



## Evaluation of Teen Seat Belt Demonstration Projects in Colorado and Nevada

Teens have higher fatality and injury rates in motor vehicle crashes than any other age group. The combination of immaturity, inexperience, and underdeveloped decision-making skills (including hazard recognition) contributes to the high crash rates among teen drivers. Observational surveys have indicated that teenagers' seat belt use is among the lowest of any age group with males and passengers showing even lower belt use within the teen subpopulation. In 2009, 61% of the 16-to-20-year-old passenger vehicle occupants who were killed in crashes were unrestrained.

The National Highway Traffic Safety Administration contracted with the Preusser Research Group to evaluate two seat belt demonstration programs targeting teen drivers and passengers in Colorado and Nevada.

### Program Design and Schedule

The two programs were implemented from September 2007 to September 2008. The programs were based on a Special Traffic Enforcement Program (STEP) model in which publicity and enforcement activity are implemented according to a defined schedule. These two demonstration projects involved four waves of STEP activity, one of which was implemented in conjunction with the May 2008 *Click It or Ticket* (CIOT) mobilization. The Colorado and Nevada Highway Safety Offices conducted awareness surveys at baseline and after each program wave to measure changes in teen awareness of the program, and observational surveys measured changes in teen seat belt use rates.

### Program Message and Activity

CIOT was the primary branding for the teen program. There were also enforcement-related ads for radio and for television that carried an "Out of Nowhere" theme, designed to send a message to teens that, if they are not buckled up, a policeman can appear out of nowhere to give them a ticket.

The paid media efforts resulted in an average of 2,000 radio and television ads aired during each program wave. These ads resulted in just over 600 gross rating points (GRPs) per wave in Colorado and 525 GRPs per wave in Nevada. Both averages indicate "strong" to "very strong" media programs. Television was the primary medium used by both States.

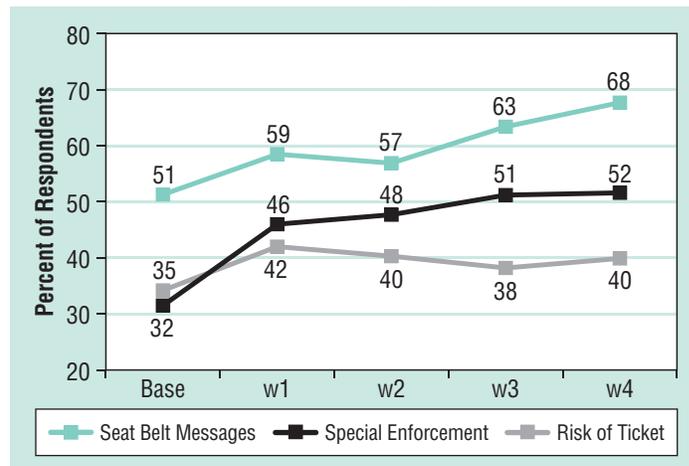
Colorado State Patrol and local enforcement agencies from 11 counties worked to produce enforcement activity that accounted for about 73% of the total State population. In Nevada, the Highway Patrol and local agencies in four counties participated in the program, covering more than 90% of the population of the State. Each wave involved the use of enforcement zones and/or saturation patrols in areas and during times when teens were most likely to be driving (e.g., in areas near high schools or colleges).

### Results

#### *Changes in Teen Awareness*

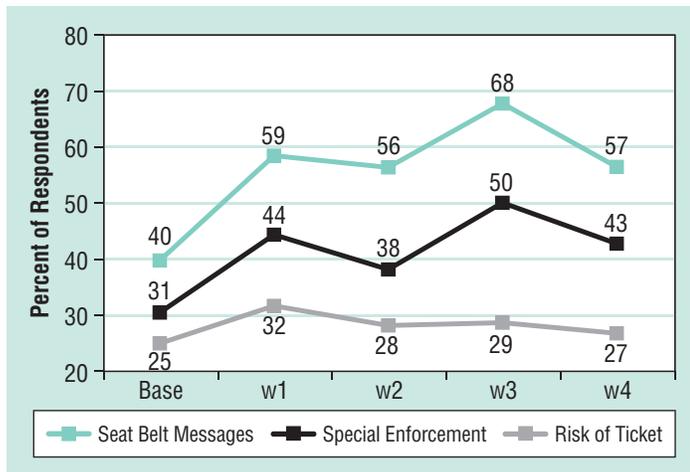
Two direct measures of media and enforcement activities were teen awareness of seat belt messages and of special efforts by police to enforce seat belt laws. Additionally, researchers measured teen perceptions regarding the likelihood that they would be stopped and ticketed if they did not buckle up.

#### Teen Awareness Indices in Colorado, by Wave



The graphs show changes in the awareness and perception from baseline to Wave 4. In Colorado, teens' awareness of seat belt messages increased 17 percentage points, awareness of special police efforts increased 20 percentage points, and teens' perception about the likelihood of getting stopped and ticketed for not wearing a seat belt increased 6 percentage points. In Nevada increases in these measures were 17, 12, and 2 percentage points, respectively. Perceived risk of a ticket was highest after Wave 1 in both States.

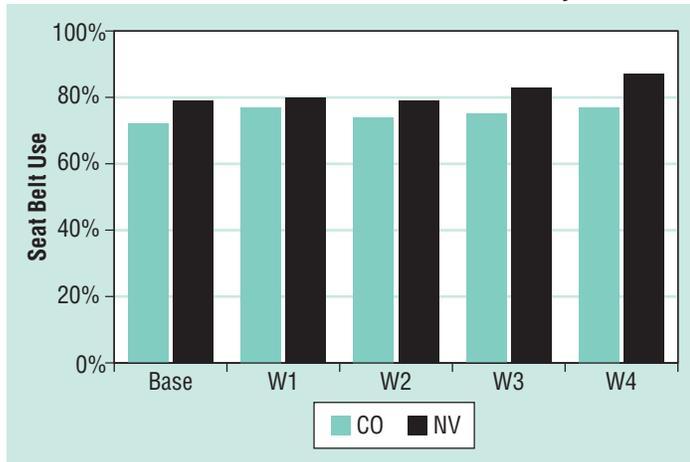
## Teen Awareness Indices in Nevada, by Wave



### Changes in Teen Seat Belt Use

Although the teen seat belt programs implemented in Colorado and Nevada were similar, there were some important differences with regard to changes in seat belt use: overall, by school type, among drivers and passengers, and by vehicle type.

### Teen Seat Belt Use Rates in Colorado and Nevada by Wave



Baseline teen seat belt use was higher in Nevada than in Colorado (79% versus 72%). In spite of the higher baseline in Nevada, use increased more in that State (+8 percentage points) than in Colorado (+5 percentage points). In both States teen seat belt use increased from baseline to Wave 4 (Nevada=79% to 87%; Colorado=72% to 77%).

### Drivers versus Passengers

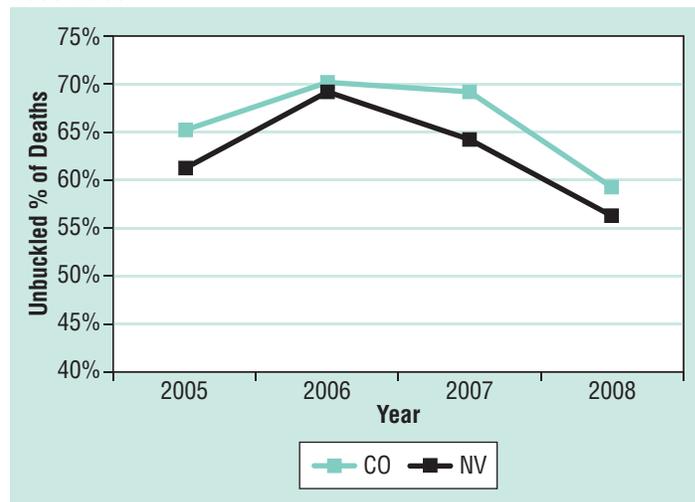
Drivers had higher seat belt use rates than passengers in both States. In Nevada, teen passengers appear to have been impacted more than teen drivers by the teen program (+10 points and +6

points, respectively). In Colorado, overall use increased by about 5 percentage points among both drivers and passengers.

### Seat Belt Use Among Teens Killed in Fatal Crashes

The unbuckled percentage of teens age 16 to 20 killed in Colorado increased from 2005 to 2006; declined in 2007, from 70% to 64%; and declined again in 2008 from 64% to 56%. Due to the small numbers involved, however, these declines were not statistically significant. In Nevada, the unbuckled percentage of teen victims increased from 2005 through 2006; remained at that level (69%) through 2007; then declined by 10 percentage points in 2008. Here again, with small numbers involved, this substantial decline was not statistically significant. These trends suggest, however, that there may have been an impact on belt use among teens killed in crashes in both States.

### Unbuckled Percentage of Teen Deaths in Colorado and Nevada, 2003-2009



Source: FARS

### Summary

The teen demonstration projects implemented in Colorado and Nevada were strong programs and teen seat belt use increased in both States. The first and last program waves appeared to have the greatest impact in Colorado; the last two waves had the greatest impact in Nevada. The overall gains of 5 percentage points in Colorado and 8 in Nevada were substantial, particularly given that both States have secondary enforcement laws and low fine levels (\$20 in Colorado; \$25 in Nevada). It is likely that greater gains could be made with the passage of a primary law upgrade and/or increase in fine levels in either or both of these States.

### How to Order

Download a copy of *Evaluation of Teen Seat Belt Demonstration Projects in Colorado and Nevada*, prepared by Preusser Research Group (100 pages plus appendices) from [www.nhtsa.gov/staticfiles/nti/pdf/811518.pdf](http://www.nhtsa.gov/staticfiles/nti/pdf/811518.pdf).



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