

A Summary of Results from Studies Measuring the Change from Secondary Enforcement of Safety Belt Laws to Primary Enforcement; Emphasizing the Effects on Race

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Introduction

Safety belts are the most effective means of reducing fatalities and serious injuries in traffic crashes. When used properly, lap/shoulder belts reduce the risk of fatal injury to front seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent (NHTSA, 1999).

When seat belts were first installed by automobile manufacturers in the 1950s, safety belt use was very low, only 10 to 15 percent nationwide, until the early 1980s. From 1984 through 1987, safety belt use increased from 14 percent to 42 percent (NHTSA, 1999). The success was attributed to mandatory safety belt use laws that were implemented by nearly every state in the mid-1980s (Cosgrove, in process).

Over the last decade, safety belt use has been a primary reason for the decline in highway fatalities, and injuries. From 1990 through 1992, safety belt use increased from 49 percent to 62 percent. By 1996, the overall seat belt use rate was 68 percent (NHTSA, 1999). Since then, however, safety belt use rates have leveled off.

In 1999, the nationwide belt use rate was 69 percent. At this rate, safety belts save an estimated 9,500 lives per year. If the use rate was 85 percent, it is estimated that over 4,200 more fatalities and 103,000 more injuries would be prevented (NHTSA, 1997).

Since the 1980s, there have been two categories of safety belt laws. One type is referred to as secondary enforcement. The other type is primary or standard enforcement. A secondary enforcement safety belt law means that a citation can be written only after an officer stops a vehicle for another violation. A primary enforcement safety belt law means that a citation can be written whenever a law enforcement officer observes an unbelted driver.

Over two-thirds of states in the US have a secondary law. Fourteen states and the District of Columbia put a primary enforcement law in place by the end of 1998. Statewide safety belt observation surveys have shown that, overall, those states with primary enforcement laws have higher belt use rates than states with secondary enforcement laws. By the end of 1998, the 14 states with primary enforcement laws averaged 75 percent belt use, while the states with secondary enforcement averaged 61 percent, a 14 percent point difference (NHTSA, 1999).

Lower Use in Minority Populations

Low safety belt use presents a public health threat in minority communities. According to a recent national occupant protection usage survey, observed safety belt use among non-whites is more than ten percentage points below the national average (NHTSA, 1999).

Meharry Medical College (1999), in partnership with General Motors Corporation, recently provided a comprehensive literature review regarding safety belt use among African Americans. The Meharry study confirmed that belt use among African Americans is lower than

the nation's average. The study also confirmed that African Americans are more likely than whites to be killed in motor vehicle crashes.

Hospital statistics clearly show the disparity between whites and blacks. A National Center for Health Statistics survey of hospital emergency room visits showed that motor vehicle crashes accounted for 779,000 visits per year for African Americans, at a rate of 24 per 1,000 people compared to 14 per 1,000 for whites (Burt and Fingerhut, 1998).

Traffic related injuries are the leading cause of death for children and young adults ages six to twenty-seven. Minority youth are at even a greater risk because they are less likely to be buckled up. Motor vehicle crashes are the leading cause of death for blacks through the age of 14. Black children ages 5 through 12 face a risk of dying in a motor vehicle crash that is almost three times as great as white children (Baker et al., 1998). They are the second leading cause of death between the ages of 15 and 24 surpassed only by homicides (Anderson, et al., 1997).

A point raised in discussions in state legislatures when debating whether to upgrade to a primary safety belt law, is that primary enforcement could provide more opportunity for the police to stop minority motorists. Often fueling these discussions are individuals and groups who claim that primary safety belt laws will result in an increase in harassment. The claims, however, have relied mostly on anecdotal evidence, and they have not been substantiated with any evidence that passage of primary safety belt laws have resulted in systematic harassment.

We know that stronger safety belt laws immediately increase belt use and reduce injury. At the same time, there are real fears about differential application of the law for white and non-white motorists. Negative reactions towards primary safety belt laws need to be of concern because they can, for better or worse, influence passage of safety legislation. Are these reactions well grounded? To answer this question, we must know about safety belt use in diverse populations and the effects from the laws that govern belt use.

Effects on Minority Populations

National Highway Traffic Safety Administration (NHTSA) evaluations have been conducted in the first five states that implemented an uninterrupted change from secondary to primary belt use enforcement. The first three states to make the change were California in 1993 (Ulmer et al., 1994), Louisiana in 1995 (Preusser and Preusser, 1997) and Georgia in 1996 (Ulmer and Preusser, in process). Maryland and Oklahoma (Solomon and Nissen, in process) followed, upgrading their safety belt laws in 1997. Each NHTSA evaluation measured the relative effect of primary versus secondary enforcement by focusing on observed belt use rates, motorist reactions, police officer reactions and citation levels. In each, data collection methods included belt use observations, a motorist survey, focus groups with police and tabulations of citation data covering periods both before and after implementation of the primary law.

The first evaluation, California, was not focused on the race/ethnicity issue. Nevertheless, what was learned about race from driver surveys prompted the need for further study that would focus more on race. Thereafter, in subsequent studies, most of the data collected for *observed*, *surveyed* and *cited* motorist included race/ethnicity identifiers. The present report summarizes these data.

California

California was the first state to make an uninterrupted change to primary enforcement when it enacted a new primary enforcement law on January 1, 1993. Consequently, it provided the first opportunity to measure, within a single state, the relative effects of the secondary to primary change.

Ulmer et al. (1994) evaluated the change in California. Nearly 3,500 drivers were surveyed. The survey asked drivers their race/ethnicity, their knowledge of the safety belt law, perceptions of enforcement and level of exposure to information regarding safety belts and their use. The relationship between race/ethnicity and some survey responses were statistically significant including large differences between race/ethnicity and perceptions of law enforcement. Many more Hispanics, the primary minority in California, perceived a "high likelihood" of receiving a ticket for not wearing a safety belt, compared to whites (71 versus 45 percent). Hispanics were also more likely than whites to judge enforcement by the California Highway Patrol as "very strict" (58 versus 34%).

The survey results clearly indicated that minorities had a heightened sensitivity to safety belt enforcement, immediately raising questions of differential treatment. Yet, when respondents were asked if they had ever received a safety belt ticket, no significant differences were found between racial categories.

California survey results were counter-intuitive. The Hispanic minority held a perception of safety belt enforcement that apparently was not "driven" by direct and personal experience with safety belt enforcement, i.e. receiving a safety belt ticket.

Results in California prompted the need for further study that would focus more on race. When Louisiana became the next state to change from secondary to primary enforcement, NHTSA sponsored a study much the same as in California. The Louisiana study would again measure the effects of the state's change in laws, only this time there would be more focus on collection and analysis of race data.

Louisiana

On November 1, 1995, Louisiana became the second state to implement an uninterrupted change from secondary to primary enforcement. All other elements of the law remained unchanged.

Comprehensive enforcement and publicity programs introduced Louisiana's new law. In five study communities (Preusser and Preusser, 1997), belt use rose from 52 percent in 1994 to 68 percent in 1996. Statewide, the use rate increased from 50 percent to 68 percent, a statewide increase of 18 percentage points. Belt use among whites was higher than non-whites in the five study communities after the change (69 versus 58 percent). However, this 11-percentage point white versus non-white difference was smaller than the 18-percentage point white versus non-white difference seen in the 1991 statewide belt use survey (42 versus 24 percent). This 1991 survey had been the last time that racial information was recorded in the statewide observations.

Nearly 2,500 motorists were surveyed. Minority respondents in Louisiana were primarily black whereas in California the minority population was defined as mostly Hispanic. Black respondents in Louisiana perceived safety belt enforcement quite differently than whites. When respondents were asked the likelihood of receiving a ticket for non-compliance, responses to this

question varied significantly by racial category. Concerning race, 34 percent of blacks indicated that they would "always" get a ticket as compared with only 25 percent of the whites. When asked about perceived strictness of State Police and local enforcement, responses were also statistically different as a function of race. Black respondents more than whites respondents (37 versus 22 percent) felt that the state police were enforcing the belt law "very strictly." Similarly, more black respondents, than white respondents (30 versus 18 percent), felt that their local police enforce the law "very strictly" (Preusser and Preusser, 1997).

The Louisiana study provided an additional source of data not available in California. Two communities, St. Tammany Parish and the City of Monroe, were able to identify race among those drivers receiving a belt use citation. In St. Tammany, five percent of the citations issued went to black drivers during the first few months following the implementation of the primary law. During comparable months in prior years, 12 percent of the tickets were issued to black motorists. Similarly, in Monroe, 36 percent of the tickets went to black motorists during the first few months of primary enforcement versus 48 percent during comparable periods in earlier years. That is, black ticketing actually went down as a percentage of all citations issued following the implementation of primary enforcement.

The California and Louisiana studies provided evidence that the minority population in those states were more likely to believe that enforcement was strict. However, neither Hispanics in California nor blacks in Louisiana reported actually getting more belt use tickets than the general population. Citation records verified this to be the case in two Louisiana communities. The next step was to discern if this was something distinct only in these two states or something more general. The state of Georgia provided the next opportunity to measure the effects of primary enforcement and again race would be a focus.

Georgia

Georgia was the third state to go directly from secondary to primary enforcement when it passed a law on July 1, 1996. The Georgia results indicated that, like in California and Louisiana, changing to primary enforcement increased belt use rates. Yet, in Georgia, gains in the use rate were not as impressive because during the summer of 1996, most media and enforcement attention in Georgia focused on the Olympics and this overshadowed publicity of the new belt law. Still, the statewide belt use increased by an estimated five to 10 percentage points after the law change.

Close to 1,100 drivers were surveyed in several DMV offices around the state. As in Louisiana, the minority was predominately black in Georgia. Patterns of response by racial category were similar to those found in California and Louisiana. Overall, 40 percent of respondents believed the chance of getting a safety belt ticket were "high." Black respondents were more likely to think so than whites (45 versus 36 percent). More blacks than whites, felt that the State Police enforce the law "very strictly" (34 versus 25 percent), and more blacks than whites, felt that the local police enforce "very strictly" (29 versus 18 percent). Respondents were asked if they had ever received a safety belt ticket. There was no statistically significant difference between the races.

Police departments in the five study communities provided data on the numbers of safety belt citations issued. Citation data provided by three of the departments, Albany, Rome and Thomasville, indicated whether the ticket recipient was white or black. Results for Rome were statistically significant. These data showed that prior to the law change the percentage tickets going to blacks fluctuated year to year but with no apparent trend (ranging 36 percent to 46 percent of tickets issued). Following the law change, the percentage of cited blacks decreased considerably

(29 percent of tickets issued). Results from Albany and Thomasville showed that differences between ticketing and race were not statistically significant.

By 1997, a growing number of states with secondary belt laws were considering upgrading to primary. They were encouraged by results proving that a higher safety belt use rate is virtually certain with a primary enforcement law. Still more often than not, individuals and organizations opposing upgrades were successful at stopping passage of new laws. In those states, debate often focused on the possibility that a primary enforcement law might result in a disproportionate number of traffic stops for minorities. Nevertheless, by the end of 1997, two more states, Oklahoma and Maryland, had made the change to primary.

Again, NHTSA sponsored research to evaluate the changes in Maryland and Oklahoma. Data collection techniques used in California, Louisiana and Georgia were to be used again.

Oklahoma

Oklahoma enacted a primary enforcement law on May 29, 1997. The safety belt use rate in Oklahoma had been below the national use rate. Soon after primary enforcement became effective, the statewide rate measured 56 percent, +9 percentage points higher than the year before (47 percent), but it was still below the 1998 national rate (69 percent). Statewide belt use data had not differentiated race prior to 1999. Race was measured in a sample of sites in Spring 1999. At that time, overall belt use rate was measured at 66 percent, white and non-white use rates were identical.

A survey of nearly 1,250 Oklahoma motorists was conducted. Again, respondents' perceptions of safety belt enforcement differed significantly by race. More blacks, the primary minority in Oklahoma, than whites (51 versus 38 percent) felt there was a "very high" likelihood to get a ticket for non-compliance. When asked to report strictness of local enforcement, a larger proportion of black respondents perceived "very strict" enforcement compared to white respondents (27 versus 19 percent), and when asked about perceived State Police enforcement, a larger proportion of black respondents perceived enforcement as "very strict" compared to white respondents (29 versus 21 percent). There was no significant difference regarding race and reporting ever having received a seat belt citation. Citation data with race identification were not available in Oklahoma (Solomon and Nissen, in process).

Maryland

Maryland's primary belt law became effective on October 1, 1997. Close to one year after the change to primary enforcement, belt use measured 83 percent for the state, 12 percentage points higher than the year before the law change (71 percent).

A survey of 944 drivers visiting Maryland DMV offices was conducted. Blacks, the primary minority in Maryland, more than whites (50 versus 42 percent), indicated feeling a "high likelihood" of receiving a ticket for being unbelted. When asked to report strictness of local enforcement, black respondents more than white respondents (40 versus 22 percent) perceived "very strict" enforcement. When asked to report strictness of State Police enforcement, black respondents more than white respondents (42 versus 26 percent) perceived enforcement as "very strict." There was no significant difference regarding race and reporting ever having received a seat belt citation.

Maryland's statewide judicial records system provided citation data that identified race. Statewide citation data were analyzed for differences in race. Additionally, citation data for three study counties, Anne Arundel, Baltimore, and Howard, were analyzed for difference in race. Statewide, during the year prior to the change to primary, the percentage of belt tickets issued to blacks was 27 percent. In the year following the change, the percentage had decreased to 26 percent of tickets issued. Statewide, the difference between ticketing and race was statistically significant. In Anne Arundel County, the percentage of tickets issued to blacks decreased from 17 to 16; in Howard County, the percentage decreased from 24 to 23; and in Baltimore County, the percentage remained the same (30 percent). None of these county differences was statistically significant (Solomon and Nissen, in process).

Summary

Studies measuring the change from secondary enforcement to primary enforcement in five states indicated that people, regardless of race, responded to primary safety belt laws by buckling up more. Results from motorist surveys indicated that Hispanic and black minorities perceived safety belt enforcement quite differently than whites. The minority groups, more so than whites, felt the chances of getting a safety belt ticket were high and belt enforcement was strict, and yet minorities self-reported receiving no more tickets than whites. In a number of locations, citation data confirmed there was either no difference in minority versus white ticketing, comparing secondary to primary enforcement, or a greater increase in ticketing went to whites following the change to a primary enforcement law. No situation was identified in which, black ticketing, as a percentage of all ticketing, was significantly greater following the change to primary.

Conclusion

Passage of primary safety belt laws has produced public health benefits. Belt use among minorities remains lower than the nation's average, and therefore, the minority population is at higher risk to be injured or killed in motor vehicle crashes. People, of all races, buckle up more often after passage of a primary law. Thus, both whites and minorities benefit. Primary enforcement appears fairer compared to secondary enforcement in that proportionately the same or fewer tickets are issued to minorities after the change to primary enforcement.

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