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Achieving Traffic Safety Goals in the United States

Lessons from Other Nations

In 2009 some 34,000 people lost their lives on the nation's highways, a 19 percent reduction since 1995; however, during the same time period annual traffic fatalities declined by 52 percent in France, 39 percent in the United Kingdom, 25 percent in Australia, and 50 percent in 15 high-income countries for which long-term fatality and traffic data are available. While the U.S. decline is significant, review of other nations' experiences indicates that the United States could see greater improvement in highway safety through the adoption of systematic, results-oriented safety management practices that are flexible enough to take into consideration local and regional legal constraints, community attitudes, resources, and road system and traffic characteristics.

HIGHWAY SAFETY IN THE UNITED STATES

By some measures, the safety of road travel has improved greatly over the history of the automobile. Traffic deaths per kilometer of vehicle travel were five times higher in the United States in 1950 than today. Per capita annual deaths of pedestrians and cyclists in road crashes declined by about two-thirds over the same period even while walking and bicycle trips per household increased. However, because of the growth in traffic, the cost of automobile travel in terms of human lives remains high. Motor vehicle crashes caused 28 percent of all deaths among people 1 to 24 years of age in the United States in 2006. The annual number of U.S. traffic deaths had changed little from the early 1990s until declining by 9.3 percent to 37,000 from 2007 to 2008 and by another 9.7 percent to 34,000 in 2009. The U.S. economy entered a recession in 2007, and the decline in traffic deaths since then is consistent with the declines that occurred during past recessions.

HIGHWAY SAFETY IN BENCHMARK NATIONS

Nearly every high-income country is reducing annual traffic fatalities and fatality rates faster than is the United States, and several countries where fatality rates per kilometer of travel were higher than in the United States 20 years ago are now below the U.S. rate. The term "benchmark nations" refers to the group of high-income nations whose traffic safety practices have been commonly compared with those of the United States. They include Australia, New Zealand, Canada, the Netherlands,

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Germany, Sweden, Finland, Norway, France, and the United Kingdom. Officials in these countries attribute their progress primarily to government traffic safety programs, including improvements in traffic control and road design; willingness to enact and enforce stringent driver regulations with regard to speed, alcohol and drug use, and seat belt use; and restrictions on younger and older drivers. Differences among these countries in population characteristics, development patterns, and transportation systems account for part of the difference in their overall safety performance; nonetheless, the demonstrated successes of specific safety initiatives in the benchmark countries contain important lessons for the United States.

IDENTIFYING OPPORTUNITIES TO REDUCE U.S. TRAFFIC DEATHS AND INJURIES

The gap between traffic safety progress in the United States and other high-income countries deserves the attention of U.S. transportation administrators and the public because it indicates that the United States may be missing important opportunities to reduce traffic deaths and injuries. The Transportation Research Board formed the Committee for the Study of Traffic Safety Lessons from Benchmark Nations to review the evidence on the factors that account for other countries' safety improvements and to recommend actions that would take advantage of the foreign experiences and would fit in the U.S. context. The committee's report documents the experience of the benchmark nations in sharply reducing traffic deaths through comprehensive safety programs. The report examines traffic safety program management practices, risk reduction techniques, and the sources of public and political support for safety interventions.

IMPORTANCE OF MANAGEMENT AND PLANNING, COUNTERMEASURES, AND POLITICAL AND PUBLIC SUPPORT

The committee found that the nations most successful in reducing traffic deaths had

comprehensive safety programs that include improvement in road design and traffic management; regulation of vehicle safety; and regulation of driver behaviors with regard to speed, alcohol and drug use, and seat belt and helmet use. Furthermore, successful national programs excel in management and planning and benefit from political support and leadership. The committee noted that the most critical area for improvement in the United States today may be in management and planning. Improved management will ensure the best use of available resources and, over time, will help foster political and public support by demonstrating that progress in traffic safety is attainable.

Management and Planning: Conclusions and Recommendations

Successful national safety programs are more distinguished by the programs' management than by the particular interventions. The essential elements of the management model include a systems perspective; a plan that specifies goals, milestones, methods, and resource requirements; regular monitoring to identify problems and measure progress toward goals; and ongoing evaluation to determine the effectiveness of the actions taken. While comparison of management methods in other countries with those of the United States must take into account the decentralized structure of U.S. government, management practices in traffic safety programs in the United States typically are deficient in elements of this ideal management model.

Congress should authorize the U.S. Department of Transportation (USDOT) to cooperate with the states in organizing a series of large-scale demonstrations of important elements of safety management to document the technical and resource requirements of effective safety programs. In addition, Congress should consider designating and funding an independent traffic safety evaluation and policy research organization to provide technical support and policy advice to government safety agencies and to reinforce accountability through performance evaluations.

Finally, transportation agencies should take into account demonstrated competency and professional qualification in highway safety in their hiring and promotion decisions. Engineering schools and accreditation associations should set standards for safety competencies of engineers practicing in areas that affect highway safety. In addition, in-service training programs are needed, especially short courses designed for local government public works engineers.

Countermeasures: Conclusions and Recommendations

Two enforcement techniques aimed at driver behavior that have contributed to fatality reductions in the benchmark nations are automated enforcement of speed limits and frequent roadside sobriety checks to enforce laws against alcohol-impaired driving. Neither technique is in common use today in the United States because of legal restrictions, popular opposition, and cost considerations. Despite these constraints, the United States can learn important lessons from the benchmark nations' enforcement practices. They demonstrate that sustained and intensive enforcement, rationally organized and managed, can alter driver behavior sufficiently to produce worthwhile systemwide safety improvement.

Lower legal maximum blood alcohol content limits than in the United States, intense enforcement, public health measures, efficient judicial procedures, and high-frequency random sobriety testing in the benchmark countries have reduced the frequency of alcohol-involved fatal crashes in those countries. Successful speed management initiatives in other countries are of high visibility and endorsed by elected officials, are sustained for periods of years, target major portions of the road system, use intensive automated enforcement and traffic-calming road features, and monitor progress toward publicly declared speed and crash reduction objectives. Laws in every benchmark country require motorcyclists to wear helmets. Seat belt usage is higher in most of the benchmark

countries than in the United States, although some U.S. state seat belt usage rates are comparable with those of the benchmark countries.

In several of the benchmark nations, road assessment programs conducted by nongovernmental organizations aim to increase public demand for safety and to make officials more accountable for the safety performance of highways by revealing and publicizing hazards.

State and local governments can raise their level of highway safety enforcement by using resources more effectively; by increasing funding; and by adopting more cost-effective methods, in particular, automated enforcement. In addition, the states and USDOT should give high priority to initiatives to encourage regular use of sobriety checkpoints. State officials and the federal government should act to preserve the existing universal helmet use laws by communicating the health, safety, and economic costs of repeal to legislators. Each state should ensure that local police receive regular and substantial training in enforcement against impaired driving, speeding, and other high-risk driver behaviors. Finally, the states and USDOT should transform the traditional practice of the hazard elimination program into a corridor safety improvement program that systematically identifies high-priority corridors and designs comprehensive safety improvement strategies for each corridor.

Political and Public Support: Conclusions and Recommendations

Successful safety initiatives in the benchmark nations have the active support of elected officials in almost all cases. Public and political support has come about through long-term efforts of professionals, officials, and nongovernmental advocates. Creation of new high-level institutional structures has been a valuable step in the evolution of national programs in the benchmark nations. Sustaining the initiatives has depended on gaining the trust of the public by emphasizing transparency with respect

to goals and in public communications, and by creating channels of communication between all parties. Public administrators and professionals often have been the initial leaders in educating and developing support among elected officials and the public. Most programs have used sustained, large-scale, and sophisticated social marketing to amplify the deterrent effect of enforcement and to influence public attitudes toward high-risk behavior.

State legislatures should require regular reporting from the responsible executive agencies on progress in fulfilling the state's safety plan and success in meeting the plan's goals. As a preliminary step to strengthening U.S. capabilities for application of social marketing to traffic safety, USDOT should conduct an in-depth review of methods and outcomes in other countries. The national organizations of transportation and public safety officials, state legislators, and safety researchers should organize forums for the exchange of information and views on traffic safety. Public agencies should cooperate in the development of the United States Road

Assessment Program, but the program must maintain independence, which is necessary for its effectiveness. All states should enact the minimum framework of traffic safety laws that has been instrumental in achieving the gains that the most successful benchmark country safety programs have attained, including enabling legislation for automated speed enforcement.

CONCLUSION

Opportunities exist in the United States to reduce the costs of road crashes through improvements in all three dimensions of safety programs: through management reforms; through wider application of the highest-payoff interventions; and through long-term efforts of professionals, officials, and nongovernmental organizations to build more consistent political and public support for rigorous safety programs. Sustained progress will require competent application of the full range of available interventions in a balance that is appropriate to the individual characteristics of jurisdictions.

Committee for the Study of Traffic Safety Lessons from Benchmark Nations: Clinton V. Oster, Jr., School of Public and Environmental Affairs, Indiana University, *Chair*; Tony Bliss, Transport Division, Energy, Transport, and Water Department, World Bank; William A. Bronrott, Federal Motor Carrier Safety Administration, U.S. Department of Transportation; Troy E. Costales, Transportation Safety Division, Oregon Department of Transportation; Kent L. Cravens, New Mexico Senate; John J. Cullerton, Illinois Senate; Joseph A. Farrow, California Highway Patrol; Patrick S. McCarthy, Georgia Institute of Technology; Alison Smiley, Human Factors North, Inc., Toronto, Ontario, Canada; John S. Strong, College of William and Mary, Williamsburg, Virginia; Richard Tay, La Trobe University, Bundoora, Australia; Allan F. Williams, Insurance Institute for Highway Safety (retired); Joseph R. Morris, Study Director, Transportation Research Board

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