

Estimating the Effect of Standard Enforcement of a Rear Seat Belt Law for Rear Seat Fatality Prevention in North Carolina

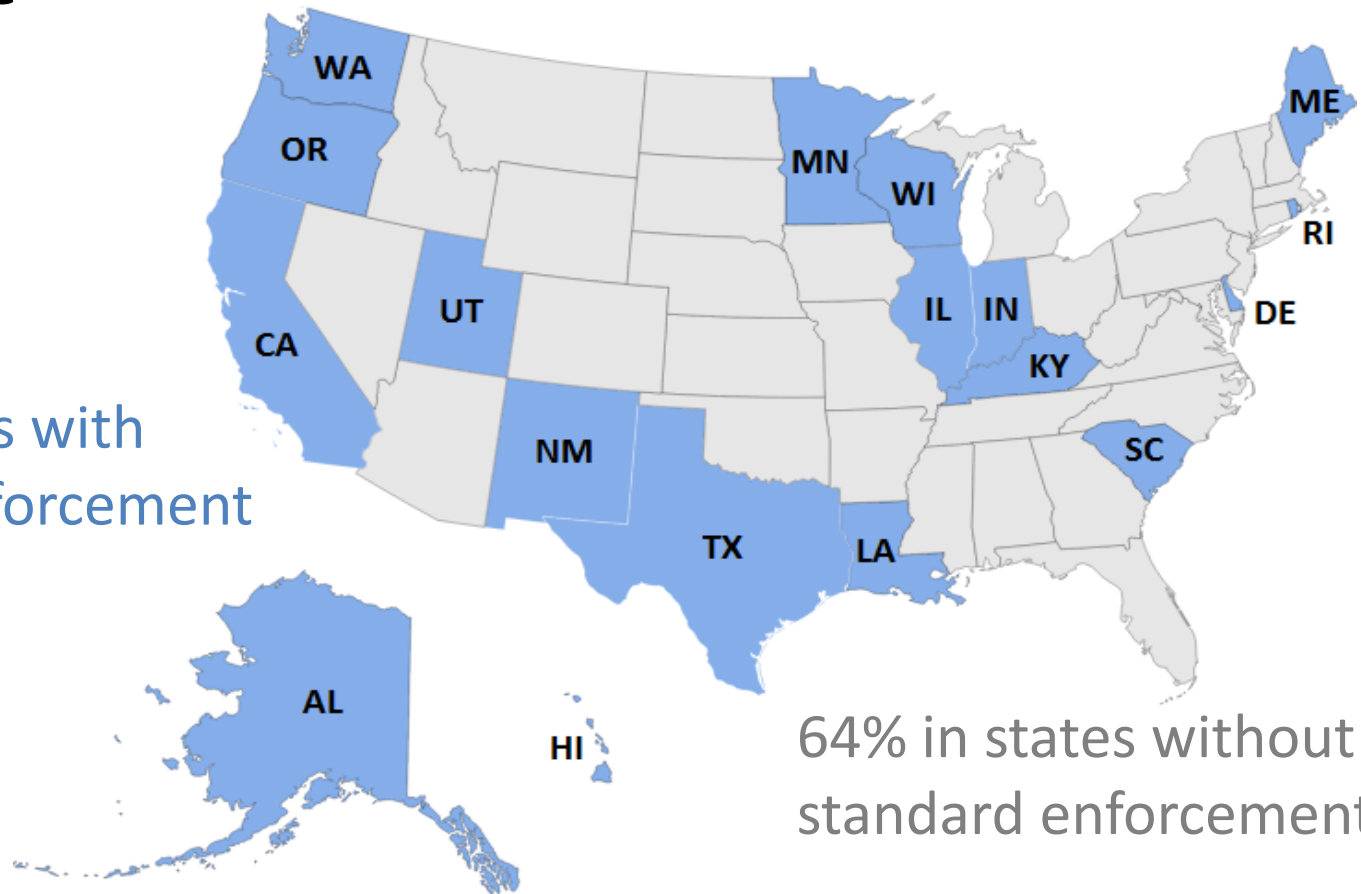
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Background



Between 2011 to 2015 in North Carolina there were 327 rear seat passenger fatalities (209 were unrestrained → 64% of fatalities)



57% in states with standard enforcement

64% in states without standard enforcement

Background



- For rear seat occupants involved in a fatal crash between 2011 to 2015 in North Carolina:
 - 89.1% of *restrained* rear seat occupants survived the fatal crash
 - Only 62.2% of *unrestrained* rear seat occupants survived the fatal crash
- By age group percentage of rear seat occupant fatalities who were unrestrained
 - 0 to 7 years old → 26%
 - 8 to 15 years old → 64%
 - 16 to 17 years old → 71%
 - All NC fatalities → 64%
- NHTSA found 14% increase in rear seat belt use with standard enforcement

Methodology




- Three methods were used to evaluate effect of standard enforcement:
 - 100% usage of seat belts, while considering that the forces in some collisions are too violent for even the properly restrained to survive
 - Comparing states with and without standard enforcement
 - 14% increase in rear seat belt use

Results



- 100% usage of seat belts → 30 lives saved annually
 - \$285 million estimated economic savings
- State comparison → 10 lives saved annually
 - \$100 million estimated economic savings
- 14% increase in rear seat belt use → 14 lives saved annually
 - \$130 million estimated economic savings

Questions?

A close-up photograph of a person's hand, wearing a ring, resting on a black car gear shift. The background is slightly blurred, showing the interior of a vehicle with black leather seats and red stitching.

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