Surface Transportation Program Reauthorization Issues for the 112th Congress

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Summary

The law authorizing federal surface transportation programs expired at the end of FY2009, but Congress has failed to enact a new authorization. Surface transportation programs continue to operate on the basis of authority provided in extension legislation.

This situation should not be a surprise to those familiar with the history of the reauthorization process. Especially during the last two decades, reauthorization has become a difficult undertaking. 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 were enacted well behind schedule.

The most difficult issue 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 this is no longer the case. Fuel taxes, which provide most of the money for surface transportation, are unlikely to provide a solid long-term 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 from the one currently in place.

One perennial subject of debate concerning the highway program is whether grants to individual states are in line with the taxes those states' motorists pay into the highway trust fund—the so-called donor-donee issue. The use of earmarks and possible programmatic reorganization will likely be prominent concerns in committee discussions of reauthorization. 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. Congress also can be expected to look closely at transit program spending levels and priorities.

Freight issues have also been of growing importance in recent years and figure to get significantly more attention as part of the reauthorization debate.

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Introduction

Since the early 1980s, the periodic debate over 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 year after year.[1] In 2009 this was not the case. For the first time in decades, driving declined significantly, with a concomitant decrease in fuel tax revenues. Going forward the program cannot count on new money from the familiar sources.

The law authorizing federal surface transportation programs expired at the end of FY2009, but Congress has failed to enact a new authorization. Surface transportation programs continue to operate on the basis of authority provided in continuing resolutions and extension legislation.[2]

Reauthorization has become a difficult undertaking in the last two decades. 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. 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 authorization bill has been enacted on time since the 1970s. Over time, these bills have become increasingly complex in their structure and in their politics as states, other program beneficiaries, and related interest groups compete for constrained federal transportation resources.

SAFETEA has led to controversies over funding parity among the states (the so-called donor-donee debate), its large number of earmarks (exemplified by the so-called "bridge to nowhere"), and the funding problems ahead. Additionally, the structure of the surface transportation programs under SAFETEA and its predecessors has made it difficult for the federal government to respond to certain intermodal transportation needs. These issues could cause Congress to make significant changes to the surface transportation programs in this reauthorization.

Program Structure

The surface transportation programs can be difficult to understand. The language of transportation finance—contract authority, obligation limitations, and so on—is unfamiliar even to many who have a basic understanding of the annual congressional budget process. Therefore, this report begins with a discussion of how the surface transportation programs are structured and financed.

The Federal-Aid Highway Program

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

[1] John W. Fischer, Specialist in Transportation, retired, coordinated the original version of this report.

[2] 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.

finance its construction.[3] The program has been reauthorized and expanded on numerous occasions during the last five and a half decades.

The federal highway program is fundamentally a state-run program. The state departments of transportation, within the federal programmatic framework, largely determine where and on what the money is spent (but have to comply with detailed federal planning guidelines as part of the decision-making process). The states let the contracts and oversee the project development and construction.

The flow of federal highway funds to the states to support this spending operates as follows. At the beginning of each fiscal year each state department of transportation is notified of the federal funds available to it to construct and maintain a designated system of roads known as the federal-aid highway system. The states do not get the money up front. Instead, as work is completed the states submit vouchers to the Federal Highway Administration (FHWA) and are reimbursed.[4]

The federal-aid highway program can be viewed as an umbrella term for various separately funded programs administered by 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 six major programs, which are usually referred to as the core programs (**Table 1**). They, along with the Equity Bonus Program, accounted for 82.5% of the highway spending authorized for FY2005-FY2009 by SAFETEA. Each of these programs provides funding for specific segments of the federal-aid highway system or other statutorily enunciated activities, such as congestion relief projects. SAFETEA also combined many formerly separate highway safety programs into one Highway Safety Improvement Program.

Although it does not provide direct spending for highways, the Equity Bonus Program, discussed in more detail later in this report, provides additional funds for the six core programs. The equity bonus is the largest single highway program in SAFETEA, accounting for approximately 20% of all available funding. Funds for the core programs and the Equity Bonus Program are apportioned to the states on an annual basis using formulas found in SAFETEA. As a result they are sometimes referred to as the "apportioned" programs.

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

[4] The reimbursable nature of the federal-aid highway program is to prevent fraud, waste and abuse. No federal outlays are made until work is done.

Table 1. Core Program Authorizations for FY2009

Program	FY2009 SAFETEA Authorization
National Highway System Program	$6,306,611,031
Interstate Maintenance Program	$5,119,399,081
Surface Transportation Program	$6,576,630,046
Highway Bridge Program	$4,457,421,829
Congestion Mitigation and Air Quality Improvement Program	$1,777,263,247
Highway Safety Improvement Program	$1,296,474,396
Equity Bonus Program	$9,093,265,575

Source: P.L. 109-59, also Financing Federal-Aid Highways, Appendix B. http://www.fhwa.dot.gov/reports/financingfederalaid/appb.htm

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 the Surface Transportation Program, 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 laws 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 Improvements, received $1.78 billion and $2.55 billion, respectively, over the same period. Among the other allocated programs 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. **(CRS contacts: Bob Kirk, Will Mallett, and Randy Peterman)**

The Transit Program

The federal transit program, administered by Federal Transit Administration (FTA) of the U.S. Department of Transportation (DOT), is a collection of individual programs, each with different funding distribution mechanisms and spending eligibility rules. Of the $10.4 billion made available for transit programs in FY2010, the Urbanized Area Formula Program accounted for about 40% ($4.2 billion), and the Capital Investment Program accounted for 45% ($4.6 billion). The Capital Investment Program has three elements: the Bus and Bus Facilities Capital Program, which receives about 20% of all transit capital investment funds; the Rail Modernization Program, which receives 40%; and the New Starts Program, which also has a 40% share.

The remaining 15% of federal transit monies ($1.6 billion) 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 has two separate accounts—highways and mass transit.[5] 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, and there is also a 0.1 cent per gallon fuel tax reserved for the Leaking Underground Storage Tank Fund, which is not included in the surface transportation programs. The federal motor fuels tax has been increased several times since its inception in 1956. At the time of the last increase, in 1993, some of the receipts were deposited in the Treasury general fund, but since FY1998 these revenues have been directed to the highway trust fund.

Other changes in recent years 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 in its finance title. The revenue increases in this title were viewed as quite modest and were derived mostly from cutting back on tax fraud and by transferring some Treasury general fund revenues associated with transportation-related activities to the trust fund. It was believed at the time of passage that the changes enacted in SAFETEA, combined with the changes in gasohol legislation enacted in 2004 and enhanced by expected economic growth, would be sufficient to finance the act through FY2009.

The financial estimates associated with SAFETEA have proved to be overly optimistic. The highway account has already required three transfers from the general fund totaling $29.7 billion,[6] without which FHWA might not have been able to pay states for work they completed.[7] In late FY2008, $8 billion was transferred to carry the highway account into the 2009 fiscal year (P.L. 110-318, September 15, 2008). In FY2009 the transfer was $7 billion (P.L. 111-46, August

[5] The "highway account" is a term of convenience. In legislation it is referred to as the "Highway Trust Fund (other than the Mass Transit Account)."

[6] The third rescue package, P.L. 111-147, also transferred $4.8 billion to the mass transit account.

[7] *Transportation Weekly*, "DOT Prepares for Next Highway Trust Fund Default," May 20, 2009. p. 1.

7, 2009). The Surface Transportation Extension Act of 2010 (P.L. 111-148, March 18, 2010) transferred $14.7 billion more to the highway account.

Historically, the trust fund-based revenue collection system was a reliably growing source of funding for surface transportation, as the trust funds collected more than was been expended to implement the program defined by Congress. This situation has changed under SAFETEA as spending on highways and transit has exceeded both highway and transit account revenues on a regular basis. The Congressional Budget Office (CBO), in its spring FY2009 baseline calculation, showed that, from FY2007 to FY2009, outlays from the highway account exceeded receipts in each fiscal year. CBO's summer 2010 baseline estimate projected a slight surplus for FY2010, with outlays of $32.5 billion against $32.7 billion in revenues.[8] CBO projects the fund to slip back into deficit in FY2011, with outlays of $37.4 billion and revenues of $34 billion.

Congress provided another $14.7 billion transfer from the general fund on March 18, 2010, and CBO now projects that the balance in the highway account will remain above zero through FY2013. However the gap between tax revenues and outlays remains through FY2020. CBO projects that the mass transit account, which received a $4.8 billion general fund transfer in FY2010, will also remain above zero through FY2013.[9]

The recent declines in motor fuel tax receipts are unprecedented. Even during the oil shocks of the 1970s, driving, as measured by vehicle miles traveled, returned fairly quickly to the 2% average annual growth rate experienced since the 1960s. The same thing has not happened since 2007, even though fuel prices fell dramatically from their highs of around $4 per gallon in mid-2008, as the sluggish economy continues to depress freight, leisure travel, and commutes to work. As a rule of thumb, adding a penny to the federal fuels tax provides the trust fund with between $1.6 and $1.8 billion in new revenues. Without an increase in the existing fuel taxes, the mostly fuel-based trust fund taxation system will not be able to support increased surface transportation spending over the next few years. The immediate choice for policymakers, therefore, is to find new sources of revenue for the trust fund, or alternately, to settle for a smaller surface transportation program that might look very different than the one currently in place.

However Congress chooses to address the short-term funding issue, it will need to address the viability of the trust fund mechanism over the longer term. In recent years, Congress has acted to mandate higher fuel-economy standards for gasoline-powered cars and to encourage development of hybrid and battery-powered vehicles. As these more fuel-efficient vehicles come to make up a larger share of the U.S. vehicle fleet, consumption of motor fuels may decline even if driving increases. If it wishes to maintain or increase the size of the surface transportation programs, Congress may need to explore alternatives to the motor fuels tax as possible sources of funding.

The difficult outlook for motor fuel tax revenues clouds the outlook for surface transportation reauthorization. In the past, steady revenue growth enabled Congress to meet the competing demands for funding in each reauthorization. TEA21 benefitted from a run-up in fuel usage during the boom years of the late 1990s that was at least partially the result of the popularity of sport utility vehicles 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 expand the

[8] Information supplied by CBO as part of its summer FY2010 Baseline, August 19, 2010. The revenue figure for FY2010 does not include the $14.7 billion in general fund transfers made that year.

[9] Ibid.

programs. The next reauthorization bill, as the above discussion indicates, lacks a ready source of cash to support expansion—a situation that will define the upcoming legislative debate much more than issues such as program structure and infrastructure needs.

The American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5)

The ARRA contained significant funding for activities normally funded through federal surface transportation legislation. It provided $27.5 billion for federal-aid highways, $8.4 billion for public transit, $1.5 billion for a new Surface Transportation Discretionary Grant Program, and $8 billion for high-speed rail. All money provided by the ARRA is from the general fund and carries no requirement for state or local matching funds. This one-time infusion represented a bit less than one year's funding for the existing surface transportation programs, although it was distributed differently. High speed rail, for example, is a very small program under SAFETA, but received a large share of funds in the ARRA. By giving states an additional source of surface transportation funding, the ARRA may have made the need for reauthorization of SAFETEA somewhat less immediate.

The SAFETEA Legacy

In public, the SAFETEA debate focused on the donor/donee issue and a later, more public, controversy over earmarking. The actual process of crafting the law, however, was complicated by the political need to satisfy the large number of interest groups supporting specific programs, most of which are funded from the highway trust fund but do not involve building highways.

Donor/Donee

The donor/donee debate concerns the efforts of individual states to achieve or maintain as large a share of the total distribution federal highway funds as possible. A donor state is one whose highway users pay more in revenues to the trust fund highway account than it receives in federal highway assistance. Conversely, a donee state receives more in assistance than it contributes to the trust fund. The debate is generally driven by representatives of donor states, who frame their arguments in terms of "equity" in the distribution of federal highway funds. The donor/donee state distinction, however, is far less straightforward than it appears. Federal fuel taxes are not actually collected at the state level, so determining whether a state is a donor or a donee requires a complicated mechanism that attributes fuel usage and associated revenues to individual states.[10]

In the last three surface transportation authorization bills, the donor/donee issue was resolved only by the availability of more money and the creation of a process to distribute it. In SAFETEA, this process, called the Equity Bonus Program, is the largest single highway program. For FY2008 and FY2009 SAFETEA promises that each state will receive a funding share of the major highway program allocations equal to at least 92% of the revenue share its highway users pay into the highway trust fund, an increase from the 90.5% promised under the prior legislation,

[10] 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, available upon request.

TEA-21. The Equity Bonus Program, however, is so complicated that effectiveness of the guarantee is unclear. For FY2010 Congress based the distribution to the six core formula programs on their FY2009 totals. There was no equity bonus calculation for FY2010.

The transfer of $29.7 billion in general fund revenues to the highway account complicates the donor-donee framework as a basis for analyzing transportation funding. This is because payments into the general fund have nothing to do with highway tax payments but, because of the transfers, do support the flow of funds to the highway programs. For FY2007 through FY2009 each of the 50 states received more federal highway funding than it contributed to the highway account.

Earmarking

When the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA; P.L. 102-240) passed in 1991 it included 548 individual highway earmarks with a total value of $6.2 billion. In 1998, TEA21 incorporated 1,883 highway earmarks adding up to $9.6 billion. In SAFETEA, earmarking expanded exponentially, with over 5,600 earmarks accounting for $21.7 billion in the highway title of the act alone. With a few highly publicized exceptions, there was very little debate about the benefits or drawbacks of the individual earmarks in the bill.

Following the 2010 congressional elections, proposals to abolish the earmarking of individual projects have received increased interest. An earmark-free reauthorization could increase the attention given to program structure, funding formulas, and eligibility criteria, as Members attempt to assure the flow of transportation funds to their congressional districts or states.

SAFETEA Funding

SAFETEA provided $286.4 billion in guaranteed spending authority for the six-year period FY2004-FY2009. This was a significant nominal increase over the level in TEA-21, which provided $218 billion over the six-year period FY1998-2003. In reality, however, SAFETEA was barely a five-year bill by the time of its passage late in FY2005. A more useful representation of SAFETEA is that it provided $244 billion in spending authority from FY2005 through FY2009. **(CRS contacts: Bob Kirk and Will Mallett)**

Table 2 shows that 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). Spending increased in each year and total spending in FY2009 was almost 23% higher than spending in FY2005.[11] **(CRS contacts: Bob Kirk and Will Mallett)**

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

Table 2. SAFETEA Guaranteed Obligations FY2005-FY2009

($ billions)

	FY2005	FY2006	FY2007	FY2008	FY2009	Total
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: P.L. 109-59, see also http://www.fhwa.dot.gov/safetealu/fundtables.htm for highway amounts and for transit see http://www.fta.dot.gov/index_6536.html.

Issues Shaping the Current Reauthorization Debate

The reauthorization process will involve detailed consideration of the way in which surface transportation programs are funded, organized, and managed. A handful of fundamental issues, however, will influence the way in which the eventual legislation is constructed.

- **National goals and purposes.** Today's surface transportation programs have their origins in the creation of the interstate highway program (1956) and the collapse of public transit systems (early 1960s). In the intervening decades, it has become difficult to discern how federal surface transportation spending relates to national needs, as the vast majority of the funding is granted to states and localities based not on maximizing the national return on transportation investment, but as an entitlement to be spent largely as state and, to a lesser extent, local authorities think best. Changing the existing decision-making process, however, could involve a transfer of authority from state and local authorities to the federal government.
- **Productivity and performance management.** With the operation of surface transportation programs left largely to states and localities, federal officials often have a poor understanding of the efficiency and effectiveness with which federal funds are being used. States and localities have, in many cases, very robust processes in place to measure and analyze their programs.[12] However, these mechanisms are largely internal, and their diversity makes it difficult to compare performance across the country. Federal performance standards might make such comparisons easier, potentially allowing the federal government to direct funding to the state and local governments with the most efficient and effective programs.

[12] 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.

Once imposed, however, such measures might be "gamed" by state and local officials in ways that negate their value. Even if Congress should decide to enforce performance measures by funding penalties, it is possible that the effect of such penalties would be counteracted by funding guarantees in the bill.

- **Structural issues.** SAFETEA created two commissions to study the structure and the financing imperatives of the surface transportation programs. One of these, the National Surface Transportation Policy and Revenue Study Commission, called for a major reorganization of the federal surface transportation programs into 10 new program areas, often across existing programmatic modal boundaries.[13] A report issued by the George W. Bush Administration entitled "Refocus, Reform, Renew: A New Transportation Approach for America," included several proposals for new and reorganized surface transportation programs, with a heavy emphasis on expanding the role of market forces and the private sector in the provision of surface transportation infrastructure.[14] Numerous think tanks, research organizations, and transportation groups have called for organizational changes in the way federal surface transportation programs are administered.[15]
- **Revenue issues.** The two commissions established in SAFETEA both recommended increases in the motor fuel tax to meet the immediate funding needs of surface transportation programs. Both urged an eventual shift to charges based on vehicle miles traveled as a longer-term funding source. VMT charges represent one type of user fee, but alternatives such as tolls and weight-distance taxes, which are already imposed in some instances on trucks, also might be employed to force road users to pay the costs of surface transportation programs.[16]
- **Alternative funding mechanisms.** Public-private partnerships, in which private companies take responsibility for construction, operation, and/or maintenance of particular transportation projects in return for a flow of payments from government agencies or project users, have been widely encouraged as a means of decreasing reliance on the trust fund.[17] Other proposals for expanding alternative funding include federal grants or loans to state infrastructure banks; increased authority to lend to local agencies under the Transportation Infrastructure Finance and Innovation Act (TIFIA); increased reliance on Grant Anticipation Revenue Vehicles (known as GARVEE Bonds) and the private activity bonds authorized by SAFETEA; and creation of a national infrastructure

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

[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. *Performance Driven: A New Vision for U.S. Transportation Policy*, (Bipartisan Policy Center, 2009). *A Bridge to Somewhere* (Brookings Institution, 2008). *The Route to Reform*, Transportation for America. *AASHTO Authorization Policy* (produced as a series of topic papers) (October 2008). 230 p.

[16] See CRS Report R41490, *Surface Transportation Funding and Finance*, by John W. Fischer, Robert S. Kirk, and William J. Mallett.

[17] Most observers believe that tolling and PPPs combined can only provide from 5% to 10% of system needs.

bank, as proposed by the Obama Administration in its FY2010 and FY2011 budgets.

- **Reducing program size.** If Congress chooses not to make changes that would increase the flow of revenue into the highway trust fund, it will face a choice between continuing to authorize annual general fund expenditures for surface transportation and reducing the programs' size. It could shift some programs currently funded by the highway trust fund, such as the Appalachian Roads Program, to general fund status. It might reduce matching ratios (90:10 for interstates, 80:20 for most other roads, varying proportions for transit projects) in order to spread the available federal funds more broadly. More dramatically, it could limit surface transportation funding to programs that it determines fulfill clear national needs, and devolve other responsibilities to the states. **(CRS contacts: Bob Kirk and Will Mallett)**

Highway Issues

Funding Equity Among States

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 last several reauthorizations have resolved the disagreements over equity by creating a separate arrangement, currently known as the Equity Bonus Program, under which nearly all states are entitled to highway funding above and beyond that provided for in the funding formulas in specific programs. Under the Equity Bonus Program, FHWA is directed to allocate sufficient funds to ensure that each state receives a minimum share return on its highway payments—92% in FY2008 and FY2009. The calculation is more complicated than this figure suggests, as certain surface transportation programs are not included.

The Equity Bonus Program includes a number of "hold harmless" provisions to guarantee minimum state shares of funding, based on certain thresholds. These thresholds include 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 Equity Bonus Program also sets an annual percentage floor, relative to a state's TEA-21 average apportionment, beneath which no state can fall. The money is distributed to the states by increasing the amounts apportioned to the core formula programs.

There was no equity bonus calculation for FY2010. The FY2010 distributions were simply based on FY2009 overall funding distributions.

The distribution of the equity bonus had a number of unanticipated consequences. One of these is its interaction with High Priority Program earmarks used by Members of Congress to define their project priorities through the authorization process to their state DOTs. High Priority Program earmarks do not add significant amounts of money to a state's share of highway spending, because states whose earmarks are small tend to receive relatively larger equity bonus distributions than states that receive relatively large earmarks. This means that the total amount received by a state tends to be roughly the same whether or not it receives a large dollar total of earmarks. A corollary of this situation is that the more of a state's total funding is derived from High Priority Program earmarks, the less is ultimately available to the state for the federal-aid

highway core formula programs, on which state departments of transportation depend to fulfill their state transportation plans.

The equity bonus distribution also negates the imposition of some 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. The purpose of this was to encourage states to reserve their Highway Bridge Program funds for bridges. However, the equity bonus distribution in effect gives back what the penalty takes away.[18] The equity bonus overlay combined with the extensive ability given states to transfer funds across programs may undercut the effectiveness of the programmatic structure in achieving the national surface transportation goals specified by Congress.

Since 1982 the equity provisions in surface transportation have been changed many times, and there is a high probability that changes will be discussed in the current reauthorization. Among the possible changes are:

- Increasing the share of its highway tax revenue that is guaranteed to each state above the current 92% level. However, the closer the guaranteed percentage comes to 100% of the total program the more difficult an increase becomes. Bringing the percentage guarantee closer to 100% would probably require a weakening of some of the "hold harmless" provisions that protect certain donee states from losing share. The hold harmless provisions exist primarily due to the practical politics of getting authorization bills through both houses of Congress, so eliminating them may raise political concerns.
- Expanding the scope of the equity provisions. This 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 into line with the goals of an increased percentage return guarantee.
- Eliminating the counteracting impact of the equity bonus distribution on the highways program penalty provisions. This could be accomplished by imposing the penalties after rather than before the distribution of the equity bonus funding. However, this could affect some states' guaranteed percentage shares.
- Eliminating the equity provision altogether and allowing 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.
- Providing an equity guarantee for transit funding. Roughly 80% of the Federal Transit Administration's budget comes from the fuel taxes paid by highway users. This funding could 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

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

bonus scenario is likely to be opposed by heavily urbanized states and states with large transit systems.

The equity debate is complicated by the fact that significant amounts of general fund money have been transferred to the highway trust fund. Although much of transferred funding reflects interest payments on the trust fund's unexpended balances, such interest not paid directly by highway user fees. Other funds have been transferred to the highway trust fund for a variety of reasons, such as compensation for lower ethanol tax rates. Further transfers may be necessary in the years ahead. The larger the general fund share of federal highway spending, the harder it is to argue that states should get a return based on their highway users' payments, raising the question of whether the Equity Bonus Program is an appropriate source of funding. **(CRS contact: Bob Kirk)**

Earmarking

Large-scale earmarking was a prominent and controversial feature of SAFETEA. Earmarking has not, however, always been a significant feature of surface transportation bills. Until the late 1980s, earmarks amounted to about 1% of authorized federal-aid highway spending.[19] By way of comparison, SAFETEA earmarked almost $22 billion or roughly 11% of the $199.5 billion highway construction title of the bill. A 2007 DOT report found that earmarking can reduce the states' core transportation programs, lead to funding of low-priority projects ahead of higher priority, non-earmarked projects, and result in funding of projects that do not meet eligibility requirements.[20]

Following the 2010 congressional elections, proposals to abolish the earmarking of special projects have received increased interest. Certain transportation groups which were largely silent on this issue during the last reauthorization debate are now taking the position that earmarking needs to be controlled and limited.[21] An earmark-free reauthorization could increase the attention given to program structure, funding formulas, and eligibility criteria, as Members attempt to assure the flow of transportation funds to their congressional districts or states without earmarking. **(CRS contacts: Bob Kirk, Will Mallett, and Randy Peterman)**

Highway Programmatic Structure

According to the National Surface Transportation Policy and Revenue Study Commission established under SAFETEA, the federal government has 108 separate surface transportation programs.[22] Of these, 62 involve highways, 20 concern transit, and the remainder are scattered among other activities. The commission recommended combining all of these programs into 10 broad intermodal programs. It may be difficult, however, for Congress to consolidate programs to that extent. There are numerous potential and competing organizing rationales, and each existing

[19] "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.

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

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

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

program has 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 gives states a great deal of control over the selection, planning, and construction of federally funded highway projects. This flexibility might, for example, allow a state to shift money from the Highway Bridge Program to the Surface Transportation Program, even though it might have unmet needs in the original program area. This flexibility also has allowed transfers between highway and mass transit programs. Programmatic restructuring that restricts state flexibility could be a source of contention during the reauthorization process.

Congress may also wish to consider project eligibility changes. For example, broadening project eligibility within the Congestion Mitigation and Air Quality Improvement (CMAQ) Program could allow more projects designed to increase road capacity on the grounds that increased capacity would improve traffic flow in congested areas. There may be interest in creation of new programs, such as a program to address bottlenecks in major freight corridors.

Rather than refining or restructuring the various formula programs within the highway program, Congress might opt to replace the existing formula programs with block grants provided directly to the states. This might reduce federal administrative overhead, although it could weaken the ability of Congress to set spending priorities consistent with its determination of national needs.

Bridge Policy

In December 2009, roughly 71,000 bridges were designated by FHWA as "structurally deficient."[23] The Highway Bridge Program is the primary federal program to fund the replacement or rehabilitation of structurally deficient or functionally obsolete bridges. 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 0.25% of total program allocation, and no state may receive an allocation greater than 10%. The federal share is 80%, except that for interstate highway system bridges the federal share rises to 90%.

If Congress chooses to retain a distinct bridge program, the rate of repair and replacement of deficient bridges and the funding needed to support any proposed acceleration of that rate would be major issues. The authorizing committees may hear proposals to limit the use of Highway Bridge Program funds for spending on non-federal-aid highway system bridges and to change bridge inspection standards. There are also concerns that linking funding to a state's number of deficient bridges creates a perverse incentive for states to keep their deficiency rates high. A GAO report found that the program lacks focus, performance measures, and sustainability.[24] **(CRS Contacts: Bob Kirk and Will Mallett)**

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

[24] 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.

Transit Issues

The federal government provides support for transit agencies' capital investments and operating costs. Although federal transit programs direct most funding to capital investment, transit agencies have some discretion over the use of their federal funds among capital and operating purposes. 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 uncertainty surrounding this projection, it is clear that current revenue into the transit account will not sustain Federal Transit Administration 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.[25]

The prospect of constrained federal transit funding is occurring in conjunction with financial problems in the transit industry itself. The immediate causes are flat or declining government assistance at the state and local levels due to budget conditions and lower patronage due to a high unemployment rate. 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 were only 26% of capital and operating funding sources in 2008. For that reason, Congress may want to consider whether modifications in the federal transit program might boost ridership at a lower cost per rider to the government.

Transit Funding Issues

How much to spend overall on transit is the main issue in the upcoming reauthorization. Various interest groups have argued that America is under-investing in transportation infrastructure, including public transit infrastructure, and called for a significant increase in federal infrastructure investment.[26] Both DOT and the congressionally created Surface Commission have estimated that the capital cost to maintain and improve transit systems in the United States is substantially more than is being currently spent on transit systems by all levels of government.[27] Because many transit agencies currently face severe budget problems, there also have been calls for more federal support of operating expenses.[28]

Support for increased federal spending on transit is by no means unanimous. The growth in transit capacity has outpaced the growth in ridership at the national level, and the physical condition of

[25] 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.

[26] 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).

[27] U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration, *2008 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance* (Washington, DC, 2009); and National Surface Transportation Policy and Revenue Study Commission, *Transportation for Tomorrow* (Washington, DC, 2007).

[28] Alec MacGillis, "Legislation Fuels Rift in World of Mass Transit," *Washington Post*, June 11, 2010, p. A16;

transit systems has generally improved over the past decade. Nor is there agreement on the proper level of transit spending relative to highway spending; while transit receives approximately 14% of federal highway and transit capital expenditure, only about 2% of all trips and 5% of commuting trips are made by this mode. Given that a significant proportion of federal transit funding, roughly 80%, comes from taxes paid by highway users, the relationship between highway outlays and transit outlays is a sensitive issue.

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. Calculations based on CBO projections indicate the fuel tax would need to be raised by 10 cents per gallon (with 2 cents per gallon dedicated to the transit account) to close the gap between revenue and expenditures in the transit account for FY2011, assuming no growth in the program.[29]

Federal Matching Share

A potential way to make the federal transit dollar stretch further would be to lower the federal matching share. A larger local match might help ensure that only the most important projects are supported by state and local officials. On the other hand, if the federal government provides a much lower share of the cost of transit projects than of highway projects, state and local decision-makers might favor highway projects regardless of the potential demand for public transit.[30]

PPPs and Innovative Financing

SAFETEA provides limited support for private participation in developing transit projects through public-private partnerships (PPPs) and other types of innovative financing.[31] In reauthorization, Congress likely will consider ways to encourage a larger role for the private sector. While some PPPs have been highly successful, their overall contribution to meeting transit financing needs is likely to be relatively small, as the possibilities for generating new revenue streams from transit operations are limited to situations in which new services encourage land development near transit stations. (PPPs may be more readily used for roads, bridges, and tunnels on which vehicle tolls will provide a source of new revenue, but even then it may be unrealistic to expect private funding to supply more than 5% - 10% of needed funds).

Transit Structural Issues

Congressional discussion of possible ways of restructuring federal public transit programs is likely to explore alternatives to the present configuration of programs. One way to reorder federal priorities would be to focus more resources on major capital investment for the rehabilitation and

[29] CRS calculation based on Highway Trust Fund projections provided by the Congressional Budget Office, August 19, 2010.

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

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

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 transit capital investment program—the New Starts Program, the Rail Modernization Program, and the Bus and Bus Facilities Capital Program—while cutting back on formula grants that are spread more broadly and go for smaller and more routine types of expenses. This change would likely result in a concentration of resources in a few large cities where transit usage is 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 systems. 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 would depend on the shares of funds dedicated to the Rail Modernization Program, which affects relatively few cities, and to buses and formula programs, which provide support in a much larger number of localities.

A third way to restructure the federal transit program would be to eliminate the capital programs altogether, to be replaced with a block grant that might 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 to providing transit service. The distribution of funding in this way would depend on how this new program is structured, but might encourage states and localities to react to the changes by aggressively promoting 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 those of one million people or more, on a mode-neutral basis. It would then be up to states and localities to decide how to allocate the money to transit and highway infrastructure.

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. Whether and how much the federal government should assist small city and rural mass transit systems may be an issue 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. Paratransit is typically provided by vans rather than buses and serves passengers with limited physical mobility. A number of federal transit programs exist to help states and localities provide 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 money for paratransit in reauthorization. One consideration, given the social service nature of paratransit services and their generally poor fit with regular bus and rail services, is whether FTA should administer paratransit 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

As noted earlier, there have been many proposals for incorporating performance measures as a central tenet in the distribution of surface transportation program funds. This includes federal transit program funds. The main reason for using performance measurement incentives would be to reward transit agencies for providing more and better service per dollar of public support.

Competition

In most cases, public transit service is a monopoly; even where transit vehicles are operated and maintained by private companies, a local transit agency almost always selects and subsidizes a single operator for that purpose. Reauthorization could include language encouraging more competition in the provision of transit service. This might entail requiring transit agencies to competitively bid transit service provision and/or to allow private operators to provide new services to compete with public transit agencies. Many of the barriers to competition are in state or local laws and regulations that give monopoly power to regional transportation agencies, and it would be possible to make the elimination of these barriers a condition of federal funding. One consideration is the possibility that competition could allow private operators to "cherry pick" routes and services, operating profitable routes at rush hour while leaving public agencies to sustain services on less dense routes or at less popular times.

Work Rules

Some advocate loosening work rules in the transit industry in an effort to boost productivity. This might, for example, include renegotiating union contracts that often do not allow transit agencies to employ part-time workers or to require split shifts to cover rush-hour demand peaks. It might also include changes in federal labor protections in the transit sector, originally established in Section 13(c) of the Urban Mass Transit Act of 1964 (P.L. 88-365).

Fares

Another potential way of reducing the need for public assistance is to increase fares to more accurately reflect the cost of providing a particular service. This occurs at present with some services, such as the distance-based fares on the Washington, DC Metro, but most transit systems charge a flat fare regardless of distance or time of day. The reauthorization might encourage transit systems to collect variable fares, particularly as newer electronic fare payment technology makes it relatively easy to do so.

Congestion Pricing

Pricing automobile use, particularly in congested periods, might reduce the need for government assistance to public transit. One way to do this is to institute 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 way want to consider whether congested metropolitan areas should adopt comprehensive congestion management schemes that incorporate highway pricing and transit. **(CRS Contact: Will Mallett)**

Freight Issues

Up until the world economy began to slow late in 2007, the immediate concern of freight carriers and shippers was congestion. Major ports and land gateways experienced a notable run-up in import volumes in the early years of the last decade, and certain highway segments had 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 prior to 2008. From 1997 to 2007, truck ton-miles increased by 19% while rail ton-miles increased by 31%.[32] These modes are also using their respective infrastructure more intensively. Between 1980 and 2007, truck travel grew by 98% while lane miles of public roads increased by only 5% and railroad tons originated increased by 30% while the miles of railroad track decreased by 40%. DOT projects that total tons transported will grow 73% by 2035.[33]

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 developing a systematic approach to addressing freight transportation needs. A national transportation plan that identifies key freight corridors and gives priority to funding these corridors would be a departure from the current planning process, which relies heavily on state departments of transportation and metropolitan planning organizations to plan and select which transportation projects to fund in their jurisdictions. Local action to eliminate a freight bottleneck may merely relocate it to another community, without reducing the unpredictability of travel time across an intermodal network that is North American in scope.[34]

Unlike commuter trips, which generally begin and end within a metropolitan area, freight trip lengths often exceed the jurisdiction of a single metropolitan planning organization or even a state. Thus, these planning institutions have difficulty taking 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 rather than serving local producers or retailers. Land border ports of entry, gateway seaports, and interchange

[32] BTS, *National Transportation Statistics*, Table 1-46b, U.S. Ton-Miles of Freight (BTS Special Tabulation), November 2010. A "ton-mile" is one ton of freight shipped one mile and thus reflects both the volume shipped (tons) and the distance shipped (miles).

[33] FHWA, Office of Freight Management and Operations, *Freight Facts and Figures, 2009,* pp. 11 and 19; Association of American Railroads, *Railroad Facts 2009* (Washington, DC), pp. 28 and 45. Rail volume projections could be influenced by the future of coal-fired power generation.

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

points in the rail network, in particular, must live with the negative effects of freight traffic that is largely serving distant locations.

At the national level, freight transportation may not be able to compete with other pressing priorities. At the local level, however, especially at major freight hubs like Los Angeles, freight transportation may be a priority because residents recognize the pollution and congestion caused by 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 best addressed at the state and local level. For instance, air cargo hubs such as Memphis or Louisville face different problems from 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, local desires to retain jobs that are tied to freight activity and to improve the quality of life may be sufficient incentive for state and local transportation planners to address freight bottlenecks.

One possible way for Congress to facilitate a wider geographic perspective in planning freight-related transportation improvements is to make funding for nationally or regionally significant projects contingent on state and local coordination. The I-95 Corridor Coalition, an association of state DOTs and transportation authorities from 16 states from Maine to Florida, is one model of freight planning from a corridor perspective. In pursuit of its goal of improving traffic movement on I-95, the coalition is investigating rail and waterborne modes as alternatives for freight transport to mitigate congestion on the highway.

Freight Funding

Concerns about capacity limits and financial shortfalls have led to several proposals for imposing user charges dedicated to funding projects that would improve goods movement. Proposals include assessing a container fee, a freight waybill tax, or an intermodal terminal facility charge. Selection of a fee mechanism entails trade-offs involving equity, efficiency, and administrative simplicity. In addition, some freight interests have conditioned their support for new user fees upon assurances that the money will be dedicated only to net new capacity on new projects. This may be a difficult condition to meet, particularly in congested metropolitan areas where additional highway construction would be unpopular.[35]

Targeting Freight Investment

If Congress were to create a separate funding program for 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 found that the preponderance of truck delays are at urban freeway interchange points and that steep grades, signalized intersections, and lane drops were other problem areas.[36] Some states are evaluating

[35] 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.

[36] FHWA, *An Initial Assessment of Freight Bottlenecks on Highways*, October 2005, http://www.fhwa.dot.gov/policy/ (continued...)

the feasibility of segregating truck traffic from automobile traffic on highways with heavy truck traffic, either on short segments or on long-distance routes connecting to a seaport or other freight hub.

All air cargo begins and ends its journey in trucks as does almost all intermodal rail and containerized seaborne cargo. Intermodal shipments, the fastest growing segments of goods movement in the United States, consist of higher-value goods and are closely tied to international trade. The "intermodal connector" roads linking ports, airports, and rail terminals to the interstate highway system tend to be relatively short segments, generally less than two miles in length, but 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.

In some cases, transfers between ports and railroads and between railroad networks still require a container to be drayed, or trucked, in order to make the interchange. In Chicago (and to a lesser extent in St. Louis, Memphis, and New Orleans), where the eastern and western rail networks converge, and at many seaports, drayage generates significant truck traffic that co-mingles with commuter traffic on beltways and arterials. At certain of these locations, additional "on-dock" or "near-dock" rail terminals and "steel-wheel" interchanges might lessen heavy truck traffic on urban roads. The development of "logistics parks"—clusters of warehouses built around a rail terminus—are essentially an effort by the railroads to re-consolidate product distribution centers that have been scattered by circumferential highway building, and may also offer opportunities to reduce drayage. Congress may want to consider whether the federal government should support such private undertakings in order to limit wear and congestion on urban roadways.

Even though almost all U.S. freight railroads are private enterprises, Congress has authorized some public investments in freight rail infrastructure. Most of these, such as grants to improve rail lines serving rural communities, are quite small, but the federal government has also contributed to large-scale efforts to eliminate grade crossings and separate rail lines in Los Angeles and Chicago. Rail users, particularly intermodal customers who demand faster, more reliable, and more precise scheduling than other rail shippers, want railroads to accelerate investment in passing sidings and double tracking to better accommodate freight trains traveling at different speeds. Congress may be asked to consider options such as a federal tax incentive to spur investment in railroad facilities or a dedicated trust fund for freight rail infrastructure. The federally supported expansion of commuter rail service will play a role in this discussion, as commuter trains may occupy track capacity that otherwise would be available for freight service.

Congress may also consider steering funding toward projects that mitigate the negative affects of increases in freight traffic. Some localities have experienced significant increases in freight train traffic, resulting in prolonged blockages of rail-grade crossings. If Congress chooses to direct additional funding to grade-separation projects along heavily used rail corridors, the share of the cost borne by railroads will be a major point of debate. **(CRS Contact: John Frittelli)**

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otps/bottlenecks/index.htm. A "lane drop" is where a multi-lane highway narrows to fewer lanes.

Highway Safety

Highway safety in the United States has improved in recent years. The number of annual fatalities has been stable for most of the last decade at a little over 40,000, though 2009 saw only 33,808 highway deaths, the lowest number since 1950. As the number of vehicle miles traveled has 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 2009 it was 1.13 per 100 million vehicle miles traveled,[37] down from 1.27 in 2008 and far below the figure of 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).[38] Moreover, since the 1960s, when the United States had the best safety record of any country, several other countries have achieved lower fatality rates.

Most of the fatalities occur to three groups:

- passenger car occupants (69%, or about 23,382 deaths in 2009);
- motorcyclists (13%, or 4,462 fatalities in 2009; and
- pedestrians (12%, or 4,092 fatalities in 2009).

Highway Safety Countermeasures

Countermeasures to improve highway safety can be divided into three general categories: changes to roadways, changes to vehicles, and changes in driver behavior. Changes to roadways are the responsibility of FHWA, which distributed $1.3 billion to the states in FY2010 under the Highway Safety Improvement Program. 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. In FY2010 Congress gave NHTSA $246 million for its own operations and for research, and $620 million for grants to be provided to states to improve highway safety with an emphasis on altering driver behavior.

Driver Behavior Incentive Programs

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,[39] speeding,[40] not wearing a seat belt,[41] driver distraction,[42] or in the case of motorcyclists, not wearing a helmet.[43]

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[37] NHTSA, H*ighlights of 2009 Motor Vehicle Crashes*, DOT HS 811 363, August 2010.

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

[39] 10,839 driving fatalities—32% of all motorist fatalities in 2009—involved a driver who was legally impaired, i.e., having a blood alcohol content (BAC) of 0.08 or more. NHTSA, H*ighlights of 2009 Motor Vehicle Crashes*, DOT HS 811 363, August 2010.

[40] 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.

[41] NHTSA estimates that if seat belts had been worn by all passenger vehicle occupants over the age of 4 during 2008, an additional 4,152 lives could have been saved. NHTSA, *Lives Saved in 2008 by Restraint Use and Minimum*
(continued...)

In SAFETEA, Congress established or renewed programs providing grants to states that take specified actions to promote the use of seat belts and to reduce the incidence of drunk driving. In some cases, the incentive programs have achieved limited success: for example, in the case of the program that provides grants to states that allow law enforcement agents to stop and ticket motorists for not wearing seat belts, the number of states qualifying for grants increased from 21 in its first year to 29 in its fourth year. In the case of the program that provides 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; in the fourth year, as the number of measures required in order to remain eligible rose, four states and the District of Columbia failed to maintain their eligibility. In some cases, there are questions about the eligibility measures set forth in SAFETEA for the program; for example, the program that provides grants to states to improve motorcycle safety excludes promoting the wearing of a motorcycle helmet—demonstrated to be the single most effective motorcycle safety measure—as an eligible use of program funding, while measures that are eligible, such as motorcyclist training programs and programs to promote motorist awareness of motorcyclists, are of unproven value in reducing fatalities.[44]

Highway Safety Issues in Reauthorization

Highway safety programs tend to be less controversial than construction grant programs, because the amounts of money at stake are much smaller. Nonetheless, Congress will likely be asked to consider significant changes to federal safety programs.

Consolidating the Application Process

There are currently five separate NHTSA incentive grant programs, and states have complained that the application process is unnecessarily difficult. Each program has a separate process, all the program applications are due between June 15 and August 1 each year, and each application requires significant attention from relatively small state traffic safety offices. Congress may be asked to direct NHTSA to consolidate or simplify the application processes.

Increased Flexibility in the Use of Incentive Grant Funding

One of the incentive programs in SAFETEA allows states to use the funds for any safety-related expense that is eligible for federal funding, but most of the programs require the money to be used for a limited range of eligible activities. In some cases, the restrictions are even more

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Drinking Age Laws, DOT HS 811 153, May 2010.

[42] NHTSA's definition of distracted driving includes a driver using electronic devices (cell phones, GPS, audio systems), reading, eating, performing personal care (using razor, painting nails, applying cosmetics), lighting a cigarette, talking, or being distracted by children. NHTSA reported that 16% of fatal crashes in 2009 involved driver distraction, up from 10% in 2005, resulting in 5,474 fatalities in 2009. NHTSA, *Distracted Driving 2009*, "Dot HS 811 379, September 2010.

[43] Nationwide use of motorcycle helmets in states that comply with federal safety regulations was 67% in 2009, but in the 30 states where helmets are not required, usage was 55%. NHTSA, *Motorcycle Helmet Use in 2009—Overall Results*, DOT HS 811 254, December 2009. 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.

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

limiting: motorcycle safety program grants can be used only for safety training provided to motorcyclists, motorcyclist awareness programs aimed at motorists, and public awareness and outreach programs. Officials in Montana told GAO that they would like to use some of the funds to build new motorcycle training sites or expand existing sites, but the grant does not allow that.[45] Congress may be asked to give states greater flexibility in use of highway safety funds.

Switching from Incentives to Sanctions on States

Sanctions, in the form of withholding of federal funds, have been found by some studies to be more effective than incentives in gaining state compliance with federal goals.[46] States generally oppose sanctions, but even so the Governors Highway Safety Association testified that it would vigorously oppose any effort to repeal an existing sanction requiring states to make purchase and public possession of alcohol illegal for those under age 21.[47] That sanction, established by Congress in 1984, was preceded by an incentive program which failed to induce many 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.[48] Thus, states can receive safety grants under these programs without demonstrating improved highway safety.

One possible reform would link the receipt of a grant, or the size of a grant, more closely to a state's performance. Such a change, however, might require data that are not currently available; for example, not all states are able to calculate motorcyclist vehicle miles traveled, which is necessary to measure changes in the rate of motorcyclist fatalities. Past surface transportation reauthorizations have included federal support for data collection related to highway safety. For example, Congress provided funding for improvements to states' traffic safety information systems in SAFETEA. **(CRS Contact: David Randall Peterman)**

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

[46] 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.

[47] 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.

[48] Exceptions to this include the seat belt performance grant, under which a state can qualify either by having a mandatory 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 reductions in fatalities and crashes.

Motor Carrier Safety Issues

Congress tends to treat commercial vehicle safety issues separately from passenger vehicle safety issues, as matters related to commercial vehicles and their drivers come under a specialized agency, the Federal Motor Carrier Safety Administration. Increases in federal limits on the size and weight of commercial trucks may be among the most controversial proposals related to safety, as they would increase the productivity of the trucking industry but might have adverse effects on safety as well as on roadway life. Congress may choose to explore the potential of in-vehicle technologies, such as driver-fatigue warning systems and lane departure warning systems, to promote safety. 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.

A separate set of issues concerns the behavior of commercial drivers. Previous laws have funded efforts to prevent drivers from driving while drugged or with serious medical conditions that may impair their driving. GAO, however, found that it was easy for drivers to avoid detection because many collection sites did not follow regulations intended to maintain the integrity of urine tests.[49] GAO also found that drivers who 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. 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

The federal surface transportation program supports research in many areas, from system efficiency and passenger safety to environmental degradation stemming from transportation projects. FHWA has the largest research budget of the DOT agencies, while NHTSA, FTA, and the Research and Innovative Technology Administration also have significant roles.

Title V of SAFETEA authorized $411 million annually for research. Of that, $196 million went to the surface transportation research program; $110 million to research on intelligent transportation systems (ITS); $70 million to support research at university transportation centers; $27 million to the Bureau of Transportation Statistics; and $27 million to training and education programs. Congress is likely to face questions about the adequacy of transportation research funding; under SAFETEA, federal spending on surface transportation research is approximately 0.9% of total federal expenditures on highways, and some advocates contend that a higher share will have a payoff in terms of reduced costs from crashes, congestion, and environmental damage.

[49] 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.

Congress also faces competing claims for how transportation research funding should be used. In SAFETEA's research title, Congress earmarked more funding than the total amount that was authorized by the title, with the result that 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. No unearmarked research funding was available for some FHWA projects, such as the biennial conditions and performance reports, that in previous years had been funded with such moneys. In 2008 Congress addressed these funding shortfalls by enacting the SAFETEA Technical Corrections Act (P.L. 110-224), which added additional funding to all of the research programs. The lack of peer review in the allocation of research funding has also surfaced as a concern. **(CRS contact: David Randall Peterman)**

Environmental Issues

Environmental Compliance

During past reauthorization debates, environmental requirements have drawn attention 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 authorizing funding for projects to mitigate or minimize environmental impacts associated with surface transportation and by specifying procedures intended to expedite compliance with certain environmental requirements. The upcoming reauthorization process may include debate over ways to speed the environmental compliance process and fund certain regulatory requirements.

Reviews Under the National Environmental Policy Act

Before final design, property acquisition, or construction on a highway or transit project can proceed, 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.).[50] 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 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 regulations require the final NEPA documentation to demonstrate that a project will be in compliance with all applicable environmental laws and related requirements.[51] This means that, for any given transportation project, any environmental study, review, or consultation required by

[50] 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.

[51] 23 CFR 771.133.

law should be conducted within the framework of the NEPA 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.

SAFETEA, and TEA-21 before it, both included legislative changes intended to streamline the NEPA process.[52] Debate continues on the impact that environmental compliance requirements have on transportation project delivery, with more efficient interagency cooperation frequently identified as an area in need of improvement. Additional provisions intended to expedite NEPA reviews may be debated in the upcoming reauthorization process.

"Section 4(f)" Requirements

Another requirement generally carried out within the context of the NEPA process is compliance with Section 4(f) of the Department of Transportation Act of 1966.[53] Section 4(f) requirements apply to the use of publicly owned parks and recreation areas, wildlife and waterfowl refuges, and 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, and requires all possible planning to minimize harm to the resource. When a proposed project would use 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 minimis 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." Due to the continued prohibition on most uses of Section 4(f) resources, further changes to the requirements may be debated during the upcoming reauthorization process.

The CMAQ Program

The Congestion Mitigation and Air Quality Improvement (CMAQ) Program was created in by ISTEA in 1991, and was reauthorized in TEA-21 and again in 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. In particular, it authorizes funding for programs and projects intended to reduce carbon monoxide,

[52] 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.

[53] 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).

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 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.[54] SAFETEA required states and metropolitan planning organizations 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 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. In response to SAFETEA requirements, in October 2008, FHWA released a report that studied the effectiveness of 67 CMAQ-funded projects.[55] **(CRS Contact: Linda Luther)**

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 September 2010, at least 47 areas with 119 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.

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[56] has been a

[54] See FHWA's Interim Program Guidance "The Congestion Mitigation and Air Quality Improvement (CMAQ) 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.

[55] 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/.

[56] 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 (continued...)

powerful incentive to get local officials to focus on air quality considerations as they plan transportation projects. In surface transportation reauthorization, Congress may weigh the benefits of conformity in achieving air quality goals against the burdens it imposes on proposed transportation projects. **(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)[57] from transportation sources. Transportation accounts for about one-third of U.S. emissions of the leading greenhouse gas, carbon dioxide (CO_2),[58] and about 27% of total emissions 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 contain less carbon. In the case of motor vehicles, this would mean substituting natural gas or other lower-carbon fuels for gasoline and diesel fuel.

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 required 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. The Obama Administration has now advanced the schedule for EISA's fuel economy standards, with full implementation scheduled by 2016.

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. Electrification of truck stops to reduce idling, congestion mitigation, high occupancy vehicle lanes, funding for pedestrian and bicycle facilities, preferences for lower carbon vehicles in FTA 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

Current laws provide subsidies to promote the use of alternative motor fuels. For example, while gasoline, regardless of its ethanol content, is taxed at 18.4 cents per gallon, every gallon of ethanol blended into gasoline is subject to a credit of 45 cents per gallon. (This credit is set to expire at the end of 2010.) Therefore, the effective tax rate on a 10% blend of ethanol in gasoline is 14.9 cents per gallon. A credit of 50 cents per gallon for natural gas, hydrogen, and other alternative fuels, along with tax credits for biodiesel and renewable diesel, expired at the end of

(...continued)

highway funds, which undoubtedly speeds their efforts to remedy the situation.

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

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

2009. These various incentives were enacted as provisions in energy and economic legislation. However, there may be interest in using surface transportation reauthorization to extend them. With interest growing in the environmental effects of alternative fuels, there also may be interest in modifying the fuel credits to reflect their performance on environmental measures.

SAFETEA and various energy laws include incentives to promote 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, many of which expire at the end of 2010. FTA bus programs provide additional matching funds to transit agencies that purchase alternative fuel and advanced technology buses, including advanced diesel buses, beyond those available for conventional buses. Congress may wish to use reauthorization to modify these incentives to focus more on their energy efficiency or environmental performance.

To expand the use of alternative fuels and advanced technology vehicles, 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 such as transit agencies to install additional refueling infrastructure, especially if those stations are accessible to the public. **(CRS Contact: Brent Yacobucci)**

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