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SURFACE TRANSPORTATION

Budget Issues and Optimizing Investment Returns

Statement of Kenneth M. Mead,
Director, Transportation Issues,
Resources, Community, and Economic
Development Division

GAO/T-RCED-93-29

Mr. Chairman and Members of the Subcommittee:

We are pleased to have this opportunity to testify on key issues affecting the implementation of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the results of some of our past and ongoing work in the area of surface transportation infrastructure. Weighing alternate surface transportation investment choices is becoming increasingly complex because decision makers need to address the deterioration of the nation's roads, bridges, and transit systems; traffic congestion; air quality; energy efficiency; and mobility for the elderly and disabled.

ISTEA authorized an unprecedented level of funding to help meet transportation needs and also gave state and local governments more flexibility to determine how funds should be distributed between highway and transit projects. Our testimony today will address (1) the variability in the projected financial condition of the Highway Trust Fund, (2) the potential ramifications of authorizing new demonstration projects, (3) the use of funding flexibility, and (4) the need for improved analytic tools for making investment choices. In summary:

-- The financial outlook for the highway account of the Highway Trust Fund has worsened since the enactment of ISTEA. Revenues to the account are expected to fall $10.1 billion short of ISTEA's funding commitment to the states, according to April 1993 projections developed by the Federal Highway Administration (FHWA). Since the enactment of ISTEA, the projected financial condition of the highway account at the end of the ISTEA authorization period has varied, from a $2.7 billion surplus estimated in January 1992 to a $12.5 billion shortfall estimated 1 year later. Crediting the highway account with a substantial portion of the 2.5-cent per gallon fuel tax that currently is credited to the General Fund to offset the federal deficit, as recommended in the President's fiscal year 1994 budget, would eliminate the projected shortfall. However, because the solvency of the highway account will remain a close call, careful monitoring of the highway account's financial status will continue to be necessary.

-- ISTEA authorized 539 demonstration projects which accounted for over $6.2 billion of the total authorization. While some demonstration projects address critical transportation problems and can be considered nationally significant, authorizing a large number of new demonstration projects could be problematic for a number of reasons. First, the financial problems of the highway account would be exacerbated because demonstration projects often cost more than expected, which may necessitate the authorization of

additional federal funds. Second, demonstration projects can yield a low payoff for a variety of reasons, including the fact that they frequently are not aligned with transportation priorities, can languish in early project development stages, and indeed may never be started at all. Establishing a framework for project selection that includes such factors as requiring projects to be included in state plans could help ensure projects' significance and feasibility. In addition, changing current project funding policy by, for example, limiting the availability of authorized funding to 4 years, could help encourage timely project completion.

-- ISTEA includes provisions permitting states increased opportunities to use highway funds for mass transit and nontraditional projects such as high-occupancy vehicle (HOV) lanes and vice versa. However, in our ongoing work we found that, in fiscal year 1992, less than 3 percent of flexible highway funds were used to finance mass transit and nontraditional projects, and about 3 percent of flexible mass transit capital funds were used to finance nontraditional projects. A variety of barriers stand in the way of states and localities thinking and acting cross-modally. These include restrictions on the use of state fuel tax revenue and the fact that highway and mass transit infrastructure needs exceed available resources.

-- While ISTEA encouraged a total systems approach to select among transportation alternatives, state and local decision makers may need help in meeting this goal. For example, the state of the art in comparing transportation alternatives is not well advanced. In addition, some analytic tools were developed some 20 to 30 years ago and are ill-suited for today's decision making environment. Development of a framework for comparing projects both within a mode and between modes and improved analytic tools under the leadership of the Department of Transportation's (DOT) Office of Intermodalism and Bureau of Transportation Statistics will be critical as states and localities address the myriad objectives facing transportation decision makers.

We will now address these points in greater detail.

FINANCING CONCERNS DOMINATE THE HIGHWAY SPENDING HORIZON

Of ISTEA's total $155 billion authorization through fiscal year 1997, over $122 billion was targeted to federal-aid highway projects. It was initially expected that revenues derived from the federal fuel tax and other highway-related taxes would be adequate to support this level of funding. However, DOT analysis now

indicates that based on current revenue forecasts, the highway account is expected to fall $10.1 billion short of meeting outstanding authorized funding. Over the past year, estimates of the financial condition of the highway account at the end of the ISTEA authorization period have fluctuated, from a $2.7 billion surplus to a $12.5 billion shortfall. This variability can be principally attributed to fluctuations in projected revenue levels. An increased revenue stream could safeguard the financial condition of the highway account.

Highway Account Faces a Shortfall

Since ISTEA was enacted in December 1991, the revenue outlook for the highway account has worsened. As a result, a substantial shortfall in the highway account is expected to materialize. As shown in appendix I, the expected financial condition of the highway account at the end of the ISTEA authorization period has varied during the past year. At the time of ISTEA's enactment, FHWA estimated a $2.7 billion surplus in the highway account at the end of fiscal year 1997. However, just 1 year later, FHWA estimated a $12.5 billion shortfall in the highway account at the end of the authorization period. FHWA's April 1993 estimates indicate that the expected cumulative shortfall in the highway account has moderated somewhat but still will total $10.1 billion.

The financial condition of the highway account is calculated using a financial safeguard known as the Byrd Amendment, which serves as a safety mechanism to ensure that revenues to be credited to the highway account will be sufficient to meet all outstanding authorizations. In brief, the Byrd Amendment requires that in any given fiscal year, the highway account's cash balance plus 2 additional years' revenues be sufficient to honor outstanding authorizations through that fiscal year. Consideration of 2 future years' revenues is in keeping with the fact that existing highway law provides for the collection of fuel and other highway-related taxes for 2 years beyond authorizations.

Projected Revenues Have Fluctuated

The varying outlook for the highway account can be attributed to a number of factors, but the volatility of the revenue projections accounts for most of the changes in the magnitude of the shortfall. As shown in appendix II, from January 1992 to January 1993, expected total revenue collections from fuel and other highway-related taxes over fiscal years 1992 through 1999 declined by over $9 billion. Since January 1993, projected revenue collections have turned upwards again, though slightly.

While volatile tax collection forecasts account for the bulk of the variation in the expected shortfall, they are not the sole factor contributing to the sudden shifts in the shortfall's

magnitude. For example, while the January and April 1993 analyses assume that ISTEA will be fully funded, earlier it was expected that obligation levels would be considerably lower than authorized funding levels throughout the life of ISTEA. Second, interest earned on the smaller cash balance of the highway account will be lower than initially expected. A third factor contributing to the variation is that ISTEA's authorized funding is now expected to be higher than originally anticipated for certain funding categories. This is because ISTEA included a number of funding categories designed to promote equity among the states. Total funding for these categories is not fixed, since states' eligibility for funds varies from year to year. At the time of ISTEA's enactment, a preliminary cost estimate for the equity adjustment categories was made, but subsequently this estimate proved to be understated by about $4 billion over the life of ISTEA, as noted by FHWA.

Increased Revenue Stream Could Safeguard Highway Financing

The President's fiscal year 1994 budget advocates the extension of a 2.5-cent portion of the fuel tax currently credited to the General Fund to offset deficit reduction and scheduled to expire on September 30, 1995. In addition, the budget calls for the receipts from a 2.0-cent portion of this tax to be credited to the highway account starting on October 1, 1995, and continuing through fiscal year 1999. The remaining 0.5 cents would be credited to the mass transit account for the same period of time.

On the basis of the latest revenue projections, FHWA estimates that crediting the highway account with collections associated with 2.0 cents of the fuel tax would avert the threatened shortfall. However, eliminating the shortfall does not eliminate the need for close monitoring of the highway account. This is because the cash balance of the account, which is needed to pay bills as they come due, is expected to drop to $2 billion by the end of fiscal year 1997. This balance is midway between the $1 billion to $3 billion safety cushion that FHWA officials have recommended to guard against unforeseen decreases in revenue.

SELECTION AND FUNDING OF DEMONSTRATION PROJECTS COULD BE IMPROVED

Recent surface transportation legislative actions have generated a proliferation of authorized highway demonstration projects as well as an increase in authorized funding. Highway demonstration, or special, projects fall into several distinct categories but are generally specific construction projects identified by name in legislation. Projects can range in scope from paving a gravel road to building a multilane highway. ISTEA included 539 demonstration or specifically named projects with an accompanying authorization of $6.2 billion. This amount represents almost a five-fold funding increase compared to the 1987

reauthorization, which included $1.3 billion for 152 highway demonstration projects. Over and above the ISTEA authorization, however, are additional demonstration and special project authorizations written into appropriation acts.

Some demonstration projects address critical transportation needs, but in some cases their high costs can preclude a state's capacity to fund them in the near term. Thus, the authorization of federal demonstration funds for such projects can prove essential to spurring their development. However, authorizing a large number of new demonstration projects could be problematic for a variety of reasons. First, authorized federal funds combined with the required state match are often not sufficient to complete the projects. Second, demonstration projects are often not aligned with state and regional transportation priorities. Third, the purchasing power of demonstration project funds is often limited by a slow rate of obligation.

Demonstration Projects Exacerbate Financial Outlook

The financial problems of the highway account will be exacerbated if more demonstration projects are authorized through supplemental appropriations, or if additional funds are authorized for already approved demonstration projects that have not been funded sufficiently. This is because new demonstration projects increase total authorized funding, and thus increase total potential liabilities to be met from the highway account.

Demonstration projects will compound the financial difficulties facing the highway account because these projects frequently cost more than initially expected. In our 1991 review of 66 highway demonstration projects in eight states, we found that the cost to complete these projects frequently exceeds authorized funding levels.[1] We reported, for example, that across all the projects reviewed, the federal funding and state match together comprised only 37 percent of total anticipated project costs. States therefore planned to use other federal, state, and local funds to cover about half of the additional $1.2 billion needed to complete the projects. The tendency for total project costs to exceed authorized funding persists under ISTEA. FHWA estimates that across all demonstration projects authorized under ISTEA, federal funds made available under ISTEA will cover only 25 percent of total project costs. The tendency of the projects to cost more than originally expected will present an additional drain on the highway account if extra funds must be authorized in future years to cover the cost of project completion.

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[1]Highway Demonstration Projects: Improved Selection and Funding Controls Are Needed (GAO/RCED-91-146, May 28, 1991).

Projects Typically Do Not Meet Top Priorities and Have Limited Payoff

In addition to worsening the financial status of the highway account, demonstration projects often provide limited benefits. One reason is that these projects frequently are not aligned with key transportation priorities. For example, in 1991 we found that about half of the demonstration projects we reviewed did not appear on state or regional transportation plans before they were authorized. Thus, these projects may not have received the same degree of state scrutiny as projects undertaken through established federal-aid highway plans and programs. Moreover, 10 percent of the projects authorized in 1987 were not on the federal-aid highway system, meaning that they would not qualify for federal funds under the core federal-aid highway programs. This trend was reinforced in the ISTEA demonstration projects; slightly over 25 percent of these projects are not on the federal-aid system, according to FHWA.

A second key reason why the payoff from demonstration projects is limited is that they often have problems causing them to languish in an early project development stage long after authorization. In our review, we found that these problems ranged from threatened intrusion on wetlands to citizen opposition. For example, one proposed highway construction project we reviewed would have cut through a low-income housing project undergoing renovation with federal funds.

Third, we also found that demonstration projects tend to have a slow rate of obligation; in 1991, only 36 percent of funding authorized for demonstration projects 4 years earlier had been obligated. A similar, though more pronounced pattern may emerge with ISTEA's demonstration projects. First, only a fraction of the total funds authorized for the duration of ISTEA have been allocated to the states thus far--9 percent in fiscal year 1992 and 20 percent in fiscal year 1993. Thus, a number of projects do not have sufficient funds to get underway, which is reflected in a slow obligation rate. As of March 1993, about 21 percent of the ISTEA funds allocated up to that time had actually been obligated.

Indeed, some funds for demonstration projects may never get obligated; for 22 of the 66 projects we reviewed, none of the authorized funds ($92 million) had yet been obligated, even though the projects had been authorized 4 years earlier. In some cases, projects were not started because state officials did not want to use their highway funds to cover the expected shortfall. While such projects may remain inactive, there is no provision for recapturing or redistributing the demonstration projects' budget authority to other programs. Thus there is no guarantee that the authority will ever be used for either demonstration projects or other transportation needs.

There is a range of possibilities for improving the current approach to selecting demonstration projects, and as shown in appendix III, we would like to outline a few of them today. In response to our finding that just half of the demonstration projects authorized in 1987 appeared on state plans, in 1991 we noted that one way to improve project selection would be to authorize only those projects that are already incorporated in existing transportation plans. Second, given ISTEA's emphasis on using transportation investments as a means of meeting a wide array of national objectives, another possibility would be to consider a project's capacity to promote multiple national objectives, such as meeting specific, previously identified research needs; improving air quality; conserving energy; and enhancing mobility. Third, in recognition of the fact that demonstration projects are often authorized at only a fraction of their full cost, each candidate project could be required to be accompanied by a financing plan outlining the estimated total project cost, funding sources for the project, and the expected time span for project completion. Fourth, given the fact that demonstration projects have often been used for local roads that serve fewer travellers than federal-aid roads, future demonstration project proposals could be required to be accompanied by a rate of return or cost-benefit analysis. However, because these analyses can often be imprecise or manipulated to show varying results depending on the assumptions chosen and weights assigned, these types of assessments should be used in concert with other criteria such as those cited above.

In addition to setting criteria for selecting projects, there are a number of ways to improve funding policy for demonstration projects, noted on appendix IV. One possibility would be to finance demonstration projects through existing federal-aid highway program categories. In addition, in 1991 we recommended that the Congress consider instituting a "use-it-or-lose-it" demonstration project provision requiring the cancellation or redistribution of federal funds for any demonstration projects that remain inactive 4 years after their authorization.

LITTLE INITIAL USE OF ISTEA FUNDING FLEXIBILITY

ISTEA provided unprecedented opportunities for states and local governments to use federal funds flexibly for highway, mass transit, or nontraditional projects, such as HOV lanes and ridesharing programs. An estimated $80 billion of ISTEA's total $155 billion authorization may be used flexibly. While the first year of implementation may not be the best barometer of the future, our ongoing work has found that states and local governments have made limited use of ISTEA's funding flexibility provisions. In fiscal year 1992, less than 3 percent of flexible federal-aid highway funds ($319 million) were used to finance mass transit and nontraditional projects, and about 3 percent of flexible mass

transit capital funds ($31 million) were used to finance nontraditional projects.

Use of Funding Flexibility Spurred by Air Quality Concerns

Where funding flexibility has been exercised, it has largely been concentrated in the Congestion Mitigation and Air Quality Improvement (CMAQ) program--an FHWA program designed to address air quality problems. Approximately 50 percent of CMAQ's $340 million in total obligations has financed mass transit and nontraditional projects. Even within the CMAQ program, the greatest use of funding flexibility was concentrated in five states that accounted for about 75 percent of the CMAQ cross-modal investments.[2]

Traffic congestion and air quality seem to be playing an important role in funding flexibility decisions. For example, CMAQ funds have financed mass transit and nontraditional projects in areas experiencing severe congestion and air quality problems, such as the Northeast. The funds are being used to finance such projects as HOV lanes, bus purchases, and transit passenger facilities, such as bus shelters, each of which qualifies as a transportation control measure under the Clean Air Act Amendments of 1990. There are a number of reasons why congestion and air quality will likely continue to exert a major influence over decision makers' choices to use funds flexibly. First, 70 percent of peak-hour urban Interstate travel in 1991 was under congested conditions. Second, 38 states have nonattainment areas--that is, areas that do not meet national air quality standards for at least one pollutant. Finally, in 1991, 6 out of 10 people in the United States lived in nonattainment areas.

Hindrances to Funding Flexibility

Although congestion and air quality are key considerations in the decision-making process, a variety of other factors may hinder states and localities from thinking and acting cross-modally. For example, some state departments of transportation have not historically had a large involvement with mass transit programs and therefore may be reluctant to transfer funds for nonhighway uses. Local as well as state officials we talked with agreed that adapting to ISTEA's changes would not occur over night. In addition, not all state and local funds can be used flexibly for matching fund purposes. In 1991, 35 states restricted the use of their motor fuel tax revenues to highway or bridge use only; therefore, about $13.5 billion out of total state motor fuel tax collections of $19.3 billion could not be considered for mass transit projects. Finally, highway and mass transit infrastructure needs continue to exceed available resources. Officials from all

[2]New York, New Jersey, Massachusetts, Illinois, and Virginia.

five states we visited expressed concern about their ability to meet infrastructure needs. As an official from one state we visited noted, any new money received from ISTEA was not enough to cover the tremendous backlog of projects in the pipeline. As a result, this state official believed use of funding flexibility would be discouraged.

IMPROVED TOOLS NEEDED TO SUPPORT SOUND INVESTMENT DECISIONS

Rather than focusing on only one form of transportation at a time, ISTEA encourages a total systems approach to dealing with transportation issues. States and localities are expected to consider all modes of transportation in developing transportation plans. However, they may need help in accomplishing these goals. We reported in April 1992 that DOT could better assist state and local governments by developing a common basis for comparing and evaluating projects in various transportation modes--highway, mass transit, or some combination.[3] This common basis would provide a framework for quantifying a project's ability to meet mobility, environmental quality, cost-effectiveness, safety, and social and economic objectives. Current highway and mass transit selection criteria do not facilitate such comparisons and choices. We recommended that DOT develop criteria for comparing different transportation modes to better assist state and local decision makers in identifying those projects, regardless of mode, that most effectively deal with congestion and air quality problems. Such criteria have not yet been developed even though state and local officials we talked to continue to believe that such criteria are necessary for making investment decisions.

As we reported in December 1992, DOT could also better assist state and local decision makers by supporting the development of methodologies for data collection and analysis to compare projects.[4] Our ongoing work focuses on that need in one area--the capacity of existing analytic tools to determine the air quality impacts of transportation projects. Although methods and models exist for forecasting travel demand in urban areas and for identifying emissions rates of various vehicle types, the state of the art in evaluating air quality impacts of transportation projects is not well advanced. In general, travel demand models were originally developed some 20 to 30 years ago to analyze the need for new or modified highway facilities. Because these models often do not incorporate or fully recognize such factors as vehicle speed or type, they are now ill-suited to be used to analyze the

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[3]Transportation Infrastructure: Urban Transportation Planning Can Better Address Modal Trade-offs (GAO/RCED-92-112, Apr. 2, 1992).

[4]Transportation Issues (GAO/OCG-93-14TR, Dec. 1992).

air quality impacts of transportation projects. Officials from all 10 states and 9 metropolitan planning organizations (MPO) we contacted cited problems in evaluating the air quality impacts of transportation projects with existing information and models. In fact, one MPO we visited expressed such concerns over existing techniques and tools that it had deferred use of CMAQ funds until it had more confidence in determining the emission reduction benefits of CMAQ proposals.

A mechanism to collect data and develop methodologies to help states and localities address the above problems exists through DOT's Office of Intermodalism and Bureau of Transportation Statistics. These offices were created to develop and disseminate transportation data and provide technical assistance to states and localities. The development and dissemination of criteria, methods, and models under the leadership of these offices could assist state and local decision makers not only in comparing projects in different transportation modes but also in evaluating the projects' impact on such objectives as air quality. As we reported in December 1992, depending on the success these new offices have in fostering a total systems approach, DOT may also need to consider other organizational changes such as creation of a Surface Transportation Administration to encompass the missions currently performed by separate rail, highway, and transit agencies. Assistance to states and localities will be critical as they identify the mix of projects, regardless of mode, that address problems such as congestion and poor air quality.

CONCLUSIONS

Current DOT analysis indicates that under current revenue forecasts, the highway account will not have the capacity to support outstanding funding authorized over the life of ISTEA. As of April 1993, a cumulative shortfall of $10.1 billion is expected unless additional revenues are credited to the highway account. As indicated by past experience, however, the magnitude of the shortfall could significantly rise or decline depending on future revenues. Given the volatility of the projected revenue stream, close monitoring of the highway account's status will be needed throughout the ISTEA authorization period.

Since transportation needs far outstrip available resources, targeting federal funds to the most significant transportation problems facing the nation is critical. One way to get the greatest return on investment is to look at the selection and funding of demonstration projects in a new way. Selection criteria might be established to provide information concerning the priority, feasibility, and relative importance of competing projects. These criteria might include requirements that candidate projects appear in a state plan and be accompanied by a complete financing plan. Turning to funding policy, if a demonstration

project remains inactive 4 years after its authorization, cancelling it or redirecting its authorized funds would help to ensure that the funds are effectively spent.

ISTEA changed the environment in which surface transportation choices are made by providing states and local governments with an unprecedented opportunity to use federal funds flexibly for highway, mass transit, and nontraditional projects. To date, however, the use of highway and mass transit funding flexibility has been limited. At the federal level, DOT can help to address some of the barriers to the use of flexible funding. For example, DOT can assist states and local governments both by developing an investment framework to make cross-modal comparisons and by fostering development of improved analytic tools for assessing the impacts of transportation investment choices.

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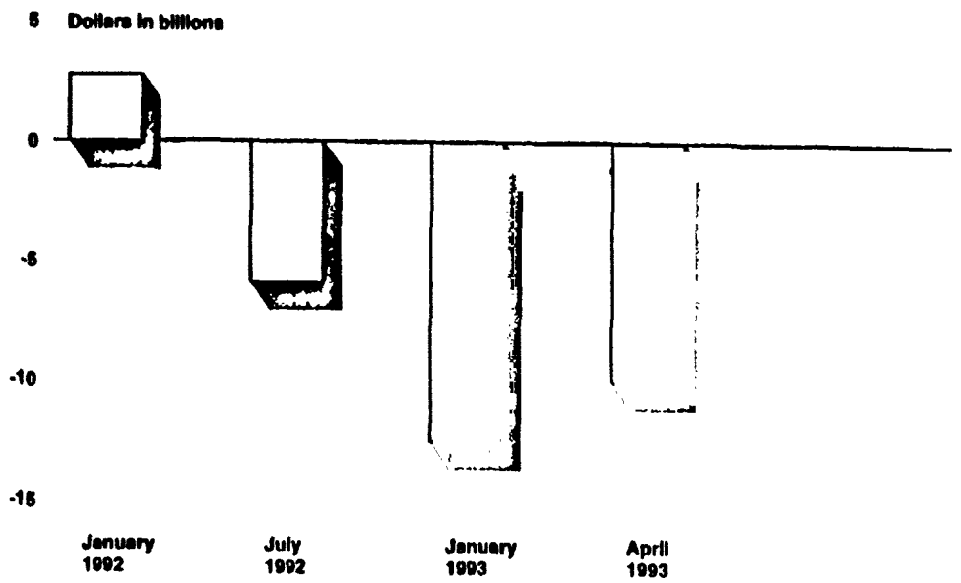
Mr. Chairman, this concludes our testimony. We would be happy to respond to any questions that you or other members of the Subcommittee might have.

GAO Estimates of Uncommitted Highway Account Balance at End of FY 1997



GAO analysis of FHWA highway account data. Assumptions include full funding of ISTEA and February 1993 revenue projections.

APPENDIX I

GAO Fluctuations in Estimated Tax Receipts to Highway Account

	Estimated tax receipts, FY 1992-1999[a]	Dollar change from previous estimate
January 1992	$140.4 billion	
July 1992	$134.4 billion	- $6.0 billion
January 1993	$131.1 billion	- $3.3 billion
April 1993	$133.3 billion	+ $2.2 billion

[a]Estimated collections of fuel and other highway related taxes to be credited to the highway account of the Highway Trust Fund, as estimated by the Department of the Treasury. Totals do not include associated interest earnings credited to the highway account.

APPENDIX II

GAO

OPTIONS FOR IMPROVING DEMO PROJECT SELECTION

- Restrict Selection to Projects Appearing on State Plans
- Consider Capacity of Project To Meet Multiple National Objectives
- Require Project Proposals to Address Financing

APPENDIX III

GAO ACTIONS TO IMPROVE DEMO PROJECT FUNDING

- Eliminate Project-Specific Authorizations
- Institute "Use It or Lose It" Provision

APPENDIX IV

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