



1999 State Shoulder Belt Use Survey Results

Background

In 1999, 46 States, the District of Columbia, and Puerto Rico each reported a statewide estimate of passenger vehicle shoulder belt use. These estimates are based on surveys conducted following the *Uniform Criteria for State Observational Surveys of Seat Belt Use (23 CFR Part 1340)*, issued by the National Highway Traffic Safety Administration (NHTSA) in September 1998. The criteria are part of an occupant protection incentive grant program authorized under Section 1403 of the Transportation Efficiency Act for the 21st Century (TEA-21). This grant program, Section 157 of Title 23 of the United States Code, required states to provide estimates of their safety belt use rates that were "accurate and representative." The criteria are summarized below:

1. Estimates must be obtained through a survey using actual observation of occupant shoulder belt use in vehicles on roadways. Use rates determined from secondary sources, e.g., police crash reports or use reported through telephone surveys, are not permitted.
2. The survey must be probability based. Statistical procedures must be employed to select sites at which observation of shoulder belt use are made. Following probability based sampling procedures permits estimates that are "representative" of the use rate in the desired population and makes it possible to calculate their sampling errors.
3. The survey must be designed and conducted to permit estimating shoulder belt use for the following population of interest:
 - c Front seat, outboard passengers, i.e., the driver and right front seat passenger.
 - c All passenger motor vehicles, i.e., automobiles, pickup trucks, vans, minivans, and sport-utility vehicles, must be observed, regardless of the state (or country) of registration.
 - c Observational sites in the largest geographic areas (usually counties) in the state containing at least 85 percent of the state's population must be included in the sampling frame and have positive

probabilities of selection. This criterion permits the exclusion of large, sparsely populated geographic areas where few observations are expected.

- c Observations must be conducted during all daylight hours and on all days of the week and must be scheduled without regard to day-of-week and time-of-day (for daylight hours).
4. The survey must be designed to produce an overall estimate of shoulder belt use with a relative precision (the estimated sampling error of the use divided by the estimated use rate) of +/- 5 percent. This ensures that there are a sufficient number of observational sites and observed vehicles to produce a statistically reliable estimate.
5. The survey design and results must be properly documented for evaluation of survey results by NHTSA and others and to determine compliance with Criteria 1 - 4 listed above.

Results

Table 1 shows the shoulder belt use rates reported by the States for 1999 and 1998. The highest 1999 use rates for front seat outboard occupants were 89.3 percent in California and 88.4 percent in New Mexico. These estimates are significant, since a Goal in the Department of Transportation's 1999 Performance Plan is to increase seat belt use to 85 percent by the end of 2000. Oregon, Maryland, Washington, and Hawaii also reported use rates greater than 80 percent. The lowest reported use rate was 46.7 percent in North Dakota, although this was a 6.7 percentage point increase over their 1998 reported use rate.

Arizona reported the largest increase in shoulder belt use, 9.6 percentage points, while Rhode Island had the second highest increase, 8.7 percentage points. The largest decreases were in West Virginia and Indiana (4.6 and 4.5 percentage points, respectively).

In the Mini-National Occupant Protection Use Surveys (MiniNOPUS) conducted by NHTSA in December 1999 and in June 2000, overall front seat outboard passenger

shoulder belt use was estimated at 67 percent and at 71 percent, respectively. Estimates from the June 2000 MiniNOPSIS revealed that overall shoulder belt use in states with standard enforcement (primary) seat belt laws was 77 percent and 63 percent in states without standard enforcement laws. Five of the six states which reported the highest use rates in 1999

-- California, New Mexico, Oregon, Maryland, and Hawaii
 -- had standard enforcement laws in effect during the survey period.

Table 1: State Reported Shoulder Belt Use Rates					
Front Seat Outboard Passengers in Passenger Vehicles, by State and Year					
STATE	Year		STATE	Year	
	1998	1999		1998	1999
ALABAMA	52.0%	57.9%	MONTANA	73.1%	74.0%
ALASKA	57.0%	60.6%	NEBRASKA	65.1%	67.9%
ARIZONA	61.5%	71.1%	NEVADA	76.2%	79.8%
ARKANSAS	52.6%	57.2%	NEW HAMPSHIRE	*	*
CALIFORNIA [#]	88.6%	89.3%	NEW JERSEY	63.0%	63.3%
COLORADO	66.0%	65.2%	NEW MEXICO [#]	82.6%	88.4%
CONNECTICUT [#]	70.1%	72.9%	NEW YORK [#]	75.3%	76.1%
DELAWARE	62.3%	64.4%	NORTH CAROLINA [#]	76.7%	78.1%
DISTRICT OF COLUMBIA [#]	79.6%	77.9%	NORTH DAKOTA	40.0%	46.7%
FLORIDA	57.2%	59.0%	OHIO	60.6%	64.8%
GEORGIA [#]	73.6%	74.2%	OKLAHOMA [#]	56.0%	60.7%
HAWAII [#]	80.5%	80.3%	OREGON [#]	82.6%	82.7%
IDAHO	57.3%	57.9%	PENNSYLVANIA	67.8%	69.7%
ILLINOIS	64.5%	65.9%	RHODE ISLAND	58.6%	67.3%
INDIANA [#]	61.8%	57.3%	SOUTH CAROLINA	64.8%	65.2%
IOWA [#]	76.9%	78.0%	SOUTH DAKOTA	45.7%	*
KANSAS	58.7%	62.6%	TENNESSEE	56.7%	61.0%
KENTUCKY	54.3%	58.6%	TEXAS [#]	74.4%	74.0%
LOUISIANA [#]	65.6%	67.0%	UTAH	66.7%	67.4%
MAINE	61.3%	*	VERMONT	62.7%	69.8%
MARYLAND [#]	82.6%	82.7%	VIRGINIA	73.6%	69.9%
MASSACHUSETTS	51.0%	52.0%	WASHINGTON	79.1%	81.1%
MICHIGAN	69.9%	70.1%	WEST VIRGINIA	56.5%	51.9%
MINNESOTA	64.2%	71.5%	WISCONSIN	61.9%	65.1%
MISSISSIPPI	58.0%	54.5%	WYOMING	50.1%	*
MISSOURI	60.4%	60.8%	PUERTO RICO [#]	78.3%	77.8%

* Did not submit a use rate. # Standard Enforcement Seat Belt Law in effect in 1999

For additional copies of this research note, please call 202.366.4198 or fax your request to 202.366.7078. For questions regarding the data reported in this research, contact Dennis Utter (202.366.5351) of the National Center

for Statistics and Analysis. This research note and other general information on highway traffic safety may be accessed by Internet users at <http://www.nhtsa.dot.gov/people/ncsa>.

**U.S. Department
 of Transportation
 National Highway
 Traffic Safety
 Administration**

400 Seventh Street, S.W., NRD-33
 Washington, D.C. 20590