



RESEARCH PROJECT CAPSULE [14-2SA]

September 2014

TECHNOLOGY TRANSFER PROGRAM

Factors Influencing Seatbelt Utilization in Louisiana and Strategies to Improve Usage Rate

JUST THE FACTS:

Start Date:

June 1, 2014

Duration:

24 months

End Date:

May 31, 2016

Funding:

SPR: TT-Fed/TT-Reg

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POINTS OF INTEREST:

Problem Addressed / Objective of
Research / Methodology Used
Implementation Potential

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PROBLEM

Primary seatbelt laws and enforcement of these laws have long been recognized as one of the most important strategies to increase seatbelt use. Therefore, in 1995, Louisiana passed a primary seatbelt law and, since then, belt use has risen from 59% in 1996 to 82.5% in 2013, which is an increase of 23.5 percentage points. During the same period, the number of yearly fatalities that were unbelted decreased from 423 in 1996 to 192 in 2012. Compared to 1986, the first year belt use survey data for Louisiana was available, belt use has risen by an astounding 70 percentage points. However, the yearly increases in belt use have dropped from about 2.5 percentage points per year before 2000 to less than one percentage point per year after 2000. National as well as state data show that as belt use increases, it is becoming more difficult to increase belt use among the last holdout group of non-users which are disproportionately killed in fatal crashes. For instance, in 2012, 55% of the drivers killed and 57% of the passengers killed were unbelted. Many severe injuries are also due to lack of belt use. Of the drivers and passengers severely injured in 2012, 34% and 31%, respectively, were unbelted. Comparisons of Louisiana's use rates with other states show that despite the significant increases in belt use since 1986, Louisiana's use rate has always been below the national average and that other states have had more success in raising belt use than Louisiana. In 1996, the year after the primary seat belt law was passed, Louisiana ranked 28th among the 50 states and the District of Columbia with respect to belt use, but in 2012 Louisiana ranked 41st in the nation. Therefore, belt use continues to be recognized as a public health issue and increasing use rates are part of the Louisiana Strategic Highway Safety Plan by the Louisiana Department of Transportation and Development (DOTD) and the Highway Safety Plan by the Louisiana Highway Safety Commission (LHSC). However, without a more optimized deployment of limited resources, Louisiana is unlikely to increase belt use to the 90% use of many other states. Prior research has well established that enforcement of primary seat belt laws accompanied by media efforts including publicizing the enforcement are the most effective tools for increasing belt use. However, further research is needed into the holdout group of non-users to better understand the factors associated with their non-use and how these factors can be used for direct enforcement and media campaigns.

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OBJECTIVE

The overall goal in this research is to reduce fatalities and severe injuries through increasing belt use in Louisiana. This goal is identified in the Louisiana Strategic Highway Safety Plan by the DOTD and the Highway Safety Plan by the LHSC as part of the National Highway Traffic Safety Administration (NHTSA) program requirements per MAP-21. The specific goal of this research project is to provide belt-use information about targeted groups of motorists that can be used by the LHSC, DOTD, and other agencies for a more effective and efficient seat belt enforcement and media coverage for the purpose of increasing belt use in Louisiana.

METHODOLOGY

There are five essential parts:

1. Identify all data sources at the state and national level that are related to belt use, checking the availability and collecting these data;
2. Use data analytics to gain insight into the factors affecting belt use and identify high-risk groups;
3. Design and conduct a phone survey concentrating on at-risk populations in the targeted groups to gain further insight into attitudinal factors affecting belt use;
4. Develop statistical models assessing the strength of association between factors and belt use in each targeted group;
5. Develop best practices that can be used for developing strategies and plans for effective enforcement and media deployments.

IMPLEMENTATION POTENTIAL

The research will provide results that can be used as the basis for developing targeted strategies and plans by the LHSC and DOTD to increase seatbelt use. Preliminary findings will be presented in the fall of 2014, which will allow these agencies to make adjustments to their enforcement and media deployment in the spring of 2015. Final results delivered in 2015 will permit the full implementation of best practices during the 2015/2016 fiscal year.