Surface Transportation Program Reauthorization Issues for the 111th Congress

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December 4, 2008

Congressional Research Service
7-5700
www.crs.gov
R40053

CRS Report for Congress
Prepared for Members and Committees of Congress

Summary

Reauthorization of federal surface transportation programs is required by the end of FY2009, although it will likely be difficult to meet that target. Reauthorization has become a difficult undertaking in the last two decades. This is primarily due to controversy over how and to whom federal-aid highway funds should be distributed. The most recent law, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU or SAFETEA) (P.L. 109-59) was enacted 22 months after previous legislation had originally expired. Previous reauthorization bills also arrived well after their required reenactment dates.

The most difficult issue likely to be considered during reauthorization is how to finance it. The highway trust fund and the revenue sources that feed it have been a reliable mechanism for financing highway and transit programs for five decades, but no more. Almost all transportation industry observers see a need for a larger federal contribution to national infrastructure creation in the years ahead. For a number of reasons discussed in this report, fuel taxes, which provide most of the money for surface transportation are unlikely to provide a foundation for this desired growth, even if Congress were to raise them modestly. The choice for policymakers, therefore, is to find new sources of income for an expanded, program, or alternately, to settle for a smaller program that might look very different than the one currently in place.

Debate on the specifics of the highway program will focus on the donor-donee funding distribution issue, earmarking, and possible programmatic reorganization.

Specific programs, such as the highway bridge program, can be expected to receive extensive congressional attention due to public concerns about the condition of the nation's transportation infrastructure.

Transit industry advocates also seek additional funding in the reauthorization bill. Many supporters believe the nation is under-investing in public transit infrastructure and that should be significantly increased to deal with an existing backlog of projects and other future needs. Against this backdrop, Congress can be expected to look closely at existing transit program spending priorities and perhaps modify them. Other issues such as rural transit, paratransit, productivity, service optimization, and competition are likely to arise as well.

Surface transportation program reauthorization also includes a number of programmatic and issue areas beyond those specifically associated with funding, highways, and transit. Freight issues have been of growing importance in recent years and figure to get significantly more attention as part of the reauthorization debate. Highway safety, motor carrier safety, research, planning, and environmental issues will each be addressed in detail in the months ahead.

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Introduction

Since the early 1980s, the periodic debate leading to reauthorization of federal Surface Transportation Programs has been primarily about money and its distribution. In each of the five reauthorizations that took place during that period (1982, 1987, 1991, 1998, and 2005) the federal fuel taxes and other sources of revenue dedicated to the highway trust fund were reliably providing the various surface transportation programs with more money to spend on an annual basis. In 2009 this will not be the case. For the first time in decades driving has declined significantly with a concomitant decrease in fuel tax revenues. Going forward the program cannot count on new money from the old familiar sources. At the same time, there is growing concern that investment in the nation's infrastructure is lagging. Against this backdrop the Nation is dealing with an ongoing recession, the effects of which could play a major role in the reauthorization debate.

Reauthorization of federal surface transportation programs is required by the end of FY2009, although it will likely be difficult to meet that target.[1] Reauthorization has become a difficult undertaking in the last two decades. This is primarily due to controversy over how and to whom federal-aid highway funds should be distributed. The most recent law, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU or SAFETEA)(P.L. 109-59) was enacted 22 months after previous legislation had originally expired.[2] The bill prior to SAFETEA, the Transportation Equity Act for the 21st Century (TEA21)(P.L. 105-178, as amended by P.L. 105-206) was also passed well after previous legislative authority had originally expired. In fact no surface transportation act has been enacted on time since the 1970s. There are a variety of explanations as to why it is becoming more difficult to pass reauthorization legislation in a timely manner. Suffice it to say for the moment, that these bills have become increasingly complex in their structure and in their politics, as states, other program beneficiaries, and related interest groups compete for very desirable federal transportation resources in a potentially constrained funding environment.

Many observers believe that SAFETEA's alleged excesses, its seemingly endless discussions about funding parity among the states (the so-called donor-donee debate), its large number of earmarks (including the so-called bridge-to-nowhere), and the funding problems ahead, could cause Congress to make significant changes to the surface transportation program in this reauthorization. This would represent a significant change from the last two reauthorization acts which were structurally organized in the same manner as predecessor legislation. As will be discussed, there are many in the transportation world who view this structure as being out of date, and more importantly, a barrier to focusing federal spending and effort on the projects that would do the most to meet the nations's most pressing infrastructure needs.

[1] Surface transportation bills authorize a wide variety of federal transportation programs but are often referred to as "highway" bills because the highway program constitutes a significant majority of the bill's funding provisions.

[2] For a detailed description of the provisions of SAFETEA-LU, see CRS Report RL33119, *Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU or SAFETEA): Selected Major Provisions*, by John W. Fischer.

Program Structure

For the unfamiliar, the federal surface transportation programs and especially the highway program can be difficult to understand. The language of transportation finance—contract authority, obligation limitations (also known as the ob limit), and so on—are even unfamiliar to many who already have a basic understanding of the annual congressional budget process. Therefore, this report begins with a discussion of how the surface transportation program is structured and how it is financed. Those already familiar with the program may wish to skip over these sections.

The Federal-Aid Highway Program[3]

The federal-aid highway program is fundamentally a state run program. Funds are provided annually to each state Department of Transportation (or equivalent) to construct and maintain a designated system of roads known as the federal-aid highway system. The modern federal-aid highway program dates to the 1956 enactment of legislation that provided for the construction of the interstate highway system and created the highway trust fund to finance its construction. The program has been reauthorized and expanded on numerous occasions during the last five-and-a-half decades. The federal-aid highway program can be viewed as an umbrella term for the separately funded programs administered by the Federal Highway Administration (FHWA). The programs, which are mostly for construction project spending, receive their funding in two ways: they are either "apportioned" (formula) programs or "allocated" (discretionary) programs.

Core (Apportioned) Programs

Most highway funding is reserved for five major programs, which are usually referred to as the core programs. They, along with the equity bonus program, account for the vast majority of highway spending, 80% of the amount authorized for the FY2005 - FY2009 period covered by SAFETEA. These programs are: the national highway system program (NHS); the interstate maintenance program (IM); the surface transportation program (STP); the bridge replacement and rehabilitation program; and the congestion mitigation and air quality improvement program (CMAQ). Each of these programs provides funding for specific segments of the federal-aid highway system and/or other statutorily enunciated activities, e.g., congestion relief projects using CMAQ funds. SAFETEA created a new large program that combines many formerly separate highway safety programs, the highway safety improvement program (HSIP) that many believe could also be viewed as a core program. If HSIP is treated as a core program the spending for core programs rises to 82.5% of the total highway program.

Although it does not itself provide direct spending for highways, the equity bonus program, which will be discussed in more detail later in this report, could also be thought of as a core program because it provides additional funds for each of the five core programs. The equity bonus is the largest single highway program in SAFETEA accounting for approximately 20% of all available funding. NHS and STP are the next two largest programs by far, accounting for 15.3% and 16.3% of total funding respectively. Funds for these programs are apportioned to the

[3] This section provides a brief overview of the organization of the federal highway program. For greater detail see http://www.fhwa.dot.gov/safetealu/index.htm.

states on an annual basis using formulas found in SAFETEA. As a result they are sometimes referred to as the "apportioned" programs.

In addition to the core programs there are a couple of smaller apportioned programs: coordinated border infrastructure program; metropolitan planning; and the recreational trails program. SAFETEA also creates some formulas within formulas. This is most notably the case for STP which has a minimum set-aside for transportation enhancements and a sub-state distribution formula that allocates funds within states.

Allocated (Discretionary) Programs

All remaining highway programs are subject to allocations that are based on criteria established in highway authorization and appropriation law and/or subject to congressional earmarking. Although all of the programs in this category are smaller than the core programs there are nonetheless some programs with significant funding. The largest allocated program is for congressionally mandated high priority projects (earmarks). This program, which has a five-year authorization of $14.8 billion, is reserved for projects specifically designated in SAFETEA. Two other large earmarked programs, Projects of National and Regional Significance and transportation improvement projects, received $1.78 billion and $2.55 billion over the same period. Other relatively good sized programs in the allocated category are the federal lands program, the national corridor infrastructure improvement program, the interstate maintenance discretionary program, the bridge discretionary program, and the transportation and community and system preservation program (TCSP). **(CRS contacts: John Fischer and Bob Kirk)**

The Transit Program

The federal transit program, administered by the Department of Transportation's (DOT) Federal Transit Administration (FTA), is a collection of individual programs, each with different funding distribution mechanisms and spending eligibility rules. The two major transit programs are the Urbanized Area Formula Grants Program and the Capital Investment Program. Of the $10.4 billion authorized by SAFETEA for transit programs in FY2009, the Urbanized Area Formula Program accounts for about 40% of the total ($4.2 billion), and the Capital Investment Program accounts for 43% ($4.5 billion). The Capital Investment Program has three elements, the Bus and Bus Facilities Capital Program, the Rail Modernization Program, and the New Starts Program that are funded on a roughly 20-40-40 percentage share of program funds respectively.

The remaining 17% of federal transit monies ($1.7 billion) authorized by SAFETEA in FY2009 funds several other programs, such as the Other Than Urbanized Area Formula Program (commonly referred to as the Rural Formula Program), the Elderly Individuals and Individuals with Disabilities Formula Program, the Job Access and Reverse Commute Program, as well as state and metropolitan planning, research, and FTA operations. **(CRS Contact: Will Mallett)**

Other Transportation Programs

There are a number of transportation activities that are outside of the highway and transit programs that are authorized by surface transportation legislation. These include highway safety, motor carrier safety, transportation research, hazardous materials transportation, some elements of

rail transportation, and transportation planning activities. Some of these programs are discussed in more detail later in this report. **(CRS Contacts: Randy Peterman and John Frittelli)**

Surface Transportation Finance

Federal funding for surface transportation has historically been linked to the revenue stream provided by the highway trust fund. The trust fund is two separate accounts—highways and mass transit. The primary revenue sources for these accounts are the 18.4 cent per gallon tax on gasoline and a 24.4 cent per gallon tax on diesel fuel. Although there are other sources of revenue for the trust fund (truck registrations, truck tires, etc.), the fuel taxes provide about 90% of the income to the funds. The transit account receives 2.86 cents per gallon of fuel taxes, and there is also a 0.1 cent per gallon fuel tax reserved for an unrelated leaking underground storage tank (LUST) fund. Over the 50 plus year life of the trust fund there have been several increases in the level of taxation. The last increase in the fuel tax occurred in 1993 (all of these funds were not actually deposited into the trust fund initially, but were deposited in the Treasury general funds for deficit reduction purposes until FY1998).

Other changes have been made in recent years that have modestly increased trust fund revenues. The American Jobs Creation Act of 2004 (P.L. 108-357) provided the trust fund with additional future income by changing elements of federal gasohol taxation. At the time, there were estimates that these changes could provide the trust fund with an additional $4 billion per year. SAFETEA also included a number of tax and other changes that were part of the finance title of the act. The revenue increases in this title were viewed as quite modest and derive mostly from cutting back on tax fraud and by transferring some Treasury general fund revenues associated with transportation related activities to the trust fund. Nonetheless, it was believed at time of passage that the changes identified in SAFETEA when combined with the changes in gasohol legislation enacted in 2004, and enhanced by expected economic growth, would be sufficient to finance the act.

Historically, the trust fund based revenue collection system has been a reliable, and ever growing, source of funding for surface transportation. In FY2007, for example, the highway account received tax revenues of $34.3 billion, while the mass transit account received $5 billion. By way of comparison, FY2004 highway revenues had been a lower $29.9 billion and transit revenues were just slightly lower at $4.9 billion. For most of their history the trust funds have collected more than has been expended relative to the size of the program defined by Congress. This situation has been changing in the last few years as spending on highways and transit has exceeded both highway and transit account revenues on a regular basis. According to the Congressional Budget Office (CBO) the highway account will have estimated outlays of $35 billion for FY2007 against the aforementioned receipts of $34.3 billion.[4] Outlays have only been able to exceed revenues during the SAFETEA authorization period because the highway account had a significant unexpended balance, $10.6 billion, at the end of the year in which SAFETEA was enacted. The same overall situation also existed for the transit account. Due to technical and other changes, however, the transit account has a healthier unexpended balance at present than the highway account and its problems are not quite so immediate.

[4] Data provided by CBO from its Summer FY2008 Baseline Highway Trust Fund Projections for FY2008 -FY2018.

CBO, and others, long predicted that the trend of spending down the unexpended balance was unsustainable. CBO, for example, was predicting in the summer of 2008 that the unexpended balance at the end of FY2009 would be a negative $3.7 billion. Responding to this prediction several transportation groups and several Members of Congress sought to shore up the highway account for the remainder of the SAFETEA authorization period by transferring funds from the Treasury's general fund accounts to the trust fund. This transfer was opposed by DOT and some Members of Congress as unnecessary for most of 2008 on the grounds that such a transfer was premature and, perhaps, fiscally imprudent.[5]

The events of mid-2008 overtook this debate, however, changing it from one about FY2009 to one about FY2008. As fuel prices skyrocketed through the spring and summer of 2008 American drivers did something they had done only briefly during the gas shocks of 1973 and 1979, they reduced their driving and they did so by historic percentages. For example, driving was off by 4.4% year over year in September alone.[6] Ultimately, revenue collections for the trust fund for FY2008 fell by $3 billion. As this shortfall was becoming more apparent late in the summer, DOT changed its position and reluctantly supported an $8.017 billion transfer from the general funds to the highway account. The result was P.L. 110-318, enacted September 15, 2008.

With this legislation in place the unexpended balance in the highway account was positive at the end of FY2008 and there is some hope that this will be a sufficient amount to insure that the account is financially sound through the SAFETEA authorization period. Whether the highway account will remain healthy is an open question. Fuel prices have fallen dramatically late in 2008, but they have done so as the economy has fallen steadily into recession. It remains to be seen, therefore, whether driving will increase in the months ahead, with positive effects for the trust fund, or remain below historic levels, thereby engendering a trust fund crisis before the end of FY2009.

The SAFETEA Legacy

The public faces of the SAFETEA debate were the so-called donor/donee debate, which dominated the legislative discussion, and a later, more public, controversy over earmarking. The actual process of getting to a final passage, however, was complicated by the need to meet the policy imperatives of the large number of interest groups and the programs they specifically support, most of which are funded from the highway trust fund, but not all of which focus specifically on highways.

Donor/Donee

The donor/donee debate as it has evolved over the years focuses on the distribution of federal highway funds amongst the states, and more importantly, the "fairness" of that distribution. A Donor state is a state whose highway users pay more in revenues to the trust fund highway account then the state receives back in federal highway assistance. Conversely, a Donee state receives more in assistance than the revenues it contributes to the trust fund. Although this

[5] For a detailed discussion of the arguments against a transfer of funds, see http://budget.senate.gov/republican/analysis/2008/bb08-2008.pdf.

[6] White, Joseph B. Creating a Problem by Driving Less. *Wall Street Journal.* November 25, 2008. p. D3.

distinction would appear to be straightforward it is far more complicated. For example, federal fuel taxes are not actually collected at the state level, which requires a somewhat complicated mechanism that attributes fuel usage and associated revenues to individual states, to determine what rate of return any particular state receives.[7]

The donor/donee issue has only been resolved in the last three reauthorization cycles by the creation of a funding redistribution process of massive proportions, and, more importantly, the availability of new money to make those processes work. In SAFETEA the new Equity Bonus (EB) program, designed to provide distributional fairness, has become the largest single highway program. The EB program is complicated. Very few individuals understand how the process determines fund distribution. Partially as a result of this complexity and because of other factors, some states no longer believe they will get the 92% return on receipts promised by the bill.

During the SAFETEA debate, the House and Senate versions of the bill took somewhat differing approaches to solving the donor/donee dispute. Previous legislation, TEA21, promised states a 90.5% return. Early versions of the House bill promised states a 95% return, an amount that has become sort of a benchmark goal for some donor states and is expected to remain so during the upcoming reauthorization debate. The Senate, however, started from a lower percentage. Over the next two years this percentage would change often, as would the parts of the overall highway program to which it applied, until the 92% compromise was arrived at.

Earmarking

The other major debate over SAFETEA was on earmarking. When ISTEA was passed in 1991 it included 548 individual highway earmarks with a total value of $6.2 billion. In 1998 when TEA21 was passed there 1,883 highway earmarks adding up to $9.6 billion. In SAFETEA, highway earmarking expanded exponentially with over 5,600 earmarks accounting for $21.7 billion in the highway title of the act alone.[8]

Some view earmarks, and the Equity Bonus program, as the price of getting a bill passed. There is some concern, however, that if their exponential growth continues it will not be long before the earmarks become not the grease for the wheel, but the wheel itself. And it should be pointed out, aside from a few notorious earmarks there was very little debate about the benefits or drawbacks of any individual earmark in the bill.

Although they did not receive a lot of public notice at the time SAFETEA reached final passage, there were several new programs added to the overall highway program and transit programs. Among these were two reasonably large programs, the HSIP and Safe Routes to School program, as well as a number of smaller programs.

[7] For a detailed discussion of the Donor/Donee debate see CRS Report RL31735, *Federal-Aid Highway Program: "Donor-Donee" State Issues*, by Robert S. Kirk.

[8] Presentation by Jeff Davis, *Transportation Weekly*. Automobility in America Seminar, sponsored by American Highway Users Alliance. March 2006.

SAFETEA Funding

SAFETEA provided $286.4 billion in guaranteed spending authority, for the six-year period FY2004 - FY2009. This is a significant nominal increase over the level in TEA-21 which provided $218 billion over the six-year period FY1998 - 2003.

In reality, SAFETEA, however, was just barely a five-year bill at the time of its passage (only two months remained in FY2005 at that point). A more useful representation of SAFETEA, therefore, is that it provides just over $244 billion in guaranteed spending authority between FY2005 - FY2009. As **Table 1** shows, all major programs affected by the legislation received significant new funding (the exempt obligation category is provided for equity bonus and emergency funding purposes and does not reflect a program per se). Total annual spending increases occur in each year and total spending in FY2009 is almost 23% higher than spending in FY2005.[9] **(CRS contacts: John Fischer and Bob Kirk)**

Table 1. SAFETEA Guaranteed Obligations FY2005-FY2009

($ billions)

	FY2005	FY2006	FY2007	FY2008	FY2009	Total 5-years
Highway Obligation Limitation	34.422	36.032	38.244	39.585	41.200	189.484
Exempt Highway Obligations	0.739	0.739	0.739	0.739	0.739	3.695
Highway Safety and Motor Carrier Safety Obligations	0.742	1.189	1.217	1.239	1.270	5.656
Mass Transit Obligations	7.646	8.623	8.975	9.731	10.338	45.313
Totals	**43.549**	**46.583**	**49.175**	**51.294**	**53.547**	**244.148**

Source: Transportation Weekly. August 4, 2005. p. 5.

Reauthorization Issues

The studies discussed in the next section and numerous public forums held during the last few years on what should be considered during the reauthorization debate have often focused on a few overarching issues. These issues are broad concepts that could be viewed as an overlay to the coming debate rather than being specific program proposals.

National Goals and Purposes

Today's surface transportation programs have their origins in the creation of the interstate highway program (1956) and the need to save public transit (early 1960s). Many observers

[9] A summary of funding for major programs and activities is at http://www.fhwa.dot.gov/safetealu/fundtables.htm.

believe that in the intervening decades the federal programs have become very unfocused and that it is hard to discern how a lot of surface transportation spending relates to true national needs. In the view of program critics the federal highway program in particular, and the transit program to a lesser extent, have become giant revenue sharing programs in which the states and localities make most of the decisions based not on national requirements for mobility and connectivity, but instead on parochial issues. The result, in the view of critics, is that while much infrastructure is created by federal spending, the focus is not necessarily on the creation of the infrastructure that would do the most to benefit the national economy.

Those seeking to retain the status quo, primarily states, localities, and other stakeholders with links to specific existing programs, argue that changing the existing decision-making process would be a mistake. In this view, the federal government long ago decided that the operation of these programs should occur at the state and local level, and if anything, existing federal regulations—such as those dealing with environmental issues—should be streamlined to make project construction and selection easier and less costly.

Productivity and Performance Measurement

There has been an ongoing concern that those at the federal level, having left the actual operation of surface transportation programs largely to the states and localities, often have a poor understanding of how federal funds are ultimately being used and whether they are being used in the most efficient and effective manner. This is not to say that there are no performance and productivity measures in use in the surface transportation programs. States and localities have, in many cases, very robust processes in place to measure and analyze their programs.[10] The problem, in the eyes of those seeking additional attention to this issue, is that the mechanisms are largely internal to the states and localities operating them, that there is a wide variation amongst the states and localities as to the sophistication and ultimate effectiveness of these measures, and that they fail to create a data set that allows those at the federal level to determine whether federally provided funds are being spent wisely and well. Critics of performance standards, however, express concern that once federal performance measures are put in place states will quickly learn to "game" the system, thus negating their value. A further issue, should Congress decide to enforce performance measures by funding penalties, would be to come up with a structure that would not be counteracted by any equity bonus distribution.

Economic Stimulus

Reauthorization is occurring during a major economic recession. At the time of this writing, Congress is considering a number of stimulus packages aimed at fostering increased economic activity. Infrastructure creation is a significant focus of many of the discussions likely to lead to congressional action in the early days of the 111th Congress. The size and scope of a possible stimulus package are not known at this time. Regardless of how an infrastructure component to a stimulus program might be structured it would provide a backdrop to this reauthorization debate unlike any previous debates. A large infrastructure assistance package would raise several questions. For example, would any surface transportation component of a stimulus package be

[10] For example: Poister, Theodore H. "Performance Measurement in Transportation: State of the Practice" Resource Paper. Transportation Research Board. Conference Proceedings 36. Washington, D.C. p. 81-98. Available at http://onlinepubs.trb.org/onlinepubs/conf/CP36.pdf.

seen exclusively as an addition to the existing program, or alternately, would an extraordinary amount of stimulus spending be seen as a short term substitute for the regular surface transportation program? Also, could the entire focus of the surface transportation program, in terms of the types of infrastructure it funds, be changed by the rapidly changing economic situation?

Background Studies

As the reauthorization debate moves forward, it does so against the backdrop of a considerable amount of study and reflection on the strengths and weaknesses of the program. SAFETEA created two commissions to study the program structure and the financing imperatives of the program respectively. The first of these commissions, the National Surface Transportation Policy and Revenue Study Commission (Surface Commission) issued its report, entitled *Transportation for Tomorrow* early in 2008.[11] The report called for a substantial increase in overall federal transportation spending, a major reorganization of the entire federal surface transportation program into 10 new program areas (often across existing programmatic modal boundaries) and, controversially, called for a dramatic increase in the federal fuel tax, as well as possible new taxes and fees from a number of potential sources. The second Commission, the National Surface Transportation Infrastructure Financing Commission (Revenue Commission), has not yet completed its work, but is expected to produce its final report in January 2009.[12] The Revenue Commission released an interim report in February 2008 that discussed the issues it was considering for inclusion in its final report and offered some preliminary observations on the current state of transportation finance.[13]

In mid-2008 DOT provided its own thoughts on how reauthorization should proceed in a report entitled "Refocus, Reform, Renew: A New Transportation Approach for America."[14] The report provided several proposals for new and reorganized surface transportation programs and a heavy emphasis on how market forces and the private sector could play an expanded role in the provision of surface transportation infrastructure. The views in this report reflect the policy positions of the Bush Administration. It remains to be seen whether the incoming administration will incorporate some of these views into its own policy recommendations in the months ahead.

Additional studies and documents touching on reauthorization have been prepared by a wide spectrum of think tanks, research organizations, and transportation groups. Among these are the National Academy of Public Administration, the U.S. Chamber of Commerce, the American Road and Transportation Builders Association (ARTBA), and the American Association of State Highway and Transportation Officials (AASHTO).[15] All of these documents and the perspectives of many other individuals and organizations can be expected to influence the next surface transportation bill in the months ahead.

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[11] http://www.transportationfortomorrow.org/final_report/.

[12] http://financecommission.dot.gov/.

[13] http://financecommission.dot.gov/Documents/Interim%20Report%20-%20The%20Path%20Forward.pdf.

[14] http://www.fightgridlocknow.gov/reform/reformproposal08.pdf.

[15] *Financing Transportation in the 21st Century: a Report of the Intergovernmental Forum on Transportation Finance*, the National Academy of Public Administration (Washington, 2008), 95 p. *The Transportation Challenge: Moving the U.S. Economy*, (Washington, National Chamber Foundation, 2008), 116 p. *ARTBA Recommendations for SAFETEA-LU Reauthorization* (Washington, American Road & Transportation Builders Association, 2007), 72 p. *AASHTO Authorization Policy* (produced as a series of topic papers)(October 2008). 230 p.

Revenue Issues

As mentioned earlier, the revenue stream for the trust fund is in a precarious position. Although fuel prices have declined in the last months of 2008, the economic situation is such that there is no guarantee that fuel use will return to previous levels, let alone increase significantly in the future. It is the future that perhaps causes the most concern for those seeking increased funding for transportation programs. An ongoing change appears to be underway in the U.S. vehicle fleet. There is an expectation that sales of hybrids and other alternatively powered vehicles will increase in the years ahead either as a result of economic or perhaps government driven forces. As a result, fuel use could decrease on a relative basis, even if driving increases. Without an increase in the existing fuel taxes, a difficult political issue in recent years, the fuel-based trust fund taxation system will not be able to support increased surface transportation spending. The choice for policymakers, therefore, is to find new sources of income for the existing, or perhaps expanded, program, or alternately, to settle for a smaller program that might look very different than the one currently in place.

In the past nothing has solved the political problems of the highway program faster than plenty of new money. TEA21 especially benefitted from a run up in fuel usage during the boom years of the late 1990s, that was at least partially the result of growing SUV purchases during the period. SAFETEA did not have quite the same financial backing, but the authors of the act were nonetheless able to find sufficient new revenues to make the act possible.

SAFETEA created a mechanism for studying the revenue issue and the concomitant programmatic issues, the aforementioned national commissions. At this writing the Revenue Commission has not yet forwarded its recommendations to Congress. The Surface Commission called for a dramatic increase in the fuel taxes, indexing these taxes to inflation, and the study and potential adoption of a wide range of levies, including a possible vehicle mile traveled (VMT) tax.

It is this last item that many in the transportation community view as being most promising for the long term. VMT taxes are use taxes, hence they are favored by those calling for programs to be funded by user taxes directly related to an individual's use of the transportation system. VMT taxes are not the only potential types of user fees available for study. For example, weight-distance taxes, which are already imposed in some instances on trucks, also fit the definition of a user fee. The concept of user fees has received significant study in recent years, not just by the Commission, but by other organizations such as the Transportation Research Board (TRB). There are significant technological and other barriers (including privacy issues) to imposing a VMT tax likely enabled by GPS tracking systems. Further, the collection of such a tax is considered more complicated than the fuels tax collection system already in place. As a result, the transition to a VMT system is viewed as a long-term solution to the transportation funding issue that is likely to be mentioned in the next reauthorization act, but not likely to provide much by way of funding for it.

The outgoing Bush Administration was a major proponent of increased use of tolling and public-private partnerships (PPPs) to decrease reliance on the trust fund, especially vis-a-vis highway projects. The Surface Commission agreed that these market alternatives to the trust fund system should play a major role in the creation of transportation infrastructure in the future. Most observers in the transportation community, however, think that tolling and PPPs can only provide from 5% to 10% of estimated system needs. Also, most PPP proposals rely, in part, on federal funds and tax-exempt financing, both of which impose a cost on the federal budget. Nonetheless

most observers believe that enabling PPPs, and perhaps increased tolling, will be an important element in the reauthorization debate.

Similarly, there is likely to be considerable discussion of expanding alternative funding mechanisms already part of the surface transportation program. Funding could be increased for the so-called "innovative financing" mechanisms: the State Infrastructure Bank (SIB) program, the Transportation Infrastructure Finance and Innovation Act (TIFIA) program, and Grant Anticipation Revenue Vehicles (known as GARVEE Bonds), and the private activity bond creation process created by SAFETEA. In addition, there is an interest in how Congress might proceed with the establishment of a national infrastructure bank program, as outlined in President-elect Obama's campaign platform, and on how such a program would interact with the existing surface transportation program.

A number of other taxes and fees have been mentioned by the Surface Commission, AASHTO, and others as worthy of consideration during the reauthorization debate. Among these are the establishment of freight-related taxes or fees such as a freight waybill tax, container fee, or terminal facility charge. These revenues could be used to address freight bottlenecks. Similarly, some argue that Customs duties, which are deposited in the general fund, should be made available for primarily freight related port-of-entry infrastructure. In addition, some believe that transportation in general, and perhaps the trust fund specifically, should benefit from any revenues generated by a broad based carbon tax that might be imposed primarily for environmental reasons.

If Congress chooses not to impose new taxes and fees as part of the reauthorization process it could still grow the surface transportation program by authorizing an annual general fund contribution for highway programs, thereby reducing their dependence on the Highway Account. Some express concern, however, that this would weaken the historic link between the revenue derived from taxes and fees paid by highway users and spending on the nation's highways and bridges.

Finally, Congress could ultimately choose to reduce the highway program's size. It could, for example, relegate some programs currently, but not historically, funded by the trust fund, such as the Appalachian Roads Program, to general fund status. It could also consider reducing the existing program matching ratios (90:10 for interstates, 80:20 for most everything else, with a few exceptions) to levels in place in the 1980s or earlier (72:25 or 70:30), thereby spreading the available federal funds more broadly. More dramatically it could consider limiting surface transportation funding to programs that fulfill clear national needs, such as the Interstate Maintenance program or the Federal Lands Highways program, and devolve any other highway program responsibilities to the states. **(CRS contacts: John Fischer, Bob Kirk, and Will Mallett)**

Highway Issues

Funding Equity Issues: the Donor-Donee State Debate

As was mentioned earlier the donor-donee debate has historically been one of the major hurdles that authorizers must overcome during the periodic reauthorization of federal surface transportation programs.

The donor state argument is that for the sake of equity each state should receive federal highway funding that is roughly equal to the transportation fees and taxes that their state's highway users pay into the highway account of the trust fund. Donor state advocates generally contend that for too many years they have been subsidizing the repair and improvement of donee state infrastructure, especially the older highway infrastructure in the Northeast. Most also argue that they are more road dependent and do not benefit from federal transit spending to the same degree as some donee states. Southern and Western donor states also argue that they are fast growth areas, relative to most donee states, and that, consequently, their needs are as great or greater. Finally, they argue that with the completion of the Interstate Highway System there is no valid rationale for the donor-donee disparity.

Donee state advocates argue that fairness should not be separated from needs. They assert that the age of their highway infrastructures (especially in the Northeast), the high cost of working on heavily congested urban roads, and large, sparsely populated Western states with limited financial resources, justify their donee status. They also argue that there are needs that are inherently federal rather than state and that a national highway network cannot be based solely on state or regional boundaries. Donee states also argue that midwestern and southern states often spend less local and state money on highways than donee states, and chide these donor states for pleading for federal funds when they are unwilling to ante up their own state and local resources.

The 111th Congress faces a difficult policy problem in resolving the seemingly contradictory goals of meeting donor state demands for a higher rate-of-return and donee state demands to be held harmless at a time when the highway account revenue base is declining and is expected by most observers to be insufficient to fund both goals. Providing equity is very expensive. The Equity Bonus program (EB) under SAFETEA is the largest highway program ($41 billion over the five year life of the bill).

Historically, some have challenged the basic concept that states should be entitled to a balance between the federal taxes collected from a state's citizens, businesses, or highway users and the federal spending that eventually occurs in the state. The Federal-Aid Highway Program is the only federal program that uses a rate-of-return criteria. Those who challenge the basic donor-donee conceptual framework generally refer to studies have shown that some highway program donor states are donee states in terms of federal tax and spending flows in general, or in other kinds of federal spending such as defense or human services programs.[16]

Existing Law: SAFETEA's Equity Bonus Program (EB)

The current equity mechanism is the Equity Bonus Program. Basically, the individual program formulas determine the initial apportionment amounts that are provided for each state and then the equity bonus funding is added to these levels to bring donor states up to their guaranteed rate-of-return.

Under the SAFETEA EB program FHWA is directed to allocate sufficient funds to ensure that each state receives a minimum return. For FY2008 and FY2009 the rate is 92%. Only the core

[16] *The Federal Budget and the States: Fiscal Year 1999*. By Herman B. Leonard and Jay H. Walder, (Cambridge, MA, Taubman Center for State and Local Government, 2000), 125 p. See also, *Federal Tax Burdens and Expenditures by State: Which States Gain the Most from Federal Fiscal Operations?*, by Curtis S. Dubay, (Washington, Tax Foundation, 2006), available at http://www.taxfoundation.org/publications/show/62.html.

formula programs, the High Priority Program, and a few specialized programs are subject to the EB. Together these programs and the money apportioned to them are referred to as the "scope" of the EB (these programs are also sometimes referred to as being "below-the-line"). Since the EB percentage guarantee is only applied to funding within the scope of the EB program, some view the guarantee as a partial one.

The EB program also includes a number of "hold harmless" provisions that provide that certain states will either receive the greater of the annual percent return described above, or otherwise receive their share of total apportionments over the six-year life of TEA-21. These provisions include certain thresholds based on state population, population density, highway fatality rates, median household income, and state fuel tax rates. In part, these criteria appear to have been devised to assure the bill would get at least 60 votes in the Senate. The EB program also sets an annual percentage floor, relative to a state's TEA-21 average apportionment, beneath which no state can fall. The programmatic distribution of Equity Bonus Program funds to the states is accomplished by increasing the amounts apportioned to the core formula programs.

Equity Related Reauthorization Issues

The persistence of the donor-donee debate as part of the reauthorization of federal surface transportation programs is a reflection of the differing views and expressed needs of the many stakeholders in federal highway spending policy and the difficulty in addressing these differences.

What Really Is a Donor State?

For most years under the last two authorization bills more Highway Account funding was being spent than was flowing into the Highway Account for these years. Because of this, based on a dollar-in/dollar-out basis, almost all states have become donee states (i.e., the excess of spending over revenues has pulled most donor states ratio to near or above 1.0). As this situation unfolded, donor state advocates began to argue against the dollar-in/dollar-out method for determining donor-donee status. Instead they argue that, instead of using dollars, each state's percentage share of tax payments to the Highway Account should be the benchmark and should be compared to the state's percentage share of total highway funding distribution. This method of calculation allows most donor states to continue to argue that they still are not getting their fair share. Donee states generally prefer the dollar-for-dollar determination of donor or donee status. Some observers within the transportation community argue that the percentage-in/percentage-out statistical method is questionable and also note that among its most ardent supporters are some of those who argue that inequitable distribution of highway funds is a reason to eliminate the federal highway program and devolve its responsibilities and financing to the states.[17]

Unexpected Consequences

The structure of the EB program and its method of distribution had consequences that were a surprise to some state departments of transportation as well as some Members of Congress. High Priority Program (HPP) earmarks provide an opportunity to Members of Congress to define their

[17] *Highway Trust Fund Inequities Will Get Worse in Future Years*, by Ronald D. Utt, (Washington, Heritage Foundation, 2008). Available at http://www.heritage.org/Research/SmartGrowth/wm2100.cfm.

project priorities through the authorization process to their State DOTs.[18] HPP earmarks, however, do not add significant amounts of money to a state's total below-the-line funding (i.e., the total of core formula funds plus total HPP funds), on a relative basis. This seemingly counterintuitive situation occurs because the below-the-line funding is subject to the Equity Bonus Program (EB). Because the total funding under the line is fixed in the authorization bill, this leads to the situation where states that do not get many HPP earmarks tend to receive, in a relative sense, larger distributions from the EB program while states that get a high value of HPP earmarks tend to receive relatively smaller EB distributions (or no EB distribution). This means that the total amount received by a state below-the-line tends to be roughly the same whether or not they receive high or low dollar totals of HPP funds. A corollary of this situation is that the more of a state's total below-the-line funding is derived from HPP funds the less funding is ultimately available to the state for the federal-aid highway core formula programs. State DOTs depend on these funds to fulfill their state transportation plans. The EB distribution also negates the imposition of penalties that are designed to discourage certain activities of the states. For example, a state that transfers some of its Highway Bridge Program funds to other programs is penalized by having its deficient bridge cost-to-repair total reduced a like amount in the next year's formula calculation. This was meant to reduce the total used to calculate their apportionment for the HBP. However, the EB distribution in effect gives back what the penalty takes away.[19] The factors used in the distribution formulas for the core highway programs were designed with certain federal goals in mind. Some observers believe that the Equity Bonus overlay combined with the extensive ability given states to transfer funds across programs undercuts the effectiveness of the programmatic structure to implement these national goals.

Modification of the Equity Bonus

Since 1982 the equity provisions in surface transportation have been changed many times and at least perfecting changes to the EB are also likely in reauthorization. An increase in the guaranteed rate-of-return percentage above the 92% level could be considered. However, the closer the guaranteed percentage comes to 100% of the total program the more difficult an increase becomes. Expanding the scope of the equity provisions is also something favored by donor states. In any case, such changes would require a growth in program size to fund a larger equity overlay unless the underlying core program formulas were rewritten to bring the initial program apportionments more in-line with the goals of an increased percentage return guarantee. The "hold harmless" provisions that protect certain donee states from losing share could be retained, modified, or eliminated. Again, to bring the percentage guarantee closer to 100% would probably require a weakening of some of the hold harmless provisions. Hold harmless provisions, however, exist primarily due to the practical politics utilized to get the bills through both houses of Congress. Congress could also consider eliminating the counteracting impact of the EB distribution on the Highways Program penalty provisions by imposing the penalties after the distribution of the EB funding. This could affect some state's guaranteed percentage share, however, and could be seen by some as creating a double penalty.

[18] Most of the rest of the federal-aid highway programs that are below the "line" are formula programs whose funding is administered by the states' departments of transportation.

[19] *Highway Bridge Program: Clearer Goals and Performance Measures Needed for a More Focused and Sustainable Program*, "GAO-08-1043," (Washington, GAO, 2008), p. 22.

Eliminating the Equity Bonus Program

Congress could decide to forgo an equity provision altogether and allow the program formulas to determine the distribution of highway funds to the states. One way of doing this would be to modify the core formula programs so that they are all entirely weighted at or near 100% on states' annual contributions to the Highway Account. Most donee states would probably oppose such a change.

General Fund Transfers to the Highway Trust Fund and the Donor-Donee Debate

Over the first 50 years of the life of the trust fund significant amounts of money have been transferred to it from the Treasury's general fund.[20] Although much of transferred funding reflected federal interest payments on the trust fund's unexpended balances, the interest was paid by revenues provided by the general taxpayers, not directly by highway user fees. Some other funds have been transferred to the trust fund for a variety of reasons including the impact of compensating the trust fund for lower ethanol tax rates. Given the sufficiency problems faced by the trust fund, general fund support for the Federal-Aid Highway Program (similar to that which is in place for Federal Transit Administration authorization) is one of the options likely to be considered. The general funds are problematic for the basic donor-donee argument based on return on user fees and taxes paid by highway users. The pattern of the flow of revenue from the taxpayers in the states to the general fund is different than that for highway taxes and fees. The larger the general fund share the harder it is to argue that states should get a return based on their highway users payments to the Highway Account.

Should Transit be Subject to an Equity Guarantee?

Roughly 80% of the FTA's budget comes from the fuel taxes paid by highway users. Some donor state advocates argue that this funding should also be subject to a rate-of-return guarantee. While such a scenario might be attractive to some donor states not already receiving significant transit assistance, there are other donor states which might not benefit from a transit equity distribution. Further, any inclusion of transit in an equity bonus scenario is likely to be opposed by heavily urbanized states and/or states with large transit systems.

Treatment of Stimulus Spending

The 111th Congress is expected to consider a stimulus bill that will include substantial amounts of transportation spending. Most observers expect that the highway funding in the bill will be distributed through the existing highway programs. Should this be the case, Congress would face a decision of whether to exempt the spending from the Equity Bonus mechanisms. The surge of general fund money as stimulus funding could also increase the likelihood of a reexamination of the donor-donee calculation methodology. **(CRS contacts: Bob Kirk and John Fischer)**

[20] From 1956 through FY2006 the $609 billion in tax and fee payments into the fund is roughly 90% of the total $675 billion apportioned or allocated from the HTF.

Earmarking

Large scale earmarking was a major feature of SAFETEA, and a controversial one (especially concerning the so-called bridge-to-nowhere). Earmarking has not, however, always been a significant feature of surface transportation bills and is a relatively recent issue considering the 50-year plus history of the trust fund supported federal-aid highway program. Until the late 1980s, earmarks amounted to about 1% of authorized federal-aid highway spending.[21] By way of comparison, SAFETEA earmarked almost $22 billion or roughly 11% of the $199.5 billion highway construction title of the bill.

The debate over highway project earmarking at times reflects the broader pro and con arguments that apply to the discussion of the appropriateness of congressional earmarking in general. Supporters of earmarking often argue that the framers of the Constitution believed that Congress, not the President (i.e., the Executive Branch), should allocate funding for the functions of the federal government, and ending congressional earmarking authority would be a major transfer of power to the Executive Branch. Supporters also argue that Members of Congress have a better sense of their constituents' needs than Executive Branch bureaucrats. Opponents of earmarking make a number of general arguments, including congressional earmarking undermines the intent of the programs and activities that Congress itself has authorized; many earmarks are designated for political reasons rather than for demonstrated needs; earmarking may foster corruption; many earmarks are inherently local and short-change projects of national interest; and earmarks unduly enhance the role of lobbying firms in the spending process. The position of earmarking opponents was bolstered with the findings of a 2007 DOT report which suggests that earmarking distorts the operation of the federal-aid highway program.[22] Among the report's findings are the following: that the earmarking can reduce the states' core transportation programs; many low priority, earmarked projects are being funded over higher priority, non-earmarked projects; and projects that do not meet eligibility requirements are sometimes funded.

Despite the steady growth in the number of earmarks and amount of funding dedicated to them during the last three reauthorization acts there is no certainty that the same levels of earmarking will be a part of the upcoming reauthorization. And there are some indications that certain transportation groups such as AASHTO, who were largely silent on this issue during the last reauthorization debate, are now taking the position that earmarking needs to be controlled and limited going forward.[23] **(CRS contacts: John Fischer and Bob Kirk)**

Highway Programmatic Structure

According to the Surface Commission there are currently 108 separate programs in the overall federal surface transportation program.[24] Of these 62 are in the highway program, 20 are in the

[21] "In-Depth Analysis: Earmarked Highway Projects: Their History, Their Nature and Their Role in Highway Legislation," *Transportation Weekly*, April 10, 2002, 3. See also *A Primer on Lobbyists, Earmarks, and Congressional Reform*, By Ronald D. Utt, (Washington: Heritage Foundation), Backgrounder no. 1924, 2006, 21 p. For a discussion of spending earmark definition see CRS Report RL34462, *House and Senate Procedural Rules Concerning Earmark Disclosure*, by Sandy Streeter.

[22] Department of Transportation, *Review of Congressional Earmarks Within Department of Transportation Programs*, "Report no. AV-2007-066," 2007, 1-31.

[23] http://www.transportation.org/sites/policy_docs/docs/viii.pdf.

[24] Surface Commission. p. 15. found at http://www.transportationfortomorrow.org/final_report/pdf/volume_1.pdf.

transit program, and the remainder are scattered amongst the remaining surface transportation activities. The Surface Commission would like to see all of these programs combined into 10 broad intermodal programs. The Surface Commission recommendations are only one of many that Congress may consider in the months ahead.

It will be difficult, however, for Congress to make the kinds of program consolidation that many of the studies and other outside observers are recommending. Partly this is because there are numerous potential and competing organizing rationales that could be applied to the highway program. Politically, however, the major complication is that each existing program has its supporters and detractors, and that especially for some of the more specialized programs, for example CMAQ, there are specific stakeholders whose support for the overall surface transportation program is associated with the continuation of the mission the program was created to carry out.

The federal-aid highway program has always been a partnership with the State DOTs. States have a great deal of control over the selection, planning, construction, and oversight of federally funded highway projects. Within this context, a number of programmatic issues could arise. Historically, the states have argued for increased flexibility in the use of federal funds by allowing for the transfer of funds across the federal highway programs. However, some in the transportation community argue that there is currently too much flexibility, allowing states to allocate money between programs, for example, from the bridge program to the STP, even though a state might have unmet needs in the original program area. Also, broad program flexibility is alleged to allow the spending of federal funds on projects that have no evident national purpose. In addition, some highway supporters advocate the elimination of flexibility that allows fund transfers between the highway and mass transit programs, again contending that these transfers mitigate against the original program intents established by Congress.

As part of any program restructuring, Congress may also consider project eligibility changes. For example, some construction interests are arguing for a broadening of project eligibility, under the Congestion Mitigation and Air Quality Improvement Act (CMAQ), that would allow more projects designed to increase road capacity to improve traffic flow in congested areas.

As part of any program consolidation or modification, Congress might choose to reexamine the program's scope and intent, as well as the factors associated with the program's funding formulas. Alternately, Congress might opt to replace the existing formula programs with a true block grant program provided directly to the states. Some argue that block grants would reduce a significant amount of the existing program administrative overhead and give states and metropolitan areas the ability to focus on the needs they have already identified through the mandatory federal planning process subject perhaps only to certain performance standards.

In addition to restructuring of the existing program, many believe that Congress is likely to consider some new programs as well. Some, for example, have pressed for programs to improve major freight corridors and address bottlenecks.

Bridge Policy

The sudden collapse of the I-35W Interstate System bridge in Minneapolis has raised policy concerns in Congress regarding the condition of the nation's transportation infrastructure in general, and in particular the federal role in funding, building, maintaining, and assuring the safety of roads and especially bridges in the United States. In 2007, roughly 72,000 bridges were

designated by FHWA as "structurally deficient."[25] The Highway Bridge Program (HBP) is the primary federal program to fund the replacement or rehabilitation of structurally deficient or functionally obsolete bridges. HBP funds are apportioned to the states by formula based on each state's relative share of the total cost to repair or replace deficient highway bridges. Each state is guaranteed at least 1/4% of total program allocation, and no state may receive an allocation greater than 10%. The federal share under HBP is 80%, except that for Interstate bridges the federal share rises to 90%.

In reauthorization a number of programmatic and funding issues are likely to be considered. The level of funding will be the major issue. The rate of repair and replacement of deficient bridges and the funding needed to support any proposed acceleration of the rate could be an issue. The scope of eligibility for HBP funding could be an issue, especially in regard to the use of HBP funds for spending on non-federal-aid highway system bridges. Changes in bridge inspection and inventory are likely to be proposed. A number of states have consistently used the Federal-Aid Highway program flexibility provisions to transfer HBP funding to non-bridge purposes; this could be an issue. Some have also argued that linking HBP funding to a state's number of deficient bridges creates a perverse incentive for some states to keep their deficiency rates high. A recent GAO report found that the HBP lacks focus, performance measures, and sustainability. Congress could consider measures to improve the program.[26] **(CRS Contacts: Bob Kirk and Will Mallett)**

Transit Issues

The Mass Transit Account of the Highway Trust Fund is the source of approximately 80% of federal transit program monies, with the remaining 20% drawn from the general fund of the U.S. Treasury. Although the transit account is in somewhat better financial shape than the Highway Account, it is also projected to go into deficit within a few years. Despite some uncertainty surrounding this projection, it is clear that current revenue into the transit account will not sustain Federal Transit Administration (FTA) programs and activities at current levels through another four to six year authorization period. Within this context, there are both funding and programmatic issues that could arise during reauthorization.[27]

The possibility of constrained future federal transit funding is occurring in conjunction with substantial recent increases in transit ridership most likely caused by the spike in gasoline prices in the middle of 2008. Despite an increase in revenue from these new riders, some transit operators say financial problems may prevent them from expanding service capacity, and some have suggested they may instead have to reduce current service levels. The immediate reasons for the latest financial problems in the transit industry are the large price increases in fuel and other commodities, and flat or declining government assistance at the state and local level that is

[25] See CRS Report RL34127, *Highway Bridges: Conditions and the Federal/State Role*, by Robert S. Kirk and William J. Mallett.

[26] Government Accountability Office, *Highway Bridge Program: Clearer Goals and Performance Measures Needed for a More Focused and Sustainable Program*, (September 2008), available at http://www.gao.gov/new.items/d081043.pdf.

[27] See CRS Report RL34171, *Public Transit Program Issues in Surface Transportation Reauthorization*, by William J. Mallett; and CRS Report RL34183, *Public Transit Program Funding Issues in Surface Transportation Reauthorization*, by William J. Mallett.

directly or indirectly tied to economic activity via mechanisms like sales taxes or overall government budget conditions. But financial problems in public transit are a long term issue, primarily caused by declining transit system productivity, that results in an increasing requirement for government support from all levels of government. Fares and other operating revenue now only cover about 30% of industry costs. For that reason, Congress may want to consider how the federal transit program and its individual programs can be modified to boost transit ridership at a lower cost to the government.

Transit Funding Issues

How much to spend overall on transit is the main issue in the upcoming reauthorization. Transportation, construction, business, and public transit interest groups argue that America is under-investing in transportation infrastructure, including public transit infrastructure.[28] In their view, federal infrastructure investment should be significantly increased to deal with an existing backlog of projects and other future needs. Both the DOT and the Congressionally created National Surface Transportation Policy and Revenue Study Commission (NSTPRSC) have estimated that the capital cost to maintain and improve the current condition and operational performance of transit systems in the United States is substantially more than is being currently spent on transit systems by all levels of government.[29]

Some argue that the overall level of government transit spending has not been dramatically deficient, if at all, by pointing out that the growth in transit capacity has outpaced the growth in ridership, and that the condition and performance of transit systems have generally improved over the past decade. Others go further to suggest that governments, including the federal government, spend too much on public transit relative to the benefits it provides.[30] These analysts point out that while transit spending amounts to about 16% of all government highway and transit spending and about 14% of federal highway and transit capital expenditure, only about 2% of all trips and 5% of commuting trips are made by this mode. The effect, according to transit critics, is to short-change highway spending, thereby causing highway conditions and performance, including highway congestion, to be worse than they would be otherwise.[31] A corollary to this view is that a significant proportion of federal transit funding, roughly 80%, comes from taxes paid by highway users.

[28]For example, American Society of Civil Engineers, "Report Card for America's Infrastructure 2005"; and National Chamber Foundation, *Future Highway and Public Transportation Financing, Executive Summary* (Washington, DC, 2005).

[29] U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration, *2006 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance* (Washington, DC, 2007); and National Surface Transportation Policy and Revenue Study Commission, *Transportation for Tomorrow* (Washington, DC, 2007).

[30] Cox, Wendell, "Transit's Limited Capability and Promise," in Wendell Cox, Alan Pisarski, and Ronald D. Utt (eds), *21st Century Highways: Innovative Solutions to America's Transportation Needs* (Washington, DC, Heritage Foundation, 2005).

[31] Cox, W. And R. O'Toole, "The Contribution of Highways and Transit to Congestion Relief: A Realistic View," *Heritage Foundation Backgrounder*, No. 1721, January 24, 2004.

Federal Fuel Tax

One way to increase transit funding would be increase the proportion of funds coming from the general fund. An alternative would be to raise the federal fuels tax and dedicate 20% of any increase to the transit account, as has been the case since 1983, and which transit supporters are keen to maintain in any future legislation. Based on existing revenue assumptions, the fuels tax would need to be raised by approximately 5 cents per gallon (with 1 cent per gallon dedicated to the transit account) to close the gap between revenue and expenditures in the transit account for FY2009.[32] This allows for no growth in the program to deal with growing needs or inflation. To improve the current condition and performance, according to DOT's needs estimates, would require an extra $3.6 billion annually. This would require a 3.0-cent to 9.0-cent-per-gallon increase in the total fuels tax (0.6-1.8 cents per gallon for the transit account). This does not include any additional funding for non-capital expenses, currently about 30% of federal transit support.

Federal Matching Share

A potential way to make the federal transit dollar stretch further would be to lower the federal matching share. Among other things, proponents contend that a larger local match would help ensure that only the most important projects are supported by state and local officials. Opponents of lowering the maximum federal share argue that lowering the cap might bias state and local decision-makers to favor highway projects that have an 80% match. Some advocate reducing the federal share for both highways and transit, say to 50%.[33]

PPPs and Innovative Financing

Some suggest that one way to deal with the gap between government funding and estimated investment needs is to encourage more private participation in developing transit projects through public-private partnerships (PPPs) and innovative financing.[34] In both cases, PPPs and innovative financing, the overall difference they may make to the financing of transit system services is likely to be relatively small. This is particularly true in transit, where the possibilities for generating new revenue streams or profit from operations are limited, although other possibilities exist, such as land development near transit stations and stops often referred to as transit oriented development or TOD. The tolling of roads, bridges, and tunnels is a much more likely source of new revenue to make these types of financing vehicles possible. However, even on the highway side, many believe that private funding might be only able to provide up to 5% - 10% of needed funds.

Transit Structural Issues

Whatever happens with the overall level of federal transit funding, Congress may want to make changes to the individual programs and the collective whole. As noted above, most funds are

[32] CRS calculation based on Highway Trust Fund projections provided by the Congressional Budget Office, August 4, 2008.

[33] In certain circumstances, especially in the new starts program, the federal share can be lower.

[34] See CRS Report RL34567, *Public-Private Partnerships in Highway and Transit Infrastructure Provision*, by William J. Mallett.

authorized for the Capital Investment Program (New Starts, Rail Modernization, and Bus and Bus Facilities Capital) and the Urbanized Area Formula Grants Program. There are many possible ways of restructuring federal public transit programs, each an alternative to the possibility of leaving the existing system unchanged.

One way to reorder federal priorities would be to focus more resources on major capital expenses for the rehabilitation and expansion of transit service in places that are best served by this mode, primarily the densely populated parts of large and often heavily congested cities. This might entail expansion of the programs that make up the Capital Investment Program—the New Starts Program, the Rail Modernization Program, and the Bus Capital Program—and cutting back on grants that are spread more broadly and go for smaller and more routine types of expenses under the Urbanized and Non-Urbanized Formula Programs. This change would likely result in a concentration of resources in a few large cities where transit usage is already relatively high, an effect that has obvious potential political problems.

Alternatively, Congress may decide that the era of retrofitting large and medium-sized cities with new transit rail systems is largely over, and that resources should now go to supporting and rehabilitating existing services. This could entail a reduction in spending on the New Starts program, currently about 18% of the federal transit program, and more support for the other capital programs and the formula grants programs. The effect of these changes on the distribution of funds is likely to be more mixed, and would depend on the share of funds dedicated to the Rail Modernization program, a program that includes relatively few cities, and the share dedicated to buses and formula programs that include a much larger number of places.

A third way to restructure the federal transit program would be to eliminate the capital programs altogether, to be replaced with a simple "block grant" that could be distributed based on transit ridership or population. This would allow state and local governments to decide how best to allocate transit funding support among existing and new services. Funds distributed according to transit ridership would reward areas that commit their own resources successfully to providing transit service. The distribution of funding in this way would again depend on how this new program is structured, but it might also depend on how states and localities react to the changes in terms of how aggressively they promote transit ridership.

A fourth alternative would be to fold most of the transit programs into a broader "metropolitan mobility" program that would distribute federal surface transportation funding to large urban areas, say one million people or more, on a mode-neutral basis. It would then be up to states and localities to decide how to spend the money, be it on transit or highway infrastructure or on some combination of the two.

Small Cities and Rural Areas

Because most transit ridership is concentrated in a few large cities, most formula funding goes to the largest urbanized areas. Small city and rural advocates argued for a boost in funding in SAFETEA and, despite some success, may do so again in the current reauthorization.

Paratransit

The demand for and cost of paratransit has grown rapidly over the past two decades, placing added pressure on state and local government transit budgets. A number of federal transit

programs exist to help states and localities with providing paratransit service, and funding is also available from the federal government outside the transit program. Nevertheless, transit agencies are likely to ask for more federal help in providing paratransit service in the reauthorization of the transit programs. Given the social service nature of paratransit services and the generally poor fit of paratransit with regular transit provision, some question whether FTA should administer paratransit programs and funding at all.

Transit Industry Productivity

Regardless of whether federal transit funding is tightly constrained or not, but especially if it is, Congress may want to consider a number of options for encouraging transit industry productivity.

Performance Measurement

A number of policy analysts believe that federal transportation programs, including the federal transit program, should incorporate performance measures as a central tenet in the distribution of funds. The main reason for doing this would be to reward transit agencies for providing more and better service per dollar of public support. Detractors argue that greater use of performance measures might unfairly reward or punish states and localities on the basis of factors outside their control, such as regional economic conditions or climate. Moreover, they say, distributing funding in this way might set off cycles that end up concentrating funding in a relatively few states and locales. Others worry about the accuracy of data that would be needed to effectively measure performance, the possibilities for data manipulation, and other problems with participants "gaming" the performance measurement system.

Service Optimization

Some suggest that transit agencies should stop many of the expansions of fixed-route transit service, particularly in difficult-to-serve areas, and that the federal government should encourage them to do so. According to this view, transit agencies may also need to consider cutting services that lose the most money, except perhaps paratransit service. Service might be expanded in transit-friendly environments with services that will generate a substantial number of new customers. In cases where new transit services are appropriate, such as along densely populated and congested corridors, agencies might look to invest in less costly transit modes, particularly buses and bus rapid transit (BRT).

Competition

Another suggestion is for states and localities to inject more competition into the provision of transit service or to find other ways to reduce costs. This usually entails proposals to competitively bid transit service provision and to allow private operators to provide new services to compete with public transit agencies. This could be accomplished, according to some advocates, by making the elimination of local barriers to privatization a condition of federal funding. In many places, these local barriers take the form of state and local laws and regulations that give monopoly power to regional transportation agencies.

Work Rules

Some advocate loosening work rules in the transit industry in an effort to boost productivity. This might, for example, include renegotiating contracts with transit workers unions that often do not allow transit agencies to employ part-time workers or to require split-shifts to cover the peaking of demand in the morning and evening. In addition, some argue that federal labor protections in transit, commonly known as Section 13(c), should be abolished or modified, a position rejected by unions representing transit workers.

Fares

Another potential way of reducing the need for public assistance is to increase fares, where possible, to cover costs. Fares need not necessarily be increased across the board, but could be adjusted to more accurately reflect the cost of providing a particular service. The federal government might encourage transit systems to do this, particularly with the use of electronic fare payment technology that makes it relatively easy to collect variable fares.

Congestion Pricing

It might also be possible to reduce the need for government assistance of public transit by pricing automobile use, particularly in congested periods. One way to do this is to institute new highway tolls, particularly ones that vary based on traffic levels. This might encourage some drivers to switch to transit and may provide a source of funds to enhance transit service. Such road pricing schemes usually make the most sense in severely congested regions where good transit options exist. Congress, therefore, might encourage congested metropolitan areas to design comprehensive congestion management schemes that incorporate highway pricing and transit, as DOT has done with its Urban Partnership Agreements. **(CRS Contact Will Mallett)**

Freight Issues

Up until the recent downturn in the U.S. and global economies and the recent spike in fuel prices, the immediate concern of freight carriers and shippers was congestion, particularly at major gateways experiencing a steady run-up in import volumes and on certain segments of highway with persistent traffic bottlenecks. Congestion frustrates a freight carrier's ability to provide reliable scheduling. Unreliability is costly because it requires shippers to carry buffer stock, reducing an efficient "just-in-time" logistics strategy to a "just-in-case" strategy. The concern for the capacity of the system to keep pace with rising freight volumes is borne out by a steady rise in freight tonnage during the last decade. From 1996 to 2006, truck ton-miles increased by 21% while rail ton-miles increased by 35%.[35] These modes are also using their respective infrastructure more intensively. Between 1980 and 2002, truck travel grew by more than 90% while lane miles of public roads increased by only 5% and railroad tons originated increased by 24% while the miles of railroad decreased by 40% (due to consolidation and mergers). Based on steady yearly increases in freight tonnage in recent years, the U.S. DOT projects that total tons

[35] BTS, *National Transportation Statistics*, Table 1-46b, U.S. Ton-Miles of Freight (BTS Special Tabulation), October 2008. A "ton-mile" is one ton of freight shipped one mile and thus reflects both the volume shipped (tons) and the distance shipped (miles).

transported will almost double by 2035 and that international shipments will grow somewhat faster than domestic shipments.[36] Since this forecast was made, freight volumes have decreased due to recent economic circumstances but congestion still threatens trucking reliability and when the economy recovers, a return to steadily rising freight volumes will likely strain the network in some locations.

Freight Transportation Planning

Doubts about whether the nation's transportation infrastructure will keep pace with the projected growth in freight traffic have led to calls for stronger federal leadership in the development of a more systematic approach to addressing freight transportation needs. Many freight stakeholders and some policymakers argue that the federal government needs to articulate a coherent national transportation plan that identifies key freight corridors and gives priority to funding these corridors. Some transportation policy experts have called for the formation of a national panel of experts to prioritize federal transportation investments in order to de-politicize the project selection process. Such a panel, they suggest, could be modeled after the Base Realignment and Closure Commission (BRAC) that was formed to de-politicize military base closure decisions.[37]

Federal leadership in the development of a national transportation strategic plan or in the selection of freight-oriented projects to receive priority funding would be a departure from the current planning process which relies heavily on state DOTs and MPOs to plan and select which transportation projects to fund in their jurisdictions. A criticism of addressing freight issues predominantly at the state and local level is that a freight bottleneck may be merely relocated to another community rather than addressed holistically. As the nation's production moves towards higher value goods and international trade becomes an increasingly important component of the U.S. economy, U.S. goods are moving longer distances, often relying on an intermodal network that is North American in scope.[38] Unlike commuter trips, which generally begin and end within a metropolitan area, freight trip lengths often exceed the jurisdiction of a single MPO or even a State. Thus, these planning institutions have difficulty providing a corridor or an "end-to-end" approach in addressing freight improvements. They also may have a disincentive to do so because, while they bear the costs of improvements, the economic benefits may accrue nationally. Some hub cities have a preponderance of freight that is merely passing through their community rather than serving local producers or retailers. Land border ports of entry, gateway seaports, and interchange points in the rail network, in particular, must live with the negative effects of freight traffic that is largely serving far away locations.

While one can argue that freight transportation is a national issue and thus elevating it to the federal level is appropriate, it may not be able to compete with other pressing national priorities such as health care, Iraq and Afghanistan, or the recent financial crisis. At the local level, however, especially at major freight hubs like Los Angeles, for instance, freight transportation may be a priority because residents recognize the pollution and congestion caused by port truck traffic and thus support projects to streamline freight movement in the area. Because freight issues vary dramatically from one hub or region to the next, it can also be argued that they are

[36] FHWA, Office of Freight Management and Operations, *Freight Facts and Figures, 2007*, p. 11.

[37] This was one of the recommendations of the National Surface Transportation Policy and Revenue Study Commission. The Postal Regulatory Commission and state transportation commissions as well as state public utility commissions were also suggested as models that could be emulated.

[38] Not only does NAFTA freight cross U.S. land borders but so too does a portion of U.S. overseas freight.

best addressed at the state and local level. For instance, air cargo hubs such as Memphis or Louisville face different problems than large railroad hubs like Chicago or St. Louis, and seaports are tackling different problems than land border crossings like Laredo or Detroit. Rural areas may be more concerned with preserving short line rail access to the transcontinental rail network and the (not unrelated) issue of upgrading roads to accommodate heavy trucks carrying agricultural and mineral products. Also, a local desire to retain jobs that are tied to freight activity and a desire to improve the quality of life for their residents may be sufficient incentive for state and local transportation planners to address freight bottlenecks.

Greater collaboration and coordination among MPOs and State DOTs could facilitate a wider geographic perspective in planning freight-related transportation improvements. Congress could consider making funding for nationally or regionally significant projects contingent on state and local coordination. The I-95 Corridor Coalition is one model of transportation planning from a corridor perspective. The I-95 Corridor Coalition is an association of state DOTs and transportation authorities from 16 states from Maine to Florida, that is examining ways to improve fluidity on I-95 and that also investigates rail and waterborne modes as partial solutions to mitigating I-95 congestion.

The dominance of the so-called "donor-donee state" debate can be an obstacle to developing and improving a national freight transportation network. In previous surface transportation reauthorization debates, the concern that each state receive back from the federal government as close to the full amount of federal gas tax monies it generated dominated the floor debate in Congress. On the one hand, the concern by Members of Congress for their state's rate of return is rational based on the fact that the preponderance of freight shipments, especially those over the highway system, are of relatively short distance (about one-half of all trucks typically travel to destinations within 50 miles of their base, and almost three-fourths stay within their base state).[39] Yet, those shipments that are for longer-distance, and therefore more likely to cross state lines, are not economically insignificant, considering that longer distance shipments also tend to be of higher value. According to 2002 census data, while 34% of the total weight of shipments were interstate, nearly 60% of the total value of shipments were interstate.[40] In 42 states, out-of-state shipments accounted for more than 50% of the value of the state's outbound shipments and in only eight states, was the value of interstate shipments less than 50%.[41]

Freight Funding

Concerns about capacity limits on certain segments of the nation's transportation infrastructure and the shortfall in the current method of financing highway infrastructure has led to several proposals for creating an additional transportation user charge dedicated to funding projects that would improve goods movement. Proposals include assessing a container fee, freight waybill tax, or an intermodal terminal facility charge. Trade offs involving equity, efficiency, and administrative simplicity are involved in selecting a fee mechanism. Some freight interests, because of their concern for the deteriorating performance of the surface transportation system, have reluctantly supported the concept of new user fees, provided that they are fairly based on

[39] U.S. DOT, FHWA, Office of Freight Management and Operations, *Freight Facts and Figures 2007*, Table 3-6, and text quoted from p. 25.

[40] BTS, *Freight in America: A New National Picture*, January 2006, p. 40.

[41] BTS, *Freight in America: A New National Picture*, January 2006, Table 19, p. 40.

usage, that 100% of the funds are dedicated to transportation infrastructure improvements and not siphoned off for deficit reduction, and that they be dedicated only to net new capacity on new projects.[42]

Targeting Freight Investment

If Congress were to create a separate funding program specifically designed to target freight transportation improvements, it could steer funding toward certain inefficiencies in the national surface transportation network. Trucks, and therefore highway infrastructure, are vital for efficient goods movement because they carry 65% of the tonnage and 75% of the value of domestic cargo. FHWA has attempted to pinpoint locations on the national highway network suffering from recurring congestion problems, specifically from the perspective of trucks.[43] This study found that the preponderance of truck delays were at urban freeway interchange points and that steep grades, signalized intersections, and lane drops were other problem areas. Most states and many urban areas have conducted goods movement studies to better understand the patterns of freight activity in their area and are cognizant of truck bottlenecks such as these. Some states are evaluating the feasibility of segregating truck traffic from automobile traffic on highways with heavy truck traffic. In some cases, this idea is under consideration with respect to highways spanning hundreds of miles while in other cases short segments of highway connecting to a seaport or other freight hub are under consideration.

Congress might consider the importance of roads linking airports, seaports, and rail terminals with the interstate highway system. All air cargo begins and ends its journey in trucks as does intermodal rail and containerized seaborne cargo. These intermodal combinations of freight transport are the fastest growing segments of goods movement in the United States, consist of higher-value goods, and are closely tied to international trade. While these "intermodal connector" roads are relatively short segments, generally less than two miles in length, DOT studies have found that they often suffer from poor pavement condition and substandard geometrics (narrow lanes, small-radius curves) because the roads often were not originally designed for the heavy truck traffic they handle.

Congress may also consider whether transfer points between ports and railroads and between eastern and western railroad networks that still require a container to be trucked (drayed) in order to make the interchange could not be more efficiently handled if a rail connection were available. In Chicago (and to a lesser extend in St. Louis, Memphis, and New Orleans) where the eastern and western rail networks converge, and at many seaports, truck drayage generates a significant amount of truck traffic that co-mingles with commuter traffic on beltways and arterials. Policymakers may consider whether additional "on-dock" or at least "near-dock" rail terminals could be built at seaports to reduce truck drayage and whether "steel-wheel" interchanges could be extended to additional rail interchanges in the Midwest. The development of "logistics parks" by railroads—a cluster of warehouses built around a rail terminus, are essentially an effort by the railroads to re-consolidate consumer product distribution centers that have been scattered by circumferential highway building around cities. Rail logistics parks also offer opportunities to

[42] See for example a speech by a Senior Vice President of UPS at the Intermodal Association of North America, Expo 2007, "Agenda for Action: Avoiding National Gridlock," Atlanta, Georgia, November 12, 2007.

[43] FHWA, *An Initial Assessment of Freight Bottlenecks on Highways*, October 2005, http://www.fhwa.dot.gov/policy/otps/bottlenecks/index.htm.

reduce truck drayage in urban areas and Congress may consider ways to finance road improvements to support these centers.

Even though railroads are private enterprises that, in modern times, have been largely privately financed, Congress may consider whether greater public investment in freight rail infrastructure is warranted. Trucking firms are among the largest customers of the railroads because they offer a lower cost alternative for their long haul customers. Truck freight on trains has been vital for the overland transport of U.S. containerized imports and exports but the recent spike in diesel prices has pushed more domestic truckloads onto the railroads also. "Domestic intermodal," as this traffic is called, may be the only freight segment experiencing volume growth in recent months.[44] While many argue that railroads have sufficient economic incentive to expand the capacity of their network, and they are doing so, some of their customers are impatient with the pace of their investment. The railroad's intermodal customers, which generally ship higher value goods that require faster, more reliable, and more precise scheduling than other rail shippers, would like to see route miles with sufficient passing sidings or double tracking increased to better accommodate freight trains traveling at different speeds. The railroads, which are seeking a federal tax incentive to spur investment in their facilities, and others believe Congress should create a dedicated trust fund, as it has done with the other transportation modes, to boost investment in freight rail infrastructure. The increasing demand for commuter trains, which often run on freight-owned track in metropolitan areas, also weighs in favor of expanded rail capacity.

Congress may also consider steering funding toward projects that mitigate the negative affects of increases in freight traffic. Some cities and towns have experienced a significant increase in freight train traffic, and frustrations are mounting at some rail-grade crossings. Congress may consider whether additional funding should be directed for grade-separation projects along heavy use rail corridors and whether the railroads should bear more of the costs for these types of projects. **(CRS Contact: John Frittelli)**

Highway Safety

The actual level of highway safety in the U.S. has been improving in recent years. This improvement has been obscured by the relatively stable number of annual fatalities; the number of people dying in traffic crashes each year has remained at a little over 40,000 for the past decade. But since the number of vehicles, number of drivers, and number of vehicle miles traveled (VMT) have all increased over this period, the fatality rate (the number of fatalities adjusted for exposure to the risk of dying in a crash) has declined. In 2007 it was 1.37 per 100 million VMT,[45] down from 1.42 in 2006, and down from 5.3 in 1965. However, DOT failed to reach its goal of reducing the fatality rate to 1.0 by 2008 (which would have required a reduction in fatalities to around 30,000).[46] Moreover, while the U.S. had the best safety record of any country in the 1960s, since that time several other countries have surpassed the U.S., with some already having reduced their fatality rates to 1.0 or less.

[44] According to the Intermodal Association of North America, through the third quarter of 2008, domestic intermodal volume is up 4.7% year-to-date. Compared to 2007, 2008 domestic intermodal volumes were up 2% in the first quarter, 5.4% in the second quarter, and 6.7% in the third quarter.

[45] NHTSA, *2007 Traffic Safety Annual Assessment—Highlights*, DOT HS 811 017, August 2008.

[46] DOT revised their timetable in 2006, shifting the target date for achieving a fatality rate to 1.0 to 2011.

Most of the fatalities occur to three groups:

- Passenger car occupants (70% of the fatalities, with about 29,000 deaths in 2007);
- Motorcyclists (13% of the fatalities, with 5,154 fatalities in 2007; and
- Pedestrians (11%, with 4,654 fatalities in 2007).

Highway Safety Countermeasures

Countermeasures to improve highway safety can be divided into three general categories: changes to the roadway, changes to vehicles, and changes in driver behavior. Changes to the roadway are the responsibility of FHWA, which distributed over $1.5 billion to the states in FY2008 under the HSIP. Changes related to vehicles and drivers are the responsibility of the National Highway Traffic Safety Administration (NHTSA) (and in the case of commercial vehicles and drivers, of the Federal Motor Carrier Safety Administration (FMCSA), though the focus of this discussion is on NHTSA). In FY2008 Congress gave NHTSA $234 million for its own operations and for research, and $599 million for grants to be provided to states to improve highway safety.

The Role of Driver Behavior

Driver behavior is the primary factor in the vast majority of fatal crashes, so programs directed at altering driver behavior are considered to offer the greatest safety impact. The driver behaviors which are most significantly related to traffic fatalities are driving while impaired,[47] not wearing a seat belt,[48] or in the case of motorcyclists, a helmet,[49] and speeding.[50]

Current Driver Behavior Incentive Programs

In SAFETEA, Congress established or renewed incentive programs that provided grants to states that took specified actions to promote the use of seat belts and to reduce the incidence of drunk driving. In some cases, the incentive programs achieved limited success: for example, in the case of the program that provided grants to states that adopted a primary seat belt law (one that allows a law enforcement agent to stop and ticket a motorist for not wearing a belt, which has been shown to be an effective means of increasing the rate of seat belt usage), the number of states qualifying for a grant under this program increased from 21 in its first year to 26 in its third year.

[47] 12,998 driving fatalities—36% of all motorist fatalities in 2007—involved a driver who was legally impaired, i.e., having a blood alcohol content (BAC) of 0.08 or more. NHTSA, *2007 Traffic Safety Annual Assessment—Highlights*, DOT HS 811 017, August 2008.

[48] NHTSA estimates that if seat belts had been worn by all passenger vehicle occupants over the age of 4 during 2007, an additional 5,024 lives could have been saved. NHTSA, *Lives Saved in 2007 by Restraint Use and Minimum Drinking Age Laws*, DOT HS 811 049, November 2008.

[49] Nationwide motorcycle helmet use in 2008 was 74%, but in the 30 states where helmets are not required, usage was 54%. NHTSA, *Motorcycle Helmet Use in 2008—Overall Results*, DOT HS 811 044, September 2008. Requiring all riders to wear a helmet—a universal helmet law—has been estimated to reduce motorcyclist fatalities by 20% or more. National Cooperative Highway Research Program, *Effectiveness of Behavioral Highway Safety Countermeasures*, Report 622, 2008, p. 41.

[50] Driving too fast for conditions or exceeding the posted speed limit has been estimated to be a contributing factor in one-third of fatal crashes. DOT, *Speed Management Strategic Initiative*, 2005, p. 1.

In the case of the program that provided grants to states to adopt measures to reduce drunk driving, all fifty states and the District of Columbia qualified for grants in the first year of the program; in the third year, as the number of measures required in order to remain eligible rose, seven states and the District of Columbia failed to maintain their eligibility. And in some cases, there are questions about the eligibility measures used for the program; for example, in the case of the program that provided grants to states to improve motorcycle safety, promoting the wearing of a motorcycle helmet—the single most demonstrably effective motorcycle safety measure was not only not one of the eligibility measures, it was not even an eligible use for the program's funding, while the eligibility measures used in the program—such as motorcyclist training programs and programs to promote motorist awareness of motorcyclists—are of unknown value and in at least one evaluation were considered unlikely to be effective.[51]

Highway Safety Issues

In reauthorizing the highway safety programs, Congress may wish to consider changes to these incentive programs. These changes could include consolidating the application process for the programs, allowing states more flexibility in the use of the incentive grant funds, switching from an incentive grant program to a sanction program, or more closely linking grants to the performance of states in achieving program goals.

Consolidating the Application Process

States have complained that the application process for the programs (there are currently a total of five NHTSA incentive grant programs) is difficult to comply with: each program has a separate process, all the program applications are due within a 45-day period between June 15 and August 1 each year, and according to the states, each application requires significant amounts of staff time, which is a particular problem for states with smaller safety offices.

Increased Flexibility in the Use of Incentive Grant Funding

One of the incentive programs allows states to use the funds for any safety-related expense that is eligible for federal funding, but most of the programs restrict the use of the money received through the program to activities related to the program. Some states would like the flexibility to use some of the funds for other highway safety priorities. In some cases, the restrictions are even more limiting; the Motorcycle Safety program grants can only be used for safety training provided to motorcyclists, or motorcyclist awareness programs aimed at motorists, and for public awareness and outreach programs. Officials in Montana told GAO that they would like to use some of the funds to build new training sites or expand existing sites, but the grant does not allow that.[52]

[51] NCHRP, *Effectiveness of Behavioral Highway Safety Countermeasures*, Report 622, 2008, p. 7.

[52] Government Accountability Office, Traffic Safety Programs: Progress, States' Challenges, and Issues for Reauthorization, GAO-08-990T, July 16, 2008, p. 18.

Switching from Incentives to Sanctions

Sanctions have been found by some studies to be more effective than incentives in gaining state compliance with federal goals.[53] States generally oppose sanctions, but even amid this general opposition the Governors Highway Safety Association testified that it would vigorously oppose any effort to repeal an existing sanction, the one requiring states to make purchase and public possession of alcohol illegal for those under age 21.[54] That sanction itself, established by Congress in 1984, was preceded by an incentive program which did not succeed in getting many of the states with lower minimum purchase ages to change their laws.

Linking Grants to Performance

Most of the eligibility criteria for the various incentive programs are actions—passage of laws and implementation of programs—rather than measures of results. Exceptions to this include the seat belt performance grant—a state can qualify either by having a primary seat belt law or by maintaining a seat belt use rate of 85% or better—and the motorcycle safety grant program, whose eligibility criteria include a reduction in fatalities and crashes (though states can qualify for the grant based on other criteria).

Thus, states can receive safety grants under these programs without demonstrating progress toward the improving highway safety. Congress could choose to link the receipt of a grant, or the size of the grant, more closely to a state's performance. Not all of the data needed for such a change is currently available; for example, reliable measures of motorcyclist VMT, which would be the preferred basis of measuring changes in a state's rate of motorcyclist fatalities, are not available for all the states. But some measures are currently available, For example, Congress provided funding for improvements to states' traffic safety information systems in SAFETEA. **(CRS Contact: David Randall Peterman)**

Motor Carrier Safety Issues

Issues that Congress may wish to consider in regards to commercial vehicle safety include both issues regarding commercial vehicles and those regarding commercial drivers. Regarding vehicles, issues may include the potential of in-vehicle technologies to promote safety, the safety impact of potential increases in truck size and weight limits, and the amount of funding provided to states for inspection of commercial vehicles. Examples of in-vehicle technologies that may improve commercial vehicle safety include driver-fatigue warning systems and lane departure warning systems. Some in the commercial vehicle industry would like to see increases in federal limits on the size and weight of commercial trucks, in order to increase the productivity of the trucking industry. Opponents of increasing the size and weight limits are concerned about the

[53] Sarah F. Liebschutz, The National Minimum Age Drinking Law, Publius, V. 15, No. 3, Summer 1985, pp. 49-50, cites a report by the U.S. Advisory Commission on Intergovernmental Relations which noted that for provisions in two laws—the Highway Beautification Act of 1965 and the Federal Emergency Highway Energy Conservation Act of 1974—Congress had first enacted incentive programs which over several years had resulted in only about half the states adopting the provisions; Congress then switched to sanctions, which quickly resulted in most if not all the rest of the states complying.

[54] Statement of Christopher J. Murphy, Chairman, Governors Highway Safety Association, before the House Subcommittee on Highways and Transit, House Committee on Transportation and Infrastructure, July 16, 2008, p. 8.

safety impact of having even larger and heavier trucks on the road. Inspections of commercial vehicles are considered important in promoting compliance with federal safety requirements, but there is concern that the resources available to support inspections do not allow inspections to be done on more than a fraction of the commercial vehicles, making the risk of discovery of noncompliance low.

Issues that may be considered regarding commercial drivers include how to improve the effectiveness of programs that prevent drivers from driving while drugged or with serious medical conditions that may impair their driving. GAO found that it was easy for drivers to avoid detection, both because many urine collection sites did not follow regulations intended to reduce the opportunity for drivers to invalidate the test, such as substituting other samples or adding contaminants to the sample.[55] And GAO found that drivers who have failed a drug test were able to continue driving without submitting to the required return-to-duty process by hiding their past drug history from employers, many of whom did not conduct thorough background checks of applicant's drug testing history. Among the measures that Congress may wish to consider to deal with this issue are the establishment of a national database for drug testing, additional funding for inspectors, and additional authority to impose fines for failure to comply with federal requirements. **(CRS Contact: David Randall Peterman)**

Research, Development, and Technology Deployment (RD&T)

The vast extent and degree of use of the nation's surface transportation system brings with it problems as well as benefits. Research has a role in helping to address the problems that affect the efficiency and effectiveness of the system. These problems include loss of life and injuries resulting from traffic crashes, congestion in the system, degradation of the environment, and the desire for better security of the infrastructure.

The federal government seeks to promote basic research into ways of addressing these challenges, the further development of research findings, and the deployment of technologies that can help improve the efficiency and effectiveness of the system. The FHWA has the largest research budget of the DOT agencies, while NHTSA, FTA, and the Research and Innovative Technology Administration (RITA) also have significant roles in DOT's support for surface transportation research.

FHWA's research program seeks improvements to the quality of highway pavements and road structures (including bridges and tunnels), in the safety of roadway design and construction, and in policies regarding highway development and use. NHTSA's research program seeks improvements in driver behavior and vehicle design. FTA's research program seeks improvements to the design and operation of transit systems. RITA is the in-house research office of DOT, conducting research for other agencies in the DOT as well as through contracts with outside parties.

[55] GAO, *Motor Carrier Safety: Improvements to Drug Testing Programs Could Better Identify Illegal Drug Users and Keep Them off the Road*, GAO-08-600, May 2008.

Title V was the research title of SAFETEA. It authorized $411 million annually. Of that, $196 million went to the surface transportation research program; $110 million went to research on intelligent transportation systems (ITS); $70 million went to support research at University Transportation Centers; $27 million went to the Bureau of Transportation Statistics; and $27 million went to support training and education programs.

Two of the leading concerns expressed by the research community regarding federal support of surface transportation research are the amount of funding provided and the effectiveness of the allocation of that funding.

Amount of Federal Spending on RD&T

Advocates of greater federal spending on RD&T contend that the amount of federal funding is far below both what is needed and what can be economically justified, in light of estimates of over $300 billion in annual costs to society from highway crashes and from the value of time lost to congestion, to say nothing of the environmental costs of the surface transportation system—costs which could potentially be reduced through research. They also contend that federal investment in surface transportation RD&T can be compared to private industry investment in RD&T; as a share of total federal expenditures on highways (around 0.9%), the federal share is significantly below the average of industry RD&T spending as a share of sales (around 3.3%). On the other hand, Congress faces constraints on the amount of funding that is available for transportation, and virtually every other part of the federal transportation budget is also considered by various groups to be underfunded.

Effective Use of RD&T Spending

Congress also faces competing claims for how transportation RD&T funding should be used. The extent of earmarking of RD&T funding was a concern before SAFETEA. The research community's position is that earmarking of research funding should be limited, and instead that it should generally be awarded on the basis of peer-reviewed competitive applications, as this is thought to result in a more effective use of the limited resources. In SAFETEA's research title, Congress earmarked more funding than the total amount that was authorized by the title. The result was that the individual research programs and projects received less funding than each was authorized, in order that the available funding could be stretched to cover all the designated programs and projects. Another impact was that there was no unearmarked research funding left to fund some FHWA projects, such as the biennial Conditions and Performance reports, that in previous years had been funded with such moneys. Other concerns about the effective use of RD&T funding include how to improve the implementation and coordination of a diverse research program that is conducted within a decentralized and diverse research community, and how to improve stakeholder input into the federal RD&T process. **(CRS contact: David Randall Peterman)**

Environmental Issues

Environmental Compliance

Surface transportation projects may impact local air quality, water quality, wildlife, cultural and historic resources, or community resources. Any of those impacts may in turn require compliance with local, state, tribal, or federal environmental laws, such as the Clean Water Act, Clean Air Act, Endangered Species Act, or National Historic Preservation Act.

During past reauthorization debates environmental requirements have drawn the attention of some Members of Congress and interested stakeholders (e.g., state transportation agencies, transportation construction organizations, and environmental groups). This attention has been due to both the impact that surface transportation projects can have on the environment and the impact that compliance with environmental requirements can have on project delivery. Previous reauthorization legislation has attempted to address environmental compliance issues by either authorizing funding for projects that would help mitigate or minimize environmental impacts associated with a surface transportation programs or projects; or by specifying procedures intended to expedite compliance with certain environmental requirements. The upcoming reauthorization process may also include debate regarding potential legislative provisions intended to expedite the environmental compliance process and fund certain regulatory requirements.

Environmental Reviews Under NEPA

Before final design, property acquisition, or construction on a highway or transit project can proceed, the FHWA and FTA must comply with all applicable environmental review requirements, including those of the National Environmental Policy Act of 1969 (NEPA, 42 U.S.C. 4321 et seq.).[56] NEPA requires all federal agencies to consider the environmental impacts of their proposed actions. To ensure that environmental impacts are considered before final decisions are made, NEPA requires the preparation of an environmental impact statement (EIS) for any federally funded project that significantly affects the quality of the human environment. If the level of significance of a proposed project is unclear, the agency must prepare an environmental assessment (EA), in order to make that determination. Projects that do not individually or cumulatively have a significant social, economic, or environmental effect, and which DOT has determined from past experience have no significant impact, are processed as categorical exclusions.

DOT's NEPA regulations require the final NEPA documentation to demonstrate that the project will be in compliance with all applicable environmental laws and other related requirements.[57] This means that, for any given transportation project, any study, review, or consultation required by law, that is related to the environment, should be conducted within the framework of the NEPA

[56] An "environmental review" refers to a requirement to show evidence of formal consideration, evaluation, or analysis of the impacts of a proposed federal action. Most often, the use of the term is in reference to the process of complying with NEPA requirements. However, depending upon the project at issue, an environmental review may refer to the process of complying with provisions of any applicable environmental requirement.

[57] 23 CFR 771.133.

process. According to FHWA, legal requirements most frequently applicable to its projects are the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), National Historic Preservation Act (16 U.S.C. 460 et seq.), Clean Water Act (33 U.S.C. 1251 et seq.), and "Section 4(f)"of the Department of Transportation Act of 1966 (40 U.S.C. 303). To meet the requirements of these laws, various agencies, such as the U.S. Fish and Wildlife Service, the Advisory Council on Historic Preservation, the U.S. Army Corps of Engineers, or the Environmental Protection Agency (EPA) may be required to participate in the NEPA process. That participation may involve performing scientific analysis or issuing permits.

More efficient interagency cooperation has been identified as an area in need of improvement in implementing the NEPA process. Both SAFETEA and TEA-21 before it, included legislative procedures intended to streamline the process.[58] Debate continues on the impact that environmental compliance requirements have on transportation project delivery.[59] As a result, additional legislative provisions intended to expedite the environmental compliance process (particularly with regard to the NEPA process and environmental permitting process) may be included in the upcoming reauthorization process.

"Section 4(f)" Requirements

Another requirement that is generally carried out within the context of the NEPA process is compliance with Section 4(f) of the Department of Transportation Act of 1966.[60] Section 4(f) requirements apply to the use of publicly owned parks and recreation areas, wildlife and waterfowl refuges, and to publicly or privately owned historic sites of national, state, or local significance. The law prohibits the use of a Section 4(f) resource for a transportation project unless there is no "prudent and feasible" alternative to do otherwise, and the project includes all possible planning to minimize harm to the resource. When a project does propose the use of a Section 4(f) resource, a separate "Section 4(f) evaluation" must be prepared and included with the appropriate NEPA documentation.

SAFETEA amended Section 4(f) to allow for the use of parks, refuges, and historic sites if that use results in "de minimus impacts." SAFETEA also required DOT to issue regulations clarifying factors to be considered and standards to be applied in determining whether alternatives are "prudent and feasible" under the Section 4(f) requirements. Due to the continued prohibition on most uses of Section 4(f) resources, further amendments to the applicable requirements may be debated during the upcoming reauthorization process.

[58] For details on SAFETEA-LU's NEPA-related provisions and DOT's response to those provisions, see FHWA's "SAFETEA-LU Environmental Provisions and Related Information" Web page, available at http://www.environment.fhwa.dot.gov/strmlng/es2safetealu.asp.

[59] The National Surface Transportation and Revenue Study Commission, final report, pp. 11-14.

[60] Section 4(f) of the DOT Act was originally set forth at 49 U.S.C. § 1653(f) and applies to all DOT projects. A similar provision, found at 23 U.S.C. § 138, applies specifically to Federal-aid highways. In 1983, as part of a general recodification of the DOT Act, 49 U.S.C. § 1653(f) was formally repealed and codified in 49 U.S.C. § 303 with slightly different language. This provision no longer falls under a "Section 4(f)," but DOT has continued this reference, given that over the years, the whole body of provisions, policies, and case law has been collectively referenced as Section 4(f).

The CMAQ Program

The Congestion Mitigation and Air Quality Improvement (CMAQ) Program was created by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. CMAQ was reauthorized under TEA-21 and again as part of SAFETEA. It provides funds to states for transportation projects designed to reduce traffic congestion and improve air quality, particularly in areas of the country that do not attain National Ambient Air Quality Standards (NAAQS). In particular, it authorizes funding for programs and projects intended to reduce carbon monoxide (CO), particulate matter, and ozone. CMAQ funds are apportioned in accordance with a formula based largely on a state's population and pollution reduction needs. During the reauthorization process, there will likely be debate regarding the level of CMAQ funding and possibly the types of projects eligible for funding.

From FY2005 to FY2009, the CMAQ program provided over $8.6 billion in funds to state departments of transportation and local transit agencies. Specific types of projects eligible for CMAQ funds include, but are not limited to: programs for improved public transit; traffic flow improvement programs that reduce emissions; and programs to control extended idling of vehicles.[61] SAFETEA required states and MPOs to give priority in distributing CMAQ funds to diesel engine retrofits, and other cost-effective emission reduction and congestion mitigation activities that provide air quality benefits. SAFETEA also expanded the program funding eligibility requirements to specifically allow certain types of projects to qualify for CMAQ funding.

SAFETEA also directed DOT to evaluate and assess a representative sample of CMAQ projects, in consultation with EPA, to determine their impacts on air quality and congestion levels and to ensure the effective implementation of the program. Further, SAFETEA directed DOT to maintain and disseminate a database describing project impacts (no direct funding was provided for the evaluation or the database). In response to SAFETEA requirements, in October 2008, FHWA released a report that studied the effectiveness of 67 CMAQ-funded project. Among other factors, the report evaluated congestion and mobility benefits and air quality benefits of those projects.[62]

Conformity of Transportation Plans and State Implementation Plans (SIPs)

Under the Clean Air Act, areas that have not attained one or more of the six National Ambient Air Quality Standards must develop State Implementation Plans (SIPs) demonstrating how they will reach attainment. As of November 2008, at least 57 areas with 132 million people were subject to the SIP requirements. Other areas are likely to be added to this list in the next few years, as more stringent air quality standards for ozone and particulate matter take effect.

[61] See FHWA's Interim Program Guidance "The Congestion Mitigation and Air Quality Improvement (CMAQ) Improvement Program under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users," October 31, 2006, available online at http://www.fhwa.dot.gov/environment/cmaq06gm.htm.

[62] See "SAFETEA-LU 1808: CMAQ Evaluation and Assessment," available on the FHWA "Congestion Mitigation and Air Quality (CMAQ) Improvement Program" Web page at http://www.fhwa.dot.gov/environment/cmaqpgs/.

Section 176 of the Clean Air Act prohibits federal agencies from funding projects in these areas unless the projects "conform" to the SIPs. To demonstrate conformity, a Transportation Improvement Program (TIP) must show that the projects to be undertaken will not lead to an increase in emissions that would delay attainment of air quality standards. New highway and transit projects cannot receive federal funds unless they can make this demonstration.

There are some exceptions: highway safety projects, rehabilitation and reconstruction of transit facilities, purchase of replacement buses and rail cars, noise attenuation projects, and pedestrian and bicycle facilities are all allowed to proceed whether or not an area's conformity has lapsed. But the threat of a conformity lapse and the potential "loss" of highway funds[63] has been a powerful incentive to get local officials to focus on air quality considerations as they plan transportation projects.

Although environmental advocates and regulators have generally argued that conformity is a critical tool for the achievement of the nation's air quality goals, some in the transportation community have found it burdensome. Thus, in its strategy for reauthorization of SAFETEA,[64] the Department of Transportation proposed to set up a Performance-Oriented Pilot (POP) Program that would waive conformity and other planning and environmental requirements in up to 10 states or metropolitan areas, substituting performance standards in their place.[65] In effect, DOT proposed to remove a planning requirement in favor of a standard that could not be measured until after the project was complete.

State and local air quality regulators, through their national organization (the National Association of Clean Air Agencies) pronounced themselves "deeply disturbed" by DOT's proposals, which they said "would emasculate transportation conformity," and "place a road block directly in front of state and local clean air efforts." It is unclear whether the POP Program or other modifications to conformity will be considered in the surface transportation debate. **(CRS contact: Jim McCarthy)**

Climate Considerations

If the United States is to address climate change, legislation and regulations will need to require significant reductions in emissions of "greenhouse" gases (GHG)[66] from transportation sources. Transportation accounts for about one-third of U.S. emissions of the leading greenhouse gas, carbon dioxide (CO_2),[67] and about 27% of the six major GHGs typically considered.

CO_2 is largely a product of combustion: the carbon in fuel (be it gasoline, diesel, natural gas, or whatever) combines with oxygen in the atmosphere when the fuel burns. Thus, the principal method of reducing CO_2 emissions from transportation sources is to burn less fuel. Emissions can also be reduced by substituting fuels that have less carbon. Substitution of lower-carbon fuels has

[63] Highway funds are not actually lost in a conformity lapse. As noted, many types of project are exempt from the requirement and go forward as planned. Other projects face a temporary suspension of funding until they submit a conforming TIP. Generally, the officials involved refer to this temporary and partial suspension as "losing" their federal highway funds, which undoubtedly speeds their efforts to remedy the situation.

[64] *Refocus. Reform. Renew. A New Transportation Approach for America*, July 2008.

[65] The department also proposed changes to the Congestion Mitigation and Air Quality grant program.

[66] Greenhouse gases are pollutants that trap the sun's heat, with effects on the Earth's climate.

[67] CO_2 accounts for more than 80% of U.S. GHG emissions.

been a particularly attractive option for stationary sources of emissions—e.g., a power plant can significantly reduce its CO_2 and other emissions by substituting natural gas for coal. The same possibility (substituting natural gas or other lower-carbon fuels for gasoline and diesel fuel) would lower CO_2 emissions from surface transportation.

In the Energy Independence and Security Act of 2007 (EISA, P.L. 110-140), Congress required both improved fuel economy for new cars and trucks and a lower carbon content in renewable transportation fuels. The law requires that new motor vehicles attain an average improvement of 40% in fuel economy by 2020 with incremental improvements between now and then, and that future renewable fuels have a lower carbon content on a life-cycle basis. Many are calling for even more stringent standards than those set in EISA, as part of an effort to reduce greenhouse gas (GHG) emissions as much as 80% by 2050.

Surface transportation reauthorization offers the possibility to look at transportation emissions in a broader context, and could provide incentives for systemic changes that might lower the carbon footprint of the transportation sector. Idle reduction infrastructure (e.g., electrification of truck stops), congestion mitigation, High Occupancy Vehicle (HOV) lanes, funding for pedestrian and bicycle facilities, preferences for lower carbon vehicles in Federal Transit Administration grants, incentives to shift freight and people to less-carbon-intensive modes, and incentives for Smart Growth are among the potential policy options. **(CRS contact: Jim McCarthy)**

Alternative Fuels and Advanced Technology Vehicles

Alternatives to petroleum fuels, and ways to use petroleum more efficiently, are of key interest, especially in light of recent high oil prices, the desire to lessen dependence on petroleum imports, and concerns over greenhouse gas emissions. Current fuels taxes and other surface transportation programs favor alternative fuels over petroleum, although these incentives may not be enough for these alternatives to be competitive, especially when oil prices have dropped dramatically from their high point in the spring and summer of 2008. In the 111th Congress, issues surrounding surface transportation and alternative fuels and advanced technologies will likely focus around four key areas: 1) fuels taxes; 2) incentives for the purchase of alternative fuel/advanced technology vehicles; 3) infrastructure for new fuels/technology; and 4) other incentives, such as HOV exemptions.

A key incentive for many alternative fuels is that their use is effectively subsidized through tax incentives for their retail sale and/or blending into conventional fuels. For example, all gasoline, regardless of its ethanol content, is taxed at 18.4 cents per gallon. However, every gallon of ethanol blended into gasoline is subject to a credit of 51 cents per gallon (scheduled to decrease to 45 cents per gallon in 2009). Therefore, the effective tax rate on a 10% blend of ethanol in gasoline is 13.3 cents per gallon (14.9 cents per gallon in 2009). Similarly, retail providers of natural gas, hydrogen, and other alternative fuels may claim a credit of 50 cents per gallon. These various incentives were enacted as provisions in energy and economic legislation. However, there may be interest in expanding or extending some of these incentives in surface transportation reauthorization. Further, interest is growing in the environmental effects of various alternative fuels. Therefore, there may be some interest in modifying these credits to reflect their performance on environmental measures, especially greenhouse gas emissions.

Various incentives exist in the most recent surface transportation legislation, and in various energy laws, to promote the purchase and use of alternative fuel and advanced technology vehicles. For example, the Energy Policy Act of 2005 established tax credits for the purchase of

alternative fuel and hybrid vehicles. Further, under Federal Transit Administration bus programs, additional matching funds are available for transit agencies that purchase alternative fuel and advanced technology buses—beyond those for conventional technology. However, these incentives have been criticized by some because new, advanced diesel buses are considered advanced technology under this program. There may be interest in expanding transit options to promote more efficient transport. There may also be interest in modifying existing incentives to focus more on their energy efficiency or environmental performance.

For the use of alternative fuels and advanced technology vehicles to expand, infrastructure to support them must also grow. Just as there are incentives for the purchase of new vehicles, there are tax credits for retail stations to install refueling infrastructure. As part of the surface transportation reauthorization debate, there may be interest in providing additional incentives, including grants, for tax-exempt entities (e.g., transit agencies) to install additional refueling infrastructure, especially if those stations are accessible to the public. To promote more efficient highway transport of goods, current programs to reduce heavy truck idling (e.g., truck stop electrification) may be amended or expanded.

Other incentives for alternative fuel and advanced technology vehicles may also be of interest. Currently, states may exempt alternative fuel vehicles and vehicles that achieve 45 miles per gallon or better from high occupancy vehicle (HOV) restrictions. Under earlier laws, some states exempted hybrid vehicles (regardless of fuel economy) from HOV restrictions. In those states, the HOV exemption became a key incentive for the purchase of hybrid vehicles. There may be interest in expanding or modifying HOV exemptions to promote certain fuels or technologies. Other potential incentives may include exemptions from highway or bridge tolls. **(CRS Contact: Brent Yacobucci)**

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Division abbreviations: RSI = Resources, Science, and Industry Division; KSG = Knowledge Services Group; ALD = American Law Division.