

cations of additional revenue sources on administrative complexity, and discuss the facts of added human service revenue sources on public transit systems.

Four other sessions provided particular cases and uses of productivity and performance methods. The general session headed by Don Tudor, Director of the South Carolina Governor's Office, Division of Transportation, used a case study of a small fixed-route transit system that had gone through major change and rehabilitation to become a much more productive and efficient system. The case was also used to provide a private operator's views of improving efficiency by Bill Williams, President of Raleigh Transportation Service, Inc. Ray Mundy of the University of Tennessee coordinated a workshop on working with local elected officials. This session focused on techniques and approaches for ensuring that local support is attained and on a review of what appeared to be conditions leading to a lack of local support in two small New England cities where transit was terminated.

Richard Garrity, Director of North Carolina DOT's Rural Transportation Program, conducted a workshop on vehicles. It focused on examples and methods of life-cycle costing and retrofitting standard vans. The workshop on financial management, chaired by Frank Sherkow of Iowa

DOT, examined the common problem of developing sound and efficient accounting and reporting systems.

THE FUTURE

Donald Nelson of the U.S. Department of Agriculture directed a session on rural America and public transportation trends and outlooks. Edmund Jansen from the University of New Hampshire; David Raphael, Executive Director of Rural America; and Ed Good of Friendly Taxi in Lancaster, Pennsylvania, discussed the need for public transportation in rural America and the notion that this need would be increasing rather than decreasing. The exodus from rural America appears to have been reversed and rural areas have begun to share in the same structural economic changes that have been so profound in urbanized areas. The agricultural sector is no longer the only area of strength for rural America and its diversifying and growing employment base can be expected to increase the need for transit and paratransit in the future. Moreover, the value of the private sector such as taxi operators, private bus companies, and private paratransit operators will become much more important in meeting rural transportation needs.



55-MPH Speed Limit Study Under Way at TRB

FRANCIS P. MULVEY AND STEPHEN R. GODWIN

A major life-saving public transportation policy or an unwarranted, costly, bureaucratic intrusion on individual freedom? Americans hold widely divergent views on the 55-mph National Maximum Speed Limit. Faced with pleas for stricter enforcement alongside those for a less stringent limit, Congress asked the National Research Council to study the benefits and costs of the 55-mph speed limit. A 19-member committee, chaired by Alan A. Altshuler, Dean of the Graduate School of Public Administration at New York University, was formed to assess alternative policies. The committee, which includes experts from numerous disciplines, will present its findings and recommendations to the Congress and the Secretary of Transportation by September 1984. In addition to Altshuler, members of the study committee are Harry T. Adair, Assistant Commissioner, Staff, California Highway Patrol, Sacramento; John R. Borchert, Regents Professor of Geography, University of Minnesota, Minneapolis; Joseph M. Clapp, Senior Vice President, Roadway Express, Inc., Akron, Ohio; Walter

Dale Compton, Vice President for Research, Ford Motor Company, Dearborn, Michigan; R. Adams Cowley, Director, Maryland Institute for Emergency Medical Services Systems, University of Maryland, Baltimore; Benjamin O. Davis, Lt. General, U.S.A.F. (retired), Arlington, Virginia; John J. Fearnside, Technical Director, Air Transportation Systems Engineering Division, MITRE Corporation, McLean, Virginia; Paul H. Fowler, Automobile Club of Southern California, Los Angeles; Trevor O. Jones, Vice President and General Manager, Transportation Electrical and Electronics Operations, TRW Inc., Solon, Ohio; Charles A. Lave, Professor of Economics, University of California, Irvine; Darrell V. Manning, Director and CEO, Idaho Transportation Department, Boise; H. Laurence Ross, Chairman, Department of Sociology, University of New Mexico, Albuquerque; Peter J. Safar, Director, Resuscitation Research Center, School of Medicine, University of Pittsburgh; Wayne W. Sorenson, Vice President-Research, State Farm Insurance Companies, Bloomington,

Illinois; Evelyn I. Teegen, Subcommittee on Highway Environment and 55 MPH, National Highway Safety Advisory Committee, Edina, Minnesota; Patricia F. Waller, Highway Safety Research Center, University of North Carolina, Chapel Hill; John J. Wiorkowski, Professor of Statistics, University of Texas at Dallas; and Marcus L. Yancey, Deputy Engineer-Director, State Department of Highways and Public Transportation, Austin, Texas. The panel held its first meeting on July 28, 1983, at which time it reviewed background materials prepared by TRB staff and instructed the staff on what steps to take next.

BACKGROUND

Congress originally enacted the 55-mph limit in 1973 as an energy-saving response to the Arab oil embargo. As lines at the gasoline pumps grew longer and as tempers of impatient

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motorists grew shorter, people welcomed this effort to relieve the crisis. Motorists did slow down in 1974, and drivers reported improved fuel economy. Also, to the surprise of many, the number of motor vehicle deaths declined dramatically. There were 9,100 fewer traffic fatalities in 1974 than in 1973, an unprecedented decline. The 55-mph limit was widely credited with the improved safety record, and so Congress made the limit permanent. (See Figures 1 and 2.)

However, not everyone agrees that the 55-mph speed limit has made a significant contribution to highway safety. Critics point out that people also drove less during the energy crisis because they were concerned about gasoline availability, and those who continued to drive changed their driving habits in ways that would lead to fewer highway deaths. For example, people took fewer Sunday drives during the energy crisis, and this type of recreational driving is more likely to involve an accident than commuting to work. They also point out that the relationship between speed and highway travel safety is not well-established. Such factors as improvements in highway and vehicle design, tougher drunk driving laws, and the aging of the driving population, they claim, better explain the decline in highway fatality rates. The number of highway deaths again fell sharply in 1982, when there was no change in the speed limit.

In addition, safety and energy conservation benefits from driving 55 mph must be weighed alongside the costs associated with enforcement and the costs of extra travel time it imposes on those who use the highways. Opponents of the speed limit argue that the costs of enforcing a widely violated law and the lost productivity due to unnecessary, non-productive driving time more than offset its benefits.

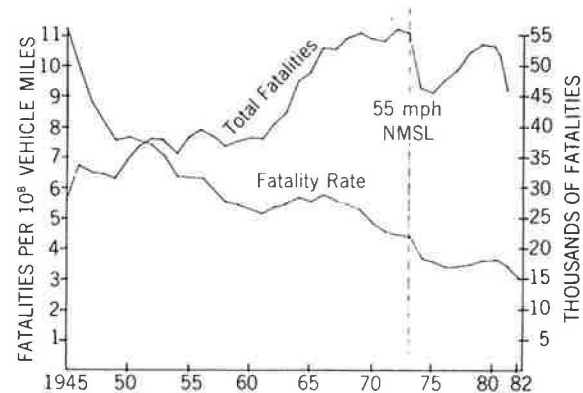
Public support for the law has waned, at least if support is measured by drivers' willingness to obey it. Although

compliance was relatively high when the limit was first introduced, today more than two-thirds of motorists on rural Interstates exceed 55 mph. Many state legislators have introduced bills to repeal the 55-mph limit. Congressional supporters of the speed limit felt that these trends were leaning toward lax enforcement and reduced compliance, and it was this concern that caused them to request that TRB form a panel to study the costs and benefits of the 55-mph limit. Congress asked that special attention be paid (a) to the efforts made by individual states to ensure compliance and (b) to the effect of reduced accidents and injuries on programs paid for by the taxpayers.

PROGRESS TO DATE

The study panel must assess the effect of the 55-mph limit on safety, energy consumption, the economy, costs of federal programs, and other national concerns. As a first step, the committee has been reviewing background on trends in highway driving speeds, highlighting the gaps in speed data; examining prior research on the relationship between speed and travel safety; identifying the many

Figure 1. Motor vehicle fatalities and fatality rate (Source: National Safety Council).



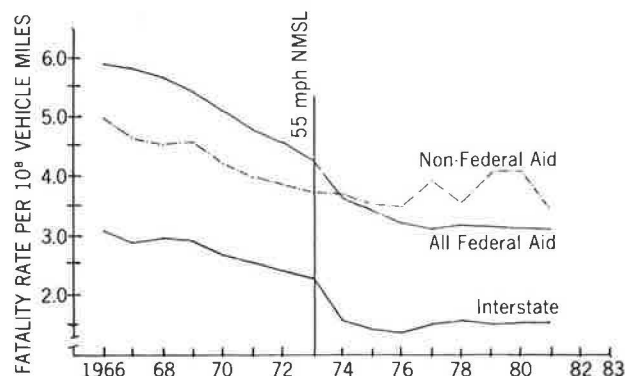
"confounding factors" that make it difficult to isolate the benefits of the speed limit; developing some preliminary estimates of the current energy savings from going 55 mph; and providing some initial projections of the speed limit's economic impact, its effect on the nation's medical bill, and its possible consequences for state and federal budgets.

In addition, the committee has been reviewing trends in enforcement and compliance. Current law requires the Federal Highway Administration to impose sanctions on any state where less than half the drivers on roads posted at 55 mph obey the speed limit. States must monitor speeds at a sample of sites and report the results to the Federal Highway Administration. States failing to meet the standard could lose up to 5 percent of their federal highway aid. However, the states are allowed to adjust the recorded speed data to compensate for speedometer, recording, and sampling errors. Considerable controversy has arisen around the legitimacy of these adjustments.

At the first meeting, committee members suggested some new avenues of approach and other sources of information not yet tapped. The committee will continue to refine its estimate of the speed limit's impact on highway fatalities both at the time it was introduced and in the present highway travel environment. To the extent possible, other factors influencing highway safety will be quantified to help put the limit's impact in proper perspective. The committee is also gathering data on highway speed trends to better assess both the relationship between enforcement and compliance and the relationship between speed and overall highway travel safety.

The committee is also reviewing Canadian and European experiences with speed limits. West German fatality rates on its autobahn are approaching those on the U.S. Interstate despite much faster driving speeds in Germany. Apparently more widespread use of seat belts and a well-developed system of emergency medical care are important reasons for Germany's success. The committee is also working to improve its estimates of the money and time costs and benefits of going 55 mph, and to update energy impact projections to reflect slower driving speeds given today's motor vehicle fleet. Finally, the committee has decided to assess the statistical validity of the speed-data-adjustment techniques now used by the states.

Figure 2. Fatality rates for federal-aid and non-federal-aid highways, 1966-1981 (Source: FHWA).



Ultimately, the committee plans to estimate the likely consequences of alternative policies relative to national maximum speeds. Based on this analysis, it may offer recommendations on appropriate limits, federal and state rules, enforcement policies, or other aspects of the national speed limit.

Atlanta's Freeway: 'Like Building a Mountain Before You Can Notice'

ARCHIE C. BURNHAM, JR.

In the early 1970s, the Georgia Department of Transportation conceived the idea for a massive rebuilding of metropolitan Atlanta's freeway system. As first envisioned, the program was mind-boggling in many respects—its projected costs, financing methods, development sequence, and construction techniques. Now that the project is heading toward the final stages (all contracts should be let by 1985), a brief review of those elements of traffic operation that were necessary to assure the project's success is warranted.

METHOD OF CHOICE

Of the three traditional methods available to rebuild an existing highway, the method selected for Atlanta involved a modern-day experiment in maximizing efficiency to the traveling public. Many rebuilt major urban freeways have been completed by closing the existing section to the public, transferring the traffic to parallel routes, and giving the contractor exclusive jurisdiction in the corridor to be rebuilt. Some major urban freeways have been reconstructed by placing both directions of travel on one side of the median and turning the other side over to the sole jurisdiction of the contractor for rebuilding.

The method chosen in Atlanta was to rebuild the facility under traffic, with a commitment to maintain two lanes of traffic in both directions at all times and to separate the conflicts of construction from peak-hour traffic flow. Many critics predicted that this technique was not workable, cost effective, or tolerable by the public, but the results speak for themselves. In fact, the public has come to appreciate that the rebuilding of Atlanta's Interstate system on its existing location is a mammoth road building opera-

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tion that became the figurative "mountain" before it was even noticed. This was because the construction technique kept traffic congestion from increasing. Operating speeds were not reduced, except in short, publicized intervals for specific operations, and traffic accident experience held its own. Figures 1, 2, and 3 illustrate the method chosen in Atlanta—maintaining traffic flow while proceeding with construction.

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