

## **POLICY NOTES**

**April 2001**

### **Safety Implications of Changing to a Primary Enforcement Seat Belt Law** **Lilliard Richardson**

#### **Overview**

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 included in their original seat belt laws primary enforcement provisions, which allow police to stop a driver solely on the basis of not wearing a seat belt (New York, Hawaii, North Carolina, Texas, Connecticut, Iowa, New Mexico, and Oregon). During the 1990s, beginning with California, nine states upgraded their seat belt enforcement provisions from secondary to primary. According to a recent survey of nearly 2000 adults conducted by the Insurance Research Council, there is considerable public support for primary and secondary seat belt enforcement: 47% of the survey respondents indicated support for primary enforcement, while 41% of respondents favored secondary enforcement.

#### **Primary Enforcement is related to Greater Seat Belt Usage**

Because primary enforcement increases the chances of receiving a citation for failure to obey the law, such laws should result in greater seat belt use. Data from the National Highway Traffic Safety Administration (1999) show:

	<u>Seat Belt Usage</u>
States with secondary enforcement	Ranges from 30% to 80%, with an average of 62% (median)
States with primary enforcement	Ranges from 71% to 84%, with an average of 77% (median)

These data also show that several states have experienced marked increases in seat belt usage following a switch from secondary to primary enforcement: California's seat belt use increased by 18%, and Louisiana experienced an increase of 16% after implementing primary enforcement.

#### **Primary Enforcement is related 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:

- A 1995 analysis of all 50 states 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

- An analysis of California's switch from secondary to primary enforcement in 1993 shows an immediate, permanent decrease in the monthly number of injuries sustained in traffic crashes after the policy change. It is estimated that California's change to primary enforcement has resulted in over 1,200 fewer injuries per month, a 4.9% reduction. Figure 1 displays the effect of this policy change graphically. This figure shows California's experience by presenting injuries as a rate per 1,000 collisions, with a 12-month moving average calculated to smooth the time series and highlight the trends

### Estimates for Missouri

Using these figures and based on the number of fatalities (1,169) and injuries (79,746) in Missouri during 1998, we can predict the impact of change in enforcement for the state:

- Fatalities could be lowered by at least 31 and perhaps by as many as 69 fatalities per year (a reduction of 2.7% to 5.9%)
- Injuries could be reduced by 3,908 per year (a reduction of 4.9%)

### Societal Costs from Traffic Injuries and Fatalities

Any reduction in fatalities and injuries has tremendous emotional value, but such reductions also produce significant financial savings. According to the National Highway Traffic Safety Administration, each fatality in 1994 was estimated to cost society an average of \$832,000, and each injury involved a cost from \$7,000 to over \$700,000, depending on the severity of the injury. The average injury involves over \$14,000 in medical, legal, rehabilitation, and workplace costs. Updating these figures by building in a 2.1% inflationary factor, estimates are that the total societal economic benefit of a change to primary enforcement would range from \$92 million to \$127 million per year (\$62 million in cost avoidance for injuries, and a range of \$29 million to \$65 million in cost avoidance for fatalities).

Monthly Traffic Injury Rates in California, 1988-1997

