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 over three decades, safety advocates have worked to increase the use of this life-saving device by implementing a multi-faceted and

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 18
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,
Wasatch, Washington, and Weber.

The study was conducted June 6-18, 2022 during which a total of 22,017 vehicle occupants, including 18,037 drivers and 3,980 outboard passengers, were observed. Of the 18,037 vehicles, twenty-nine (29%) were cars, 38% sport utility vehicles (SUV), 25% trucks, and 8% were vans.

The seat belt use rate among motor vehicle occupants was **91.8% in 2022**, which demonstrates an increase of 3.6% from the 2021 rate of 88.2% and the highest seat belt use rate to date.

Usage rates by type of vehicle were analyzed. Occupants of SUVs had the highest seat belt use rate, 95%, while occupants of trucks had the lowest at 84%. Car occupants had a rate of 92% and van occupants had a rate of 94%. Data showed that drivers buckle up less often

than passengers. Seat belt use for drivers was 91.4% and 94.1% for outboard passengers.

Urban counties (Cache, Davis, Salt Lake, Utah, Washington, and Weber) were analyzed separately from rural. The seat belt usage rate for urban areas was 93%, while rural counties rate was 89%. Tooele County had the highest rate at 95.9% followed by Summit County at 95.7%. Carbon County had the lowest usage rate at 79.9%. Table 2 shows that usage rates were higher in urban counties in all categories.

The study found that female occupants buckled up more often (94.8%) than their male counterparts (89.6%) and this is true for both urban and rural areas. In urban counties, the use rate among females was found to be 95.6%, whereas the rate among males was 91.0%. In rural counties 92.5% of females were using seat belts but only 86.7% 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 1.14%, well within a standard error of 2.5 percent as required by NHTSA guidelines.

Table 1: Seat Belt Use (%) by Vehicle Type in Utah, 2019, 2021, 2022							
	2022	2021	2019				
All Vehicles	91.8	88.2	90.2				
SUVs	95.2	91.2	93.0				
Vans	94.3	92.0	92.0				
Cars	92.3	88.3	92.0				
Trucks	84.4	81.6	83.0				

Table 2: Seat Belt Use (%) by Urban/Rural in Utah, 2022						
	Urban	Rural				
All Occupants	92.8	89.2				
Male Occupants	90.6	86.7				
Female Occupants	95.6	92.5				
SUVs	95.4	94.4				
Vans	94.7	92.9				
Cars	94.0	86.5				
Trucks	84.7	83.9				

Utah's Seat Belt Use Rate in 2022 was 91.8%

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. 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 2022. With the exception of Box Elder, Cache, Millard, and Washington counties, there was a consistent increase in both urban and rural counties. Uintah County saw the largest increase (13.4%) while Millard County saw the largest decrease (-8.6%). The rates of female seat belt usage exceeded that of males in all counties, except Tooele. The greatest increase in male seat belt usage from 2021 was in Sanpete County. The largest decrease for both genders was in Millard County. The counties with the largest gender gaps were Millard, Utah, and Wasatch.

CONCLUSIONS

A significant change took place on May 12, 2015 with the implementation of the primary seat belt (PSB) law in Utah. The observed usage rates increased from 83.4% before the PSB law to 91.8% in 2022 (relative increase of 10.1%). With the other variables being equal from year to year, the logical conclusion would be that the implementation of Utah's PSB law was responsible for the increase in usage of seatbelts. Even after a dip in 2021, and not being measured in 2020, seatbelt usage rates increased again in 2022 to 91.8%, its highest rate so far. This increasing trend held for all but four of the counties.

Several relationships have remined the same from 2016—2022. Urban counties continued to have higher usage rates compared to rural counties, with urban counties as a whole having a seatbelt usage rate 3.6% higher than rural counties. SUVs and vans have maintained a higher usage rate compared to other vehicle types, with trucks remaining as the lowest rate. Male truck occupants had the lowest seatbelt usage rates overall. Additionally, higher traffic roads had higher seatbelt usage compared to lower traffic roads.

Table 3: Seat Belt Use by County and Gender in 2022, Utah (including 2021 use rate by county and % point change)

County	2022				2021		
	% Female Belted	% Male Belted	% Total Belted		% Total Belted	% Point Change	
Box Elder	91.1	86.2	88.4		89.2	-0.8	
Cache	90.1	85.5	87.4		88.6	-1.2	
Carbon	83.6	77.2	79.9		72.0	+7.9	
Davis	96.3	94.7	95.4		87.1	+8.3	
Grand	95.0	92.1	93.3		90.3	+3.0	
Iron	91.7	83.6	87.3		84.6	+2.7	
Millard	93.2	79.0	85.8		94.4	-8.6	
Salt Lake	96.4	93.2	94.5		89.4	+5.1	
San Juan	89.8	81.5	85.0		76.6	+8.4	
Sanpete	92.4	83.8	87.9		75.0	+12.9	
Sevier	92.8	83.0	86.9		79.8	+7.1	
Summit	97.3	94.4	95.7		89.1	+6.6	
Tooele	93.2	97.9	95.9		85.9	+10.0	
Uintah	93.8	86.8	89.5		76.1	+13.4	
Utah	97.9	86.8	91.4		88.7	+2.7	
Wasatch	92.3	81.0	85.3		-	-	
Washington	92.3	85.7	88.7		90.2	-1.5	
Weber	93.4	90.4	91.8	•	90.8	+1.0	
Total	94.8	89.6	91.8		88.2	+3.6	

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 2015 to 2019. Of Utah's 29 counties, 18 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 2015 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 180 sites were selected for the study, which took place for a two-week period in June 2022. In each of the 18 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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