

Transit STRS

Research to focus on local providers

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In 1986 TRB launched a year-long strategic assessment of the transit research program. The study, funded by the Urban Mass Transportation Administration was a reaction to recent changes in research funding and direction that may limit the resources available to solve local transit operators' problems.

UMTA has been the principal sponsor of transit research for more than 20 years, but research spending has recently taken a sharp drop. The yearly average, which was \$60 million in the 1970s, tumbled to about \$22 million at the time of the TRB study and is currently about \$10 million. In addition, UMTA's research emphasis has shifted to focus primarily on guiding federal transit programs and policies.

The small size and new orientation of the research program leave significant gaps. Currently, the most pressing need is research on the day-to-day operating problems that continue to plague transit providers. Without significant federal funding available for problem-solving research, transit agencies had to take the lead themselves. Suggestions were made on the direction, financing, management, and implementation of a new operator-oriented research program.

Program Direction

Transit agencies would sponsor an operator-oriented, problem-solving research program that would focus on high-priority, high-payoff topics. The seven topics suggested for the program in-

clude human resources management, service configuration and marketing, service delivery models, internal efficiencies, maintenance, equipment, and innovative financing. Basics such as maintenance would be emphasized, along with operating concerns and service strategies. The focus would be on those areas of transit operations in which transit managers believe that research can make a difference.

Financing

Some \$10 million could be gained annually by having local operators set aside 0.5 percent of their federal formula grants (Sections 9 and 18 of the Urban Mass Transportation Act of 1964, as amended) on which the local match would be waived. Legislation would be needed to authorize the set-aside and clarify that research by local transit agencies is an eligible Section 9 and Section 18 program activity. This funding would be enough to establish the program, support multiyear research, and cover fixed program costs.

Management

A governing board that included representatives of the transit agencies would manage and implement the research program and provide policy guidance. Several possibilities were considered for day-to-day administration under the

board's direction. Use of the facilities and personnel of an existing group (such as the Transit Development Corporation, the National Research Council, or a university) was one option. Another was creation of a new nonprofit corporation to manage the research program.

Implementation

The transit industry was encouraged to support the recommendations of the study, select an appropriate administrative structure for the program, and seek the required legislation. After the study was completed in 1987, the Executive Committee of the American Public Transit Association accepted the Transit STRS proposal, with some changes. The committee consented to help establish a national transit research program and agreed that the minimal yearly funding level should start at \$10 million. APTA then decided that research project selection and program management would be handled by the Transit Development Corporation, which would receive federal research and development funds (preferably from gasoline tax receipts). The organization's Board of Directors and bylaws would also be changed to support their new role. The new board would be expanded to include an appropriate proportion of transit operators and representatives of other interests, such as states, smaller governmental units, and manufacturers.

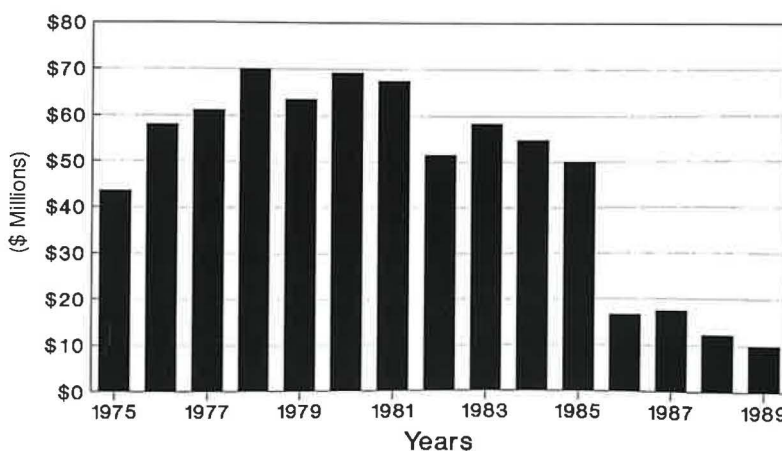


FIGURE 1 Transit research spending (yearly average).

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The research financing scheme that the APTA executive committee adopted was a significant change from the original STRS recommendations. The industry did not view the STRS funding plan as a commitment of their own funds but instead as a convenient way of pooling money. Also, given that fund-

ing had been reduced for the Section 9 and Section 18 programs, the question of equity was raised because other programs (such as Section 3 and the Interstate transfer funds) were not to supply an equal contribution. Because future UMTA funding levels are uncertain, APTA decided that the transit industry

should ask the federal government to earmark \$10 million of the FY 1990 transit appropriations, using existing Section 6 authorization to get the program started. Specific long-term program authorization would be sought the next time that the federal surface transportation program was reauthorized.

Highway Safety STRS

Reassessing the direction of current research

Motor vehicle accidents are receiving renewed attention as a leading cause of injury. Legislators, researchers, and the public are beginning to perceive accidents as a public health problem of significance, comparable to cancer and heart disease. Each year, some 45,000 people are killed and 1.7 million are injured on U.S. highways. Motor vehicle accidents rank fifth as a cause of death for people of all ages and are the leading cause of death for young people between the ages of 4 and 25. Although tens of millions of dollars are spent by government agencies and private organizations on highway safety research, the effort does not begin to rival the research budgets for cancer or heart disease. Part of the problem is that the research is spread among a wide variety of organizations that have not coordinated their research or focused their attention on a well-defined program of high-priority, high-payoff research topics.

This fragmentation of highway safety research resources, coupled with the increased appreciation of the importance of highway safety to the well-being of the U.S. public, has made highway safety the most recent candidate for the STRS approach. The Pennsylvania Department of Transportation initiated the

idea of a Safety STRS project, a concept that received the endorsement of other state transportation officials and safety researchers, as well as the financial backing of NHTSA and FHWA. A special 18-month strategic study of highway safety research, which is being conducted by TRB, began in March 1989.

The purpose of Safety STRS is to critically reexamine research on highway safety to determine whether ongoing research efforts match the areas and topics that offer the greatest promise for highway safety improvements. Current research targets the three principal elements that affect highway safety: the vehicle, the roadway environment, and the driver. Agencies responsible for research, particularly in the public sector, have organized along parallel lines. NHTSA focuses its research budget on vehicle- and driver-related safety issues, FHWA examines the highway environment, and private automobile manufacturers are concerned with vehicle design. This compartmentalization of research activities limits coordination of research across the three elements, as well as opportunities for comprehensive assessment of the research areas that promise the greatest payoff. Crosscutting issues, such as the impact of new technology on highway and vehicle safety, the development and use of better data on injuries sustained in accidents, and the role and control of congestion in highway safety, are frequently overlooked or shortchanged in current research budgets.

A study committee that includes prominent highway safety researchers and experts in highway design and administration, vehicle design, human factors, and public health will review the characteristics and scale of existing highway safety problems and research, identify promising areas for research that merit more attention or that fill gaps in current research programs, and examine the financial and institutional arrangements that may be needed to redirect research on these priorities. A critical part of the study will focus on identifying research areas that are likely to be both cost-effective and able to provide the greatest leverage on highway safety problems, that is, those problems whose solutions have the potential to reduce a significant share of the accidents and injuries caused by motor vehicle mishaps.

The strategic research study challenges highway safety researchers to take a fresh look at the direction and funding priorities of research programs. It will require an assessment of the effectiveness of current research efforts, identification of new priorities for research, and difficult choices about the redirection and even deemphasis of some current research activities. Finally, STRS may demand a broader examination of the underlying structure of highway safety research activities so that institutional and financial arrangements can be changed to support new research priorities.