

Enhancing Missouri Traffic Safety with a Primary Enforcement Seat Belt Law

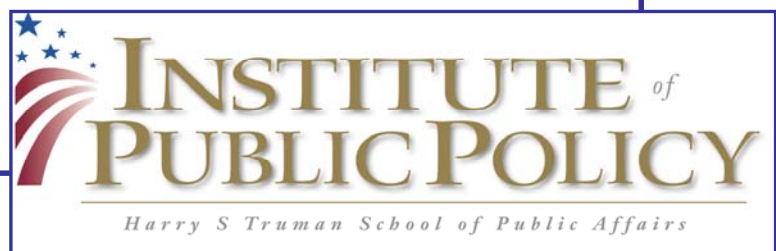
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In 1984, New York became the first state to enact a mandatory seat belt law; since then, the District of Columbia and every state except New Hampshire have adopted similar laws. Of the 49 states with seat belt laws, eight states originally included primary enforcement provisions in seat belt laws, which allow police to stop a driver solely on the basis of not wearing a seat belt. In 1993, California upgraded their secondary seat-belt enforcement provision to a primary law. Since then, 12 more states and the District of Columbia have strengthened their belt laws by making them primary enforcement laws.

Missouri continues to permit only secondary enforcement and allows a minimal \$10 fine. In 2002, Missouri ranked 35th in the nation in belt use rate, and the fatality rate per 100,000 persons was 21.6 in Missouri versus 14.6 for the national average and 7.18 in the safest state. Further, according to the National Highway Traffic Safety Administration, the economic cost of motor vehicle crashes in Missouri was \$4.7 billion in 2000. A 2004 study commissioned by the National Safety Council shows Missouri could save at least \$103 million dollars over the next ten years in Medicaid costs once a primary enforcement seat belt law was adopted.

Primary Enforcement Enhances Seat Belt Usage

Because primary enforcement increases the chances of receiving a citation for failure to obey the law, such laws are expected to enhance seat belt use. Data from the National Highway Traffic

Safety Administration (2004) show states with secondary enforcement have average seatbelt use of 75% whereas states with primary enforcement average about 85%.

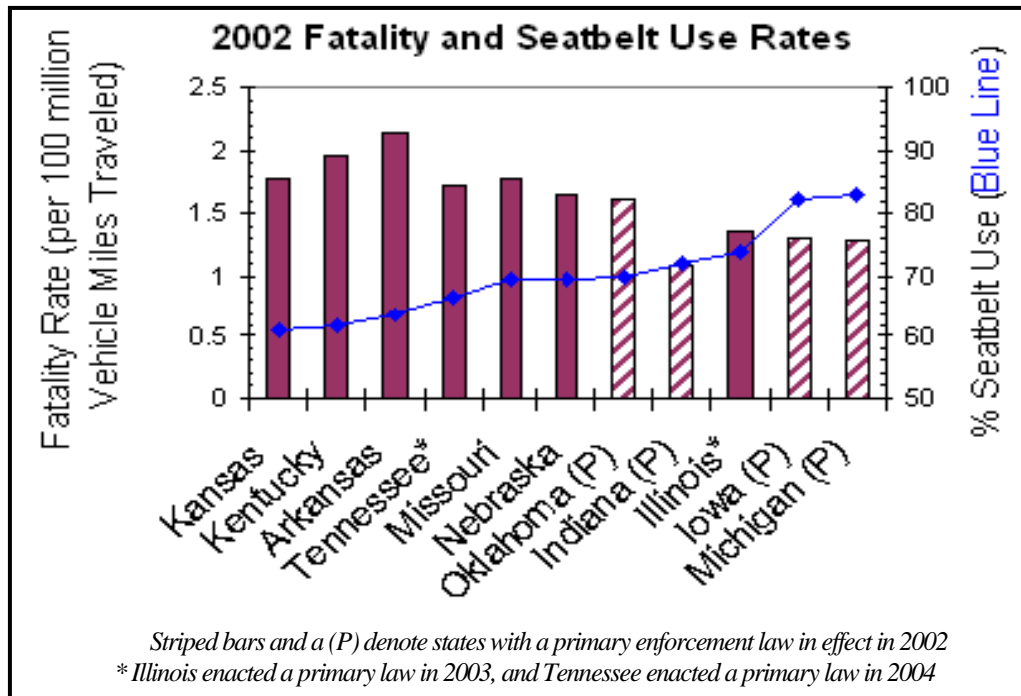
These data also show that several states have experienced increases in seat belt usage following a switch from secondary to primary enforcement. For the 13 states that made the switch between 1993 and 2003, the average increase in seatbelt usage from the year before the primary law was enacted to the year after was nearly 20%. When Michigan enacted their primary enforcement law, seatbelt usage rose from 70% in 1999 to 83.5% in 2000. Similarly, after implementing a stricter law in 2003, seatbelt usage in Illinois increased from 74% in 2002 to 83% in 2004. In 2004 Illinois experienced its lowest level of traffic fatalities



in 60 years with an 8% drop since the primary enforcement law was implemented. In July of 2004, Tennessee became the most recent state to switch to a primary law and has already seen a jump in seatbelt use from 68.5 percent in 2003 to 72.4 percent in 2004.

Our analysis of all states from 1991 to 2002 shows primary states experience belt use rates that are 9.1 percentage points higher than their secondary counterparts, even when controlling for average income, race, gender, percent of young drivers, education, and state police and safety expenditures. In addition, the level of the fine has an effect on safety belt use with a \$25 fine increasing belt use by almost 4 percentage points and a \$50 fine almost 8 points higher than no fine.





Comparison of Missouri to Nearby States

A comparison of traffic fatality rates for states near Missouri (controlling for vehicle miles traveled) shows higher fatality rates in states with lower belt use, and lower fatality rates in states with higher belt use. Further, the states with higher belt use tend to have primary enforcement.

Primary Enforcement Contributes to a Reduction in Fatalities and Injuries

Studies find that states with primary enforcement have experienced a greater reduction in fatalities and injuries than those states with only secondary provisions:

- Our 1995 analysis of all 50 states over time shows that states with primary enforcement had 2.7% fewer fatalities as compared to secondary enforcement states.
- Another 1995 study estimates that primary enforcement laws result in a fatality decrease of 5.9% beyond that produced by secondary enforcement.
- Our analysis of California’s switch from secondary to primary enforcement shows a permanent decrease in the number of injuries sustained in traffic crashes. It is estimated that California’s policy change resulted in over 1,200 fewer injuries per month, a 4.9% reduction.

Estimates for Missouri

Using these studies and based on the number of fatalities (1,232) and injuries (69,121) in Missouri during 2003, we can predict the impact of a change to primary seatbelt enforcement for the state:

- Fatalities could be lowered by as much as 72 fatalities per year (a reduction of up to 5.9%)
- Injuries could be reduced by about 3,400 per year (a reduction of 4.9%)
- An increase in the fine associated with a seatbelt violation from the current amount of \$10 in Missouri to \$50 and a change to primary enforcement would be expected to increase seatbelt use from the current rate of 76 % to just over 90%.

Based on National Highway Traffic Safety Administration estimates of traffic injury costs, the reduction in fatalities and injuries expected with the implementation of a primary enforcement law could save Missourians anywhere from \$96 million to \$133 million a year in medical, legal, rehabilitation and workplace costs.



¹ Author Biographies

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Lilliard Richardson is an Associate Professor in the Truman School of Public Affairs and may be reached at richardsonle@missouri.edu.. Dr. Richardson's teaching and research interests primarily focus on public policy, state legislatures, and research methods. Lilliard has published extensively in the field's top journals. He has provided professional testimony on public policy issues to state legislatures, and he served as a Legislative Assistant in the Missouri House of Representatives prior to entering academe.

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Jessica Hutton is a graduate research assistant in the Institute of Public Policy at the Truman School of Public Affairs, University of Missouri – Columbia. She earned a bachelor's degree in civil engineering and will complete her master's in public administration in 2005, both from the University of Missouri-Columbia. After receiving her bachelor's degree, Jessica began working as a traffic studies engineer for the Missouri Department of Transportation, where she will return after completing her master's degree.

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