

2014 Utah Seat Belt Use survey

Since 1986, the Utah Department of Public Safety's Highway Safety Office has conducted an annual seat belt observational study to determine the percentage of motorists who buckle up. This study has been the cornerstone for developing, implementing and evaluating occupant protection programs in the state. The first study revealed that only 18% of Utah motorists use seat belts. For nearly three decades, safety advocates have worked to increase the use of this life-saving device by implementing a multi-faceted and comprehensive program. As a result, seat belt use has climbed and lives have been saved.

Executive Summary & Results

The National Highway Traffic Safety Administration (NHTSA) requires state's to conduct observational surveys annually to determine the level of seat belt use. The 17 counties selected for observation in Utah were: Box Elder, Cache, Carbon, Davis, Grand, Iron, Millard, Salt Lake, San Juan, Sanpete, Sevier, Summit, Tooele, Uintah, Utah, Washington, and Weber.

The study was conducted June 3-14 during which a total of 25,080 vehicle occupants, including 19,558 drivers and 5,522 outboard passengers, were observed. Forty-three percent (43%) of the observed vehicles were cars, 24% sport utility vehicles (SUV), 25% pickup trucks, and 8% were vans.

The seat belt use rate among motor vehicle occupants was **83.4% in 2014**, which demonstrates an increase of 1.0% from the 2013 rate of 82.4%. Usage rates by type of vehicle were also analyzed (Table 1) and show that 85.7% of car occupants, 87.8% of SUVs, 88.1% of vans, and 71.9% of truck occupants were using seat belts.

Seat belt usage also varied by the type of roadway. More people used seat belts while traveling on highways (87.30%) when

compared to arterial roadways (81.1%) and local roads (74.9%). The study found little difference in seat belt usage among drivers (83.3%) and front seat passengers (83.7%).

Urban counties (Cache, Davis, Salt Lake, Utah, Washington, and Weber) were analyzed separately from rural. The seat belt usage rate for urban areas was 85.8% and 73.8% for rural counties. Table 2 shows that use rates were higher in urban counties in all categories.

The study found that female occupants buckled up more often (86.4%) than their male counterparts (78.4%) and this is true for both urban and rural areas. In urban counties, the use rate among females was found to be 91.1%, whereas the rate among males dropped to 81.8%. In rural counties 79.0% of females were using seat belts but only 69.5% of males buckled up (Table 2).

According to federal guidelines, the reliability of the survey results should be within the 95 percent confidence interval. The standard error was determined to be 0.0081, well within a standard error of 2.5 percentage points as required by NHTSA guidelines.

Table 1: Seat Belt Use (%) by Vehicle Type in Utah, 2012-2014

	2014	2013	2012
All Vehicles	83.4	82.4	81.9
SUVs	87.8	86.1	87.0
Vans	88.1	86.7	86.4
Cars	85.7	85.1	84.6
Trucks	71.9	71.3	69.3

Table 2: Seat Belt Use (%) by Urban/Rural in Utah, 2014

	Urban	Rural
All Occupants	85.8	73.8
Male Occupants	81.8	69.5
Female Occupants	91.1	79.0
SUVs	89.7	80.2
Vans	88.9	84.0
Cars	88.2	75.3
Trucks	74.5	63.1

Utah's
Seat Belt Use
Rate in 2014
was 83.4%

BACKGROUND

In April 2011, NHTSA issued new Uniform Criteria for State Observational Surveys of Seatbelt Use. Utah's new survey design was accepted as fully compliant with the Uniform Criteria and was used for the implementation of the state's seat belt surveys beginning in 2012. The most dramatic change in the survey design was the inclusion of 11 rural counties in the study. Prior to 2012, the study only surveyed the six most urban counties in the state. Due to the changes in methodology, the results should not be compared to previous statewide seat belt use surveys and marks a new benchmark for the state.

Regional Differences & Conclusions

Survey results reflect restraint use by the driver and front seat outboard passenger in a probability sample of vehicles drawn from the counties with the greatest motor vehicle fatality rates in Utah. The seat belt usage rates for occupants are very different from county to county, especially when comparing urban and rural areas of the state.

Table 3 presents the seat belt usage rates by county and gender for 2014. It also provides the 2013 rates and percentage change for each county. The table shows Summit, Davis and Box Elder counties had the highest usage rate and the rural counties of Carbon, San Juan, and Sanpete had the lowest. In addition, female occupants had a significantly higher usage rate than male occupants in every county surveyed.

Conclusions

In 2014, van occupants, females, highway motorists, and urban residents had the highest seat belt use rates. While truck occupants, males, motorists on local roads, and rural residents had the lowest usage rates. Counties with the highest use rates include Summit (91.8%), Davis (91.2%), Box Elder (88.9%), Weber (86.0%) and Salt Lake (85.9%). Counties with the lowest use rates include San Juan (47.4%), Carbon (51.5%), Sanpete (61.5%), Uintah (64.5%) and Millard (68.3%).

One of the most significant changes in seat belt usage was found among rural motorists which increased 3.8% from the previous year. When examining county data, the largest increases in usage were seen in Cache (+12.9%), Tooele (+12.1%) and Box Elder (+10.0%) as shown in Table 3. In addition, seat belt use among drivers and passengers in vans driven on rural roadways increased by 10.1% from the 2013 rate of 73.9%.

Table 3: Seat Belt Use by County and Gender in 2014, Utah
(including 2013 use rate by county and % change)

County	2014			2013	
	% Female Belted	% Male Belted	% Total Belted	% Total Belted	% Change
Box Elder	94.7	84.0	88.9	78.9	+10.0
Cache	93.6	76.8	84.6	71.7	+12.9
Carbon	54.9	48.3	51.5	52.5	-1.0
Davis	94.3	88.2	91.2	86.0	+5.2
Grand	81.3	76.2	78.4	78.1	+0.3
Iron	80.8	69.6	74.9	73.5	+1.4
Millard	73.7	63.2	68.3	61.6	+6.7
Salt Lake	90.4	82.7	85.9	88.7	-2.8
San Juan	52.6	42.9	47.4	55.0	-7.6
Sanpete	69.3	55.5	61.5	69.6	-8.1
Sevier	81.6	62.6	71.1	75.7	-4.6
Summit	95.5	89.1	91.8	94.3	-2.5
Tooele	83.1	79.7	81.2	69.1	+12.1
Uintah	70.6	61.5	64.5	63.0	+1.5
Utah	90.8	80.0	84.7	85.8	-1.1
Washington	84.7	73.5	78.6	75.6	+3.0
Weber	93.9	80.3	86.0	83.0	+3.0
Total	88.5	79.4	83.4	82.4	+1.0

SURVEY DESIGN AND METHODOLOGY

According to survey criteria, each state must study seat belt use within a geographic area that accounts for at least 85 percent of the passenger vehicle crash-related fatalities according to the Fatality Analysis Reporting System (FARS) data averages for the period of 2008 to 2010. Of Utah's 29 counties, 17 were selected to be included in this study. Road segments by functional classification (Interstate/Primary, Arterial/Secondary, and Local) were randomly selected using a combination of the Utah Department of Transportation roadway file and the 2010 TIGER data developed by the U.S. Census Bureau. All passenger vehicles with a gross vehicle weight up to 10,000 pounds were included in the survey. A total of 170 sites were selected for the study, which took place for a two-week period in June 2014. In each of the 17 counties, 10 sites were surveyed by trained observers who documented belt use and gender among the driver and outboard front seat passenger for a period of 45 minutes at each location.



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For a copy of the complete survey design and methodology contact the Highway Safety Office