



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Log H-0580

Date: June 20, 1995

In reply refer to: H-95-13

To States and the District of Columbia
that have secondary enforcement of
mandatory safety belt use laws and the
States without mandatory safety belt use laws
(see attached mailing list)

Fatalities and injuries incurred as a result of motor vehicle crashes have long been considered by the National Transportation Safety Board to be one of the Nation's most serious transportation safety problems. In 1994, nearly 40,000 persons lost their lives in vehicle crashes. More than 5 million persons were injured.

The Safety Board has issued hundreds of safety recommendations over the years both to prevent highway crashes and to reduce the consequences of those accidents that do occur. These recommendations have addressed such important safety issues as eliminating drinking and driving, improving the structural integrity of commercial vehicles (school buses and heavy trucks), improving occupant restraint systems for children and adults, urging installation of rear-seat lap/shoulder belts, and encouraging occupants to correctly use available occupant restraint systems, to name just a few. Continuing efforts in these areas have resulted in dramatic improvements in recent years. For example, when the Safety Board expressed strong support for the passage of mandatory restraint use laws (MULs) in its 1988 safety study on the performance of lap/shoulder belts,¹ 31 States and the District of Columbia had such laws. However, during the next 3 years, only 7 of the remaining 19 States enacted MULs. Consequently, in 1991, the Safety Board recommended that the remaining 12 States enact legislation that would require occupants of all passenger automobiles, vans, and light trucks to use lap/shoulder belt systems in seating positions equipped with such belt systems. Because of the importance of this

¹ National Transportation Safety Board. 1988. Performance of lap/shoulder belts in 167 motor vehicle crashes (volume 1). Safety Study NTSB/SS-88/02. Washington, DC.

issue, the Board placed this recommendation on its "Most Wanted" list of safety improvements.² By March 1994, 10 additional States had enacted mandatory use laws. Today 48 States and the District of Columbia have MULs.³

Seatbelt usage rates in the U.S. have increased substantially since the late 1970s when the usage rates were less than 15 percent. Since 1984, when New York passed the first MUL, usage rates have steadily risen as more and more States passed MULs. According to the most recent data released by the NHTSA, State belt use rates currently range from a low of 32 percent to a high of 84 percent, with some U.S. territories citing even higher usage rates. The national use rate rose to 66 percent in 1993.⁴

The increase to 66 percent along with a reduction in alcohol-related fatalities to 42 percent has been estimated by NHTSA to have saved 3,000 lives annually and to have reduced health care costs alone by \$1 billion. The NHTSA further estimates that increasing safety belt use rates to 75 percent would save more than \$3 billion annually, including \$684 million in health care costs and \$328 million in taxes and public assistance. The National Safety Belt Coalition has estimated that more than 14,000 lives could be saved every year if all front seat occupants buckled their safety belts. Crash victims wearing belts average 60 to 80 percent lower hospital costs than unbelted victims, according to the National Safety Belt Coalition. Increasing the seatbelt use rate is the most effective way of cutting the highway death toll.

The Safety Board recognizes and commends the States' efforts and the efforts of the highway safety community to encourage the States to address this important issue. However, because of the continued loss of lives on our Nation's highways, and the consequent costs in health care, taxes, and public assistance, States must find additional ways to encourage seatbelt use. As experience has shown, strong legislative initiatives and highly visible enforcement and public information campaigns are the most effective methods to increase seatbelt use. Valuable information on what methods work can be gained from those States and countries where the usage rate has remained high.

Of the 48 States with mandatory use laws, only 9 have provisions for primary enforcement, which means that a vehicle can be stopped solely for a safety belt violation. In the other 39 States, the law is a secondary enforcement measure, which means that an officer can cite a motorist for a belt use violation only if the officer has

² The purpose of the "Most Wanted" list, which is drawn up from safety recommendations previously issued, is to bring special emphasis to the safety issues the Board deems most critical.

³ Maine and New Hampshire do not have mandatory seatbelt use laws; however, Maine has introduced legislation.

⁴ The Secretary of Transportation has established a goal of 75 percent seatbelt use by 1995.

already stopped the vehicle for another infraction.⁵ In 1993, 90 percent of the States with primary law enforcement had seatbelt use rates of 60 percent or higher, but only 38 percent of the States with secondary law enforcement had seatbelt use rates as high. Four of the five States with the highest belt use rate in 1994 have primary enforcement laws: Hawaii (84 percent); California (83 percent); North Carolina (81 percent); and New Mexico (79 percent). Of the 10 States with the lowest belt use rate, 2 States have no safety belt law and 8 States have secondary enforcement. In 1994, all of the States with primary law enforcement had seatbelt use rates higher than 70 percent; 3 had a seatbelt use rate higher than 80 percent. In comparison, 6 of the 39 States with secondary enforcement laws had seatbelt use rates higher than 70 percent and only one of the secondary States had a seatbelt use rate higher than 80 percent. States with primary enforcement laws average about a 13-percent higher seatbelt use rate than States with secondary enforcement laws (75 percent versus 62 percent). This difference in the average current use rates between States with primary and secondary law enforcement is consistent with the findings of a 1987 study that used a time series analysis to assess the relationship between safety belt use and enforcement under primary and secondary law conditions in 20 States.⁶ The study found that, in general, belt use rates were higher in primary law States and that this advantage held for different enforcement levels. Overall, belt use increased as a function of enforcement level (i.e., citation rates), and for each enforcement level belt use was 10 to 13 percentage points higher in primary law States compared with secondary law States.

The important aspect of this difference is that States with primary enforcement have a lower fatality rate. This translates not only into lives saved but reduced health care costs. A 1988 study assessed the effectiveness of the first eight State MULs enacted using a time series analysis involving fatality rates from January 1976 to June 1986.⁷ The study found that there was an 8.7 percent overall decline in fatality rates for front seat occupants among these States. The fatality rate was reduced by 9.9 percent in States with primary laws and by 6.8 percent in States with secondary laws. A 1989 study compared 11 States with secondary laws and 5 States with primary laws.⁸ According to the study, among occupants over 21 years of age, fatality rates declined 20 percent in States with primary laws during the first full year after enforcement of the seatbelt law versus 8 percent in States with secondary

⁵ The proposed mandatory use legislation in Maine is a secondary enforcement measure.

⁶ Campbell, B.J.; Stewart, J.R.; and Campbell, F.A. 1987. 1985-1986 experience with belt laws in the United States. Raleigh, NC: Highway Safety Research Center, University of North Carolina.

⁷ Wagenaar, A.C.; Maybee, R.C.; and Sullivan, K.P. 1988. Mandatory seatbelt use laws in eight states: a times series evaluation. *Journal of Safety Research*. 19: 51-70.

⁸ Evans, W.N.; Graham, J.D. 1989. Risk reduction or risk compensation? The case for mandatory safety belt use laws. Research supported by the The Centers for Disease Control and the New England Injury Prevention Research Center.

laws. Fatality rates involving younger occupants in States with primary laws declined 23 percent compared with 3 percent in States with secondary laws.

Although several States—including Arizona, Maryland, Virginia, and Washington—have achieved relatively high use rates with a secondary enforcement law, the available evidence, including the recent experience of California, indicates that the rates could be even higher if the States had primary enforcement laws. California is the first State to have changed from secondary to primary enforcement of a mandatory seatbelt use law with no changes in other elements of its belt law (fines, exemptions); thus, the secondary/primary distinction is not confounded by other legal issues.⁹ Consequently, California provided a unique opportunity to study the dynamics and effects of primary versus secondary enforcement laws. In early 1993, just after implementation of the primary enforcement law, belt use in six selected cities in California was at 76 percent, representing an increase of 18 percentage points from the observations made in the same six cities during June 1992. On a statewide basis, which combined city and highway use survey results, the California Office of Traffic Safety estimated driver belt use at 83 percent during the fall of 1993 compared with 70 percent during the summer of 1992. The California Office of Traffic Safety also reported that there was widespread press coverage of the change from secondary to primary enforcement and, consequently, there was no need for a dedicated paid media campaign. Interestingly, the number of belt use citations issued statewide by the California Highway Patrol and the municipal departments of the six cities increased only slightly following the change to primary enforcement. Consequently, the relatively small increase in the number of citations issued did not, by itself, account for the relatively large increase in observed belt use rates. The data from the California observations indicate that a change in primary enforcement not only increased belt use, but it also created greater homogeneity in use rates among communities. That is, the greater increases in usage occurred in those communities that had lower use rates prior to the law change.⁹

As States achieve higher use rates, it will become increasingly difficult to motivate a certain segment of the population where neither traditional sanctions or public education have had nor are likely to have an effect on driving habits. A survey conducted in November 1994 of North Carolina drivers who did and did not use belts found that nonusers tend to (1) be males younger than 35; (2) drive older vehicles, especially pickup trucks; (3) have crashes and/or violations on their driving records; (4) admit to having drunk heavily during the past year and have a record of arrests; and (5) have no health care coverage. The results of the survey suggest that the people who are least likely to use belts are the ones who most need the crash protection belts provide. To change the behavior of this group of hard-core nonusers, legislative initiatives in addition to primary enforcement are needed. The survey in

⁹ U.S. Department of Transportation, National Highway Traffic Safety Administration. 1994. Evaluation of California's safety belt law change to primary enforcement. DOT HS 808 205. Washington, DC.

North Carolina indicated that people are not threatened by fines. (With the exception of a couple U.S. territories and States, fines are relatively low, ranging from \$10 to \$25.) A large majority said no amount of fine would convince them to use seatbelts. However, 62 percent said they would use seatbelts if points were assessed against their licenses. Points could be assessed for not using the available restraint system as well as for other motor vehicle violations. Drivers accumulating a specified number of points would face penalties. This approach has been tried in Canada where the national belt use rate has reached 90 percent. Quebec, for example, assigns two demerit points to drivers who violate the belt law; Quebec and four other provinces have sustained seatbelt use rates at 90 percent and higher.¹⁰ The available evidence suggests that high usage rates at or above 90 percent cannot be achieved with primary enforcement alone; adequate fine levels and the imposition of penalty points must also be vigorously pursued.

Surveys of public approval suggest, in general, that although a substantial portion of the population has not always supported primary laws prior to their enactment, by far the majority support them after enactment, even when enforcement agencies intensify enforcement efforts. A national phone survey in 1991 found that 73 percent of the population would support primary legislation in their State if they knew it would result in more safety belt use and more lives being saved.¹¹ Surveys of enforcement officers have found that officers consistently preferred primary laws and report that secondary enforcement law is a major deterrent to issuing citations. The State of California has had more than a year's experience with the upgrade to primary enforcement with no significant adverse public or official reaction to the change.

Therefore, the National Transportation Safety Board recommends that States and the District of Columbia that have secondary enforcement of mandatory safety belts use laws and the States without mandatory use laws:

Enact legislation that provides for primary enforcement of mandatory safety belt use laws. Consider provisions such as adequate fine levels and the imposition of driver license penalty points. (Class II, Priority Action) (H-95-13)

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility "...to promote transportation safety by conducting independent accident investigations and by formulating safety improvement

¹⁰ Highway Safety Research Center, University of North Carolina [Reinfurt, D. and others]. 1994. Characteristics of drivers not using seat belts in a high belt use State. Arlington, VA: Insurance Institute for Highway Safety.

¹¹ The survey was conducted by Traffic Safety Now, Inc., located in Detroit, Michigan.

recommendations" (Public Law 93-633). The Safety Board is vitally interested in any actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation H-95-13 in your reply.

Chairman HALL and Vice Chairman FRANCIS concurred in this recommendation. Member HAMMERSCHMIDT did not concur.

By: 
Jim Hall
Chairman

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