

Traffic Safety Facts

Traffic Tech – Technology Transfer Series

Number 362

February 2009



2006 Seat Belt Use Estimate for Native American Tribal Reservations

In 2004 the National Highway Traffic Safety Administration and the Bureau of Indian Affairs' Indian Highway Safety Program established the first baseline seat belt use rate for tribal reservations subject to tribal law and tribal traffic law enforcement. The methodology was similar to NHTSA's National Occupant Protection Usage Survey (NOPUS), which uses a probability-based survey to report a single seat belt use rate to the Nation. Because less than a third of the 562 federally recognized tribal governments in the United States are subject to tribal law and tribal law enforcement, this estimate of seat belt use for Native American tribal reservations computes a single seat belt use rate for the 180 tribal reservations where Native Americans enforce their own traffic laws. In 2006 NHTSA administered this survey for a second time.

Methods

The sampling plan for the 2006 Native American tribal reservation seat belt survey was first developed and implemented in 2004. It provides a reliable estimate of belt use across all the tribal reservations subject to tribal law and tribal traffic law enforcement. The sampling procedure weighted all tribal reservations proportional to their populations, and included the criteria that the sample of the tribal reservations:

- be limited to tribal reservations with populations of 2,000 or more (n=61);
- represent varying road conditions;
- provide representation of the 6 BIA-defined Native American areas; and
- include enough sites per reservation so that the final combined seat belt use rate would be reliable.

The objective was to sample approximately 1 in 4 reservations, or one reservation per 30,000 population. The planned sample included 18 reservations with 150 sites on these reservations. However, the Navajo reser-

vation in the Southwest, which has 22 percent of the total Native American population, did not permit seat belt observations on its territory. Ultimately, NHTSA collected data from 120 sites on 16 tribal reservations. This was true for both the initial study and this subsequent replication. Seat belt use was observed between September and December 2006 (15 reservations) and in March 2007 (one reservation). All results were weighted across tribal areas to account for the reservation selection approach. Overall, 12,778 drivers and passengers were observed.

Results

For the tribal reservations subject to tribal law and tribal traffic law enforcement, the overall seat belt use rate was 61.8 percent. This represents a significant increase of 6.4 percentage points from the 2004 seat belt rate of 55.4 percent.

Seat Belt Use by Law Type and Year of Observation

	2004		2006	
	Belt Use	N	Belt Use	N
Reservation Law Type:				
Primary	68.6%	7,976	73.1%	8,810
Secondary	53.2%	2,096	59.3%	2,197
None	26.4%	1,876	32.7%	1,771

Surrounding State Law Type:				
Primary	72.8%	8,054	75.0%	9,218
Secondary	33.3%	3,894	45.0%	3,560

There continues to be a very high variation in belt use across reservations. In 2004, belt use ranged from a low of 8.8 percent to a high of 84.8 percent. This variability decreased by 16 percentage points by 2006, when seat belt use on reservations ranged from a low of 28 percent to a high of 88 percent.

Seat belt use differed according to vehicle type and sex of the drivers and passengers. The seat belt use patterns were consistent with the 2004 survey of Native American tribal reservations as well as results from other State and national seat belt surveys. Seat belt use rates were higher for cars (62.4%), SUVs (67.2%), and vans (69.5%) and lower for pickup trucks (55.8%).

Males wore seat belts less than females, 58.4 percent versus 66.3 percent. More drivers (62.9%) than passengers (58.5%) wore seat belts. Overall, the lowest belt use rate was for male passengers in pickups, (48.6%) while the highest rate was for female drivers of vans (74%).

Seat belt use also varied consistently with road type. On collector roads in towns, belt use was 63.7 percent, while on between-town rural arterials belt use was 59.7 percent. Three BIA regions had multiple reservations. The Northern Plains reservations had five of the lowest six belt use rates and collectively averaged just 38.9 percent belt use. Great Lakes and Northwest had the highest belt use; two of the four reservations in those two areas had the highest individual belt use rates observed. Of the five reservations in the Southwest, three had moderate belt use, while two reservations had rates above 70 and 80 percent respectively, which were among the higher rates for tribal reservations.

Within the sample, the 9 reservations with primary seat belt laws had 73.1 percent of vehicle occupants wearing seat belts. By comparison, the 3 tribal reservations that had secondary belt laws averaged 59.3 percent belt use, and the 4 reservations with no belt use laws of any kind averaged only 37.2 percent belt use.

In addition, 9 reservations were located in States with primary belt use laws. Eight of those 9 reservations had the highest use rates; overall, the 9 averaged 75 percent belted occupants. The remaining 7 reservations, in States with secondary belt use laws, were among the

lowest-usage reservations that averaged just 45 percent buckled occupants.

Conclusions

Many factors may have contributed to increasing belt use on the Native American reservations subject to tribal law and tribal traffic enforcement. Messages from other NHTSA high-visibility seat belt enforcement campaigns, such as the *Click It or Ticket* mobilization and the *Buckle Up in Your Truck* and Rural Seat Belt demonstration projects, which occurred off the reservations, may have affected driving behaviors on the reservations.

Both the first and second Native American tribal reservation seat belt surveys found that the tribal reservations with the highest belt use rates had usage rates comparable to general U.S. belt use rates, which means that Native American governments can be effective in achieving high levels of belt use. The low belt usage rates on other tribal reservations suggest that their governments have done little or nothing toward achieving high belt use. Reservations with primary seat belt laws typically had the highest use rates, followed by reservations with secondary seat belt laws. Reservations with no seat belt laws had the lowest use rates. Tribal policy and procedures are likely responsible for current levels of seat belt use, and it is in these areas that tribal efforts can be most effective in establishing and improving seat belt usage levels.

How to Order

To order *2006 Seat Belt Use Estimate for Native American Tribal Reservations* (15 pages, plus appendices), prepared by Preusser Research Group, write to the Office of Behavioral Safety Research, NHTSA, NTI-132, 1200 New Jersey Avenue SE., Washington, DC 20590, fax 202-366-7394, or download from www.nhtsa.dot.gov. John Siegler, Ph.D., was the Contracting Officer's Technical Representative for this project.



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

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