# TRB REPORT

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# Building the Road Safety Profession in the Public Sector

More than 40,000 people die each year in motor vehicle crashes in the United States, and many more people are seriously injured. Continued growth in motor vehicle travel means that larger and larger improvements in crash rates are needed to reduce this toll. Government leadership and actions are vital in bringing about these safety gains. Federal, state, and local agencies plan, finance, build, operate, and maintain the nation's highway system. They regulate motor vehicle safety requirements, educate and license drivers, set and enforce traffic laws, provide emergency response and medical services, collect safety data, and conduct and support safety-related research. Collectively, governments have a deep and far-reaching impact on the safety of the nation's roadways.

The thousands of federal, state, and local agencies that have road safety responsibilities employ hundreds of thousands of workers who influence safety performance on a regular basis. These workers have expertise in fields such as engineering, education, law enforcement, emergency response, public health, psychology, communications, statistics, and planning. Collectively, they have had a central role in bringing about dramatic reductions in crash rates over the past 40 years, even as motor vehicle travel grew tremendously. In recent years, crash rates have leveled off, and opportunities for safety improvement are becoming more difficult to find. It is becoming clear that the marked gains in safety performance needed to outpace traffic growth will require careful scientific and systems approaches to safety management. A talented and highly skilled professional workforce must be in place to lead this effort.

### **Study Origin and Aims**

The Federal Highway Administration, the Federal Motor Carrier Safety Administration, and the Transportation Research Board sponsored a National Academies study to examine the future supply of and demand for road safety professionals in the public sector. A special committee was formed to

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conduct the study under the leadership of Kam K. Movassaghi, President of C. H. Fenstermaker and Associates, Inc., and former Secretary of Louisiana's Department of Transportation and Development. Over a 1-year period, the 11-member committee studied how safety professionals are educated, trained, recruited, and hired.

In its report, Building the Road Safety Profession in the Public Sector, the committee describes the history and current state of the road safety profession, observing how the profession has evolved over the past 50 years to encompass experts from many disciplines. Informed by interviews with road safety professionals, educators, trainers, and agency executives, the report explains how workers have found their way into the road safety field, how they received their safety-related education and training, and the kinds of safety-related knowledge and skills they possess. It further explains how a dedicated cadre of experts within the road safety profession has been influential in advocating the use of scientific methods and empirical evidence for understanding road safety problems and finding and implementing mitigations.

## Scarcity of Education and Training for the Safety Professional

The committee expresses concern that development of the road safety profession remains a mostly ad hoc and unstructured process in which workers obtain road safety knowledge and skills in a piecemeal manner rather than through formal education and training. Few universities offer a comprehensive, systems-level road safety curriculum, and there are few places where public agencies can recruit trained safety professionals. The absence of such professional development capacity brings into question the ability of government agencies to build the analytical and multidisciplinary safety workforce needed to bring about continued improvements in road safety.

There is much evidence to suggest that demand for road safety professionals in the public sector is growing. Skilled professionals, for example, are needed to apply new safety-related tools and technologies and to meet legislative mandates for data-driven safety programs. This is a desirable trend that reflects a growing recognition that safety gains are not random occurrences but a consequence of well-informed and well-implemented decisions. The challenge, therefore, is in building the pool of safety professionals who can provide this information and expertise for many public agencies with road safety responsibilities.

### An Alliance to Champion the Road Safety Profession

To meet this important challenge, the committee urges the American Association of State Highway and Transportation Officials and the Governors Highway Safety Association to forge a broad-based alliance of safety-related organizations for the central purpose of building the road safety profession. These national associations are in a good position to lead such an endeavor because states have such a prominent role in road safety. They plan, design, build, operate, and maintain large portions of the highway infrastructure; pass and enforce traffic safety laws; regulate driver instruction and licensing; and administer statewide programs aimed at encouraging safe driving behavior. Because they employ thousands of road safety professionals, state governments must play a central role in any effort to build the profession.

Nevertheless, the alliance must extend well beyond these state associations and include the many other public agencies and associations that have a strong interest in road safety. It must encompass many relevant disciplines (e.g., engineering, enforcement, education, and emergency management) and jurisdictional levels (federal, state, regional, and local). It should seek the



involvement and support of privatesector organizations, universities, and professional associations that have a common interest in building the road safety workforce.

The committee envisions a broadbased alliance that champions the road safety profession by

- Promoting a multidisciplinary safety workforce that recognizes the importance of and is capable of applying a science-based and systems-level approach to safety management;
- Commending and publicizing public agencies that are leading the way in recruiting, developing, and building a professional road safety workforce within their organizations;
- Encouraging the continued development and wider use of core

competency definitions to guide the education, training, and promotion of road safety professionals who are skilled in scientific methods and in pursuing safety solutions from a systems level;

- Promoting road safety management as a distinct profession and a desirable career path;
- Persuading public agencies, industry, and universities of the value of forming road safety education and training partnerships, which can help foster demand for road safety training and education and expose road safety professionals to the methods and results of science-based safety research; and
- Advocating support for science-based safety research to inform road safety professionals and to attract top faculty and students to the road safety field from many disciplines—for example, by seeking the creation of scholarships, internships, training grants, endowed university chairs, and research centers across the many disciplines that contribute to road safety.

The committee is convinced that road safety organizations must do more than call attention to workforce needs they must make a lasting commitment to meeting them. Nearly 40 years ago, concern over the environment prompted a dedication of resources to furthering the nation's environmental expertise. Educational programs, certification activities, and professional societies devoted to this now well-recognized profession were developed. The road safety profession is on the cusp of gaining similar opportunity and recognition. Committee for a Study of Supply and Demand for Highway Safety Professionals in the Public Sector: Kam K. Movassaghi, Chair, C. H. Fenstermaker and Associates, Inc., Lafayette, Louisiana; John H. Daly, Genesee County Road Commission, Flint, Michigan;
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This report was prepared by the National Research Council on the basis of the committee's report. Permission granted to reproduce this brief in its entirety with no additions or alterations. *Building the Road Safety Profession in the Public Sector* is available from the Transportation Research Board, 500 Fifth Street, NW, Washington, DC 20001 (telephone 202-334-3213; fax 202-334-2519; or e-mail TRBsales@nas.edu).

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