

Traffic Safety Facts

Research Note

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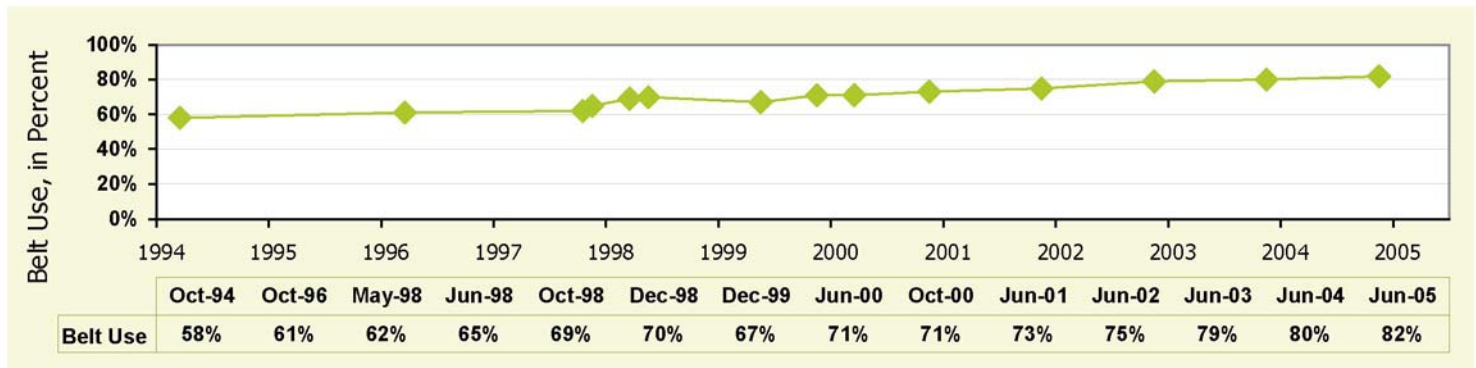
Safety Belt Use in 2005 – Overall Results

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In June 2005, safety belt use in the U.S. reached 82 percent, the highest level yet recorded and a statistically significant increase over the 80 percent use rate from a year prior. This result is from the National Occupant Protection Use Survey (NOPUS), which provides the only probability-based observed data on safety belt use in the United States. The NOPUS is conducted annually by the National Center for Statistics and Analysis of the National Highway Traffic Safety Administration (NHTSA). The 2005 survey also found the following:

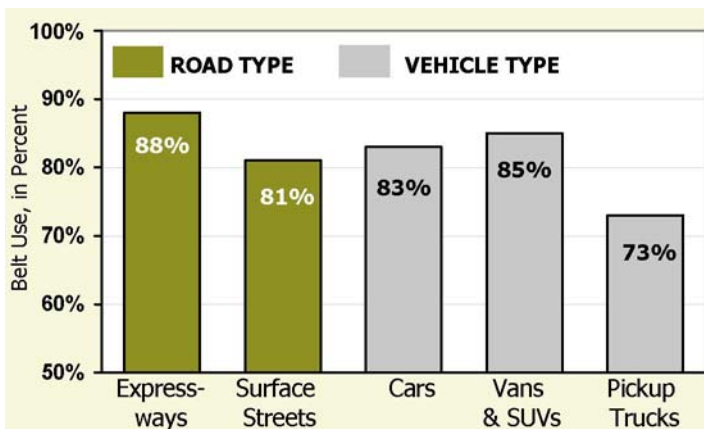
- The increase in use during 2004 - 2005 occurred in several areas, including two areas of focus of a national campaign by NHTSA and the States to increase safety belt use – pickup trucks and rural areas. Use increased by 3 percentage points in both of these categories. Other statistically significant increases occurred in cars, vans and SUVs, weekday rush hour, and weekday nonrush hour, among other areas.
- The data continue to show that high use rates are attainable with safety belt use reaching an 85 percent milestone use rate in States with primary enforcement laws, as well as in vans and SUVs nationwide.

Safety Belt Use, 1994 – Present



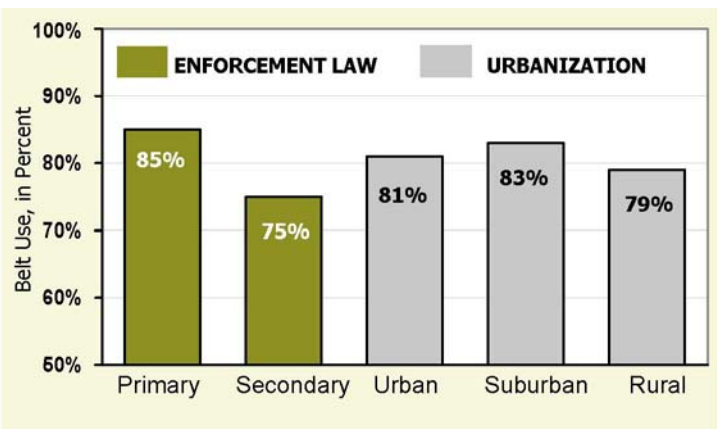
Source: National Occupant Protection Use Survey, NHTSA's National Center for Statistics and Analysis

Safety Belt Use by Road Type and Vehicle Type



Source: National Occupant Protection Use Survey, NHTSA's National Center for Statistics and Analysis, 2005

Safety Belt Use by Ambient Enforcement Law and Urbanization



Source: National Occupant Protection Use Survey, NHTSA's National Center for Statistics and Analysis, 2005

Safety Belt Use by Major Characteristics

Motorist Group ¹	2004		2005		2004-2005 Change		
	Belt Use ²	Significantly High or Low Rates ³	Belt Use ²	Significantly High or Low Rates ³	Change in Percentage Points	Confidence in a Change in Use ⁴	Conversion Rate ⁵
All Motorists	80%		82%		2	96%	10%
Drivers	81%	H	83%	H	2	97%	11%
Right Front Passengers	76%	L	78%	L	2	81%	8%
Motorists in States with ⁶							
Primary Enforcement Laws	84%	H	85%	H	1	93%	6%
Secondary Enforcement Laws	73%	L	75%	L	2	75%	7%
Motorists on							
Expressways	88%	H	88%	H	0	45%	0%
Surface Streets	79%	L	81%	L	2	96%	10%
Motorists Traveling in							
Fast Traffic	85%	H	84%		-1	59%	-7%
Medium Speed Traffic	82%	H	83%		1	56%	6%
Slow Traffic	75%	L	79%	L	4	96%	16%
Motorists Traveling in							
Heavy Traffic	88%	H	87%		-1	13%	-8%
Moderately Dense Traffic	84%		86%		2	34%	13%
Light Traffic	79%		81%		2	97%	10%
Motorists Traveling Through							
Light Precipitation	81%		81%		0	17%	0%
Light Fog	85%		81%		-4	29%	-27%
Clear Weather Conditions	79%		82%		3	98%	14%
Motorists in							
Passenger Cars	81%	H	83%		2	95%	11%
Vans & SUVs	83%	H	85%	H	2	91%	12%
Pickup Trucks	70%	L	73%	L	3	92%	10%
Motorists in the							
Northeast	76%		78%		2	54%	8%
Midwest	77%		79%		2	69%	9%
South	80%		82%		2	83%	10%
West	84%		85%		1	50%	6%
Motorists in							
Urban Areas	77%		81%		4	86%	17%
Suburban Areas	82%	H	83%	H	1	57%	6%
Rural Areas	76%	L	79%	L	3	92%	13%
Motorists Traveling During							
Weekdays	79%		82%		3	100%	14%
Weekday Rush Hours	80%		83%		3	93%	15%
Weekday Nonrush Hours	77%		81%		4	99%	17%
Weekends	82%		82%		0	3%	0%

1 Drivers and right front passengers of passenger vehicles with no commercial or government markings

2 Use of shoulder belts observed between the hours of 8 a.m. and 6 p.m.

3 Rates flagged with an "H" or "L" are statistically high or low in their category at a 90 percent confidence level.

4 The degree of statistical confidence that the 2005 use rate is different from the 2004 rate.

5 The "conversion rate" is the percentage reduction in belt nonuse.

6 Use rates reflect the law in effect at the time data were collected.

Source: National Occupant Protection Use Survey, National Highway Traffic Safety Administration, National Center for Statistics and Analysis

Survey Methodology

The National Occupant Protection Use Survey (NOPUS) is the only probability-based observational survey of safety belt use in the United States. The survey observes usage as it actually occurs at a random selection of roadway sites, and so provides the best tracking of the extent to which motorists in this country are buckling up.

The survey data is collected by sending trained observers to probabilistically sampled roadways, who observe vehicles between the hours of 8 a.m. and 6 p.m. Observations are made either while standing at the roadside or, in the case of expressways, while riding in a vehicle in traffic. Observers do not stop vehicles or interview occupants, so that the NOPUS captures the untainted behavior of motorists. The 2005 NOPUS data were collected between June 6 and June 25, while the 2004 data were collected between June 7 and July 11, 2004, excluding the period July 2 – 5.

Because the NOPUS sites were chosen through probabilistic means, we can analyze the statistical significance of its results. Statistically significant increases in belt use between 2004 and 2005 are identified in the table “Safety Belt Use by Major Characteristics” by having a result that is 90 percent or greater in the table’s column 7. Significantly high and low levels of belt use, such as the lower use in rural areas than in more populated areas in 2005, are identified by H’s and L’s in columns 3 and 5. Such comparisons are made within categories, such as road type, delineated by changes in row shading in the tables. The exception to this is the grouping “Motorists Traveling During ...,” in which weekdays are compared to weekends, and weekday rush hour to weekday nonrush hour.

The NOPUS uses a complex multistage probability sample, statistical data editing, imputation of unknown values, and complex estimation and variance estimation procedures. See the NHTSA Technical Report referenced below for more information on these procedures.

Data collection, estimation, and variance estimation for the NOPUS are conducted by Westat, Inc., under the direction of the National Center for Statistics and Analysis in NHTSA under Federal contract number DTNH22-00-D-07001.

Definitions

For the purpose of this Research Note, a driver or right front passenger is considered “belted” if a shoulder belt appears to be across the front of his/her body.

A jurisdiction that can enforce traffic laws, such as a State or the District of Columbia, has a “primary enforcement law” if motorists can be ticketed simply for not using their belts. Under a “secondary enforcement law” motorists must be stopped for another violation, such as an expired license tag, before being cited for belt nonuse. In June 2004, 20 States and the District of Columbia had primary laws, 29 had secondary laws, and 1 State (New Hampshire) effectively has no belt law. (In New Hampshire, it is legal for motorists over age 18 to ride unbelted.) A primary enforcement law took effect in Tennessee in July 2004. A primary law has also been passed in South Carolina that will take effect in December 2005.

The “conversion rate” is the percentage reduction in belt nonuse. This rate roughly reflects the percentage of belt nonusers in 2004 who were “converted” to using belts in 2005.

Sites, Vehicles, and Motorists Observed

Numbers of	2004	2005	Percentage Change
Sites Observed	2,000	2,000	0%
Vehicles Observed	146,000	159,000	9%
Occupants Observed ¹	193,000	207,000	7%

¹ Drivers and right front passengers only.

States with Primary Enforcement Safety Belt Laws¹

Alabama	California	Connecticut
Delaware	District of Columbia	Georgia
Hawaii	Illinois	Indiana
Iowa	Louisiana	Maryland
Michigan	New Jersey	New Mexico
New York	North Carolina	Oklahoma
Oregon	Tennessee	Texas
Washington		

¹States with laws in effect as of June 30, 2005. Also includes DC. Tennessee’s law took effect in July 2004. With the exception of Tennessee, no other laws took effect during the period June 30, 2004 – June 30, 2005. South Carolina has passed a law to take effect in December 2005. Under a primary enforcement law, motorists can be stopped and ticketed solely for not using safety belts.

"Expressways" are defined to be roadways with limited access, while "surface streets" comprise all other roadways.

A roadway is defined to have "fast traffic" if during the observation period the average speed of passenger vehicles that passed the observer(s) exceeded 50 mph, with "medium speed traffic" defined as 31 - 50 mph and "slow traffic" defined as 30 mph or slower.

A roadway is defined to have "heavy traffic" if the average number of vehicles per lane mile on the roadway during the observation period exceeded 45 vehicles per lane mile, with "moderately dense traffic" defined as 26 - 45 vehicles per lane per mile and "light traffic" having at most 25 vehicles per lane per mile.

For More Information

For detailed analyses of the data in this publication, as well as additional data and information on the survey design and analysis procedures, see the upcoming publication, "Safety Belt Use in 2005 – Overall Analysis", expected to be available at the Web site www-nrd.nhtsa.dot.gov/departments/nrd-30/nca/AvailInf.html later in 2005.

For more information on the campaign by NHTSA and the States to increase safety belt use, see www.buckleupamerica.org.

The NOPUS also observes other types of restraints, such as child restraints and motorcycle helmets, and observes driver cell phone use. This publication is part of a series that presents overall results from the survey on these topics. Please see other members of the series, such as "Motorcycle Helmet Use in 2005 – Overall Results," and the corresponding NHTSA Technical Report "Motorcycle Helmet Use in 2004-5 – Analysis," for the latest data on these topics.

