists (66.7%) involved in a crash were between the ages of 5 to 24 years. This same age group represented almost half (44.4%) of the fatalities.

Figure 4.07 Age of Total Bicyclists, Injured Bicyclists and Bicyclist Fatalities Involved in a Crash, Utah 2000




Note: The above graph is based on percentages for the different injury categories. To read the above graph, look at one category across the age groups. For example, look at only the white bars (i.e. injured bicyclist) from age group to age group. Do not compare the heights of the different injury categories for a specific age group.

Table 4.14 Age of Total Bicyclists, Injured Bicyclists and Bicyclist Fatalities, Utah 2000

| | Total Bicyclists | | Injured Bicyclists | | Bicyclist Fatalities | |
|---|---|---|---|---|---|---|
| Age | # | % | # | % | # | % |
| 00 - 04 | 6 | 0.8% | 4 | 0.6% | 1 | 11.1% |
| 05 - 09 | 99 | 14.0% | 90 | 14.2% | 2 | 22.2% |
| 10 - 14 | 165 | 23.4% | 149 | 23.5% | 0 | 0.0% |
| 15 - 19 | 114 | 16.1% | 99 | 15.6% | 1 | 11.1% |
| 20 - 24 | 95 | 13.5% | 85 | 13.4% | 1 | 11.1% |
| 25 - 29 | 50 | 7.1% | 48 | 7.6% | 0 | 0.0% |
| 30 - 34 | 36 | 5.1% | 32 | 5.0% | 2 | 22.2% |
| 35 - 39 | 30 | 4.2% | 26 | 4.1% | 1 | 11.1% |
| 40 - 44 | 34 | 4.8% | 34 | 5.4% | 0 | 0.0% |
| 45 - 49 | 22 | 3.1% | 17 | 2.7% | 1 | 11.1% |
| 50 - 54 | 13 | 1.8% | 13 | 2.0% | 0 | 0.0% |
| 55 - 59 | 7 | 1.0% | 6 | 0.9% | 0 | 0.0% |
| 60 - 64 | 4 | 0.6% | 4 | 0.6% | 0 | 0.0% |
| 65 - 69 | 3 | 0.4% | 3 | 0.5% | 0 | 0.0% |
| 70 - 74 | 2 | 0.3% | 2 | 0.3% | 0 | 0.0% |
| 75 - 79 | 2 | 0.3% | 2 | 0.3% | 0 | 0.0% |
| 80 - 84 | 1 | 0.1% | 1 | 0.2% | 0 | 0.0% |
| Missing | 23 | 3.3% | 20 | 3.1% | 0 | 0.0% |
| Grand Total | 706 | 100.0% | 635 | 100.0% | 9 | 100.0% |

The majority of the total bicyclists (78.6%) and injured bicyclists (78.1%) involved in crashes were male, while only 55.6% of bicyclist fatalities were male (Table 4.15).

Table 4.15 Gender of Total Bicyclists, Injured Bicyclists and Bicyclist Fatalities, Utah 2000

| | Total Bicyclists | | Injured Bicyclists | | Bicyclist Fatalities | |
|---|---|---|---|---|---|---|
| Gender | # | % | # | % | # | % |
| Female | 150 | 21.2% | 138 | 21.7% | 4 | 44.4% |
| Male | 555 | 78.6% | 496 | 78.1% | 5 | 55.6% |
| Missing | 1 | 0.1% | 1 | 0.2% | 0 | 0.0% |
| Grand Total | 706 | 100.0% | 635 | 100.0% | 9 | 100.0% |

The actions of the bicyclist prior to the crash are shown in Table 4.16. The leading total bicyclists and injured bicyclists actions prior to the crash were "riding in roadway with traffic" and "crossing at intersection with signal". The leading bicyclist actions prior to crash for the bicyclists who died were "riding in roadway with traffic," "crossing not at intersection" and "riding on sidewalk."

Table 4.16 Bicyclist Action Prior to Crash, Utah 2000

| | Total Bicyclists | | Injured Bicyclists | | Bicyclist Fatalities | |
|---|---|---|---|---|---|---|
| Bicyclist Action Prior to Crash | # | % | # | % | # | % |
| Riding in Roadway With Traffic | 148 | 21.0% | 138 | 21.7% | 2 | 22.2% |
| Crossing Intersection with Signal | 117 | 16.6% | 102 | 16.1% | 1 | 11.1% |
| Riding in Roadway Against Traffic | 105 | 14.9% | 99 | 15.6% | 0 | 0.0% |
| Crossing Intersection No Signal | 93 | 13.2% | 81 | 12.8% | 1 | 11.1% |
| Crossing Intersection Against Signal | 74 | 10.5% | 62 | 9.8% | 0 | 0.0% |
| Crossing Not at Intersection | 67 | 9.5% | 62 | 9.8% | 2 | 22.2% |
| Riding on Sidewalk | 36 | 5.1% | 32 | 5.0% | 2 | 22.2% |
| Other in Roadway | 20 | 2.8% | 16 | 2.5% | 1 | 11.1% |
| Not Stated | 12 | 1.7% | 12 | 1.9% | 0 | 0.0% |
| Coming from Behind Parked Cars | 11 | 1.6% | 11 | 1.7% | 0 | 0.0% |
| Crossing Intersection Diagonally | 6 | 0.8% | 6 | 0.9% | 0 | 0.0% |
| Playing in Roadway | 6 | 0.8% | 5 | 0.8% | 0 | 0.0% |
| Not in Roadway | 4 | 0.6% | 3 | 0.5% | 0 | 0.0% |
| Hitching on Vehicle | 2 | 0.3% | 2 | 0.3% | 0 | 0.0% |
| Walking in Roadway with Traffic | 1 | 0.1% | 1 | 0.2% | 0 | 0.0% |
| Standing on Crosswalk Median | 1 | 0.1% | 1 | 0.2% | 0 | 0.0% |
| Missing | 3 | 0.4% | 2 | 0.3% | 0 | 0.0% |
| Grand Total | 706 | 100.0% | 635 | 100.0% | 9 | 100.0% |

**Alcohol and Other Drugs:**

Of the 9 bicyclist fatalities, none were impaired by alcohol or other drugs. Of the motor vehicle drivers that were involved in fatal bicyclist-motor vehicle crashes, 1 was impaired by alcohol or other drugs.

**Bicyclists and Helmet**

Helmet was not coded consistently at the time-of-crash for bicyclists and cannot be reported with accuracy. As a result, it is not included in this summary.

# Section 5
# Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, 2000



## TABLES



## FIGURES

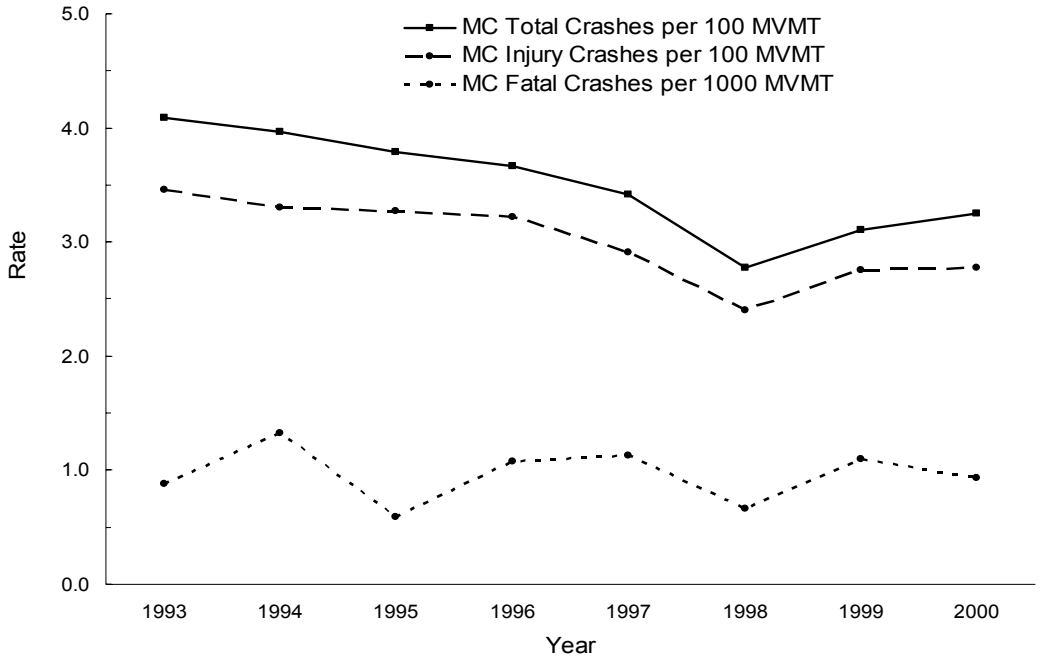
# Motorcycle Crashes 1993 - 2000

Table 5.01 and Figure 5.01 show the trends in motorcycle crashes from 1993 to 2000. Total motorcycle crashes, and motorcycle injury crashes declined from 1993 to 1998, with the lowest number of crashes occurring in 1998. In 2000, there was an 8.1% increase in total motorcycle crashes and an 3.7% increase in motorcycle injury crashes from the 1999 rates. While, fatal motorcycle crashes vary from year to year, the small number of fatal motorcycle crashes makes it difficult to compare increases and decreases from year to year.

Table 5.01 Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993-2000

| | MC Total Crashes | | MC Injury Crashes | | MC Fatal Crashes | |
|---|---|---|---|---|---|---|
| Year | # | Rate per 100 MVMT | # | Rate per 100 MVMT | # | Rate per 1,000 MVMT |
| 1993 | 698 | 4.1 | 589 | 3.5 | 15 | 0.9 |
| 1994 | 717 | 4.0 | 597 | 3.3 | 24 | 1.3 |
| 1995 | 711 | 3.8 | 614 | 3.3 | 11 | 0.6 |
| 1996 | 713 | 3.7 | 626 | 3.2 | 21 | 1.1 |
| 1997 | 697 | 3.4 | 594 | 2.9 | 23 | 1.1 |
| 1998 | 589 | 2.8 | 509 | 2.4 | 14 | 0.7 |
| 1999 | 678 | 3.1 | 602 | 2.8 | 24 | 1.1 |
| 2000 | 733 | 3.3 | 624 | 2.8 | 21 | 0.9 |

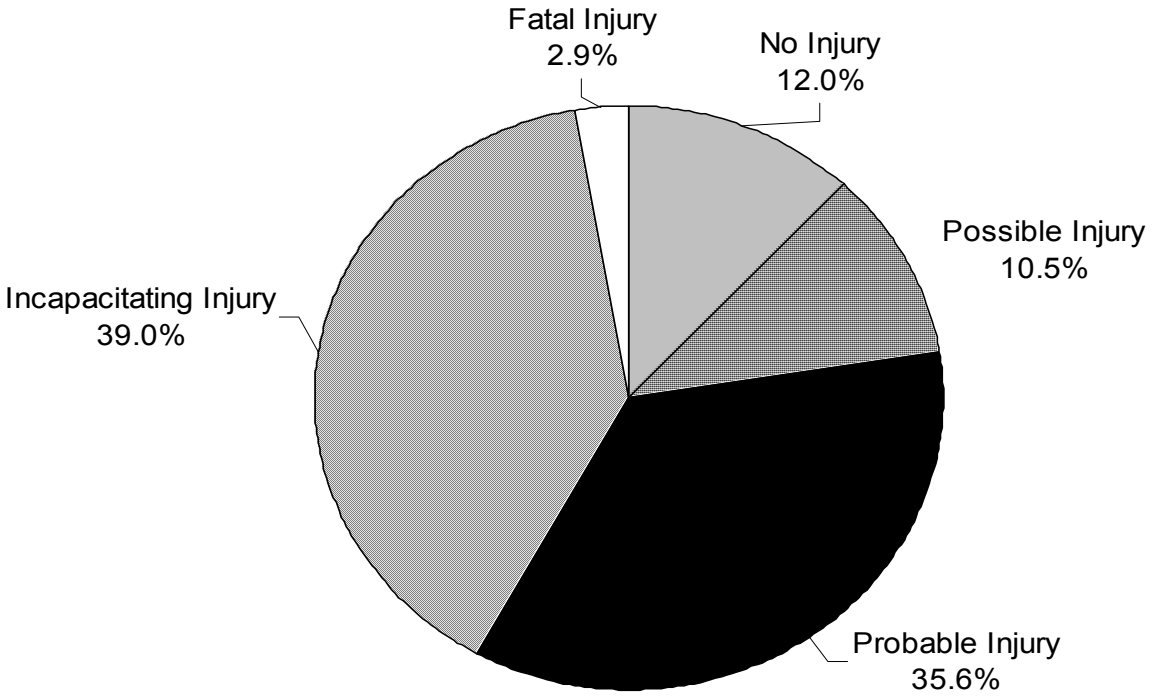
Figure 5.01 Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993-2000



# Motorcycle Crash Severity

Figure 5.02 shows the breakdown of motorcycle crash severity. Most of the motorcycle crashes resulted in an injury (88%) compared to 37.4% of all motor vehicle crashes. The percentage of motorcycle crashes that resulted in a fatality was 2.9%; this is nearly five times the percentage for all motor vehicle crashes (0.6%).

Figure 5.02 Severity of Motorcycle Crashes as Reported by Police, Utah 2000 (n=733)



# Motorcycle Crashes by County

The rates of total motorcycle crashes, motorcycle injury crashes and motorcycle fatal crashes for each county are shown in Table 5.02. The top three counties for total motorcycle crashes and motorcycle injury crashes based on million vehicle miles traveled were Wayne, Daggett and Rich. The top three counties for fatal motorcycle crashes based on million vehicle miles traveled were Rich, San Juan and Morgan.

Table 5.02 Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes by County, Utah 2000

| | MC Total Crashes | | | MC Injury Crashes | | | MC Fatal Crashes | | |
|---|---|---|---|---|---|---|---|---|---|
| County | # | Rate per 100 MVMT | Rate per 10,000 Population | # | Rate per 100 MVMT | Rate per 10,000 Population | # | Rate per 1,000 MVMT | Rate per 10,000 Population |
| Beaver | 2 | 0.9 | 2.9 | 2 | 0.9 | 2.9 | 0 | 0.0 | 0.0 |
| Box Elder | 13 | 1.4 | 3.0 | 12 | 1.3 | 2.8 | 0 | 0.0 | 0.0 |
| Cache | 35 | 4.4 | 3.7 | 29 | 3.7 | 3.1 | 1 | 1.3 | 0.1 |
| Carbon | 10 | 2.9 | 4.4 | 10 | 2.9 | 4.4 | 0 | 0.0 | 0.0 |
| Daggett | 3 | 11.8 | 35.1 | 3 | 11.8 | 35.1 | 0 | 0.0 | 0.0 |
| Davis | 57 | 2.7 | 2.4 | 50 | 2.4 | 2.1 | 0 | 0.0 | 0.0 |
| Duchesne | 2 | 1.0 | 1.4 | 1 | 0.5 | 0.7 | 0 | 0.0 | 0.0 |
| Emery | 4 | 1.1 | 3.6 | 4 | 1.1 | 3.6 | 0 | 0.0 | 0.0 |
| Garfield | 7 | 5.2 | 14.7 | 5 | 3.7 | 10.5 | 1 | 7.4 | 2.1 |
| Grand | 5 | 1.8 | 4.6 | 3 | 1.1 | 2.7 | 0 | 0.0 | 0.0 |
| Iron | 10 | 1.8 | 2.9 | 10 | 1.8 | 2.9 | 0 | 0.0 | 0.0 |
| Juab | 4 | 1.2 | 4.9 | 4 | 1.2 | 4.9 | 0 | 0.0 | 0.0 |
| Kane | 4 | 3.2 | 5.3 | 3 | 2.4 | 4.0 | 1 | 8.1 | 1.3 |
| Millard | 4 | 1.0 | 3.1 | 3 | 0.7 | 2.3 | 1 | 2.4 | 0.8 |
| Morgan | 11 | 9.1 | 15.7 | 8 | 6.6 | 11.5 | 1 | 8.3 | 1.4 |
| Piute | 2 | 6.7 | 12.0 | 2 | 6.7 | 12.0 | 0 | 0.0 | 0.0 |
| Rich | 5 | 11.2 | 26.6 | 4 | 9.0 | 21.3 | 1 | 22.4 | 5.3 |
| Salt Lake | 278 | 3.8 | 3.2 | 228 | 3.1 | 2.6 | 5 | 0.7 | 0.1 |
| San Juan | 11 | 3.9 | 8.1 | 8 | 2.9 | 5.9 | 3 | 10.7 | 2.2 |
| Sanpete | 8 | 3.5 | 3.6 | 7 | 3.1 | 3.1 | 1 | 4.4 | 0.4 |
| Sevier | 14 | 3.6 | 7.1 | 13 | 3.3 | 6.6 | 0 | 0.0 | 0.0 |
| Summit | 9 | 1.4 | 3.3 | 8 | 1.3 | 2.9 | 1 | 1.6 | 0.4 |
| Tooele | 8 | 1.2 | 2.3 | 6 | 0.9 | 1.7 | 0 | 0.0 | 0.0 |
| Uintah | 3 | 1.0 | 1.2 | 1 | 0.3 | 0.4 | 0 | 0.0 | 0.0 |
| Utah | 127 | 4.2 | 3.7 | 116 | 3.8 | 3.4 | 1 | 0.3 | 0.0 |
| Wasatch | 4 | 1.6 | 2.8 | 4 | 1.6 | 2.8 | 0 | 0.0 | 0.0 |
| Washington | 29 | 3.2 | 3.4 | 27 | 3.0 | 3.1 | 0 | 0.0 | 0.0 |
| Wayne | 5 | 12.2 | 19.1 | 5 | 12.2 | 19.1 | 0 | 0.0 | 0.0 |
| Weber | 59 | 3.9 | 3.1 | 48 | 3.2 | 2.5 | 4 | 2.6 | 0.2 |
| Statewide | 733 | 3.3 | 3.4 | 624 | 2.8 | 2.9 | 21 | 0.9 | 0.1 |

# Motorcycle Crash Times

Total motorcycle crashes, and motorcycle injury crashes followed the same time pattern, peaking between 4 p.m. and 5 p.m. The highest proportion of fatal motorcycle crashes occurred during the hours of 12 noon and 10 p.m. (Table 5.03 and Figure 5.03).

Table 5.03 Hour of Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | MC Total Crashes | | MC Injury Crashes | | MC Fatal Crashes | |
|---|---|---|---|---|---|---|
| Hour | # | % | # | % | # | % |
| 12 a.m. | 12 | 1.6% | 12 | 1.9% | 0 | 0.0% |
| 1 a.m. | 11 | 1.5% | 8 | 1.3% | 1 | 4.8% |
| 2 a.m. | 7 | 1.0% | 7 | 1.1% | 0 | 0.0% |
| 3 a.m. | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 4 a.m. | 4 | 0.5% | 4 | 0.6% | 0 | 0.0% |
| 5 a.m. | 3 | 0.4% | 2 | 0.3% | 1 | 4.8% |
| 6 a.m. | 12 | 1.6% | 8 | 1.3% | 0 | 0.0% |
| 7 a.m. | 13 | 1.8% | 8 | 1.3% | 0 | 0.0% |
| 8 a.m. | 28 | 3.8% | 22 | 3.5% | 2 | 9.5% |
| 9 a.m. | 11 | 1.5% | 10 | 1.6% | 0 | 0.0% |
| 10 a.m. | 26 | 3.5% | 20 | 3.2% | 1 | 4.8% |
| 11 a.m. | 34 | 4.6% | 29 | 4.6% | 0 | 0.0% |
| 12 p.m. | 53 | 7.2% | 44 | 7.1% | 4 | 19.0% |
| 1 p.m. | 57 | 7.8% | 50 | 8.0% | 2 | 9.5% |
| 2 p.m. | 59 | 8.0% | 50 | 8.0% | 0 | 0.0% |
| 3 p.m. | 61 | 8.3% | 51 | 8.2% | 0 | 0.0% |
| 4 p.m. | 64 | 8.7% | 58 | 9.3% | 2 | 9.5% |
| 5 p.m. | 63 | 8.6% | 58 | 9.3% | 0 | 0.0% |
| 6 p.m. | 58 | 7.9% | 48 | 7.7% | 2 | 9.5% |
| 7 p.m. | 35 | 4.8% | 31 | 5.0% | 1 | 4.8% |
| 8 p.m. | 38 | 5.2% | 33 | 5.3% | 2 | 9.5% |
| 9 p.m. | 34 | 4.6% | 31 | 5.0% | 0 | 0.0% |
| 10 p.m. | 29 | 4.0% | 20 | 3.2% | 3 | 14.3% |
| 11 p.m. | 21 | 2.9% | 20 | 3.2% | 0 | 0.0% |
| Grand Total | 733 | 100.0% | 624 | 100.0% | 21 | 100.0% |

Figure 5.03 Hour of Motorcycle (MC) Injury Crashes and Fatal Crashes, Utah 2000 (See Table 5.03 for values)

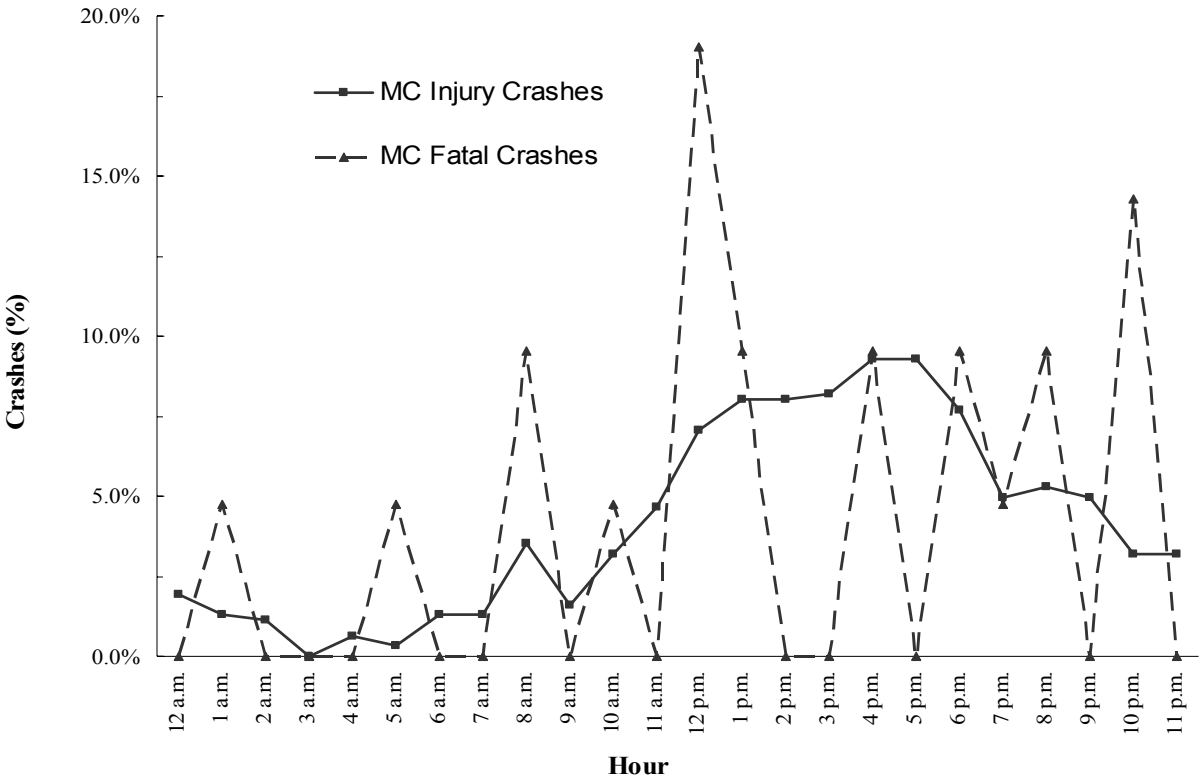


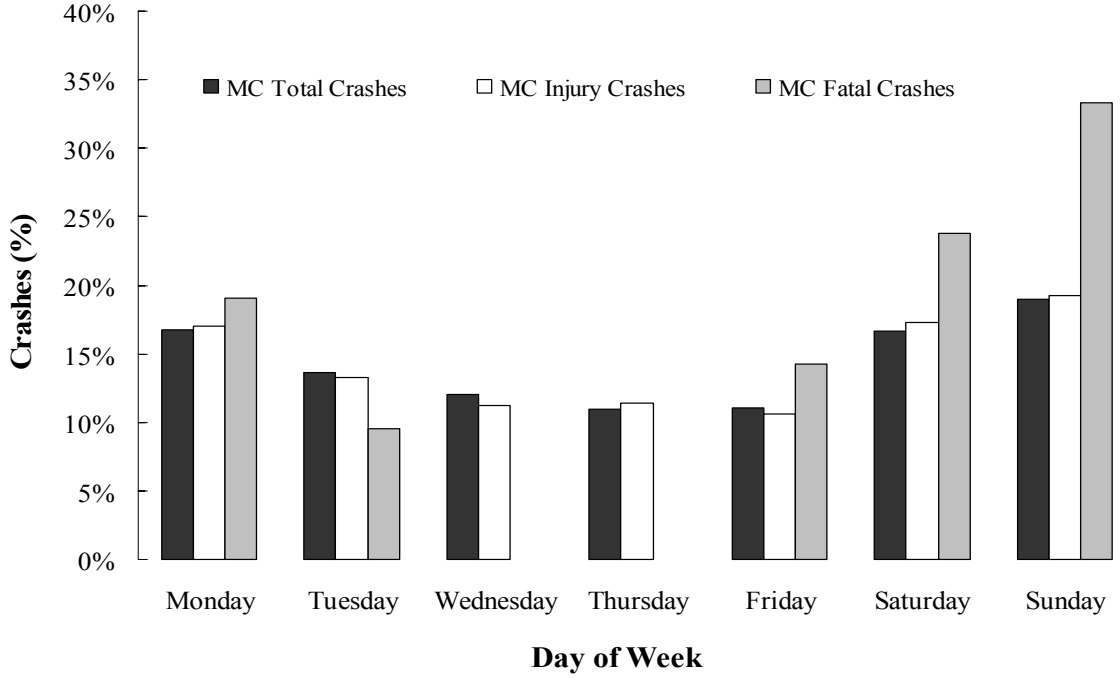

Table 5.04 shows the number of total motorcycle crashes and the rate of total motorcycle crashes per day for each month. May through September had the highest rate of total motorcycle crashes, injury crashes and fatal crashes per day. Very few motorcycle crashes occurred in the winter months, which may be due to the decrease of individuals riding motorcycles in the winter.

Table 5.04 Month of Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | MC Total Crashes | | MC Injury Crashes | | MC Fatal Crashes | |
|---|---|---|---|---|---|---|
| Crash Month | # | Rate per Day | # | Rate per Day | # | Rate per Day |
| January | 12 | 0.4 | 10 | 0.3 | 0 | 0.0 |
| February | 20 | 0.7 | 17 | 0.6 | 0 | 0.0 |
| March | 45 | 1.5 | 39 | 1.3 | 0 | 0.0 |
| April | 79 | 2.6 | 70 | 2.3 | 1 | 0.0 |
| May | 82 | 2.6 | 71 | 2.3 | 2 | 0.1 |
| June | 104 | 3.5 | 86 | 2.9 | 3 | 0.1 |
| July | 128 | 4.1 | 111 | 3.6 | 4 | 0.1 |
| August | 97 | 3.1 | 80 | 2.6 | 6 | 0.2 |
| September | 87 | 2.9 | 70 | 2.3 | 4 | 0.1 |
| October | 54 | 1.7 | 50 | 1.6 | 1 | 0.0 |
| November | 14 | 0.5 | 11 | 0.4 | 0 | 0.0 |
| December | 11 | 0.4 | 9 | 0.3 | 0 | 0.0 |
| Grand Total | 733 | 2.0 | 624 | 1.7 | 21 | 0.1 |

The largest number of total motorcycle crashes and motorcycle injury crashes occurred on Saturday, Sunday and Monday (Figure 5.04 and Table 5.05). Fatal motorcycle crashes most frequently occurred on Sunday, accounting for 33.3% of all fatal motorcycle crashes. In fact, motorcycle crashes on Sunday were 2 times more likely to be fatal than motorcycle crashes occurring on other days.

Figure 5.04 Day of Week for Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000




Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one

Table 5.05 Day of Week for Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | MC Total Crashes | | MC Injury Crashes | | MC Fatal Crashes | |
|---|---|---|---|---|---|---|
| Day of Week | # | % | # | % | # | % |
| Monday | 123 | 16.8% | 106 | 17.0% | 4 | 19.0% |
| Tuesday | 100 | 13.6% | 83 | 13.3% | 2 | 9.5% |
| Wednesday | 88 | 12.0% | 70 | 11.2% | 0 | 0.0% |
| Thursday | 80 | 10.9% | 71 | 11.4% | 0 | 0.0% |
| Friday | 81 | 11.1% | 66 | 10.6% | 3 | 14.3% |
| Saturday | 122 | 16.6% | 108 | 17.3% | 5 | 23.8% |
| Sunday | 139 | 19.0% | 120 | 19.2% | 7 | 33.3% |
| Grand Total | 733 | 100.0% | 624 | 100.0% | 21 | 100.0% |

# Motorcycle Crash Characteristics

Table 5.06 shows that crashes involving another motor vehicle represented most of the total motorcycle crashes (50.6%). "Ran off the roadway " (to the right, to the left, or through the median), accounted for one-third (33.4%) of the fatal motorcycle crashes.

Table 5.06 Types of Total Crashes, Injury Crashes and Fatal Crashes Involving Motorcycles (MC), Utah 2000

| | MC Total Crashes | | MC Injury Crashes | | MC Fatal Crashes | |
|---|---|---|---|---|---|---|
| **Crash Type** | **#** | **%** | **#** | **%** | **#** | **%** |
| Two Motor Vehicles | 371 | 50.6% | 296 | 47.4% | 9 | 42.9% |
| Overturned in Roadway | 100 | 13.6% | 95 | 15.2% | 1 | 4.8% |
| Ran Off Roadway - To the Right | 88 | 12.0% | 79 | 12.7% | 5 | 23.8% |
| Other Non-Collision | 52 | 7.1% | 40 | 6.4% | 2 | 9.5% |
| Ran Off Roadway - To the Left | 38 | 5.2% | 34 | 5.4% | 1 | 4.8% |
| Motor Vehicle and Fixed Object | 32 | 4.4% | 31 | 5.0% | 1 | 4.8% |
| Motor Vehicle and Other Object | 19 | 2.6% | 18 | 2.9% | 0 | 0.0% |
| Motor Vehicle and Wild Animal | 18 | 2.5% | 17 | 2.7% | 1 | 4.8% |
| Motor Vehicle and Domestic Animal | 5 | 0.7% | 5 | 0.8% | 0 | 0.0% |
| Motor Vehicle and Bicycle | 4 | 0.5% | 4 | 0.6% | 0 | 0.0% |
| Ran Off Roadway Through Median | 4 | 0.5% | 3 | 0.5% | 1 | 4.8% |
| Motor Vehicle and Pedestrian | 2 | 0.3% | 2 | 0.3% | 0 | 0.0% |
| Grand Total | 733 | 100.0% | 624 | 100.0% | 21 | 100.0% |

The majority of total motorcycle crashes (64.9%) occurred in large urban areas (Table 5.07). However, the largest percentage of fatal motorcycle crashes (66.7%) occurred in rural areas. Rural motorcycle crashes were 4 times more likely to result in a fatality compared to motorcycle crashes in other areas.

Table 5.07 Urban / Rural Location of Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | MC Total Crashes | | MC Injury Crashes | | MC Fatal Crashes | |
|---|---|---|---|---|---|---|
| **Urban / Rural Location** | **#** | **%** | **#** | **%** | **#** | **%** |
| Rural Area - Up to 5,000 | 256 | 34.9% | 221 | 35.4% | 14 | 66.7% |
| Small Urban - 5,000 to 49,999 | 30 | 4.1% | 26 | 4.2% | 1 | 4.8% |
| Moderate Urban - 50,000 to 199,999 | 12 | 1.6% | 9 | 1.4% | 0 | 0.0% |
| Large Urban - 200,000 or More | 434 | 59.2% | 367 | 58.8% | 6 | 28.6% |
| Missing | 1 | 0.1% | 1 | 0.2% | 0 | 0.0% |
| Grand Total | 733 | 100.0% | 624 | 100.0% | 21 | 100.0% |

Table 5.08 shows that the leading collision types for total motorcycle crashes were single vehicle rollovers (40.4%) and broadsides (23.6%). These were also the leading collision types for injury motorcycle crashes at 43.6% and 24.5%, respectively. Single vehicle rollovers accounted for over one-third (38.1%) of fatal motorcycle crashes.

Table 5.08 Collision Description of Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Collision Description | MC Total Crashes | | MC Injury Crashes | | MC Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Single Vehicle Rollover | 296 | 40.4% | 272 | 43.6% | 8 | 38.1% |
| Broadside | 173 | 23.6% | 153 | 24.5% | 4 | 19.0% |
| Other | 113 | 15.4% | 85 | 13.6% | 5 | 23.8% |
| Rear End | 104 | 14.2% | 76 | 12.2% | 0 | 0.0% |
| Side Swipe | 32 | 4.4% | 26 | 4.2% | 1 | 4.8% |
| Head-on | 8 | 1.1% | 6 | 1.0% | 2 | 9.5% |
| Pedestrian/Bicyclist Crash | 6 | 0.8% | 6 | 1.0% | 0 | 0.0% |
| Single Vehicle Fixed Object | 1 | 0.1% | 0 | 0.0% | 1 | 4.8% |
| Grand Total | 733 | 100.0% | 624 | 100.0% | 21 | 100.0% |

# Motorcycle Crash Violations and Contributing Factors

Over one-third (34.6%) of motorcycle drivers involved in crashes received a citation (Table 5.09). Excluding "catch-all" other categories, the leading violations cited were "reckless driving" (11.7%) and "speeding" (10.2%). No citations were given to a motorcycle driver involved in fatal crash.

Table 5.09 Violations for Motorcycle (MC) Total Crashes and Injury Crashes, Utah 2000

| | MC Total Crashes | | MC Injury Crashes | |
|---|---|---|---|---|
| **Violations** | **#** | **%** | **#** | **%** |
| All other non-moving violations | 66 | 25.8% | 58 | 26.4% |
| Reckless driving | 30 | 11.7% | 26 | 11.8% |
| All other moving violations | 30 | 11.7% | 30 | 13.6% |
| Speeding | 26 | 10.2% | 26 | 11.8% |
| Improper lookout | 24 | 9.4% | 20 | 9.1% |
| Driving under the influence | 22 | 8.6% | 12 | 5.5% |
| Following too close | 13 | 5.1% | 13 | 5.9% |
| Negligent collision | 8 | 3.1% | 6 | 2.7% |
| Improper passing | 6 | 2.3% | 6 | 2.7% |
| Improper lane change | 4 | 1.6% | 3 | 1.4% |
| Red light | 3 | 1.2% | 2 | 0.9% |
| Improper turn | 3 | 1.2% | 2 | 0.9% |
| Stop sign | 1 | 0.4% | 1 | 0.5% |
| Hit and run | 1 | 0.4% | 1 | 0.5% |
| Grand Total | 256 | 100.0% | 220 | 100.0% |

Table 5.10 shows that the leading contributing factor for total motorcycle crashes was "speed too fast"; accounting for 27.6% of contributing factors for total motorcycle crashes, and for 50% of the contributing factors in fatal motorcycle crashes. The contributing factors "driving under the influence", "had been drinking", and "under the influence of drugs" accounted for 3.7% of total motorcycle crashes.

Table 5.10 Contributing Factors of Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | MC Total Crashes | | MC Injury Crashes | | MC Fatal Crashes | |
|---|---|---|---|---|---|---|
| **Contributing Factors** | # | % | # | % | # | % |
| Speed Too Fast | 143 | 27.6% | 125 | 27.8% | 11 | 50.0% |
| Other Improper Driving | 124 | 23.9% | 108 | 24.1% | 5 | 22.7% |
| Improper Lookout | 57 | 11.0% | 48 | 10.7% | 1 | 4.5% |
| Following Too Closely | 32 | 6.2% | 28 | 6.2% | 0 | 0.0% |
| Non-Contact Vehicle Involved | 22 | 4.2% | 20 | 4.5% | 1 | 4.5% |
| Improper Overtaking | 20 | 3.9% | 17 | 3.8% | 0 | 0.0% |
| Failed to Yield the Right of Way | 17 | 3.3% | 15 | 3.3% | 0 | 0.0% |
| Drove Left of Center | 15 | 2.9% | 11 | 2.4% | 2 | 9.1% |
| Driving Under the Influence | 14 | 2.7% | 13 | 2.9% | 0 | 0.0% |
| Disregarded Traffic Signal | 10 | 1.9% | 9 | 2.0% | 1 | 4.5% |
| Improper Turn | 10 | 1.9% | 8 | 1.8% | 0 | 0.0% |
| Other Defective Condition | 10 | 1.9% | 9 | 2.0% | 0 | 0.0% |
| Tires Defective | 9 | 1.7% | 9 | 2.0% | 0 | 0.0% |
| Brakes Defective | 5 | 1.0% | 4 | 0.9% | 0 | 0.0% |
| Had Been Drinking | 4 | 0.8% | 4 | 0.9% | 0 | 0.0% |
| Cargo Loss or Shift | 3 | 0.6% | 3 | 0.7% | 0 | 0.0% |
| Hit and Run | 3 | 0.6% | 2 | 0.4% | 0 | 0.0% |
| Wrong Side of Road | 3 | 0.6% | 3 | 0.7% | 0 | 0.0% |
| Asleep | 2 | 0.4% | 2 | 0.4% | 0 | 0.0% |
| Down Hill Runaway | 2 | 0.4% | 2 | 0.4% | 0 | 0.0% |
| Explosion or Fire | 2 | 0.4% | 1 | 0.2% | 1 | 4.5% |
| Fatigued | 2 | 0.4% | 1 | 0.2% | 0 | 0.0% |
| Failed to Signal | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Headlights Insufficient or Out | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Improper Parking | 1 | 0.2% | 0 | 0.0% | 0 | 0.0% |
| Other Lights or Reflecting/Defective | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Passed Stop Sign | 1 | 0.2% | 0 | 0.0% | 0 | 0.0% |
| Separation of Units | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Stolen | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Towed Vehicle | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Under the Influence of Drugs | 1 | 0.2% | 1 | 0.2% | 0 | 0.0% |
| Grand Total | 518 | 100.0% | 449 | 100.0% | 22 | 100.0% |

# Motorcycle Drivers Involved in Crashes

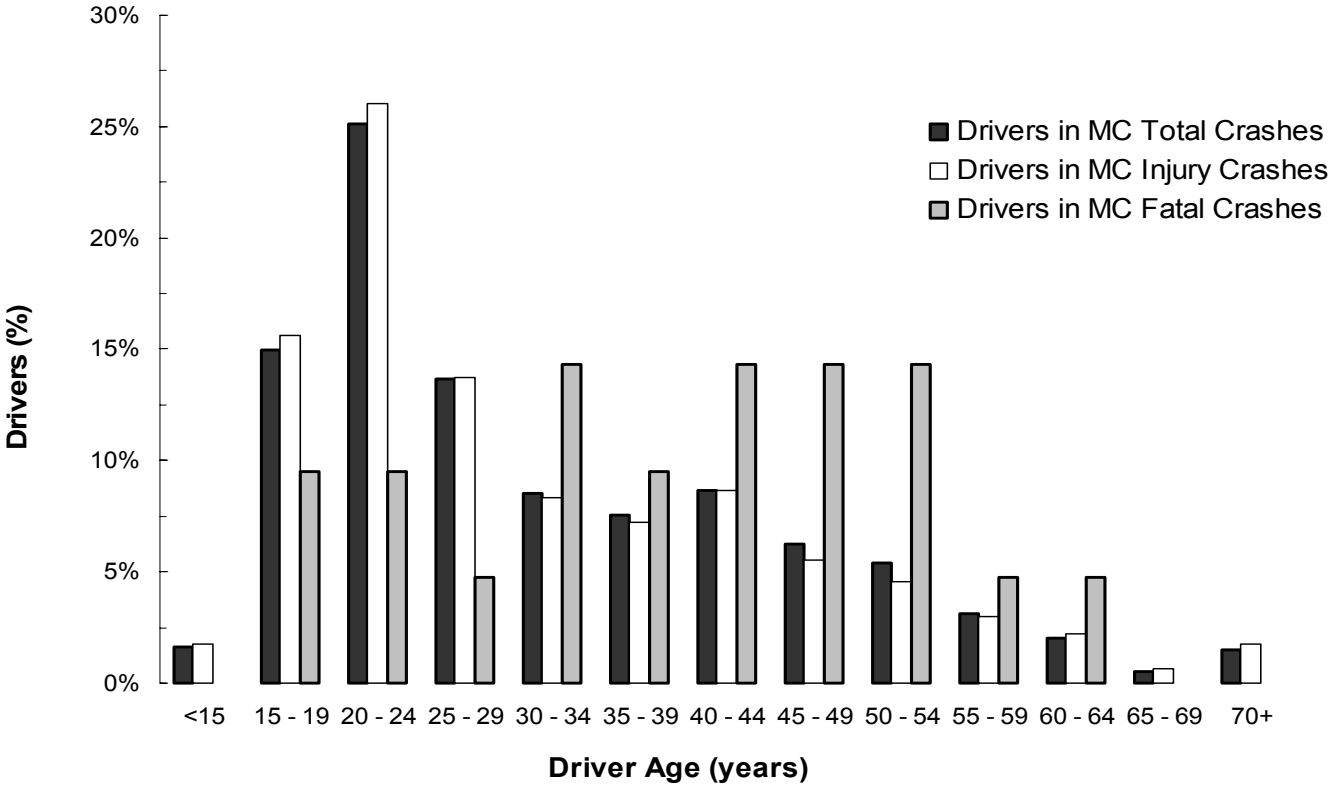
Table 5.11 and Figure 5.05 show that over one-half (55.3%) of the motorcycle drivers involved in total crashes were under the age of 30 years (Table 5.11). The number of motorcycle drivers involved in total crashes and injury crashes was highest for younger drivers (20-24 years) and decreased with increasing age. The number of motorcycle drivers involved in fatal crashes was highest between the ages of 30 and 34 years and 40 and 54 years, but clear patterns were not apparent due in part to the small number of fatal motorcycle crashes.

In order to drive a motorcycle on public roads in the state of Utah, a person must pass both written and on-motorcycle riding tests which allows them to obtain an "M" class driver license (an endorsement on the regular "D" license).

Table 5.11 Age of Motorcycle (MC) Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | MC Total Crashes | | MC Injury Crashes | | MC Fatal Crashes | |
|---|---|---|---|---|---|---|
| Driver's Age | # Drivers | % | # Drivers | % | # Drivers | % |
| <15 | 12 | 1.6% | 11 | 1.7% | 0 | 0.0% |
| 15 - 19 | 111 | 15.0% | 99 | 15.6% | 2 | 9.5% |
| 20 - 24 | 186 | 25.1% | 165 | 26.0% | 2 | 9.5% |
| 25 - 29 | 101 | 13.6% | 87 | 13.7% | 1 | 4.8% |
| 30 - 34 | 63 | 8.5% | 53 | 8.4% | 3 | 14.3% |
| 35 - 39 | 56 | 7.6% | 46 | 7.3% | 2 | 9.5% |
| 40 - 44 | 64 | 8.6% | 55 | 8.7% | 3 | 14.3% |
| 45 - 49 | 46 | 6.2% | 35 | 5.5% | 3 | 14.3% |
| 50 - 54 | 40 | 5.4% | 29 | 4.6% | 3 | 14.3% |
| 55 - 59 | 23 | 3.1% | 19 | 3.0% | 1 | 4.8% |
| 60 - 64 | 15 | 2.0% | 14 | 2.2% | 1 | 4.8% |
| 65 - 69 | 4 | 0.5% | 4 | 0.6% | 0 | 0.0% |
| 70+ | 11 | 1.5% | 11 | 1.7% | 0 | 0.0% |
| Missing | 8 | 1.1% | 6 | 0.9% | 0 | 0.0% |
| Grand Total | 740 | 100.0% | 634 | 100.0% | 21 | 100.0% |

Figure 5.05 Age of Motorcycle Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000
(See Table 5.11 for values)




Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one category across the age groups. For example, look at only the white bars (i.e. drivers in motorcycle injury crashes) from age group to age group. Do not compare the heights of the different crash categories for a specific age group.

Most motorcycle drivers (94.9%) involved in crashes were male. This does not necessarily indicate that male motorcycle drivers are at greater risk for a crash, but may reflect the higher proportion of male motorcycle drivers in Utah. (Table 5.12)

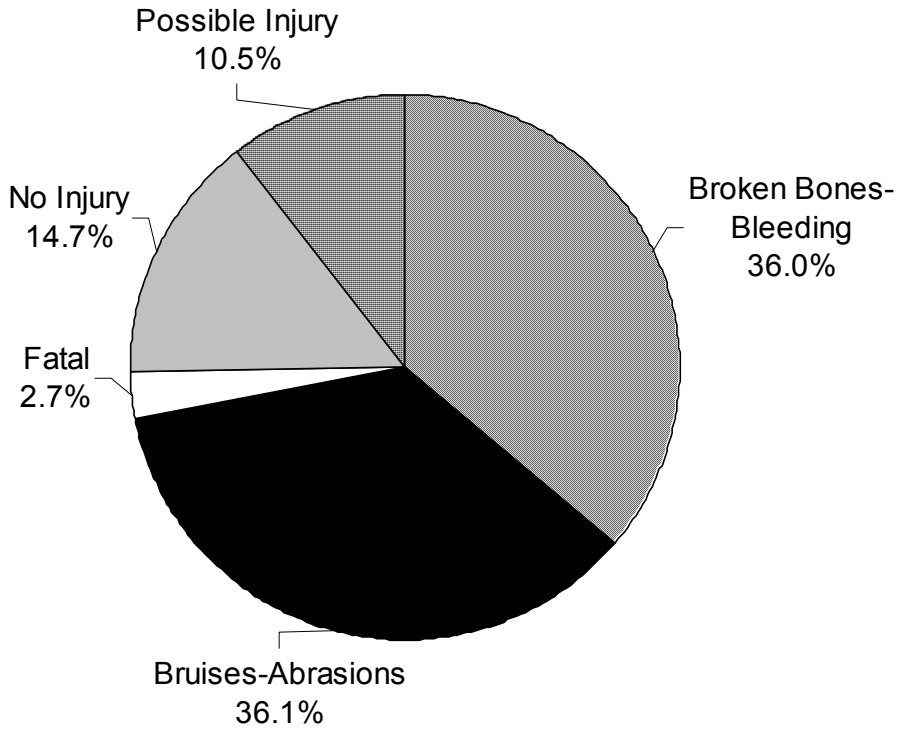
Table 5.12 Gender of Motorcycle (MC) Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | MC Total Crashes | | MC Injury Crashes | | MC Fatal Crashes | |
|---|---|---|---|---|---|---|
| Driver's Gender | # Drivers | % | # Drivers | % | # Drivers | % |
| Female | 35 | 4.7% | 29 | 4.6% | 2 | 9.5% |
| Male | 702 | 94.9% | 603 | 95.1% | 19 | 90.5% |
| Missing | 3 | 0.4% | 2 | 0.3% | 0 | 0.0% |
| Grand Total | 740 | 100.0% | 634 | 100.0% | 21 | 100.0% |

# Motorcyclist Injury Severity

Motorcyclists involved in a crash were injured at a much higher percentage (85.3%) compared to all other motor vehicle crash participants (21.6%). A fatal injury was sustained by 2.7% of motorcyclist compared to 0.3% of all motor vehicle crash participants. Fatalities were 9 times higher for motorcyclists than for other motor vehicle crash participants.

Figure 5.06 Motorcyclist Injury Severity as Reported by Police, Utah 2000 (n=845)



# Motorcyclists by County

Table 5.13 shows that while Salt Lake County has the largest number of total motorcyclists, injured motorcyclists and motorcyclists killed in crashes, the county did not have the highest rates per population. Daggett County had the highest rate per population of total and injured motorcyclists, while Rich county had the highest rate of fatalities.

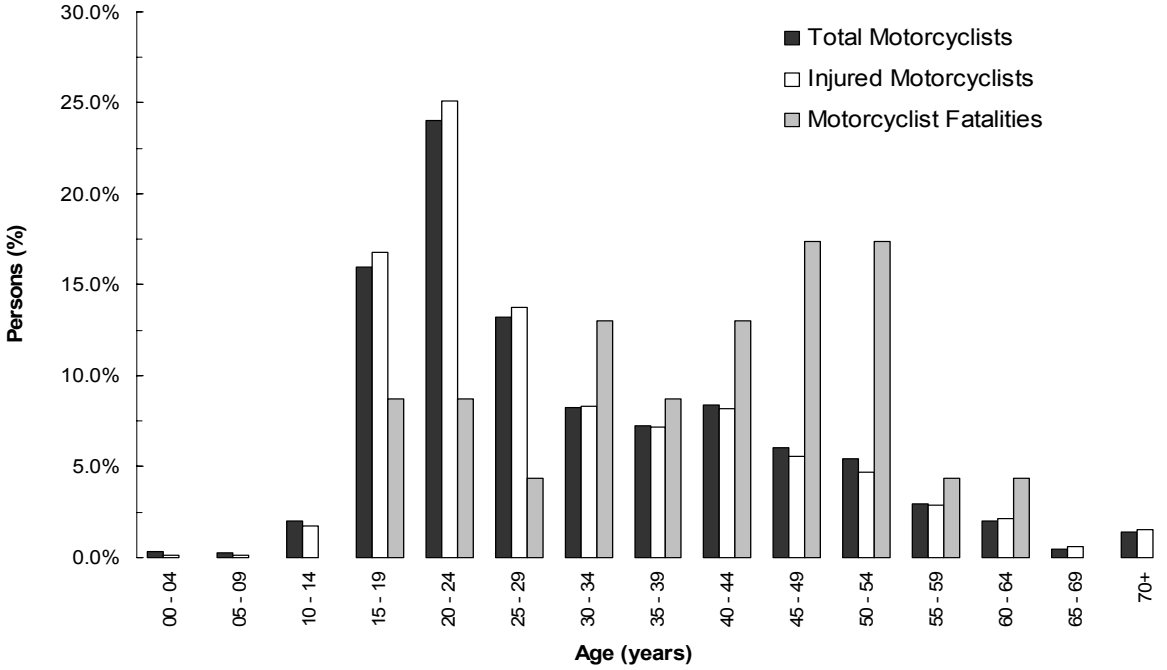
Table 5.13 Total Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities by County, Utah 2000

| | Total Motorcyclists | | Injured Motorcyclists | | Motorcyclist Fatalities | |
|---|---|---|---|---|---|---|
| County | # | Rate Per 100,000 Population | # | Rate Per 100,000 Population | # | Rate Per 100,000 Population |
| Beaver | 2 | 28.8 | 2 | 28.8 | 0 | 0.0 |
| Box Elder | 15 | 35.2 | 14 | 32.8 | 0 | 0.0 |
| Cache | 46 | 49.2 | 38 | 40.7 | 1 | 1.1 |
| Carbon | 10 | 44.1 | 10 | 44.1 | 0 | 0.0 |
| Daggett | 4 | 467.8 | 4 | 467.8 | 0 | 0.0 |
| Davis | 67 | 28.4 | 58 | 24.6 | 0 | 0.0 |
| Duchesne | 3 | 20.8 | 3 | 20.8 | 0 | 0.0 |
| Emery | 5 | 44.6 | 5 | 44.6 | 0 | 0.0 |
| Garfield | 7 | 147.4 | 5 | 105.3 | 1 | 21.1 |
| Grand | 5 | 45.5 | 3 | 27.3 | 0 | 0.0 |
| Iron | 11 | 32.0 | 10 | 29.1 | 0 | 0.0 |
| Juab | 4 | 48.9 | 3 | 36.6 | 0 | 0.0 |
| Kane | 6 | 80.2 | 5 | 66.8 | 1 | 13.4 |
| Millard | 5 | 38.7 | 4 | 31.0 | 1 | 7.7 |
| Morgan | 12 | 171.8 | 9 | 128.8 | 1 | 14.3 |
| Piute | 3 | 179.6 | 3 | 179.6 | 0 | 0.0 |
| Rich | 6 | 319.3 | 5 | 266.1 | 1 | 53.2 |
| Salt Lake | 315 | 36.1 | 249 | 28.5 | 7 | 0.8 |
| San Juan | 14 | 103.4 | 11 | 81.3 | 3 | 22.2 |
| Sanpete | 9 | 40.2 | 8 | 35.8 | 1 | 4.5 |
| Sevier | 16 | 81.6 | 14 | 71.4 | 0 | 0.0 |
| Summit | 10 | 36.4 | 9 | 32.7 | 1 | 3.6 |
| Tooele | 10 | 28.3 | 9 | 25.5 | 0 | 0.0 |
| Uintah | 4 | 16.0 | 1 | 4.0 | 0 | 0.0 |
| Utah | 145 | 41.9 | 125 | 36.1 | 1 | 0.3 |
| Wasatch | 5 | 34.7 | 5 | 34.7 | 0 | 0.0 |
| Washington | 32 | 37.1 | 28 | 32.5 | 0 | 0.0 |
| Wayne | 6 | 228.9 | 5 | 190.8 | 0 | 0.0 |
| Weber | 68 | 35.7 | 53 | 27.8 | 4 | 2.1 |
| Statewide | 845 | 38.9 | 698 | 32.1 | 23 | 1.1 |

# Motorcyclist Characteristics

The largest number of total motorcyclists and injured motorcyclists were aged 20 to 24 years (Figure 5.07 and Table 5.14). Motorcycle crash fatalities occurred most often in the 45 to 54 year age groups.

Figure 5.07 Age of Total Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities, Utah 2000




Note: The above graph is based on percentages for the different injury categories. To read the above graph, look at one category across the age groups. For example, look at only the white bars (i.e. injured motorcyclist) from age group to age group. Do not compare the heights of the different injury categories for a specific age group.

Table 5.14 Age of Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities, Utah 2000

| Age | Total Motorcyclists | | Injured Motorcyclists | | Motorcyclist Fatalities | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| 00 - 04 | 3 | 0.4% | 1 | 0.1% | 0 | 0.0% |
| 05 - 09 | 2 | 0.2% | 1 | 0.1% | 0 | 0.0% |
| 10 - 14 | 17 | 2.0% | 12 | 1.7% | 0 | 0.0% |
| 15 - 19 | 135 | 16.0% | 117 | 16.8% | 2 | 8.7% |
| 20 - 24 | 203 | 24.0% | 175 | 25.1% | 2 | 8.7% |
| 25 - 29 | 112 | 13.3% | 96 | 13.8% | 1 | 4.3% |
| 30 - 34 | 70 | 8.3% | 58 | 8.3% | 3 | 13.0% |
| 35 - 39 | 61 | 7.2% | 50 | 7.2% | 2 | 8.7% |
| 40 - 44 | 71 | 8.4% | 57 | 8.2% | 3 | 13.0% |
| 45 - 49 | 51 | 6.0% | 39 | 5.6% | 4 | 17.4% |
| 50 - 54 | 46 | 5.4% | 33 | 4.7% | 4 | 17.4% |
| 55 - 59 | 25 | 3.0% | 20 | 2.9% | 1 | 4.3% |
| 60 - 64 | 17 | 2.0% | 15 | 2.1% | 1 | 4.3% |
| 65 - 69 | 4 | 0.5% | 4 | 0.6% | 0 | 0.0% |
| 70+ | 12 | 1.4% | 11 | 1.6% | 0 | 0.0% |
| Missing | 16 | 1.9% | 9 | 1.3% | 0 | 0.0% |
| Grand Total | 845 | 100.0% | 698 | 100.0% | 23 | 100.0% |

Table 5.15 shows that the majority of motorcycle crash participants (85.9%), injured motorcyclists (87.0%) and motorcycle fatalities (82.6%) were male.

Table 5.15 Gender of Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities, Utah 2000

| Gender | Motorcylists | | Injured Motorcylists | | Motorcyclist Fatalities | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Female | 115 | 13.6% | 90 | 12.9% | 4 | 17.4% |
| Male | 726 | 85.9% | 607 | 87.0% | 19 | 82.6% |
| Missing | 4 | 0.5% | 1 | 0.1% | 0 | 0.0% |
| Grand Total | 845 | 100.0% | 698 | 100.0% | 23 | 100.0% |

Examination of the crash placement (driver vs passenger) shows that drivers accounted for the majority (87.6%) of injured motorcyclists (Table 5.16). While motorcycle drivers represented more fatalities, the rate of fatal injury was similar for both motorcycle drivers and motorcycle passengers. In addition, there were 5 pedestrians and bicyclists involved in motorcycle crashes; all sustained non-fatal injuries.

Table 5.16 Crash Placement of Total Motorcyclists, Injured Motorcyclists, and Motorcyclist Fatalities, Utah 2000

| | Total Motorcyclists | | Injured Motorcyclists | | Motorcyclist Fatalities | |
|---|---|---|---|---|---|---|
| **Crash Placement** | # | % | # | % | # | % |
| Driver | 740 | 87.6% | 616 | 88.3% | 21 | 91.3% |
| Passenger | 105 | 12.4% | 82 | 11.7% | 2 | 8.7% |
| Grand Total | 845 | 100.0% | 698 | 100.0% | 23 | 100.0% |

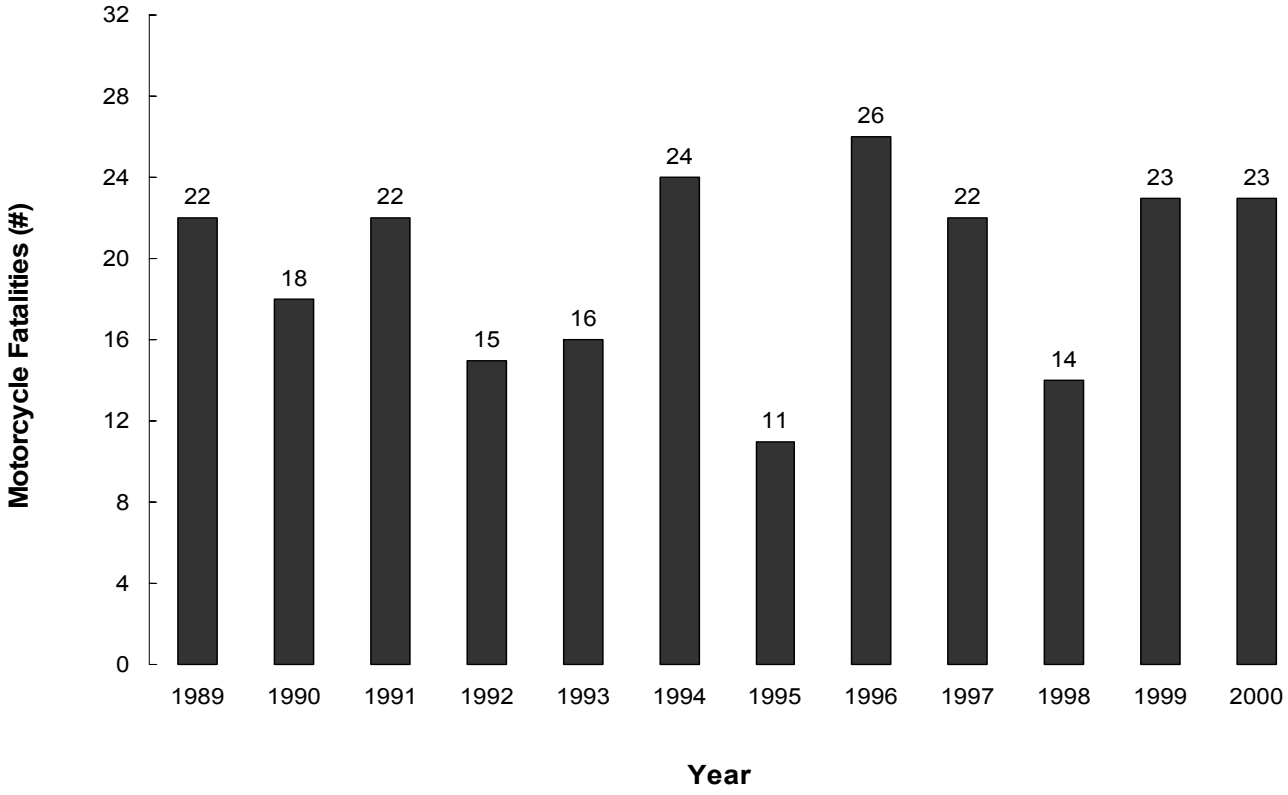
Only 29.5% of motorcycle drivers and passengers involved in crashes wore a helmet (Table 5.17). The percentage of helmet use was slightly higher for those who were injured (31.2%), and those who died (34.8%). Utah law states that anyone under the age of 18 years riding a motorcycle either as the driver or as a passenger must wear a helmet approved by the Department of Public Safety.

Table 5.17 Helmet Use by Total Motorcyclists Involved in Crashes, Utah 2000

| | Total Motorcyclists | | Injured Motorcyclists | | Motorcyclist Fatalities | |
|---|---|---|---|---|---|---|
| **Helmet** | # | % | # | % | # | % |
| Used | 249 | 29.5% | 218 | 31.2% | 8 | 34.8% |
| Not Used / Unknown | 596 | 70.5% | 480 | 68.8% | 15 | 65.2% |
| Grand Total | 845 | 100.0% | 698 | 100.0% | 23 | 100.0% |

In 2000, there were 23 motorcycle crash fatalities. For the past 10 years the number of motorcyclist fatalities has fluctuated year to year. The low occurred in 1995 with 11 fatalities, and the high was in 1996 with 26 fatalities (Figure 5.08). However, with the small number of fatalities, it is difficult to compare increases and decreases from year to year, therefore, these numbers should be interpreted with caution.

Figure 5.08 Motorcyclist Crash Fatalities, Utah 1989 - 2000




**Alcohol and Other Drugs:**

Of the 23 fatal motorcycle crashes, 7 involved alcohol and other drug use by the motorcycle driver.

# Section 6
# Total Crashes, Injury Crashes and Fatal Crashes Involving Teenage Drivers, 2000



## TABLES



## FIGURES

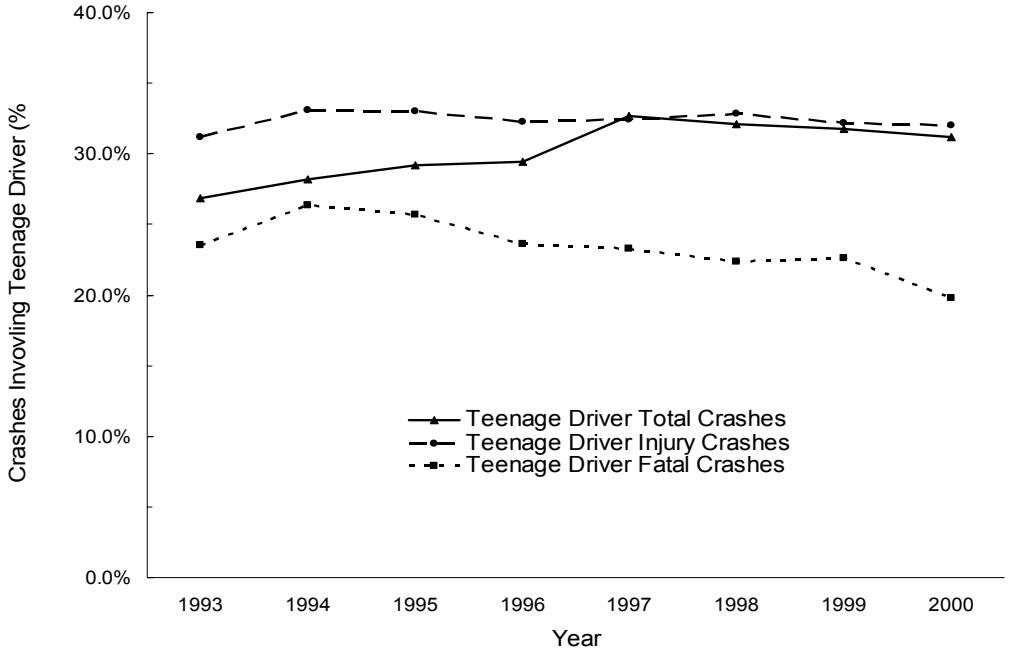
# Teenage Driver Crashes 1993 - 2000

Teenage drivers aged 15 to 19 years are a special concern because of their high crash rates and lack of driving experience. Table 6.01 and Figure 6.01 show that approximately one-third of all crashes involved teenage drivers. The largest percentage of crashes involving teenage drivers occurred in 1997, while the largest proportion of injury crashes and fatal crashes occurred in 1994.

Table 6.01 Teenage Driver Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993 - 2000

| | Teenage Driver Total Crashes | | | Teenage Driver Injury Crashes | | | Teenage Driver Fatal Crashes | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | All Crashes | Teenage Drivers | Percent Involving Teenage Drivers | All Injury Crashes | Teenage Drivers | Percent Involving Teenage Drivers | All Fatal Crashes | Teenage Drivers | Percent Involving Teenage Drivers |
| 1993 | 55,704 | 14,972 | 26.9% | 17,088 | 5,324 | 31.2% | 259 | 61 | 23.6% |
| 1994 | 59,272 | 16,688 | 28.2% | 18,726 | 6,197 | 33.1% | 303 | 80 | 26.4% |
| 1995 | 57,644 | 16,808 | 29.2% | 19,828 | 6,542 | 33.0% | 284 | 73 | 25.7% |
| 1996 | 61,505 | 18,100 | 29.4% | 20,988 | 6,764 | 32.2% | 292 | 69 | 23.6% |
| 1997 | 54,952 | 17,941 | 32.6% | 21,131 | 6,851 | 32.4% | 309 | 72 | 23.3% |
| 1998 | 54,072 | 17,362 | 32.1% | 19,427 | 6,377 | 32.8% | 308 | 69 | 22.4% |
| 1999 | 52,802 | 16,759 | 31.7% | 19,513 | 6,281 | 32.2% | 318 | 72 | 22.6% |
| 2000 | 53,151 | 16,578 | 31.2% | 19,564 | 6,263 | 32.0% | 318 | 63 | 19.8% |

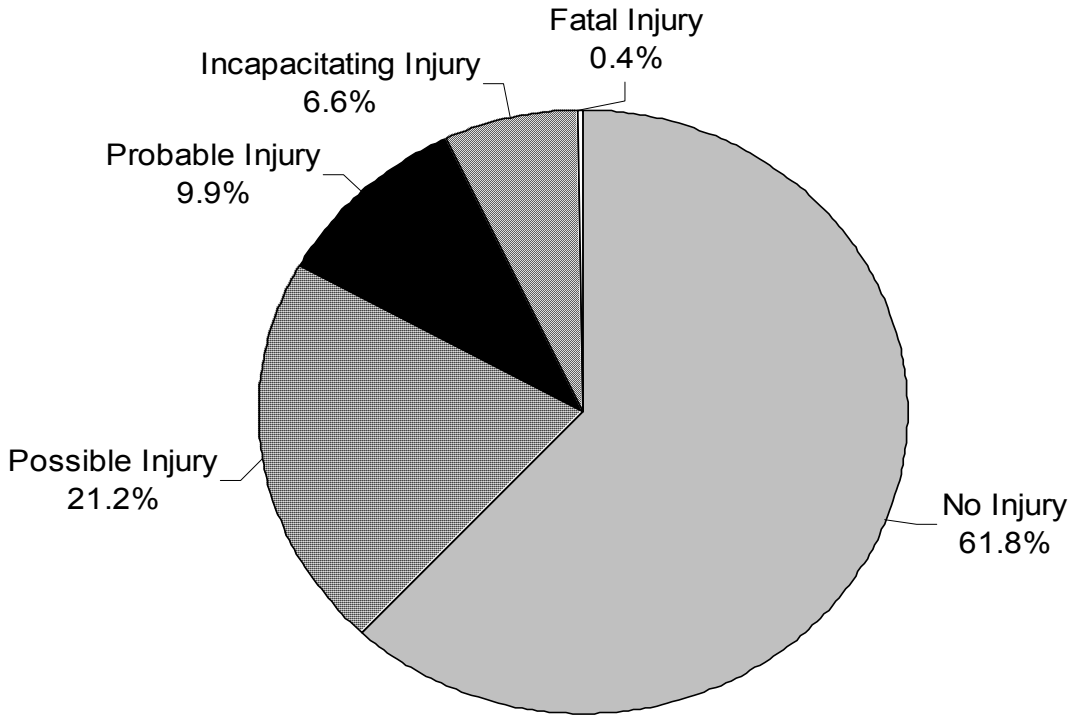
Figure 6.01 Teenage Driver Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993 - 2000



# Teenage Driver Crash Severity

Figure 6.02 shows the crash severity of teenage driver crashes. Similar to all motor vehicle crashes, over one-third (38.1%) of teenage driver crashes resulted in some level of injury. Fatal crashes were lower among teenage driver crashes (0.4%) compared to all motor vehicle crashes at 0.6%.

Figure 6.02 Severity of Teenage Driver Crashes as Reported by Police, Utah 2000 (n=16,578)



# Teenage Driver Crashes by County

The number of crashes, the number of teenage driver crashes and the percent of crashes that involved a teenage driver are shown by county in Table 6.02. Washington, Cache, and Davis counties had the highest percentage of crashes that involved a teenage driver. These counties also had the leading percentage of teenage driver injury crashes. Davis and Wayne counties had the largest percentage of fatal crashes that included teenage drivers.

Table 6.02 Teenage Driver Total Crashes, Injury Crashes and Fatal Crashes by County, Utah 2000

| | Teenage Driver Total Crashes | | | Teenage Driver Injury Crashes | | | Teenage Driver Fatal Crashes | | |
|---|---|---|---|---|---|---|---|---|---|
| County | All Crashes | Teenage Drivers | Percent Involving Teenage Drivers | All Injury Crashes | Teenage Drivers | Percent Involving Teenage Drivers | All Fatal Crashes | Teenage Drivers | Percent Involving Teenage Drivers |
| Beaver | 267 | 52 | 19.5% | 97 | 21 | 21.6% | 5 | 1 | 20.0% |
| Box Elder | 937 | 256 | 27.3% | 314 | 91 | 29.0% | 13 | 2 | 15.4% |
| Cache | 1,985 | 744 | 37.5% | 638 | 249 | 39.0% | 13 | 2 | 15.4% |
| Carbon | 452 | 127 | 28.1% | 134 | 43 | 32.1% | 2 | 0 | 0.0% |
| Daggett | 44 | 5 | 11.4% | 11 | 1 | 9.1% | 0 | 0 | 0.0% |
| Davis | 4,669 | 1,692 | 36.2% | 1,513 | 561 | 37.1% | 10 | 5 | 50.0% |
| Duchesne | 316 | 82 | 25.9% | 93 | 34 | 36.6% | 2 | 0 | 0.0% |
| Emery | 327 | 72 | 22.0% | 107 | 32 | 29.9% | 14 | 0 | 0.0% |
| Garfield | 134 | 16 | 11.9% | 52 | 9 | 17.3% | 2 | 0 | 0.0% |
| Grand | 255 | 44 | 17.3% | 122 | 30 | 24.6% | 5 | 0 | 0.0% |
| Iron | 864 | 249 | 28.8% | 322 | 96 | 29.8% | 9 | 0 | 0.0% |
| Juab | 317 | 70 | 22.1% | 116 | 31 | 26.7% | 8 | 1 | 12.5% |
| Kane | 159 | 42 | 26.4% | 58 | 17 | 29.3% | 3 | 1 | 33.3% |
| Millard | 437 | 94 | 21.5% | 141 | 34 | 24.1% | 9 | 2 | 22.2% |
| Morgan | 182 | 48 | 26.4% | 44 | 12 | 27.3% | 6 | 1 | 16.7% |
| Piute | 45 | 7 | 15.6% | 7 | 0 | 0.0% | 1 | 0 | 0.0% |
| Rich | 73 | 19 | 26.0% | 27 | 9 | 33.3% | 1 | 0 | 0.0% |
| Salt Lake | 23,319 | 6,958 | 29.8% | 9,248 | 2,791 | 30.2% | 78 | 16 | 20.5% |
| San Juan | 324 | 45 | 13.9% | 94 | 18 | 19.1% | 10 | 0 | 0.0% |
| Sanpete | 392 | 124 | 31.6% | 139 | 45 | 32.4% | 7 | 2 | 28.6% |
| Sevier | 622 | 150 | 24.1% | 189 | 53 | 28.0% | 9 | 2 | 22.2% |
| Summit | 883 | 194 | 22.0% | 226 | 53 | 23.5% | 7 | 1 | 14.3% |
| Tooele | 823 | 193 | 23.5% | 285 | 54 | 18.9% | 12 | 1 | 8.3% |
| Uintah | 497 | 161 | 32.4% | 134 | 48 | 35.8% | 10 | 3 | 30.0% |
| Utah | 8,044 | 2,781 | 34.6% | 3,023 | 1,061 | 35.1% | 38 | 8 | 21.1% |
| Wasatch | 512 | 125 | 24.4% | 150 | 46 | 30.7% | 7 | 2 | 28.6% |
| Washington | 1,599 | 609 | 38.1% | 548 | 213 | 38.9% | 15 | 5 | 33.3% |
| Wayne | 90 | 16 | 17.8% | 32 | 7 | 21.9% | 2 | 1 | 50.0% |
| Weber | 4,583 | 1,603 | 35.0% | 1,700 | 604 | 35.5% | 20 | 7 | 35.0% |
| Statewide | 53,151 | 16,578 | 31.2% | 19,564 | 6,263 | 32.0% | 318 | 63 | 19.8% |

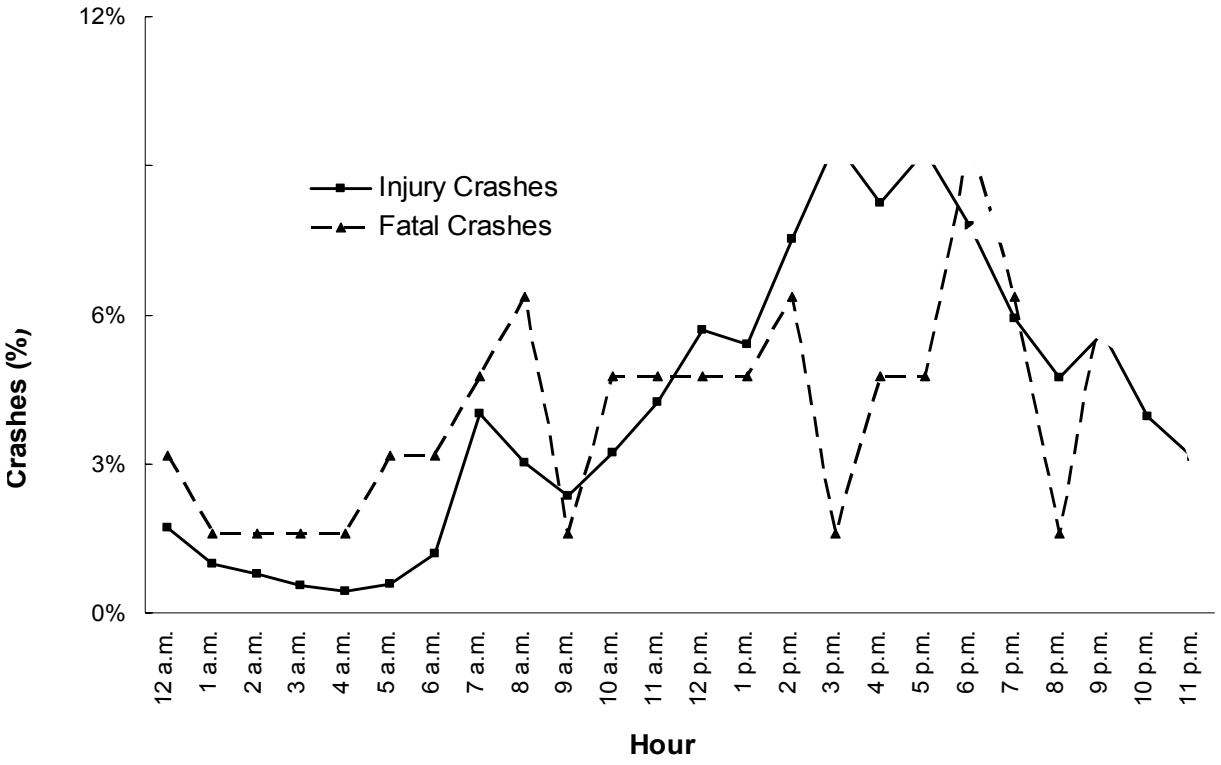
# Teenage Driver Crash Times

Table 6.03 and Figure 6.03 show that total crashes involving teenage drivers and injury crashes involving teenage drivers were highest from 3 p.m. to 5 p.m. (after school hours) with a slight peak at 12 p.m. Fatal teenage driver crashes peaked at 6 p.m. and 10 p.m.

Table 6.03 Hour of Teenage Driver Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Hour | Teenage Driver Total Crashes | | Teenage Driver Injury Crashes | | Teenage Driver Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| 12 a.m. | 248 | 1.5% | 108 | 1.7% | 2 | 3.2% |
| 1 a.m. | 154 | 0.9% | 62 | 1.0% | 1 | 1.6% |
| 2 a.m. | 114 | 0.7% | 49 | 0.8% | 1 | 1.6% |
| 3 a.m. | 74 | 0.4% | 35 | 0.6% | 1 | 1.6% |
| 4 a.m. | 66 | 0.4% | 27 | 0.4% | 1 | 1.6% |
| 5 a.m. | 87 | 0.5% | 36 | 0.6% | 2 | 3.2% |
| 6 a.m. | 185 | 1.1% | 75 | 1.2% | 2 | 3.2% |
| 7 a.m. | 845 | 5.1% | 252 | 4.0% | 3 | 4.8% |
| 8 a.m. | 621 | 3.7% | 190 | 3.0% | 4 | 6.3% |
| 9 a.m. | 397 | 2.4% | 148 | 2.4% | 1 | 1.6% |
| 10 a.m. | 535 | 3.2% | 202 | 3.2% | 3 | 4.8% |
| 11 a.m. | 724 | 4.4% | 266 | 4.2% | 3 | 4.8% |
| 12 p.m. | 995 | 6.0% | 357 | 5.7% | 3 | 4.8% |
| 1 p.m. | 865 | 5.2% | 338 | 5.4% | 3 | 4.8% |
| 2 p.m. | 1,297 | 7.8% | 472 | 7.5% | 4 | 6.3% |
| 3 p.m. | 1,532 | 9.2% | 594 | 9.5% | 1 | 1.6% |
| 4 p.m. | 1,418 | 8.6% | 517 | 8.3% | 3 | 4.8% |
| 5 p.m. | 1,583 | 9.5% | 583 | 9.3% | 3 | 4.8% |
| 6 p.m. | 1,294 | 7.8% | 488 | 7.8% | 6 | 9.5% |
| 7 p.m. | 920 | 5.5% | 371 | 5.9% | 4 | 6.3% |
| 8 p.m. | 727 | 4.4% | 296 | 4.7% | 1 | 1.6% |
| 9 p.m. | 787 | 4.7% | 353 | 5.6% | 4 | 6.3% |
| 10 p.m. | 627 | 3.8% | 247 | 3.9% | 5 | 7.9% |
| 11 p.m. | 483 | 2.9% | 197 | 3.1% | 2 | 3.2% |
| Grand Total | 16,578 | 100.0% | 6,263 | 100.0% | 63 | 100.0% |

Figure 6.03 Hour of Teenage Driver Injury Crashes and Fatal Crashes, Utah 2000 (See Table 6.03 for values )



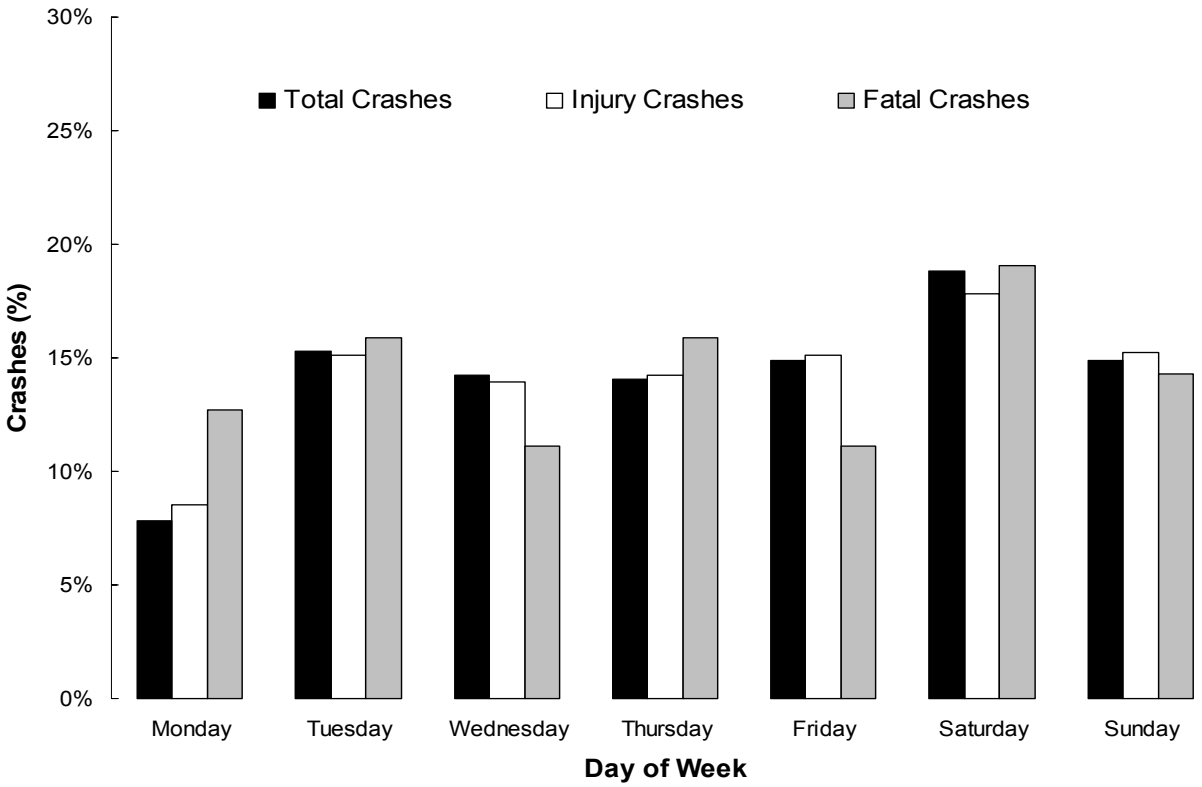

The leading months for total teenage driver crashes were October, December and January (Table 6.04). October, September, and March had the highest rates of teenage driver injury crashes. The highest rate per day of teenage driver fatal crashes occurred in July and April.

Table 6.04 Month of Teenage Driver Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Month | Teenage Driver Total Crashes # | Teenage Driver Total Crashes Rate Per Day | Teenage Driver Injury Crashes # | Teenage Driver Injury Crashes Rate Per Day | Teenage Driver Fatal Crashes # | Teenage Driver Fatal Crashes Rate Per Day |
|---|---|---|---|---|---|---|
| January | 1,458 | 47.0 | 507 | 16.4 | 7 | 0.2 |
| February | 1,279 | 45.7 | 421 | 15.0 | 5 | 0.2 |
| March | 1,400 | 45.2 | 571 | 18.4 | 1 | 0.0 |
| April | 1,269 | 42.3 | 485 | 16.2 | 8 | 0.3 |
| May | 1,371 | 44.2 | 540 | 17.4 | 7 | 0.2 |
| June | 1,326 | 44.2 | 529 | 17.6 | 4 | 0.1 |
| July | 1,348 | 43.5 | 521 | 16.8 | 11 | 0.4 |
| August | 1,375 | 44.4 | 557 | 18.0 | 3 | 0.1 |
| September | 1,380 | 46.0 | 556 | 18.5 | 4 | 0.1 |
| October | 1,507 | 48.6 | 602 | 19.4 | 6 | 0.2 |
| November | 1,390 | 46.3 | 476 | 15.9 | 1 | 0.0 |
| December | 1,475 | 47.6 | 498 | 16.1 | 6 | 0.2 |
| Grand Total | 16,578 | 45.4 | 6,263 | 17.2 | 63 | 0.2 |

The least number of total teenage driver crashes occurred on Monday, and the largest number of total teenage driver crashes occurred on Saturday (Figure 6.04 and Table 6.05). The largest number of injury and fatal teenage driver crashes occurred on Saturday.

Figure 6.04 Day of Week for Teenage Driver Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000




Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one category across the days of the week. For example, look at only the white bars (i.e. injury crashes) from day to day. Do not compare the heights of the different crash categories for a specific day.

Table 6.05 Day of Week for Teenage Driver Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | Teenage Driver Total Crashes | | Teenage Driver Injury Crashes | | Teenage Driver Fatal Crashes | |
|---|---|---|---|---|---|---|
| Day of Week | # | % | # | % | # | % |
| Monday | 1,293 | 7.8% | 533 | 8.5% | 8 | 12.7% |
| Tuesday | 2,537 | 15.3% | 948 | 15.1% | 10 | 15.9% |
| Wednesday | 2,362 | 14.2% | 874 | 14.0% | 7 | 11.1% |
| Thursday | 2,335 | 14.1% | 893 | 14.3% | 10 | 15.9% |
| Friday | 2,464 | 14.9% | 945 | 15.1% | 7 | 11.1% |
| Saturday | 3,119 | 18.8% | 1,117 | 17.8% | 12 | 19.0% |
| Sunday | 2,468 | 14.9% | 953 | 15.2% | 9 | 14.3% |
| Grand Total | 16,578 | 100.0% | 6,263 | 100.0% | 63 | 100.0% |

# Teenage Driver Crash Violations and Contributing Factors

Almost half (48.9%) of all teenage drivers involved in a crash received a citation for a violation (Table 6.06) which was similar to 53.1% of all drivers involved in a crash. The leading teenage driver citations were "failure to yield right of way", "improper lookout" and "following too close".

Table 6.06 Violations for Teenage Driver Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Violation | Teenage Driver Total Crashes | | Teenage Driver Injury Crashes | | Teenage Driver Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Failure to Yield Right of Way | 1,887 | 20.4% | 810 | 22.3% | 0 | 0.0% |
| Improper Lookout | 1,676 | 18.2% | 633 | 17.4% | 1 | 14.3% |
| Following Too Close | 1,314 | 14.2% | 476 | 13.1% | 0 | 0.0% |
| All Other Moving Violations | 802 | 8.7% | 328 | 9.0% | 0 | 0.0% |
| Speeding | 695 | 7.5% | 255 | 7.0% | 1 | 14.3% |
| All Other Non-Moving Violations | 678 | 7.3% | 262 | 7.2% | 0 | 0.0% |
| Red Light | 425 | 4.6% | 243 | 6.7% | 0 | 0.0% |
| Negligent Collision | 414 | 4.5% | 141 | 3.9% | 0 | 0.0% |
| Improper Turn | 344 | 3.7% | 110 | 3.0% | 0 | 0.0% |
| Improper Lane Change | 196 | 2.1% | 47 | 1.3% | 0 | 0.0% |
| Stop Sign | 160 | 1.7% | 84 | 2.3% | 0 | 0.0% |
| Reckless Driving | 123 | 1.3% | 62 | 1.7% | 1 | 14.3% |
| Hit and Run | 119 | 1.3% | 39 | 1.1% | 0 | 0.0% |
| Driving Under the Influence | 106 | 1.1% | 65 | 1.8% | 2 | 28.6% |
| Improper Passing | 93 | 1.0% | 26 | 0.7% | 0 | 0.0% |
| Improper Backing | 79 | 0.9% | 9 | 0.2% | 0 | 0.0% |
| Wrong Side of Road | 71 | 0.8% | 36 | 1.0% | 0 | 0.0% |
| Improper Start and Stop | 43 | 0.5% | 12 | 0.3% | 0 | 0.0% |
| Wrong Way on One Way Street | 2 | 0.0% | 1 | 0.0% | 0 | 0.0% |
| Vehicle Homicide | 2 | 0.0% | 0 | 0.0% | 2 | 28.6% |
| Grand Total | 9,229 | 100.0% | 3,639 | 100.0% | 7 | 100.0% |

Table 6.07 contains the contributing factors for teenage driver crashes. These factors were coded by the scene officers for each vehicle involved in the crash. The officer may record no contributing factor or up to two different contributing factors. The leading factors for total crashes and injury crashes were “improper lookout”, “failed to yield right of way” , “speed too fast” and “following too closely”. “Speed too fast” and “other improper driving” were the leading factors in fatal teenage driver crashes. Less than 2% of teenage driver crashes had contributing factors of “had been drinking”, “under the influence of drugs”, and “DUI”.

Table 6.07 Contributing Factors of Teenage Driver Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Contributing Factor | Teenage Driver Total Crashes | | Teenage Driver Injury Crashes | | Teenage Driver Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Improper Lookout | 4,088 | 25.9% | 1,497 | 24.6% | 8 | 11.4% |
| Failed to Yield the Right of Way | 2,653 | 16.8% | 1,077 | 17.7% | 4 | 5.7% |
| Speed Too Fast | 2,146 | 13.6% | 849 | 13.9% | 16 | 22.9% |
| Following Too Closely | 1,974 | 12.5% | 675 | 11.1% | 0 | 0.0% |
| Other Improper Driving | 1,411 | 8.9% | 580 | 9.5% | 15 | 21.4% |
| Improper Turn | 610 | 3.9% | 178 | 2.9% | 1 | 1.4% |
| Disregarded Traffic Signal | 524 | 3.3% | 297 | 4.9% | 1 | 1.4% |
| Drove Left of Center | 258 | 1.6% | 114 | 1.9% | 5 | 7.1% |
| Improper Overtaking | 256 | 1.6% | 76 | 1.2% | 2 | 2.9% |
| Asleep | 217 | 1.4% | 102 | 1.7% | 3 | 4.3% |
| Hit and Run | 211 | 1.3% | 56 | 0.9% | 1 | 1.4% |
| Non-Contact Vehicle Involved | 208 | 1.3% | 75 | 1.2% | 0 | 0.0% |
| Passed Stop Sign | 192 | 1.2% | 97 | 1.6% | 1 | 1.4% |
| Improper Backing | 157 | 1.0% | 12 | 0.2% | 1 | 1.4% |
| Driving Under the Influence | 146 | 0.9% | 96 | 1.6% | 1 | 1.4% |
| Fatigued | 98 | 0.6% | 53 | 0.9% | 4 | 5.7% |
| Brakes Defective | 74 | 0.5% | 28 | 0.5% | 0 | 0.0% |
| Had Been Drinking | 67 | 0.4% | 31 | 0.5% | 3 | 4.3% |
| Tires Defective | 64 | 0.4% | 25 | 0.4% | 0 | 0.0% |
| Other Defective Condition | 60 | 0.4% | 23 | 0.4% | 1 | 1.4% |
| Improper Parking | 46 | 0.3% | 12 | 0.2% | 0 | 0.0% |
| Windshield Not Clear | 42 | 0.3% | 16 | 0.3% | 0 | 0.0% |
| Failed to Signal | 36 | 0.2% | 10 | 0.2% | 0 | 0.0% |
| Wrong Side of Road | 31 | 0.2% | 16 | 0.3% | 1 | 1.4% |
| Under the Influence of Drugs | 30 | 0.2% | 20 | 0.3% | 1 | 1.4% |
| Headlights Insufficient or Out | 29 | 0.2% | 18 | 0.3% | 0 | 0.0% |
| Non-collision Fire | 28 | 0.2% | 1 | 0.0% | 0 | 0.0% |
| Ill | 24 | 0.2% | 14 | 0.2% | 0 | 0.0% |
| Stolen | 22 | 0.1% | 9 | 0.1% | 1 | 1.4% |
| Steering Mechanism Defective | 17 | 0.1% | 6 | 0.1% | 0 | 0.0% |
| Vehicle Rolling in Traffic Lane | 14 | 0.1% | 5 | 0.1% | 0 | 0.0% |
| Headlights Glaring | 9 | 0.1% | 4 | 0.1% | 0 | 0.0% |
| Cargo Loss or Shift | 8 | 0.1% | 1 | 0.0% | 0 | 0.0% |
| Towed Vehicle | 8 | 0.1% | 2 | 0.0% | 0 | 0.0% |
| Explosion or Fire | 8 | 0.1% | 1 | 0.0% | 0 | 0.0% |
| Other Lights or Reflecting/Defective | 7 | 0.0% | 3 | 0.0% | 0 | 0.0% |
| Eyesight Defective Uncorrected | 7 | 0.0% | 3 | 0.0% | 0 | 0.0% |
| Immersion | 5 | 0.0% | 3 | 0.0% | 0 | 0.0% |
| Separation of Units | 5 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Jackknife | 4 | 0.0% | 1 | 0.0% | 0 | 0.0% |
| Down Hill Runaway | 4 | 0.0% | 2 | 0.0% | 0 | 0.0% |
| Wrong Way on One Way Street | 3 | 0.0% | 2 | 0.0% | 0 | 0.0% |
| Collision Fire | 1 | 0.0% | 1 | 0.0% | 0 | 0.0% |
| Grand Total | 15,802 | 100.0% | 6,091 | 100.0% | 70 | 100.0% |

# Teenage Driver Crash Characteristics

Over half of the total teenage driver crashes (62.1%) and injury crashes (67.8%) were a rear-end collision or a broadside collision. For fatal teenage driver crashes, single vehicle rollovers and broadside collisions were the leading collision types. Single vehicle rollovers involving teenage drivers are dangerous; this collision type was 9 times more likely to result in at least one fatality than other collision types.

Table 6.08 Collision Description of Teenage Driver Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| Collision Description | Teenage Driver Total Crashes | | Teenage Driver Injury Crashes | | Teenage Driver Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Rear End | 5,431 | 32.8% | 2,050 | 32.7% | 2 | 3.2% |
| Broadside | 4,863 | 29.3% | 2,199 | 35.1% | 15 | 23.8% |
| Other | 3,946 | 23.8% | 910 | 14.5% | 9 | 14.3% |
| Side Swipe | 1,069 | 6.4% | 254 | 4.1% | 8 | 12.7% |
| Single Vehicle Rollover | 788 | 4.8% | 523 | 8.4% | 19 | 30.2% |
| Pedestrian/Bicyclist Crash | 223 | 1.3% | 204 | 3.3% | 6 | 9.5% |
| Single Vehicle Fixed Object | 147 | 0.9% | 57 | 0.9% | 0 | 0.0% |
| Head-on | 106 | 0.6% | 66 | 1.1% | 4 | 6.3% |
| Single Vehicle Other | 5 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Grand Total | 16,578 | 100.0% | 6,263 | 100.0% | 63 | 100.0% |

# Teenage Driver Characteristics

Slightly more than half (53.7%) of teenage drivers involved in crashes were male. The majority of teenage drivers (91.0%) reported wearing a seatbelt.

Figure 6.05 Gender of Teenage Drivers Involved in Crashes, Utah 2000 (n=18,856)

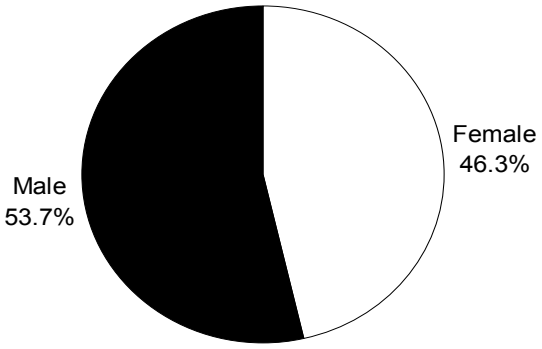
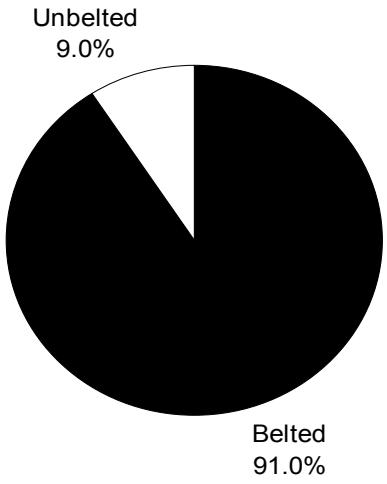



Figure 6.06 Seatbelt Use of Teenage Drivers Involved in Crashes, Utah 2000 (n=17,149)

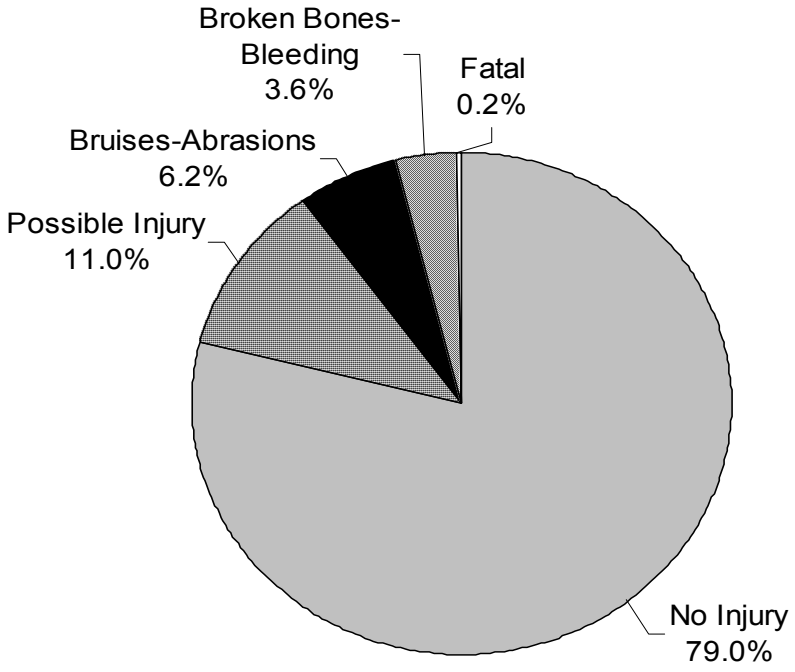



Note: Seatbelt use was not reported for motorcyclist and where usage was unknown (n=1,707).

# Injury Severity of Occupants in Vehicles of Teenage Drivers

Figure 6.07 shows the injury severity of crash participants (including drivers) in a teenage driver's vehicle. The percentage of occupants who sustained an injury was 21.0% ,similar to 21.7% for all motor vehicle crash participants. The teenage driver occupants' fatality percentage (0.2%) was also similar to the fatality percentage of all motor vehicle crash participants (0.3%).

Figure 6.07 Injury Severity of Occupants (including drivers) in Vehicles of Teenage Drivers as Reported by Police, Utah 2000 (n=29,623)



# Occupants in Vehicles of Teenage Drivers

Table 6.09 shows the number of occupants (including drivers) in a teenage drivers' vehicle by crash severity. In approximately two-thirds (63.8%) of total teenage driver crashes the driver was the only occupant in the vehicle. Crashes where the teenage driven vehicle contained 4 or more occupants were 5 times more likely to be fatal than crashes involving teenage driven vehicles with fewer occupants.

Figure 6.08 Number of Occupants (including drivers) in Teenage Drivers' Vehicle, Utah 2000

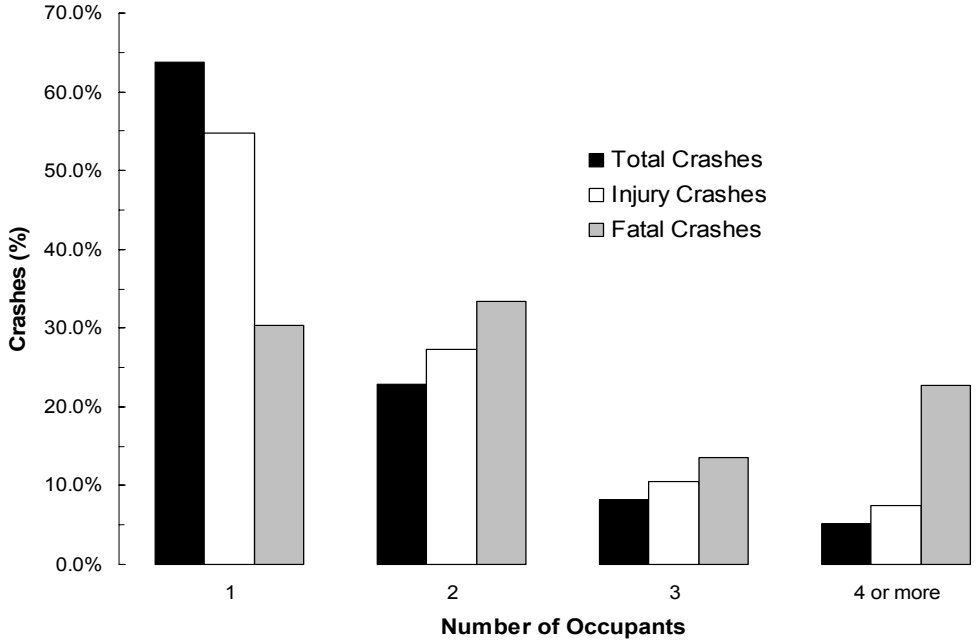



Table 6.09 Number of Occupants (including drivers) in Teenage Drivers' Vehicle, Utah 2000

| Number of Occupant | Teenage Driver Total Crashes | | Teenage Driver Injury Crashes | | Teenage Driver Fatal Crashes | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| 1 | 12,022 | 63.8% | 3,901 | 54.7% | 20 | 30.3% |
| 2 | 4,302 | 22.8% | 1,942 | 27.2% | 22 | 33.3% |
| 3 | 1,545 | 8.2% | 752 | 10.5% | 9 | 13.6% |
| 4 or more | 987 | 5.2% | 534 | 7.5% | 15 | 22.7% |
| Grand Total | 18,856 | 100.0% | 7,129 | 100.0% | 66 | 100.0% |

Note: There may be more than one teenage driver involved in a crash.

The age and gender of crash participants (including drivers) in the teenage drivers' vehicles are shown in Table 6.10. The percentage of males and females involved in each crash severity was similar. Not surprisingly, most occupants in teenage driver crashes were between the ages of 15 to 19 years.

Table 6.10 Age and Gender of Occupants (including drivers) in Vehicles of Teenage Drivers by Injury Severity, Utah 2000

| | Teenage Driver Crash Participants | | | | Teenage Driver Injured Persons | | | | Teenage Driver Fatalities | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Male | | Female | | Male | | Female | | Male | | Female | |
| Age | # | % | # | % | # | % | # | % | # | % | # | % |
| 00 - 04 | 206 | 1.3% | 187 | 1.4% | 38 | 1.4% | 26 | 0.8% | 1 | 3.6% | 1 | 3.8% |
| 05 - 09 | 134 | 0.9% | 144 | 1.0% | 40 | 1.4% | 40 | 1.2% | 0 | 0.0% | 1 | 3.8% |
| 10 - 14 | 495 | 3.1% | 549 | 4.0% | 137 | 4.9% | 165 | 4.9% | 1 | 3.6% | 2 | 7.7% |
| 15 - 19 | 13,732 | 87.4% | 12,101 | 87.4% | 2,246 | 80.7% | 2,883 | 85.5% | 22 | 78.6% | 18 | 69.2% |
| 20 - 24 | 539 | 3.4% | 280 | 2.0% | 133 | 4.8% | 96 | 2.8% | 2 | 7.1% | 1 | 3.8% |
| 25 - 29 | 88 | 0.6% | 44 | 0.3% | 31 | 1.1% | 19 | 0.6% | 0 | 0.0% | 0 | 0.0% |
| 30 - 34 | 44 | 0.3% | 36 | 0.3% | 19 | 0.7% | 16 | 0.5% | 0 | 0.0% | 0 | 0.0% |
| 35 - 39 | 31 | 0.2% | 67 | 0.5% | 16 | 0.6% | 22 | 0.7% | 1 | 3.6% | 1 | 3.8% |
| 40 - 44 | 44 | 0.3% | 89 | 0.6% | 15 | 0.5% | 24 | 0.7% | 0 | 0.0% | 2 | 7.7% |
| 45 - 49 | 42 | 0.3% | 61 | 0.4% | 18 | 0.6% | 15 | 0.4% | 0 | 0.0% | 0 | 0.0% |
| 50 - 54 | 29 | 0.2% | 35 | 0.3% | 12 | 0.4% | 11 | 0.3% | 0 | 0.0% | 0 | 0.0% |
| 55 - 59 | 20 | 0.1% | 15 | 0.1% | 7 | 0.3% | 6 | 0.2% | 0 | 0.0% | 0 | 0.0% |
| 60 - 64 | 11 | 0.1% | 7 | 0.1% | 5 | 0.2% | 3 | 0.1% | 0 | 0.0% | 0 | 0.0% |
| 65 - 69 | 4 | 0.0% | 5 | 0.0% | 1 | 0.0% | 1 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 70 - 74 | 7 | 0.0% | 10 | 0.1% | 4 | 0.1% | 5 | 0.1% | 1 | 3.6% | 0 | 0.0% |
| 75 - 79 | 4 | 0.0% | 5 | 0.0% | 2 | 0.1% | 2 | 0.1% | 0 | 0.0% | 0 | 0.0% |
| 80 - 84 | 1 | 0.0% | 4 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 85 + | 1 | 0.0% | 1 | 0.0% | 0 | 0.0% | 1 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Missing | 286 | 1.8% | 209 | 1.5% | 59 | 2.1% | 37 | 1.1% | 0 | 0.0% | 0 | 0.0% |
| Grand Total | 15,718 | 100.0% | 13,849 | 100.0% | 2,783 | 100.0% | 3,372 | 100.0% | 28 | 100.0% | 26 | 100.0% |

Note: There were persons involved in teenage driver crashes that did not have age and gender information recorded.

**Alcohol and Other Drugs:**

Of the 63 fatal teenage driver crashes, 14 involved a teenage driver impaired by alcohol or other drugs.

# Graduated Licensing Law

In 1998 a graduated licensing law was enacted in Utah to address the concern of teenage driving and crashes. Graduated licensing regulations are in place for new drivers under the age of 18 years and not previously licensed in another state. First-time teenage drivers who apply for a drivers license in Utah must complete the following three steps to obtain a drivers license.

- ⇒ **Step 1.** Obtain an instruction permit, which allows driving with a certified driving instructor, complete a driver education course and pass a written exam.
- ⇒ **Step 2.** After reaching age 15 years 9 months, obtain a practice permit which requires driving with a parent, guardian, or licensed over-21-year-old spouse and complete 30 hours of behind-the-wheel driving (at least 10 hours after dark).
- ⇒ **Step 3.** Complete a driving test (or tests) and obtain a provisional (under 21 years) "D" (passenger vehicle), or "M" (passenger vehicle plus motorcycle) license. The provisional license shows "under 21" and has a distinctive color, and allows a lower threshold of points / citations before sanctioning compared to regular licenses.

**Night Time Restrictions**
Anyone under the age of 17 years may not drive from midnight to 5:00 a.m. except: 1) with an over-21-year-old licensed driver; 2) for employment, or going to or from employment; 3) going to or from a religious or a school activity; 4) in a supervised agricultural operation; or 5) in an emergency.

**Passenger Restrictions**
For the first six months of licensure, teenage drivers can only drive other teens if there is an over-21-year-old driver in the front seat of the vehicle. Teenage drivers can drive themselves or family members without this restriction.
Exceptions: Teenage drivers can drive teenage occupants to or from school, school activities, church activities, or agricultural work if he/she has a signed note from his/her legal guardian.

**Seatbelt Restrictions**
All occupants under the age of 19 years must be properly restrained in a motor vehicle. This is a primary law which means a person may be stopped by a law enforcement officer solely for that offense. If found in violation of this law, a person may be issued a citation and be subject to a fine of not more than $45.

# Section 7
# Alcohol and Other Drug-Related Total Crashes, Injury Crashes and Fatal Crashes, 2000



## TABLES



## FIGURES

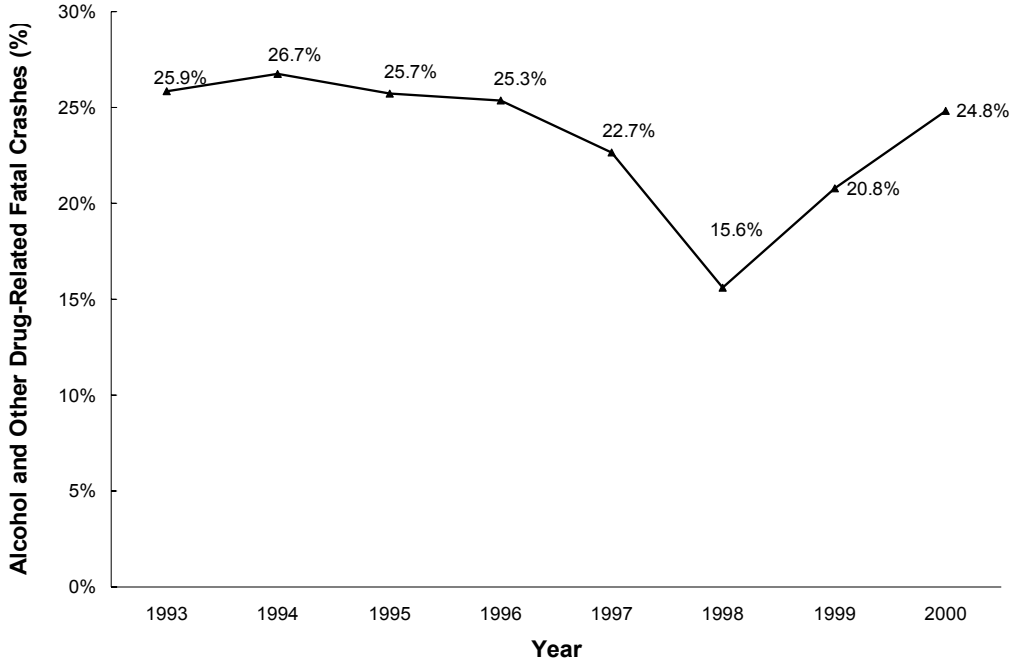
# Alcohol and Other Drug-Related Fatal Crashes and Fatalities 1993-2000

For the past eight years, the percentage of alcohol and other drug-related fatal motor vehicle crashes and fatalities has remained fairly consistent at approximately a quarter of all fatal crashes. The percentage of alcohol and other drug-related fatal motor vehicle crashes dropped to an all time low of 15.6% in 1998 (Table 7.01 and Figure 7.01). In 2000 there was a 19.7% increase in fatal alcohol and other drug-related crashes and a 25.0% increase in alcohol and other drug-related crash fatalities from the previous year.

Table 7.01 Alcohol and Other Drug-Related (A/D) Fatal Crashes and Fatalities, Utah 1993 - 2000

| | Fatal Crashes | | | Fatalities | | |
|---|---|---|---|---|---|---|
| Year | Total Number | Number A/D | Percentage A/D | Total Number | Number A/D | Percentage A/D |
| 1993 | 263 | 68 | 25.9% | 303 | 74 | 24.4% |
| 1994 | 303 | 81 | 26.7% | 343 | 94 | 27.4% |
| 1995 | 284 | 73 | 25.7% | 325 | 84 | 25.8% |
| 1996 | 292 | 74 | 25.3% | 328 | 86 | 26.2% |
| 1997 | 309 | 70 | 22.7% | 366 | 88 | 24.0% |
| 1998 | 308 | 48 | 15.6% | 350 | 49 | 14.0% |
| 1999 | 318 | 66 | 20.8% | 360 | 72 | 20.0% |
| 2000 | 318 | 79 | 24.8% | 373 | 90 | 24.1% |

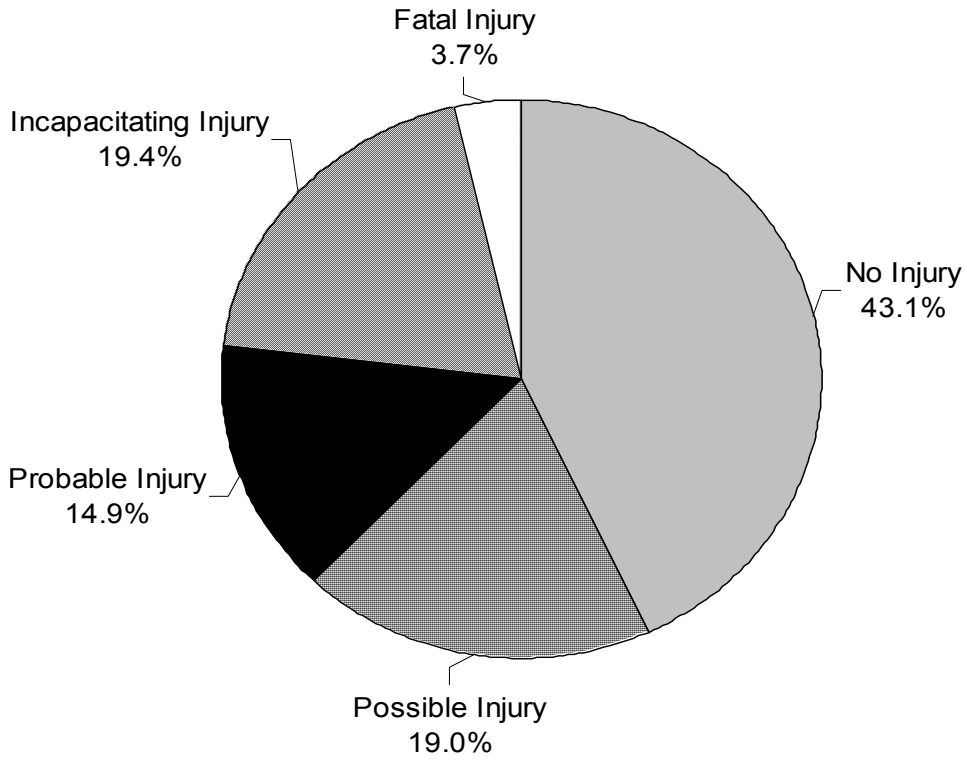
Figure 7.01 Alcohol and Other Drug-Related Fatal Crashes, Utah 1993 - 2000



# Alcohol and Other Drug-Related Crash Severity

Over half (56.9%) of alcohol and other drug-related crashes resulted in at least one injury compared to 37.4% of all motor vehicle crashes (Figure 7.02). The percentage of alcohol and drug-related crashes that resulted in a fatality was 3.7% compared to 0.6% of all motor vehicle crashes.

Figure 7.02 Severity of Alcohol and Other Drug-Related Crashes as Reported by Police, Utah 2000 (n=2,163)



# Alcohol and Other Drug-Related Crashes by County

Table 7.02 shows the number of alcohol and other drug-related crashes by county. The leading counties for total alcohol and other drug-related crashes per million vehicle miles traveled were Salt Lake, Weber, and Duchesne and the leading counties for injury alcohol and other drug-related crashes per miles traveled were Rich, Duchesne, and Salt Lake. The highest rates for fatal alcohol and other drug-related crashes per miles traveled were in Morgan, Wayne, and Uintah Counties.

Table 7.02 Alcohol and Other Drug-Related (A/D) Total Crashes, Injury Crashes and Fatal Crashes by County, Utah 2000

| | A/D Total Crashes | | | A/D Injury Crashes | | | A/D Fatal Crashes | | |
|---|---|---|---|---|---|---|---|---|---|
| County | # | Rate per 10,000 Population | Rate per 100 MVMT | # | Rate per 10,000 Population | Rate per 100 MVMT | # | Rate per 100,000 Population | Rate per 1000 MVMT |
| Beaver | 13 | 18.7 | 6.1 | 9 | 13.0 | 4.2 | 0 | 0.0 | 0.0 |
| Box Elder | 39 | 9.1 | 4.3 | 19 | 4.5 | 2.1 | 1 | 2.3 | 1.1 |
| Cache | 64 | 6.9 | 8.1 | 37 | 4.0 | 4.7 | 3 | 3.2 | 3.8 |
| Carbon | 17 | 7.5 | 4.9 | 5 | 2.2 | 1.4 | 0 | 0.0 | 0.0 |
| Daggett | 1 | 11.7 | 3.9 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Davis | 134 | 5.7 | 6.4 | 66 | 2.8 | 3.2 | 3 | 1.3 | 1.4 |
| Duchesne | 25 | 17.4 | 12.9 | 17 | 11.8 | 8.8 | 1 | 6.9 | 5.2 |
| Emery | 21 | 18.7 | 6.0 | 8 | 7.1 | 2.3 | 5 | 44.6 | 14.2 |
| Garfield | 3 | 6.3 | 2.2 | 3 | 6.3 | 2.2 | 0 | 0.0 | 0.0 |
| Grand | 17 | 15.5 | 6.1 | 15 | 13.7 | 5.4 | 0 | 0.0 | 0.0 |
| Iron | 35 | 10.2 | 6.2 | 28 | 8.1 | 5.0 | 1 | 2.9 | 1.8 |
| Juab | 11 | 13.4 | 3.2 | 4 | 4.9 | 1.2 | 2 | 24.4 | 5.8 |
| Kane | 10 | 13.4 | 8.1 | 7 | 9.4 | 5.7 | 0 | 0.0 | 0.0 |
| Millard | 16 | 12.4 | 3.9 | 7 | 5.4 | 1.7 | 1 | 7.7 | 2.4 |
| Morgan | 7 | 10.0 | 5.8 | 3 | 4.3 | 2.5 | 3 | 42.9 | 24.9 |
| Piute | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Rich | 5 | 26.6 | 11.2 | 4 | 21.3 | 9.0 | 0 | 0.0 | 0.0 |
| Salt Lake | 1,022 | 11.7 | 14.0 | 546 | 6.3 | 7.5 | 26 | 3.0 | 3.6 |
| San Juan | 12 | 8.9 | 4.3 | 8 | 5.9 | 2.9 | 2 | 14.8 | 7.1 |
| Sanpete | 18 | 8.0 | 7.9 | 9 | 4.0 | 3.9 | 2 | 8.9 | 8.8 |
| Sevier | 19 | 9.7 | 4.9 | 10 | 5.1 | 2.6 | 3 | 15.3 | 7.7 |
| Summit | 42 | 15.3 | 6.8 | 19 | 6.9 | 3.1 | 0 | 0.0 | 0.0 |
| Tooele | 81 | 23.0 | 12.0 | 51 | 14.5 | 7.6 | 3 | 8.5 | 4.5 |
| Uintah | 35 | 14.0 | 11.8 | 19 | 7.6 | 6.4 | 6 | 24.1 | 20.3 |
| Utah | 238 | 6.9 | 7.9 | 123 | 3.6 | 4.1 | 5 | 1.4 | 1.7 |
| Wasatch | 21 | 14.6 | 8.4 | 8 | 5.5 | 3.2 | 3 | 20.8 | 12.0 |
| Washington | 45 | 5.2 | 5.0 | 28 | 3.2 | 3.1 | 1 | 1.2 | 1.1 |
| Wayne | 5 | 19.1 | 12.2 | 3 | 11.4 | 7.3 | 1 | 38.2 | 24.4 |
| Weber | 207 | 10.9 | 13.7 | 96 | 5.0 | 6.4 | 7 | 3.7 | 4.6 |
| Statewide | 2,163 | 10.0 | 9.6 | 1,152 | 5.3 | 5.1 | 79 | 3.6 | 3.5 |

# Alcohol and Other Drug-Related Crash Times

Table 7.03 and Figure 7.03 show that the total alcohol and other drug-related crashes and injury crashes followed the same time pattern, peaking at 1 a.m. Fatal alcohol and other drug-related crashes followed a slightly different pattern; most of these crashes occurred in the evening and early morning (8 p.m. to 1 a.m.).

Table 7.03 Hour of Alcohol and Other Drug-Related (A/D) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | A/D Total Crashes | | A/D Injury Crashes | | A/D Fatal Crashes | |
|---|---|---|---|---|---|---|
| Hour | # | % | # | % | # | % |
| 12 a.m. | 135 | 6.2% | 61 | 5.3% | 5 | 6.3% |
| 1 a.m. | 183 | 8.5% | 93 | 8.1% | 10 | 12.7% |
| 2 a.m. | 130 | 6.0% | 71 | 6.2% | 2 | 2.5% |
| 3 a.m. | 78 | 3.6% | 49 | 4.3% | 1 | 1.3% |
| 4 a.m. | 58 | 2.7% | 37 | 3.2% | 3 | 3.8% |
| 5 a.m. | 47 | 2.2% | 24 | 2.1% | 5 | 6.3% |
| 6 a.m. | 40 | 1.8% | 18 | 1.6% | 5 | 6.3% |
| 7 a.m. | 43 | 2.0% | 27 | 2.3% | 0 | 0.0% |
| 8 a.m. | 34 | 1.6% | 15 | 1.3% | 1 | 1.3% |
| 9 a.m. | 16 | 0.7% | 12 | 1.0% | 0 | 0.0% |
| 10 a.m. | 29 | 1.3% | 17 | 1.5% | 2 | 2.5% |
| 11 a.m. | 40 | 1.8% | 26 | 2.3% | 3 | 3.8% |
| 12 p.m. | 48 | 2.2% | 24 | 2.1% | 2 | 2.5% |
| 1 p.m. | 46 | 2.1% | 19 | 1.6% | 2 | 2.5% |
| 2 p.m. | 60 | 2.8% | 32 | 2.8% | 4 | 5.1% |
| 3 p.m. | 83 | 3.8% | 38 | 3.3% | 3 | 3.8% |
| 4 p.m. | 99 | 4.6% | 52 | 4.5% | 3 | 3.8% |
| 5 p.m. | 111 | 5.1% | 59 | 5.1% | 2 | 2.5% |
| 6 p.m. | 131 | 6.1% | 72 | 6.3% | 3 | 3.8% |
| 7 p.m. | 121 | 5.6% | 63 | 5.5% | 2 | 2.5% |
| 8 p.m. | 147 | 6.8% | 87 | 7.6% | 5 | 6.3% |
| 9 p.m. | 142 | 6.6% | 79 | 6.9% | 5 | 6.3% |
| 10 p.m. | 188 | 8.7% | 94 | 8.2% | 4 | 5.1% |
| 11 p.m. | 153 | 7.1% | 83 | 7.2% | 6 | 7.6% |
| Missing | 1 | 0.0% | 0 | 0.0% | 1 | 1.3% |
| Grand Total | 2,163 | 100.0% | 1152 | 100.0% | 79 | 100.0% |

Figure 7.03 Hour of Alcohol and Other Drug-Related (A/D) Injury Crashes and Fatal Crashes, Utah 2000 (See Table 7.03 for values)

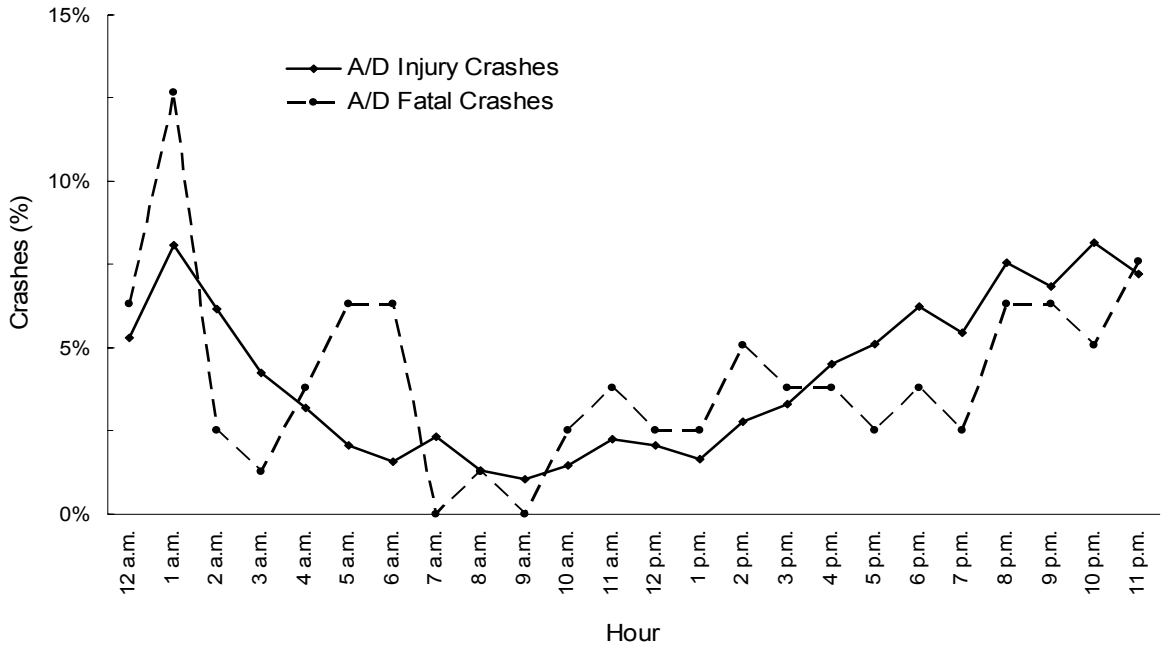


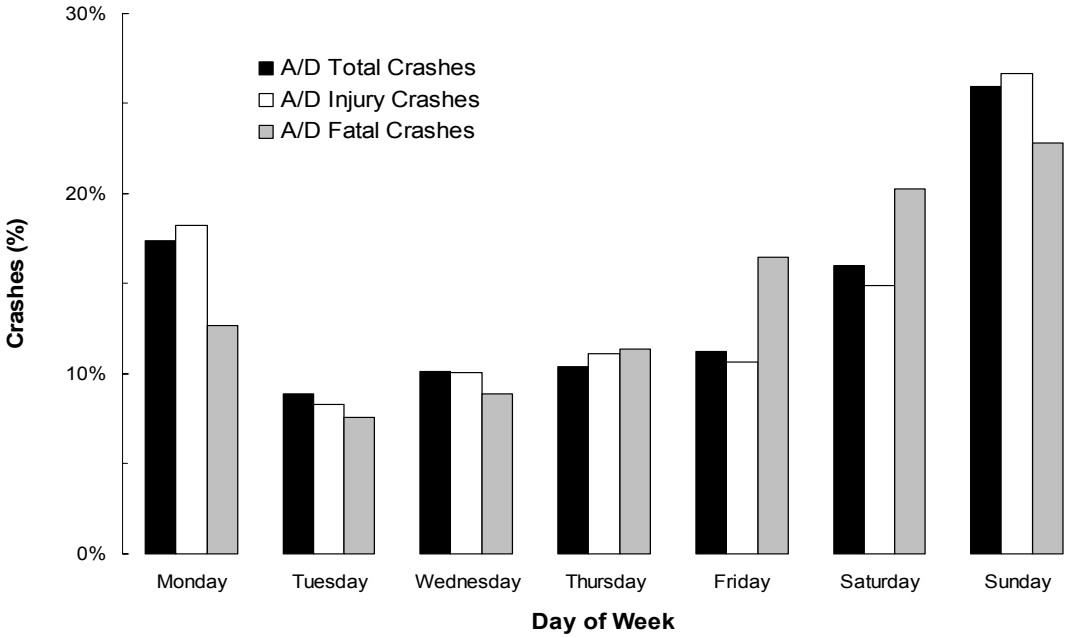

Table 7.04 shows the number and rate per day of alcohol and other drug-related crashes for each month. The rates remained similar from month to month. The highest percentage of total alcohol and other drug-related crashes, and injury crashes occurred in September. The highest percentage of fatal alcohol and other drug-related crashes occurred in June.

Table 7.04 Month of Alcohol and Other Drug-Related (A/D) Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | A/D Total Crashes | | A/D Injury Crashes | | A/D Fatal Crashes | |
|---|---|---|---|---|---|---|
| Month | # | Rate per Day | # | Rate per Day | # | Rate per Day |
| January | 183 | 5.90 | 93 | 3.00 | 7 | 0.23 |
| February | 170 | 6.07 | 76 | 2.71 | 4 | 0.14 |
| March | 177 | 5.71 | 87 | 2.81 | 3 | 0.10 |
| April | 175 | 5.83 | 104 | 3.47 | 9 | 0.30 |
| May | 182 | 5.87 | 101 | 3.26 | 7 | 0.23 |
| June | 176 | 5.87 | 100 | 3.33 | 11 | 0.37 |
| July | 196 | 6.32 | 101 | 3.26 | 9 | 0.29 |
| August | 166 | 5.35 | 96 | 3.10 | 9 | 0.29 |
| September | 197 | 6.57 | 106 | 3.53 | 7 | 0.23 |
| October | 168 | 5.42 | 106 | 3.42 | 4 | 0.13 |
| November | 172 | 5.73 | 78 | 2.60 | 3 | 0.10 |
| December | 201 | 6.48 | 104 | 3.35 | 6 | 0.19 |
| Grand Total | 2,163 | 5.93 | 1,152 | 3.16 | 79 | 0.22 |

Figure 7.04 and Table 7.05 show that almost half of the total alcohol and other drug-related total crashes (41.9%) and injury crashes (41.5%) occurred on Saturday, and Sunday. Similarly, almost half (43.1%) for fatal alcohol and other drug-related crashes occurred on

Figure 7.04 Day of Week for Alcohol and Other Drug-Related (A/D) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000




Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one category across the days of the week. For example, look at only the white bars (i.e. alcohol and other drug-related injury crashes) from day to day. Do not compare the heights of the different crash categories for a specific day.

Table 7.05 Day of Week for Alcohol and Other Drug-Related (A/D) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

| | A/D Total Crashes | | A/D Injury Crashes | | A/D Fatal Crashes | |
|---|---|---|---|---|---|---|
| Day of Week | # | % | # | % | # | % |
| Monday | 376 | 17.4% | 210 | 18.2% | 10 | 12.7% |
| Tuesday | 192 | 8.9% | 96 | 8.3% | 6 | 7.6% |
| Wednesday | 219 | 10.1% | 116 | 10.1% | 7 | 8.9% |
| Thursday | 225 | 10.4% | 128 | 11.1% | 9 | 11.4% |
| Friday | 243 | 11.2% | 123 | 10.7% | 13 | 16.5% |
| Saturday | 347 | 16.0% | 172 | 14.9% | 16 | 20.3% |
| Sunday | 561 | 25.9% | 307 | 26.6% | 18 | 22.8% |
| Grand Total | 2,163 | 100.0% | 1,152 | 100.0% | 79 | 100.0% |

# Impaired Drivers Involved in Alcohol and Other Drug-Related Crashes

Male drivers were involved in over three-quarters (79.1%) of alcohol and other drug-related crashes. The largest number of total alcohol and other drug-related total crashes and injury crashes involved male drivers in the age range of 20 to 24 years. This age group also represented the largest number of female drivers involved in total alcohol and other drug-related total crashes, and injury crashes. Male drivers aged 20 to 24 years represented the greatest number of drivers involved in fatal alcohol and other drug-related crashes. Of the impaired drivers, 350 (16.2%) were under the age of 21 years, and 77 (3.6%) were under the age of 18 years.

Table 7.06 Gender and Age of Impaired Drivers Involved in Alcohol and Other Drug-Related (A/D) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

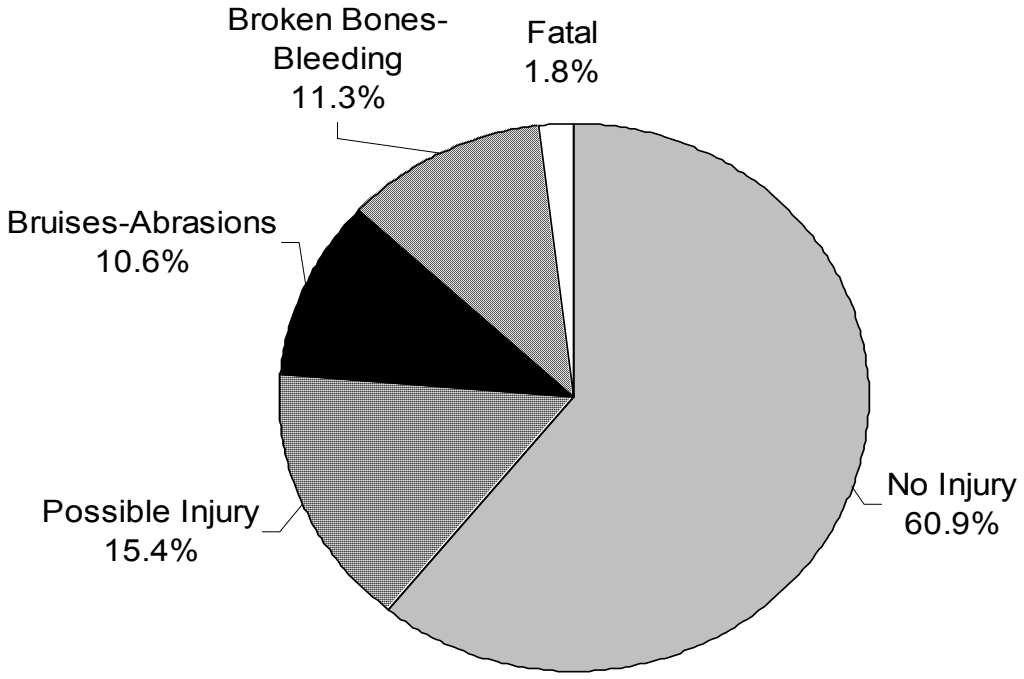
| | A/D Total Crashes | | | | A/D Injury Crashes | | | | A/D Fatal Crashes | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Male Drivers | | Female Drivers | | Male Drivers | | Female Drivers | | Male Drivers | | Female Drivers | |
| Age | # | % | # | % | # | % | # | % | # | % | # | % |
| <15 | 1 | 0.1% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 15 - 19 | 202 | 11.8% | 55 | 12.2% | 111 | 12.3% | 38 | 15.0% | 12 | 17.9% | 2 | 20.0% |
| 20 - 24 | 408 | 23.8% | 67 | 14.8% | 224 | 24.8% | 45 | 17.7% | 16 | 23.9% | 1 | 10.0% |
| 25 - 29 | 262 | 15.3% | 57 | 12.6% | 142 | 15.7% | 31 | 12.2% | 9 | 13.4% | 2 | 20.0% |
| 30 - 34 | 201 | 11.7% | 56 | 12.4% | 104 | 11.5% | 28 | 11.0% | 5 | 7.5% | 2 | 20.0% |
| 35 - 39 | 206 | 12.0% | 70 | 15.5% | 97 | 10.7% | 38 | 15.0% | 9 | 13.4% | 2 | 20.0% |
| 40 - 44 | 153 | 8.9% | 53 | 11.7% | 85 | 9.4% | 26 | 10.2% | 8 | 11.9% | 0 | 0.0% |
| 45 - 49 | 121 | 7.1% | 43 | 9.5% | 59 | 6.5% | 24 | 9.4% | 1 | 1.5% | 1 | 10.0% |
| 50 - 54 | 70 | 4.1% | 24 | 5.3% | 39 | 4.3% | 13 | 5.1% | 3 | 4.5% | 0 | 0.0% |
| 55 - 59 | 32 | 1.9% | 15 | 3.3% | 19 | 2.1% | 6 | 2.4% | 1 | 1.5% | 0 | 0.0% |
| 60 - 64 | 18 | 1.1% | 4 | 0.9% | 7 | 0.8% | 1 | 0.4% | 1 | 1.5% | 0 | 0.0% |
| 65 - 69 | 11 | 0.6% | 2 | 0.4% | 4 | 0.4% | 1 | 0.4% | 0 | 0.0% | 0 | 0.0% |
| 70 - 74 | 8 | 0.5% | 3 | 0.7% | 2 | 0.2% | 1 | 0.4% | 1 | 1.5% | 0 | 0.0% |
| 75 - 79 | 6 | 0.4% | 0 | 0.0% | 2 | 0.2% | 0 | 0.0% | 1 | 1.5% | 0 | 0.0% |
| 80 - 84 | 1 | 0.1% | 0 | 0.0% | 1 | 0.1% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 85 + | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Missing | 14 | 0.8% | 3 | 0.7% | 8 | 0.9% | 2 | 0.8% | 0 | 0.0% | 0 | 0.0% |
| Grand Total | 1,714 | 100.0% | 452 | 100.0% | 904 | 100.0% | 254 | 100.0% | 67 | 100.0% | 10 | 100.0% |

Note: There were alcohol and other drug-related crashes that involved two impaired drivers, and gender or age was missing for several of the impaired drivers. There were 5 alcohol or other drug impaired pedestrians involved in crashes. The information about the drivers involved in the alcohol or other drug impaired pedestrian crashes is not included in the above table.

# Alcohol and Other Drug-Related Crash Participants Injury Severity

Alcohol and other drug-related crash participants sustained a higher percentage of injury (39.1%) compared to 21.6% for all motor vehicle crash participants. In addition, a higher percentage of the alcohol and other drug-related crash participants died (1.8%), compared to all motor vehicle crash participants (0.3%).

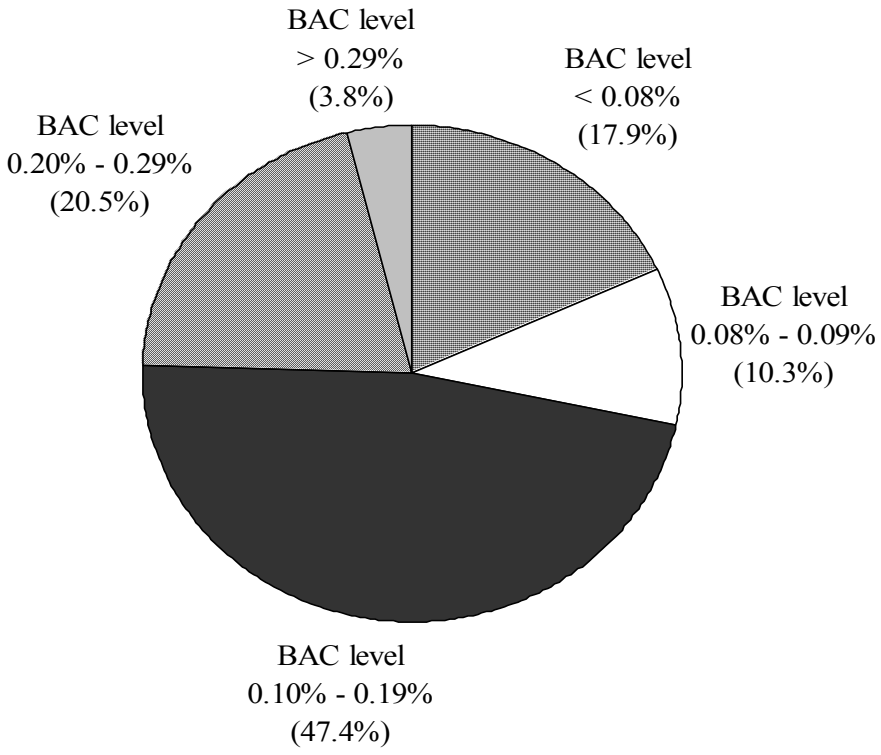
Figure 7.05 Alcohol and Other Drug-Related Crash Participants Injury Severity as Reported by Police, Utah 2000 (n=4,949)



# Blood Alcohol Concentration Levels of Drivers Involved in Fatal Alcohol-Related Crashes

Figure 7.06 shows the blood alcohol concentration (BAC) levels of drivers involved in fatal alcohol-related crashes. The majority (82.1%) of drivers had blood alcohol levels at or above the legal limit of 0.08%. In fact, 24.3% of the fatal alcohol-related crashes involved a driver with a blood alcohol concentration level over 0.20%.

Figure 7.06 Blood Alcohol Concentration (BAC) Levels of Drivers Involved in Fatal Alcohol-Related Crashes, Utah 2000 (n=78)



# Driving Under the Influence Facts

In the last 15 years, there have been 192,000 "driving under the influence" (DUI) arrests in Utah. DUI is driving (or in physical control of ) a vehicle on a roadway in Utah with 0.08% or more alcohol in the blood, or "unsafe" driving due to alcohol or other drugs in the body. DUI is a Class B misdemeanor, punishable by a fine, jail or community service, 90-day license suspension, an alcohol class, or alcohol problem assessment. More severe criminal actions are taken for DUI with a passenger under the age of 16 years, DUI with an injury or fatal crash, or DUI that is the second or more DUI offense within 6 years.

In 2000 there were 15,428 arrests for DUI in Utah (Table 7.07). Most of the DUI arrests (34.4%) occurred in Salt Lake County, followed by Utah (12.2%), Davis (10.9%) and Weber (10.4%) counties. The average blood alcohol concentration (BAC) of those arrested was 0.14%. The average fine for DUI convictions was $1,163.

Table 7.07 DUI Arrests by County, Utah 2000

| County | DUI Arrests # | % |
|---|---|---|
| Salt Lake | 5,300 | 34.4% |
| Utah | 1,885 | 12.2% |
| Davis | 1,675 | 10.9% |
| Weber | 1,599 | 10.4% |
| Tooele | 519 | 3.4% |
| Washington | 513 | 3.3% |
| Uintah | 440 | 2.9% |
| Cache | 406 | 2.6% |
| Other Counties | 3,091 | 20.0% |
| Statewide | 15,428 | 100.0% |

Table 7.08 shows the number of DUI arrests by age. The largest percentage of those arrested were between the age of 25 to 36 years. For the under 21 years age group there is the "Not-a-drop" law which is zero alcohol tolerance for drivers under the age of 21 years. For teenagers between the ages of 13 to 18 years, there is the "Use-loose" law which suspends or postpones the teenagers' license for 6 or more months for the purchase, attempt-to-purchase, possession or use of alcohol or other drugs.

Table 7.08 DUI Arrests by Age, Utah 2000

| Ages | DUI Arrests # | % |
|---|---|---|
| 15-20 | 1,509 | 9.8% |
| 21-24 | 2,933 | 19.0% |
| 25-36 | 5,497 | 35.6% |
| 37-48 | 3,951 | 25.6% |
| 49+ | 1,538 | 10.0% |
| Grand Total | 15,428 | 100.0% |

# Section 8
# Speed-Related Total Crashes, Injury Crashes and Fatal Crashes, 2000



## TABLES



## FIGURES

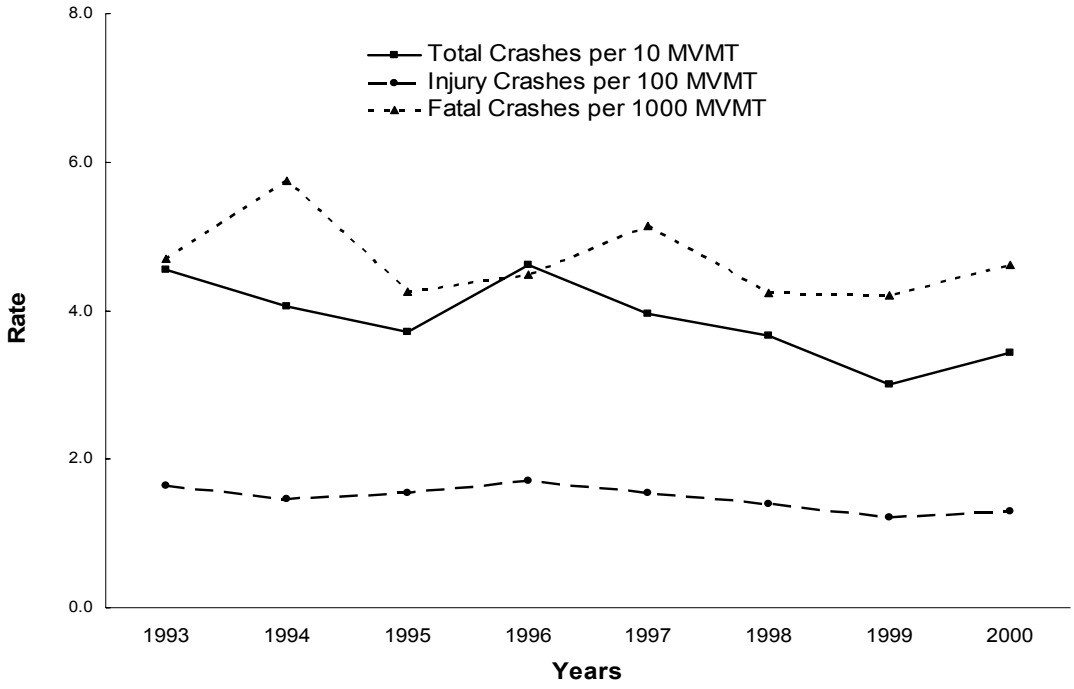
# Speed-Related Crashes 1993 - 2000

For the past eight years, the speed-related injury crash rate per million vehicle miles traveled has remained fairly constant, while the trends for total crashes and fatal crashes varied from year to year (Table 8.01 and Figure 8.01). A crash was defined as speed-related if a driver was cited for "speeding" or if "speed to fast" was marked as a contributing factor. In 2000, total speed-related crashes increased 17.4% from 1999. The number of fatal speed-related crashes increased by 13% from 1999.

Table 8.01 Speed-Related (S-R) Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993-2000

| | S-R Total Crashes | | S-R Injury Crashes | | S-R Fatal Crashes | |
|---|---|---|---|---|---|---|
| Year | # | Rate per 10 MVMT | # | Rate per 10 MVMT | # | Rate per 1000 MVMT |
| 1993 | 7,765 | 4.6 | 2,796 | 1.6 | 80 | 4.7 |
| 1994 | 7,344 | 4.1 | 2,658 | 1.5 | 104 | 5.8 |
| 1995 | 6,972 | 3.7 | 2,912 | 1.6 | 80 | 4.3 |
| 1996 | 8,974 | 4.6 | 3,322 | 1.7 | 87 | 4.5 |
| 1997 | 8,079 | 4.0 | 3,151 | 1.5 | 105 | 5.1 |
| 1998 | 7,788 | 3.7 | 2,981 | 1.4 | 90 | 4.2 |
| 1999 | 6,580 | 3.0 | 2,652 | 1.2 | 92 | 4.2 |
| 2000 | 7,725 | 3.4 | 2,934 | 1.3 | 104 | 4.6 |

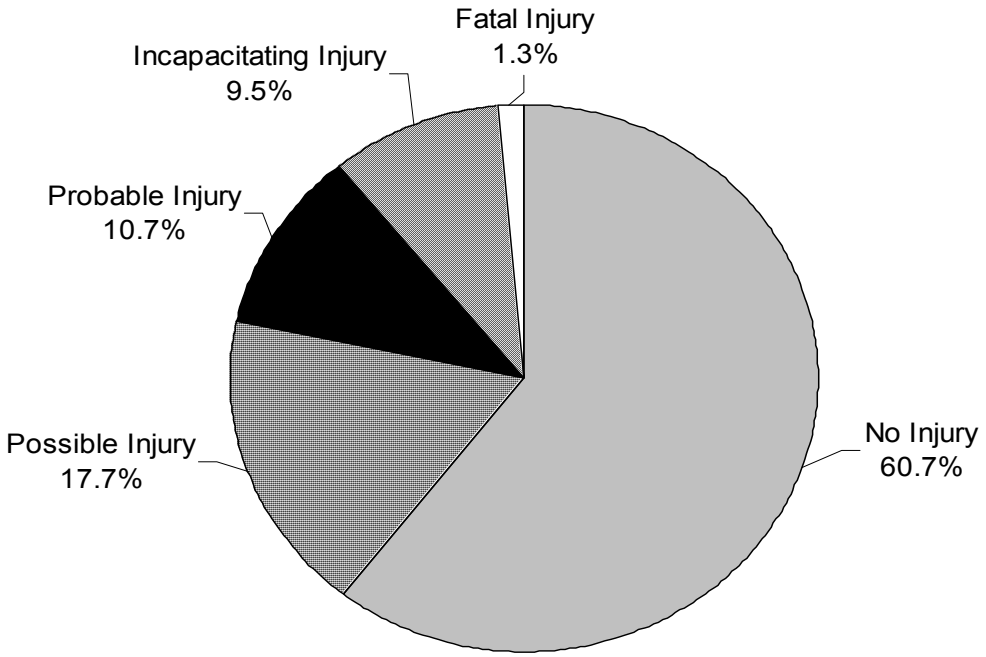
Figure 8.01 Speed-Related Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993– 2000



# Speed-Related Crash Severity

Figure 8.02 shows the breakdown of speed-related crash severity. The percentage of speed-related crashes (39.2%) that resulted in an injury was similar to the percentage for all motor vehicle crashes (37.4%). The percentage of fatal speed-related crashes (1.3%) was higher than the percentage for all motor vehicle crashes (0.6%).

Figure 8.02 Severity of Speed-Related Crashes as Reported by Police, Utah 2000 (n=7,725)



# Speed-Related Crashes by County

The rates of total speed-related crashes, injury crashes and fatal crashes for each county are shown in Table 8.02. There are two different rates given; one based on the miles traveled in the county, and another on the population of the county. The top three counties for total speed-related crashes based on million vehicle miles traveled were Wasatch, Morgan, and Daggett. The top three counties for speed-related injury crashes were Wayne, Wasatch, and Rich. Piute, Morgan, and Rich had the highest rates of speed-related fatal crashes per million vehicle miles traveled.

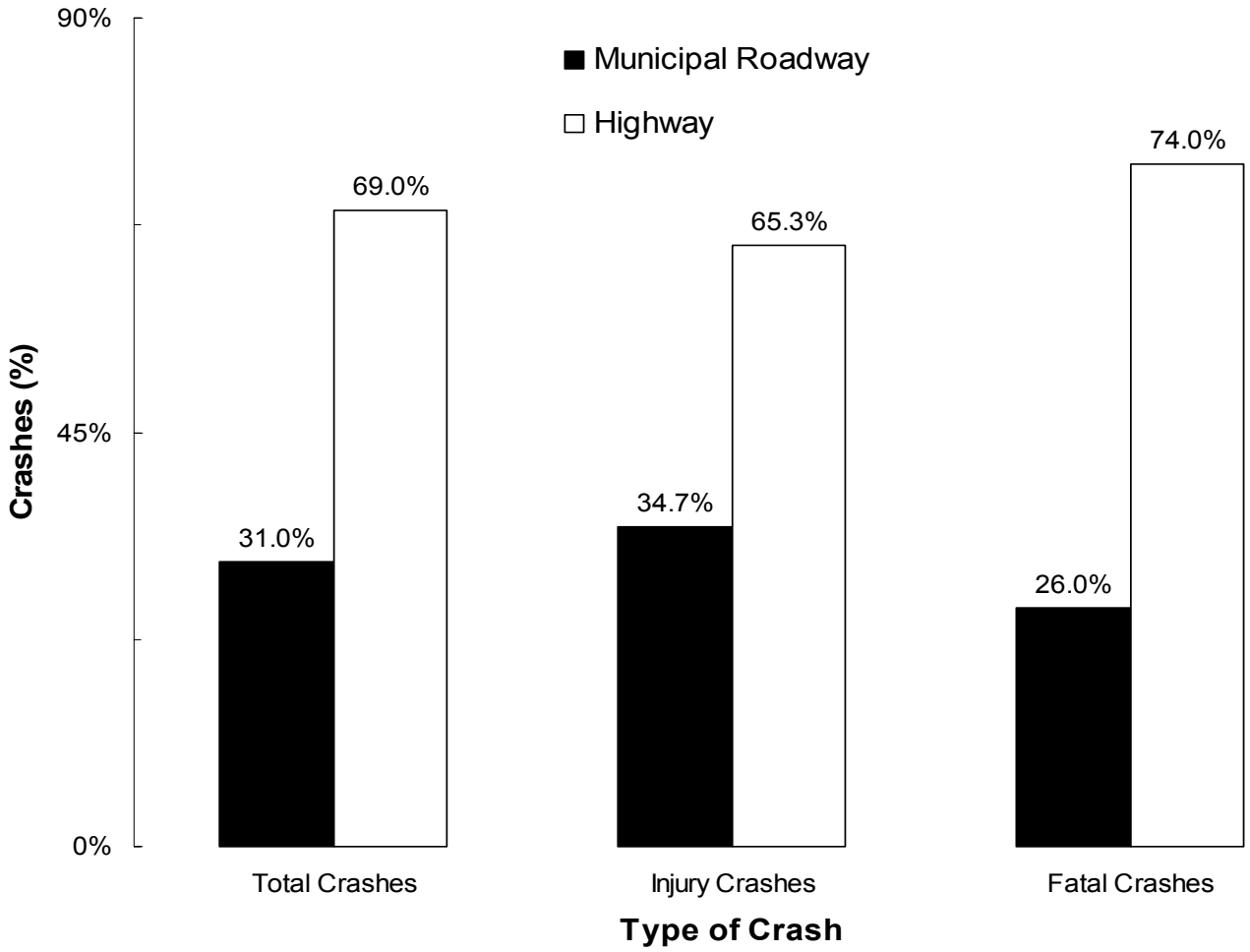
Table 8.02 Speed-Related (S-R) Total Crashes, Injury Crashes and Fatal Crashes by County, Utah 2000

| | S-R Total Crashes | | | S-R Injury Crashes | | | S-R Fatal Crashes | | |
|---|---|---|---|---|---|---|---|---|---|
| County | # | Rate per 10 MVMT | Rate per 10,000 Population | # | Rate per 100 MVMT | Rate per 10,000 Population | # | Rate per 1,000 MVMT | Rate per 100,000 Population |
| Beaver | 79 | 3.7 | 113.9 | 36 | 16.9 | 51.9 | 1 | 4.7 | 14.4 |
| Box Elder | 256 | 2.8 | 60.0 | 105 | 11.5 | 24.6 | 7 | 7.6 | 16.4 |
| Cache | 252 | 3.2 | 27.0 | 93 | 11.7 | 10.0 | 6 | 7.6 | 6.4 |
| Carbon | 66 | 1.9 | 29.1 | 29 | 8.4 | 12.8 | 0 | 0.0 | 0.0 |
| Daggett | 13 | 5.1 | 152.0 | 5 | 19.7 | 58.5 | 0 | 0.0 | 0.0 |
| Davis | 534 | 2.6 | 22.7 | 149 | 7.1 | 6.3 | 4 | 1.9 | 1.7 |
| Duchesne | 64 | 3.3 | 44.5 | 26 | 13.4 | 18.1 | 1 | 5.2 | 6.9 |
| Emery | 80 | 2.3 | 71.4 | 31 | 8.8 | 27.7 | 4 | 11.3 | 35.7 |
| Garfield | 23 | 1.7 | 48.4 | 10 | 7.4 | 21.1 | 1 | 7.4 | 21.1 |
| Grand | 55 | 2.0 | 50.1 | 31 | 11.2 | 28.2 | 3 | 10.8 | 27.3 |
| Iron | 197 | 3.5 | 57.3 | 99 | 17.5 | 28.8 | 3 | 5.3 | 8.7 |
| Juab | 84 | 2.4 | 102.6 | 41 | 11.9 | 50.1 | 2 | 5.8 | 24.4 |
| Kane | 25 | 2.0 | 33.4 | 9 | 7.3 | 12.0 | 1 | 8.1 | 13.4 |
| Millard | 125 | 3.0 | 96.8 | 49 | 11.8 | 38.0 | 5 | 12.1 | 38.7 |
| Morgan | 68 | 5.6 | 97.4 | 21 | 17.4 | 30.1 | 4 | 33.2 | 57.3 |
| Piute | 7 | 2.4 | 41.9 | 2 | 6.7 | 12.0 | 1 | 33.7 | 59.9 |
| Rich | 17 | 3.8 | 90.5 | 11 | 24.7 | 58.5 | 1 | 22.4 | 53.2 |
| Salt Lake | 3,228 | 4.4 | 37.0 | 1,189 | 16.2 | 13.6 | 13 | 1.8 | 1.5 |
| San Juan | 54 | 1.9 | 39.9 | 19 | 6.8 | 14.0 | 5 | 17.8 | 36.9 |
| Sanpete | 85 | 3.7 | 38.0 | 31 | 13.6 | 13.9 | 3 | 13.1 | 13.4 |
| Sevier | 163 | 4.2 | 83.1 | 52 | 13.4 | 26.5 | 3 | 7.7 | 15.3 |
| Summit | 243 | 3.9 | 88.3 | 71 | 11.4 | 25.8 | 3 | 4.8 | 10.9 |
| Tooele | 153 | 2.3 | 43.4 | 66 | 9.8 | 18.7 | 2 | 3.0 | 5.7 |
| Uintah | 68 | 2.3 | 27.3 | 28 | 9.5 | 11.2 | 5 | 16.9 | 20.0 |
| Utah | 912 | 3.0 | 26.4 | 381 | 12.6 | 11.0 | 13 | 4.3 | 3.8 |
| Wasatch | 155 | 6.2 | 107.5 | 68 | 27.1 | 47.2 | 4 | 16.0 | 27.7 |
| Washington | 174 | 1.9 | 20.2 | 83 | 9.2 | 9.6 | 2 | 2.2 | 2.3 |
| Wayne | 20 | 4.9 | 76.3 | 12 | 29.3 | 45.8 | 0 | 0.0 | 0.0 |
| Weber | 525 | 3.5 | 27.5 | 187 | 12.4 | 9.8 | 7 | 4.6 | 3.7 |
| Statewide | 7,725 | 3.4 | 35.6 | 2,934 | 13.0 | 13.5 | 104 | 4.6 | 4.8 |

# Speed-Related Crash Locations

The locations of the speed-related crashes are shown in Figure 8.03. Speed-related crashes were more likely to occur on a highway compared to a municipal roadway.

Figure 8.03 Highway and Municipal Roadway Speed-Related Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000



# Drivers Involved in Speed-Related Crashes

The largest proportion of total speed-related crashes and injury crashes involved drivers in the 15 to 19 year old group for both males and females (Table 8.03). However, the largest proportion of fatal speed-related crashes involved the 20-24 year old group for males and the 30-34 year old group for females.

Table 8.03 Gender and Age of Drivers Involved in Speed-Related (S-R) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

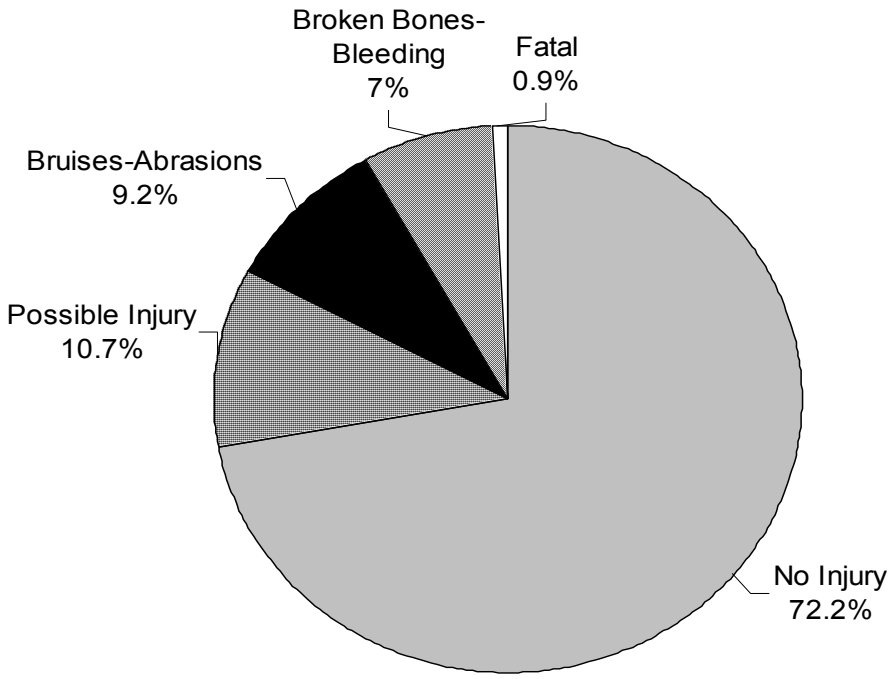
| | S-R Total Crashes | | | | S-R Injury Crashes | | | | S-R Fatal Crashes | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Male Drivers | | Female Drivers | | Male Drivers | | Female Drivers | | Male Drivers | | Female Drivers | |
| Age | # | % | # | % | # | % | # | % | # | % | # | % |
| <15 | 17 | 0.3% | 8 | 0.3% | 12 | 0.6% | 6 | 0.6% | 1 | 1.2% | 0 | 0.0% |
| 15 - 19 | 1,366 | 25.8% | 836 | 32.0% | 528 | 26.8% | 343 | 32.7% | 11 | 13.4% | 5 | 20.8% |
| 20 - 24 | 1,252 | 23.6% | 587 | 22.5% | 444 | 22.6% | 197 | 18.8% | 20 | 24.4% | 5 | 20.8% |
| 25 - 29 | 687 | 13.0% | 264 | 10.1% | 241 | 12.3% | 100 | 9.5% | 5 | 6.1% | 2 | 8.3% |
| 30 - 34 | 478 | 9.0% | 220 | 8.4% | 197 | 10.0% | 71 | 6.8% | 12 | 14.6% | 6 | 25.0% |
| 35 - 39 | 364 | 6.9% | 167 | 6.4% | 135 | 6.9% | 88 | 8.4% | 7 | 8.5% | 3 | 12.5% |
| 40 - 44 | 319 | 6.0% | 164 | 6.3% | 109 | 5.5% | 86 | 8.2% | 8 | 9.8% | 0 | 0.0% |
| 45 - 49 | 265 | 5.0% | 125 | 4.8% | 97 | 4.9% | 60 | 5.7% | 3 | 3.7% | 0 | 0.0% |
| 50 - 54 | 184 | 3.5% | 96 | 3.7% | 63 | 3.2% | 36 | 3.4% | 6 | 7.3% | 1 | 4.2% |
| 55 - 59 | 126 | 2.4% | 59 | 2.3% | 48 | 2.4% | 24 | 2.3% | 5 | 6.1% | 1 | 4.2% |
| 60 - 64 | 75 | 1.4% | 21 | 0.8% | 25 | 1.3% | 6 | 0.6% | 1 | 1.2% | 0 | 0.0% |
| 65 - 69 | 50 | 0.9% | 20 | 0.8% | 18 | 0.9% | 11 | 1.0% | 2 | 2.4% | 0 | 0.0% |
| 70 - 74 | 50 | 0.9% | 17 | 0.7% | 19 | 1.0% | 9 | 0.9% | 0 | 0.0% | 0 | 0.0% |
| 75 - 79 | 26 | 0.5% | 10 | 0.4% | 11 | 0.6% | 5 | 0.5% | 1 | 1.2% | 1 | 4.2% |
| 80 - 84 | 5 | 0.1% | 8 | 0.3% | 3 | 0.2% | 4 | 0.4% | 0 | 0.0% | 0 | 0.0% |
| 85 + | 2 | 0.0% | 3 | 0.1% | 0 | 0.0% | 1 | 0.1% | 0 | 0.0% | 0 | 0.0% |
| Missing | 37 | 0.7% | 8 | 0.3% | 17 | 0.9% | 2 | 0.2% | 0 | 0.0% | 0 | 0.0% |
| Grand Total | 5,303 | 100.0% | 2,613 | 100.0% | 1,967 | 100.0% | 1,049 | 100.0% | 82 | 100.0% | 24 | 100.0% |

*Note: More than one driver may be speeding in a speed-related crash.

# Speed-Related Crash Participants Injury Severity

Almost one-third (27.8%) of speed-related crash participants were injured compared to 21.6% of all motor vehicle crash participants. The percentage of speed-related crash participant fatalities (0.9%) was higher than the percentage for all motor vehicle crash participants (0.3%).

Figure 8.04 Speed-Related Crash Participants Injury Severity as Reported by Police, Utah 2000 (n=12,296)



# Section 9
# Occupant Protection, 2000



## TABLES



## FIGURES



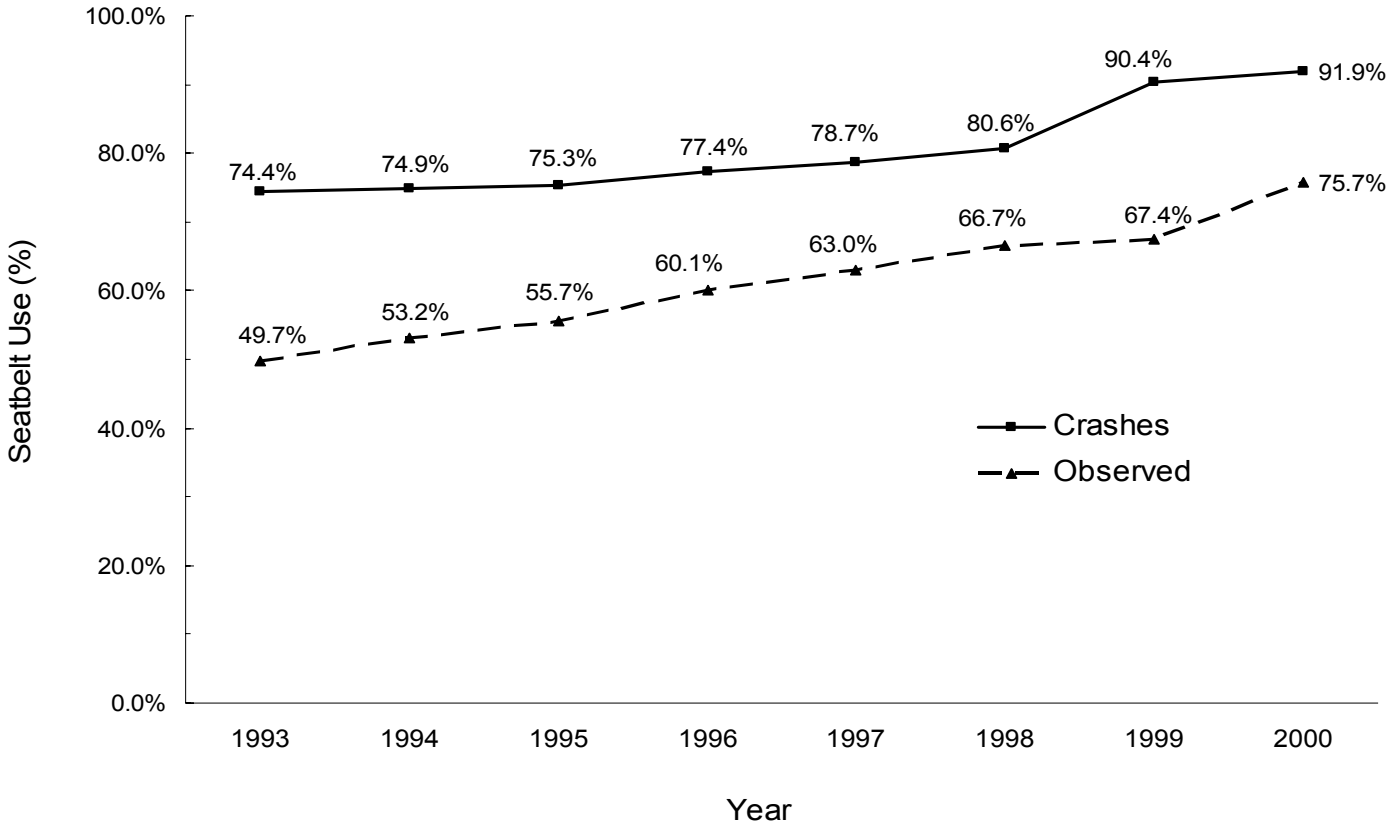
**Note:**
Seatbelt Use - Seatbelt use is reported for occupants in a passenger car, a light truck or van. Occupants are coded as wearing a seatbelt if they reported using a shoulder/lap belt, lap belt or a child safety seat (occupants using only a shoulder strap were reported to be unbelted) at the scene of the crash. In the majority of cases, seatbelt use as recorded by the investigating officer is self-reported by the crash occupant. It is possible that crash occupants may report using a seatbelt when they were not in order to avoid a citation or fine, thus over-inflating the seatbelt use rate. In the case of fatal or severe injury crashes the officer will determine the seatbelt use.

Observational Study - Each year the Utah Department of Public Safety's Highway Safety Office conducts a seatbelt usage observational study. Study sites are located throughout the state where trained observers can record seatbelt use for drivers and front seat passengers of slow moving or stopped vehicles. According to the 2000 study, 75.7% of Utah's drivers and front seat passengers were buckled up and 79.4% of children under the age of 10 years were restrained while riding in a motor vehicle.

# Occupant Protection 1993-2000

Figure 9.01 compares the percentage of seatbelt use reported in crashes to observational studies for drivers and front seat passengers. Seatbelt use by drivers and front-seat passengers has increased each year in both crashes and observational studies. The difference between crash seatbelt use rates reported by crash participants or the investigating officer at the crash scene, and observed seatbelt use rates, may be due to over-reporting of seatbelt use by crash participants at the scene of a crash.

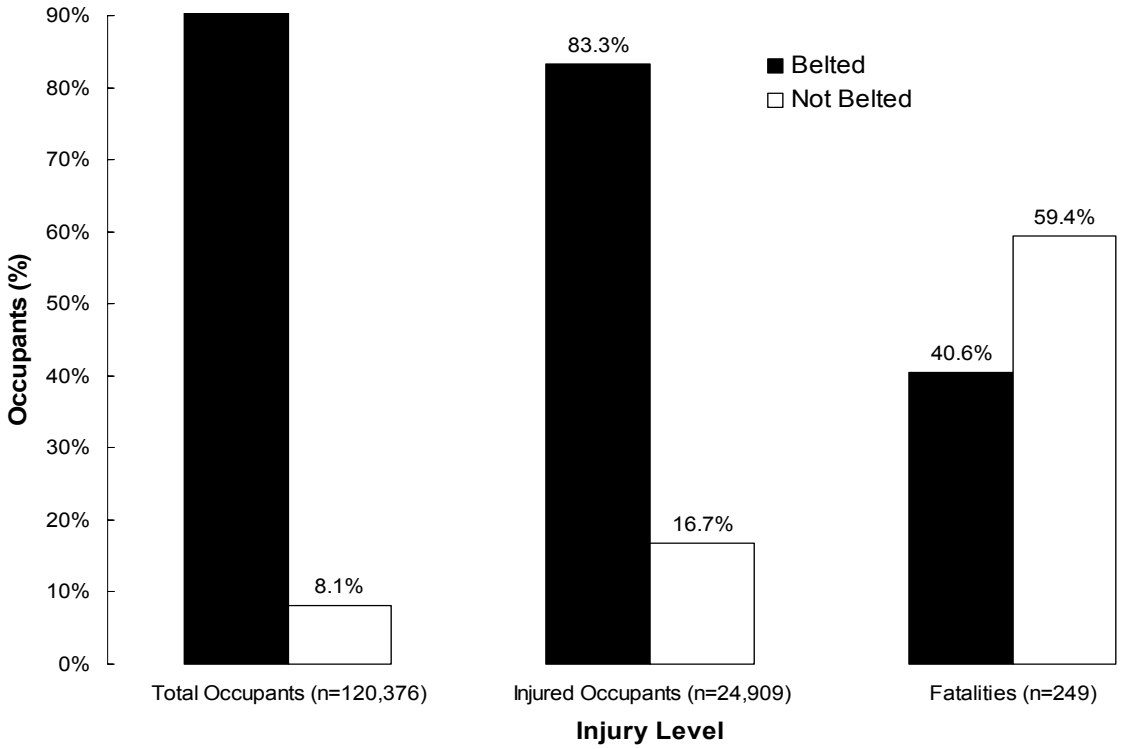
Figure 9.01 Percentage of Drivers and Front Seat Passengers Wearing Seatbelts in Crashes and Observational Studies, Utah 1993 - 2000



# Seatbelt Use

Statewide seatbelt use for all crash occupants (including back seat occupants) as reported to crash investigating officers is shown in Figure 9.02. The majority (91.9%) of occupants involved in a crash and the majority (83.3%) of the injured occupants reported using a seatbelt. Only slightly more than one-third (40.6%) of the fatally injured occupants were belted. Seatbelts are an important safety feature; occupants who were not wearing a seatbelt were 12 times more likely to sustain a fatal injury than occupants who were wearing a seatbelt.

Figure 9.02 Seatbelt Use by Total Occupants, Injured Occupants, and Fatalities, Utah 2000



# Seatbelt Use by Age and County

Table 9.01 shows the self-reported seatbelt use of occupants by age and county. Davis County had the highest percentage of seatbelt use (95.1%), while Sanpete had the lowest percentage of seatbelt use (73.5%).

Table 9.01 Seatbelt Use by Age and County, Utah 2000

| County | Seatbelt Use | Age Group | | | | | | | | | | | | | Total | Percent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 00 - 04 | 05 - 09 | 10 - 14 | 15 - 19 | 20 - 24 | 25 - 29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80+ | Unknown | | |
| Beaver | Belted | 29 | 19 | 8 | 56 | 77 | 35 | 51 | 43 | 27 | 23 | 15 | 3 | 9 | 395 | 84.0% |
| | Unbelted | 3 | 7 | 9 | 26 | 10 | 3 | 6 | 1 | 5 | 0 | 2 | 0 | 3 | 75 | 16.0% |
| Box Elder | Belted | 64 | 54 | 54 | 354 | 216 | 117 | 179 | 201 | 93 | 75 | 55 | 29 | 26 | 1,517 | 85.7% |
| | Unbelted | 2 | 9 | 19 | 78 | 39 | 15 | 44 | 23 | 7 | 5 | 6 | 2 | 5 | 254 | 14.3% |
| Cache | Belted | 202 | 120 | 146 | 1,110 | 820 | 408 | 518 | 443 | 236 | 149 | 105 | 57 | 37 | 4,351 | 88.9% |
| | Unbelted | 9 | 10 | 32 | 164 | 147 | 43 | 50 | 34 | 21 | 12 | 7 | 9 | 5 | 543 | 11.1% |
| Carbon | Belted | 29 | 22 | 27 | 155 | 82 | 61 | 83 | 88 | 53 | 37 | 20 | 11 | 16 | 684 | 88.7% |
| | Unbelted | 0 | 2 | 4 | 25 | 12 | 9 | 7 | 9 | 8 | 3 | 4 | 1 | 3 | 87 | 11.3% |
| Daggett | Belted | 1 | 2 | 4 | 9 | 11 | 5 | 7 | 11 | 7 | 2 | 4 | 0 | 1 | 64 | 86.5% |
| | Unbelted | 3 | 0 | 1 | 3 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 13.5% |
| Davis | Belted | 529 | 398 | 427 | 2,758 | 1,568 | 952 | 1,387 | 1,264 | 738 | 428 | 276 | 103 | 141 | 10,969 | 95.1% |
| | Unbelted | 11 | 19 | 21 | 212 | 102 | 49 | 60 | 50 | 11 | 17 | 8 | 3 | 4 | 567 | 4.9% |
| Duchesne | Belted | 23 | 21 | 18 | 88 | 45 | 34 | 62 | 39 | 43 | 22 | 19 | 5 | 11 | 430 | 78.3% |
| | Unbelted | 1 | 8 | 8 | 40 | 20 | 9 | 11 | 11 | 5 | 1 | 1 | 1 | 3 | 119 | 21.7% |
| Emery | Belted | 14 | 24 | 11 | 99 | 51 | 25 | 52 | 67 | 29 | 23 | 13 | 4 | 10 | 422 | 80.8% |
| | Unbelted | 7 | 5 | 4 | 33 | 14 | 9 | 11 | 8 | 3 | 1 | 1 | 1 | 3 | 100 | 19.2% |
| Garfield | Belted | 2 | 17 | 22 | 20 | 30 | 21 | 32 | 40 | 25 | 20 | 8 | 4 | 7 | 248 | 82.9% |
| | Unbelted | 2 | 2 | 5 | 22 | 7 | 5 | 3 | 1 | 2 | 0 | 0 | 1 | 1 | 51 | 17.1% |
| Grand | Belted | 12 | 13 | 12 | 50 | 61 | 39 | 49 | 47 | 29 | 17 | 10 | 5 | 5 | 349 | 86.2% |
| | Unbelted | 1 | 0 | 0 | 12 | 12 | 5 | 12 | 5 | 2 | 4 | 3 | 0 | 0 | 56 | 13.8% |
| Iron | Belted | 91 | 71 | 76 | 322 | 287 | 148 | 194 | 159 | 114 | 57 | 51 | 19 | 19 | 1,608 | 83.5% |
| | Unbelted | 5 | 13 | 23 | 89 | 80 | 26 | 32 | 25 | 11 | 4 | 4 | 4 | 2 | 318 | 16.5% |
| Juab | Belted | 32 | 23 | 29 | 79 | 65 | 42 | 56 | 52 | 50 | 22 | 11 | 5 | 3 | 469 | 82.6% |
| | Unbelted | 4 | 7 | 4 | 24 | 12 | 17 | 12 | 7 | 6 | 1 | 0 | 1 | 4 | 99 | 17.4% |
| Kane | Belted | 16 | 10 | 10 | 70 | 44 | 17 | 27 | 21 | 25 | 20 | 10 | 3 | 1 | 274 | 79.9% |
| | Unbelted | 2 | 1 | 4 | 20 | 10 | 5 | 7 | 6 | 6 | 7 | 1 | 0 | 0 | 69 | 20.1% |
| Millard | Belted | 35 | 22 | 37 | 143 | 98 | 59 | 86 | 86 | 70 | 42 | 24 | 6 | 2 | 710 | 87.5% |
| | Unbelted | 6 | 4 | 2 | 32 | 16 | 10 | 14 | 9 | 4 | 1 | 2 | 1 | 0 | 101 | 12.5% |

Table 9.01 Seatbelt Use by Age and County, Utah 2000 (continued)

| County | Seatbelt Use | Age Group 00 - 04 | 05 - 09 | 10 - 14 | 15 - 19 | 20 - 24 | 25 - 29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80+ | Unknown | Total | Percent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Morgan | Belted | 7 | 7 | 3 | 64 | 28 | 17 | 27 | 31 | 14 | 9 | 6 | 1 | 0 | 214 | 87.7% |
| | Unbelted | 0 | 0 | 2 | 11 | 6 | 1 | 2 | 2 | 2 | 3 | 0 | 1 | 0 | 30 | 12.3% |
| Piute | Belted | 4 | 2 | 1 | 4 | 6 | 5 | 4 | 10 | 6 | 3 | 8 | 0 | 1 | 54 | 87.1% |
| | Unbelted | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8 | 12.9% |
| Rich | Belted | 3 | 10 | 8 | 26 | 5 | 4 | 20 | 15 | 10 | 2 | 3 | 3 | 10 | 119 | 90.2% |
| | Unbelted | 0 | 0 | 2 | 5 | 2 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 13 | 9.8% |
| Salt Lake | Belted | 2,317 | 1,654 | 1,547 | 10,247 | 8,126 | 5,404 | 7,856 | 6,302 | 3,620 | 1,697 | 1,169 | 456 | 726 | 51,121 | 93.5% |
| | Unbelted | 77 | 117 | 160 | 967 | 678 | 355 | 480 | 319 | 166 | 78 | 54 | 27 | 65 | 3,543 | 6.5% |
| San Juan | Belted | 14 | 13 | 13 | 48 | 54 | 46 | 71 | 52 | 44 | 23 | 11 | 6 | 18 | 413 | 79.9% |
| | Unbelted | 1 | 4 | 12 | 23 | 17 | 15 | 15 | 7 | 2 | 0 | 2 | 1 | 5 | 104 | 20.1% |
| Sanpete | Belted | 17 | 24 | 26 | 114 | 75 | 41 | 83 | 52 | 34 | 21 | 14 | 5 | 4 | 510 | 73.5% |
| | Unbelted | 3 | 8 | 13 | 63 | 28 | 12 | 24 | 13 | 4 | 5 | 7 | 4 | 0 | 184 | 26.5% |
| Sevier | Belted | 44 | 27 | 32 | 160 | 118 | 75 | 99 | 94 | 79 | 47 | 38 | 12 | 24 | 849 | 85.5% |
| | Unbelted | 2 | 0 | 9 | 60 | 25 | 8 | 11 | 5 | 9 | 4 | 5 | 3 | 3 | 144 | 14.5% |
| Summit | Belted | 36 | 32 | 47 | 271 | 184 | 151 | 234 | 232 | 105 | 43 | 21 | 8 | 29 | 1,393 | 92.2% |
| | Unbelted | 0 | 0 | 3 | 27 | 20 | 13 | 22 | 18 | 6 | 4 | 2 | 2 | 1 | 118 | 7.8% |
| Tooele | Belted | 57 | 40 | 31 | 211 | 141 | 110 | 195 | 119 | 90 | 36 | 26 | 9 | 34 | 1,099 | 87.0% |
| | Unbelted | 1 | 4 | 6 | 41 | 28 | 21 | 22 | 24 | 9 | 4 | 3 | 1 | 0 | 164 | 13.0% |
| Uintah | Belted | 29 | 36 | 27 | 237 | 103 | 58 | 114 | 84 | 41 | 26 | 29 | 16 | 20 | 820 | 85.5% |
| | Unbelted | 2 | 1 | 4 | 61 | 34 | 8 | 12 | 10 | 3 | 1 | 1 | 1 | 1 | 139 | 14.5% |
| Utah | Belted | 903 | 597 | 511 | 3,742 | 3,745 | 1,812 | 2,153 | 1,649 | 1,000 | 564 | 397 | 160 | 254 | 17,487 | 91.9% |
| | Unbelted | 29 | 43 | 52 | 529 | 358 | 144 | 158 | 89 | 52 | 30 | 21 | 16 | 25 | 1,546 | 8.1% |
| Wasatch | Belted | 35 | 32 | 42 | 142 | 105 | 72 | 111 | 105 | 58 | 39 | 26 | 8 | 18 | 793 | 88.8% |
| | Unbelted | 1 | 3 | 6 | 34 | 24 | 16 | 8 | 5 | 2 | 1 | 0 | 0 | 0 | 100 | 11.2% |
| Washington | Belted | 194 | 127 | 134 | 858 | 430 | 257 | 356 | 345 | 249 | 202 | 173 | 102 | 69 | 3,496 | 88.9% |
| | Unbelted | 9 | 12 | 28 | 167 | 60 | 43 | 34 | 27 | 18 | 15 | 12 | 6 | 6 | 437 | 11.1% |
| Wayne | Belted | 6 | 3 | 7 | 17 | 16 | 10 | 19 | 25 | 5 | 14 | 3 | 0 | 2 | 127 | 83.6% |
| | Unbelted | 1 | 3 | 0 | 5 | 3 | 2 | 5 | 1 | 1 | 2 | 2 | 0 | 0 | 25 | 16.4% |
| Weber | Belted | 383 | 291 | 284 | 2,135 | 1,489 | 921 | 1,332 | 1,125 | 651 | 394 | 346 | 136 | 145 | 9,632 | 92.7% |
| | Unbelted | 9 | 21 | 28 | 217 | 149 | 78 | 99 | 82 | 27 | 22 | 12 | 5 | 6 | 755 | 7.3% |
| Statewide | Belted | 5,128 | 3,711 | 3,594 | 23,589 | 18,080 | 10,946 | 15,457 | 12,801 | 7,545 | 4,057 | 2,891 | 1,176 | 1,642 | 110,617 | 91.9% |
| | Unbelted | 191 | 303 | 461 | 2,995 | 1,913 | 925 | 1,162 | 792 | 392 | 226 | 160 | 91 | 148 | 9,759 | 8.1% |

# Seatbelt Use
# by Gender, Age and Occupant Placement

Female and male crash occupants reported similar seatbelt use (approximately 90%). For injured occupants and fatally injured occupants, the reported seatbelt use was greater for females than males. However, the reported seatbelt use for fatalities was almost half of that for total crash occupants regardless of gender (Table 9.02).

Table 9.02 Seatbelt Use by Gender, Utah 2000

| Gender | Seatbelt Status | Total Occupants # | Total Occupants % | Injured Occupants # | Injured Occupants % | Fatalities # | Fatalities % |
|---|---|---|---|---|---|---|---|
| Female | Belted | 52,149 | 92.9% | 12,123 | 85.7% | 43 | 42.6% |
| | Unbelted | 4,012 | 7.1% | 2,026 | 14.3% | 58 | 57.4% |
| Male | Belted | 58,383 | 91.0% | 8,607 | 80.1% | 58 | 39.2% |
| | Unbelted | 5,743 | 9.0% | 2,141 | 19.9% | 90 | 60.8% |
| Total | Belted | 110,532 | 91.9% | 20,730 | 83.3% | 101 | 40.6% |
| | Unbelted | 9,755 | 8.1% | 4,167 | 16.7% | 148 | 59.4% |
| Grand Total | | 120,287 | 100.0% | 24,897 | 100.0% | 249 | 100.0% |

Reported seatbelt use did not vary substantially by seating location (Table 9.03). Among total, injured, and fatally injured occupants, drivers reported the highest seatbelt use compared to other seating locations.

Table 9.03 Seatbelt Use by Occupant Placement, Utah 2000

| Placement | Seatbelt Status | Total Occupants # | Total Occupants % | Injured Occupants # | Injured Occupants % | Fatalities # | Fatalities % |
|---|---|---|---|---|---|---|---|
| Driver | Belted | 75,899 | 93.1% | 13,925 | 86.0% | 66 | 45.5% |
| | Unbelted | 5,657 | 6.9% | 2,265 | 14.0% | 79 | 54.5% |
| Front Seat Passenger | Belted | 20,266 | 89.2% | 4,634 | 79.2% | 27 | 39.7% |
| | Unbelted | 2,464 | 10.8% | 1,217 | 20.8% | 41 | 60.3% |
| Back Seat Passenger | Belted | 14,452 | 89.8% | 2,180 | 76.0% | 8 | 22.2% |
| | Unbelted | 1,638 | 10.2% | 688 | 24.0% | 28 | 77.8% |
| Total Belted | | 110,617 | 91.9% | 20,739 | 83.3% | 101 | 40.6% |
| Total Unbelted | | 9,759 | 8.1% | 4,170 | 16.7% | 148 | 59.4% |
| Grand Total | | 120,376 | 100.0% | 24,909 | 100.0% | 249 | 100.0% |

Seatbelt use varied slightly by age (Table 9.04). For total occupants, children under the age of 5 years had the highest rate of reported seatbelt use (96.4%), whereas, the age group 10 to 14 years and teenagers aged 15 to 19 years reported the lowest percentage of seatbelt use (88.6% and 88.7%). Among injured occupants, the age group 70 to 74 years reported the highest seatbelt use and those aged 10 to 14 years reported the lowest. For fatally injured occupants, the age group 60 to 64 years reported to have the highest seatbelt use and those aged 10 to 14 years the lowest.

Although the reported seatbelt or child safety seat use rate for children under the age of 10 years was often one of the highest for all age groups, it does not indicate that children were properly restrained. Unfortunately, several statewide surveys have found that child safety seats are often placed incorrectly in vehicles. In addition, young children are often moved to adult sized seatbelts prematurely when a booster seat is more appropriate. (see page 9.11 for Safety Recommendations).

Table 9.04 Seatbelt Use by Age Group, Utah 2000

| | Total Occupants | | Injured Occupants | | Fatalities | |
|---|---|---|---|---|---|---|
| **Age Category** | Total | % Belted | Total | % Belted | Total | % Belted |
| 00 - 04 | 5,319 | 96.4% | 616 | 89.4% | 8 | 37.5% |
| 05 - 09 | 4,014 | 92.5% | 755 | 84.2% | 3 | 33.3% |
| 10 - 14 | 4,055 | 88.6% | 882 | 75.1% | 3 | 0.0% |
| 15 - 19 | 26,584 | 88.7% | 5,273 | 75.7% | 37 | 24.3% |
| 20 - 24 | 19,993 | 90.4% | 4,144 | 80.6% | 48 | 35.4% |
| 25 - 29 | 11,871 | 92.2% | 2,520 | 83.9% | 21 | 42.9% |
| 30 - 34 | 8,695 | 92.8% | 1,914 | 84.5% | 15 | 33.3% |
| 35 - 39 | 7,924 | 93.2% | 1,690 | 87.1% | 19 | 57.9% |
| 40 - 44 | 7,413 | 93.9% | 1,513 | 86.7% | 13 | 53.8% |
| 45 - 49 | 6,180 | 94.5% | 1,410 | 90.2% | 10 | 30.0% |
| 50 - 54 | 4,599 | 94.8% | 1,062 | 90.3% | 14 | 28.6% |
| 55 - 59 | 3,338 | 95.4% | 762 | 92.0% | 11 | 63.6% |
| 60 - 64 | 2,377 | 94.2% | 564 | 89.2% | 6 | 83.3% |
| 65 - 69 | 1,906 | 95.4% | 421 | 92.9% | 6 | 50.0% |
| 70 - 74 | 1,690 | 94.9% | 418 | 93.3% | 8 | 50.0% |
| 75 - 79 | 1,361 | 94.6% | 295 | 90.2% | 7 | 28.6% |
| 80 - 84 | 826 | 94.6% | 198 | 87.4% | 7 | 71.4% |
| 85 + | 441 | 89.6% | 116 | 83.6% | 12 | 50.0% |
| Missing | 1,790 | 91.7% | 356 | 81.5% | 1 | 0.0% |
| Grand Total | 120,376 | 91.9% | 24,909 | 83.3% | 249 | 40.6% |

# Children and Restraint Use

The proportion of children under the age of 9 years who were reported as unbelted increased with increasing age (Table 9.05) The majority of children under the age of 2 years (84.3%) were in child safety seats at the time of the crash, compared to 53.8% of children aged 2 to 4 years. Children under the age of 2 years were 5 times more likely to be in a child safety seat than children between the ages of 2 to 4 years. The majority (93.1%) of children between the ages 5 to 8 years were belted or in a child safety seat. Child safety seat usage was highest for children in the back seat; children in the back seat were 4 times more likely to be in a child safety seat than children in the front seat.

Utah's Child Restraint Law requires all children under the age of 19 years to be properly restrained when riding in a motor vehicle. In addition, children age 4 years and under must be restrained in a child safety seat (see page 9.11 for Safety Laws and Recommendations).

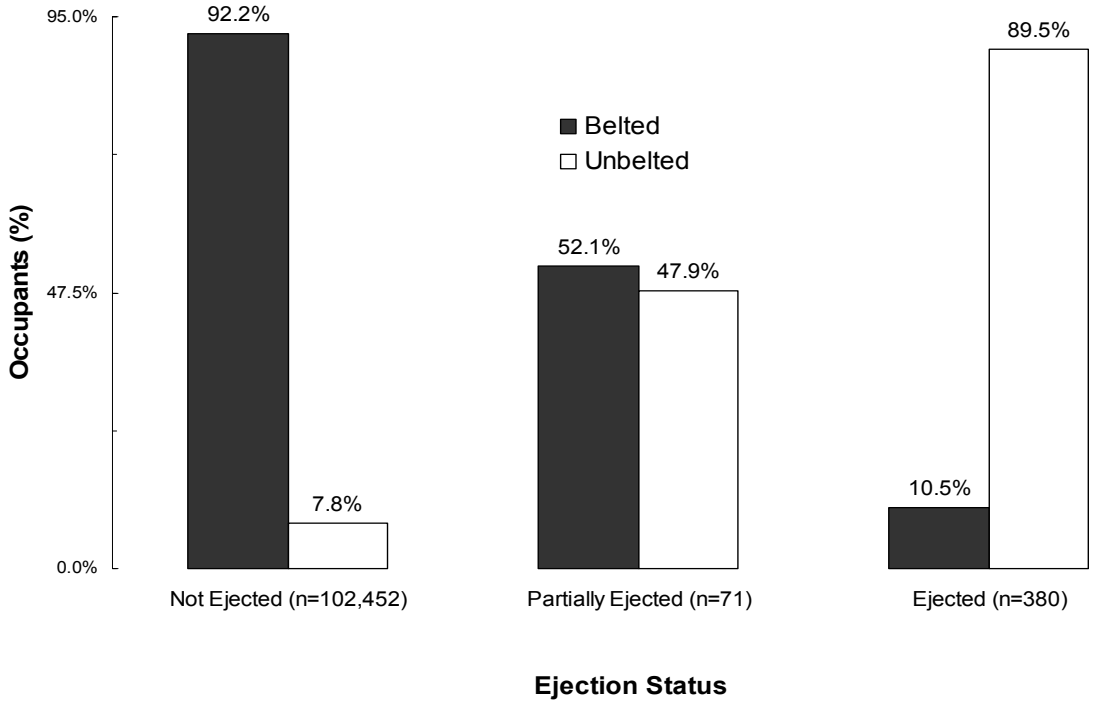
Table 9.05 Seating Location and Restraint Status for Children Under Age 9 Years, Utah 2000

| | | Ages 0 - 1 | | Ages 2 - 4 | | Ages 5 - 8 | | |
|---|---|---|---|---|---|---|---|---|
| **Seating Location** | **Seatbelt Status** | **#** | **%** | **#** | **%** | **#** | **%** | **Total** |
| Front Middle | Child Safety Seat | 40 | 69.0% | 26 | 24.3% | 2 | 1.6% | 68 |
| | Other Belted | 11 | 19.0% | 62 | 57.9% | 105 | 84.7% | 178 |
| | Unbelted | 7 | 12.1% | 19 | 17.8% | 17 | 13.7% | 43 |
| Front Right | Child Safety Seat | 99 | 81.1% | 100 | 30.0% | 19 | 2.9% | 218 |
| | Other Belted | 19 | 15.6% | 207 | 62.2% | 574 | 88.3% | 800 |
| | Unbelted | 4 | 3.3% | 26 | 7.8% | 57 | 8.8% | 87 |
| Back Seat | Child Safety Seat | 1,564 | 85.0% | 1,642 | 57.7% | 216 | 8.7% | 3,422 |
| | Other Belted | 243 | 13.2% | 1,091 | 38.3% | 2,108 | 85.1% | 3,442 |
| | Unbelted | 33 | 1.8% | 115 | 4.0% | 152 | 6.1% | 300 |
| Total | Child Safety Seat | 1,703 | 84.3% | 1,768 | 53.8% | 237 | 7.3% | 3,708 |
| | Other Belted | 273 | 13.5% | 1,360 | 41.4% | 2,787 | 85.8% | 4,420 |
| | Unbelted | 44 | 2.2% | 160 | 4.9% | 226 | 7.0% | 430 |
| Grand Total | | 2,020 | 100.0% | 3,288 | 100.0% | 3,250 | 100.0% | 8,558 |

# Ejection by Seatbelt Use

Figure 9.03 shows an inverse relationship between ejection from a motor vehicle and seatbelt use. The majority (89.5%) of the occupants ejected from a motor vehicle were not reported to be using a seatbelt, compared to only 7.8% of occupants not ejected from a motor vehicle.

Figure 9.03 Ejection by Seatbelt Use, Utah 2000



# Air Bags

Table 9.06 shows the age of occupants whose air bag deployed and the percentage belted. A majority of total and injured occupants whose air bag deployed were wearing a seatbelt. However, only 40.9% of fatalities whose air bag deployed were wearing a seatbelt.

Table 9.06 Percentage of Seatbelt Use for Occupants Whose Air Bag Deployed, Utah 2000

| | Total Occupants | | Injured Occupants | | Fatalities | |
|---|---|---|---|---|---|---|
| **Age Category** | Total | % Belted | Total | % Belted | Total | % Belted |
| 00 - 04 | 22 | 90.9% | 6 | 83.3% | 0 | 0.0% |
| 05 - 09 | 17 | 88.2% | 10 | 100.0% | 1 | 0.0% |
| 10 - 14 | 29 | 79.3% | 20 | 75.0% | 0 | 0.0% |
| 15 - 19 | 389 | 83.0% | 247 | 79.8% | 2 | 0.0% |
| 20 - 24 | 379 | 85.0% | 230 | 83.5% | 2 | 100.0% |
| 25 - 29 | 207 | 87.0% | 132 | 84.8% | 2 | 0.0% |
| 30 - 34 | 130 | 84.6% | 95 | 83.2% | 3 | 33.3% |
| 35 - 39 | 129 | 85.3% | 81 | 86.4% | 2 | 50.0% |
| 40 - 44 | 103 | 95.1% | 64 | 96.9% | 1 | 100.0% |
| 45 - 49 | 104 | 88.5% | 69 | 91.3% | 2 | 0.0% |
| 50 - 54 | 70 | 88.6% | 47 | 83.0% | 2 | 100.0% |
| 55 - 59 | 71 | 93.0% | 46 | 91.3% | 2 | 50.0% |
| 60 - 64 | 39 | 92.3% | 32 | 93.8% | 0 | 0.0% |
| 65 - 69 | 37 | 91.9% | 26 | 88.5% | 0 | 0.0% |
| 70 - 74 | 37 | 91.9% | 28 | 89.3% | 0 | 0.0% |
| 75 - 79 | 39 | 89.7% | 29 | 89.7% | 1 | 0.0% |
| 80 - 84 | 23 | 78.3% | 18 | 83.3% | 2 | 50.0% |
| 85 + | 6 | 66.7% | 4 | 75.0% | 0 | 0.0% |
| Missing | 21 | 81.0% | 14 | 71.4% | 0 | 0.0% |
| Grand Total | 1,852 | 86.3% | 1,198 | 85.0% | 22 | 40.9% |

# Safety Restraint Laws And Recommendations

## Safety Restraint Use Law

Utah law requires all motor vehicle occupants to be wearing a seatbelt when traveling in a motor vehicle. The purpose of this law is to protect Utahns from needless death and injury and reduce taxpayer costs resulting from traffic collisions. The law is a secondary law which means a person may be issued a citation only when the police officer has stopped the vehicle for another reason. Any person who violates this law is subject to a fine of $45, reduced to $15 upon completion of a traffic safety educational class. Exceptions to the law include, delivery personnel, rural letter carriers, persons driving vehicles used for farm purposes, individuals in motor vehicles manufactured before July 1, 1966, and individuals with physically disabling or medical condition which would prevent appropriate use of a safety belt. Visitors from outside Utah are also required to wear a seatbelt when traveling in Utah. The law is primary for drivers and passengers under age 19 years. Children age 4 years and under must ride in an approved child safety seat and children aged 5 to 19 years must ride in an approved child safety seat or seatbelt. This is a primary law which means a law enforcement officer can stop a vehicle if he/she notices children are not properly restrained. A fine can be issued solely for not restraining a child under the age of 19 years and violators will be subject to a fine of not more than $45. The first offense shall be dismissed if the driver shows proof of acquiring a child safety seat or seatbelt. The driver is responsible for unrestrained occupants in the vehicle under the age of 16, whether or not they are the parents of the unrestrained child.

## Child Safety Seat Recommendations

- Infants should be placed in a rear facing child safety seat until they are at least 20 pounds AND 1 year of age.
- Children over 1 year of age weighing 20 - 40 pounds should ride in forward facing child safety seats.
- Older children (approximately 4-8 years of age) should ride in belt-positioning booster seats until they are approximately 80 pounds and can use an adult-size lap and shoulder belt system.
- Avoid using secondhand child safety seats especially if it does not have the original instruction booklet, if it has been used in a crash, if it does not have the manufacturer's date and model number on it or if it is more than six years old.
- If your car has lap/shoulder combination belts, it could be critical to use a locking clip to properly secure your safety seat to the car. Consult the vehicle owner’s manual.
- The safest place for any child age 12 and under is in the back seat of the vehicle.
- Children should never be held on an adult’s lap. The force of the collision would tear a child from the adult’s arms. If the adult is not wearing a safety belt, the child could be crushed between the adult’s body and the dashboard.

## Seatbelt Recommendations

- Always use both the lap and shoulder belt. When worn properly, the shoulder belt should fit across the collar bone and the lap belt should fit low over the hips.
- Never place the shoulder strap under your arm or behind your back.
- Use belt-positioning booster seats for children who have outgrown their toddler safety seat (at about 4 years of age and 40 pounds). Booster seats help position an adult-size seatbelt for a safer fit on children.

## Air Bag Safety Recommendations

- NEVER place a rear facing child safety seat in the front seat of a vehicle with a passenger side air bag.
- Place children age 12 years and younger in the back seat in an age and size-appropriate child safety seat or seatbelt.
- If you are the driver, keep 10 - 12 inches between you and the steering wheel.
- Move the front passenger seat as far back as possible.
- Shorter drivers, who cannot get 10 inches from the steering wheel and still comfortably reach the pedals can purchase pedal extender (call (813) 932-8566 for more information).
- Air bags are "supplemental" to seatbelts. Be sure you and your passengers use both the lap and shoulder portion of the seatbelt and children ride in appropriate child safety restraints in the back seat.
- If you MUST disconnect your vehicle's air bag contact Utah Highway Safety at (801) 293 -2480 or log onto the National Highway Traffic Safety Administration website at http://www/nhtsa.dot.gov for information.