

# 2016 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 6-18 during which a total of 28,469 vehicle occupants, including 22,108 drivers and 6,361 outboard passengers, were observed. Thirty-nine percent (39%) of the observed vehicles were cars, 28% sport utility vehicles (SUV), 25% pickup trucks, and 8% were vans.

The seat belt use rate among motor vehicle occupants was **87.9% in 2016**, which demonstrates an increase of 0.7% from the 2015 rate of 87.2%. Since the implementation of the primary seat belt law in May 2015, Utah's seat belt use has increased 4.5%.

Seat belt usage varied by the type vehicle (Table 1) and type of roadway. More people used seat belts while traveling on highways (90.7%) when compared to arterial

roadways (86.8%) and local roads (78.4%). The study found that passengers had a higher usage rate (89.3%) than drivers (87.5%).

Urban counties (Cache, Davis, Salt Lake, Utah, Washington, and Weber) were analyzed separately from rural. The seat belt usage rate for urban areas was 90.5% and 78.5% 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 (91.6%) than their male counterparts (84.8%) and this is true for both urban and rural areas. In urban counties, the use rate among females was found to be 93.9%, whereas the rate among males dropped to 87.7%. In rural counties 83.6% of females were using seat belts but only 74.1% 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 0.0097, 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, 2014-2016**

	2016	2015	2014
All Vehicles	87.9	87.2	83.4
SUVs	92.4	90.6	87.8
Vans	90.4	90.7	88.1
Cars	90.2	89.3	85.7
Trucks	76.6	78.1	71.9

**Table 2: Seat Belt Use (%) by Urban/Rural in Utah, 2016**

	Urban	Rural
All Occupants	90.5	78.5
Male Occupants	87.7	74.1
Female Occupants	93.9	83.6
SUVs	93.9	86.5
Vans	91.4	86.0
Cars	92.2	82.0
Trucks	81.4	64.2

Utah's  
Seat Belt Use  
Rate in 2016  
was 87.9%

## 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 2016. The table shows Davis, Summit and Weber counties had the highest usage rate and the rural counties of Uintah and San Juan had the lowest. The largest increases were seen in Sevier County (10.6%) and Cache County (6.4%). The counties with the largest decrease were Millard (-7.9%) and Uintah (-5.8%). In addition, female occupants had a significantly higher usage rate than male occupants in every county surveyed.

## Conclusions

In 2016, 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 Davis (94.1%), Summit (92.7%), Weber (92.8%), Cache (92.2%) and Salt Lake (90.5%). Counties with the lowest use rates include Uintah (63.5%), San Juan (64.0%), Carbon (70.5%).

Seat belt usage rates were considerably higher for urban counties with a dramatic difference between urban/rural truck occupants, reporting a 17.2% disparity between urban and rural truck occupants. Summit County was handled separately in this analysis because it is designated a rural county, but has the demographics and socioeconomics of an urban county and was considered an outlier. Utah's seat belt usage rate has increased 4.5% since the implementation of the primary seat belt law.

**Table 3: Seat Belt Use by County and Gender in 2016, Utah**  
(including 2015 use rate by county and % change)

County	2016			2015	
	% Female Belted	% Male Belted	% Total Belted	% Total Belted	% Change
Box Elder	95.4	83.9	89.4	86.0	+3.4
Cache	95.7	88.5	92.2	85.8	+6.4
Carbon	72.1	69.3	70.5	66.5	+4.0
Davis	96.6	91.8	94.1	93.0	+1.1
Grand	85.0	80.3	82.5	80.2	+2.3
Iron	79.4	68.6	73.8	76.0	-2.2
Millard	79.8	65.5	72.4	80.3	-7.9
Salt Lake	94.1	87.7	90.5	89.9	+0.6
San Juan	67.1	61.4	64.0	61.2	+2.8
Sanpete	82.8	64.8	73.2	68.6	+4.6
Sevier	85.1	80.8	82.7	72.1	+10.6
Summit	96.7	89.9	92.7	92.5	+0.2
Tooele	92.0	84.0	87.5	87.6	-0.1
Uintah	70.6	57.0	63.5	69.3	-5.8
Utah	91.8	87.5	89.5	88.8	-0.7
Washington	88.7	86.9	82.3	82.5	-0.2
Weber	96.4	90.2	92.8	92.3	+0.5
<b>Total</b>	<b>91.6</b>	<b>84.8</b>	<b>87.9</b>	<b>87.2</b>	<b>+0.7</b>

## 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 2016. 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