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

INTRODUCTION

Seat belts are credited with saving thousands of lives each year, yet a significant portion of the US population (13%) does not use a seat belt every time they are in a moving vehicle. A majority of states, including Louisiana, have belt-use rates below the national average (87%). National as well as state data show that, as belt use nears 90%, it is harder to increase belt use among the low-use populations, who are most at-risk for fatal or serious injury crashes. Individuals in low-use populations are traditionally described as groups sharing certain demographic characteristics (e.g., males aged 18-34) and lifestyle factors (e.g., unmarried, lower socioeconomic position, pickup truck drivers, etc.). Previous efforts to increase seat belt use among low-use populations have had limited success. For the most part, states have relied on legislative (e.g., primary seat belt laws) and enforcement strategies (e.g., Click-it-or-Ticket [CIOT], high-visibility enforcement, etc.) to increase belt use; however, in order to see a meaningful increase in seat belt use among low-use groups, individuals making up these groups must change their behavior. At the individual level, there are many factors that impact a person's motivation to change their behavior, such as attitudes, beliefs, social context, health and life satisfaction, and other primarily psycho-social conditions. It is important to gain new insight into how these factors might vary between 100% seat belt users and those who use them less in order to develop more targeted approaches. This research was conducted at Louisiana State University (LSU) and funded by the Louisiana Transportation Research Center (LTRC).

OBJECTIVE

The objective of this project was to determine factors influencing seat belt utilization in Louisiana and suggest strategies to improve usage rate.

SCOPE

The scope of this project was to identify low-usage target groups based on demographic factors that affect seat belt use among occupants of cars, vans, pickup trucks, and SUVs in the state of Louisiana; identify attitudinal and socioeconomic factors that affect seat belt use among occupants of cars, vans, pickup trucks, and SUVs in Louisiana; and review past program efforts to determine association with seat belt use.

METHODOLOGY

Several objectives of this study revolved around identifying low-usage target groups based on demographic, attitudinal, and socioeconomic factors. To identify these groups in the population, the researchers developed a four-step plan of analysis. Step 1 included the review of past research and analysis of existing secondary sources of data to identify factors affecting belt use. These sources include OMV seat belt violation data, police reported seat belt violations, annual roadside survey data, and crash data. In Step 2, the researchers developed a conceptual model of factors affecting seat belt use to assist with exploratory

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PRINCIPAL INVESTIGATOR:
Helmut Schneider, Ph.D.
225.578.2516

LTRC CONTACT:
Elisabeta Mitran, Ph.D.
225.767.9129

FUNDING:
SPR: TT-Fed/TT-Reg

Louisiana Transportation Research Center

4101 Gourrier Ave
Baton Rouge, LA 70808-4443

www.ltrc.lsu.edu

analysis, which consists of spatial analysis as well as developing, testing, and finalizing survey instruments. Questionnaires were then tested on two convenience samples. The findings were used to establish the four seat belt usage groups as the primary focus for further analysis. In Step 3, the researchers collected primary data via two surveys using different modes of administration (i.e., phone and online) and two different sampling methods (i.e., stratified random and quota non-probability). The sampling design for both surveys was based on the survey usage groups and age. One of the surveys included respondent samples from other states for comparison. Step 4 consisted of data analysis and discussion of results.

CONCLUSIONS

Findings indicated that, despite the large number of citations issued since 2004, many drivers in Louisiana continue to drive without seat belts. These individuals, however, are not easily categorized by traditional demographic factors. Rather than viewing seat belt use as an all-or-nothing behavior, it should be viewed as a continuum of commitment, with people ranging from highly committed (i.e., exhibit strong habits, especially when combined with strong motivations) to those with less commitment to seat belt use, particularly when faced with certain situations or exceptional circumstances. The researchers find that individuals tend to fall into one of four groups along two dimensions, namely attitudinal motivation (believing seat belt use is absolutely something they have to and want to do) and actual belt use (100% belt use or not). Group comparisons suggest consistent belt use depends heavily on motivation, habit, and routine. There are non-100% users who report they absolutely have to and want to use a seat belt every time they are in a vehicle but lack the habit. From the multi-state comparison analysis, the researchers found that individuals in these groups are similar across states. Looking at the available citation data only, it would appear that seat belt enforcement is quite effective at ticketing drivers who do not wear a seat belt. According to the data, one out of two drivers who do not wear a seat belt has likely received a seat belt citation. This number is even higher if the citations reported by police agencies are included. The analysis suggests that just receiving a violation is not particularly instrumental in encouraging these drivers to change their behavior. Also, the somewhat concentrated enforcement efforts (e.g., there are significantly more seat belt tickets written in May during the CIOT mobilizations) may also hinder more widespread driver response. From an enforcement perspective, it may be necessary to implement harsher penalties and/or impose higher fines to increase compliance. Seat belt violations could be shared with insurance companies so that insurance premiums are adjusted to account for the risk of severe injury and cost associated with these injuries.

RECOMMENDATIONS

Implementation of some of the recommendations in 2017 will likely lead to a more efficient use of limited resources. There are several strategies:

1. Change laws regarding penalties for not wearing a seat belt by increasing severity of nonuse penalties for 15- to 17-year-old drivers, and by significantly increasing penalties for multiple offenders.

2. Enforcement should be focused on night-time drivers when seat belt use tends to be lower and drivers are most likely to be under the influence of alcohol.

3. Fines for seat belt violations should be collected and a program may need to be designed in order to facilitate this process.

4. Outreach programs that concentrate on high schools and universities can be tailored to promote the habit of wearing a seat belt early on.

5. Communication that addresses habit forming and consistency of belt use need to be designed with targeted messages to counter reasoning of part-time or non-seat belt users.