Testimony
Before the Committee on Finance,
U.S. Senate

SURFACE TRANSPORTATION

Principles Can Guide Efforts to Restructure and Fund Federal Programs

Statement of Jayetta Z. Hecker, Director
Physical Infrastructure Issues
SURFACE TRANSPORTATION

Principles Can Guide Efforts to Restructure and Fund Federal Programs

What GAO Did This Study

The nation has reached a critical juncture with its current surface transportation policies and programs. Demand has outpaced the capacity of the system, resulting in increased congestion. In addition, without significant changes in funding levels or planned spending, the Highway Trust Fund—the major source of federal highway and transit funding—is projected to incur significant deficits in the years ahead. Exacerbating concerns about the solvency of the Highway Trust Fund is the federal government’s bleak fiscal condition and outlook. As a result, other federal revenue sources may not be available to help solve the nation’s current transportation challenges.

This statement is based on a body of work that GAO has completed over the past several years for Congress. This testimony discusses (1) GAO’s recent findings on the structure and performance of the current surface transportation program (GAO-08-400), (2) a framework to assess proposals for restructuring the surface transportation program, (3) potential options to fund investments in the surface transportation system, and (4) our recent findings on the benefits, costs, and trade-offs of using public-private partnerships to help fund transportation investments (GAO-08-44).

What GAO Found

Since federal funding for the interstate system was established in 1956, the federal role in surface transportation has expanded to include broader goals, more programs, and a variety of program structures. Consequently, the goals of current programs are numerous and sometimes conflicting, and the federal role in these programs is unclear. For example, federal programs do not effectively address key transportation challenges, such as increasing congestion and freight demand. Many surface transportation programs are also not linked to performance of the transportation system or of the grantees, and programs often do not employ the best tools and approaches. Finally, the fiscal sustainability of the numerous highway, transit, and safety programs funded by the Highway Trust Fund is in doubt, because spending from the fund has increased without commensurate increases in revenues.

A number of principles can help guide the assessment of proposals to restructure and fund federal surface transportation programs. These principles include (1) ensuring goals are well defined and focused on the national interest, (2) ensuring the federal role in achieving each goal is clearly defined, (3) ensuring accountability for results by entities receiving federal funds, (4) employing the best tools and approaches to improve results and emphasize return on targeted federal investment, and (5) ensuring fiscal sustainability.

A range of options could be used to fund the growing demand for additional investment in the surface transportation system. There are two revenue sources for these additional investments: taxes and fees. Financing mechanisms, such as bonding and revolving funds, could also be used to fund transportation infrastructure projects when tax and user fee approaches are not sufficient to meet demands. However, these financing mechanisms are all forms of debt that ultimately must be repaid with interest by the general population through tax increases or reductions in government services. Each of these options has different merits and challenges, and the selection of any of them will likely involve trade-offs among different policy goals.

Highway public-private partnerships show promise as a viable alternative, where appropriate, to help meet growing and costly transportation demands. The highway public-private partnerships created to date have resulted in advantages from the perspective of state and local governments, such as the construction of new infrastructure without using public funding. However, highway public-private partnerships also entail potential costs and risks including the reality that funds from public-private partnerships are largely a new source of borrowed funds—a form of privately issued debt that must be repaid to private investors. Ultimately the extent to which public-private partnerships can be used to help meet the nation’s transportation funding challenges will depend on the ability of states to weigh potential benefits against potential costs and trade-offs to determine whether public-private partnerships are appropriate in specific circumstances—and if so—how best to implement them and protect the public interest.

What GAO Recommends

GAO has previously suggested that Congress consider refocusing surface transportation programs to address the issues discussed in this testimony.

To view the full product, including the scope and methodology, click on GAO-08-744T. For more information, contact JayEtta Z. Hecker at (202) 512-2834 or heckerj@gao.gov.
Mr. Chairman and Members of the Committee:

We appreciate the opportunity to testify on surface transportation financing issues. As you know, the nation has reached a critical juncture with current surface transportation programs. The current federal approach to addressing the nation’s surface transportation problems is not working well. Despite large increases in expenditures in real terms for transportation, the investment has not commensurately improved the performance of the nation’s surface transportation system, as congestion continues to grow and looming problems from the anticipated growth in travel demand are not being adequately addressed. The economic and environmental implications are significant, ranging from wasted fuel and lost time as cars idle in traffic to increased costs for businesses as the transportation system grows more unreliable.

Since federal funding for the interstate system was established in 1956, the federal role in surface transportation has expanded to include broader goals, more programs, and a variety of program structures. However, many of these programs do not effectively address key transportation challenges, such as increasing congestion and freight demand, because the federal goals and roles of the programs are unclear, the programs are generally not need or performance-based, and the programs often do not employ the best tools or approaches. In addition, the continued relevance of some of these programs in the 21st century is unclear. For example, the Highway Trust Fund was created in 1956 to distribute funds for the construction of the interstate highway system. That system is now complete. However, the federal highway program’s funding and delivery mechanisms have not substantially changed. Furthermore, there is a growing differential between expected Highway Trust Fund revenue and planned levels of spending on surface transportation programs. As a result, without significant changes in funding levels or planned spending, the Highway Trust Fund is projected to incur significant deficits in the
years ahead. As a result, in 2007, we added financing the nation’s transportation system to GAO’s High Risk List.¹

Addressing these challenges is complicated by the breadth of the nation’s surface transportation network—encompassing highway, transit, and rail systems and ports that are owned, funded, and operated by both the public and the private sectors. Moreover, surface transportation policy decisions are inextricably linked with aviation, economic, environmental, and energy policy concerns. In addition, exacerbating this challenge is that the federal government’s financial condition and fiscal outlook are worse than many may understand.² Specifically, the federal budget is on an unsustainable path—heightening concern about the solvency of the Highway Trust Fund because other federal revenue sources may not be available to help solve the nation’s current transportation challenges. Addressing these challenges requires strategic and intermodal approaches, effective tools and programs, and coordinated solutions involving all levels of government and the private sector. Yet in many cases, the government is still trying to do business in ways that are based on conditions, priorities, and approaches that were established decades ago and are not well suited to addressing 21st century challenges. Consequently, we have called for a fundamental reexamination of the nation’s transportation policies and programs.³

Prudent use of taxpayer dollars is always important. The economic and social importance of the nation’s transportation system and the current fiscal environment, make it even more important that federal, state, and

¹GAO’s audits and evaluations identify federal programs and operations that, in some cases, are high risk because of their greater vulnerabilities to fraud, waste, abuse, and mismanagement. In recent years, we also have identified high-risk areas to focus on the need for broad-based transformations to address major economy, efficiency, or effectiveness challenges. Since 1990, we have periodically reported on government operations that we have designated as high risk. In 2007, we added financing the nation’s transportation system to the High Risk List. See, GAO, High-Risk Series: An Update. GAO-07-310 (Washington, D.C.: January 2007).


local governments make prudent decisions on how to invest limited available resources. In making these decisions, governments will face an array of challenges that include repairing and maintaining aging infrastructure, making more efficient use of existing infrastructure, accounting for population growth, and incorporating new technologies in funding for infrastructure. In this environment, the infrastructure improvements that all levels of government want may not reflect what they need or what the nation can afford. Accordingly, decisions about the appropriate level of spending and distribution on infrastructure are both difficult and enormously important.

My remarks today focus on (1) our recent findings on the structure and performance of current surface transportation programs, (2) a framework to assess proposals for restructuring surface transportation programs, (3) potential options to fund investments in the surface transportation system, and (4) our recent findings on the benefits, costs, and trade-offs of using public-private partnerships to help fund transportation investments. My comments are based on a body of work that we have completed over the past several years for Congress.\(^4\) We conducted our work in June 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

**Summary**

Current surface transportation programs do not effectively address the transportation challenges the nation faces. Collectively, post-interstate-era programs addressing highway, transit, and safety are an agglomeration that has been established over half a century without a well-defined vision of the national interest and federal role. For example, federal programs do not effectively address key transportation challenges, such as increasing highway congestion and freight demand. Many surface transportation programs are not linked to the performance of the transportation system or of the grantees, and the programs often do not use the best tools or best approaches. Moreover, the fiscal sustainability of the numerous highway,

\(^4\)See “Related GAO Products” at the end of this testimony statement. These previous performance audits were conducted in accordance with generally accepted government auditing standards.
transit, and safety programs funded by the Highway Trust Fund is in doubt.

Through our prior analysis of surface transportation programs, we have identified a framework of principles that can help inform Congress in assessing various proposals for restructuring and funding federal surface transportation programs. These principles are:

- creating well-defined goals based on identified areas of national interest, which involves examining the relevance and relative priority of existing programs in light of 21st century challenges and identifying emerging areas of national importance;

- establishing and clearly defining the federal role in achieving each goal in relation to the roles of state and local governments, regional entities, and the private sector;

- incorporating performance and accountability into funding decisions to ensure resources are targeted to programs that best achieve intended outcomes and national priorities;

- employing the best tools, such as benefit-cost analysis, and approaches to emphasize return on investment at a time of constrained federal resources; and

- ensuring fiscal sustainability through targeted investments of federal, state, local, and private resources.

A range of options could be used to fund the demand for additional investment in the surface transportation system. Although some of the demand for additional investment in transportation could be reduced by, for example, using the existing infrastructure more efficiently, there is a growing consensus that some level of additional investment in transportation could be warranted. There are two revenue sources for these additional investments: taxes and fees. A variety of taxes have been and could be used to fund the nation’s infrastructure, including excise, sales, property, and income taxes. Additionally, user fees such as fees based on vehicle miles traveled, freight container fees, customs duties, or congestion pricing of roads could be used. Financing mechanisms could also be used to fund transportation infrastructure projects when tax and user fee approaches are not sufficient to meet demands. However, these financing approaches, including bonding strategies, loans, loan guarantees, and revolving funds, are all forms of debt that ultimately must be repaid.
with interest by the general population through tax increases or reductions in government services.

Highway public-private partnerships also show promise as a viable alternative, where appropriate, to help meet growing and costly transportation demands. The highway public-private partnerships created to date have resulted in advantages from the perspective of state and local governments, such as the construction of new infrastructure without using public funding, and obtaining funds by extracting value from existing facilities for reinvestment in transportation and other public programs. However, highway public-private partnerships also entail potential costs and risks. Most importantly, there is no “free” money in public-private partnerships. While highway public-private partnerships can be used to obtain financing for highways, these funds are largely a new source of borrowed funds—a form of privately issued debt that must be repaid to private investors seeking a return on their investment by road users over what potentially could be a period of several generations. Ultimately the extent to which public-private partnerships can be used to help meet the nation’s transportation funding challenges will depend on the ability of states to weigh potential benefits against potential costs and trade-offs to determine whether public-private partnerships are appropriate in specific circumstances—and if so—how best to implement them and protect the public interest. As we recently reported, consideration of public-private partnerships in the United States could benefit from more consistent, rigorous, systematic, up-front analysis and fresh thinking about the appropriate federal approach. Reexamining the federal role in transportation provides an opportunity to identify the emerging national public interests in highway public-private partnerships and to determine how highway public-private partnerships fit in with national programs.

Current Surface Transportation Programs Do Not Effectively Address Identified Transportation Challenges

Current surface transportation programs do not effectively address the transportation challenges the nation faces. Collectively, post-interstate-era programs addressing highway, transit, and safety are an agglomeration that has been established over half a century without a well-defined vision of the national interest and federal role. Many surface transportation programs are not linked to performance of the transportation system or grantees, as most highway, transit, and safety funds are distributed through formulas that only indirectly relate to needs and may have no relationship to performance. In addition, the programs often do not use the best tools or best approaches, such as using more rigorous economic analysis to select projects. Finally, the fiscal sustainability of the numerous highway, transit, and safety programs funded by the Highway Trust Fund is in doubt, as a result of increased spending from the fund without commensurate increases in revenues.

Federal Goals and Approaches Have Expanded as State and Local Discretion Has Increased

Since the Federal-Aid Highway Act of 1956 funded the modern federal highway program, the federal role in surface transportation has expanded to include broader goals, more programs, and a variety of program structures. Although most surface transportation funds remain dedicated to highway infrastructure, federal surface transportation programs have grown in number and complexity, incorporating additional transportation, environmental, and societal goals. While some of these goals have led to new grant programs in areas such as transit, highway safety, and motor carrier safety, others have led to additional procedural requirements for receiving federal aid, such as environmental review and transportation planning requirements.

This expansion has also created a variety of grant structures and federal approaches for establishing priorities and distributing federal funds. Most highway infrastructure funds continue to be distributed to states in accordance with individual grant program formulas and eligibility requirements. However, broad program goals, eligibility requirements, and authority to transfer funds between highway programs give state and local governments broad discretion to allocate highway infrastructure funds according to their priorities. Although some transit formula grant programs also give grantees considerable discretion to allocate funds, a portion of transit assistance requires grantees to compete for funding based on specific criteria and goals. Similarly, basic safety formula grant programs are augmented by smaller programs that directly target federal funds to specific goals and actions using financial incentives and penalty provisions.
The Goals and Role of the Federal Government Are Not Clear, and Many Programs Are Not Linked to Performance

We have found that many federal surface transportation programs are not effective at addressing key transportation challenges, such as increasing congestion and growing freight demand, because federal goals and roles are unclear, and many programs lack links to needs or performance. The goals of federal surface transportation programs are numerous and sometimes conflicting, which contributes to a corresponding lack of clarity in the federal role. For example, despite statutes and regulations that call for an intermodal approach (one that creates connections across modes), only one federal program is specifically directed at intermodal infrastructure.

Most highway, transit, and safety grant funds are distributed through formulas that have only an indirect relationship to needs and many have no relationship to performance or outcomes. The largest safety grants are more likely than highway grants to be focused on goals rather than specific transportation systems such as the interstate system, and several highway safety and motor carrier safety grants allocate incentive funds on the basis of performance or state efforts to carry out specific safety-related activities. However, since the majority of surface transportation funds are distributed without regard to performance, it is difficult to assess the impact of recent record levels of federal highway expenditures. For example, while the condition of highways showed some improvement between 1997 and 2004, traffic congestion increased in the same period. Mechanisms to link programs to goals also appear insufficient because, particularly within the Federal-aid Highway program, federal rules for transferring funds between different highway infrastructure programs are flexible, weakening the distinctions between individual programs (see fig. 1).
Surface Transportation Programs Often Do Not Use Best Tools and Approaches

Surface transportation programs often do not employ the best tools and approaches to ensure effective investment decisions. Rigorous economic analysis does not generally drive the investment decisions of state and local governments—in a 2004 survey of state departments of transportation, 34 of 43 state departments of transportation cited political...
support and public opinion as very important factors, whereas 8 said the same of the ratio of benefits to costs. The federal government also does not possess adequate data to assess outcomes or implement performance measures. For example, the Department of Transportation (DOT) does not have a central source of data on congestion, even though it has identified congestion as a top priority. While some funds can be transferred between highway and transit programs, modally stovepiped funding nevertheless impedes efficient planning and project selection. Additionally, tools to make better use of existing infrastructure, such as intelligent transportation systems and congestion pricing, have not been deployed to their full potential.

The Fiscal Sustainability of Surface Transportation Programs Is Threatened

The solvency of the federal surface transportation program is at risk because expenditures now exceed revenues for the Highway Trust Fund, and projections indicate that the balance of the Highway Trust Fund will soon be exhausted. According to the Congressional Budget Office (CBO), the Highway Account will face a shortfall in 2009, the Transit Account in 2012. The rate of expenditures has affected its fiscal sustainability. As a result of the Transportation Equity Act for the 21st Century (TEA-21), Highway Trust Fund spending rose 40 percent from 1999 to 2003 and averaged $36.3 billion in contract authority per year. The upward trend in expenditures continued under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which provided an average of $57.2 billion in contract authority per year. While expenditures from the trust fund have grown, revenues into the fund have not kept pace. The current fuel tax of 18.4 cents per gallon has been in place since 1993, and the buying power of the fixed cents-per-gallon amount has since been eroded by inflation. The reallocation to the Highway Trust Fund of 4.3 cents of federal fuel tax previously dedicated to deficit reduction provided an influx of funds beginning in 1997. However, this influx has been insufficient to sustain current spending levels.

Furthermore, while federal funding for transportation has increased, the total funding for transportation may not increase to the same extent because federal funds may be substituted for state and local funds. Thus,

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added federal funds may not lead to a commensurate increase in the total investment in highways because state and local governments can shift nonfederal funds away from highways to other purposes. Increases in federal funding do appear to reduce state spending for the same purpose, reducing the return on the federal investment. Research estimates that about 50 percent of each additional federal grant dollar for the highway program displaces funds that states would otherwise have spent on highways.

As we have previously reported, this situation argues for a fundamental reexamination of the federal approach to surface transportation problems and a restructuring of federal programs to create more focused, performance-based, and sustainable programs. In cases for which there is a significant national interest, maintaining strong federal financial support and a more direct federal involvement in the program may be needed. In other cases, functions may best be carried out by other levels of government or not at all. There may also be cases for which federal financial support is desirable but a more results-oriented approach is appropriate. In addition, depending on the transportation issue and the desired goals, different options and approaches may be appropriate for different problems. Restructuring the current approach to transportation problems will take time, but a vision and strategy are needed to begin the process of transforming to a set of policies and programs to effectively address the nation’s transportation needs and priorities.

Through our prior analyses of existing programs, we identified a framework of principles that could help drive an assessment of proposals for restructuring and funding federal surface transportation programs. These principles include (1) creating well-defined goals based on identified areas of national interest, (2) establishing and clearly defining the federal role in achieving each goal, (3) incorporating performance and accountability into funding decisions, (4) employing the best tools and approaches to improve results and emphasize return on investment, and (5) ensuring fiscal sustainability. We have also developed a series of illustrative questions that can be used to determine the extent to which restructuring and funding proposals are aligned with each principle. We

Framework to Assess Proposals for Restructuring and Funding Surface Transportation Programs

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developed these principles and illustrative questions based on prior analyses of existing surface transportation programs as well as a body of work that we have developed for Congress, including GAO’s High-Risk, Performance and Accountability, and 21st Century Challenges reports. The principles do not prescribe a specific approach to restructuring or funding, but they do provide key attributes that will help ensure that restructured surface transportation programs address current challenges.

Our previous work has shown that identifying areas of national interest is an important first step in any proposal to restructure and fund surface transportation programs. In identifying areas of national interest, proposals should consider existing 21st century challenges and how future trends could affect emerging areas of national importance—as well as how the national interest and federal role may vary by area. For example, experts have suggested that federal transportation policy should recognize emerging national and global imperatives, such as reducing the nation’s dependence on oil and minimizing the impact of the transportation system on global climate change. Once the various national interests in surface transportation have been identified, proposals should also clarify specific goals for federal involvement in surface transportation programs. Goals should be specific and outcome-based to ensure that resources are targeted to projects that further the national interest.

The following illustrative questions can be used to determine the extent to which proposals to restructure and fund surface transportation programs create well-defined goals based on identified areas of national interest.

- To what extent are areas of national interest clearly defined?
- To what extent are areas of national interest reflective of future trends?
- To what extent are goals defined in relation to identified areas of national interest?

After the various national interests and specific goals for federal involvement in surface transportation have been identified, the federal role in working toward each goal should be established. The federal role should be defined in relation to the roles of state and local governments, regional entities, and the private sector. Where the national interest is greatest, the federal government may play a more direct role in setting priorities and allocating resources as well as fund a higher share of
program costs. Conversely, where the national interest is less evident, state and local governments and others could assume more responsibility. For example, efforts to reduce transportation’s impact on greenhouse gas emissions may warrant a greater federal role than other initiatives, such as reducing urban congestion, since the impacts of greenhouse gas emissions are widely dispersed, whereas the impacts of urban congestion may be more localized.

The following illustrative questions can be used to determine the extent to which proposals to restructure and fund the surface transportation programs establish and clearly define the federal role in achieving each goal.

- To what extent is the federal role directly linked to defined areas of national interest and goals?
- To what extent is the federal role defined in relation to the roles of state and local governments, regional entities, and the private sector?
- To what extent does the proposal consider how the transportation system is linked to other sectors and national policies, such as environmental, security, and energy policies?

**Incorporate Performance and Accountability into Funding Decisions**

Our previous work has shown that an increased focus on performance and accountability for results could help the federal government target resources to programs that best achieve intended outcomes and national transportation priorities. Tracking specific outcomes that are clearly linked to program goals could provide a strong foundation for holding grant recipients responsible for achieving federal objectives and measuring overall program performance. In particular, substituting specific performance measures for the current federal procedural requirements could help make the program more outcome-oriented. For example, if reducing congestion were an established federal goal, outcome measures for congestion, such as reduced travel time, could be incorporated into the programs to hold state and local governments responsible for meeting specific performance targets. Furthermore, directly linking the allocation of resources to the program outcomes would increase the focus on performance and accountability for results. Incorporating incentives or penalty provisions into grants can further hold grantees and recipients accountable for achieving results.
The following illustrative questions can be used to determine the extent to which proposals to restructure and fund surface transportation programs incorporate performance and accountability into funding decisions.

- Are national performance goals identified and discussed in relation to state, regional, and local performance goals?
- To what extent are performance measures outcome-based?
- To what extent is funding linked to performance?
- To what extent does the proposal include provisions for holding stakeholders accountable for achieving results?

We have previously reported that the effectiveness of any overall federal program design can be increased by promoting and facilitating the use of the best tools and approaches to improve results and emphasize return on investment. Importantly, given the projected growth in federal deficits, constrained state and local budgets, and looming Social Security and Medicare spending commitments, the resources available for discretionary programs will be more limited—making it imperative to maximize the national public benefits of any federal investment through a rigorous examination of the use of such funds. A number of specific tools and approaches can be used to improve results and return on investment including using economic analysis, such as benefit-cost analysis, in project selection; requiring grantees to conduct post-project evaluations; creating incentives to better utilize existing infrastructure; providing states and localities with greater flexibility to use certain tools, such as tolling and congestion pricing; and requiring maintenance-of-effort provisions in grants. Using these tools and approaches could help surface transportation programs more directly address national transportation priorities.

The following illustrative questions can be used to determine the extent to which proposals to restructure and fund surface transportation programs employ the best tools and approaches to improve results and emphasize return on investment.

To what extent do the proposals consider how costs and revenues will be shared among federal, state, local, and private stakeholders?

To what extent do the proposals address the need better to align fees and taxes with use and benefits?

To what extent are trade-offs between efficiency and equity considered?

Do the tools and approaches align with the level of federal involvement in a given policy area?

To what extent do the proposals provide flexibility and incentives for state and local governments to choose the most appropriate tool in the toolbox?

Our previous work has shown that transportation funding, and the Highway Trust Fund in particular, faces an imbalance of revenues and expenditures and other threats to its long term sustainability. Furthermore, the sustainability of transportation funding should also be seen in the context of the broader, governmentwide problem of fiscal imbalance. The federal role in transportation funding must be reexamined to ensure that it is sustainable in this new fiscal reality. A sustainable surface transportation program will require targeted investment, with adequate return on investment, from not only the federal government but also state and local governments and the private sector.

The following illustrative questions can be used to determine the extent to which proposals to restructure and fund surface transportation programs ensure fiscal sustainability.

To what extent do the proposals reexamine current and future spending on surface transportation programs?

Are the recommendations affordable and financially stable over the long-term? To what extent are the recommendations placed in the context of federal deficits, constrained budgets, and other spending commitments, and to what extent do they meet a rigorous examination of the use of federal funds?

To what extent are recommendations considered in the context of trends that could affect the transportation system in the future, such as population growth, increased fuel efficiency, and increased freight traffic?
Current concerns about the sustainability and performance of existing programs suggest that this is an opportune time for Congress to more clearly define the federal role in transportation and improve progress toward specific, nationally defined outcomes. Given the scope of the needed transformation, it may be necessary to shift policies and programs incrementally or on a pilot basis to gain practical lessons for a coherent, sustainable, and effective national program and funding structure to best serve the nation for the 21st century.

### Various Options Are Available or Have Been Proposed to Fund Investments in the Nation’s Infrastructure

Absent changes in planned spending, a variety of funding and financing options will likely be needed to address projected transportation funding shortfalls. Although some of the demand for additional investment in transportation could be reduced, there is a growing consensus that some level of additional investment in transportation is warranted. A range of options—from altering existing or introducing new funding approaches to employing various financing mechanisms—could be used to help meet the demand for additional investments. Each of these options has different merits and challenges, and the selection of any of them will likely involve trade-offs among different policy goals. Furthermore, the suitability of any of these options depends on the level of federal involvement or control that policymakers desire for a given area of policy. However, as we have reported, when infrastructure investment decisions are made based on sound evaluations, these options can lead to an appropriate blend of public and private funds to match public and private costs and benefits.\(^\text{10}\)

### Existing Strategies Can Help Reduce the Demand for Additional Investment

Estimates from multiple sources indicate that additional investment in the transportation system could be warranted. For example, in its January 2008 report, the National Surface Transportation Policy and Revenue Study Commission (Policy Commission) recommended an annual investment of about $225 billion from all levels of government in the surface transportation system—an increase of about $140 billion from

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current spending levels.\textsuperscript{11} Similarly, the Congressional Budget Office recently estimated that an annual investment of about $165 billion in surface transportation could be economically justifiable.\textsuperscript{12} In addition, in its February 2008 interim report, the National Surface Transportation Infrastructure Financing Commission (Financing Commission) noted that one of its base assumptions is that there is a gap between current funding levels and investment needs.\textsuperscript{13}

However, some of the demand for additional investment in transportation infrastructure could be reduced. We have previously reported that the ways in which revenue is generated and distributed can influence the decisions made by users as well as decision-making and programs at the state and local levels.\textsuperscript{14} In particular, our previous work has shown that current funding and decision-making processes provide a built-in preference for projects that build or maintain transportation infrastructure rather than try to use existing infrastructure more efficiently—which would reduce the overall demand for additional investments. CBO also recently reported that some of the demand for additional spending on infrastructure could be met by providing incentives to use existing infrastructure more efficiently. In its February 2008 interim report, the Financing Commission noted the need to use new approaches and technologies to maximize the use of current capacity.

We have also previously reported that increased federal highway grants influence states and localities to substitute federal funds for funds they otherwise would have spent on highways for other purposes.

\textsuperscript{11}Congress established the Policy Commission in SAFETEA-LU. The mission of the Policy Commission was, among other things, to examine the condition and future needs of the nation’s surface transportation system and short and long-term alternatives to replace or supplement the fuel tax as the principal revenue source to support the Highway Trust Fund. In January 2008, the Policy Commission released its final report with numerous recommendations to reform the current structure of the nation’s surface transportation programs.

\textsuperscript{12}\textit{CBO, Current and Future Investment in Infrastructure}, (Washington, D.C.: May 8, 2008). CBO defines economic justifiable investments as investments whose private and social benefits would be at least equal to their economic costs.

\textsuperscript{13}Congress created the Financing Commission in SAFETEA-LU and charged it with analyzing future highway and transit needs and the finances of the Highway Trust Fund and recommending alternative approaches to financing transportation infrastructure.

Consequently, additional federal investments in transportation do not necessarily translate into commensurate levels of spending by the states and localities on transportation. Addressing this “leakage” with such tools as maintenance-of-effort requirements could maximize the effectiveness of federal investments.

The principles we have identified for restructuring the surface transportation programs can also be used as a framework for considering levels of investment and the funding and financing options described below. For example, in defining the federal role in funding transportation, we have previously reported that where the national interest is greatest, having the federal government fund a higher share of program costs could be appropriate. Conversely, where the national interest is less evident, state and local governments, and others could assume more responsibility. In addition, incorporating incentives or penalty provisions into different funding and financing approaches can help ensure performance and accountability.

### Funding Approaches Can Be Altered or Developed to Help Fund Infrastructure Investments

Various existing funding approaches could be altered or new funding approaches could be developed, to help fund investments in the nation’s infrastructure. These various approaches can be grouped into two categories: taxes and user fees.

A variety of taxes have been and could be used to fund the nation’s infrastructure, including excise, sales, property, and income taxes. For example, federal excise taxes on motor fuels are the primary source of funding for the federal surface transportation program. Fuel taxes are attractive because they have provided a relatively stable stream of revenues and the collection and enforcement costs are relatively low. However, fuel taxes do not currently convey to drivers the full costs of their use of the road—such as the costs of wear and tear, congestion, and pollution. Moreover, federal motor fuel taxes have not been increased since 1993—and thus the purchasing power of fuel tax revenues has eroded with inflation. As CBO has previously reported, the existing fuel taxes could be altered in a variety of ways to address this erosion, including increasing the per-gallon tax rate and indexing the rates to inflation. Some transportation stakeholders have suggested exploring the potential of using a carbon tax, or other carbon pricing strategies, to help

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fund infrastructure investments. In a system of carbon taxes, fossil fuel emissions would be taxed, with the tax proportional to the amount of carbon dioxide released in its combustion. Because a carbon tax could have a broad effect on consumer decisions, we have previously reported that it could be used to complement Corporate Average Fuel Economy standards, which require manufacturers meet fuel economy standards for passenger cars and light trucks to reduce oil consumption. A carbon tax would create incentives that could affect a broader range of consumer choices as well as provide revenue for infrastructure.

Another funding source for infrastructure is user fees. The concept underlying user fees—that is, users pay directly for the infrastructure they use—is a long-standing aspect of many infrastructure programs. Examples of user fees that could be altered or introduced include fees based on vehicle miles traveled (VMT) on roadways; freight fees, such as a per-container charge; congestion pricing of roads; and tolling.

- **VMT fees.** To more directly reflect the amount a vehicle uses the road, users could be charged a fee based on the number of vehicle miles traveled. In 2006, the Oregon Department of Transportation conducted a pilot program designed to test the technological and administrative feasibility of a VMT fee. The pilot program demonstrated that a VMT fee could be implemented to replace the fuel tax as the principal source of transportation revenue by utilizing a Global Positioning System (GPS) to track miles driven and collecting the VMT fee ($0.012 per mile traveled) at fuel pumps that can read information from the GPS. As we have previously reported, using a GPS could also track mileage in high congestion zones, and the fee could be adjusted upward for miles driven in these areas or during more congested times of day such as rush hour—a strategy that might reduce congestion and save fuel. In addition, the

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16Another carbon pricing strategy is a cap-and-trade program, which combines a regulatory limit or cap on the amount of carbon that can be emitted into the atmosphere with market elements such as the opportunity to buy additional allowances to emit additional carbon. Auctioning the allowances of a cap-and-trade program would generate revenue for the government, which could be used for a variety of purposes, including infrastructure investments.


18Oregon’s Mileage Fee Concept and Road User Fee Pilot Program: Final Report.

19GAO-07-921.
system could be designed to apply different fees to vehicles, depending on their fuel economy. On the federal level, a VMT fee could be based on odometer readings, which would likely be a simpler and less costly way to implement such a program. A VMT fee—unless it is adjusted based on the fuel economy of the vehicle—does not provide incentives for customers to buy vehicles with higher fuel economy ratings because the fee depends only on mileage. Also, because the fee would likely be collected from individual drivers, a VMT fee could be expensive for the government to implement, potentially making it a less cost-effective approach than a motor fuel or carbon tax. The Oregon study also identified other challenges including concerns about privacy and technical difficulties in retrofitting vehicles with the necessary technology.

- **Freight fees.** Given the importance of freight movement to the economy, the Policy Commission recently recommended a new federal freight fee to support the development of a national program aimed at strategically expanding capacity for freight transportation.\(^2^0\) While the volume of domestic and international freight moving through the country has increased dramatically and is expected to continue growing, the capacity of the nation’s freight transportation infrastructure has not increased at the same rate as demand.\(^2^1\) To support the development of a national program for freight transportation, the Policy Commission recommended the introduction of a federal freight fee. The Policy Commission notes that a freight fee, such as a per-container charge, could help fund projects that remedy chokepoints and increase throughput. The Policy Commission also recommended that a portion of the customs duties, which are assessed on imported goods, be used to fund capacity improvements for freight transportation. The majority of customs duties currently collected, however, are deposited in the U.S. Treasury’s general fund for the general support of federal activities.\(^2^2\) Therefore, designating a portion of customs duties for surface transportation funding would not create a new source of revenue, but rather transfer funds from the general fund.

- **Congestion pricing.** As we have previously reported, congestion pricing, or road pricing, attempts to influence driver behavior by charging fees

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during peak hours to encourage users to shift to off-peak periods, use less congested routes, or use alternative modes. Congestion pricing can also help guide capital investment decisions for new transportation infrastructure. In particular, as congestion increases, toll rates also increase, and such increases (sometimes referred to as “congestion surcharges”) signal increased demand for physical capacity, indicating where capital investments to increase capacity would be most valuable. Furthermore, these congestion surcharges can potentially enhance mobility by reducing congestion and the demand for roads when the surcharges vary according to congestion to maintain a predetermined level of service. The most common form of congestion pricing in the United States is high-occupancy toll lanes, which are priced lanes that offer drivers of vehicles that do not meet the occupancy requirements the option of paying a toll to use lanes that are otherwise restricted for high-occupancy vehicles.

Various Financing Mechanisms Can Also Help Fund Infrastructure Projects

Financing mechanisms can provide flexibility for all levels of government when funding additional infrastructure projects, particularly when traditional pay-as-you-go funding approaches, such as taxes or fees, are not set at high enough levels to meet demands. The federal government currently offers several programs to provide state and local governments with incentives such as bonds, loans, and credit assistance to help finance infrastructure. Financing mechanisms can create potential savings by accelerating projects to offset rapidly increasing construction costs and offer incentives for investment from state and local governments and from the private sector. However, each financing strategy is, in the final analysis, a form of debt that ultimately must be repaid with interest. Furthermore, since the federal government’s cost of capital is lower than that of the private sector, financing mechanisms, such as bonding, may be more expensive than timely, full, and up-front appropriations. Finally, if the federal government chooses to finance infrastructure projects, policy makers must decide how borrowed dollars will be repaid, either by users or by the general population either now or in the future through increases in taxes or reductions in other government services.

A number of available mechanisms can be used to help finance infrastructure projects. Examples of these financing mechanisms follow.
• **Bonding.** A number of bonding strategies—including tax-exempt bonds, private activity bonds, Grant Anticipation Revenue Vehicles (GARVEE) bonds, and Grant Anticipation Notes (GAN)—offer flexibility to bridge funding gaps when traditional revenue sources are scarce. For example, state-issued GARVEE or GAN bonds provide capital in advance of expected federal funds, allowing states to accelerate highway and transit project construction and thus potentially reduce construction costs. Through April 2008, 20 states and two territories issued approximately $8.2 billion of GARVEE-type debt financing and 20 other states are actively considering bonding or seeking legislative authority to issue GARVEEs. Furthermore, SAFETEA-LU authorized the Secretary of Transportation to allocate $15 billion in tax-exempt bonds for qualified highway and surface freight transfer facilities. To date, $5.3 billion has been allocated for six projects. Several bills have been introduced in this Congress that would increase investment in the nation’s infrastructure through bonding. For example, the Build America Bonds Act would provide $50 billion in new infrastructure funding through bonding. Although bonds can provide up-front capital for infrastructure projects, they can be more expensive for the federal government than traditional federal grants. This higher expense results, in part, because the government must compensate the investors for the risks they assume through an adequate return on their investment.

• **Loans, loan guarantees, and credit assistance.** The federal government currently has two programs designed to offer credit assistance for surface transportation projects. The Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) authorized the Federal Highway Administration to provide credit assistance, in the form of direct loans, loan guarantees, and standby lines of credit for projects of national significance. A similar program, Railroad Rehabilitation and Improvement Financing (RRIF), offers loans to acquire, improve, develop, or rehabilitate intermodal or rail equipment and develop new intermodal railroad facilities. To date, 15 TIFIA projects have been approved totaling over $4.8 billion in credit assistance and the RRIF program has approved 21 loan agreements worth more than $747 million. These programs are designed to leverage federal funds by attracting substantial nonfederal

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23Tax-exempt bonds are government bonds that are used for purposes such as infrastructure, schools, libraries, general municipal expenditures, or refunding of old debt. Tax-exempt means that the interest paid to bondholders is generally not included in their gross income for federal income tax purposes. Examples of tax-exempt bonds include municipal bonds and private activity bonds that allow tax-exempt debt to be used by private entities to help finance qualified facilities.
investments in infrastructure projects. However, the federal government assumes a level of risk when it makes or guarantees loans for projects financed with private investment.  

- **Revolving funds.** Revolving funds can be used to dedicate capital to be loaned for qualified infrastructure projects. In general, loaned dollars are repaid, recycled back into the revolving fund, and subsequently reinvested in the infrastructure through additional loans. Such funds exist at both the federal and the state levels and are used to finance various infrastructure projects ranging from highways to water mains. For example, two federal funds support water infrastructure financing, the Clean Water State Revolving Fund for wastewater facilities, and the Drinking Water State Revolving Fund for drinking water facilities. Under each of these programs, the federal government provides seed money to states, which they supplement with their own funds. These funds are then loaned to local governments and other entities for water infrastructure construction and upgrades and various water quality projects. In addition, State Infrastructure Banks (SIBs)—capitalized with federal and state matching funds—are state-run revolving funds that make loans and provide credit enhancements and other forms of nongrant assistance to infrastructure projects. Through June 2007, 33 SIBs have made approximately 596 loan agreements worth about $6.2 billion to leverage other available funds for transportation projects across the nation. Furthermore, other funds—such as a dedicated national infrastructure bank—have been proposed to increase investment in infrastructure with a national or regional significance. A challenge for revolving funds in general is maintaining their capitalized value. Defaults on loans and inflation can reduce the capitalized value of the fund—necessitating an infusion of capital needed to continue the fund’s operations.

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\(24\) According to DOT, federal requirements necessitate that a credit risk premium be provided to insure the federal government against the risk of loans defaulting. As a result, these loans are closely examined for risk of loss and, to date, none of the TIFIA or RRIF loans have defaulted.

\(25\) Eight states—Arizona, Florida, Minnesota, Missouri, Ohio, South Carolina, Texas, and Wyoming—account for 95 percent of the total loan agreements reached through fiscal year 2006.
Another important and emerging vehicle for funding investments in transportation is public-private partnerships. In February 2008 we reported on highway public-private partnerships. These arrangements show promise as a viable alternative, where appropriate, to help meet growing and costly transportation demands and have the potential to provide numerous benefits to the public sector. The highway public-private partnerships created to date have resulted in advantages from the perspective of state and local governments, such as the construction of new infrastructure without using public funding, and obtaining funds by extracting value from existing facilities for reinvestment in transportation and other public programs. For example, the state of Indiana received $3.8 billion from leasing the Indiana Toll Road and used those proceeds to fund a 10-year statewide transportation plan. Highway public-private partnerships potentially provide other benefits, including the transfer or sharing of project risks to the private sector. Such risks include those associated with construction costs and schedules and having sufficient levels of traffic and revenues to be financially viable. In addition, the public sector can potentially benefit from increased efficiencies in operations and life-cycle management, such as increased use of innovative technologies. Finally, through the use of tolling, highway public-private partnerships offer the potential to price highways to better reflect the true costs of operating and maintaining them and to increase mobility by adjusting tolls to manage demand, as well as the potential for more cost effective investment decisions by private investors.

Highway public-private partnerships also entail potential costs and risks. Most importantly, there is no “free” money in public-private partnerships. While highway public-private partnerships can be used to obtain financing for highways, these funds are largely a new source of borrowed funds—a form of privately issued debt that must be repaid to private investors seeking a return on their investment by road users over what potentially could be a period of several generations. Though concession agreements can limit the extent to which a concessionaire can raise tolls, it is likely

26See GAO-08-44. We focused our review on highway public-private partnerships in which the public sector enters into a lease or concession agreement with the private sector to provide transportation services for an extended period of time, and where the private sector receives some or all toll revenues over the life of the agreement. We recognize that the term public-private partnerships can be applied to other types of highway projects and other types of transportation projects (such as mass transit and freight rail projects), as well as projects outside the transportation sector (such as hospitals and prisons). We did not include any of these in the scope of our review and my testimony today cannot necessarily be extrapolated to these or other types of public-private partnerships.
that tolls will increase on a privately operated highway to a greater extent than they would on a publicly operated toll road. To the extent that a private concessionaire gains market power by control of a road where there are not other viable travel alternatives, the potential also exists that the public could pay tolls that are higher than tolls based on the cost of the facilities, including a reasonable rate of return. Additionally, because large up-front concession payments have, in part, been used to fund immediate needs, it remains to be seen whether these agreements will provide long-term benefits to future generations who will potentially be paying progressively higher toll rates throughout the length of a concession agreement. Highway public-private partnerships are also potentially more costly than traditional public procurement—for example, there are costs associated with the need to hire financial and legal advisors.

In short, while highway public-private partnerships have promise, they are not a panacea for meeting all transportation system demands. Ultimately the extent to which public-private partnerships can be used as a tool to help meet the nation’s transportation financing challenges will depend on the ability of states to effectively manage and implement them. For example, states must have appropriate enabling legislation in place and the institutional ability to manage complex contractual mechanisms—either in the form of in-house expertise or through contractors. Most importantly, the extent to which public-private partnerships can be used as a tool to help meet the nation’s transportation funding challenges will depend on how well states are able to weigh public interest considerations. The benefits of public-private partnerships are potential benefits—that is, they are not assured and can only be achieved by weighing them against potential costs and trade-offs through careful, comprehensive analysis to determine whether public-private partnerships are appropriate in specific circumstances and, if so, how best to implement them, and how best to protect the public interest.

In considering the numerous issues surrounding the protection of the public interest, we reached the following conclusions in our February 2008 report on highway public-private partnerships:

- First, consideration of highway public-private partnerships could benefit from more consistent, rigorous, systematic, and up-front analysis. While highway public-private partnerships are fairly new in the United States, and although they are meant to serve the public interest, it is difficult to be confident that these interests are being protected when formal identification and consideration of public and national interests has been lacking, and where limited up-front analysis of public interest issues using
established criteria has been conducted. Partnerships to date have identified and protected the public interest largely through terms contained in concession contracts, including maintenance and expansion requirements, protections for the workforce, and oversight and monitoring mechanisms to ensure that private partners fulfilled their obligations. While these protections are important, governments in other countries, including Australia and the United Kingdom, have developed systematic approaches to identifying and evaluating public interest before agreements are entered into, including the use of public interest criteria, as well as assessment tools, and require their use when considering private investments in public infrastructure. For example, a state government in Australia uses a public interest test to determine how the public interest would be affected in eight specific areas, including whether the views and rights of affected communities have been heard and protected and whether the process is sufficiently transparent. While similar tools have been used to some extent in the United States, their use has been more limited. Using up-front public interest analysis tools can also assist public agencies in determining the expected benefits and costs of a project and an appropriate means to deliver the project. Not using such tools may lead to certain aspects of protecting public interest being overlooked.

- Second, fresh thinking is needed on the appropriate federal approach. DOT has done much to promote the benefits, but comparatively little to either assist states and localities in weighing potential costs and trade-offs, nor to assess how potentially important national interests might be protected in highway public-private partnerships. This is in many respects a function of the design of the federal program as few mechanisms exist to identify potential national interests in cases where federal funds have not or will not be used. For example, although the Indiana Toll Road is part of the Interstate Highway System and most traffic on the road is interstate in nature, federal officials had little involvement in reviewing the terms of this concession agreement because minimal federal funds were used to construct it, and those funds were repaid to the federal government. The historic test of the presence of federal funding may have been relevant at a time when the federal government played a larger role in financing highways but may no longer be relevant when there are new players and multiple sources of financing, including potentially significant private money. Reexamining the federal role in transportation provides an opportunity to identify the emerging national public interests in highway public-private partnerships and determine how highway public-private partnerships fit in with national programs.

On the basis of these conclusions, we recommended that Congress direct the Secretary of Transportation to develop and submit objective criteria
for identifying national public interests in highway public-private partnerships, including any additional legal authority, guidance, or assessment tools that would be appropriately required.\textsuperscript{27} We are pleased to note that in a recent testimony before the House, the Secretary indicated a willingness to begin developing such criteria. This is no easy task, however. The recent Policy Commission report illustrates the challenges of identifying national public interests as the Policy Commission’s recommendations for future restrictions—including limiting allowable toll increases and requiring concessionaires to share revenues with the public sector—stood in sharp contrast to the dissenting views of three commissioners. We believe any potential federal restrictions on highway public-private partnerships must be carefully crafted to avoid undermining the potential benefits that can be achieved. Reexamining the federal role in transportation provides an opportunity for DOT we believe, to play a targeted role in ensuring that national interests are considered, as appropriate.

The nation’s surface transportation programs are no longer producing the desired results. The reliability of the nation’s surface transportation system is declining as congestion continues to grow. Although infusing surface transportation programs with additional funding, especially in light of the projected shortfalls in the Highway Trust Fund, could be viewed as a quick and direct solution, past experience shows that increased funding for the program does not necessarily translate into improved performance. Furthermore, the nation’s current fiscal outlook may make such solutions fiscally imprudent. In addition, before additional federal funds are committed to the nation’s surface transportation programs, we believe a fundamental reexamination of the program is warranted. Such a reexamination would require reviewing the results of surface transportation programs and testing their continued relevance and relative priority. Appropriate funding sources and financing mechanisms can then be tailored for programs that continue to be relevant in today’s environment and address a national interest, such as freight movement.

\textsuperscript{27}To ensure that future highway public-private partnerships meet federal requirements concerning the use of excess revenues for federally eligible transportation purposes, we also recommended that the Secretary of Transportation direct the Federal Highway Administrator to clarify federal-aid highway regulations on the methodology for determining excess toll revenue, including the reasonable rate of return to private investors in highway public-private partnerships that involve federal investment.
Over the coming months, various options to restructure and fund surface transportation programs will likely be put forward by a range of transportation stakeholders. Ultimately, Congress and other federal policymakers will have to determine which option—or which combination of options—best meets the nation’s needs. There is no silver bullet that can solve the nation’s transportation challenges, and many of the options, such as allowing greater private-sector investment in the nation’s infrastructure, could be politically difficult to implement both nationally and locally. The principles that we identified provide a framework for evaluating these various options. Although the principles do not prescribe a specific approach to restructuring and funding the programs, they do provide key attributes that will help ensure that a restructured surface transportation program addresses current challenges. We will continue to assist the Congress as it works to evaluate the various options and develop a national transportation policy for the 21st century that improves the design of transportation programs, the delivery of services, and accountability for results.

Mr. Chairman, this concludes my prepared statement. I would be pleased to respond to any questions that you or other Members of the Committee might have.

For further information on this statement, please contact JayEtta Z. Hecker at (202) 512-2834 or heckerj@gao.gov. Individuals making key contributions to this testimony were Robert Ciszewski, Nikki Clowers, Steve Cohen, Barbara Lancaster, Matthew LaTour, and Nancy Lueke.
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