

Achieving Traffic Safety Goals in the United States

Lessons from Other Nations

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This article summarizes the conclusions and recommendations of the study committee.

In 2009, some 34,000 people lost their lives on U.S. highways, a 19 percent reduction since 1995. During the same period, however, 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.

Although the decline in the U.S. total is significant, review of other nations' experiences indicates that the United States could achieve greater improvement in highway safety by adopting 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.

U.S. Highway Safety

By some measures, the safety of road travel has improved greatly over the history of the automobile. Traffic deaths were five times higher in the United States per kilometer of vehicle travel in 1950 than today. Per capita annual deaths of pedestrians and cyclists in road crashes declined by about two-thirds for the same period, although walking and bicycle trips per household increased.

Nevertheless, the cost of automobile travel in terms of human lives remains high, because of the growth in traffic. 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 changed little from the early 1990s until declining by 9.3 percent to 37,000 from



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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.

Benchmark Comparisons

Nearly every high-income country is reducing annual traffic fatalities and fatality rates faster than is the United States. Several countries that 15 years ago posted fatality rates substantially higher than those in the United States per kilometer of travel now are posting rates that are lower.

The benchmark group of high-income nations with traffic safety practices commonly compared with those of the United States includes Australia, New Zealand, Canada, the Netherlands, 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 offer important lessons for the United States.

Exploring the Gap

The gap in traffic safety progress between the United States and other high-income countries deserves the attention of U.S. transportation administrators and the public. The gap indicates that the United States may be missing important opportunities to reduce traffic deaths and injuries. The Transportation Research Board (TRB) formed the Committee for the Study of Traffic Safety Lessons from Benchmark Nations (see box, page 33)—appointed by the National Research Council—to review the factors that account for other countries' safety improvements and to recommend actions that would take advantage of the foreign experiences and fit the U.S. context.

The committee's report, published as Special Report 300, *Achieving Traffic Safety Goals in the United States: Lessons from Other Nations*, 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 tech-



PHOTO: NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

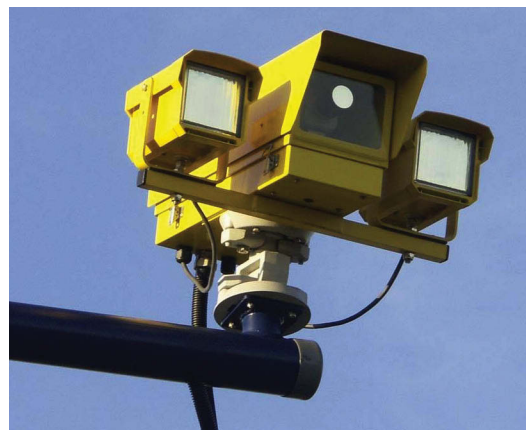
niques, and the sources of public and political support for safety interventions.

Comprehensive Programs

The committee found that the nations most successful in reducing traffic deaths had implemented comprehensive safety programs that include improved 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. In addition, the 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 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.

Police officers conduct a sobriety test on a motorcycle driver. Many nations with exemplary safety records employ roadside sobriety checks as tools against road fatalities and mandate motorcycle helmet use.



The Speed Check Enforcement System, in use in the United Kingdom, employs a digital safety camera to calculate a vehicle's point-to-point average speed.



Victoria, Australia, uses mobile speed cameras that operate on low-powered radar, detectable only at close range.

Management and Planning

Successful national safety programs are more distinguished by management than by particular interventions. The essential management model includes 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.

Comparisons of management methods in other countries with those in the United States, however, must take into account the decentralized structure of U.S. government. Management practices in U.S. traffic safety programs typically are deficient in elements of the ideal management model.

Congress therefore should authorize the U.S. Department of Transportation (DOT) 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, in hiring and promotion decisions, transportation agencies should take into account demonstrated competency and professional qualifications in highway safety. Engineering schools and accreditation associations should set standards for the 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

Two enforcement techniques aimed at driver behavior have contributed to reductions in fatalities in the benchmark nations: automated enforcement of speed limits and frequent roadside sobriety checks to enforce laws against alcohol-impaired driving. Neither technique is in common use 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. Sustained and intensive enforcement, rationally organized and managed, can alter driver behavior sufficiently to improve safety systemwide.

The benchmark countries have reduced the frequency of alcohol-involved fatal crashes by lowering the legal limits on the maximum blood alcohol content, while intensifying enforcement, public health measures, efficient judicial procedures, and high-frequency, random sobriety testing. In other countries, successful speed management initiatives receive high visibility and endorsement from elected officials, are sustained for years, target major portions of the road system, use intensive automated enforce-



Speed cameras on Maryland Route 210 in Prince George's County.

ment and traffic calming features, and monitor progress toward publicized objectives for speed and crash reduction.

Laws in every benchmark country require motorcyclists to wear helmets. Seat belt use is higher in most of the benchmark countries than in the United States, although the rates in some U.S. states are comparable with those of the benchmark countries.

In several of the benchmark nations, nongovernmental organizations conduct assessments of road programs. The goal of revealing and publicizing hazards is to increase public demand for safety and to make officials more accountable for the safety performance of highways.

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—particularly automated enforcement. In addition, the states and U.S. DOT should give high priority to encouraging regular use of sobriety checkpoints.

State officials and the federal government should act to preserve universal helmet use laws by communicating to legislators the health, safety, and economic costs of repeal. 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 U.S. DOT should transform the traditional hazard elimination program into a corridor safety improvement program that systematically identifies high-priority corridors and then designs comprehensive safety improvement strategies for each corridor.

Political and Public Support

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 the long-term efforts of professionals, officials, and nongovernmental advocates.

The creation of new high-level institutional structures has been valuable 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 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 to high-risk behavior.

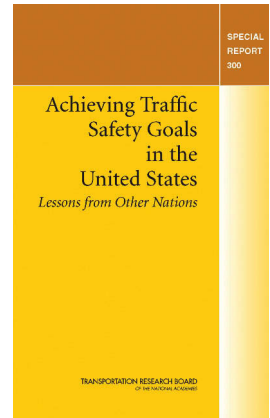
State legislatures should require regular report-

ing from the responsible executive agencies about progress in fulfilling the state's safety plan and in meeting the plan's goals. As a preliminary step to strengthening U.S. capabilities for application of social marketing to traffic safety, U.S. DOT 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 U.S. Road Assessment Program, but the program must maintain independence to be effective. All states should enact the minimum framework of traffic safety laws that has been instrumental in achieving the gains of the most successful safety programs in the benchmark countries. The framework should include legislation for automated speed enforcement.

Sustaining the Progress

The United States has opportunities 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 by 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 characteristics of jurisdictions.



Special Report 300, *Achieving Traffic Safety Goals in the United States: Lessons from Other Nations*, is available from the TRB Bookstore at www.trb.org/Finance/PublicBookstore.aspx; to view the book online, go to <http://onlinepubs.trb.org/onlinepubs/sr/sr300.pdf>.

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