

Vulnerable Roadway User's Programs - Problem Identification FY24 HSP

Pedestrian Safety

Everyday, Utahns choose whether they want to drive a motor vehicle, be a motor vehicle occupant, ride a motorcycle, or a bicycle, yet almost all of us are a pedestrian at one point in our day. Utah's pedestrians represent about 0.6% of persons in crashes but 14% of deaths.

Analysis of five years of pedestrian-related crash data (2017- 2021) has shown that:

- 4,334 pedestrians were involved in a crash with 203 pedestrians killed
- 97% of pedestrians involved in crashes are injured or killed.
- 35% of the pedestrians in crashes are between the ages of 10-24
- 46% of the pedestrians in crashes are younger than 30
- The majority of pedestrians hit were male. Drivers involved in pedestrian crashes were predominantly male as well.
- 48% of the drivers involved in pedestrian-related crashes are between the ages of 25-55
- Crashes occur more frequently in September, October, and November
- 31% of pedestrian-involved crashes occur in September, October, November
- Crashes peak between 2:00 pm and 7:00 pm
- The majority of the crashes occur in urban counties (Salt Lake, Utah, Davis and Weber)
- 18% of pedestrians killed had a BAC of 0.08 or over (2017-2021)

Both drivers and pedestrians share a responsibility in preventing pedestrian fatalities. The leading contributing factors for pedestrians in fatalities are failing to yield and improper crossing. The leading contributing factors for drivers in pedestrian fatalities are failing to yield and speed. Data shows that 46% of pedestrians involved in crashes were contributed to the pedestrian. The most common action for pedestrians was entering or crossing the road (68%). Drivers were at fault in more than half of the crashes with 49% of vehicles driving straight ahead, with 19% turning left, and 18% turning right.

Bicycle Safety

Using bicycles for recreation, exercise and as an alternate or active means of commuting to work has increased in popularity. Because of this, the number of bicycles on Utah roadways has also increased. Overall, the number of fatalities resulting from a bicycle-motor vehicle crash has remained relatively low.

Analysis of the bicycle related crash data over a five-year period (2017-2021) has shown that:

- There were 2,513 bicyclists in a reportable motor vehicle crash. Of these 92% (2,310) were injured, and 29 were killed

- Over half (54%) of all bicyclists involved in crashes were below the age of 35, 36% of which were below the age of 20.
- 78% of the bicyclists involved in crashes were male
- 48% of the motor vehicle drivers were under the age of 34 years
- 43% of the motor vehicle drivers were male and 40% were female
- Crashes occurred more frequently May through October, likely due to weather conditions
- Crashes are more frequent during the weekdays (Monday through Friday)
- Crashes peak between 1:00 pm and 7:00 pm
- 85% of crashes occur in the six most populated counties (Salt Lake, Utah, Weber, Davis, Cache, and Washington)
- 45% of crashes occur on roads with speed limits between 22-45 mph
- 45% of all bicycle-motor vehicle crashes occurred in a 4-leg intersection

The cyclist contributed to the crash in 52% of crashes involving bicyclists. Among drivers involved in crashes with bicyclists the most common action intended by the driver was traveling straight ahead (36%) turning right (35%), and turning left (18%).

The driver age group most likely to be involved in crashes with bicyclists are drivers 13-20 years old.

Motorcycle Safety

Motorcyclists are much more vulnerable than other motorists, and the consequences of crashes are frequently more severe. The number of registered motorcycles in Utah has almost doubled from 43,271 in 2005 to 84,822 in 2021. Less than 3% of Utah's registered vehicles are motorcycles. Motorcyclists accounted for 1.3% of persons in crashes and 15% of deaths. Motorcycle crashes were 10 times more likely to result in a death than other crashes. Motorcyclist fatalities reached an all-time high of 52 in 2022.

Utah's law requires anyone under the age of 18 to wear a helmet. Wearing helmets that meet the Department of Transportation (DOT) standard is the single most effective means of reducing the number of people who get injured or die from motorcycle crashes, according to NHTSA.

When examining helmet use in motorcycle-related crashes, several data resources showed that:

- 57% of motorcyclists involved in a traffic crash were wearing a helmet, according to all crash data over a five-year period (2017-2021)
- Motorcyclists who did not wear a helmet were 1.6 times as likely to have fatal injuries when involved in a crash compared to those who did wear a helmet.
- The average annual emergency department and hospital charges for motorcycle crashes where there was no helmet is \$9,530,636.55
- 65.9% of motorcyclists use helmets in 17 counties, as reflected in the 2018 Utah Observation Helmet Use Survey

Analysis of 2017-2021 crash data for motorcycle-related crashes has shown that:

- 5,396 motorcycle related crashes resulted in 209 motorcycle related fatalities
- 94% of motorcyclists involved in crashes were male
- 50% of motorcyclists in crashes were younger than 35 years
- 37% of motorcycle passengers were female
- 50% of motorcycle drivers had a contributing factor in the crash
- 56% of motorcycle crashes involve another motor vehicle.
- 86% of motorcycle crashes happened during warmer weather conditions - April - October
- The leading contributing factor for motorcycle drivers in a crash was following too close, failed to keep in proper lane, too fast for conditions and speeding
- The leading contributing factor for other drivers in motorcycle crashes were failed to yield, followed too closely, and improper turn
- 62% of motorcycle operators and 57% of motorcycle passengers involved in a motorcycle crash wore a helmet
- There were 35 fatalities in Salt Lake, Utah, Weber, Washington & Davis counties combined in 2022 which accounts for 67% of all motorcycle fatalities.

Older Driver Safety

“Older” refers to a person 65 years of age and older. One of our most rapidly growing age groups, the US Census projects that older adults will outnumber kids for the first time in U.S. history around the year 2034: People aged 65 and over are expected to number 77.0 million, while children under age 18 will number 76.5 million. According to the 2020 Census data, 11.4% of Utahns are 65 and older.

The National Highway Traffic Safety Administration reported in 2020 that 6,549 people 65 and older were killed in traffic crashes in the United States, accounting for 17% of all traffic fatalities. Utah Crash Data shows that from 2017-2021, 22.5% of fatalities were among older adults. According to the IIHS, per mile traveled, data shows that fatal crash rates increase noticeably starting at age 70-74 and are highest among drivers 85 and older. The increased fatal crash risk among older drivers is largely due to their increased susceptibility to injury, particularly chest injuries, and medical complications, rather than an increased tendency to get into crashes. All of these reasons for deaths and injuries can lead back to addressing and explaining the five deadly behaviors of driving with Utah’s active aging community.

Utah crash data for a five-year period (2017-2021) for older driver-related crashes and fatal crashes showed that:

- There were 312 older adult driver related fatalities (22.5% of total crashes)
- 40,701 crashes involving older drivers resulted in 19,683 injuries
- 75% of deaths and injuries of Utah’s older adult drivers occurred on clear weather days
- 14.4% of older driver crashes were a result of the driver failing to yield the right-of-way
- Most injuries occurred between 12PM and 5PM (Peak commute times for all drivers)

- Fatal crashes were highest in Salt Lake (63), Utah (37) and Washington (22) Counties while total crashes were highest in Salt Lake, Utah and Davis Counties

The Trauma Program at the University of Utah Health has treated 261 (197 were driving) drivers who were 65 and older for injuries sustained in a motor vehicle collision over the past five years. Of those, there have been 28 fatalities treated at their facility. On average, those drivers had an ISS score of 13.88, which indicates severe injuries. Of those that had arrival times pulled into the database, 27% of those treated had their crashes occur during peak times (3PM to 7PM), and only 9.3% had an isolated injury. Head, neck, spine, and chest injuries continue to be high and are usually associated with higher mortality. Of note, the number of older adults treated at a University of Utah hospital is increasing every year.