

Traffic Safety Facts

Research Note

November 2004

DOT HS 809 813

Safety Belt Use in 2004 – Use Rates in the States and Territories

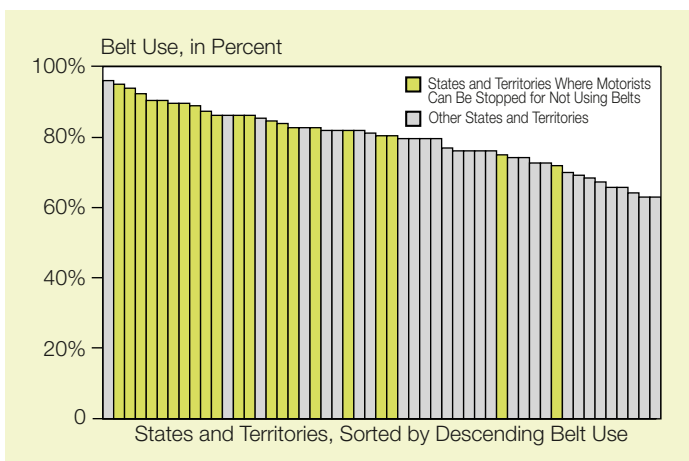
Donna Glassbrenner, Ph.D.

In 2004, safety belt use in the U.S. ranged from 63.2% use in Mississippi to 95.3% in Arizona. These results are from probability-based observational surveys conducted by 51 States and Territories in accordance with criteria established by the National Highway Traffic Safety Administration (NHTSA) to ensure reliable results. Compliance with the criteria is verified annually by NHTSA's National Center for Statistics and Analysis.

The 2004 surveys also found the following:

- Seven States and Territories achieved use rates of 90% or higher, namely Arizona, Hawaii, Washington, Oregon, Michigan, California, and Puerto Rico.
- Arizona, Hawaii, Michigan, and Nevada exhibited the greatest improvement, each reducing belt nonuse by 30% or more during the period 2003 – 2004.
- Use rates in jurisdictions with stricter belt enforcement laws continue to exhibit generally higher use rates than those less able to enforce their laws.

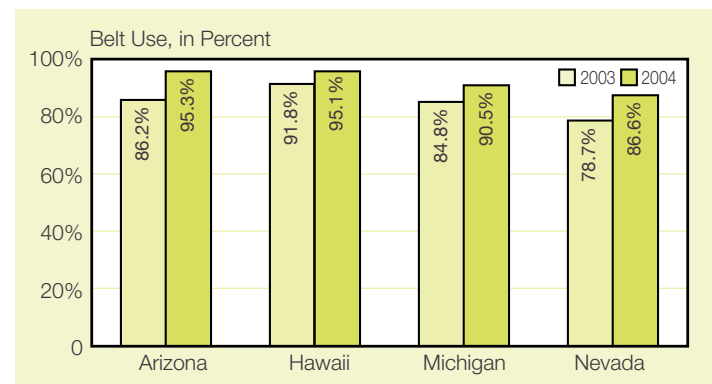
Chart 1
Safety Belt Use in 2004, by Strength of Enforcement Law



Source: Surveys conducted in accordance with Section 157, Title 23, U.S. Code

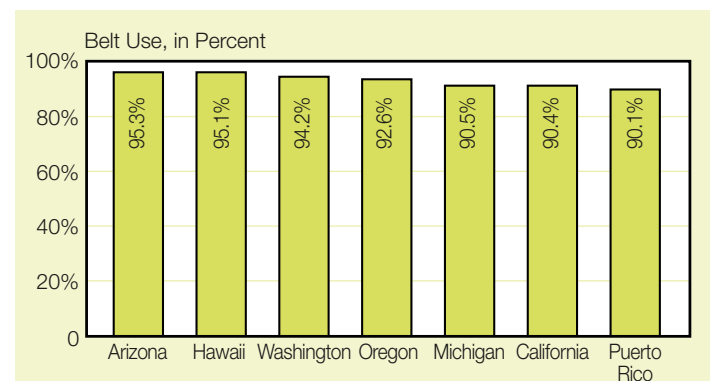
- Tennessee strengthened its belt law to a “primary” enforcement law, effective July 2004. This State saw a jump in use from 68.5% in 2003 to 72.0% in 2004. The 2004 survey was largely conducted before the primary law took effect, and so greater gains may be realized in 2005.

Chart 2
States and Territories that Reduced Belt Nonuse by 30% or More



Source: Surveys conducted in accordance with Section 157, Title 23, U.S. Code

Chart 3
States and Territories with Use Rates of 90% or Higher



Source: Surveys conducted in accordance with Section 157, Title 23, U.S. Code

Table 1

Safety Belt Use in States, Territories, and Nationwide, 1998-2004

Jurisdiction ¹	1998	1999	Reduction in Nonuse 1998-1999	2000	Reduction in Nonuse 1999-2000	2001	Reduction in Nonuse 2000-2001	2002	Reduction in Nonuse 2001-2002	2003	Reduction in Nonuse 2002-2003	2004	Reduction in Nonuse 2003-2004
Alabama	52.0%	57.9%	13%	70.6%	30%	79.4%	30%	78.7%	-3%	77.4%	-6%	80.0%	12%
Alaska	57.0%	60.6%	8%	61.0%	1%	62.6%	4%	65.8%	9%	78.9%	38%	76.7%	-10%
Arizona	61.5%	71.1%	25%	75.2%	14%	74.4%	-3%	73.7%	-3%	86.2%	48%	95.3%	66%
Arkansas	52.6%	57.2%	10%	52.4%	-11%	54.5%	4%	63.7%	20%	62.8%	-2%	64.2%	4%
California	88.6%	89.3%	6%	88.9%	-4%	91.1%	20%	91.1%	0%	91.2%	1%	90.4%	-9%
Colorado	66.0%	65.2%	-2%	65.1%	0%	72.1%	20%	73.2%	4%	77.7%	17%	79.3%	7%
Connecticut	70.1%	72.9%	9%	76.3%	13%	78.0%	7%	78.0%	0%	78.0%	0%	82.9%	22%
Delaware	62.3%	64.4%	6%	66.1%	5%	67.3%	4%	71.2%	12%	74.9%	13%	82.3%	29%
Dist. Of Columbia	79.6%	77.9%	-8%	82.6%	21%	83.6%	6%	84.6%	6%	84.9%	2%	87.1%	15%
Florida	57.2%	59.0%	4%	64.8%	14%	69.5%	13%	75.1%	18%	72.6%	-10%	76.3%	14%
Georgia	73.6%	74.2%	2%	73.6%	-2%	79.0%	20%	77.0%	-10%	84.5%	33%	86.7%	14%
Hawaii	80.5%	80.3%	-1%	80.4%	1%	82.5%	11%	90.4%	45%	91.8%	15%	95.1%	40%
Idaho	57.3%	57.9%	1%	58.6%	2%	60.4%	4%	62.9%	6%	71.7%	24%	74.0%	8%
Illinois	64.5%	65.9%	4%	70.2%	13%	71.4%	4%	73.8%	8%	80.1%	24%	83.0%	15%
Indiana	61.8%	57.3%	-12%	62.1%	11%	67.4%	14%	72.2%	15%	82.3%	36%	83.4%	6%
Iowa	76.9%	78.0%	5%	78.0%	0%	80.9%	13%	82.4%	8%	86.8%	25%	86.4%	-3%
Kansas	58.7%	62.6%	9%	61.6%	-3%	60.8%	-2%	61.3%	1%	63.6%	6%	68.3%	13%
Kentucky	54.3%	58.6%	9%	60.0%	3%	61.9%	5%	62.0%	0%	65.5%	9%	66.0%	1%
Louisiana	65.6%	67.0%	4%	68.2%	4%	68.1%	0%	68.6%	2%	73.8%	17%	75.0%	5%
Maine	61.3%	*		*		*		*		*		72.3%	
Maryland	82.6%	82.7%	1%	85.0%	13%	82.9%	-14%	85.8%	17%	87.9%	15%	89.0%	9%
Massachusetts	51.0%	52.0%	2%	50.0%	-4%	56.0%	12%	51.0%	-11%	61.7%	22%	63.3%	4%
Michigan	69.9%	70.1%	1%	83.5%	45%	82.3%	-7%	82.9%	3%	84.8%	11%	90.5%	38%
Minnesota	64.2%	71.5%	20%	73.4%	7%	73.9%	2%	80.1%	24%	79.4%	-4%	82.1%	13%
Mississippi	58.0%	54.5%	-8%	50.4%	-9%	61.6%	23%	62.0%	1%	62.2%	1%	63.2%	3%
Missouri	60.4%	60.8%	1%	67.7%	18%	67.9%	1%	69.4%	5%	72.9%	11%	75.9%	11%
Montana	73.1%	74.0%	3%	75.6%	6%	76.3%	3%	78.4%	9%	79.5%	5%	80.9%	7%
Nebraska	65.1%	67.9%	8%	70.5%	8%	70.2%	-1%	69.7%	-2%	76.1%	21%	79.2%	13%
Nevada	76.2%	79.8%	15%	78.5%	-6%	74.5%	-19%	74.9%	2%	78.7%	15%	86.6%	37%
New Hampshire	*	*		*		*		*		49.6% ²		*	
New Jersey	63.0%	63.3%	1%	74.2%	30%	77.6%	13%	80.5%	13%	81.2%	4%	82.0%	4%
New Mexico	82.6%	88.4%	33%	86.6%	-16%	87.8%	9%	87.6%	-2%	87.2%	-3%	89.7%	20%
New York	75.3%	76.1%	3%	77.3%	5%	80.3%	13%	82.8%	13%	84.6%	10%	85.0%	3%
North Carolina	76.7%	78.1%	6%	80.5%	11%	82.7%	11%	84.1%	8%	86.1%	13%	86.1%	0%
North Dakota	40.0%	46.7%	11%	47.7%	2%	57.9%	20%	63.4%	13%	63.7%	1%	67.4%	10%
Ohio	60.6%	64.8%	11%	65.3%	1%	66.9%	5%	70.3%	10%	74.7%	15%	74.1%	-2%
Oklahoma	56.0%	60.7%	11%	67.5%	17%	67.9%	1%	70.1%	7%	76.7%	22%	80.3%	15%
Oregon	82.6%	82.7%	1%	83.6%	5%	87.5%	24%	88.2%	6%	90.4%	19%	92.6%	23%
Pennsylvania	67.8%	69.7%	6%	70.7%	3%	70.5%	-1%	75.7%	18%	79.0%	14%	81.8%	13%
Rhode Island	58.6%	67.3%	21%	64.4%	-9%	63.2%	-3%	70.8%	21%	74.2%	12%	76.2%	8%
South Carolina	64.8%	65.2%	1%	73.9%	25%	69.6%	-16%	66.3%	-11%	72.8%	19%	65.7%	-26%
South Dakota	45.7%	*		53.4%		63.3%	21%	64.0%	2%	69.9%	16%	69.4%	-2%
Tennessee	56.7%	61.0%	10%	59.0%	-5%	68.3%	23%	66.7%	-5%	68.5%	5%	72.0%	11%
Texas	74.4%	74.0%	-2%	76.6%	10%	76.1%	-2%	81.1%	21%	84.3%	17%	83.2%	-7%
Utah	66.7%	67.4%	2%	75.7%	25%	77.8%	9%	80.1%	10%	85.2%	26%	85.7%	3%
Vermont	62.7%	69.8%	19%	61.6%	-27%	67.4%	15%	84.9%	54%	82.4%	-17%	79.9%	-14%
Virginia	73.6%	69.9%	-14%	69.9%	0%	72.3%	8%	70.4%	-7%	74.6%	14%	79.9%	21%
Washington	79.1%	81.1%	10%	81.6%	3%	82.6%	5%	92.6%	57%	94.8%	30%	94.2%	-12%
West Virginia	56.5%	51.9%	-11%	49.8%	-4%	52.3%	5%	71.6%	40%	73.6%	7%	75.8%	8%
Wisconsin	61.9%	65.1%	8%	65.4%	1%	68.7%	10%	66.1%	-8%	69.8%	11%	72.4%	9%
Wyoming	50.1%	*		66.8%		*		66.6%		*		70.1%	
Puerto Rico	78.3%	77.8%	-2%	87.0%	41%	83.1%	-30%	90.5%	44%	87.1%	-36%	90.1%	23%
Nationwide	62-70%	67%	NA	71%	12%	73%	7%	75%	7%	79%	16%	80%	5%

Source: Rates in States and Territories are from surveys conducted in accordance with Section 157, Title 23, U.S. Code. The national figures are from NHTSA's National Occupant Protection Use Survey.

¹ Rates in jurisdictions with primary belt enforcement during the calendar year of the survey are shaded, although the law might not have yet taken effect when the survey was conducted. An asterisk indicates that the State or Territory did not report a rate compliant with Section 157.

² The 2003 rate for New Hampshire was not reported by the State. It was obtained by Preusser Research Group using methods compliant with Section 157.

Table 2

Key Provisions of Safety Belt Use Laws

State or Territory ¹	Type of Law ²	Penalty		Coverage		
		Fine ³	Points	Seating Positions	Persons	Vehicles Exempted
Alabama	Primary	\$25		Front	Ages 4+, except those with medical reasons	Vehicles designed for more than 10 passengers, those delivering newspapers and rural mail, and vehicles manufactured before 1965
Alaska	Secondary	\$15		All	Ages 16+, except those with medical reasons	School buses, and vehicles not required to have safety belts
Arizona	Secondary	\$10		All	Ages 5+	Vehicles designed for >10 passengers, or manufactured before 1972
Arkansas	Secondary	\$25		Front	All	School, church, and public buses; vehicles manufactured before 1968
California	Primary	\$20		All	Ages 16+	None
Colorado	Secondary if driver is over 16, primary if driver is under 17	\$15		Ages 16+ in the front seat if driver is over 16; all ages and seats if driver is 16		Buses
Connecticut	Primary	\$37		All in the front seat and those under 16 in all seats		Trucks and buses over 15,000 lbs.
Delaware	Primary	\$25		All	Ages 16+	Postal vehicles
Dist. Of Columbia	Primary	\$50	2	All	Ages 16+	Vehicles designed for >8 passengers
Florida	Secondary	\$30		Ages 18+ in the front seat and ages 6-17 in all seats		School buses, public buses, and trucks >5,000 lbs.
Georgia	Primary	\$15		Ages 18+ in the front seat, and ages 5-17 in all seats		Vehicles designed for >10 passengers, pickup trucks, off-road vehicles, rural letter carriers, and emergency vehicles
Hawaii	Primary	\$45		Ages 18+ in the front seat and ages 4-17 in all seats		Buses and school buses over 10,000 lbs.
Idaho	Secondary	\$10		All	All, except those with medical reasons	School buses, vehicles delivering mail and newspapers, and vehicles not required to have safety belts
Illinois	Primary	\$25		Front	Ages 16+, except those with medical or physical reasons	Emergency vehicles and vehicles making frequent stops
Indiana	Primary	\$25		Ages 12+ in the front seat and ages 4-11 in all seats		Trucks, tractors, and recreational vehicles
Iowa	Primary	\$25		Front	Age 6+	None
Kansas	Secondary	\$10		Front	Ages 14+	Vehicles designed for >10 people, and trucks over 12,000 lbs.
Kentucky	Secondary	\$25		All	Persons over 40 inches tall.	Vehicles designed for >10 people, and trucks over 12,000 lbs.

Table 2

Key Provisions of Safety Belt Use Laws (continued)

State or Territory ¹	Type of Law ²	Penalty		Coverage		
		Fine ³	Points	Seating Positions	Persons	Vehicles Exempted
Louisiana	Primary	\$25 - \$50		Front	All	Vehicles manufactured before 1981, and those designed for >10 people
Maine	Secondary	\$25 - \$50		All	Ages 5+	Vehicles manufactured without seat belts
Maryland	Primary	\$25		Driver and right front seat	Ages 16+, except those with a written medical excuse	Vehicles designated as historic and taxis
Massachusetts	Secondary	\$25		All	Ages 5+, except taxi	Trucks over 18,000 lbs. and bus drivers
Michigan	Primary	\$25		Ages 16+ in the front seat and ages 4-15 in all seats		Taxis, buses, and military, emergency, farm, and parade vehicles
Minnesota	Secondary	\$25		Ages 11+ in the front seat and ages 4-10 in all seats		Pickup trucks used as farm vehicles
Mississippi	Secondary	\$25		Ages 8+ in the front seat and ages 4-17 in all seats, except people with medical reasons		Farm vehicles, letter carriers, and buses
Missouri	Secondary for ages 16+; primary for those under 16	\$10		Ages 12+ in the front seat and those under 12 in all seats		Vehicles designed for >10 people, those used for agricultural purposes, trucks over 12,000 lbs, and postal vehicles
Montana	Secondary	\$20		All	Ages 4+	None
Nebraska	Secondary	\$25		Ages 16+ in the front seat and ages 6-15 in all seats		Vehicles manufactured before 1973
Nevada	Secondary	\$25		All	Ages 6+	Taxis and buses
New Hampshire	No law for ages 18+; primary for those under 18	\$25		All	Persons under 18 years old.	School buses, vehicles for hire, and vehicles manufactured before 1968
New Jersey	Primary	\$42		Ages 18+ in the front seat and those ages 6-17 that are over 80 lbs in all seats, except persons with medical reasons		Vehicles manufactured before 1966, those not required to have safety belts, and rural letter carriers
New Mexico	Primary	\$25	2	All	All	Vehicles over 10,000 lbs.
New York	Primary	\$50 or more	3	Ages 16+ in the front seat and those under 16 in all seats		Buses, taxis, emergency vehicles, and rural letter carriers
North Carolina	Primary	\$25		Front, except positions without a belt if all belted positions are occupied	Ages 16+, except those with medical reasons	Vehicles designed for >11 people, farm vehicles, and rural mail carriers
North Dakota	Secondary for ages 18+ primary for those under 18	\$20		Ages 18+ in the front seat and those under 18 in all seats		Vehicles designed for >10 people
Ohio	Secondary	\$25		Front	Ages 4+	None
Oklahoma	Primary	\$20		Front	All	Farm vehicles, trucks, and recreational vehicles
Oregon	Primary	\$94		All	Ages 16+	Police and emergency vehicles in certain situations, newspaper and postal carriers, and public transit and meter vehicles

Table 2

Key Provisions of Safety Belt Use Laws (continued)

State or Territory ¹	Type of Law ²	Penalty		Coverage		
		Fine ³	Points	Seating Positions	Persons	Vehicles Exempted
Pennsylvania	Secondary	\$10		Ages 18+ in the front seat and ages 9-17 in all seats		Trucks over 7,000 lbs.
Rhode Island	Secondary	\$75		All	Ages 13+	None
South Carolina	Secondary	\$10		All, except the rear seat in vehicles that do not have belts in the rear seat.	Ages 6+	School buses and public buses
South Dakota	Secondary for ages 18+; primary for those under 18	\$20		Ages 18+ in the front seat and ages 5-17 in all seats, except persons with medical reasons		Buses, rural mail carriers, and newspaper and periodical delivery vehicles
Tennessee	Primary	\$10 - \$20		All	Ages 4+	Tractors and vehicles driven under 15 mph
Texas	Primary	\$25 - \$200		Front	All	Vehicles designed for >10 people, trucks over 15,000 lbs, and farm vehicles
Utah	Secondary for ages 19+; primary for those under 19	\$15 - \$45		All, except positions without belts when all belted positions are occupied	All except those with medical reasons	None
Vermont	Secondary for ages 18+; primary for those under 18	\$10		All	All	Buses and taxis
Virginia	Secondary	\$25		Front	Ages 16+	Vehicles designed for >10 people and taxis
Washington	Primary	\$101		All	All	Vehicles designed for >10 people
West Virginia	Secondary	\$25		Ages 18+ in the front seat and ages 9-17 in all seats		Vehicles designed for >10 people
Wisconsin	Secondary	\$10		All	Ages 4+	Survey vehicles, emergency vehicles, taxis, and vehicles delivering mail, delivering farm newspapers, transporting hunters, or making at least 10 stops per mile
Wyoming	Secondary	\$10 - \$25		All, except positions without belts when all belted positions are occupied	Ages 5+, except those with a written medical excuse	Vehicles not required to have safety belts and postal vehicles
American Samoa	Primary	\$25		All	Ages 4+	None
Guam	Primary	\$50		Front	Ages 2+	None
Commonwealth of N. Mariana Islands	Primary	\$25		All	Ages 5+	Vehicles carrying large industrial construction equipment
Puerto Rico	Primary	\$50		All	All	None

¹ Laws as of October 2004. Most jurisdictions also have laws requiring that certain children be in child safety seats or booster seats. We do not present these laws here. Safety belt laws are more complex than can be conveyed in this Table, and so the reader should consult each State or Territory's law for its exact coverage and penalties.

² Motorists in jurisdictions with primary belt enforcement laws can be stopped and ticketed simply for not using a safety belt. Under a secondary law, motorists can only be ticketed for belt nonuse if they have been stopped for another infraction, such as an expired license tag.

³ The fines presented here are the fines on the ticket. They do not include court costs and surcharges.

Data Source

The data in this Research Note come from surveys conducted by States and Territories in accordance with criteria established by NHTSA to ensure accurate and consistent results. These criteria were set forth in Section 157, Title 23 of the U.S. Code, and took effect with the 1998 survey year. The main provision of the criteria is a requirement that the surveys observe actual traffic on the road at a set of sites chosen through probabilistic means. Other major elements of the criteria are summarized below. All 50 States, the District of Columbia, and Puerto Rico are eligible for a grant program administered through the Section 157 regulation. Each eligible State or Territory's compliance with the criteria is verified annually by NHTSA's National Center for Statistics and Analysis.

Using a probability sample removes possible biases associated with choosing observation sites subjectively. It also allows the computation of the margin of error of the use rates. The Section 157 surveys were designed so that the margin of error on statewide use is at most 10% of the use rate. E.g. the margin of error on a use rate of 80% is +/- 8 percentage points.

States and Territories may conduct their 2004 surveys at any time during the 2004 calendar year. However most of the 2004 surveys in this publication were conducted in June 2004, shortly after the conclusion of a nationwide media and enforcement campaign to encourage greater belt use. Information on this campaign, the Click It or Ticket campaign, will appear in an upcoming NHTSA Traffic Tech publication and report at www.nhtsa.dot.gov.

The results of the 2004 surveys in this publication are preliminary. As allowed by the Section 157 regulation, States and Territories may submit revised 2004 figures before March 2005. Results from prior survey years are final. Final 2004 figures will appear in next year's publication.

Safety belt use nationwide reached 80% in 2004, as measured by NHTSA's National Occupant Protection Use Survey (NOPUS). NOPUS provides NHTSA's official measure of nationwide use because it is the only probability-based observational survey of safety belt use in the United States. Additionally, NOPUS does not employ cost-saving restrictions allowed of the States and Territories in Section 157 (namely, the omission of up to 15% of low population areas and the permission to observe data solely at intersections

controlled by a stop sign or stoplight), and so provides a better measure of nationwide use than would be obtained by combining the use rates from the States and Territories.

Safety Belt Use Laws

Safety belt use in the United States is regulated and enforced at the State and local levels. The previous table presents key provisions of safety belt laws, which vary widely throughout the Nation in terms of vehicles covered, seating positions covered, and penalties for nonuse. In addition, cities or other localities within States and Territories may have laws stricter than those in this table.

Belt enforcement laws may be "**primary**" or "**secondary**". Under a primary belt law, motorists can be stopped and ticketed simply for belt nonuse. Under secondary laws, motorists must be stopped for another infraction, such as an expired license tag, before being ticketed for belt nonuse. In 2003, 20 States, Puerto Rico, and the District of Columbia had primary laws, 29 States had secondary laws, and one State (New Hampshire) effectively has no belt law, since motorists over age 17 can legally ride unbelted. The territories of American Samoa, Guam, and the Commonwealth of the North Mariana Islands also have primary laws. Tennessee changed from a secondary to a primary law, with the primary law taking effect in July 2004. This State saw a jump in use from 68.5% in 2003 to 72.0% in 2004. However the survey was conducted largely before the primary law took effect, and so greater gains may be realized in the 2005 survey.

Improvement in Rates

We measure improvement in safety belt use by examining the reduction in belt nonuse. For instance, an increase from 90% to 95% represents a 50% reduction in nonuse (i.e. nonuse was cut in half, from 10% nonuse to 5% nonuse). This provides a better measure of improvement than a straight percentage or percentage point increase in use, since e.g., a 10-point jump in use is considerably easier starting at 50% use than at 80% use, because a greater percentage of belt nonusers must be converted to users at the 80% rate. In fact, while not entirely accurate, given that a number of people use belts at some times and not others, it can be helpful to think of the percentage reduction in nonuse as the percent of nonusers who were "converted" to users. (Boyle et al., 2003)

In 2004, Arizona, Hawaii, Michigan, and Nevada showed the greatest improvement, each reducing nonuse by 30% or more over their 2003 rates.

References

Glassbrenner, D., *Safety Belt Use in 2004 – Overall Results*, National Highway Traffic Safety Administration, DOT HS 809 783, September 2004

Boyle, J., Vanderwolf, P., *2003 Motor Vehicle Occupant Safety Survey, Volume 3, Safety Belt Report*, National Highway Traffic Safety Administration, DOT HS 809 788, September 2003

For More Information

This publication is part of a series of Research Notes presenting data on safety belts, motorcycle helmets, child restraints, and driver cell phone use. Other publications in the series, such as “Safety Belt Use in 2004 – Overall Results” can be found at the Website <http://www-nrd.nhtsa.dot.gov/departments/nrd-30/nrsa/Avillnf.html>.

Summary of Survey Criteria from Section 157, Title 23, U.S. Code

Belt use rates from the States and Territories in this report are based on surveys conducted according to criteria issued in Section 157 of Title 23 of the United States Code. These criteria were established as part of an occupant protection incentive grant program for the 50 States, the District of Columbia, and Puerto Rico. 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 observations 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 standard errors.
3. The survey must be designed and conducted to permit estimating shoulder belt use for the following population of interest:
 - Front seat, outboard passengers, i.e., the driver and right front seat passenger.
 - All passenger motor vehicles, i.e., automobiles, pickup trucks, vans, minivans, and sport utility vehicles, must be observed, regardless of the State (or county) of registration.
 - 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 probability of selection. This criterion permits the exclusion of large, sparsely populated geographic areas where few observations are expected.
 - 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 observation 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.

Source: Section 157 of Title 23, United States Code.

